Modeling Political Decision-Making Processes in the Swiss Climate Policy Subsystem with different Conditions for Participation by Civil Society Groups

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Abstract

Motivated by the apparent gap between international promises and national implementations in the climate policy regime, this thesis examines the extent to which political decisions in Switzerland change when civil society groups negotiate differently. The Predictioneer's Game software is used to model the political negotiations on three instruments in the context of the current revision of the CO_2 Act: the maximum rate of the CO_2 levy, the domestic reduction target, and the level of partial earmarking. The results predict that negotiations on the three instruments would take a relatively short time overall. The upcoming revision of the CO_2 Act will, according to the simulations performed, have a maximum rate of the CO_2 levy of CHF 170.95, with a domestic reduction target of 64.63% and a level of allowable partial earmarking of 39.21%. Civil society groups are advised not to enter the negotiations on the maximum rate of the CO_2 levy with a higher or a lower salience. Furthermore, it seems that civil society groups could gain about one percentage point by increasing their salience in the negotiations on the domestic reduction target. Those civil society groups that advocate a high level of partial earmarking should increase their salience for this decision-making process.

Contents

Chapter 1

Introduction

Every political system is primarily concerned with the formulation of policy (Sciarini, 2015, p. 24). In democracies, representatives of the public (i.e. policymakers) are assigned this crucial task. Thus, of course, those policymakers are in a powerful position. Naturally, this makes them a popular target for organized interests who would like to change the political landscape in their favor - be it for financial, ideological, or other reasons. Since organized interests often operate behind the scenes and influence political events apart from the limelight, I would like to use my thesis to take an in-depth look at them to better assess their functioning and influence.

1.1 Motivation

This thesis is particularly motivated by the following three observations:

The first one concerns the persistence of neo-corporatist structures in many European states despite far-reaching socio-economic and political changes (Christiansen et al., 2018a, p. 526). McLean and McMillan (2009) define corporatism as "linking producer interests and the state, in which explicitly recognized interest groups are incorporated into the policy-making process". As a consequence of this resilience, business interest associations still enjoy privileged access to decision-making venues in large parts of Europe - resulting in the "ultimate form of bias" (Lowery et al., 2015, p. 1224). The assumption of a biased system of interest representation in neo-corporatist systems is based on the suspicion that business interests are serving only a small elite and not the citizens. In the words of Eichenberger et al. (2021, p. 3): "In highly diversified economies [...] most business groups are likely to defend minority positions, even among right-wing voters". Thus, it is not surprising that Hanegraaff and Poletti (2021) detect huge normative implications from the continued persistence of the business lobby's privileged access to decision-makers and aim to stimulate further research on this subject - even more so in the light of their empirical results indicating a "quite dramatic" increase of business lobbying in the EU lobbying community.

The second observation derives from the very nature of the climate policy subsystem. According to Michaelowa (1998), the climate policy subsystem is particularly sensitive to lobbying activities on the part of business interests for several reasons: First of all, the large array of uncertainties in climate science allows interest groups to "choose divergent positions without being scientifically discredited" (Michaelowa, 1998, p. 251). This also facilitates misleading the public as they require information due to the complex nature of climate change. Additionally, policymakers generally tend towards the implementation of voluntary measures as they imply to the voters that they have been active while economic interests are not hurt (Michaelowa, 1998, p. 252f). Lastly, business interest associations often stress potential job losses when facing the implementation of climate policies. This argument is easily understandable and directly affects one of the main concerns of voters: the supply of jobs. The pro-climate lobby, on the other hand, has a hard time conveying the complicated mechanisms threatening future livelihoods in an intelligible way - especially as civil society groups are used to generating their donation income through campaigning on easily understandable issues such as solar cells or rain forest protection (Michaelowa, 1998, p. 255).

The third observation concerns the apparent failure of international climate negotiations. During the 21st COP in December 2015 in Paris, 196 parties agreed to contribute to the fight against climate change with individual measures that each country had to specify in the following years. These nationally determined contributions (NDCs) were established so that the parties can set their own goals and come up with their means to reduce greenhouse gas (GHG) emissions. Unfortunately, after all those NDCs were submitted by the participants, it became clear that they would not be sufficient to reach the internationally agreed goal of keeping global warming "well below 2° Celsius" (Rogelj et al., 2016). Additionally, most countries struggle even to reach their own, self-determined contributions (den Elzen et al., 2019). In other words: many governments are unable to adapt their international promises to domestic policies (see Baker et al., 2020). This is also true for Switzerland, a small neo-corporatist European state which has experienced some serious opposition from business interest associations over the last decades against the implementation of stricter climate protection laws (Kammerer et al., 2020), climaxing in the rejection of the revised CO_2 Act by the Swiss public on June 13, 2021. A frustrated Swiss politician was quoted in 2018 saying: "In this council, you can't do any gripping climate protection. They simply do the politics of Swissoil and Economiesuisse" (Baur & Stern, 2018).

1.2 Procedure

In this thesis, I would like to examine the organized interests in the Swiss climate policy subsystem. According to Sabatier (1988, p. 131), political change in modern industrial societies is best analyzed through the unit of policy subsystems, meaning "those stakeholders from a

variety of public and private organizations who are actively concerned with a policy problem or issue". Drawing on Ingold (2011, p. 440) stakeholders are defined as formal organizations participating in the policy-making process. They often advocate for different policy preferences which, according to Ringe (2005, p. 25), "are the positions decision-makers assume toward particular policy issues or proposals, based on their beliefs about how a given policy action relates to their most preferred outcome". In this thesis, the terms preference and position are used interchangeably.

Within the policy subsystem, the term interest groups refers to those stakeholders seeking to influence policy-making through institutionalized and informal lobbying and campaigning while not wishing to enter the government itself (Andrews & Edwards, 2004, p. 481). A distinction is made between different types of interest groups. The most common of these are business interest associations (BIAs) and civil society groups. BIAs are interest groups concerned with very specific and material concerns of their members (Kohler-Koch & Quittkat, 2009, p. 15). This sets them apart from civil society groups that intend to represent the wider public and who are usually open to everyone, not just sector-specific representatives.

Since climate change affects us all (Cavicchioli et al., 2019) and the political solution probably requires a holistic approach (Simpson et al., 2021), I put a special focus on civil society groups in this thesis. In my personal opinion, they, who usually do not claim to represent material interests but society as a whole, have a chance to bring about legislation on climate policy that is effective.

Unfortunately, civil society groups (like all interest groups) are financially limited. This limitation, among others, is crucial when deciding a.) which issues to lobby on and b.) how many resources to spend on them. The last point is commonly referred to as 'lobbying intensity', indicating "the amount of lobbying expenditures relative to available resources" (Ridge et al., 2018, p. 2118). Naturally, resources do not only imply more money but also other resources such as days spent at the federal house, working overtime, living in Bern, sociability, etc. As McKay (2012, p. 13) puts it: "Some interest groups do more lobbying without more money". In this thesis, I would like to explore the question of how this lobbying intensity on the part of civil society groups affects climate policy events in Switzerland.

To do this, I use the Predictioneer's Game, a game-theoretic model developed by Bueno de Mesquita (2010) for modeling real-world affairs. In my eyes, the above-mentioned lobbying intensity is what Bueno de Mesquita (n.d., p. 4) calls 'salience': "Salience assesses how focused a stakeholder is on the issue. Its value is best thought of in terms of how prepared the stakeholder is to work on the issue when it comes up rather than some other issue on his or her plate. Would the stakeholder drop everything else to deal with the issue? Would the player work on it on a weekend day, come back from vacation, etc.?"

While civil society groups (like all interest groups) enter negotiations in the climate policy

subsystem with given financial resources, in my view they have the opportunity to change their salience according to the above definition. By focusing on specific sub-aspects (instruments) of the legislative changes under negotiation and doing everything possible in these areas to achieve their goals (e.g. intensive induction, overtime, weekend work, activating old contacts, or mobilizing like-minded people), the representatives of civil society groups can increase their salience without necessarily spending more money.

1.3 Research Question

With the described approach, I would like to pursue the following research question:

Do negotiation outcomes in Swiss climate policy change when civil society groups start negotiations with higher or lower salience?

Chapter 2

Theoretical Framework

2.1 Terms

2.1.1 Lobbying

Generally, political influence by organizations means that interest groups advocate for their specific interests to be anchored in law or protected. In the political process, this influence is often called lobbying. The Concise Oxford Dictionary of Politics defines lobbying are the "attempts to exert influence on the formation or implementation of public policy" (McLean & McMillan, 2009). Organizations engaging in lobbying are not intending to be part of the government itself but rather seek to influence it from the outside. Or, as renowned public policy scholar and politician Gullberg (2008b, p. 166) puts it: Lobbying is "interest groups' contact with [...] decision-makers in an attempt to influence public policy". Intrinsically, lobbying tries to persuade policymakers into adopting policies that distribute resources according to particular interests (Denzau & Munger, 1986).

According to Gullberg (2008b, p. 165), lobbying is best understood when assuming a rational motive behind it. Godwin and Seldon (2002) assume rational lobbying to be motivated by three factors: The probability of being politically influential on a given issue, the expected benefits of a policy in line with one's positions, and the expected costs of the necessary lobbying efforts. Thus, lobbying should only take place if the expected benefits are higher than the expected costs.

Generally, it can be distinguished between contract lobbyists, who are assigned with specific mandates by organizations seeking to influence policy-making, and lobbyists, who already work for those organizations. Henceforth, the term lobbying refers to the performance of both forms, while the term the lobby refers to the sum of organizations engaging in lobbying activities on a specific subject.

Since the term lobbying appears to be negatively connoted in the eyes of many, lobby

groups may prefer to label their activities differently. For example, several of the 13 interviewed European lobbyists on the EU level preferred to name their involvement in the institutionalized parts of the decision-making participation rather than lobbying (Gullberg, 2008b, p. 166).

Lobbying has traditionally been extremely difficult to quantify. Meng and Rode (2019) list three explanations: First, lobbying data is, in many political settings, not publicly available. Second, even when lobbying data is available, one must combine them with the actual positions of individual interest groups to distinguish between winners and losers. Third - this will be important in Chapter 5.2 as well - even when interest groups' access and preferences are known, it is very difficult to know how much the resulting policy was altered thereby.

2.1.2 Interest Groups

A specific definition of interest groups was proposed by Beyers et al. (2008, p. 1106), concerning three dimensions: *organization*, *political interests*, and *informality*.

The first one merely points out that interest groups are organizations consisting of individual members. The second dimension refers to interest groups' efforts to influence policy-making (often referred to as political advocacy) while the third one relates to the already mentioned informality of interest groups since they do not intend to become a formal part of the government.

Nevertheless, interest groups "are a vital part of representative politics as a key intermediary stakeholders between voters and members of parliament (MPs)" (Eichenberger et al., 2021, p. 1). This means that interest groups constitute a viable source of information for MPs. Usually, this exchange of information is embedded in a mutual relationship: MPs provide interest groups with access to decision-making venues and possibly agree to support the interest groups' case while interest groups allocate detailed information on their member's positions on specific policy issues (or at least they are assumed to do so despite some findings to the contrary (Chalmers, 2013; Eichenberger et al., 2021, see) offer political intelligence and policy expertise and contribute to MPs re-election through financial and electoral support.

According to Eichenberger (2020, p. 208f), at least three factors influence the distribution of access to decision-making venues across interest groups: The legal codification of access (the traditional, legally non-binding demand for a balanced representation of interest groups has climbed up the legal hierarchy over the past decades and might be responsible for the latest inclusions of certain interest groups into extra-parliamentary committees), the constellation within the parliament (left-wing parties usually prefer different types of interest groups than liberal or right-wing parties) and the zeitgeist (as several authors have noted, the traditional neo-corporatist structures have been transforming over the last decades into a more

pluralist representation of interests in decision-making venues; see Chapter 2.2).

For this thesis, especially one type of interest group will be relevant: civil society groups. However, another interest group type is also of great importance: the business interest associations. In this thesis, business interest associations are subdivided into two separate group types: Industry and Private sector representatives and Transport and Energy representatives (see Table 3.2).

Business Interest Associations (BIAs)

Almost three decades ago, van Waarden (1992, p. 521) defined BIAs as "formal organizations of groups of business people which have as their goal the aggregation, definition, representation, and defense of the group's business interests". BIAs have occupied a central role in Swiss policy-making since the end of the 19th century (Eichenberger, 2020). Their extraordinary influence - Mach et al. (2021, p. 18) name Swiss BIAs the "central architects of socioeconomic institutions" - mainly derived from the absence of strong trade unions (unlike many central European states) and the presence of a weak central state (federalism). Crucial characteristics of the Swiss economy such as the strong export orientation through free trade policies, the selective protectionism for certain products, and a high tolerance for cartels were mainly organized by BIAs (Mach et al., 2021, p. 18).

Varone et al. (2021) list three explanations for this surprisingly high influence of Swiss BIAs in the past: First of all, they usually possess more financial resources than their rivals. Secondly, BIAs can provide accurate insider expertise since they possess uncontested and profound knowledge of their sectors. The third reason roots in the nature of business interest: Being rather short-termed and specific, they are well suited to overcome the collective action problem. So not only do neo-corporatist structures privilege BIAs (Christiansen et al., 2018a, p. 527) - the structural position and organization of these associations also allow them to provide better and more appealing information for policymakers.

This also explains why BIAs generally prefer inside lobbying strategies. In his 2011 book, Culpepper (2010) coined the term "noisy politics". According to his argument, political issues become noisier the more the public cares about them. The opposite, on the other hand, is called "quiet politics" and is characterized by expert involvement and a "behind closed doors" approach (Morgan & Ibsen, 2021, p. 4). The main argument of Culpepper was that business interest group influence declines with the increasing noisiness of the political issue. Thus, according to him, business interest groups traditionally prefer quiet politics behind closed doors because they can exert maximum influence in such situations. Those situations are called inside lobbying. According to Eichenberger (2020, p. 211), this is also true for Swiss BIAs. They are the most powerful when they can apply inside lobbying strategies. In those situations, "business is able to smoothly regulate socioeconomic issues" (Mach et al., 2021,

p. 19) by using their privileged access to policymakers and providing detailed insider knowledge and solutions that are easy to implement.

Traditionally, this exchange was seen as a win-win situation providing public welfare and the very foundation of a corporatist state. However, as already mentioned in Chapter 1.1, critical assessments of business involvement have been insisting that BIAs might actually defend minority positions and might thus bias policymakers perception of the public opinion they are supposed to represent, leading to an increased risk of producing policies that favor only a few instead of the general public (see Gray et al., 2004; Hart, 2004; Martin, 2005; Eichenberger et al., 2021; Hanegraaff & Poletti, 2021; Mach et al., 2021). Furthermore, some authors have even suggested that increased business lobbying might indeed lead to economic decline because of the short-termed nature of the resulting policies (Olson, 1982; Huneeus & Kim, 2018).

Civil Society Groups

Civil society groups are often self-supporting and autonomous from the state. Diamond (1994, p. 5) writes that civil society differs from society in general merely "in that it involves citizens acting collectively in a public sphere to express their interests, passions, and ideas, exchange information, achieve mutual goals, make demands on the state, and hold state officials accountable". In short, they are concerned with the "public well-being" (Kohler-Koch & Quittkat, 2009, p. 16) and intend to represent a public opinion that would otherwise not be represented (Gough & Shackley, 2001, p. 329). Over the last decades, civil society groups have been able to significantly increase their influence in Swiss policy-making (Bernauer & Betzold, 2012; Bernauer & Gampfer, 2013; Gava et al., 2017; Christiansen et al., 2018b; Eichenberger, 2020).

According to Bernauer and Gampfer (2013), there are two fundamentally different perspectives on the rise of civil society groups in the Swiss (and also international) policy-making context:

The first perspective focuses on the benefits of civil society involvement and thus welcomes the increased influence of those groups. This perspective justifies civil society involvement in particular for the following three reasons, as listed by Bernauer and Gampfer (2013, p. 440): First of all, civil society involvement increases the transparency of policy-making by distributing information on stakeholders' positions, bargaining tactics and justifications to a wider public. This allows citizens to check if their representatives are acting in their interest. Secondly, the involvement of civil society is expected to improve representation through reinforcing the positions of marginalized groups. Hitherto sidestepped concerns can be brought into policy-making venues through civil society groups. The third benefit of civil society

involvement concerns the expertise of those groups in dealing with complex (e.g. environmental) problems. Through a direct link to leading scientists, many civil society groups can incorporate an otherwise disregarded knowledge reservoir into policy-making venues.

The second perspective looks skeptically at the rise of civil society groups and regards the above-mentioned arguments as "naive and potentially wrong" (Bernauer & Gampfer, 2013, p. 441). This, again, is for three main reasons: First, critics suspect a reduced probability for consensus with the involvement of civil society groups since more diverse positions have to be considered, increasing transaction cost. The second reason point criticizes the assumption that civil society involvement might balance interest representation. This argument claims that civil society groups advocate narrow and one-dimensional interests. The third and probably most widespread reason for skepticism about civil society involvement is the argument of lacking legitimacy. Since civil society representatives have never been voted into action through elections, they are neither legitimated by nor accountable to the people they represent. Furthermore, civil society groups lack transparency concerning their decision-making structures and are highly dependent on public funding (Piewitt et al., 2010). In sum, this argument views civil society groups as undemocratic, illegitimate, and unaccountable troublemakers. Or, as (Bernauer & Betzold, 2012, p. 64) put it: "Many civil society representatives claim to speak for the public at large, but neither the positions nor the actions of these stakeholders emanate from that public".

However, in a widely regarded online experiment conducted by Bernauer and Gampfer (2013), the benefits of civil society involvement outdid their downsides. Indeed, the 1003 participants from all over the world confirmed that civil society involvement increases the legitimacy of global climate policy-making. When asked to assemble a 5-person delegation for the experiment, they included an average of 2.54 civil society representatives (Bernauer & Gampfer, 2013, p. 444).

Due to having, on average, fewer financial resources and staff (Varone et al., 2021, p. 479), the lobbying tactics of civil society groups differ substantially from the ones applied by BIAs. As a result of being heavily dependent on public funding, most civil society groups "must give expression to the values and views they pursue. By focusing on controversies, they try to attract media attention to create a widespread perception that they are a worthwhile group mobilizing in defense of a valuable public good. It is therefore natural that diffuse interests focus on voice as their main influence strategy" (Beyers, 2004, p. 217). Thus, while BIAs usually prefer inside lobbying via a behind closed doors approach and favor low-salience issues, civil society groups often rely on outside lobbying through media and campaigning to increase public pressure (Eichenberger, 2020, p. 211).

2.2 State of Research

Over the past decades, a lot of research has been devoted to a better understanding of the complex relationship between policy-making and interest group advocacy (i.e. lobbying). Many scholars have devoted entire careers to disentangling the manifold differences between lobbying practices in pluralist and (neo-)corporatist states. In the international context, especially the recent rise of civil society involvement in international negotiations has attracted much attention. Meanwhile, in the Swiss context, much research on interest groups has focused on the power of BIAs or trade unions while the political influence of civil society groups has received little attention until very recently (Eichenberger, 2020, p. 207).

2.2.1 Interest Group Research

Research on interest groups originated in the United States. In his standard work, Truman David (1951) postulated his famous disturbance theory, depicting interest groups as the result of an increasingly diverse society in which individuals unite as a response to disturbances to create a new equilibrium. Drawing on this (and heavily criticizing it), Salisbury (1969) developed an exchange theory of interest groups, another milestone in interest group research. In short, he proclaimed that interest groups must act as entrepreneurs by offering benefits (an exchange) to attract members and gain political influence through access to policymakers.

Around the same time, Huitt (1964) wrote a widely noticed book in which he claims that interest groups cannot change but only strengthen policymakers' positions. This indicates that interest groups prefer to lobby allies rather than foes, an assumption that has been challenged much later in the US-American as well as the European context (see Austen-Smith & Wright, 1994; Hojnacki & Kimball, 1998; Gullberg, 2008a; Pritoni, 2019).

Following this US-American pioneering work, European scholars started to research on European interest groups, realizing soon that lobbying in the pluralist system of the USA follows different patterns than in the neo-corporatist countries in Europe (Lowery, 2007, p. 30). According to Gullberg (2008a, p. 2965), this early European literature on lobbying has focused mainly on three areas: BIAs' access to European decision-making venues, policymakers' need for expertise versus legitimacy concerns, and governmental control of lobbying activities. However, in the 21st century, a lot of attention has shifted towards the increased participation and influence of civil society groups within EU (and international) policy-making venues (see Beyers, 2004; Finke, 2007; Kohler-Koch, 2010; Bernauer & Betzold, 2012; Liebert & Trenz, 2012; Bernauer & Gampfer, 2013).

Also in the Swiss context, an increased presence and influence of civil society groups were determined (Eichenberger, 2020), putting the Swiss neo-corporatist system of interest

representation under pressure. Christiansen et al. (2018a, p. 529f) list four explanations for this transformation towards a more pluralist inclusion of civil society groups since the 70s.

First, retrenchment policies, which are difficult to enact in strictly neo-corporatist structures, take more space on the current government agenda.

The second explanation refers to the fact that media coverage of political processes has increased substantially over the last decades (mediatization of politics). This led to increased transparency in Swiss policy-making which lowered the informality of policy-making. As a result, the popular behind closed doors approach of BIAs is increasingly impossible while civil society groups benefit from their experience with outside lobbying.

Third, the Swiss parliament has increased its power compared to the government through the installation of permanent committees and the specialization of MPs in specific policy areas. This goes hand in hand with the increasing professionalization of the Swiss parliament since 1992 through increased remunerations and increasing independence of extraparliamentary committees from private interest since the 80s (reinforced through an additional decline of their influence) (Mach et al., 2021, p. 29f).

The fourth explanation relates to the Europeanization of Swiss policy-making. As more and more political influence is shifted toward the EU level, interest groups must adapt their lobbying strategies into multi-level efforts - a situation which favors civil society groups through their less country-specific agenda and the weakening of the EU pre-parliamentary phase (Sciarini, 2014).

According to Eichenberger (2020, p. 210), it remains unclear if the Swiss system of interest representation has indeed shifted towards a policy-making structure that no longer follows a neo-corporatist logic or if the Swiss neo-corporatist system has simply become more adaptive to include corporatized civil society groups. However, a more pluralist arrangement of interest representation can certainly be asserted in Switzerland (Gava et al., 2017; Eichenberger, 2020).

Nonetheless, Eichenberger (2020, p. 220) cautions against overestimating civil society influence since their influence is considerably smaller in the administrative venue, which, despite having lost in relative significance compared to the legislative venue (see above), still is important. And the administrative venue is still dominated by BIAs. Also, in 2010, BIAs still held more ties to MPs than civil society groups (Gava et al., 2017).

The rise of civil society groups in Switzerland falls into a period of increased interest group presence in the parliamentary venue. Gava et al. (2017) show that the average number of interest ties per MP doubled between 2000 and 2011. During this period, especially individual firms lost much of their relative share of ties to MPs. Among the top 20 organizations in 2011, the authors found only one single firm (Gava et al., 2017, p. 85). This indicates that

at least some firms decided to delegate lobbying efforts to BIAs. However, also BIAs lost relative influence during those eleven years. It seems like the increasing number of MPs' civil society ties decreased the relative share of ties held by BIAs. If influence was only measured by ties, civil society influence would thus have grown immensely. Thus it can be concluded that the rise of civil society groups in the parliamentary venue was partly at the expense of BIAs, who certainly lost in relative and most likely also in absolute influence over the last decades (Fischer & Sciarini, 2015; Gava et al., 2017; Eichenberger, 2020).

Nonetheless, there is some evidence that BIAs still possess substantive influence within the Swiss policy-making system. For example, Varone et al. (2021) found that BIAs are more successful than civil society groups when looking at an entire policy process instead of single policy issues. Indeed, their study attributed BIAs' to a 40% higher success score compared to civil society groups, regardless of the advocacy strategy applied and the type of policy at stake (Varone et al., 2021, p. 493ff).

Possibly, this relates to the surprising results of a recent study conducted by Traber (2015). Her data indicates that Swiss BIAs are more satisfied with policy outputs than other types of interest groups. She concludes that informal (and thus unregistered) meetings must still play an important role in Swiss policy-making and that powerful stakeholders must have considerable pre-parliamentary influence through agenda-setting power (Traber, 2015, p. 217).

In a recent article, Mach et al. (2021) illustrate how the Swiss business elite has developed new strategies to counter their decreasing influence in the legislative venue (i.e. less *instrumental* power). They find that the largest Swiss companies increasingly relied on their *structural* power to influence policy-making during recent important policy-making processes. This means that large Swiss companies have become gradually more independent from national settings through globalization and are now lobbying by actively engaging a rhetoric of fear by threatening to relocate to more business-friendly countries (Mach et al., 2021, p. 35). Since those large Swiss companies occupy countless employees and contribute significantly to the national BIP, this new rhetoric has proven to be very effective.

2.2.2 Predictioneer's Game Research

A remarkable publication by Sprinz and Bueno de Mesquita (2015) predicts the outcomes of the 2015 COP in Paris using the Predictioneer's Game. Among many other issues, the paper forecasts the incorporation of country-specific, legally binding mitigation targets, the weakening of the compliance system compared to the Kyoto Protocol and the upgrading of financial commitments (Sprinz & Bueno de Mesquita, 2015). In a later assessment of those results, the Predictioneer's Game's forecasts on 13 issues were, on average, 19.54 points away from the ex-post assessment of the results (Sprinz et al., 2016, p. 180). As the range of possible outcomes varied between 60 and 100 across the issues, this seems like a rather high

number. However, the Predictioneer's Game was very accurate in predicting most issues but showed weaknesses in predicting most of the mitigation-related issues (Sprinz et al., 2016, p. 178). A possible explanation for this might be that the 2015 Paris Agreement surprised many experts by introducing ambitious country-specific yet non-legally-binding emission targets. Furthermore, the Predictioneer's Game was more successful in predicting the outcomes of the decision-making processes correctly than individual experts before the negotiations (Sprinz et al., 2016, p. 180).

Another notable publication using the Predictioneer's Game software for predicting policy-making is concerned with Indian environmental politics. Forecasting the outcomes of several policies in the eleventh and twelfth National Action Plan to fight climate change, Sprinz et al. (2020) expected the formation of a dominant coalition between forest departments and the accountable Ministry which, in the end, will enforce its interests. Their results show how scientific usage of the Predictioneer's Game software enables otherwise impossible mathematical understanding of policy-making. Having numerical - and thus comparable - values for expected gains, individual stakeholders' positions during each iteration of the process, and distinguishable winners and losers allows a deep insight into policy-making. Thus, as Sprinz et al. (2020) demonstrated in the Indian context, the Predictioneer's Game software sheds a unique light on decision-making processes.

Both of these publications generated the input data for the model with expert knowledge and attempted to simulate as accurate a representation of reality as possible. But what they have not done, to my knowledge, is systematically change the baseline conditions to see how the negotiations would play out in alternative scenarios that are not reality. My thesis fills this gap with its research design by using the software for a "what if" question and, additionally, exploring alternatives to data generation through expert knowledge by using a survey as an alternative form of data collection (see Chapter 3.6).

2.3 Theory

The theoretical foundation of this thesis is, to a large extent, inspired by a publication from Lowery (2007), explaining why organized interest lobby despite very small chances of success. Lowery's unique approach in combining niche theory and resource dependency theory to explain lobbying behavior was widely acknowledged.

Lowery (2007, p. 29f) criticizes the implicit assumption of most publications on interest groups that their goal is to influence policy-making. Rather, he says, it should be assumed that interest groups are motivated by the goal of survival. This premise allows for a better theoretical explanation of their behavior. Using this assumption as a starting point, Lowery (2007) employs niche theory and resource dependency theory.

2.3.1 Niche Theory

Niche theory was initially developed by Hutchinson (1957) to explain biodiversity. In biological niche theory, each of the n resources a plant or animal needs for survival is described as an array, resulting in a hypervolume. Within this space, a "fundamental niche" can be described - a n-dimensional volume within which the organism may survive. In other words: Its ecological niche (Slack, 2010, p. 277). Since similar species may share resource arrays (resulting in competition), each organism can only exist within a fraction of its fundamental niche - this space is called the realized niche of a species.

Over 20 years ago, Gray and Lowery (1996) started to apply this concept to interest groups. Interest groups can be seen as occupying an n-dimensional space, whereas n refers to the number of resources it needs for survival. Those resources could be, for example, members, financial resources, access to policymakers, and issues on which to lobby. "Given competition over these resources with other organized interests, an organization's core task is to construct a viable realized niche comprised of some portion of each of the resource arrays constituting its fundamental niche" (Lowery, 2007, p. 48). To survive, every interest group must defend its realized niche. Interest groups who fail to do so, cease to exist.

This view constitutes a fundamentally different view on interest groups' motivation for lobbying. In the words of Lowery (2007, p. 49): "This is an important corrective to most of the literature, which often frames competition solely in terms of final policy opponents, such as between environmentalists and manufacturers, when the most serious threat to an environmental group's existence or survival as an organization is another environmental group". From this perspective, an interest group does not simply lobby if they want to influence policy-making on a specific issue. It could also lobby on a specific issue because if it does not, it will no longer have enough issues to lobby on, and is thus viably threatened in its existence. Or, interest groups (especially civil society groups, whose financial resources are heavily dependent on the number of active members), may start to lobby on a particularly noisy topic to secure the benevolence of its member, even if the topic is of little interest to them. For similar reasons, they might even start to lobby on a topic despite already knowing they are going to lose. Or, BIAs with a few generous patrons in the background may choose a position on a topic that the majority of its members don't agree with to align its goals with the wealthiest members to secure financial resources (Lowery, 2007, p. 48f).

2.3.2 Resource Dependence Theory

Niche theory was developed to explain competition in the biosphere. Applied to interest groups, it explains competition and power structures, but in a very static way. This is why Lowery (2007) additionally suggests using resource dependence theory to frame lobbying

by interest groups. Suggested originally by Jeffrey and Salancik (1978), resource dependence theory is very similar to niche theory by assuming that the goal of organizations is, above anything else, to survive and that they have to secure limited resources in the external world to achieve this goal. To this, the theory adds the dimension of *dependency*. Anyone who controls at least one of the n vital external resources has the potential to limit access to this resource (or those resources). This gives them considerable power over the behavior of organizations that depend on this resource for their survival. "Thus, the resource dependency model can be readily applied to the analysis of lobbying efforts as a means by which organizations try to shape their competitive environment" (Lowery, 2007, p. 50).

In consequence, the perspective of resource dependence theory offers interest groups a large array of different possibilities to strategically use access to resources to overcome competition in their realized niche (see Grote & Lang, 2003, p. 235f). For example, political elites who control interest groups' access to policymakers or limit the number of similar interest groups at the constitutional level have considerable power over those interest groups since access is a vital resource for every interest group. "The key point is that resource dependence theory allows us to add contextual forces to niche theory [...] highlighting the importance of a wider array of stakeholders in the political environment. These stakeholders influence contextual forces, thereby altering the resource arrays of niche theory, which in turn influence the order of priorities among goals that organizations must pursue if they are to survive" (Lowery, 2007, p. 51). In other words, resource dependence theory takes into account the reality of decision-making processes: The behavior of each stakeholder influences how other stakeholders behave.

2.4 Expectations

Based on these two theories, I assume that decision-making within the Swiss climate policy subsystem is influenced by lobbying efforts from interest groups. For each issue that is negotiated in the Swiss climate policy subsystem, interest groups have to ask themselves different questions: Does this issue belong to my fundamental niche? Does it also belong to my realized niche? If so, which of my resources is threatened here? How many resources do I want to spend on it? How do the other organizations in my niche behave? Accordingly, decision-making processes cannot and must not be understood as static processes that can be explained, let alone predicted, by asking stakeholders simple questions about their positioning on or financial commitment to certain issues. Political decision-making processes are dynamic matters in which the behavior of all stakeholders is always oriented toward the behavior of other stakeholders. Therefore, they must always be understood as multipart processes that should be modeled over several rounds of negotiations, and any indications of positioning, financial cost, or salience must be understood as nothing more than momentary

indications. Thus, the question that concerns me in this thesis is not whether the negotiation outcomes of policy-making processes change when certain stakeholders give more weight to a single instrument. The question I want to explore with this thesis is whether the negotiation outcomes of climate policy decision-making processes change when certain stakeholders *start* into the negotiations with a different salience.

My expectations are as follows:

- Expectation 1: Civil society groups advocate higher levies and more ambitious reduction targets than BIAs on average.
- Expectation 2: When civil society groups start the negotiations with a different salience, negotiation outcomes change.
- Expectation 3: The higher civil society groups' salience, the less the negotiation outcomes differ from their average position.
- Expectation 4: The lower civil society groups' salience, the more negotiation outcomes differ from their average position.

Chapter 3

Methodology

3.1 Case Selection

For this analysis, I was looking for a country with a long (neo-)corporatist tradition. a current political debate on climate protection measures and easy access to stakeholders. I chose Switzerland for several reasons:

Switzerland is a traditional (liberal) corporatist country, meaning that organized interest groups generally are granted easy and far-reaching access to policy-making arenas (Winkler, 1976). This is also necessary because the Swiss parliament is set up as a militia parliament. This means that the political duties of parliamentarians are usually performed alongside a full-time job. Thus, parliamentarians do not have the necessary time and resources to dive into every political issue as deeply as would be necessary for political decision-makers. In consequence, parliamentarians are dependent on the expertise of experts. Switzerland is a semi-direct democracy with a 2020 democracy index rating of 8.83 out of 10 (Unit, 2021), indicating that Switzerland's democracy works.

The foundation of Swiss climate policy is the CO_2 Act. It was first enacted in 2000 to implement the commitments of the Kyoto Protocol, which Switzerland has ratified. In particular, voluntary measures on the part of the economy were emphasized. In 2008, a CO_2 levy on fossil thermal fuels of 12 CHF per ton of CO_2 was introduced, with a maximum rate of 210 CHF. In 2013, the CO_2 Act was revised to include the new reduction target of -20% by 2020 compared to 1990. In 2017, Switzerland also ratified the Paris Agreement. However, by then some serious opposition from pro-economy voices has arisen (Kammerer et al., 2020), climaxing in the rejection of another revision of the CO_2 Act by the Swiss public on June 13, 2021. As an immediate reaction, policymakers extended the expiration date of the old CO_2 Act until the end of 2024 (Bundesrat, 2022). By then, they must have developed a new revised CO_2 Act.

3.2 Process Selection

As mentioned above, after the draft for a revised CO_2 Act was rejected by the Swiss population on June 13, 2021, the Federal Council started to work on a new draft for a new revised CO_2 Act. In a public statement from September 17, 2021, the Federal Council reassured its determination to hold on to the Swiss 2030 reduction targets of -50% GHG emissions by 2030 compared to 1990 as they are part of the Swiss NDCs (Bundesrat, 2021). The new revised CO_2 Act is thus intended to achieve the same outcomes but using other instruments than the rejected draft originally proposed (BAFU, 2021). Thus, the new draft relies more on incentive measures like subsidies and levy exemptions. After the consultation process was concluded on April 4, 2022, the draft went back to parliament. Attempts to exert influence by organized interests (lobbying) can be expected in the current phase, as the draft can be significantly changed and adapted by the parliament. It is the upcoming decision-making processes surrounding this draft I intend to simulate with my master thesis.

3.3 Topic Selection

This paper deals with partial aspects of the new CO_2 revision (instruments) and their underlying decision-making processes. It can be assumed that the decision-making processes will be tied to these instruments and that different perspectives on them will be disputed for many of them. My approach to my research subject was such that I wanted to select three instruments that, on the one hand, have been discussed controversially by different stakeholders and, on the other hand, are evaluated relatively unanimously by civil society groups.

A usually heavily disputed part of CO_2 Acts is, apart from direct financial measures, the amount of flexibility they allow. Already during the consultation stage of the last revision of the CO_2 Act in 2009, the allowed amount of carbon offsetting was one of three main conflicts between the "pro-ecology" and the "pro-economy" coalitions (Kammerer & Ingold, 2021, p. 3). While large BIAs like Economiesuisse generally prefer flexible options and thus advocate the omitting of domestic reduction targets (Economiesuisse, 2021, p. 4), civil society groups criticize carbon offsets for being cheap indulgence, for incentivizing double counting, and for their logical inability to enable worldwide net-zero emissions until 2050 (see (Dyttrich, 2021). For example, Greenpeace Switzerland, a large civil society group, demands a domestic reduction target of -60% (Greenpeace, 2021).

For these reasons, I have tried to choose instruments that have to do with either direct financial measures or flexibility, while also being controversial as well as far-reaching in their impacts. My decision fell on the following instruments:

- The maximum rate of the CO_2 levy on all fossil fuels except gasoline and diesel (maximum rate of the CO_2 levy)
- The percentage of the legally defined *domestic* share of the CO_2 reduction targets until 2030 of -50% (domestic reduction target)
- The percentage of the maximum permissible partial earmarking of the revenue from the CO_2 levy for climate protection measures until 2030 (level of partial earmarking)

A maximum rate of the CO_2 levy means that the levy, which has been charged on all fossil fuels except gasoline and diesel since 2008 and is automatically increased if the interim targets set out in the current CO_2 Act are not met, may not be increased beyond a certain amount (maximum rate). On January 1, 2022, the levy was last increased to 120 CHF per ton of CO_2 (BAFU, 2021). In the revision of the CO_2 Act, which was rejected by the people, a maximum rate for this levy of 210 CHF was proposed. In the current revision, however, the Federal Council proposes a maximum rate of 120 CHF. In the following, this instrument is referred to as the maximum rate of the CO_2 levy.

The domestic reduction target specifies what proportion of the reduction targets of minus 50% by 2030 compared to 1990 (and the interim targets of minus 35% on average in 2021-2030) must be achieved domestically. This means that this share of the CO_2 savings may not be achieved through compensation measures abroad, but must be achieved domestically (BAFU, 2021). In the current draft of the revised CO_2 Act, the Federal Council proposes a domestic share of 60%. In the following, this instrument is referred to as the domestic reduction target.

In principle, the revenues generated by the CO_2 levy are to be redistributed to the population. The idea behind this is that those who emit below-average amounts of CO_2 benefit from this redistribution, while those who emit above-average amounts of CO_2 pay more than they receive back. However, the CO_2 Act allows for a redistribution of these funds; so-called partial earmarking. The government is allowed to use a certain percentage of the revenue from the CO_2 levy for climate measures (e.g. building renovation, replacement of fossil heating systems, and development of climate-friendly technologies). In the current draft of the revised CO_2 Act, the Federal Council would like to increase this percentage from one-third to 49% (BAFU, 2021). In the following, this instrument is referred to as the level of partial earmarking.

3.4 Model

To assess my empirical research question, the influence of interest groups within the Swiss climate policy subsystem, a statistical tool for modeling political decision-making had to be selected. The model must provide high accuracy, require few input variables (time constraints), and provide an easily manipulable interface. Of the many that are available for this purpose, my choice fell on the Predictioneer's Game software. This is for various reasons: On the one hand, the model is ideal for such an experimental question as the one pursued in this thesis, since the manipulation of the input data is low-threshold and allows the user to see how the negotiation outcome changes when only one variable changes. On the other hand, the model uses relatively few input variables, which is a great advantage in the context of this thesis, since I collected the input data through a survey, as described in Chapter 3.6.1. Finally, the model has already been used successfully in the past for simulating climate policy negotiations (see (Sprinz et al., 2016)).

3.4.1 The Predictioneer's Game

Based on the idea of expected utility, the Predictioneer's Game software allows the user to predict the outcomes of very different political negotiations. Its possibilities for application range from medieval history over business conflicts to the prediction of the 2015 Paris Agreement (Sprinz et al., 2016). The model's predictions have been assessed to be correct 90% of the time (Bueno de Mesquita, 2011; Sprinz et al., 2020, p. 210).

The Predictioneer's Game is based on rational choice assumptions, meaning that the model assumes stakeholders to act rationally in the sense that they do what they believe is in their best interest (Sprinz et al., 2016, p. 177). The model can be used through software of the same name. This software can not only be used to predict outcomes of policy-making processes but can also help decision-makers to anticipate what would happen if they changed their course of action within this process. It is thus not surprising that this software has been used mostly in confidential settings so far (Sprinz et al., 2016, p. 177).

3.4.2 Advantages of the Predictioneer's Game Software

I use the Predictioneer's Game software for this thesis as it allows me to pursue my empirical research question by comparing accurate predictions (base model runs) to experimental "what if" situations (experimental model runs). In other words, the software allows me to generate detailed predictions of what the three selected instruments will look like in the final

revision of the CO_2 Act while simultaneously allowing me to generate experimental scenarios based on "what if" questions. Comparing those different model runs allows me to analyze what happens when the salience of civil society groups on one of the three instruments changes.

3.4.3 Model Input

To generate accurate predictions, the model usually relies on input data generated through ex-ante assessments of the relevant stakeholder by experts. The software needs numerical information about each stakeholder's position, salience, flexibility, (potential) influence, and veto rights (see Table 3.1). It is crucial to include all relevant stakeholders in the model.

TABLE 3.1: Input Variables for the Predictioneer's Game Software and their Range in this Thesis

Input Variable	Range
Position	lowest stated preference *minus* highest stated preference
Salience	1-99
Flexibility	0-100
(Potential) Influence	1-100
Veto Right	0-1

The position input assesses which position a stakeholder advocates on a 2-dimensional spectrum. This spectrum ranges from the lowest preference advocated by any stakeholder in the simulation to the highest preference advocated by any stakeholder. This means that the scale depends on the instrument: For the domestic reduction target and the level of partial earmarking, stakeholders can by definition only advocate percentages from 0% to 100%, while the maximum rate of the CO_2 levy is theoretically unlimited towards the top.

To supply the model with information on each stakeholder's salience, a value between 1 (issue is of very little importance) and 99 (most important issue) must be provided. As already mentioned in Chapter 1.2, salience refers to a stakeholder's focus on an issue (Bueno de Mesquita, n.d., p. 4). Would the stakeholder risk other interests or commitments to be able to work on this particular issue?

Also, the model requires an estimation of each stakeholder's flexibility within the negotiations. Flexibility measures the willingness of a stakeholder to reach an agreement even if it

means deviating from their preference. Low flexibility means that the stakeholder wants to stick to his or her position, even if this might mean that no agreement is reached. Generally, flexibility values range between 0 and 35, although the theoretical scale accepted by the software ranges between 0 and 100. According to Bueno de Mesquita (n.d., p. 5), this has become best practice.

Then, the model needs to know how much influence each stakeholder could exert if they tried as hard as possible. This is why the influence dimension is often written as "(potential) influence". Influence is defined here as the ability to convince other stakeholders of one's preference (Bueno de Mesquita, n.d., p. 3). The stakeholder with the highest amount of potential influence is assigned the value 100. All other stakeholders are then given values relative to 100 (e.g. two stakeholders with a potential influence of 60 could overpower the most influential stakeholder).

Lastly, each stakeholder who has a formal veto right in the modeled decision-making process must be identified. Having a veto means the ability to prevent an agreement that would be reached as a single stakeholder. The veto has nothing to do with influence; even stakeholders with little influence can have a veto (Bueno de Mesquita, n.d., p. 6). Stakeholders with a veto right get a 1 in this column, and all other stakeholders get a 0.

Additionally, the Predictioneer's Game software allows users to assign stakeholders to a group. While this is not necessary, it makes it easier to calculate the influence values, especially when there are many actors. Indeed, experience shows that certain groups of stakeholders, such as political parties, *generally* have higher influence values than other groups of stakeholders. Thus, each group is given a group weight according to their influence as a group. To determine overall influence, the individual influence value of each stakeholder is divided by the sum of influence values within each group and then multiplied by the assigned group weight (Bueno de Mesquita, n.d., p. 6). However, the assigning of stakeholders to groups is omitted in this thesis. Since I asked all stakeholders directly how influential they are in the Swiss climate policy subsystem (see question 8 in the survey in Appendix A), I assume that they did not think merely within their category when answering this question, but within the entire subsystem.

To start modeling the decision processes after entering all this data, the user has to specify how many so-called rounds he or she wants to model. A round corresponds to one bargaining unit and is complete when each stakeholder in the simulation has had the opportunity to negotiate bilaterally with all other stakeholders (Bueno de Mesquita, 2011, p. 72). Within one round, the individual positions advocated by the stakeholders may change. This occurs during bilateral negotiations. In these, stakeholders may find a compromise between the respective positions they advocate, which the model then annotates with the term compromise, or try to force each other to advocate a particular position by threatening sanctions. The

model refers to this relationship in the output either as coerce, meaning that only one stakeholder threatens the other with sanctions in the bilateral negotiations, or as clash, meaning that both stakeholders threaten each other with sanctions (Bueno de Mesquita, n.d., p. 8).

3.4.4 Model Function

In short, the model is based on the assumption that each stakeholder is uncertain about all the other stakeholders and is constantly updating its beliefs about them. More specifically, there are two things each stakeholder would like to know about all the others and is thus constantly assessing. First: Does another stakeholder prefer to coerce or negotiate (compromise) if given the chance? Second: If coerced, does this stakeholder retaliate or give in? (Sprinz et al., 2016, p. 177). The software assigns an initial probability of 50% to each stakeholder's negotiation type (Bueno de Mesquita, 2011, p. 71). In each round, all stakeholders update their knowledge about the other stakeholders' types. Thus, with each round, they become more confident about how to approach each stakeholder in the bilateral negotiations. The stakeholders, however, do not know how many iterations (rounds) will occur. Such a round of negotiations can last both a single day and, as is often the case in international negotiations, for example, several months. The typical duration for a negotiation round is one month (Bueno de Mesquita, n.d., p. 7). Therefore, I see one month as a guideline for the duration of a round in my model as appropriate.

3.4.5 Model Output

For each round, the software automatically calculates the round forecast, which is the predicted outcome if the simulation ended here. This calculation is based on the mean voter theorem, which means that the software assumes that the parties will find each other in the middle (Sprinz et al., 2016, p. 178). To evaluate how negotiations that were not ended by a veto player turn out, however, Bueno de Mesquita (n.d., p. 8) recommends using the smoothed mean, which incorporates predictions for the surrounding rounds as well. Like the round forecast, the smoothed mean can be viewed in the output file under "Round by Round Forecasts", where each column represents a round of negotiations. The rest of the data under this heading also provides revealing information about the course of the negotiations. The security forecast, for example, gives the median of all positions weighted by stakeholder influence. And while utility gain 1 gives the gain of the veto-stakeholders (there are none in the simulations of this thesis), utility gain 2 gives the gain of all stakeholders Bueno de Mesquita (n.d., p. 8). Since there are no veto stakeholders, the meaning of the two columns veto min and veto max is also omitted. The output file also provides a summary of the position of each stakeholder per round (under "Round by Round Positions") and a percentage of the type of all bilateral negotiations (under "Round by Round Summary of Actor Relationships"). At the

top of the output file, the input data can also be viewed. The output files of the simulations, which were carried out in the context of this thesis, are in Appendices E to S.

But when do the negotiations end? According to Bueno de Mesquita (2011, p. 72), the game ends when "the sum of player payoffs at the end of an iteration is greater than the projected sum of those payoffs in the next iteration, indicating that the average player's welfare is expected to decline in the sense of accumulated payoffs". These payoffs (or utility gains) are calculated by looking at the distance of each stakeholder's currently advocated position to the smoothed mean. If this distance is about to decrease in the next round, the payoffs will increase in proportion to the absolute decrease in the distance. However, if the distance increases, the payoffs decrease and the stakeholder wishes to end the negotiations. So the model signalizes an end-rule when the projected sum of the individual utility gains in the next stage is smaller than the ones in the current stage (Bueno de Mesquita, 2010). If there were veto stakeholders in the simulation (having a formal veto right), the model also triggers the end-rule when the projected payoff for one of those veto stakeholders is smaller in the next stage than the one in the current stage. Depending on the user, a simulation is usually considered to have ended if there are between one and three end-rules in a row for the first time.

3.4.6 Limitations

Of course, the Predictioneer's Game has several limitations. Like most statistical models, it is subject to the garbage in, garbage out principle, meaning that no matter how good the algorithms are, bad input data will always result in bad output data. Assuring a sound data collection process with high-quality standards is thus essential for this thesis. In addition, the model is very static, which means that it is not possible to individually adjust the duration of the individual negotiation rounds, nor can external influences such as new scientific findings or changes in public opinion (such as during the Fridays for Future movement) be taken into account. It is also not possible to simulate negotiation outcomes that are outside the positions mentioned, such as the cancellation of a planned instrument, the merging with similar instruments, or the postponement of negotiations. It is also not possible to simulate the approval of a stakeholder under certain conditions (e.g. a stakeholder could accept a low domestic reduction target if a particularly high-quality standard for the offset projects would be legally anchored). Furthermore, tactical considerations that go beyond the simple negotiation of a single instrument cannot be included. Last but not least, the model is based on rational choice assumptions that all stakeholders seek rational utility maximization at all times in the negotiations. This assumption is a simplification of reality, as stakeholders may also act for other motivations, such as emotionality or social desirability.

3.5 Stakeholder Selection

3.5.1 The Positional, Decisional and Reputational Methods

The goal of this thesis is to analyze the impact of interest groups on the preparation and decision phases of the new CO_2 Act in Switzerland. For this, all the relevant stakeholders in the Swiss climate policy subsystem had to be identified first. This was achieved using the positional, decisional, and reputational methods.

The positional method is used frequently to identify relevant stakeholders at the national level. It is quite straightforward and requires the applicant to list the most important organizations in the sector under study. "Because modern political institutions, business corporations, and civil society organizations typically have well-documented hierarchical structures, the final two steps of the positional method involve identifying the uppermost positions in these structures and locating their incumbents" (Hoffmann-Lange, 2018, p. 81). However, this first method alone bears the risk of "underestimating the degree to which power is centralized" within the sector under study (Hoffmann-Lange, 2018, p. 82).

The decisional method focuses on political participation. It identifies important stakeholders based on their active involvement in political processes using official records and documents, media reports, personal interviews, and direct observation. Due to the simplicity of this approach, it is a good choice for generating quick lists of alleged elites. However, there are two main shortcomings: First of all, it ignores issues that are dismissed before reaching the decision-making stage (Hoffmann-Lange, 2018). This can happen, for example, if they are only promoted by minor political stakeholders. The second shortcoming is that this method might identify the wrong stakeholders as influential or even leave out influential stakeholders. The reason for this is that the decisional method fails to identify situations where the positions of influential but invisible stakeholders (gray eminences) are represented by position-holders.

Here are the advantages of the third method, the reputational method. This method relies on indirect access to important political stakeholders through insiders or experts. Those experts are asked to identify the most important stakeholders in the domain they have access. For this, they are usually given a short list of possible candidates (which are created using the positional or the decisional method). Here, the rule of thumb goes as follows: The more experts, the more accurate the resulting list. Additionally, using only the reputational method risks reproducing subjective “images of power” rather than valid results (Scott, 2004, p. 86). "In combination with the positional or decisional methods, however, asking respondents to identify top influentials in their organizations or in policy decisions in which they have been personally involved makes sense" (Hoffmann-Lange, 2018, p. 86).

3.5.2 Generating a Selection Score

Led by Prof. Dr. Karin Ingold and Dr. Marlene Kammerer, I combined all three methods to generate a selection score for each stakeholder.

The positional approach was used to create a first draft of the stakeholder list. Using official records, government websites, and the resources of the Swiss association Lobbywatch, an extensive list of all the most pivotal parties, federal offices, BIAs, and civil society organizations was compiled (see Chapter 3.3). The result was a list containing 72 stakeholders. The reputational method was used by analyzing the stakeholder lists in earlier studies on the Swiss climate policy subsystem (Ingold, 2011; Hapuoja, 2021). Every time a stakeholder showed up, it was given one point. Lastly, three experts (Prof. Dr. Karin Ingold, Dr. Marlene Kammerer, and Patrick Hofstetter) rated all stakeholders in the list according to their influence on the Swiss climate policy subsystem with 0, 0.5, or 1 point. While the first two have developed a great deal of expertise through their years of research on Swiss climate policy, the third expert, Patrick Hofstetter, has been head of climate and energy policy at WWF Switzerland, a large civil society group, for twenty years, giving him invaluable insider knowledge. I added up all those individual points for each stakeholder in the list. The overall score ranged between 0 and 8 points. To see the stakeholder list with the individual scores, and the underlying coding framework for the selection score, please refer to Appendix B.

In the next step, a cutoff value of 2 was defined. This cutoff value excluded all stakeholders with a lower score than 2 from the survey. The 52 remaining stakeholders were then supplemented with three stakeholders who did not achieve the necessary selection score but were considered relevant for other reasons: Klimastreik (Fridays For Future), Alpiq Holding AG (ALPIQ), and Schweizerische Bundesbahnen AG (SBB). While the first has become an increasingly important player in national and global climate politics (Andres et al., 2022), the two latter have both participated in the consultation process and were recently identified as systemically important companies in the wake of the Corona pandemic (Bundesrat, 2020; Halter, 2022).

Table 3.2 lists the 55 selected stakeholders. All stakeholders were classified into four group types: interest groups, parties (PP), science (S), and ministries and commissions (FAC). Stakeholders from the interest group type were divided into four subgroups: industry and private sector representatives (IPS), transport and energy representatives (TER), trade unions and consumer protection groups (TUCP), and civil society groups (NGO).

TABLE 3.2: Polled Stakeholders

Group Type	Subgroup	Abbr.	Count	Stakeholders
Interest Groups	BIA (Industry and Private sector representatives)	IPS	17	Economiesuisse; Schweizerischer Gewerbeverband; Verband der Schweizerischen Cementindustrie; Agentur für erneuerbare Energien und Energieeffizienz; Hauseigentümerverband Schweiz; Swissmem; Scienceindustries; Auto-Schweiz; Coop Schweiz; Swisscleantech; Migros-Genossenschaft; Bauenschweiz; Swiss Banking; Aerosuisse; Schweizer Bauernverband ; Suissetec; Stiftung Klik
Interest Groups	BIA (Transport and Energy representatives)	TER	13	StrasseSchweiz; Verkehrs-Club Schweiz; Touring Club Schweiz; Avenergy; Energie-Agentur der Wirtschaft; Schweizerische Energie-Stiftung; Schweizerischer Nutzfahrzeugeverband ASTAG; Automobil Club der Schweiz; Swissolar; Swissoil; SBB; Alpiq; Verband der Schweizerischen Gasindustrie
Interest Groups	Trade Unions and Consumer Protection	TUCP	3	Schweizerischer Gewerkschaftsbund; Travail Suisse; Stiftung für Konsumentenschutz
Interest Groups	Civil Society Groups	NGO	8	World Wide Fund For Nature Schweiz; Greenpeace Schweiz; Klimaallianz; Klimastreik Schweiz & Fridays for Future; Schweizerische Arbeitsgemeinschaft für die Berggebiete; Alliance Sud; Eco Swiss; Verein Klimaschutz Schweiz
Science	-	S	2	ProClim & Akademien der Wissenschaften; ETH Zurich

Ministries and Commissions	-	FAC	6	Bundesamt für Umwelt (Gruppe International); Bundesamt für Umwelt (Gruppe National); Bundesamt für Energie; Staatssekretariat für Wirtschaft; Kommission für Umwelt, Raumplanung und Energie des Nationalrates; Kommission für Umwelt, Raumplanung und Energie des Ständerates
Political Parties	-	PP	6	Freisinnige Demokratische Partei; Sozialdemokratische Partei; Grüne Partei der Schweiz; Schweizerische Volkspartei; Grünliberale Partei; Die Mitte

To get a first impression of which group has how much influence on Swiss climate policy, I calculated the average selection score per stakeholder type and normalized it to a 0-100 scale. The results are not surprising: As before, the parties appear to be the biggest influencing forces in the decision-making process. It is also not surprising that the Ministries and Commissions, which report directly to the Federal Council and are entrusted with the detailed drafting of laws, can exert a great deal of influence on legislation. What does positively surprise me, however, is that science was given almost as much influence as organized interests in this rating. Nonetheless, it is important to note here that this is not a conclusive analysis of stakeholder importance. Rather, Table 3.3 is based on a compilation of indicators that can give a hint about the importance of stakeholder group types in the Swiss climate policy subsystem.

TABLE 3.3: Stakeholder Type Average Selection Score (Normalized)

Type	Average Score
Parties	100
Ministries and Commissions	82
Interest Groups	69
Science	51

3.6 Data Collection

3.6.1 Survey

I identified the appropriate contact person for each of the 55 stakeholders. In doing so, I took care that the contact person either holds a leading position and/or is responsible for the climate policy dossier. 46 of the 55 selected stakeholders were then invited to participate in the survey between June 28 and July 25, 2022. The survey link was distributed via E-Mail. The other nine stakeholders were participating in an additional personal interview for the master thesis in progress (Policy learning in Swiss climate-mitigation policy. A network perspective on the decision-making process surrounding the CO_2 Act) of Till Raphael Beer and Walid El-Ajou and were given their survey link after the interview.

The survey was created together with Prof. Dr. Karin Ingold and Dr. Marlene Kammerer using Qualtrics and consisted of four blocks with a total of 92 questions. However, for this thesis, only block three was used, while the other blocks were used for other purposes. The survey is attached in its entirety in Appendix A.

The survey asked the respondents to position their organization for the most important input parameters for the Predictioneer's Game model (political position, salience, flexibility, and potential influence) on three different instruments: the maximum rate of the CO_2 levy, the domestic reduction target and the level of partial earmarking. As most participants in the survey were native German speakers, the survey was written in German.

Table 3.4 lists all the questions that the stakeholders were asked. In each case, the input dimension of the Predictioneer's Game software is indicated to which the question refers.

TABLE 3.4: Survey Questions by Dimension and Topic

Topic	Dimension	Question Text
Maximum Rate of the CO_2 Levy	Position	"Wie hoch soll der Maximalsatz der CO2-Abgabe der Ansicht Ihrer Organisation nach sein?"
	Flexibility 1a	"Untere Grenze: Welchem Maximalsatz würde Ihre Organisation gerade noch zustimmen? Bsp. Ihre Organisation würde einem Maximalsatz der CO2-Abgabe von 110 CHF gerade noch zustimmen (absolutes Minimum). Dann geben Sie bitte 110 an."

	Flexibility 1b	"Obere Grenze: Welchem Maximalsatz würde Ihre Organisation gerade noch zustimmen? Bsp. Ihre Organisation würde einem Maximalsatz der CO2-Abgabe von 350 CHF gerade noch zustimmen (absolutes Maximum). Dann geben Sie bitte 350 an."
	Flexibility 2	"Wie flexibel ist Ihre Organisation hinsichtlich der Höhe der der CO2-Abgabe? Bitte bewerten Sie Ihre Flexibilität auf einer Skala von 0 (keine Flexibilität) bis 10 (maximale Flexibilität)"
	Salience	"Wie relevant ist dieser Aspekt für Ihre Organisation?"
Domestic Reduction Target	Position	"Welcher Anteil des CO2-Reduktionziels bis 2030 soll der Ansicht Ihrer Organisation nach mit Massnahmen im Domestic erreicht werden müssen?"
	Flexibility 1a	"Untere Grenze: Welchem Domesticanteil würde Ihre Organisation gerade noch zustimmen? Bsp. Ihre Organisation würde einem Mindestanteil der inländischen CO2-Reduktion von 10% gerade noch zustimmen (absolutes Minimum). Dann geben Sie bitte 10 an."
	Flexibility 1b	"Obere Grenze: Welchem Domesticanteil würde Ihre Organisation gerade noch zustimmen? Bsp. Ihre Organisation würde einem Höchstanteil der inländischen CO2-Reduktion von 90% gerade noch zustimmen (absolutes Maximum). Dann geben Sie bitte 90 an."
	Flexibility 2	"Wie flexibel ist Ihre Organisation hinsichtlich der Höhe des Domesticanteils? Bitte bewerten Sie Ihre Flexibilität auf einer Skala von 0 (keine Flexibilität) bis 10 (maximale Flexibilität)."
	Salience	"Wie relevant ist dieser Aspekt für Ihre Organisation?"
Level of Partial Earmarking	Position	"Welcher Anteil aus den Einnahmen durch die CO2-Abgabe soll der Ansicht Ihrer Organisation nach für diese Teilzweckbindungen verwendet werden können?"

	Flexibility 1a	"Untere Grenze: Welcher Teilzweckbindung würde Ihre Organisation gerade noch zustimmen? Bsp. Ihre Organisation würde einer Teilzweckbindung von 15% gerade noch zustimmen (absolutes Minimum). Dann geben Sie bitte 15 an."
	Flexibility 1b	"Obere Grenze: Welcher Teilzweckbindung würde Ihre Organisation gerade noch zustimmen? Bsp. Ihre Organisation würde einer Teilzweckbindung von 80% gerade noch zustimmen (absolutes Maximum). Dann geben Sie bitte 80 an."
	Flexibility 2	"Wie flexibel ist Ihre Organisation hinsichtlich der Höhe der möglichen Teilzweckbindung? Bitte bewerten Sie Ihre Flexibilität auf einer Skala von 0 (keine Flexibilität) bis 10 (maximale Flexibilität)."
	Salience	"Wie relevant ist dieser Aspekt für Ihre Organisation?"
all three	Potential Influence	"Wie beurteilen Sie den Einfluss Ihrer Organisation auf die nationale Klimapolitik?"

Chapter 4

Results

In the empirical part of this paper, I aim to find out whether the salience of civil society groups has an impact on negotiation outcomes around climate policy instruments. Such a comparison between "real-life" and experimental "what if" situation is relatively easy to implement using the Predictioneer's Game software, as the user can quite easily manipulate the input parameter "salience" of certain stakeholders and read the impact on the negotiation outcome. The key question is therefore not how, but why.

The idea behind this empirical question is that civil society groups, like all interest groups, have limited resources to devote to lobbying. If they perceive an issue to be of particular relevance, they are very likely to invest more resources in lobbying on this issue than on issues they perceive to be unimportant. The resulting patchwork of lobbying efforts is attempted to be countered by alliances and agreements. But this does not solve the fundamental problem of different priorities.

The empirical question that my thesis wants to answer is how the negotiation results would change if different civil society groups unanimously assessed an issue as being of different relevance, i.e. if they started the negotiations with a lower or higher salience (see Chapter 1.3). This methodological framework is in line with the following statement made by (Klüver, 2011, p. 502) after analyzing submissions in online consultations by the European Commission: "The findings suggest that lobbying has to be considered as a collective enterprise rather than as an individual endeavor. Interest groups that are located on the same side of the policy space are fighting for the same goal and therefore push decision-makers in the same direction. They can thus be regarded as one lobbying team whose aggregated efforts are decisive for the achievement of the common policy objective".

In addition, I hope to be able to predict which of the three selected instruments (see Chapter 3.3) reacts most volatile to changes in salience. For civil society groups, this could provide valuable information on how to efficiently use their limited resources to achieve their goals.

4.1 Data

4.1.1 Response Rate and Missing Data

A total of 40 stakeholders answered the survey. This results in a response rate of 73%. 89% of civil society groups, 70% of BIAs, 66% of trade unions and consumer protection groups, 100% of science groups, 83% of parties, and 66% of ministries and commissions completed the survey. Table 4.1 lists the 15 stakeholders that did not answer the survey.

TABLE 4.1: Stakeholders who did not answer the Survey

Group Type	Names
Interest Groups	Stiftung für Konsumentenschutz; Touring Club Schweiz; Coop Schweiz; Verband der Schweizerischen Gasindustrie; Swiss Banking; Schweizerischer Nutzfahrzeugeverband ASTAG; Automobil Club der Schweiz; StrasseSchweiz; Scienceindustries; Swissolar; Eco Swiss
Ministries and Comissions	Bundesamt für Umwelt (Internationales Büro); Kommission für Umwelt, Raumplanung und Energie des Nationalrates; Bundesamt für Energie
Political Parties	Schweizerische Volkspartei

4.1.2 Recoding

Because of the way the influence, flexibility, and salience of the stakeholders were queried by the questionnaire, this raw data still needed to be recoded into a format that the Predictioneer's Game software will accept as input. Their positions, on the other hand, can be adopted directly, since they consist of absolute amounts in the case of the maximum rate of the CO_2 levy and percentages in the case of the domestic reduction targets and the level of partial earmarking (see Table 3.4).

Recoding Influence

The stakeholders in the survey had five response options to express their influence within the Swiss climate policy subsystem: "Very Small Influence", "Small Influence", "Neither", "Large Influence", and "Very Large Influence". These answers were recoded for the software according to Table 4.2.

The reason why I gave Stakeholders who selected "Very Small Influence" a 1 and not a 0 is related to the fact that all Stakeholders surveyed for this thesis must have a minimum of influence in the climate policy system. Consequently, there are no stakeholders with *no influence* in the data set.

TABLE 4.2: Influence: Ordinal Scale to Interval Scale

Response (Ordinal)	Value (Interval)
Very Small Influence	10
Small Influence	25
Neither	50
Large Influence	75
Very Large Influence	100

Recoding Salience

The stakeholders in the survey had five response options to express their salience per instrument: "No Relevance", "Low Relevance", "Medium Relevance", "High Relevance", and "Highest Relevance" These were recoded for the software as follows:

TABLE 4.3: Salience: Ordinal Scale to Interval Scale

Response (Ordinal)	Value (Interval)
No Relevance	1
Low Relevance	25
Medium Relevance	50
High Relevance	75
Highest Relevance	99

Please note that the highest possible score for salience is 99, not 100 since this scale only goes from 1 to 99.

Recoding Flexibility

To ensure that as many stakeholders as possible could be assigned a value for their flexibility on all three instruments, I included several questions in the survey designed to capture their respective flexibility. On the one hand, the survey asked them directly how they would rate their flexibility for each instrument on a scale from 1 to 10. In addition, they were asked which deviation from their original preference they would just accept (lower and upper limit, see Table 3.4). For those stakeholders who answered the direct question about their flexibility, I transferred this information directly into the input matrix for the model. For those stakeholders who answered only the lower and upper limit questions, I used the following approach: The lower indicated value was subtracted from the higher indicated value for each stakeholder. This resulted in an amount for each stakeholder that indicates the range of just acceptable positions. Then, for each instrument, the lowest amount was subtracted from the highest amount for all stakeholders. The resulting range was scaled to the flexibility scale of 1-10. Subsequently, the amount of each stakeholder was assigned a value on this scale. This value was directly transferred to the existing flexibility scale from the survey.

Recoding of Invalid Answers

Besides coding the most crucial stakeholders who did not fill out the survey, I also recoded a few invalid answers from the survey. There were a total of three such incorrect answers. Two of them came from stakeholder NGO 6, and one from stakeholder FAC 3.

NGO 6 stated 0 CHF as the preferred maximum rate of the CO_2 levy, but commented the following alongside it: "We do not consider the CO_2 levy to be the ideal climate policy instrument, but a sensible one among others. I have indicated "0" as the maximum rate, but I mean that we do not want a maximum rate at all - the CO_2 levy must be unlimited upwards". Subsequently, I recoded their preferred maximum rate to 500 CHF - the highest stated position for the maximum rate in the survey, coming from stakeholder NGO 7, was 500 CHF.

In addition, NGO 6 has indicated 150% for the preferred share of domestic reduction targets and commented: "Since Switzerland has a high historical responsibility and cannot meet its 1.5 degree target according to the Paris Agreement and IPCC anyway - taking into account the UNFCCC principle of common but differentiated responsibilities - it would have to support emission reductions abroad without crediting these as its own reductions. It must therefore reduce 100%. Given Switzerland's historical responsibility and enormously high

gray emissions, it would be appropriate to reduce abroad more than twice again its own emissions". I have recoded this value to 100%.

FAC 3 also gave an invalid answer regarding the preferred maximum rate of the CO_2 levy: an absolute extreme value of 100,000 CHF per ton of CO2. As a comment, the stakeholder wrote: "The rate should be as high as necessary (to achieve the emission targets), this should be scientifically based and not politically determined". I have recoded this specification to a value that is scientifically supported by the German Federal Environment Agency as an amount per ton of CO_2 that can cover the climate impact costs: 201 Euro or 196 CHF for the year 2023 (Matthey & Bünger, 2020, p. 8).

4.1.3 Self Coding

Of course, it is not realistic that all stakeholders will complete the survey. However, as mentioned before, since the software needs complete input from all relevant stakeholders, I had to think of a solution that would guarantee a reliable simulation on the one hand, but without compromising my methodological contribution to the Predictioneer's Game research on the other hand. In the end, I decided to use a combination of survey-based data collection and self-coding through content analysis, as this is the only way I can use a completely novel method of data collection for the Predictioneer's Game software on the one hand, and generate usable results on the other.

Self-Coding of Stakeholders who did not answer the Survey

In order not to interfere too much with the datasets through my coding, I wanted to keep it to a minimum. My goal was to self-code only the most crucial stakeholders within the Swiss climate policy subsystem. Fortunately, the response rate was satisfactory, especially in the case of those actors who scored high in the selection score. Thus, not much further coding needed to be done. This allows me to still make statements about the suitability of surveys for data collection for the Predictioneer's Game at the end of this project (see Chapter 5.2).

To determine which stakeholders did not answer the survey (see Table 4.1) to self-code, I decided to use the same score that was used to identify the stakeholders in the first place (see Chapter 3.5.2). I only self-coded those stakeholders who did not respond to the survey with more than 6 points in the selection score. In total, two stakeholders did not complete the survey with a selection score above 6: The international bureau of the Federal Office for the Environment (FOEN-I) and the Swiss People's Party (SVP).

Self-coding was done using content analysis. The coding framework is in Appendix C.

Self-Coding of the SVP

In the 2019 National Council elections, the SVP (henceforth PP 6) was once again the party with the most voters in Switzerland and accordingly forms the largest parliamentary group. Accordingly, PP 6 must receive the highest score in the influence category.

The party pursues a conservative, economically liberal course and rejects supranational organizations (Luginbühl et al., 2018, p. 162). It is opposed to levies of any kind (SVP, 2020). According to Poier et al. (2020, p. 197), the core topics of the party are immigration, economy, and institutional reform. Climate policy is not one of them. Therefore, PP 6's salience on climate policy issues is only high when it comes to additional levies or taxes. Therefore, I expect that PP 6's salience will be highest for the CO_2 levy instrument, followed by the other two instruments of partial earmarking and the domestic reduction target. Concerning flexibility, I assume that PP 6, as an opposition party, will show rather little willingness to make significant changes to its position in all three instruments examined. PP 6 is thus likely to show very little flexibility, especially in the case of the CO_2 levy instrument, which borders on PP 6's core issues due to its fiscal policy component.

TABLE 4.4: Self-Coded Values PP 6

Dimension	Value
Influence	100
Position CO_2 Levy	120
Position Domestic Reduction Target	0
Position Partial Earmarking	0
Salience CO_2 Levy	75
Salience Domestic Reduction Target	50
Salience Partial Earmarking	50
Flexibility CO_2 Levy	2
Flexibility Domestic Reduction Target	5
Flexibility Partial Earmarking	5

The position paper "climate of reason" shows that PP 6 is vehemently opposed to an increase in the maximum rate of the CO_2 levy (SVP, 2020, p. 6). It is also clear that it considers a domestic reduction target to be obsolete, since "the climate would be helped most effectively if the franc were to be used where it would have the greatest effect, i.e. the greatest reduction effect" (SVP, 2020, p. 9). In addition, PP 6 makes it clear that it considers partial earmarking of the revenue from the CO_2 levy for climate measures to be unnecessary (SVP, 2020, p. 9).

Self-Coding of the FOEN-I

The self-coding of the *international* bureau of the Federal Office for the Environment (henceforth FAC 4) was heavily influenced by its close relationship with the *national* bureau of the Federal Office for the Environment (henceforth FOEN-N). For data protection reasons, however, no details from this self-coding process can be explained here. What can be stated in general, however, is that due to the great efforts in favor of harmonization of international pledges and national legislation as well as an intact international environmental governance it can be assumed that the achievement of the NDCs should have an even higher priority (i.e. salience) for FAC 4 than for the FOEN-N (BAFU, 2018). I coded the following values for FAC 4.

TABLE 4.5: Self-Coded Values FAC 4

Dimension	Value
Influence	100
Position CO_2 Levy	120
Position Domestic Reduction Target	60
Position Partial Earmarking	49
Salience CO_2 Levy	99
Salience Domestic Reduction Target	99
Salience Partial Earmarking	99
Flexibility CO_2 Levy	0
Flexibility Domestic Reduction Target	0
Flexibility Partial Earmarking	0

Self-Coding of the FOEN-N

Although they responded to the Survey, FOEN-N omitted one piece of information that I also had to recode: the self-report of its influence on national climate policy. I gave both, the FOEN-N and the FOEN-I a value of 100 here since it almost certainly has the greatest possible influence on climate policy as it is directly responsible for the climate dossier (Sommaruga & Schneeberger, 2020).

4.2 Descriptive Statistics

4.2.1 Position

In the three questions on the stakeholders' position on the three instruments (CO_2 levy, domestic reduction target, and partial earmarking), very different statements were made. For the CO_2 levy, the positions given vary between 0 and 500. At the same time, the stakeholders all gave values between 0% and 100% for the domestic reduction target and the level of partial earmarking. This means that the instruments examined are subject to conflicts of interest and are accordingly well selected.

TABLE 4.6: Position Average and Standard Deviation across all Stakeholders

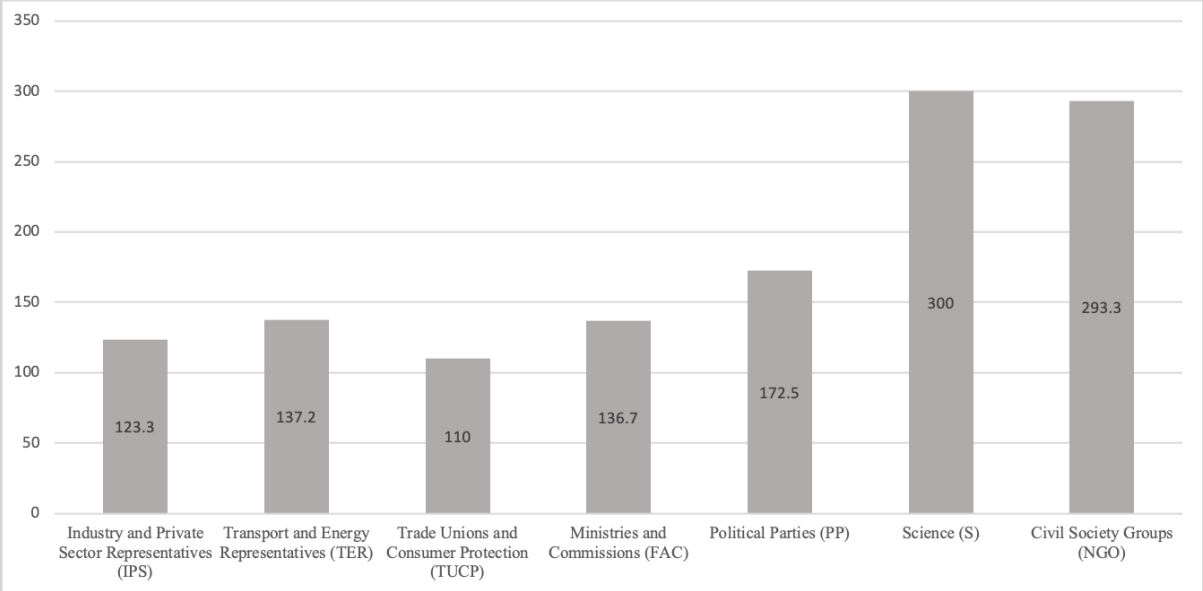
Instrument	Average	Standard Deviation
CO_2 Levy	164.1 CHF	102 CHF
Domestic Reduction Target	64.7%	35.2%
Partial Earmarking	42.1%	33.9%

Table 4.6 lists the overall position means for the three instruments. It is particularly striking that the mean values of the items for all three instruments are very close to the values proposed by the Federal Council, namely a maximum rate of the CO_2 levy of 120 CHF, a domestic reduction target until 2030 of 60% and a level of partial earmarking of 49% (BAFU, 2021). This could indicate two things: Either the stakeholders are still undecided and, in answering the questionnaire, have relied on statements that are not far away from the proposals of the Federal Council so as not to have to justify extreme positions. Or else, after the failure of the first revision, the Federal Council has had a very good sense of what the stakeholders prefer on average.

A look at the standard deviations in Table 4.6 gives credence to both possibilities. On the one hand, a standard deviation of 102 CHF for the CO_2 levy is a rather high Figure - especially when considering that the CO_2 levy has only increased by slightly more than this value overall since its introduction almost 15 years ago. On the other hand, the standard deviations of 35% and 33% respectively for the domestic reduction target and the partial earmarking are not particularly large.

In the case of the CO_2 levy instrument, it is clear that science and civil society groups have the highest demands on average (see Figure 4.1). It is particularly striking that both stakeholder types demand almost the same amount. Interestingly, trade unions and consumer

FIGURE 4.1: Position Average on the Maximum Rate of the CO_2 Levy by Stakeholder Type in CHF



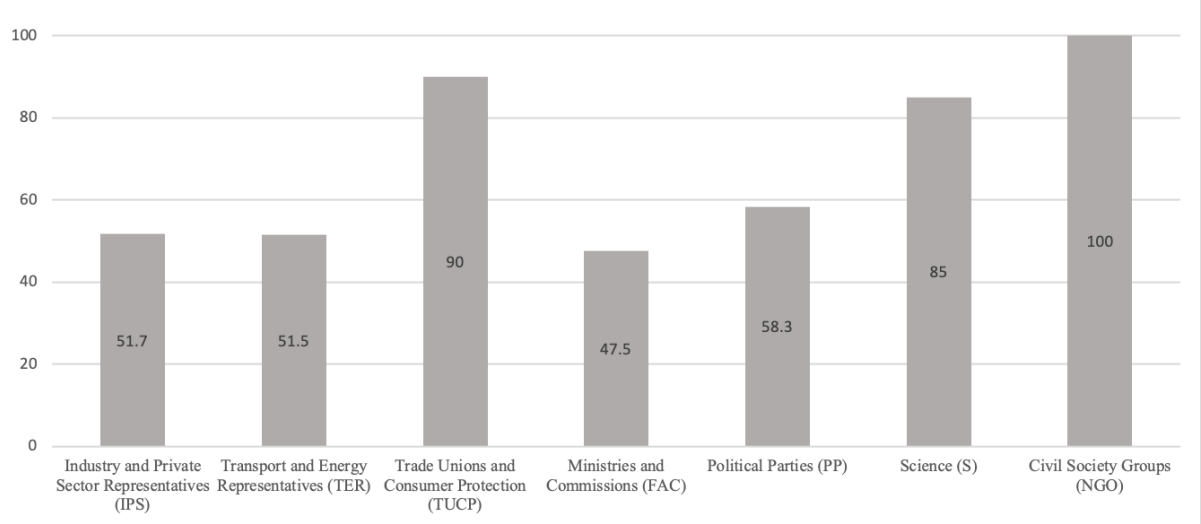
protection organizations advocate the lowest position with 110 CHF. Their demand is thus even lower than the current maximum rate. Industry and Private sector representatives, on the other hand, advocate approximately the maximum rate that is currently in effect. In other words, they do not want an increase.

In the case of the domestic reduction target, in Figure 4.2, science, trade unions and consumer protection organizations, and civil society groups take roughly the same stand, with the latter even advocating the highest possible amount of 100% on average. The lowest value of 47.5 is advocated by ministries and commission representatives.

In the negotiations on the level of partial earmarking, depicted in Figure 4.3, as in the domestic reduction target negotiations, those stakeholders demanding the highest amounts belong to the civil society group. However, it must be emphasized here that, unlike in the other two negotiations, they are not able to represent a common position in these negotiations. The preferences of civil society groups involved vary widely, ranging from 30% (NGO 4) to 100% (NGO 7). Nonetheless, on average, this stakeholder type demands the highest percentages.

It is also not surprising that the trade union and consumer protection representatives demand the lowest percentage for the planned partial earmarking. After all, they claim to speak for consumers in general, which benefit most from a low level of partial earmarking.

FIGURE 4.2: Position Average on the Domestic Reduction Target by Stakeholder Type in %



4.2.2 Salience

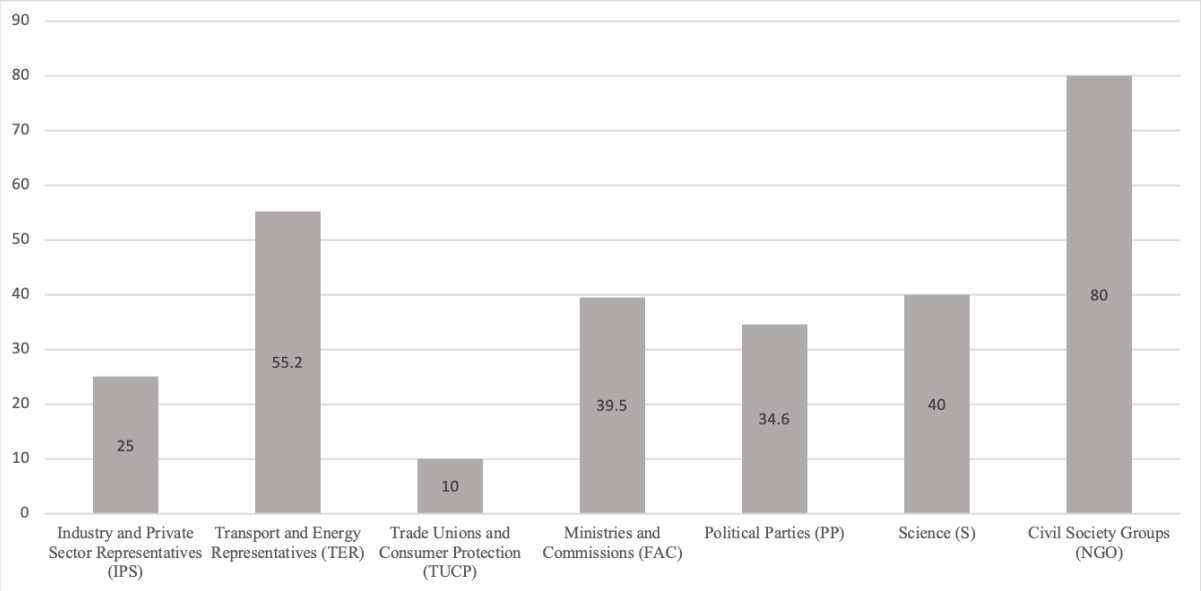
TABLE 4.7: Salience Average and Standard Deviation across all Stakeholders

Instrument	Average	Standard Deviation
CO_2 Levy	72.2	27.4
Domestic Reduction Target	73.4	26.4
Partial Earmarking	57	28.8

On average, stakeholders reported a high salience for all three instruments, especially for the maximum rate of the CO_2 levy and for the domestic reduction target. Table 4.7 shows that the instruments chosen for this thesis were quite well selected. However, the level of partial earmarking was rated significantly less salient for most stakeholders.

Figure 4.4 shows that the lower average salience value for the negotiations on the level of partial earmarking primarily was reported by civil society groups, Transport and Energy representatives, and science groups. Apparently, science and civil society groups are more concerned with the CO_2 levy and the domestic reduction targets. Why the Transport and Energy representatives indicated such a low salience, on the other hand, is beyond me, because the clientele of the energy companies is quite directly affected by these measures.

FIGURE 4.3: Position Average on the Level of Partial Earmarking by Stakeholder Type in %



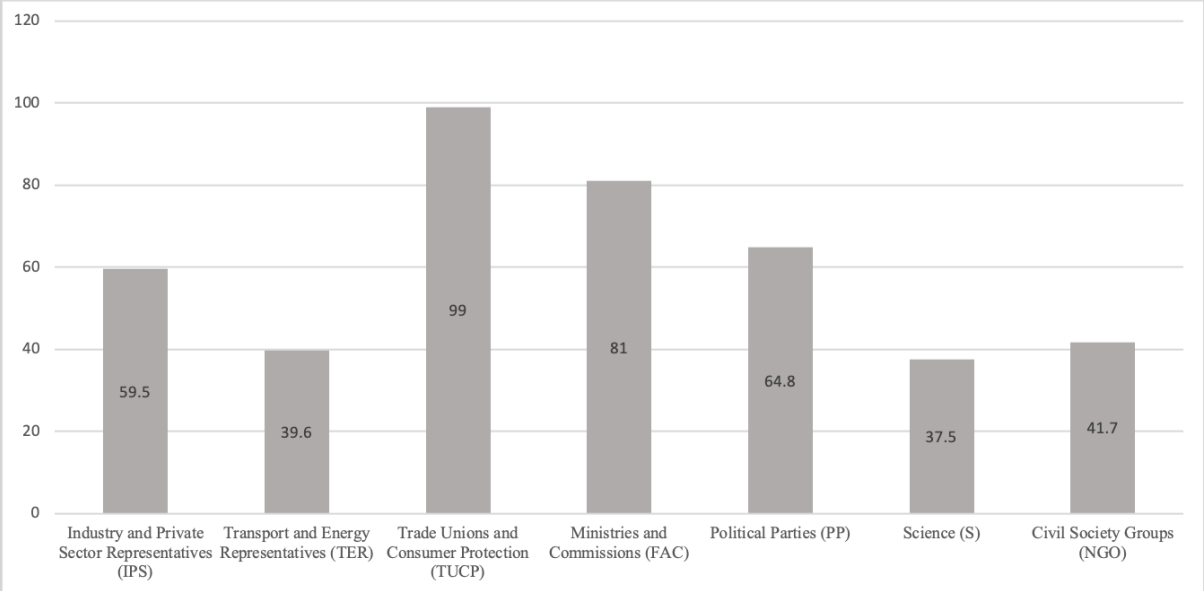
4.2.3 Correlations

Figure 4.5 clearly shows that stakeholders who favor a low CO_2 levy generally also oppose a high domestic reduction target. A simple linear regression with the position of a stakeholder on the domestic reduction target as the dependent variable and the position of a stakeholder on the maximum rate of the CO_2 levy as the explanatory variable revealed a significant positive effect. The regression coefficient was 0.16 ($p < 0.01$). A plot of the regression line is shown in Figure D.11 in Appendix D.

Figure 4.5 shows that both BIAs in the simulation, namely the Industry and Private sector representatives (IPS) and the Transport and Energy representatives (TPS), are in favor of both a low maximum rate of the CO_2 levy and a low domestic reduction target. At the other end of the spectrum, two civil society groups are outliers, advocating the complete opposite: An extremely high maximum rate of the CO_2 levy with a domestic reduction target of 100%. One of these two civil society groups, namely NGO 7, belongs to the "Very High Influence" group. It can therefore be assumed that this stakeholder has a big influence on political events in Switzerland and, due to its outlier positions on these two instruments, is considered the main opponent of most BIAs.

Figure 4.5 also shows that six of the seven organizations in the "Very High Influence" category would like to see a maximum rate of the CO_2 levy between 96 and 200 CHF. Also, almost 40% of the organizations shown advocate a domestic reduction target in the range 50%

FIGURE 4.4: Salience Average on the Level of Partial Earmarking by Stakeholder Type



to 75%. Among them are four of the seven organizations from the "Very High Influence" category. In general, 93% of the organizations shown in Figure 4.5 advocate for a maximum rate of the CO_2 levy of no higher than 300 CHF. At the same time, only 25% of the organizations shown prefer a domestic reduction target of less than 50%.

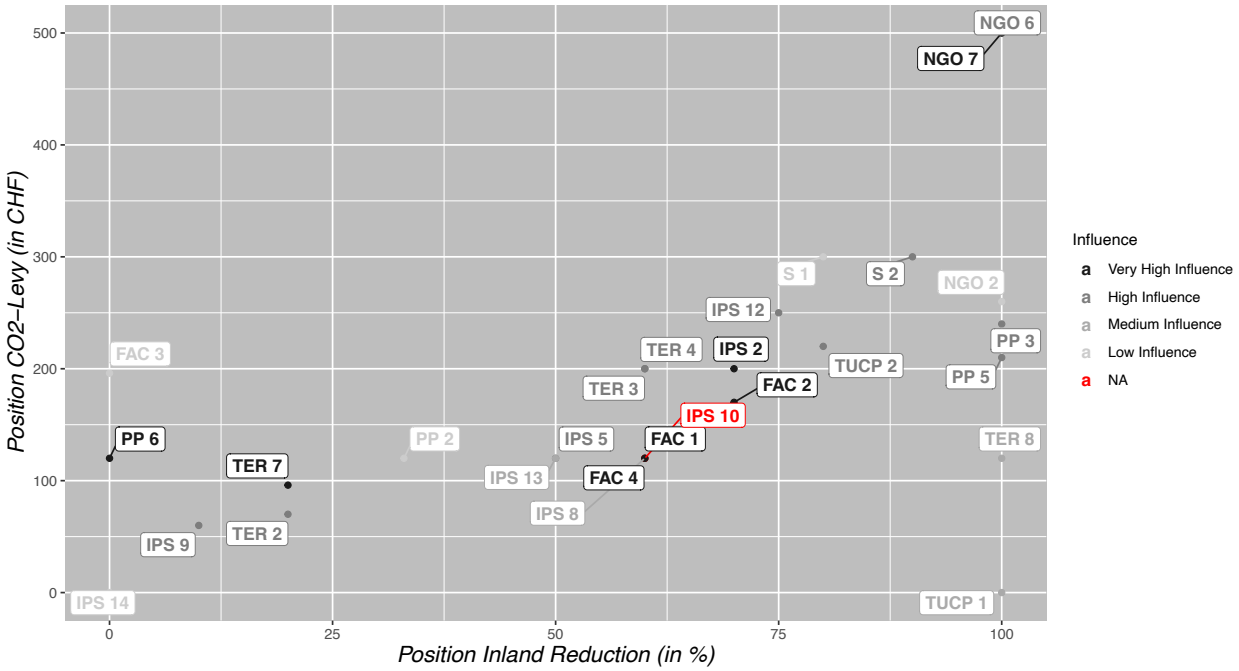
4.3 Base Model Runs

4.3.1 Preliminary Assumptions

As discussed in Chapter 3.4.3, the duration of a negotiation round is assumed to be one month. Since Switzerland's current CO2Act expires at the end of 2024 and the models were calculated in December 2022, I set the model to 24 rounds (or months) of negotiations. This applies to the three negotiation processes around the maximum rate of the CO_2 levy, the domestic reduction target, and the level of partial earmarking, as well as to the experimental "what if" model runs (see Chapter 4.4).

Another parameter that must be defined before analyzing the results is the so-called end-rule. It is possible to model 24 negotiation rounds (or months) without problems. However, this length does not necessarily correspond to reality. Not all negotiations are conducted up to the maximum possible duration - on the contrary: In the present case in particular, it is to be expected that the stakeholders will find a compromise before the end of 2024. As already

FIGURE 4.5: Plot of Interest Groups' Position on the Maximum Rate of the CO_2 Levy and on the Domestic Reduction Target



described in Chapter 3.4.4, Bueno de Mesquita (2011, p. 72) assumes that stakeholders want to end the negotiation as soon as they expect their utility gain to decrease in the next round. The model calculates all utility gains of the stakeholders for each negotiation round. If they decrease in total in the next round, this triggers the end-rule, indicating that players wish to end the negotiations. Bueno de Mesquita (n.d., p. 8) writes: "I judge the game to end in the round in which a 1 appears for the first time in the end-game row of the Forecast matrix but this is not a hard-and-fast rule. You may wish to evaluate the likely forecast in the round or two immediately before and after the end-of-game rule is met or only when at least 2 end-rules have occurred back to back to judge how confident you are in the predicted value". In order not to predict over-early endings, I have applied the following rule: If there are two or more end-rules in a row in the output file (the last row under "Round by Round Forecasts" in Appendices E to S), negotiations end. If there is only one end-rule, the change in total utility gains decides. Only if this value decreases by more than 5% in the following round, negotiations end.

4.3.2 Maximum Rate of the CO_2 Levy

In the case of the maximum rate of the CO_2 levy, the negotiations do not seem to last long. The end-rule is already triggered in the first and second rounds (or months). As can be seen in Table 4.8, the utility gains of all stakeholders in total are down from 11.3 points to 1.62

points. The smoothed mean predicts that the stakeholders agree on a maximum rate of the CO_2 levy of 170.95 CHF.

Most BIAs (especially the Transport and Energy representatives) have spoken out in favor of a low maximum rate for the CO_2 levy and are thus suffering heavy losses in their utility gains in the first two rounds already, which can be traced in the output file in Appendix E. This means that they will have to adjust their position significantly upwards in the first rounds of negotiations.

TABLE 4.8: Negotiation Predictions: Maximum Rate of the CO_2 Levy

Unit	Round 1	Round 2
Smoothed Mean	170.95	169.39
Median	120	128.31
Utility Gain	11.3	1.62
End-Rule	1	1

In summary, this simulation predicts that negotiations around the maximum rate of the CO_2 levy will be relatively short, as BIAs realize in the first rounds (or months) of negotiations that they will have to revise their position upward significantly to reach a consensus. These stakeholders will therefore work to bring these negotiations to an end as quickly as possible.

4.3.3 Domestic Reduction Target

Negotiations around the domestic reduction target also don't take long, according to the Predictioneer's software. After only three rounds, the first of three successive end-rules appears, from which it can be concluded that the negotiations will end in round 3 with a domestic reduction target of 64.63% (see Table 4.9). Again, the reason is a decrease in the sum of total utility gains.

A closer analysis reveals that the reason for such a rapid agreement is that the stakeholders successively agree on lower and lower domestic reduction targets. If negotiations were allowed to continue, without regard to the desire of the majority of the stakeholders to resolve the negotiations, the smoothed mean would drop more with each round of negotiations, ending up at 26.32% in round 24 (see Appendix F).

Overall, however, the negotiations are proceeding peacefully and, for the most part, classified as compromise (see Chapter 3.4.4). The simulation predicts that the share of bilateral

relations characterized by compromise will increase from 33% in the first round to 50% in the third round. At the same time, the bilateral relations under the labels coerce (unilateral imposition of sanctions) and clash (bilateral imposition of sanctions) fall from a total of 19% in the first round to a total of 7% in the third round (see Appendix F).

TABLE 4.9: Negotiation Predictions: Domestic Reduction Target

Unit	Round 1	Round 2	Round 3	Round 4
Smoothed Mean	64.99	65.14	64.63	63.09
Median	60	62.24	62.48	57.8
Utility Gain	48.31	53.98	105.52	91.14
End-Rule	0	0	1	1

In summary, it can be said about the negotiations on the domestic reduction target that with each round of negotiations, it is more in favor of those stakeholders who advocate a low percentage. From the perspective of these stakeholders, the negotiations should therefore be kept going as long as possible. However, those stakeholders who advocate the highest possible minimum percentage - especially civil society groups (NGO), but also some political parties (PP) and ministries and commissions representatives (FAC) - should strive to end the negotiations as soon as possible. They would thus do well to use the first few rounds (or months) of negotiations to signal to their opponents that they will not meet them with their positions, even if the latter try to impose unilateral costs on them. Admittedly, most proponents of a high domestic reduction target cannot withstand this pressure for long. However, the simulation predicts that the opposition will capitulate after only two rounds of negotiations and agree to a deal.

4.3.4 Level of Partial Earmarking

As with the negotiations around the domestic reduction target, the simulation suggests that the negotiations around the level of partial earmarking will take only three rounds (or months). As can be seen in Table 4.10, the stakeholders are predicted to agree on a percentage of 39.21%.

In this simulation, the highest proportion of conflict-like relationships between stakeholders is observed in the first round, at around 29% (see Appendix G). Although it becomes smaller, it is still very high in the third round at around 19%. Correspondingly low is the percentage of relationships classified as compromise (see Chapter 3.4.4).

TABLE 4.10: Negotiation Predictions: Level of Partial Earmarking

Unit	Round 1	Round 2	Round 3	Round 4
Smoothed Mean	41.34	40.44	39.21	38.96
Median	49	48.01	47.83	47.5
Utility Gain	19.74	31.42	42.78	38.89
End-Rule	0	0	1	1

Once again, it can be observed here that if the negotiations were to extend over the maximum duration of two years without the possibility of early termination, they would steadily develop in one direction: upwards. In December 2024, i.e. in the twenty-fourth round of negotiations, the parties would have to agree on a partial earmarking of 65,38%. Accordingly, as was the case in the negotiations on the domestic reduction target, it is in the interest of the proponents of high percentages to make the negotiations last as long as possible.

4.4 Experimental Model Runs

4.4.1 Procedure and Summary

As mentioned in Chapter 3.4.2, the Predictioneer's Game software not only allows simulating realistic negotiation processes to predict outcomes and the course of negotiations. To this end, I simulated the four hypothetical negotiations listed below. In doing so, I only changed the salience of organizations belonging to stakeholder group 7 - civil society groups. I did this for each of the three negotiations on the three instruments studied. The purpose of those experimental simulations, as mentioned in Chapter 4, was to find out whether policy decisions in Swiss climate policy would look different if civil society groups were to unitedly *increase* or *lower* their salience in negotiations on one of the three instruments. Those experimental situations were modeled in two different versions, depicted in the following list:

- Version 1 (V1): Salience of all civil society groups *lowered* by the standard deviation
- Version 1 (V1): Salience of all civil society groups *increased* by the standard deviation
- Version 2 (V2): Salience of all civil society groups *lowered* to 0
- Version 2 (V2): Salience of all civil society groups *increased* to 100

Table 4.11 gives an overview of all negotiation results in the different model runs.

TABLE 4.11: Predictions of the three Negotiation Outcomes with changing Civil Society Group Salience

Version	CO_2 Levy	Domestic Reduction Target	Partial Earmarking
V2: Salience = 99	161.59 CHF	65.29%	42.35%
V1: Salience + SD	159.32 CHF	65.14%	39.5%
Base Model Run	170.95 CHF	64.63%	39.21%
V1: Salience - SD	158.95 CHF	63.5%	38%
V2: Salience = 1	150.1 CHF	61.28%	37.52%

4.4.2 Version 1: Deviation of Salience by the Standard Deviation

The first version varies civil society groups' salience by the instrument-specific standard deviation of salience. As can be seen in Table 4.7, the overall standard deviations for the stakeholders' salience in the negotiations on the maximum rate of CO_2 levy, the domestic reduction target, and the level of partial earmarking were 27.4, 26.4 and 28.8, respectively. This value is now subtracted or added to the salience of civil society groups.

Maximum Rate of the CO_2 Levy

If all civil society groups would enter the negotiations around the maximum rate of the CO_2 levy with 27.4 points *lower* salience value, the negotiations would also be terminated after only one round (see Appendix H). According to the model, a maximum rate of 158.95 CHF would be agreed upon. This is exactly 12 CHF lower than the Base Model Run simulation predicted for the realistic negotiations (see Table 4.8). If, on the other hand, the salience value is *increased* by the standard deviation, the negotiation takes much longer and is not concluded until the fourteenth round of negotiation with an agreement at 159.32 CHF (see Appendix K).

Interestingly, the stakeholders agree on a lower maximum rate when civil society groups enter the negotiations with a higher salience than they did in the base model run. There, the simulation predicted that the stakeholders agree on a maximum rate of the CO_2 levy of 170.95 CHF (see Table 4.8). A more detailed analysis of the causes of this situation follows in Chapter 4.4.3.

Domestic Reduction Target

If the salience value of civil society groups in negotiations on the domestic reduction targets is *reduced* by the standard deviation of 35.2, the negotiations will last two rounds (or months) longer (see Appendix I). In the fifth round, an agreement is then reached on a percentage of 63.5%. This value is approximately identical to the one predicted in the base model run (see Table 4.9). If, on the other hand, the salience value of civil society groups is increased by the standard deviation, the negotiations also end after three rounds, as in the base model run (see Appendix L). In these negotiations, an agreement is reached on a domestic reduction target of 65.14%. This value also hardly deviates from the simulated agreement from the model base run of 64.63%.

In summary, it can be said that civil society groups should be allowed to reduce their salience in these negotiations without having to fear drastic losses. Increasing their salience, on the other hand, is not advisable, as it does not even increase the final result by one percentage point. In the opposite case, if the salience of civil society groups drops by 33.9 points, negotiations end after three rounds (or months) at a percentage of 38%.

Level of Partial Earmarking

If civil society groups enter the negotiations with a salience value *lowered* by the value of the standard deviation, namely 33.9, the negotiating stakeholders agree after three months on 38% (see Appendix J). The same negotiations take longer when civil society groups are 33.9 points *more* salient: In the fourth round of negotiations, the stakeholders involved agree on a percentage of 39.5% (see Appendix M). Both values hardly differ from the 39.21% predicted in the base model run (see Table 4.10). Here, too, it can undoubtedly be said that civil society groups could significantly reduce their salience without major losses.

However, something must be taken into account here that is not the case with the other two instruments: As stated in Chapter 4.2.1, civil society groups are not united at all on this issue here. They represent positions that are spread over almost the entire possible spectrum and could therefore not form an alliance that could coordinate with each other on this issue.

4.4.3 Version 2: Maximum Increase or Decrease

In the second version of the experimental situation described in Chapter 4.4, civil society groups' salience was lowered or increased as much as the software allows (i.e. to 1 or 99, respectively).

Maximum Rate of the CO_2 Levy

If civil society groups involved enter the negotiations on the maximum rate of the CO_2 levy with the *lowest possible* salience, the negotiations will also be over after only one round (see Appendix N). A maximum rate of 150.1 CHF is agreed upon. In the opposite situation, when all civil society groups start the negotiations with the *maximum possible* salience, the negotiations run for a full fifteen rounds (or months) and end with a maximum rate of 161.59 CHF (see Appendix Q). Here again, as in the experimental model run with the salience value lowered by the standard deviation, the stakeholders agree on a lower maximum rate when civil society groups enter the negotiations with a higher salience.

Why is that? An analysis of the output file shows that, for the most part, the two stakeholders NGO 6 and, above all, NGO 7, are responsible. Both stakeholders advocate the highest stated preference of 500 CHF - an outlier position. With a higher salience, they are less willing to compromise and do not make any concessions to the other stakeholders, which they already did in the first round of the base model run. As a result, no consensus can be reached with the stakeholders who prefer a low maximum rate, since the value under discussion lies outside their acceptable range. They, therefore, want to continue the negotiations, however tough they may be. While civil society groups, above all in the subsequent rounds, continue to stubbornly maintain their position, other stakeholders begin to compromise. The smoothed mean begins to slowly shift downward (from 188.05 CHF in the first round to 168.12 CHF in the seventh round). Then, in the seventh round, the mistake: NGO 7, propably realizing that the ice is getting thinner for its extreme position, rushes into negotiations. Only five rounds of negotiations later, the position of this stakeholder decreased by more than half to 248.96 CHF. The opposition, which until the seventh round was unwilling to end the negotiations because the value was still outside their acceptable range, noticed that the negotiations are suddenly going in their favor. Therefore, they do not agree to end the negotiations until the fifteenth round of negotiations. In the meantime, the smoothed mean has dropped to a maximum rate of 161.56 CHF.

Domestic Reduction Target

If civil society groups enter the negotiations on the domestic reduction target with a salience value of 1, a percentage of 61.28% is agreed upon after three rounds (see Appendix O). In the opposite case, with a salience of 99, the stakeholders also agree on 65.29% after only three rounds (see Appendix R).

In these negotiations, it seems, civil society groups must painstakingly fight for every percentage point by significantly increasing their salience. If they reduce their salience to the

absolute minimum, i.e. 1, the negotiation result is about 4 percentage points lower than if they were to increase their salience to the absolute maximum, i.e. 99.

Level of Partial Earmarking

Negotiations around the level of partial earmarking also end up being very similar when civil society groups reduce their salience to the minimum. After three rounds of negotiations, an agreement is reached on a percentage of 37.52% (see Appendix P). However, if civil society groups increase their salience to the maximum, the result is three percentage points higher than if they only increase their salience by the standard deviation, namely 42.35% (see Appendix S).

NGO 4, which demands partial earmarking of 30%, would certainly not benefit from this. However, NGO 6 and NGO 7, whose preference is 75% and 100%, respectively, would profit. Especially if, and this has not been simulated in this thesis but is well understood, only these two stakeholders form a bilateral alliance and increase their salience.

4.4.4 Limitations

Of course, these experimental model runs are only as good as the data they process. It must therefore be pointed out here that some of these experimental model runs differ only very slightly from the base model runs. As can be seen in Table 4.12, V1, which is based on a salience value increased by the standard deviation, differs from the base model run only by NGO 7, whose salience was increased by 26.4 points. The same applies to V2, which assumes a maximum salience. Again, NGO 7 is the only stakeholder whose salience increases at all (by 49 points). The reason for this is the fact that the domestic reduction target is already associated with maximum salience for four of the five civil society groups included. Therefore, one should always keep Table 4.12 in mind when reading the above results.

TABLE 4.12: Changes in Salience Input for Experimental Model Runs

Base Model Runs: Inputs			Experimental Model Runs: Changes			
Instrument	Included NGO	Salience	V1: -SD	V1: +SD	V2: 1	V2: 99
Maximum Rate of the CO_2 Levy	NGO 2	99	-27.4		-98	
	NGO 6	50	-27.4	+27.4	-49	+49
	NGO 7	50	-27.4	+27.4	-49	+49
Domestic Reduction Target	NGO 1	99	-26.4		-98	
	NGO 2	99	-26.4		-98	
	NGO 4	99	-26.4		-98	
	NGO 6	99	-26.4		-98	
	NGO 7	50	-26.4	+26.4	-49	+49
Level of Partial Earmarking	NGO 1	50	-28.8	+28.8	-49	+49
	NGO 2	25	-24	+28.8	-24	+74
	NGO 4	25	-24	+28.8	-24	+74
	NGO 6	25	-24	+28.8	-24	+74
	NGO 7	50	-28.8	+28.8	-49	+49

4.5 Expectations

The following expectations have been formulated in Chapter 2.4:

- Expectation 1: Civil society groups advocate higher levies and more ambitious reduction targets than BIAs on average.
- Expectation 2: When civil society groups start the negotiations with a different salience, negotiation outcomes change.
- Expectation 3: The higher civil society groups' salience, the less the negotiation outcomes differ from their average position.
- Expectation 4: The lower civil society groups' salience, the more negotiation outcomes differ from their average position.

Looking at Figures 4.1 and 4.2, one can see that the results of this thesis support the first expectation. While civil society groups on average advocate a maximum rate of CHF 293 for

the CO_2 levy instrument, the two BIA subgroups industry and private sector representatives and transport and energy representatives prefer a maximum rate of CHF 123 and CHF 137, respectively. On average, civil society groups also represent the more ambitious targets in terms of reduction goals. On average, they call for a domestic reduction share of 100%, while both BIAs mentioned above advocate an average percentage of 52%. Expectation 1 does not apply to the instrument of partial earmarking, since this instrument is neither a levy nor a reduction target.

The results of this thesis also support expectation 2: In fact, all the negotiation results on individual instruments from the current revision of the CO_2 Act change when civil society groups change their salience (see Table 4.11.

In the case of expectations 3 and 4, however, results were mixed. For example, the results showed that an increase in the salience of civil society groups in the negotiations on the maximum rate of the CO_2 levy does not necessarily increase the levy in the direction of civil society groups' position of 293 CHF (see Chapter 4.4.2). However, for the domestic reduction target, where civil society groups have advocated an average percentage of 100%, the case is that the higher the salience of civil society groups, the closer the negotiation result is to this percentage. The same is true for the negotiations on the level of partial earmarking.

Chapter 5

Discussion and Conclusion

5.1 Discussion

5.2 Scientific Contribution

With this paper, I wanted to contribute to advocacy research in several ways.

First, I collected data on all relevant stakeholders in the Swiss climate policy subsystem. This data included stakeholders' positions on proposed climate instruments before their implementation. This is in accord with the concerns of Eichenberger et al. (2021, p. 11) who mentioned that future research should incorporate the policy positions of individual interest groups. The data also included a measure of stakeholders' salience, as Varone et al. (2021, p. 497) recommended for prospective studies. Furthermore, accurate data on stakeholders' influence were collected. This might provide value for future research investigating "if the increased presence of citizen groups in the parliamentary venue [...] increases policy influence", as Christiansen et al. (2018a, p. 541) suggested. Additionally, this thesis investigated a new approach to generating input data for the Predictioneer's Game software. Usually, the input data is generated through expert ratings. Instead of assessing the position, silence, flexibility, and potential influence of each stakeholder through experts, this thesis simply asked the stakeholders to position themselves. By sending out an extensive survey (see Chapter 3.6.1) to all the relevant stakeholders in the Swiss policy subsystem (see Chapter 3.2), I was able to use stakeholder-generated data for my predictions.

The second contribution I wanted to make is theoretical: An accurate assessment of how much civil society involvement in national policy-making contributes to the implementation of efficient climate policies. This was based on predictions of what comes out of policy-making processes on specific instruments when the salience of civil society groups is manipulated, thereby picking up an open question in research on lobbying: How does lobbying success correlate with interest groups' issue-specific salience?

My third contribution is methodical: To the best of my knowledge, the Predictioneer's Game software has never been used before in scientific publications for experimental "what if" situations. Only one publication that I am aware of did a similar thing: Meng and Rode (2019) used game-theory-based statistical analysis to estimate how much lobbying has altered the 2009-10 Waxman-Markey bill. Their results suggest that "observed lobbying between July 2009 and the end of 2010 lowered the probability of enacting the Waxman-Makey bill by 13 percentage points, from 55% to 42%" (Meng & Rode, 2019, p. 7). This corresponds to an expected climate change damage of $60 billion associated with a less likely Waxman-Markey bill. With this thesis, I intended to provide a similar insight into the Swiss climate policy subsystem by answering the following, simple question: What if civil society groups lobbied differently?

5.2.1 Evaluation of Methods

As mentioned above, a method of data collection previously unknown to me in this field of research was used. It is therefore time to assess the questionnaire as a method for this purpose.

The advantages of this approach are clear: the operation of Predictioneer's Game software usually requires a considerable amount of expert knowledge about the stakeholders of interest. This makes the Predictioneer's Game anything but low-threshold. By generating the input data by asking the stakeholders *themselves*, this high hurdle is removed. Thus, no expert knowledge about the stakeholders is necessary to let the software calculate a model. Therefore, this method is particularly suitable as a first approach to a research object for gaining an overview. In addition, the questionnaire is also suitable when negotiations are to be modeled with a few stakeholders with whom one has a direct line of communication.

However, these major advantages must be weighed against disadvantages that are at least as weighty. The first and biggest problem of this method is missing data. It is well known that the response rate of questionnaires is usually low - and in the case of data collected from organizations usually even lower ((Baruch & Holtom, 2008)). The idea of being able to run a complete model with the help of a questionnaire alone is therefore illusory.

Another disadvantage is the objectivity of the data collection. While the same expert will have the same understanding of the term "very high relevance" among all the stakeholders studied, the different representatives of the individual organizations will not all understand the same thing by it. Thus, it is very likely to receive biased data.

The last major weakness of this method lies in a peculiarity of the survey used here that

was mentioned in Chapter 4.1.2: To better measure the flexibility of the stakeholders surveyed, in addition to questions 3d., 4d., and 5d. ("How flexible is your organization concerning..."), I added questions 3b., 3c., 4b., 4c., 5b. and 5c. ("Lower limit / Upper limit: What amount would your organization just agree to?"). The details can be seen in Appendix A. While this may be innovative, and has worked very well for some stakeholders, especially from the interest groups, I did not consider that this question might not fit other stakeholders.

Especially for stakeholders belonging to the ministries and commissions (FAC) or science (S) groups, these questions were sometimes difficult. For example, some wrote in the comments column: "we don't have such precise positioning" or "the political range is between 120-240. we didn't discuss anything else" or "the rate should be as high as necessary (to achieve the emission targets), this should be scientifically based and not politically determined".

In the next work, which would like to inquire about the flexibility of the stakeholders using a survey, this question should therefore be asked only to those organizations, which prepare for negotiations by eliciting a range of acceptable.

5.2.2 Limitations

The validity of this thesis is affected by four limitations, sorted in order of increasing weight below.

The first shortcoming of this thesis is that it only addressed the stakeholders of professional interest groups. In doing so, this thesis neglects the fact that Swiss parliamentarians usually pursue a profession in addition to their political work (see Chapter **??**). This naturally makes them very susceptible to acting in the interests of their professional group.

Another methodological problem of this thesis is that the Swiss population should also have been included in the list of stakeholders. After all, in Switzerland, voters can initiate an optional referendum against any parliamentary decision by collecting a certain number of signatures within a set time limit. This would have made the Swiss population *de facto* the only veto player in the simulation. Unfortunately, it is extraordinarily difficult to include such a heterogeneous group, held together only by the same identity documents, as a national population as a singular stakeholder with predefined positions, saliences, and flexibility in the Predictioneer's Game software. Therefore, this was not done in the context of this work.

A third major shortcoming of this thesis is a methodological error that was unfortunately noticed too late. The Predictioneer's Game software does not require as input the actual influence a stakeholder exerts on political events, but the *greatest possible* influence a stakeholder

could exert. Accordingly, question 8 in the questionnaire (see Appendix A) was asked incorrectly. Instead of asking, "How would you rate your organization's influence on national climate policy?" the question should have read, "How great do you think your organization's influence on national climate policy could be if you did your absolute best?" While this bias is problematic and very likely skews the results of this paper, it is fortunately not devastating precisely because it is consistently present across all stakeholders.

The fourth and final weakness of this thesis is the number of stakeholders included in the simulations. This weakness can be divided into two equally challenging issues:

First, only just over half of the stakeholders selected for this thesis were even included in the three base model runs. As described in Chapter 4.1.3, only the most influential stakeholders who did not respond to the survey were self-coded as part of this work.

Secondly, of course, this led to the omission of many of the stakeholders from the civil society sector, which, to put it bluntly, often stand out due to their high number and low influence. As Table 5.1 shows, the share of stakeholders from the civil society sector in two of the three base model runs was below the original share in the selection of 12.72%.

TABLE 5.1: Comparison of the total Number of Civil Society Groups in the Stakeholder Selection and the in the Model Runs

Instrument	No. of Civil Society Groups in Model	Total No. of Stakeholders in Model	Percentage Civil Society Groups in Model	Total No. of Stakeholders in Stakeholder Selection	Percentage Civil Society Groups in Stakeholder Selection
CO_2 Levy	3	28	10.7%	55	12.72%
Domestic Reduction Target	5	29	17.2%		
Partial Earmarking	2	31	6.5%		

In summary, it can be said that, although no model should be seen as a representation of reality, this is thus especially true for the models presented here. By excluding a good two-thirds of all stakeholders whose score exceeded the cutoff value I set and were therefore

considered an important part of Swiss climate policy, no predictions can be made about the current revision of the CO_2 Act.

5.3 Conclusion

This thesis has had two objectives: On the one hand, it wanted to make a methodological contribution to the existing literature on the Predictioneer's Game. For this purpose, on the one hand, a novel method of data collection (see Chapter 5.2) was used, and on the other hand, the software was used not only for a representation of "reality" but also for the simulation of experimental, deliberately unrealistic "what if" scenarios (see Chapter 4). To the best of my knowledge, neither of these has ever been reported on in a scientific outlet. Thus, this contribution was intended to further the scientific research of policy processes using the Predictioneer's Game (or similar rational choice-based models).

The second goal pursued by this thesis, on the other hand, was practical: I wanted to use the simulations conducted to find out whether policy outcomes in Swiss climate policy would change if civil society groups entered the negotiations with changed baseline conditions. This contribution, in turn, should directly assist civil society groups in negotiating three of the many instruments under discussion in the current revision of the Swiss CO_2 Act. The idea was to be able to show these organizations very specifically where it would be worthwhile to raise the stakes (i.e., salience) slightly or dramatically in political influence. However, because the data used in this thesis are subject to strict privacy guidelines, I refrained from exploring how individual stakeholders might contribute to negotiation outcomes. Instead, I have limited myself to examining what and how much the stakeholder group of civil society groups as a whole could contribute. Fortunately, stakeholders in this group often appear relatively cohesive in climate policy; this is also the case here in two of the three instruments examined (see Chapter 4.2.1).

From a methodological point of view, in my personal opinion, this thesis could make a modest contribution to policy research using rational choice models. This is not the least because of the mistakes I made in the process. For future research projects that want to generate the input data for such models through questionnaires, I would strongly recommend varying the questionnaires according to the stakeholder group. Interest groups prepare differently for upcoming political processes than, for example, federal agencies or universities. While the former lobby for a clientele and therefore often have clear preferences and boundaries that make the negotiation results a success or a defeat, the latter not infrequently have abstract objectives that are expressed in vague preferences and high degrees of flexibility for the concrete instruments. Likewise, future projects should ensure that the stakeholders surveyed all understand *exactly* the same thing by the terms used (e.g. salience, relevance, flexibility, etc.). Last but not least, these projects have to use at least a second method for data generation,

since the response rate of questionnaires, as already stated in Chapter 5.2.1, is usually well below 100%.

The practical contribution of this work, on the other hand, is unfortunately limited, since the simulations, as explained in Chapter 5.2.2, can at best be considered an approximation to reality. Keeping this premise in mind, however, one can certainly see some exciting results. The most interesting of these is the fact that civil society groups cut their flesh if they see the negotiations on the maximum rate of the CO_2 levy as very salient. According to the model, an increase in salience leads to civil society groups showing little willingness to compromise at the beginning of the negotiations, and the opposition, therefore, prepares for longer negotiations, which ultimately end up to the disadvantage of civil society groups (see Chapter 4.4.2). For these reasons, organizations from the civil society group can be advised not to increase the salience they reported. This would only increase the costs, but would not influence the negotiations in their favor. Moreover, increasing salience in negotiations on the domestic reduction target is not worthwhile (see Chapter 4.4.2). In contrast, those stakeholders who advocate the highest possible partial earmarking may well benefit from raising their salience in these negotiations to the maximum (see Chapter 4.4.3).

Just as importantly, this thesis also contributes to a better understanding of the currently ongoing revision of the CO_2 Act. In my opinion, the descriptive statistics described in Chapter 4.2 provide very informative background information. For example that a linear regression found a significant positive correlation between the preference of the stakeholders studied for the maximum rate of the CO_2 levy as an independent variable and their preference for the domestic reduction target as a dependent variable (see Chapter 4.2.3). I also find the question of which stakeholder type's preferences are closest to the scientific perspective interesting. While civil society groups are the ones concerning the maximum rate of the CO_2 levy, the trade union, and consumer protection organizations come even closer when it comes to the question of the domestic reduction target. On the question of the level of partial earmarking, on the other hand, civil society groups seem to be in a lonely position (see Figure 4.3).

5.4 Outlook

This thesis has shown that experimental "what if" modeling of policy processes can be very informative in understanding how the political system works. However, more advocacy research using the Predictioneer's Game is needed to make valid statements about it. Future research could, for example, examine how the outcome of policy negotiations would change if certain stakeholders entered the negotiations with different flexibility or even different preferences. It would also be interesting to investigate to what extent negotiation outcomes differ

if certain stakeholders do not deviate from their position under any circumstances (the software offers the option "fixed position" for this purpose).

Last but not least, it would be exciting to try out other methods of data collection. For example, structured or semi-structured face-to-face interviews could elegantly circumvent some of the methodological issues discussed in Chapter 5.3 in this thesis. Especially the combination of questionnaires or stakeholder interviews and expert interviews seems to me to be a fruitful methodology. Future research could also incorporate content analysis in more depth. This thesis made use of it; however, only to a very modest extent (see Chapter 4.1.3). Like a questionnaire, content analysis is particularly suitable for low-threshold approaches when expert knowledge is not (yet) available. For a systematic application of content analysis, however, the stakeholders studied must have documented their views in detail.

Appendix A

Questionnaire

UNIVERSITÄT BERN

OESCHGER CENTRE
CLIMATE CHANGE RESEARCH

SCHWEIZERISCHER NATIONALFONDS
ZUR FÖRDERUNG DER WISSENSCHAFTLICHEN FORSCHUNG

Umfrage Schweizer Klimapolitik

Vielen Dank, dass Sie sich die Zeit zur Beantwortung dieses Fragebogens nehmen!

Dieser Fragebogen ist Teil eines öffentlich geförderten Forschungsprojektes, das von der Universität Bern durchgeführt wird und rein wissenschaftliche Zwecke verfolgt.

Ziel ist es, die Zusammenarbeit und Positionen verschiedener Akteure im Rahmen der Klimapolitik der Schweiz der letzten Jahre zu untersuchen. Wir erhoffen uns zudem praxisrelevante Erkenntnisse, die wir Ihnen nach Abschluss der Erhebung sehr gerne zur Verfügung stellen.

Der Fragebogen setzt sich aus vier Teilen zusammen:

Teil I: Allgemeine Positionen zum Klimawandel und zur schweizerischen Klimapolitik

Teil II: Positionen Ihrer Organisation zum aktuellen Entwurf des CO2-Gesetzes

Teil III: Zusammenarbeit und Einfluss verschiedener Akteure

Teil IV: Ausarbeitung national festgelegter Beiträge (NDCs) im Rahmen des Pariser Klimaabkommens

Das Ausfüllen des Fragebogens sollte zwischen 20 und 30 Minuten Ihrer wertvollen Zeit in Anspruch nehmen.

Die von Ihnen angegebenen Informationen werden ausschliesslich zu Forschungszwecken genutzt, vertraulich behandelt und nicht an Dritte weitergegeben. Alle gesammelten Daten werden in anonymisierter Form veröffentlicht, so dass keine Rückschlüsse auf Ihre Person möglich sind. Bitte beantworten Sie alle Fragen vollständig.

Kontaktperson für Rückfragen

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Projektleitung

Prof. Dr. Karin Ingold, Universität Bern, Oeschger Center for Climate Change Research (OCCR)
Dr. Marlene Kammerer, Universität Bern, Oeschger Center for Climate Change Research (OCCR)

Rücksendeadresse

Bitte schicken Sie die Umfrage nach dem Ausfüllen an folgende Adresse:

Universität Bern
Institut für Politikwissenschaft
z. Hd. Frau Professorin Karin Ingold
Fabrikstrasse 8
3012 Bern
Schweiz

Vielen Dank für Ihren wertvollen Beitrag zu diesem Forschungsprojekt!

Allgemeine Informationen zu Ihrer Organisation

Ihr Name (nur für Rückfragen): _____
Name Ihrer Organisation: _____
Email: _____

Möchte Ihre Organisation über die Resultate der Studie informiert werden?

Ja □ Nein □

Teil I: Allgemeine Positionen zur schweizerischen Klimapolitik

1. Bitte sehen Sie sich die folgende Tabelle an. Es handelt sich um eine Liste von Aussagen zum Klimawandel und der schweizerischen Klimapolitik.

   Geben Sie bitte an, wie sehr die folgenden Aussagen die Haltung Ihrer Organisation widerspiegeln.

Bei der Ausgestaltung der schweizerischen Klimapolitik sollte vor allem…

	Lehne voll und ganz ab (1)	Lehne teilweise ab (2)	Weder noch (3)	Unterstütze eher (4)	Unterstütze voll und ganz (5)
…die **ökologische Wirksamkeit** berücksichtigt werden. (1) (*Definition*: *Die schweizerische Klimapolitik trägt wirksam zur Verringerung der CO_2-Emissionen bei*)	○	○	○	○	○
… die **ökonomische Effizienz** berücksichtig werden. (2) (*Definition*: *Die schweizerische Klimapolitik erreicht gesetzte Emissionsziele mit möglichst geringem Aufwand*)	○	○	○	○	○
…die **soziale Gerechtigkeit** berücksichtigt werden. (3) *(Definition: Die schweizerische Klimapolitik beachtet die faire Verteilung von Ressourcen)*	○	○	○	○	○
… das **Transformationspotenzial** berücksichtig werden. (4) *(Definition: Das CO2-Gesetz hat die Fähigkeit, die Wirtschaft und Gesellschaft grundlegend umzugestalten.)*	○	○	○	○	○
…die **Wettbewerbsfähigkeit** der Schweizer Wirtschaft berücksichtigt werden. (5)	○	○	○	○	○
…die **Vorreiterrolle** der Schweiz in der internationalen Klimapolitik berücksichtigt werden. (6)	○	○	○	○	○
… auf **marktbasierte Instrumente** (z.B. Emissionshandel oder Abgaben) gesetzt werden. (7)	○	○	○	○	○
…auf **Subventionen** (z.B. Förderung von erneuerbaren Energien) gesetzt werden. (8)	○	○	○	○	○
…auf **regulatorische Massnahmen** (z.B. Emissionsstandards und Verbote) gesetzt werden. (9)	○	○	○	○	○

...auf **Massnahmen zur Förderung technologischer Innovationen** (z.B. Forschungsförderung) gesetzt werden. (10)	○	○	○	○	○
...auf **freiwillige Massnahmen** (z.B. Selbstverpflichtungen) gesetzt werden. (11)	○	○	○	○	○
...auf **informative Massnahmen** (z.B. Informationskampagnen und Bildung) zur Förderung von Verhaltensänderungen gesetzt werden. (12)	○	○	○	○	○
...**auf technologische Negativ-Emissionen** (z.B. Carbon Capture und Storage) gesetzt werden. (13)	○	○	○	○	○
...auf **natürliche Negativ-Emissionen** (z.B. Aufforstung, Schutz und Renaturierung von Moorböden) gesetzt werden. (14)	○	○	○	○	○
…auf eine **Kombination** verschiedener Massnahmen gesetzt werden. (15)	○	○	○	○	○
…die **Kompetenz beim Bund** (nicht den Kantonen) liegen. (16)	○	○	○	○	○

Teil II: Positionen zur aktuellen Revision des CO2-Gesetzes

2. In der nachstehenden Tabelle finden Sie Vorschläge, die im Rahmen des Entwurfs des CO_2-Gesetzes («Bundesgesetz über die Reduktion der CO_2-Emissionen», vom 17.12.21 bis 04.04.22 in der Vernehmlassung) in der Schweiz diskutiert wurden.

   Geben Sie bitte an, wie sehr die folgenden Aussagen die Haltung Ihrer Organisation widerspiegeln.

	Lehne voll und ganz ab (1)	Lehne eher ab (2)	Weder noch (3)	Unterstütze eher (4)	Unterstütze voll und ganz (5)
Die Schweiz sollte bis spätestens 2030 ihre CO_2-Emissionen halbieren. (1) *(Siehe Art. 3 Entwurf CO_2-Gesetz.)*	○	○	○	○	○
Die Schweiz sollte bis spätestens 2050 kein CO_2 mehr emittieren (Netto-Null). (2) *(Siehe S.15 Erläuternder Bericht)*	○	○	○	○	○
Der Bund sollte sich an dem Ersatz von fossilen Heizungen in Altbauten finanziell mehr beteiligen. (3) *(Siehe Art. 34 Entwurf CO_2-Gesetz)*	○	○	○	○	○
Der Bundesrat sollte zum Erreichen der Klimaziele auf CO_2-Reduktion im Inland setzen. (4) *(Siehe Art. 3 Entwurf CO_2-Gesetz)*	○	○	○	○	○
Der Bund sollte die CO_2-Abgabe auf Treibstoffe ausweiten. (5) *(Aktuell im Gesetzesentwurf nicht vorgesehen)*	○	○	○	○	○
Der Bund sollte den vollen Ertrag aus der CO_2-Abgabe an die Bevölkerung zurückverteilen. (6) *(Siehe Art. 33a Entwurf CO2-Gesetz)*	○	○	○	○	○
Die CO_2-Abgabe auf Brennstoffe im Gebäudebereich sollte mehr als 120 CHF (pro Tonne CO_2) betragen. (7) *(Siehe S.15 Erläuternder Bericht)*	○	○	○	○	○
Die Möglichkeit einer Verminderungsverpflichtung (Netto-Null einer Anlage bis 2040) zur Rückerstattung der CO_2-Abgabe sollte allen Unternehmen offenstehen. (8) *(Siehe Art. 31 Entwurf CO_2-Gesetz)*	○	○	○	○	○

Im Folgenden möchten wir drei Aspekte, die im Rahmen des Entwurfs des CO2-Gesetzes derzeit in der Schweiz diskutiert werden, nochmals im Detail aufgreifen.

3. Aktuell beträgt die CO_2-Abgabe auf Brennstoffe im Gebäudebereich 120 CHF pro Tonne CO_2.

   a. Wie hoch soll der Maximalsatz der CO_2-Abgabe der Ansicht Ihrer Organisation nach sein?

   Bsp. Ihre Organisation präferiert einen Maximalsatz von 150 CHF pro Tonne CO2. Dann geben Sie bitte 150 an.

   _____ CHF pro Tonne CO_2

   b. **Untere Grenze:** Welchem Maximalsatz würde Ihre Organisation gerade noch zustimmen?

   Bsp. Ihre Organisation würde einem Maximalsatz der CO2-Abgabe von 110 CHF gerade noch zustimmen (absolutes Minimum). Dann geben Sie bitte 110 an.

   _____ CHF pro Tonne CO_2

   c. **Obere Grenze:** Welchem Maximalsatz würde Ihre Organisation gerade noch zustimmen?

   Bsp. Ihre Organisation würde einem Maximalsatz der CO2-Abgabe von 350 CHF gerade noch zustimmen (absolutes Maximum). Dann geben Sie bitte 350 an.

   _____ CHF pro Tonne CO_2

   d. Wie flexibel ist Ihre Organisation hinsichtlich der Höhe der CO_2-Abgabe?

   Bitte bewerten Sie die Flexibilität auf einer Skala von 0 (keine Flexibilität) bis 10 (maximale Flexibilität)

1	2	3	4	5	6	7	8	9	10

4. Der Entwurf des CO_2-Gesetzes («Bundesgesetz über die Reduktion der CO_2-Emissionen», vom 17.12.21 bis 04.04.22 in der Vernehmlassung) strebt einen Inlandanteil von 60% für die CO_2-Reduktionsziele an.

   a. Welcher Anteil der CO_2-Reduktionziele bis 2030 soll der Ansicht Ihrer Organisation nach mit Massnahmen im Inland erreicht werden müssen?

   Bsp. Ihre Organisation präferiert einen Inlandanteil von 20%. Dann geben Sie bitte 20 an.

   _____ %

   b. **Untere Grenze:** Welchem Inlandanteil würde Ihre Organisation gerade noch zustimmen?

   Bsp. Ihre Organisation würde einem Mindestanteil der inländischen CO2-Reduktion von 10% gerade noch zustimmen (absolutes Minimum). Dann geben Sie bitte 10 an.

   _____ %

c. **Obere Grenze:** Welchem Inlandanteil würde Ihre Organisation gerade noch zustimmen?

Bsp. Ihre Organisation würde einem Mindestanteil der inländischen CO2-Reduktion von 90% gerade noch zustimmen (absolutes Maximum). Dann geben Sie bitte 90 an.

_____ %

d. Wie flexibel ist Ihre Organisation hinsichtlich der Höhe des Inlandanteils?

Bitte bewerten Sie die Flexibilität auf einer Skala von 0 (keine Flexibilität) bis 10 (maximale Flexibilität)

1	2	3	4	5	6	7	8	9	10

5. Der Entwurf des CO_2-Gesetzes («Bundesgesetz über die Reduktion der CO_2-Emissionen», vom 17.12.21 bis 04.04.22 in der Vernehmlassung) sieht vor, dass bis zu 49% der Einnahmen aus der CO_2-Abgabe in Form sogenannter Teilzweckbindungen für Klimamassnahmen (Gebäudesanierungen, Ersatz von Ölheizungen, Technologieentwicklungen etc.) verwendet werden können. Die übrigen Einnahmen werden an die Bevölkerung und Wirtschaft zurückverteilt.

a. Welcher Anteil aus den Einnahmen durch die CO_2-Abgabe soll der Ansicht Ihrer Organisation nach für diese Teilzweckbindungen verwendet werden können?

Bsp. Ihre Organisation präferiert eine Teilzweckbindung von bis zu 60%. Dann geben Sie bitte 60 an.

_____ %

b. **Untere Grenze:** Welcher Teilzweckbindung würde Ihre Organisation gerade noch zustimmen?

Bsp. Ihre Organisation würde einer Teilzweckbindung von 15% gerade noch zustimmen (absolutes Minimum). Dann geben Sie bitte 15 an.

_____ %

c. **Obere Grenze:** Welcher Teilzweckbindung würde Ihre Organisation gerade noch zustimmen?

Bsp. Ihre Organisation würde einer Teilzweckbindung von 80% gerade noch zustimmen (absolutes Maximum). Dann geben Sie bitte 80 an.

_____ %

d. Wie flexibel ist Ihre Organisation hinsichtlich der Höhe der möglichen Teilzweckbindung?

Bitte bewerten Sie die Flexibilität auf einer Skala von 0 (keine Flexibilität) bis 10 (maximale Flexibilität)

1	2	3	4	5	6	7	8	9	10

6. Wie relevant sind diese drei Aspekte für Ihre Organisation?

	Ohne Relevanz	Geringe Relevanz	Mittlere Relevanz	Grosse Relevanz	Höchste Relevanz
Maximalsatz der CO_2-Abgabe	☐	☐	☐	☐	☐
Inlandanteil der CO_2-Reduktionsziele	☐	☐	☐	☐	☐
Anteil Teilzweckbindungen aus CO_2-Abgabe	☐	☐	☐	☐	☐

Teil III: Zusammenarbeit und Einfluss verschiedener Akteure

7. Nun möchten wir Sie nach den Beziehungen Ihrer Organisation zu anderen Organisationen fragen. Bitte beantworten Sie jede Frage, indem Sie den entsprechenden politischen Akteur aus der untenstehenden Liste für jede der folgenden Fragen markieren.

   - Bitte kreuzen Sie in **Spalte 1** alle Akteure an, mit welchen Ihre Organisation in den letzten Jahren **regelmässig fachliche Informationen** über den Klimawandel ausgetauscht hat.
   - In **Spalte 2**, kreuzen Sie bitte die politischen Akteure an, mit denen Ihre Organisation in Fragen des Klimawandels und der Klimapolitik **eng zusammengearbeitet hat bzw. immer noch zusammenarbeitet**, unabhängig davon, ob Sie mit diesen inhaltlich übereinstimmen oder nicht.
   - Bitte markieren Sie in **Spalte 3** jeden politischen Akteur, den Ihre Organisation als **besonders einflussreich** in der nationalen Klimapolitik ansieht.

	Informations-austausch	*Zusammen-arbeit*	*Einfluss*
Staatliche Akteure			
Bundesamt für Umwelt			
Staatssekretariat für Wirtschaft			
Bundesamt für Energie			
Kommission für Umwelt, Raumplanung und Energie des Nationalrates			
Kommission für Umwelt, Raumplanung und Energie des Ständerates			
Weiterer Akteur:			
Weiterer Akteur:			
Weiterer Akteur:			
Weiterer Akteur:			
Politische Parteien (Bundesebene)			
FDP			
SP			
Grüne Partei			
SVP			
Die Mitte			
GLP			
Weiterer Akteur:			
Weiterer Akteur:			
Weiterer Akteur:			
Weiterer Akteur:			

	Informations-austausch	*Zusammen-arbeit*	*Einfluss*
Wirtschaftsverbände			
Bauenschweiz			
cemsuisse			
Schweizer Bauernverband			
scienceindustries			
suissetec			
Swissmem			
Schweizerische Bankiervereinigung			
Weiterer Akteur:			
Weiterer Akteur:			
Weiterer Akteur:			
Weiterer Akteur:			

Spitzenverbände oder -organisationen			
economiesuisse			
Hauseigentümerverband Schweiz			
Travail.Suisse			
Schweizerische Arbeitsgemeinschaft für die Berggebiete			
Schweizerischer Gewerkschaftsbund			
Schweizerischer Gewerbeverband			
Stiftung für Konsumentenschutz			
Weiterer Akteur:			
Weiterer Akteur:			
Weiterer Akteur:			
Weiterer Akteur:			

	Informations-austausch	*Zusammen-arbeit*	*Einfluss*
Energieorganisationen			
Agentur für erneuerbare Energien und Energieeffizienz			
Avenergy Suisse			
Schweizerische Energie-Stiftung			
Swissoil			
Swissolar			
Verband der Schweizerischen Gasindustrie			
swisscleantech			
Energie-Agentur der Wirtschaft			
Weiterer Akteur:			
Weiterer Akteur:			
Weiterer Akteur:			
Weiterer Akteur:			

Verkehrsorganisationen			
Automobil Club der Schweiz			
Schweizerischer Nutzfahrzeugverband			
auto-schweiz			
strasseschweiz			
Touring Club Schweiz			
Verkehrs-Club der Schweiz (VCS)			
AEROSUISSE			
Weiterer Akteur:			
Weiterer Akteur:			
Weiterer Akteur:			
Weiterer Akteur:			

	Informations-austausch	*Zusammen-arbeit*	*Einfluss*
Unternehmen			
Migros-Genossenschafts-Bund			
Coop Schweiz			
Schweizerische Bundesbahnen			
Alpiq Holding AG			
Weiterer Akteur:			
Weiterer Akteur:			
Weiterer Akteur:			
Weiterer Akteur:			
Umweltverbände			
Greenpeace Schweiz			
WWF Schweiz			
Alliance Sud			
Klima-Allianz			
ECO SWISS			
Klimastreik Schweiz			
Verein Klimaschutz			
Stiftung KliK			
Weiterer Akteur:			
Weiterer Akteur:			
Weiterer Akteur:			
Weiterer Akteur:			
Wissenschaft (z.B. Hochschulen, Forschungseinrichtungen, Expert:innen)			
ProClim / Akademien der Wissenschaften Schweiz			
ETH Zürich			
Oeschger Center for Climate Change Research			
Weiterer Akteur:			
Weiterer Akteur:			
Weiterer Akteur:			
Weiterer Akteur:			

8. Wie beurteilen Sie den Einfluss Ihrer Organisation auf die nationale Klimapolitik?

Bitte bewerten Sie Ihren Einfluss auf einer Skala von 1 (sehr geringer Einfluss) bis 5 (sehr grosser Einfluss)

Sehr klein 1	2	3	4	Sehr gross 5
☐	☐	☐	☐	☐

Teil IV – Internationale Klimapolitik

Abschliessend möchten wir Sie nach der Rolle Ihrer Organisation in der internationalen Klimapolitik fragen.

9. Die Schweiz aktualisiert regelmässig ihren nationalen Beitrag (NDC) im Rahmen des Pariser Klimaabkommens.

   a. War Ihre Organisation an der Formulierung der jüngsten Aktualisierung (vom 19.02.20) des NDC beteiligt?

      ☐ Nein
      ☐ Ja
      ☐ Weiss nicht

   Falls ja, definieren Sie bitte Ihre Rolle: (mehrere Optionen möglich):

      ☐ Gesamtkoordination / Leitung der NDC-Vorbereitung
      ☐ Wesentlicher Beitrag zur Erstellung des Dokuments
      ☐ Geringer Beitrag zur Erstellung des Dokuments
      ☐ Beratende Rolle
      ☐ Kommentare zum Entwurf
      ☐ Teilnahme an der Konsultation
      ☐ Andere (bitte angeben): _____

   Falls ja: Wie schätzen Sie den Einfluss Ihrer Organisation auf die jüngste Aktualisierung des NDC ein?

   Bitte bewerten Sie Ihren Einfluss auf einer Skala von 1 (sehr geringer Einfluss) bis 5 (sehr grosser Einfluss)

Sehr gering 1	2	3	4	Sehr gross 5
☐	☐	☐	☐	☐

10. Die Schweiz nimmt regelmässig an den jährlichen Klimaverhandlungen (d.h. an den Klimakonferenzen und technischen Verhandlungen) im Rahmen des UNFCCC teil.

    a. Hat Ihre Organisation an der Vorbereitung und/oder Durchführung der Beteiligung der Schweiz seit der Verabschiedung des Pariser Abkommens teilgenommen?

        ☐ Nein
        ☐ Ja
        ☐ Weiss nicht

    Falls ja, definieren Sie bitte Ihre Rolle: (mehrere Optionen möglich):

        ☐ Verhandlungsführer der Regierung
        ☐ Anderer Regierungsvertreter
        ☐ Berater
        ☐ Vertreter einer NGO/eines Unternehmens/der Wissenschaft in der nationalen Delegation
        ☐ Vertreter einer NGO/eines Unternehmens/der Wissenschaft ausserhalb der nationalen Delegation
        ☐ Organisator oder Moderator bei einer Nebenveranstaltung
        ☐ Technische Unterstützung (z.B. Vorbereitung von Verhandlungsdossiers)
        ☐ Andere (bitte angeben): _____

    Falls ja: Wie beurteilen Sie den Einfluss Ihrer Organisation auf die Vorbereitung und/oder Durchführung der Teilnahme der Schweiz an den jährlichen Klimaverhandlungen?

    Bitte bewerten Sie Ihren Einfluss auf einer Skala von 1 (sehr geringer Einfluss) bis 5 (sehr grosser Einfluss)

Sehr gering 1	2	3	4	Sehr gross 5
☐	☐	☐	☐	☐

Ende

Herzlichen Dank für Ihren wertvollen Beitrag zu diesem Forschungsprojekt!

Haben Sie noch weitere Anmerkungen oder Ideen zum Fragebogen, die Sie uns mitteilen möchten?

Appendix B

Stakeholder List and Selection Score

Akteur	Score
Economiesuisse - Wirtschaftsdachverband	8
Freisinnige Demokratische Partei	7.5
Sozialdemokratische Partei	7.5
Schweizerischer Gewerbeverband	7
Bundesamt für Umwelt (Gruppe International)	7
Bundesamt für Umwelt (Gruppe National)	7
World Wide Fund For Nature Schweiz	7
Verband der Schweizerischen Cementindustrie	6.5
Grüne Partei der Schweiz	6.5
Schweizerische Volkspartei	6.5
Greenpeace Schweiz	6.5
Agentur für erneuerbare Energien und Energieeffizienz	6
Hauseigentümerverband Schweiz	6
StrasseSchweiz - Verband des Schweizerischen Strassenverkehrs	6
Verkehrs-Club Schweiz	6
Schweizerischer Gewerkschaftsbund	6
Travail Suisse - Dachorganisation der Schweizer Gewerkschaften	6
Bundesamt für Energie	6
Eidgenössisches Departement für Umwelt, Verkehr, Energie und Kommunikation	6
Staatssekretariat für Wirtschaft	6
Swissmem - Verband der Schweizer Maschinen-, Elektro- und Metallindustrie	5.5
Wirtschaftsverband Chemie Pharma Life Sciences Schweiz	5.5
Touring Club Schweiz	5.5
Grünliberale Partei	5.5
Avenergy - Verband Schweizer Treibstoffimporteure	5
Energie-Agentur der Wirtschaft	5
Schweizerische Energie-Stiftung	5
Auto-Schweiz	4.5
Die Mitte	4.5
Coop Schweiz	4
Swisscleantech – Verband für nachhaltige Wirtschaft	4
Schweizerischer Nutzfahrzeugeverband ASTAG	4
ProClim-AkadWiss	4
Migros-Genossenschaft	3.5
Stiftung für Konsumentenschutz	3.5
Kommission für Umwelt, Raumplanung und Energie des Nationalrates	3.5
Kommission für Umwelt, Raumplanung und Energie des Ständerates	3.5
Equiterre Schweiz	3.5
Klimaallianz - Bündnis zivilgesellschaftlicher Organisationen für den Klimaschutz	3.5
Schweizerische Arbeitsgemeinschaft für die Berggebiete	3.5
Swissaid, Fastenopfer, Brot für alle, Helvetas, Caritas und Heks	3.5
Bauenschweiz - Dachverband der Schweizer Bauwirtschaft	3
Öbu – Netzwerk für nachhaltiges Wirtschaften	3

Swiss Banking - Schweizerische Bankiervereinigung	3
Automobil Club der Schweiz	3
Swissolar - Schweizerischer Fachverband für Sonnenernegie	3
Aerosuisse - Dachverband der Schweizerischen Luft- und Raumfahrt	2.5
Schweizer Bauernverband	2.5
Suissetec - Schweizerisch-Liechtensteiner Gebäudetechnikverband	2.5
Swissoil - Dachverband der Brennstoffhändler Schweiz	2.5
Verband der Schweizerischen Gasindustrie	2.5
ETH Zurich	2.5
ECO SWISS - Organisation der Schweizer Wirtschaft für Umweltschutz, Arbeitssicherheit und Gesundheitsschutz	2.5
Infras - Forschungsunternehmen für nachhaltige Entwicklung	2
Prognos - Forschungsunternehmen für Wirtschaft	2
Verein Klimaschutz Schweiz	2
Eidgenössisches Departement des Innern	1.5
Evangelische Volkspartei der Schweiz	1.5
Institut für Schnee- und Lawinenforschung	1.5
Universitaet Fribourg	1.5
Universitaet St. Gallen	1.5
Universitaet Zuerich	1.5
Pro Natura	1.5
Umweltallianz	1.5
Klik - Stiftung Klimaschutz und CO2 Kompensation	1
Nestle	1
Wettbewerbskommission	1
Ecoplan - Forschungsunternehmen für Wirtschaft und Politik	1
National Centre for Climate Services	1
AVIA - Vereinigung unabhängiger Mineralölimporteure	0.5
Cleantech Agentur Schweiz	0

Akteur	Ansprechpartner:in	Funktion	Wurde im DNA kodiert und hat Centrality von >=10	Wurde im APES kodiert	Kommt in MA von Hapuoja vor	Kommt in Ingold (2011) vor	Wurde in frühren Surveys befragt	Rating Exprt 1	Rating Expert 2	Rating Expert 3	Score
Economiesuisse - Wirtschaftsdachverband	Alexander Keberle	Mitglied Geschäftsleitung, Leiter Infrastruktur, Energie & Umwelt	1	1	1	1	1	1	1	1	8
Freisinnige Demokratische Partei	Matthias Samuel Jauslin	UREK-N, Nationalrat FDP	1	1	1	1	1	1	1	0.5	7.5
Sozialdemokratische Partei	Nadine Masshardt	UREK-N, Nationalrätin SP	1	1	1	1	1	1	1	0.5	7.5
Schweizerischer Gewerbeverband	Henrique Schneider	Stv. Direktor, Ressort Wirtschaftspolitik, Energie und Umwelt	1	1	1	0	1	1	1	1	7
Bundesamt für Umwelt (Gruppe International)	Franz Perrez	Befreundet mit Karin (sie schickt ihm den Survey) - Abteilungschef International	1	1	0	1	1	1	1	1	7
Bundesamt für Umwelt (Gruppe National)	Reto Burkard	Ehem. Oeschger-Studet-Abteilung Klima: Leitung	1	1	0	1	1	1	1	1	7
World Wide Fund For Nature Schweiz	Patrick Hofstetter	Head of Climate & Energy Policy	1	0	1	1	1	1	1	1	7
Verband der Schweizerischen Cementindustrie	Dr. David Plüss	Leiter Kommunikation und Public Affairs	0	1	1	1	1	0.5	1	1	6.5
Grüne Partei der Schweiz	Bastien Girod	UREK-N, Nationalrat Grüne	1	0	1	1	1	1	1	0.5	6.5
Schweizerische Volkspartei	Walter Wobmann	UREK-N, Nationalrat SVP	1	0	1	1	1	1	1	0.5	6.5
Greenpeace Schweiz	Remco Giovanoli	Verantwortlicher Politik	1	0	1	1	1	1	1	0.5	6.5
Agentur für erneuerbare Energien und Energieeffizienz	Fabienne Thomas	Leiterin Politik	0	0	1	1	1	1	1	1	6
Hauseigentümerverband Schweiz	Stefan Aeschi	Experte Bau- und Energietechnik	0	0	1	1	1	1	1	1	6
StrasseSchweiz - Verband des Schweizerischen Strassenverkehrs	Thomas Juch	Projektleiter Political Affairs	0	0	1	1	1	1	1	1	6
Verkehrs-Club Schweiz	Stéphanie Penher	Bereichsleiterin Verkehrspolitik und Kampagnen	0	0	1	1	1	1	1	1	6
Schweizerischer Gewerkschaftsbund	Reto Wyss	Dossier Klimapolitik	0	0	1	1	1	1	1	1	6
Travail Suisse - Dachorganisation der Schweizer Gewerkschaften	Denis Torche	Leiter Umwelt-, Steuer- und Aussenpolitik	0	0	1	1	1	1	1	1	6
Bundesamt für Energie	Lukas Dick	Fachspezialist Bundesrats- und Parlamentsgeschäfte	0	1	0	1	1	1	1	1	6
Eidgenössisches Departement für Umwelt, Verkehr, Energie und Kommunikation	Reto Burkard	Ehem. Oeschger-Studet-Abteilung Klima: Leitung	0	1	0	1	1	1	1	1	6
Staatssekretariat für Wirtschaft	Annetta Holl	Wissenschaftliche Mitarbeiterin	0	1	0	1	1	1	1	1	6
Swissmem - Verband der Schweizer Maschinen-, Elektro- und Metallindustrie	Jean-Philippe Kohl	Bereichsleiter Wirtschaftspolitik Vizedirektor	0	0	1	1	1	0.5	1	1	5.5
Wirtschaftsverband Chemie Pharma Life Sciences Schweiz	Linda Kren	Umwelt und Responsible Care	0	0	1	1	1	0.5	1	1	5.5
Touring Club Schweiz	Sébastien Leprat	Leiter PA	0	0	1	1	1	1	1	0.5	5.5
Grünliberale Partei	Beat Flach	UREK-N, Nationalrat GLP	1	0	1	0	1	1	1	0.5	5.5
Avenergy - Verband Schweizer Treibstoffimporteure	Roland Bilang (nicht Ueli Bamert)		0	0	0	1	1	1	1	1	5
Energie-Agentur der Wirtschaft	Thomas Weisskopf	Geschäftsleitung	0	1	0	1	1	1	1	0	5
Schweizerische Energie-Stiftung	Simon Banholzer	Leiter Politik	0	0	1	0	1	1	1	1	5
Auto-Schweiz	Christoph Wolnik	Public Relations, Mediensprecher	0	0	1	0	1	0.5	1	1	4.5
Die Mitte	Priska Wismer-Felder	UREK-N, Nationalrätin Mitte	1	0	0	0	1	1	1	0.5	4.5
Coop Schweiz	Stefan Frehner	Projektverantwortlicher Erneuerbare Energien, CO2	0	0	1	0	1	0.5	1	0.5	4
Swisscleantech – Verband für nachhaltige Wirtschaft	Stefan Dörig	Leiter Politik	0	0	1	0	0	1	1	1	4
Schweizerischer Nutzfahrzeugeverband ASTAG	Anna Lena Kaufmann	Leiterin Politik	0	1	0	0	1	0	1	1	4
ProClim- Akad Wiss	Urs Neu	Leiter Forum ad interim	0	0	0	1	1	1	0	1	**4**
Migros-Genossenschaft	Jürg Maurer	Stv. Leiter Direktion Wirtschaftspolitik	0	0	1	0	0	1	1	0.5	3.5
Stiftung für Konsumentenschutz	Marius Wiher	Dossier Klimapolitik	0	0	1	0	0	1	1	0.5	3.5
Kommission für Umwelt, Raumplanung und Energie des Nationalrates	Jacques Bourgeois	Präsident UREK-N	0	1	0	0	0	0.5	1	1	3.5
Kommission für Umwelt, Raumplanung und Energie des Ständerates	Elisabeth Baume-Schneider	Präsidentin UREK-S	0	1	0	0	0	0.5	1	1	3.5

Equiterre Schweiz	Alice Genoud		0	0	0	1	1	0.5	1	0	3.5
Klimaallianz - Bündnis zivilgesellschaftlicher Organisationen für den Klimaschutz	Christian Lüthi	Geschäftsleiter	0	0	1	0	0	1	1	0.5	3.5
Klimastreik Schweiz / Fridays for Future	Leandra Breu	hat sich für den Survey gemeldet	1	0	0	0	0	1	1	0.5	3.5
Schweizerische Arbeitsgemeinschaft für die Berggebiete	Thomas Egger	Direktor	0	0	1	0	0	0.5	1	1	3.5
Swissaid, Fastenopfer, Brot für alle, Helvetas, Caritas und Heks	Andreas Missbach	Geschäftsleiter	0	0	1	0	0	0.5	1	1	3.5
Bauenschweiz - Dachverband der Schweizer Bauwirtschaft	Cristina Schaffner	Direktorin	0	1	0	0	0	0.5	1	0.5	3
Öbu – Netzwerk für nachhaltiges Wirtschaften	Olmar Albers	Geschäftsleitung	0	0	1	1	1	0	0	0	3
Swiss Banking - Schweizerische Bankiervereinigung	Silvan Lipp	Leiter Communications & Public Affairs	1	0	0	0	0	0	1	1	3
Automobil Club der Schweiz	Carolin Kiefer	Verkehrspolitik	0	1	0	0	0	0	1	1	3
Swissolar - Schweizerischer Fachverband für Sonnenenergie	Lionel Perret	Politik & Medien	0	0	1	0	0	0.5	1	0.5	3
Aerosuisse - Dachverband der Schweizerischen Luft- und Raumfahrt	Philipp Kirstensen	Geschäftsführer	0	0	0	0	0	0.5	1	1	2.5
Schweizer Bauernverband	Hannah von Ballmoos-Hofer	Leiter Departement Kommunikation und Services	0	0	0	0	0	0.5	1	1	2.5
Suissetec - Schweizerisch-Liechtensteiner Gebäudetechnikverband	Urs Hofstetter	Leiter Mandate und Politik	0	0	0	0	1	0	1	0.5	2.5
Swissoil - Dachverband der Brennstoffhändler Schweiz	Ueli Bamert	Leiter Politik	0	0	0	0	0	0.5	1	1	2.5
Verband der Schweizerischen Gasindustrie	Hans-Christian Angele	Leiter Politik, Mitglied der Geschäftsleitung	0	0	0	0	0	1	1	0.5	**2.5**
ETH Zurich	Reto Knutti	Head of Climate Physics Group	1	0	0	0	0	0.5	1	0	2.5
ECOSWISS - Organisation der Schweizer Wirtschaft für Umweltschutz, Arbeitssicherheit und Gesundheitsschutz	Dr. Ivan Raffainer	Geschäftsführung	0	0	0	0	1	0.5	1	0	2.5
Infras - Forschungsunternehmen für nachhaltige Entwicklung	Jürg Füssler	Leiter Themenfelder Umwelt und Klima	0	0	0	1	1	0	0	0	2
Prognos - Forschungsunternehmen für Wirtschaft	Almut Kirchner	Leiterin Themenfeld Energie- und Klimaschutzpolitik	0	0	0	1	1	0	0	0	2
Verein Klimaschutz Schweiz	Michèle Andermatt	Verantwortliche Poiitik	0	0	0	0	0	1	0.5	0.5	**2**
Eidgenössisches Departement des Innern			0	1	0	0	0	0.5	0	0	1.5
Evangelische Volkspartei der Schweiz	Lilian Studer	Präsidentin EVP Schweiz	0	1	0	0	0	0.5	0	0	1.5
Institut für Schnee- und Lawinenforschung			1	0	0	0	0	0.5	0	0	1.5
Universitaet Fribourg			1	0	0	0	0	0.5	0	0	1.5
Universitaet St. Gallen			1	0	0	0	0	0.5	0	0	1.5
Universitaet Zuerich			1	0	0	0	0	0.5	0	0	1.5
Pro Natura	Stella Jegher	Abteilungsleiterin Politik und Internationales	0	0	1	0	0	0.5	0	0	1.5
Umweltallianz	Antje Mosler	Geschäftsleiterin	0	0	0	0	1	0.5	0	0	1.5
Klik - Stiftung Klimaschutz und CO2 Kompensation	Dr. Marco Berg	Geschäftsführer	0	0	0	0	0	1	0	0	1
Nestle			1	0	0	0	0	0	0	0	1
Wettbewerbskommission			0	1	0	0	0	0	0	0	1
Ecoplan - Forschungsunternehmen für Wirtschaft und Politik	André Müller	Bereichsleiter Energie & Umwelt	0	0	0	0	0	1	0	0	1
National Centre for Climate Services	Angela Michiko Hama	Geschäftsführerin	0	0	0	0	0	1	0	0	1
AVIA - Vereinigung unabhängiger Mineralölimporteure			0	0	0	0	0	0.5	0	0	0.5
Cleantech Agentur Schweiz	Andreas Rothen	Geschäftsführer	0	0	0	0	0	0	0	0	0
SBB	Bernhard Meier	Leiter Public Affairs und Regulation									
Alpiq	Tobias Fässler	Head Corporate Communications & Public Affairs									
Bundesamt für Energie (Kontakt 2)	Claire Cance	Fachspezialistin Bundesrats- und Parlamentsgeschäfte									

Appendix C

Coding Framework for Self-Coding

Coding Framework for Self-Coding

Dimension	Maximale Punktzahl	Operationalisierung	Datenquelle
Flexibility	25	Organisation wurde gegründet, um im Bereich des Instruments politischen Einfluss zu nehmen = 0 Organisation vertritt seit der Gründung klare Positionen zum Bereich des Instruments = 10 Organisation lässt weder durch Gründungszweck noch politischer Tätigkeit auf klare Position zum Bereich des Instruments folgern = 20 Organisation hat laut Gründungszweck keine Position innerhalb der Klimapolitik zu vertreten = 25	Statuten, Organisationszweck etc.
	25	Organisation vertritt konkrete Forderungen in veröffentlichten Dokumenten zum Bereich des Instruments = 0 Organisation hat in veröffentlichen Dokumenten auf den Bereich des Instruments verwiesen, aber ohne eine klare Position zu beziehen = 10 Organisation hat in veröffentlichten Dokumenten weder auf den Bereich des Instruments verwiesen, noch durchblicken lassen, dass dieser Bereich von Bedeutung ist = 20 Organisation hat in keinem veröffentlichten Dokument jemals Themen aus der Klimapolitik erwähnt = 25	Stellungnahmen, Medienmitteilungen, Positionspapiere, Vernehmlassungsantworten
	50	Organisation zeigt wiederholt in öffentlichen Statements die Bereitschaft, auf keinen Fall von ihrer Position abzuweichen = 0 Organisation zeigt wiederholt in öffentlichen Statements die Bereitschaft, stark von ihrer Position abzuweichen = 50 Organisation hat in öffentlichen Statements ihre Verhandlungsbereitschaft im Bereich des Instruments beteuert = 25	Stellungnahmen, Medienmitteilungen, Positionspapiere, Vernehmlassungsantworten
(Potential) Influence Interessensgruppen	50	Budget: 15 Mio. CH/Jahr = 50 (ECON) 0 CHF/Jahr = 1	Jahresbericht/ Bilanzrechnung (Umlaufvermögen)
	50	Zugänge zu MPs 29 = 50 0 = 0	Lobbywatch
(Potential) Influence Parteien	100	Anzahl Sitze im NR & SR 61 = 100 0 = 0	
(Potential) Influence Bundesämter	100	Score (Rating durch Expert:innen)	

		8 = 100 0 = 0	
Salience Interessensgruppen	25	Hat eine Vernehmlassungsantwort geschrieben, die fast ausschliesslich auf das Instrument eingeht (>= 50% der Sätze) = 25 Hat eine Vernehmlassungsantwort geschrieben, die ausführlich auf das Instrument eingeht (>= 25% der Sätze) = 20 Hat eine Vernehmlassungsantwort geschrieben, die auf das Instrument eingeht = 15 Hat eine eigene Vernehmlassungsantwort geschrieben = 10 Hat auf die Vernehmlassungsantwort von einer anderen Organisation verwiesen = 5 Hat sich nicht zur Vorlage geäussert = 0	Vernehmlassungsantwort
	10	Eigener Beitrag auf Website, der das Instrument thematisiert = 10 Eigener Beitrag auf Website, der die Vorlage thematisiert = 5 Kein Beitrag zur Vorlage auf Website = 0	Website
	15	Hat mind. 2 Positionspapiere, Stellungnahmen oder Medienmitteilungen veröffentlich, die das Instrument thematisieren = 15 Hat mind. 1 Positionspapier, Stellungnahme oder Medienmitteilung veröffentlich, die das Instrument thematisiert = 10 Hat mind. 1 Positionspapier, Stellungnahme oder Medienmitteilung veröffentlich, die die Vorlage thematisiert = 5 Kein Positionspapier, Stellungnahme oder Medienmitteilung zur Vorlage = 0	Stellungnahmen, Medienmitteilungen, Positionspapiere
	40	Instrument bedroht oder betrifft unmittelbar die spezifischen wirtschaftlichen oder ideologischen Interessen des Klientels der Organisation, und das Klientel wird sonst durch keine andere Organisation repräsentiert = 40 Instrument bedroht oder betrifft unmittelbar die spezifischen wirtschaftlichen oder ideologischen Interessen des Klientels der Organisation = 30 Instrument bedroht oder betrifft die allgemeinen wirtschaftlichen oder ideologischen Interessen des Klientels der Organisation = 20 Instrument könnte die allgemeinen wirtschaftlichen oder ideologischen Interessen des Klientels der Organisation indirekt beeinflussen = 10 Kein Zusammenhang zwischen Klientel der Organisation und Instrument = 0	Statuten, Organisationszweck etc.
	10	Die Lobbyist:innen der Organisation sind auf das Instrument spezialisiert = 10 Die Lobbyist:innen sind auf Klimapolitik im Allgemeinen spezialisiert = 5	Internetrecherche

		Die Lobbyist:innen sind nicht auf Klimapolitik spezialisiert = 5	
Salience Parteien	50	Hat eine Vernehmlassungsantwort geschrieben, die fast ausschliesslich auf das Instrument eingeht (>= 50% der Sätze) = 50 Hat eine Vernehmlassungsantwort geschrieben, die ausführlich auf das Instrument eingeht (>= 25% der Sätze) = 40 Hat eine Vernehmlassungsantwort geschrieben, die auf das Instrument eingeht = 30 Hat eine eigene Vernehmlassungsantwort geschrieben = 20 Hat auf die Vernehmlassungsantwort von einer anderen Organisation verwiesen = 10 Hat sich nicht zur Vorlage geäussert = 0	
	20	Eigener Beitrag auf Website, der das Instrument thematisiert = 20 Eigener Beitrag auf Website, der die Vorlage thematisiert = 10 Kein Beitrag zur Vorlage auf Website = 0	
	30	Hat mind. 2 Positionspapiere, Stellungnahmen oder Medienmitteilungen veröffentlich, die das Instrument thematisieren = 30 Hat mind. 1 Positionspapier, Stellungnahme oder Medienmitteilung veröffentlich, die das Instrument thematisiert = 20 Hat mind. 1 Positionspapier, Stellungnahme oder Medienmitteilung veröffentlich, die die Vorlage thematisiert = 10 Kein Positionspapier, Stellungnahme oder Medienmitteilung zur Vorlage = 0	
Salience Bundesämter	100	Hat eine eigene Abteilung für die Bearbeitung der Vorlage = 100 Hat eigene Arbeitsplätze für die Bearbeitung der Vorlage = 80 Hat keine Arbeitsplätze für die Bearbeitung der Vorlage, aber hat sich oft (>=10 Mal) zur Vorlage in öffentlichen Dokumenten geäussert = 60 Hat keine Arbeitsplätze für die Bearbeitung der Vorlage, aber hat sich ab und zu (>=3 Mal) zur Vorlage in öffentlichen Dokumenten geäussert = 40 Hat keine Arbeitsplätze für die Bearbeitung der Vorlage, aber hat sich ein Mal zur Vorlage in öffentlichen Dokumenten geäussert = 20 Hat sich bisher noch nie zur Vorlage geäussert = 0	
Position	100		Stellungnahmen, Medienmitteilungen, Positionspapiere, Vernehmlassungsantworten

Appendix D

Additional Descriptive Statistics

TABLE D.1: Position Mean by Stakeholder Type

Stakeholder Type	Instrument	Mean Value
Industry and Private sector representatives	CO2 levy	123 CHF per ton CO2
	Domestic reduction target	52%
	Partial earmarking	25%
Transport and Energy representatives	CO2 levy	137 CHF per ton CO2
	Domestic reduction target	52%
	Partial earmarking	55%
Trade Union and Consumer protection	CO2 levy	110 CHF per ton CO2
	Domestic reduction target	90%
	Partial earmarking	10%
Federal Administration and Confederation	CO2 levy	137 CHF per ton CO2
	Domestic reduction target	48%
	Partial earmarking	40%
Political Parties	CO2 levy	173 CHF per ton CO2
	Domestic reduction target	58%
	Partial earmarking	35%
Science	CO2 levy	300 CHF per ton CO2
	Domestic reduction target	85%
	Partial earmarking	40%
(Green) NGOs	CO2 levy	293 CHF per ton CO2
	Domestic reduction target	100%
	Partial earmarking	80%

TABLE D.2: Salience Standard Deviation across all Stakeholders

Instrument	Standard Deviation
CO2 levy	27.4
Domestic reduction target	26.4%
Partial earmarking	28.8%

FIGURE D.1: Mean Salience CO2 Levy by Stakeholder Type

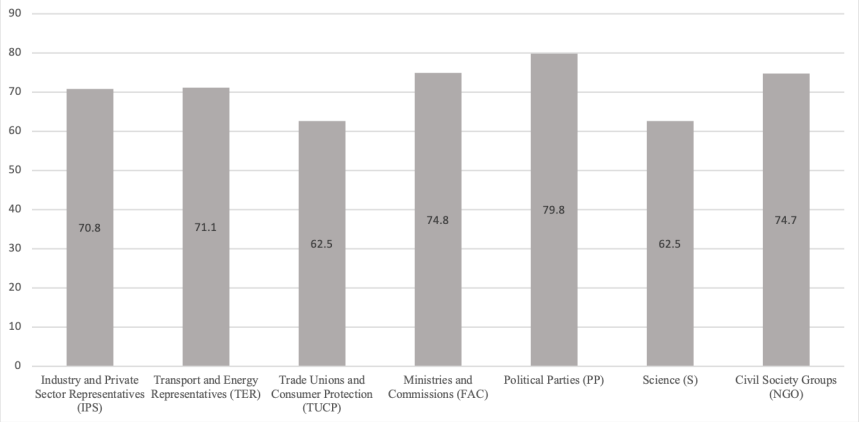


FIGURE D.2: Mean Salience Domestic Reduction Target by Stakeholder Type

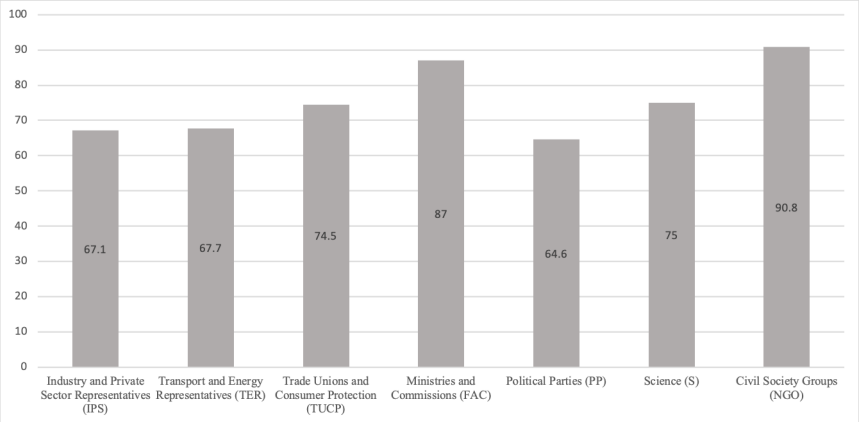


FIGURE D.3: Mean Flexibility on CO2 Levy by Stakeholder Type

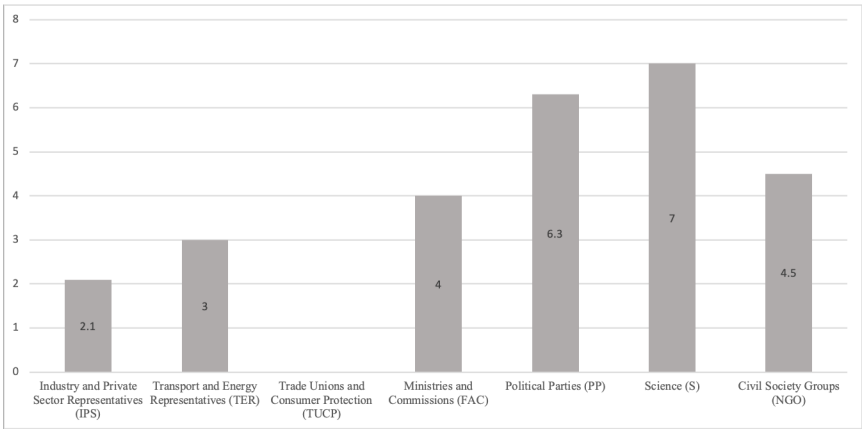


FIGURE D.4: Mean Flexibility on Partial Earmarking by Stakeholder Type

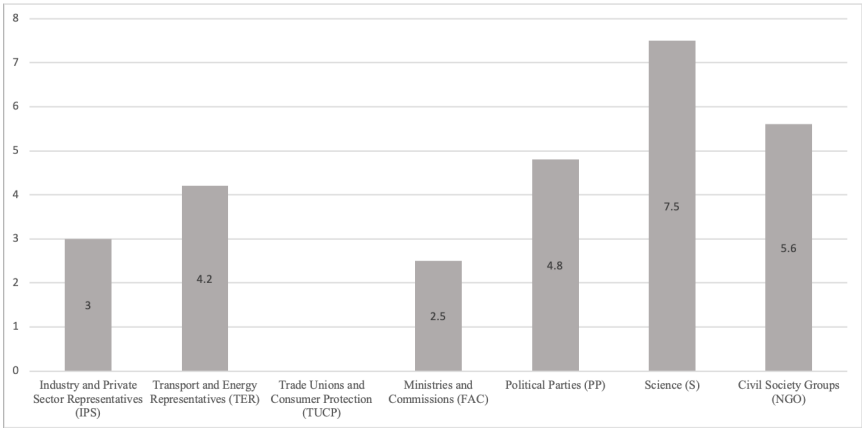


FIGURE D.5: Plot of Interest Group's Position on the CO2 Levy and on the Amount of Partial Earmarking

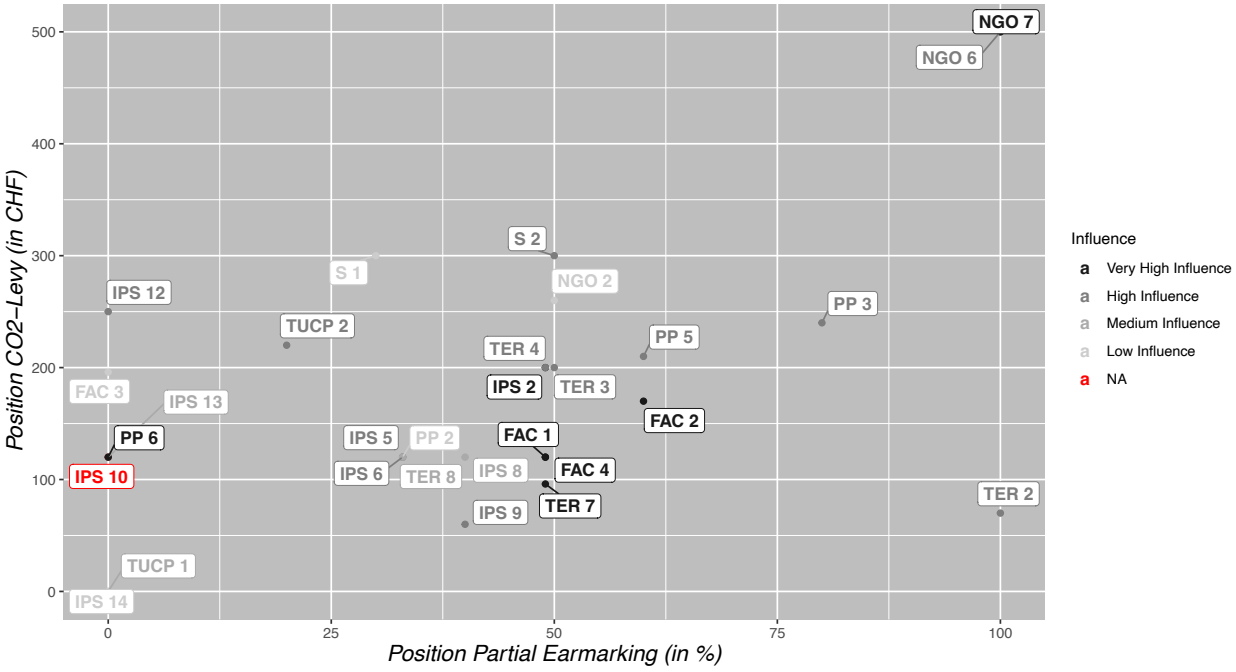


FIGURE D.6: Plot of Interest Group's Position on the Domestic Reduction Goal and on the Amount of Partial Earmarking

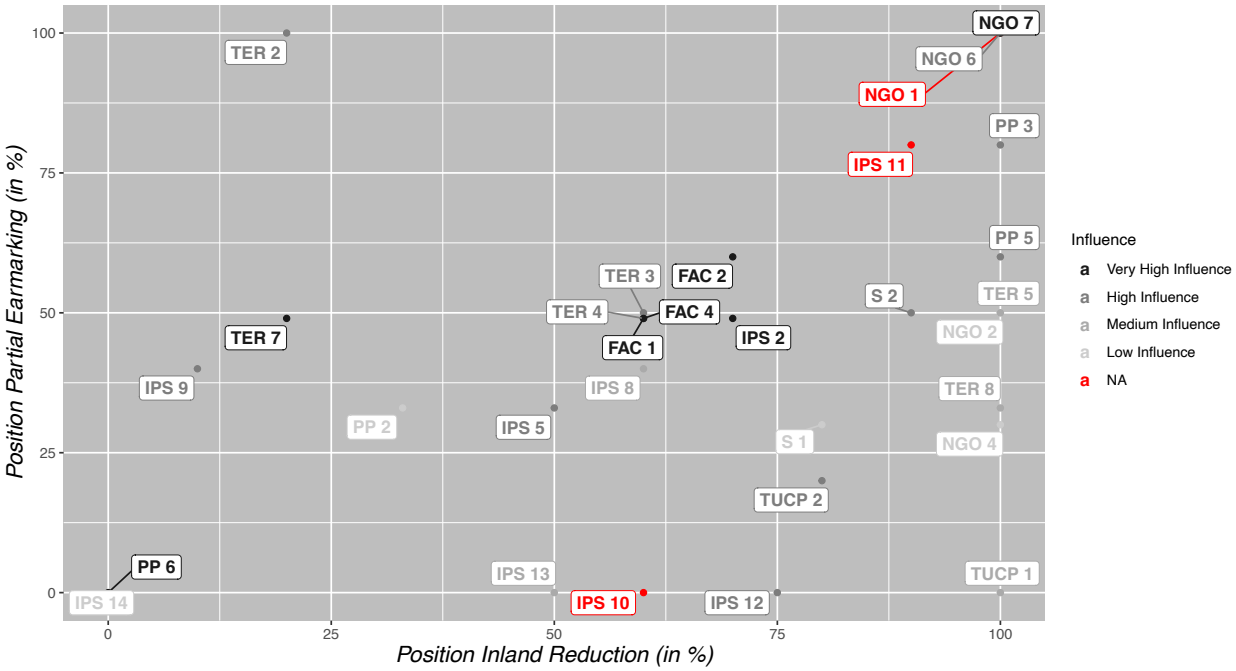


FIGURE D.7: Plot of Interest Group's Position on the CO2 Levy and their Salience

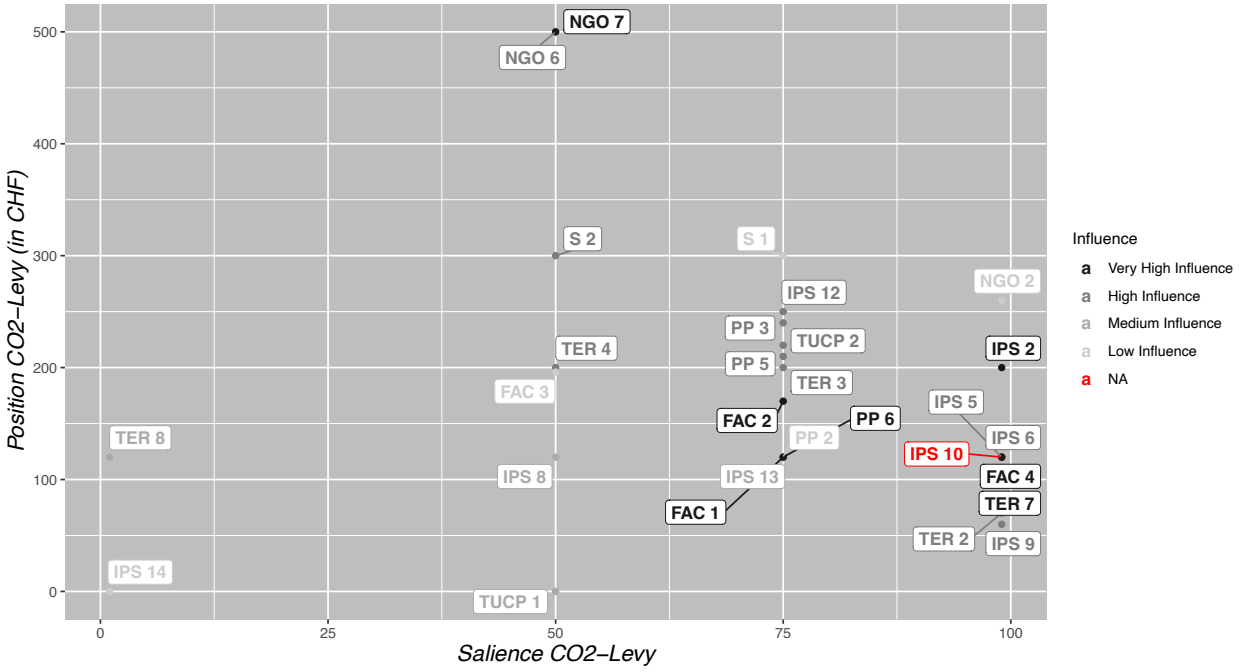


FIGURE D.8: Plot of Interest Group's Position on the Domestic Reduction Goal and their Salience

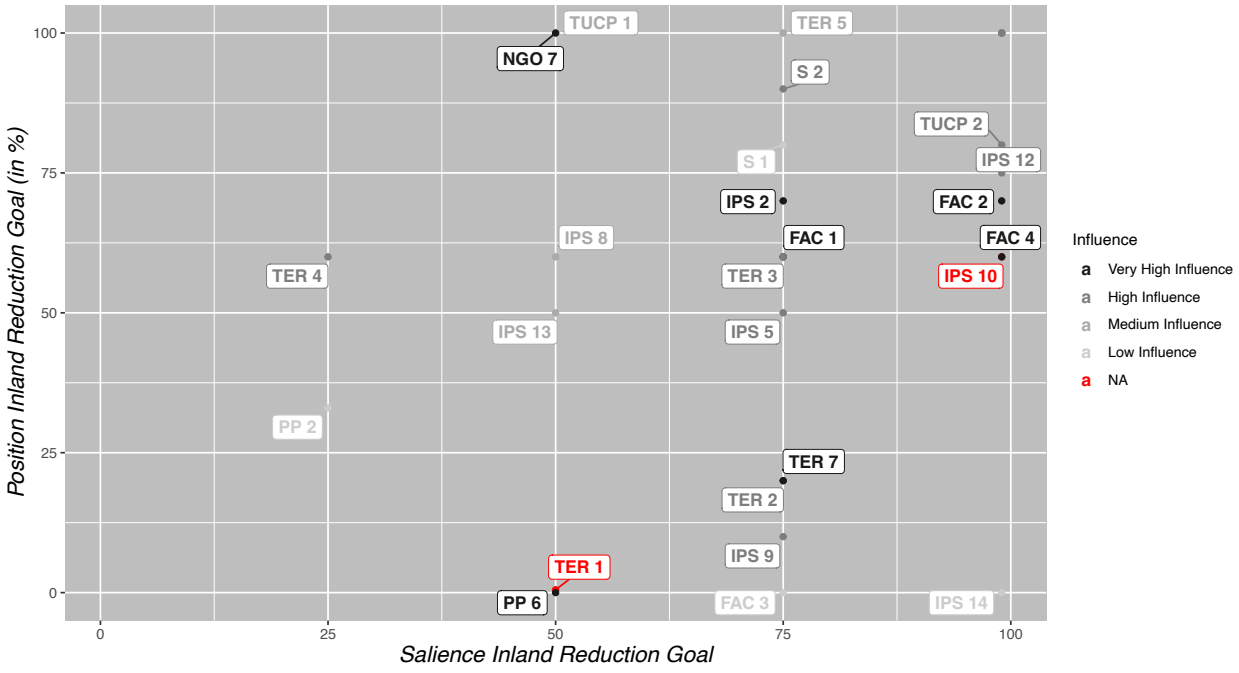


FIGURE D.9: Plot of Interest Group's Position on the Partial Earmarking and their Salience

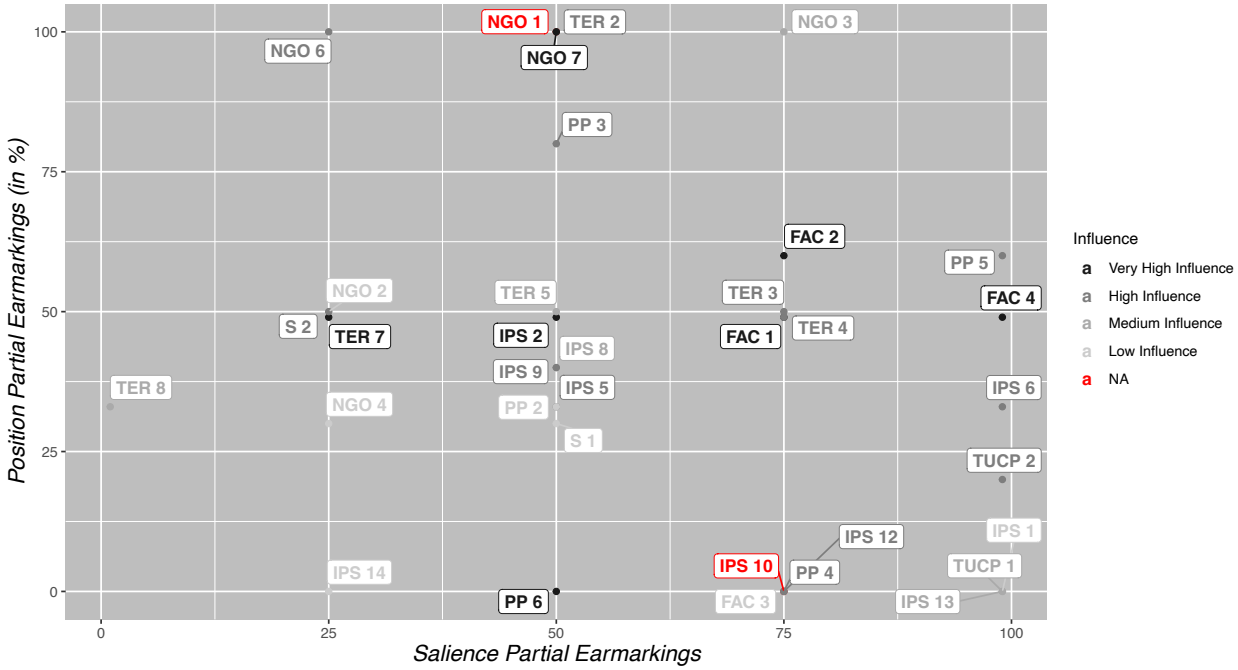


FIGURE D.10: Plot of Interest Group's Position on the Partial Earmarking and their Salience

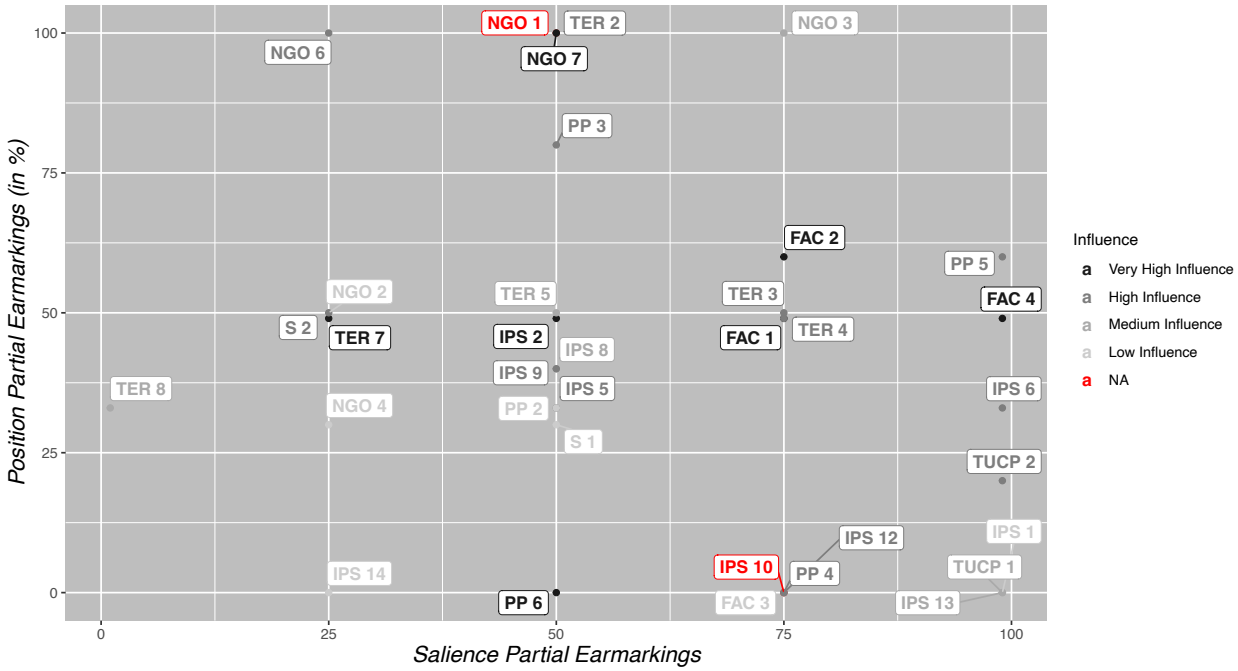
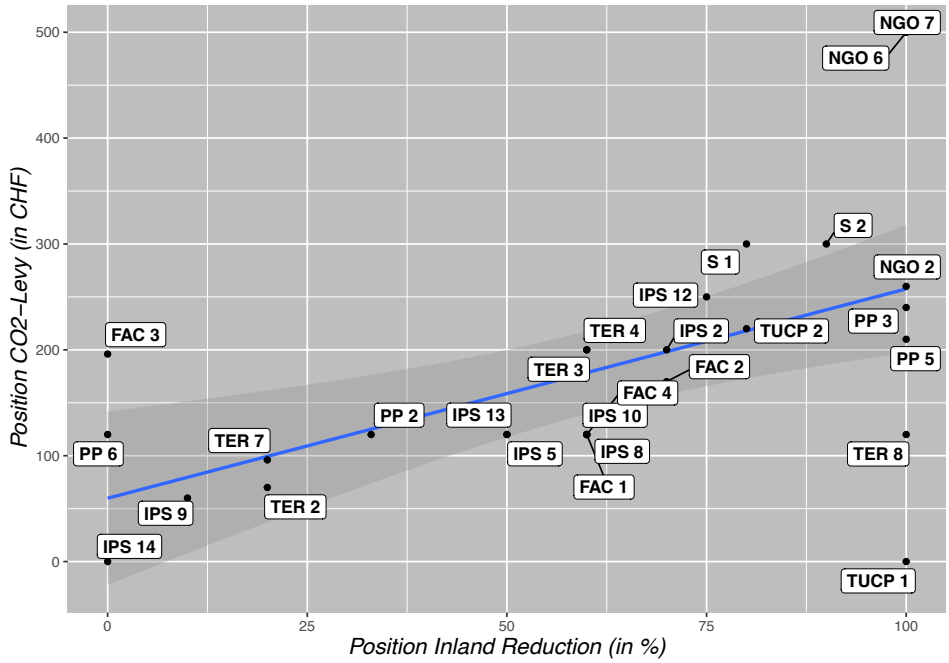


FIGURE D.11: Regression Line of Interest Group's Position on the CO2 Levy and on the Domestic Reduction Goal



Appendix E

Output File from Base Model Run: Maximum Rate of the CO2 Levy

Project Description: Base_Input_CO2
Date and Time: 07.12.2022 17:04:45

Player's Data

Group	Name	Influen	Positio	Salience	Flexibilit	Veto	FixedPo	Randor	Optimize
3	IPS 2	100	200	99	6	0	0	0	0
3	TER 2	75	70	99	1	0	0	0	0
2	FAC 1	100	120	75	0	0	0	0	0
3	IPS 5	75	120	99	2	0	0	0	0
3	TER 3	75	200	75	5	0	0	0	0
1	PP 2	25	120	75	8	0	0	0	0
3	NGO 2	25	260	99	6.5	0	0	0	0
3	IPS 6	75	120	99	1	0	0	0	0
2	FAC 2	100	170	75	7	0	0	0	0
4	S1	25	300	75	9	0	0	0	0
3	TER 4	75	200	50	7	0	0	0	0
3	IPS 8	50	120	50	0	0	0	0	0
3	SGV	75	60	99	3	0	0	0	0
3	IPS 9	50	0	50	0	0	0	0	0
1	PP 3	75	240	75	9	0	0	0	0
2	FAC 3	25	196	50	9	0	0	0	0
3	IPS 10	10	120	99	1	0	0	0	0
3	IPS 12	75	250	75	2	0	0	0	0
3	IPS 13	50	120	75	0	0	0	0	0
3	TER 6	100	96	99	0	0	0	0	0
3	IPS 14	25	0	1	8	0	0	0	0
3	NGO 6	75	500	50	0	0	0	0	0
3	TER 8	50	120	1	0	0	0	0	0
3	NGO 7	100	500	50	8	0	0	0	0
1	PP 5	75	210	75	5	0	0	0	0
1	PP 6	100	120	75	2	0	0	0	0
2	FAC 4	100	120	99	0	0	0	0	0
4	S2	75	300	50	7	0	0	0	0

Round by Round Positions

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
IPS 2	200	199	198	202	206	209	211	218	225	225	226	227	225	224	222	221	220	219	219	218	218	215	213	213.3
TER 2	70	86.4	92.3	102	109	116	125	134	143	150	177	172	167	167	169	172	174	176	178	180	182	185	187	187.5
FAC 1	120	126	130	136	139	142	147	152	156	160	164	168	171	173	176	178	180	181	183	184	185	187	188	189.3
IPS 5	120	126	127	130	130	132	135	140	145	149	153	157	161	166	169	172	174	176	178	180	183	185	187	187.6
TER 3	200	203	209	214	221	227	229	231	232	233	234	237	241	246	246	246	233	209	195	190	189	189	191	192
PP 2	120	119	117	119	124	128	153	185	205	207	206	205	195	192	191	190	190	188	187	188	189	190	192	196.9
NGO 2	260	256	251	252	251	243	235	235	234	240	246	251	256	254	252	252	252	252	252	252	253	253	254	261.1
IPS 6	120	126	128	133	136	139	143	148	152	154	157	160	163	165	168	170	174	177	179	181	183	185	188	187.7
FAC 2	170	165	158	160	158	150	142	142	145	149	153	157	161	164	167	170	172	175	195	190	185	185	186	190.3
S1	300	276	258	251	242	232	232	235	283	309	342	361	364	373	381	387	392	402	410	416	420	423	425	419.3
TER 4	200	194	199	208	215	222	218	223	225	231	241	268	289	333	364	379	388	400	409	416	420	423	425	419.3
IPS 8	120	124	127	132	136	139	145	149	154	158	162	166	169	172	175	177	179	180	182	183	185	186	187	188.7
SGV	60	84.9	98.7	109	116	122	129	136	143	149	153	158	162	165	168	171	174	176	178	180	182	184	187	187.4
IPS 9	0	0	0	0	0	194	263	263	263	264	265	262	261	261	261	262	262	262	263	263	263	263	264	263.4
PP 3	240	244	244	244	241	235	233	233	233	283	326	354	360	370	379	386	391	401	410	416	420	423	425	419.2
FAC 3	196	189	188	195	201	204	206	208	212	208	201	194	190	184	181	179	178	177	184	191	200	208	289	330.8
IPS 10	120	124	126	132	135	138	143	148	151	154	157	160	163	165	167	170	174	177	179	181	183	185	188	187.8
IPS 12	250	240	237	239	242	238	235	232	231	234	237	236	220	200	188	182	178	177	178	179	181	184	186	192.6
IPS 13	120	125	129	134	138	141	147	151	156	160	164	167	170	173	175	178	179	181	182	184	185	186	188	189.1
TER 6	96	109	115	122	127	132	138	144	149	154	158	163	166	169	172	174	177	179	180	182	183	185	186	187.6
IPS 14	0	0	0.31	0.31	99.9	172	173	173	173	173	173	174	174	174	174	174	175	175	175	175	175	175	176	175.6
NGO 6	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
TER 8	120	120	297	280	268	259	257	255	253	251	249	246	243	241	238	236	234	231	229	227	225	223	220	217.5
NGO 7	500	500	500	500	497	497	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	498	497.8
PP 5	210	212	218	227	233	233	233	233	233	238	231	212	198	190	185	184	182	179	179	180	185	188	191	195.6
PP 6	120	124	125	127	128	129	132	137	143	149	153	157	161	164	167	170	173	175	177	179	181	183	189	191.2
FAC 4	120	128	133	138	142	145	150	154	158	162	166	169	172	175	177	179	181	182	183	185	186	187	188	189.8
S2	300	284	272	261	252	243	235	233	233	235	302	340	357	368	380	386	391	401	410	416	420	423	425	419.3

Round by Round Forecasts

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
Smoothed Mean	171	169	168	168	171	174	178	182	187	194	200	205	208	210	212	215	217	219	222	225	227	230	233	234.8
Round Forecast	173	169	166	168	170	175	178	182	186	193	201	206	209	210	213	215	217	219	222	224	227	230	233	235.2
Security Forecast	120	128	158	160	158	172	206	208	212	225	226	212	198	190	188	184	182	182	195	190	189	189	192	196.9
Utility Gain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Gain2	11.3	[1.62]	[6.07]	[4.74]	[2.77]	23.9	35.3	67.9	105	117	113	136	135	143	162	163	164	165	163	164	164	163	164	168.5
Veto Min	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
Veto Max	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
End-Rule	1	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	1	0	0	1

Round by Round Summary of Actor Relationships

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
No_Dispute	13.5	0.53	0.26	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Status_Quo	45.5	59.1	61.6	59.7	59.7	53	55.8	60.9	57.1	55.8	54.9	52.3	50.4	53.7	52.1	52.3	52.1	51.6	51.3	52.1	51.7	51.5	48.9	48.41
Compromise	28.3	26.1	24.2	26.5	26.5	32	29.9	25.1	29.4	29	31.9	33.2	31.1	32.7	33.7	34.1	34.8	35.3	35.6	35.1	35.3	35.5	37	35.85
Coerce	9.92	13.4	13	12.8	13.2	13	13.1	12.4	12.2	12.2	12.4	12.4	12.4	12	11.8	11.6	11.6	11.6	11.6	11.4	11.4	11.5	11.4	11.11
Clash	2.78	0.93	0.93	0.79	0.66	1.98	1.19	1.59	1.32	3.04	0.79	2.12	6.08	1.59	2.38	1.98	1.46	1.46	1.46	1.46	1.59	1.59	2.65	4.63

Appendix F

Output File from Base Model Run: Height of Domestic Reduction Target

Project Description: Base_Input_IR
Date and Time: 07.12.2022 17:05:32

Player's Data

Group	Name	Influen	Positio	Salience	Flexibilit	Veto	FixedPo	Randor	Optimize
3	IPS 2	100	70	75	6	0	0	0	1
3	NGO 1	10	100	99	1	0	0	0	0
3	TER 2	75	20	75	2	0	0	0	0
3	IPS 5	75	50	75	3	0	0	0	0
3	TER 3	75	60	75	5	0	0	0	0
1	PP 2	25	33	25	4	0	0	0	0
3	NGO 2	25	100	99	1	0	0	0	0
3	NGO 4	25	100	99	0	0	0	0	0
2	FAC 2	100	70	99	3	0	0	0	0
4	S 1	25	80	75	8	0	0	0	0
3	TER 4	75	60	25	10	0	0	0	0
3	IPS 8	50	60	50	3	0	0	0	0
3	IPS 9	75	10	75	5	0	0	0	0
3	TUCP 1	50	100	50	10	0	0	0	0
1	PP 3	75	100	99	6	0	0	0	0
2	FAC 3	25	0	75	9	0	0	0	0
3	IPS 10	10	60	99	5	0	0	0	0
3	IPS 12	75	75	99	3.5	0	0	0	0
3	IPS 13	50	50	50	5	0	0	0	0
3	TER 6	100	20	75	2	0	0	0	0
3	IPS 14	25	0	99	0	0	0	0	0
3	NGO 6	75	100	99	2	0	0	0	0
3	TER 8	50	100	99	0	0	0	0	0
3	NGO 7	100	100	50	2	0	0	0	0
1	PP 5	75	100	99	3	0	0	0	0
1	PP 6	100	0	50	5	0	0	0	0
2	FAC 4	100	60	99	0	0	0	0	0
4	S 2	75	90	75	7	0	0	0	0
2	FAC 1	100	60	75	0	0	0	0	1

Round by Round Positions

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
IPS 2	70	67.3	63.9	62	59.5	58.3	57.6	57.1	57.3	57.2	57.1	56.8	55.7	53.8	53.3	51.8	47.6	45	42.7	40.8	39.5	35.6	31	28.1
NGO 1	100	100	100	97.1	95.4	93.7	94	92.5	89.7	85.9	77.8	66.1	53.7	46.6	42	38.7	36.3	34.3	32.5	31.1	30.1	29.4	28.7	28
TER 2	20	20.2	20.3	20.5	20.7	20.9	19.1	17.4	14.6	15.1	23.2	38.6	43.3	39.9	32.1	27.7	24.2	21.4	19.8	19.6	19.9	20.1	20.5	20.5
IPS 5	50	50	49.9	50.7	51.9	52.2	51.5	50.3	48.4	46.7	45.7	44.6	43.7	44.2	44.1	44.4	43.9	43.6	42.8	42	41.1	38.3	36.8	32
TER 3	60	58.9	57.8	56.1	54.5	52.5	50.6	48.9	47.5	46.1	45.1	44.3	43.6	43.6	43	43.6	43.7	43.3	42.6	41.8	40.9	39.9	37.7	32
PP 2	33	32.8	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5
NGO 2	100	100	100	97.1	95.4	93.7	94	92.5	89.7	85.9	77.8	66.1	53.7	46.3	41.9	38.7	36.3	34.2	32.5	31.1	30.1	29.4	28.7	27.9
NGO 4	100	100	100	90.8	69.7	66.4	63.4	60.7	58.1	55.4	52.2	49.8	48.3	47	45.3	43.5	41.8	40.8	39.6	38.6	37.6	36.8	36.1	35.4
FAC 2	70	65.7	62.5	59.6	57.1	54.6	52.2	50.3	48.6	46.8	45.3	44.7	44.2	44.1	43.4	43.8	43.2	42.3	42.2	41.4	40.5	39.4	38.5	37.3
S 1	80	84.1	85.3	87.4	87.2	86.9	85.9	84.7	80.3	73.3	61.9	52.7	45.4	39.1	33.8	29	25.2	22.1	19.9	18.1	18	17.9	19.8	19.9
TER 4	60	62.2	66.1	64.5	63.7	64.8	64.9	66.5	74.4	70.8	63.2	57.1	47.7	40.5	33.9	30.1	26.9	23.9	22.1	21.5	20.6	20.4	20.6	20.6
IPS 8	60	59.2	58.8	57.8	56.7	56.5	56.4	54.2	52.3	49	46.6	44.5	43.1	42.9	41.5	41.3	41.5	42.2	42.1	40.5	39.3	38.3	33.1	28.7
IPS 9	10	7.18	5.68	3.55	2.4	2.65	7.72	15.6	26.2	37.9	38	35.9	31.2	25.5	20.7	19.4	18.5	17.4	17	17.8	19	19.4	20.2	20.5
TUCP 1	100	99.5	99.3	97.9	96.1	87.8	82.6	65.7	60.2	56.9	52.6	48.3	43.4	37.1	32.6	29.9	27.1	24.3	22.4	21.8	20.7	20.4	20.6	20.6
PP 3	100	100	100	96.6	93.7	86.3	86	78.1	68.2	62.8	59.4	53	45.3	38.9	33.3	28.4	24.7	21.8	19.5	17.6	16.3	15.2	14.4	18
FAC 3	0	1.57	1.59	2.06	6.58	10.4	17.6	23.8	32.4	38.3	34.3	33	30.6	26.3	21.1	19.3	18.4	17.4	17	17.8	19	19.4	20.2	20.4
IPS 10	60	59.3	58.2	56.6	54.9	52.7	50.7	48.8	47.3	45.9	44.6	44	44.5	44.3	44.4	44.6	44	43.4	42.5	41.6	40.6	39.6	38.5	37
IPS 12	75	71.8	67.3	64.3	61.7	59.7	56.5	53.9	51.6	49.8	48.2	47.5	48.2	48	47	45.8	44.2	42.6	42.3	41.6	40.5	39.6	38.4	37.3
IPS 13	50	49.8	52.2	54.1	55.8	58.3	60.5	61.5	61.8	62.8	60.9	57.6	53.5	49.1	44.8	41	38	34.9	32.1	30.2	28.9	28	27.3	26.6
TER 6	20	20.2	20.3	20.5	20.7	20.9	19.1	17.4	14.6	15.1	23.2	38.6	43.3	39.9	32.1	27.7	24.2	21.4	19.8	19.6	19.9	20.1	20.5	20.5
IPS 14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NGO 6	100	100	100	97.1	95.4	93.7	91	89.2	87.1	81.3	67.3	54.8	50.3	45.4	41.5	38.2	34.3	31.8	29.7	28.3	27.3	26.7	26.1	25.4
TER 8	100	100	100	90.8	69.7	66.4	63.4	60.7	58.1	55.4	52.2	49.8	48.3	47	45.3	43.5	41.8	40.5	39.3	38.3	37.4	36.6	35.9	35.2
NGO 7	100	100	100	99.9	98.9	96.4	94	91.6	87.2	84.2	70.8	56.9	51.7	39.9	34.2	30.6	27.3	24.3	22.4	21.8	20.7	20.4	20.6	20.6
PP 5	100	100	100	97.1	95.4	92.5	89.6	87.8	81.1	66.6	63.1	58.5	50.6	37.9	32.9	28.2	24.7	21.8	19.5	17.6	16.3	15.3	14.4	18
PP 6	0	1.18	1.26	1.72	1.8	1.62	1.53	1.15	0.87	0.73	0.61	0.45	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34
FAC 4	60	58.5	55.9	53.8	51.8	49.9	48.1	46.6	45.2	43.7	41.6	39.9	38.7	37.7	36.6	35.3	34.2	33.3	32.5	31.9	31.4	30.9	30.4	30
S 2	90	91.6	91	86.7	87.7	87.3	85.4	80	72.3	63.8	57.3	50.3	44	37.1	32.7	28.1	24.5	21.6	19.2	17.5	17.4	17.2	18.5	19.1
FAC 1	60	58.9	56.8	54.8	52.8	50.8	49	47.4	45.9	44.3	42.2	40.4	39.2	38.2	37	35.6	34.4	33.5	32.7	32.1	31.5	31	30.5	30.1

Round by Round Forecasts

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
Smoothed Mean	65	65.1	64.6	63.1	60.8	58.7	56.7	54.6	52.3	50	48	46	43.7	40.9	38	35.6	33.6	31.8	30.5	29.5	28.7	27.9	27.1	26.3
Round Forecast	64.7	65.3	65.4	63.2	60.6	58.6	56.9	54.6	52.3	49.9	47.7	46.2	44.1	40.8	37.7	35.6	33.4	31.7	30.3	29.4	28.7	27.8	27.1	26.3
Security Forecast	60	62.2	62.5	57.8	56.7	54.6	52.2	50.3	48.6	46.8	45.7	44.6	43.7	39.9	34.2	31.5	31.5	31.5	29.7	28.3	20.7	20.4	20.6	20.6
Utility Gain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Gain2	48.3	54	106	91.1	82.8	82.7	90.2	105	130	176	209	219	255	282	275	290	290	292	293	285	278	258	256	246
Veto Min	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
Veto Max	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
End-Rule	0	0	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	1	1	1

Round by Round Summary of Actor Relationships

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
No_Dispute	14	7.14	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.49	0.49	0.49	0.49	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Status_Quo	34.2	38.4	43	44.6	46.3	45.7	45	42.1	41.5	41.8	39	45.9	48.9	45	41.3	39.8	38.8	37.3	35	34.6	34	34.2	34.4	39.2
Compromise	32.6	40.6	49.6	47.9	46.1	46.6	47.2	49.8	47.5	46.2	51.7	44.8	41.6	46.8	48.7	52.1	52.8	54.8	56.9	57.3	57.9	56.8	58	52.8
Coerce	2.71	4.19	4.93	5.3	5.54	5.3	4.93	4.06	4.19	4.31	4.19	4.06	3.57	3.45	3.94	4.31	4.43	4.43	4.68	4.68	4.56	4.43	3.69	4.19
Clash	16.4	9.61	1.72	1.48	1.35	1.72	2.22	3.33	6.03	7.02	4.31	4.43	5.17	4.31	5.67	3.33	3.45	3.2	3.2	3.2	3.33	4.31	3.69	3.57

Appendix G

Output File from Base Model Run: Level of Partial Earmarking

Project Description: Base_Input_TZ
Date and Time: 07.12.2022 17:05:44

Player's Data

Group	Name	Influen	Positio	Salience	Flexibilit	Veto	FixedPo	Randor	Optimize
3	IPS1	25	0	99	0	0	0	0	1
3	IPS2	100	49	50	3	0	0	0	0
3	NGO1	10	100	50	3	0	0	0	0
3	TER 2	75	100	50	2	0	0	0	0
2	FAC 1	100	49	75	0	0	0	0	0
3	IPS5	75	33	50	5	0	0	0	0
3	TER 3	75	50	75	3	0	0	0	0
1	PP 2	25	33	50	4	0	0	0	0
3	NGO2	25	50	25	3	0	0	0	0
3	IPS6	75	33	99	0	0	0	0	0
3	NGO4	25	30	25	7	0	0	0	0
2	FAC 2	100	60	75	6	0	0	0	0
4	S1	25	30	50	8	0	0	0	0
3	TER 4	75	49	75	3	0	0	0	0
3	IPS8	50	40	50	2	0	0	0	0
3	IPS9	75	40	50	5	0	0	0	0
1	PP 3	75	80	50	3	0	0	0	0
2	FAC 3	25	0	75	4	0	0	0	0
3	IPS10	10	0	75	3	0	0	0	0
3	IPS12	75	0	75	5	0	0	0	0
3	IPS13	50	0	99	2	0	0	0	0
3	TER 6	100	49	25	3	0	0	0	0
3	IPS14	25	0	25	5	0	0	0	0
3	NGO6	75	100	25	5	0	0	0	0
3	TER 8	50	33	1	10	0	0	0	0
3	NGO7	100	100	50	10	0	0	0	0
1	PP 4	75	0	75	5	0	0	0	0
1	PP 5	75	60	99	7	0	0	0	0
1	PP 6	100	0	50	5	0	0	0	0
2	FAC 4	100	49	99	0	0	0	0	0
4	S2	75	50	25	7	0	0	0	1

Round by Round Positions

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
IPS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IPS2	49	48.5	48.6	48.4	47.6	47.4	46.6	45.2	44.3	43.4	42	42	43.5	44.9	47.9	51.3	54.4	57.2	59.9	62.4	63.2	63.2	63.4	63.6
NGO1	100	100	99.9	99.4	97.1	96.9	97	97	96.8	96.7	96.7	96.9	96.9	97	97.1	97	97	97	97	97	97.1	97.1	97.1	97.1
TER 2	100	100	99.9	99.4	99.1	98.7	98.2	97.8	97.5	97.4	97.1	96.9	97	97	97.1	97.1	97.1	97.1	97	97.1	97.1	97.1	97.1	97.1
FAC 1	49	48	47.8	47.5	46.9	47.2	47.5	47.8	48.3	48.7	49.3	51.2	53.1	54.2	55.3	56.7	58.6	60.5	62.3	64.2	66	67.6	69.3	70.9
IPS5	33	33.7	35.8	37.9	39.9	41.4	41.9	41.5	40.8	39.5	39.6	40.7	41.3	42.9	45.7	48.7	52	55.8	59	61.9	62.9	63	63.2	63.5
TER 3	50	49	48.9	48.9	48.3	48.2	48.1	48.2	48.4	48.6	48.8	48.2	48.8	49.2	49.8	50.7	51.3	52.1	53.1	54.1	55.4	59.5	62.1	63.1
PP 2	33	33.7	34.3	34.6	34.6	35.6	36.4	36.6	36.1	35.8	37.2	38.1	39.1	41.3	44.6	48.3	52.3	55.9	58.9	61.7	62.8	63	63.2	63.5
NGO2	50	50.1	49.2	48.3	47.6	47.7	47.9	47.9	48	48.2	47.1	47.2	48.3	49.6	50.4	51.1	51.7	52.6	53.5	54.6	55.8	60	62.4	63.2
IPS6	33	35	36	36.7	36.9	38.1	39.2	40.4	41.6	42.7	43.9	46.3	48.5	49.9	51.2	52.9	55	57.1	59.2	61.3	63.3	65.1	67	68.8
NGO4	30	28.8	26.8	29.2	31.4	33.3	32.1	32	32.4	31.6	32.4	37.5	41.4	50	57.7	61.9	66	69.5	72.7	69.5	66.9	64.9	63.3	62.2
FAC 2	60	56.4	53	50.5	48.4	47.4	44.7	42	38.9	37.8	38.8	40.7	43.7	46.3	48.9	51.6	54.7	57.9	60.6	63	63.5	63.3	64.1	64.4
S1	30	32.6	35.4	37.3	38.5	38.7	38.2	36.7	35.3	35	36.1	38.4	41.1	43.8	46.8	50	53	56.1	58.9	62.1	63.2	63.4	63.7	63.8
TER 4	49	48.4	48.4	48.7	48.2	48.1	48	48.2	48.4	48.7	48.8	48.2	48.8	49.2	49.8	50.7	51.3	52.1	53	54.2	55.3	59.6	62.2	63.1
IPS8	40	39.8	39.3	39.3	39.3	40.7	42.1	43.5	44.7	45.8	46.9	47.5	48.7	49	49.9	51	52.3	53.2	54.3	55.5	56.8	61.3	63.1	63.7
IPS9	40	40.2	40.2	42.5	44.2	45.5	46.3	46.6	47.3	47.4	46	46.1	47.1	47.1	48.8	50.1	51.5	52.4	53.3	54.4	55.6	60	62.1	63.2
PP 3	80	80	80	80.1	80.2	80.2	83.5	86.9	85.1	81.7	71	57.6	54.6	58	60.6	63.9	67.2	70.2	73.1	69.4	66.5	64.5	63	61.9
FAC 3	0	0	0	0	1.49	28.2	29.7	30.2	30.1	33.8	43.2	49.7	54	56.1	60.1	63.7	67	70.3	73.3	69.7	66.8	64.8	63.3	62.2
IPS10	0	0	0	0	1.49	28.3	30.7	32.8	32.2	32.2	35.1	38.4	46.9	52.1	58.1	62.7	66.6	70	73.2	69.6	66.8	64.8	63.3	62.2
IPS12	0	0	0	0	0.77	21.7	28.6	30	33.3	42.3	48.2	51.2	54.8	56.6	60.3	63.9	67.1	70.3	73.4	69.8	66.8	64.8	63.3	62.2
IPS13	0	0	0	0	0	4.19	34.8	35	35.5	35.9	37.4	41.2	43.5	45.6	48.3	51.8	54.9	58.5	61.6	63.4	64.5	64.5	65.3	65.5
TER 6	49	48.6	48.1	47.7	47.3	47.5	47.7	47.8	47.9	48.1	47	47.1	48.3	49.6	50.3	51	51.7	52.5	53.5	54.6	55.8	60.1	62.1	63.1
IPS14	0	0	0	7.97	46.2	46.5	46.9	47.5	48.1	48.7	49.3	50	50.9	51.9	52.7	54.6	56.9	59	61.2	63.8	65.9	67.9	70.3	72.6
NGO6	100	100	97.5	97.4	97.3	97.2	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3	97.3
TER 8	33	33.8	44.7	44.5	44.2	44.5	44.9	45.5	46.2	46.8	47.6	49.2	50.7	52.3	53.9	56.2	58.8	61.8	65.2	68.4	71.4	74.1	76.7	79
NGO7	100	98.4	97.1	96	92.3	90.1	90.2	90.7	91.7	92.3	93.1	94.3	95.1	95.7	96.1	96.4	96.6	96.8	96.9	97	97	97	97.1	97.1
PP 4	0	0	0	0	0.77	21.7	28.6	30	33.3	42.3	48.2	51.2	54.8	56.6	60.3	63.9	67.1	70.3	73.4	69.8	66.8	64.8	63.3	62.2
PP 5	60	55.9	52.2	49.9	48	47.1	46.7	46.2	46.2	46.3	45	44.3	44.9	47.2	50	52.6	53.8	54.9	55.1	56.1	58	62	63.8	64.4
PP 6	0	0	0	7.98	24.3	22.4	23.6	25.9	27	28.6	32.4	35.8	40.1	50.2	54.7	58.3	64.1	69.2	72.8	69.5	66.7	64.7	63.2	62.1
FAC 4	49	47.7	45.8	45	44.3	45.1	46	46.9	47.8	48.6	49.5	50.4	51.4	52.4	53.4	54.6	55.8	57.2	58.6	60.3	62	63.9	65.7	67.5
S2	50	49.4	48.5	47.3	46.7	46.6	46.4	44.2	40.1	37.9	38.2	40	42.8	45.5	48.5	51.8	54.6	57.8	61.2	64.3	65.2	65.1	65	64.7

Round by Round Forecasts

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
Smoothed Mean	41.3	40.4	39.2	39	40.2	42	43.7	44.6	45.1	45.8	46.6	47.7	49.1	51	53.1	55.3	57.5	59.6	61.2	62.3	63.1	63.9	64.8	65.4
Round Forecast	42.5	40.2	38.7	38.8	39.4	42.3	44.3	44.6	44.9	45.8	46.6	47.4	49.1	51	53.1	55.3	57.5	59.7	61.7	62.3	62.8	64.1	64.9	65.4
Security Forecast	49	48	47.8	47.5	46.9	47.1	46.4	46.6	47.3	47.4	47.1	48.2	48.8	50	53.4	54.6	55.8	57.9	61.2	64.2	65.2	64.7	64.1	64.4
Utility Gain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Gain2	19.7	31.4	42.8	38.9	30.7	6.64	3	11.9	27.7	78.3	107	122	161	194	210	217	219	216	215	211	207	203	202	202
Veto Min	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
Veto Max	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
End-Rule	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0

Round by Round Summary of Actor Relationships

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
No_Dispute	12	6.67	6.02	3.23	0.43	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Status_Quo	30.7	37.1	41.6	41.6	44.3	49.8	51.9	53	50.8	49.7	50	51.2	50.2	48.4	46.1	46.5	45.9	45.2	45	44.6	43.6	46.2	49.1	49.9
Compromise	27.6	33.8	33.3	36.8	37.6	33.6	31.7	30.8	32.2	33.8	31.9	30.8	30.4	34.5	36.7	37.3	39	39.9	40.3	40.3	40.8	38.1	35.3	34.5
Coerce	9.35	13	12.4	13.4	14.5	15.4	15.1	15	14.4	14	13.9	12.5	11.3	11.2	11.6	10.9	10.8	10.5	10.4	10.8	10.8	10.8	10.7	10.7
Clash	20.3	9.46	6.67	4.95	3.12	1.08	1.08	1.08	2.47	2.37	3.98	5.38	7.85	5.7	5.38	5.16	4.09	4.19	4.09	4.09	4.73	4.73	4.73	4.73

Appendix H

Output File from Experimental Model Run (Salience -SD): Maximum Rate of the CO2 Levy

Project Description: Salience-SD_Input_CO2
Date and Time: 07.12.2022 17:08:08

Player's Data

Group	Name	Influen	Positio	Salienc	Flexibili	Veto	FixedPo	Rando	Optimize
3	IPS2	100	200	99	6	0	0	0	1
3	TER 2	75	70	99	1	0	0	0	0
2	FAC 1	100	120	75	0	0	0	0	0
3	IPS5	75	120	99	2	0	0	0	0
3	TER 3	75	200	75	5	0	0	0	0
1	PP 2	25	120	75	8	0	0	0	0
3	NGO 2	25	260	71.6	6.5	0	0	0	0
3	IPS6	75	120	99	1	0	0	0	0
2	FAC 2	100	170	75	7	0	0	0	0
4	S1	25	300	75	9	0	0	0	0
3	TER 4	75	200	50	7	0	0	0	0
3	IPS8	50	120	50	0	0	0	0	0
3	IPS9	75	60	99	3	0	0	0	0
3	TUCP 1	50	0	50	0	0	0	0	0
1	PP 3	75	240	75	9	0	0	0	0
2	FAC 3	25	196	50	9	0	0	0	0
3	IPS10	10	120	99	1	0	0	0	0
3	IPS12	75	250	75	2	0	0	0	0
3	IPS13	50	120	75	0	0	0	0	0
3	TER 6	100	96	99	0	0	0	0	0
3	IPS14	25	0	1	8	0	0	0	0
3	NGO 6	75	500	22.6	0	0	0	0	0
3	TER 8	50	120	1	0	0	0	0	0
3	NGO 7	100	500	22.6	8	0	0	0	0
1	PP 5	75	210	75	5	0	0	0	0
1	PP 6	100	120	75	2	0	0	0	0
2	FAC 4	100	120	99	0	0	0	0	0
4	S2	75	300	50	7	0	0	0	1

Round by Round Positions

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
IPS2	200	204	207	210	215	219	225	231	235	237	238	236	235	234	233	232	232	231	230	230	229	228	228	227.4
TER 2	70	79	80.8	87	97	111	121	188	188	188	189	189	189	189	184	179	178	179	179	180	182	183	183	183.9
FAC 1	120	123	125	128	135	141	147	152	157	161	165	169	172	175	177	178	179	180	181	182	183	184	184	185.2
IPS5	120	124	124	126	130	135	138	143	148	152	156	160	165	195	195	195	196	196	196	194	188	185	184	184.3
TER 3	200	203	205	210	214	217	222	228	233	235	236	235	235	234	233	233	232	231	231	230	229	229	228	227.8
PP 2	120	117	112	109	111	114	121	152	204	205	208	220	231	234	210	197	190	188	187	187	188	189	189	190.1
NGO 2	260	258	254	248	249	249	247	243	242	245	278	306	325	340	351	361	369	376	381	386	390	394	396	399
IPS6	120	124	125	126	133	138	144	149	153	156	159	162	165	168	172	175	207	207	207	208	208	208	208	207.9
FAC 2	170	175	178	188	196	203	213	222	230	233	235	235	234	234	233	232	232	231	231	230	229	229	228	227.8
S1	300	282	266	259	256	251	251	247	277	286	301	318	331	343	353	362	370	376	382	386	390	394	396	399
TER 4	200	206	211	214	219	225	230	234	235	241	275	321	332	344	353	362	370	376	382	386	390	394	396	399
IPS8	120	122	124	127	134	140	146	151	156	160	164	168	172	174	176	178	179	180	181	182	182	183	184	184.7
IPS9	60	70	73.7	83	98.9	171	155	145	148	152	156	160	164	169	196	184	181	181	181	182	183	183	183	183.9
TUCP 1	0	0	223	237	237	236	236	235	235	235	234	234	233	232	232	231	230	229	228	228	227	226	226	225.3
PP 3	240	244	244	242	245	243	242	242	245	270	289	312	328	341	352	361	369	376	381	386	390	394	396	399
FAC 3	196	197	200	203	207	217	225	230	234	241	282	307	325	340	351	361	369	376	381	386	390	394	396	399
IPS10	120	122	123	126	133	138	144	149	153	156	159	162	165	168	172	175	207	207	207	208	208	208	208	207.9
IPS12	250	244	238	237	238	238	238	239	238	239	245	254	250	246	243	241	239	218	202	194	191	191	192	192.3
IPS13	120	123	125	128	135	141	147	152	157	162	165	169	172	175	177	178	179	180	181	182	183	184	184	185.2
TER 6	96	103	105	111	121	129	137	144	150	155	160	164	168	171	174	175	177	178	179	180	181	181	182	183.3
IPS14	0	0	22	197	197	198	198	198	198	198	198	198	199	199	199	199	199	199	200	200	200	200	200	200.4
NGO 6	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
TER 8	120	120	304	287	287	287	288	288	288	288	289	289	290	290	290	291	291	291	291	291	291	292	292	291.8
NGO 7	500	500	483	484	485	485	485	485	485	485	485	485	485	485	485	485	485	485	485	485	485	485	485	484.5
PP 5	210	212	213	217	222	227	232	235	236	236	241	248	245	243	240	239	237	236	234	233	223	206	199	195.3
PP 6	120	121	121	122	125	130	136	138	146	152	156	185	177	174	173	175	176	177	179	184	207	199	195	193.8
FAC 4	120	124	126	130	137	143	149	154	158	163	166	170	173	176	177	179	180	181	182	183	183	184	185	185.7
S2	300	289	274	270	264	259	252	248	247	271	307	320	333	344	354	362	370	376	382	386	390	394	397	399

Round by Round Forecasts

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
Smoothed Mean	159	160	161	165	171	177	183	189	194	200	206	211	216	219	222	224	226	227	228	229	230	231	231	231.6
Round Forecast	160	158	161	164	170	178	182	189	195	199	205	213	215	220	223	224	227	227	228	229	231	230	231	231.5
Security Forecast	120	124	178	197	197	203	222	228	233	235	235	235	235	234	233	232	232	231	230	230	229	228	228	227.4
Utility Gain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Gain2	2.7	[2.52]	[8.17]	9.09	14.7	22.5	42.4	95.3	136	159	187	207	210	209	209	209	209	209	210	211	210	211	211	211.2
Veto Min	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
Veto Max	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
End-Rule	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	1

Round by Round Summary of Actor Relationships

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
No_Dispute	13.5	0.79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Status_Quo	44.7	54.2	54.5	51.9	52.1	53.6	53.7	52.9	48.4	47.6	48.4	48.3	48.3	49.7	49.3	48.4	51.1	50.8	51.2	51.3	50.1	50.1	49.7	49.87
Compromise	26.7	30.2	31.4	33.1	33.3	32.3	32.3	32.1	33.6	32.7	36.8	36.9	37.4	35.9	36.2	36.8	34.3	35.1	34.5	34.4	36.1	36.1	36.5	36.38
Coerce	12.3	14	14.2	13.8	13.8	13.1	12.4	11.8	11.5	11.1	11.2	10.9	10.9	10.9	10.9	11	11	10.7	10.7	10.7	10.3	10.3	10.3	10.32
Clash	2.78	0.79	0	1.32	0.79	1.06	1.59	3.17	6.48	8.6	3.57	3.97	3.44	3.57	3.57	3.84	3.7	3.44	3.57	3.57	3.44	3.44	3.44	3.44

Appendix I

Output File from Experimental Model Run (Salience -SD): Height of Domestic Reduction Target

Project Description: Salience-SD_Input_IR
Date and Time: 07.12.2022 17:08:27

Player's Data

Group	Name	Influenc	Positior	Salience	Flexibilit	Veto	Fixed Po	Randon	Optimize
3	IPS 2	100	70	75	6	0	0	0	1
3	NGO 1	10	100	72.6	1	0	0	0	0
3	TER 2	75	20	75	2	0	0	0	0
3	IPS 5	75	50	75	3	0	0	0	0
3	TER 3	75	60	75	5	0	0	0	0
1	PP 2	25	33	25	4	0	0	0	0
3	NGO 2	25	100	72.6	1	0	0	0	0
3	NGO 4	25	100	72.6	0	0	0	0	0
2	FAC 2	100	70	99	3	0	0	0	0
4	S 1	25	80	75	8	0	0	0	0
3	TER 4	75	60	25	10	0	0	0	0
3	IPS 8	50	60	50	3	0	0	0	0
3	IPS 9	75	10	75	5	0	0	0	0
3	TUCP 1	50	100	50	10	0	0	0	0
1	PP 3	75	100	99	6	0	0	0	0
2	FAC 3	25	0	75	9	0	0	0	0
3	IPS 10	10	60	99	5	0	0	0	0
3	IPS 12	75	75	99	3.5	0	0	0	0
3	IPS 13	50	50	50	5	0	0	0	0
3	TER 6	100	20	75	2	0	0	0	0
3	IPS 14	25	0	99	0	0	0	0	0
3	NGO 6	75	100	72.6	2	0	0	0	0
3	TER 8	50	100	99	0	0	0	0	0
3	NGO 7	100	100	23.6	2	0	0	0	0
1	PP 5	75	100	99	3	0	0	0	0
1	PP 6	100	0	50	5	0	0	0	0
2	FAC 4	100	60	99	0	0	0	0	0
4	S 2	75	90	75	7	0	0	0	0
2	FAC 1	100	60	75	0	0	0	0	1

Round by Round Positions

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
IPS 2	70	68.4	65.86	63.63	61.6	60.41	59.93	60.02	59.8	61.38	61.8	61.53	61.75	60.61	59.82	57.92	56.45	55	54.78	54.96	55.29	55.97	56.69	57.36
NGO 1	100	100	99.97	99.92	99.81	99.56	98.86	96.34	94.88	93.75	79.69	73.75	68.89	65.06	62.46	60.84	60.02	59.71	59.56	59.67	59.86	60.25	60.75	61.39
TER 2	20	20.18	20.37	20.54	20.54	20.54	20.54	16.16	11.1	18.68	36.28	50.79	56.81	55.22	51.55	51.3	51.5	51.96	52.75	53.6	54.75	55.71	56.44	57.05
IPS 5	50	52.06	52.95	54.49	55.32	56.17	57.22	58.24	58.72	59.55	60.13	60.99	61.18	60.23	58.85	58.31	56.42	55.27	54.8	55.04	55.43	56.1	56.82	57.5
TER 3	60	60.02	58.67	57.24	57.02	57.36	57.96	58.63	58.72	59.01	59.45	60.32	60.49	59.62	58.66	57.55	56.18	55.25	54.84	55.07	55.45	56.09	56.79	57.47
PP 2	33	32.78	31.92	52.07	54.36	57.24	59.01	61.11	62.68	63.82	64.78	65.73	66.36	67.51	68.58	69.98	71.33	72.52	73.55	74.42	75.1	75.6	75.94	76.13
NGO 2	100	100	99.97	99.92	99.81	99.56	98.86	96.34	94.88	93.75	79.69	73.75	68.68	65.11	62.49	60.86	60.04	59.72	59.57	59.68	59.87	60.26	60.76	61.4
NGO 4	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
FAC 2	70	67.21	65.11	63.42	62.62	62.04	61.16	60.84	60.51	59.96	59.67	59.35	59.46	59.55	60.18	59.48	59.58	59.26	58.32	57	55.58	55.35	55.62	56.1
S 1	80	83.52	84.33	85.78	87.37	88.68	90.43	91.48	91.37	89.68	83.95	73.6	62.87	54.92	52.82	51.98	52.2	52.67	53.27	53.98	55.38	56.39	57.14	57.75
TER 4	60	59.2	57.64	58.22	58.17	59.2	60.34	61.95	67.52	70.9	71.36	68.34	66.26	64.22	58.93	55.42	54.46	54.2	54.96	54.73	55.26	55.94	56.57	57.13
IPS 8	60	60.01	60.1	59.94	59.85	59.96	60.72	61.44	62.29	63.76	64.45	66.27	66.98	64.79	62.51	60.07	57.55	55.32	54.83	54.92	55.21	55.89	56.62	57.31
IPS 9	10	7.18	5.51	3.41	2.3	1.7	6.77	12.7	19.21	35.5	43.1	39.78	35.34	34.72	37.49	41.8	45.05	47.48	49.35	50.97	52.93	54.43	55.73	56.56
TUCP 1	100	99.5	99.27	99.14	96.22	94.6	90.24	78.24	66.09	59.3	57.05	52.7	46.91	43.08	43.34	45.84	47.99	49.58	50.94	52.22	53.86	55.12	56.07	56.83
PP 3	100	100	99.95	99.07	99.71	96.61	91.14	84.8	72.87	65.68	63.58	61.94	58.19	53.27	49.85	51.52	53.09	53.87	57.26	56.76	56.72	57.04	57.78	58.37
FAC 3	0	1.24	1.44	1.94	1.84	6.33	10.57	10.16	17.1	35.16	49.34	55.45	54.62	50.7	49.63	49.94	50.82	51.63	52.55	53.42	54.63	55.65	56.42	57.05
IPS 10	60	60.02	59.11	58.29	57.87	57.85	58.39	58.97	58.96	59.34	59.76	60.58	60.14	59.63	58.33	56.59	55.78	54.05	53.27	53.42	53.75	54.39	55.12	56.8
IPS 12	75	72.55	69.37	66.83	65.38	64.28	63.44	62.31	61.77	61.93	62.09	62.46	61.96	61.38	61.33	60.55	60.21	59.61	57.64	56.44	55.28	55.19	55.53	56.05
IPS 13	50	50.63	53.13	55.2	56.31	57.25	57.99	58.54	58.67	61.58	62.64	64.15	63.13	61.69	59.55	57.72	56.08	55.47	55.42	55.59	55.89	56.37	57.1	57.82
TER 6	20	20.18	20.37	20.54	20.54	20.54	20.54	16.16	11.1	18.68	36.28	50.79	56.81	55.12	51.49	51.26	51.48	51.94	52.74	53.6	54.75	55.71	56.44	57.05
IPS 14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NGO 6	100	100	99.97	99.92	99.81	98.98	96.8	95.32	93.47	90.58	73.46	69	66.16	62.67	60.38	55.96	54.5	54.42	54.66	55.18	56.1	56.36	56.79	57.25
TER 8	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
NGO 7	100	100	99.99	99.97	99.92	99.81	99.64	99.4	99.17	99.3	99.41	99.5	84.14	83.61	83.04	82.44	81.82	81.18	80.53	79.87	79.22	78.56	77.91	77.27
PP 5	100	100	99.95	99.9	99.77	98.06	96.16	94.93	93	80.1	71.8	67.1	62.14	58.64	56.63	54.93	54.29	57.03	56.38	56.16	56.66	57.34	58	58.54
PP 6	0	0.97	1.13	1.6	1.69	1.59	1.35	1.02	0.76	0.57	0.43	0.32	0.24	0.18	0.14	0.1	0.08	0.06	0.04	0.03	0.02	0.02	0.01	0.01
FAC 4	60	60.03	59.05	58.36	58.46	58.64	58.88	59.15	59.24	59.1	59.41	60.1	60.84	61.48	62.11	62.12	62.17	62.37	62.67	62.98	63.34	63.68	64	64.28
S 2	90	91.64	91.47	86.96	89.67	91.05	91.92	90.88	81.16	70.46	63.69	59.34	55.98	51.27	50.97	51.28	52.23	52.39	53	53.75	54.83	55.72	56.45	57.06
FAC 1	60	60.02	59.31	58.71	58.75	58.89	59.08	59.31	59.36	59.19	59.47	60.15	60.87	61.5	62.12	62.12	62.16	62.35	62.63	62.9	63.21	63.53	63.83	64.1

Round by Round Forecasts

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
Smoothed Mean	63.63	63.95	64.24	64.06	63.59	63.15	62.4	61.19	60.1	59.64	60.08	60.36	59.9	58.8	57.73	57.07	56.79	56.76	56.83	57.01	57.27	57.67	58.13	58.58
Round Forecast	63.07	64.2	64.57	63.94	63.66	63.16	62.62	61.42	59.51	59.38	60.03	60.83	60.2	58.67	57.52	56.98	56.71	56.69	56.88	56.93	57.22	57.65	58.15	58.59
Security Forecast	60	60.03	59.31	58.71	58.75	59.2	59.93	60.02	59.8	59.96	60.13	60.32	60.84	59.62	58.85	57.55	56.08	55	54.83	55.04	55.29	55.94	56.62	57.25
Utility Gain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Gain 2	25.63	54.72	90.06	92.55	95.18	93.58	91.59	106.4	130	158.3	163.4	190.4	208.7	239.2	259.1	271.1	276.6	280.7	286.6	288.5	284.4	284.8	283.2	281.7
Veto Min	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
Veto Max	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
End-Rule	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1

Round by Round Summary of Actor Relationships

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
No_Dispute	14.04	7.14	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.49	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Status_Quo	31.77	38.42	40.02	42.24	41.5	41.75	42.12	44.83	40.64	41.5	45.81	49.38	48.89	44.95	43.23	42.12	41.63	39.9	41.75	40.89	42	43.1	43.6	42.49
Compromise	30.67	38.42	48.77	47.54	48.52	48.28	47.41	44.7	46.55	47.91	42.73	40.39	39.53	44.58	44.33	46.8	48.52	50.49	47.54	49.88	48.28	48.15	47.66	48.77
Coerce	4.19	5.67	5.79	5.54	5.67	5.79	6.03	5.54	5.67	6.53	6.16	6.4	5.42	5.17	5.17	5.17	5.17	4.68	4.68	4.68	4.68	4.31	4.31	4.31
Clash	19.33	10.34	4.68	3.94	3.57	3.45	3.69	4.19	6.4	3.33	4.56	3.08	5.67	5.05	7.02	5.67	4.43	4.68	5.79	4.31	4.8	4.19	4.19	4.19

Appendix J

Output File from Experimental Model Run (Salience -SD): Level of Partial Earmarking

Project Description: Salience-SD_Input_TZ
Date and Time: 07.12.2022 17:08:40

Player's Data

Group	Name	Influen	Positio	Salience	Flexibilit	Veto	FixedPo	Randor	Optimize
3	IPS 1	25	0	99	0	0	0	0	1
3	IPS 2	100	49	50	3	0	0	0	0
3	NGO 1	10	100	21.2	3	0	0	0	0
3	TER 2	75	100	50	2	0	0	0	0
2	FAC 1	100	49	75	0	0	0	0	0
3	IPS 5	75	33	50	5	0	0	0	0
3	TER 3	75	50	75	3	0	0	0	0
1	PP 2	25	33	50	4	0	0	0	0
3	NGO 2	25	50	1	3	0	0	0	0
3	IPS 6	75	33	99	0	0	0	0	0
3	NGO 4	25	30	1	7	0	0	0	0
2	FAC 2	100	60	75	6	0	0	0	0
4	S1	25	30	50	8	0	0	0	0
3	TER 4	75	49	75	3	0	0	0	0
3	IPS 8	50	40	50	2	0	0	0	0
3	IPS 9	75	40	50	5	0	0	0	0
1	PP 3	75	80	50	3	0	0	0	0
2	FAC 3	25	0	75	4	0	0	0	0
3	IPS 10	10	0	75	3	0	0	0	0
3	IPS 12	75	0	75	5	0	0	0	0
3	IPS 13	50	0	99	2	0	0	0	0
3	TER 6	100	49	25	3	0	0	0	0
3	IPS 14	25	0	25	5	0	0	0	0
3	NGO 6	75	100	1	5	0	0	0	0
3	TER 8	50	33	1	10	0	0	0	0
3	NGO 7	100	100	21.2	10	0	0	0	0
1	PP 4	75	0	75	5	0	0	0	0
1	PP 5	75	60	99	7	0	0	0	0
1	PP 6	100	0	50	5	0	0	0	0
2	FAC 4	100	49	99	0	0	0	0	0
4	S2	75	50	25	7	0	0	0	1

Round by Round Positions

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
IPS 1	0	0	0	0	17.9	45.6	45.7	46	46.3	46.4	46.5	46.8	46.9	47	47.1	47.3	47.5	47.6	47.8	47.9	48	48.2	48.3	48.5
IPS 2	49	48.5	48.3	47.9	47.5	47.2	46.5	45.8	45.3	44.9	44.4	44.3	44.5	44.9	45.3	45.5	45.7	45.8	45.9	46.1	46.4	46.9	47.3	48
NGO 1	100	100	99.8	99.6	99.6	99.6	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
TER 2	100	100	99.9	99.9	98	97.9	97.9	97.9	97.9	97.9	97.9	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
FAC 1	49	48.1	47.2	46.7	46	45.8	45.8	45.9	46.1	46.2	46.2	46.2	46.1	46	46.1	46.1	46.1	46.2	46.2	46.3	46.4	46.5	46.6	46.7
IPS 5	33	33.6	34.6	36.6	38.6	39.7	40.5	41.3	41.4	41.2	41.5	42.1	43	43.8	44.6	45	45.3	45.6	45.8	46.1	46.5	47	47.4	53.3
TER 3	50	49	48.3	48.4	48.2	47.9	47.7	47.6	47.4	47.2	47	46.8	46.4	46.3	46.1	46.1	46	46.1	46.1	46.2	46.3	46.4	46.6	47.6
PP 2	33	33.5	34	34.8	35.4	36.5	37.8	38.9	39.7	39.8	40.4	41.4	42.5	43.7	44.5	45.3	46	46	46.1	46.4	46.7	47.1	50.3	54.9
NGO 2	50	50	49.9	49.8	49.5	49.5	49.8	50.2	50.6	50.9	51.4	51.6	51.9	52.1	52.5	52.9	53.2	53.5	53.9	54.3	54.7	55.1	55.6	56
IPS 6	33	34.4	35.1	35.9	36.5	37.5	38.7	39.7	40.7	41.5	42	42.5	42.9	43.2	43.5	43.8	44.1	44.4	44.6	44.9	45.1	45.3	45.5	45.6
NGO 4	30	30.9	57.7	56.5	55.4	54.8	54.2	53.6	53.2	52.7	52.2	51.8	51.4	51	50.7	50.4	50	49.7	49.5	49.2	49	48.7	48.5	48.3
FAC 2	60	57	54.3	52.4	50.8	50.1	48.9	48.1	46.7	44.6	43.7	43.7	44.3	45.2	45.8	46.3	46.5	46.6	46.8	46.9	47.2	47.7	48.2	48.8
S1	30	32.7	36	38.8	40.4	40.9	41.4	41.6	41.1	40.6	41.1	42	43.2	44.2	44.8	45.5	45.7	45.8	46	46.2	46.6	47	48.2	53.4
TER 4	49	48.3	47.9	47.5	47.4	47.3	47.2	47.2	47.3	47.4	47.4	47.3	47	47	46.9	46.6	46.5	46.4	46.4	46.3	46.4	46.5	46.7	47.7
IPS 8	40	40	40	40.3	40.7	41.6	42.6	43.6	44.2	44.3	44.2	44.1	44.3	44.8	45.1	45.3	45.6	45.8	45.9	46.1	46.2	46.6	47	47.7
IPS 9	40	40.4	41.5	42.8	44.2	44.7	44.6	44.5	44.6	44.6	44.6	44.4	44.6	45	45.4	45.6	45.7	45.8	46	46.1	46.4	46.9	47.3	48
PP 3	80	80	80.1	80.1	80.2	80.2	80.3	80.4	76.2	69.7	62.8	56.9	55.8	64.9	71.8	76.1	78.3	79	79.7	80.2	79.9	79.6	79.4	79.1
FAC 3	0	0	0	8.22	24.2	25.5	29	35.1	35.9	39.5	40.6	54.6	64	70.1	75.2	79.4	78.6	79.5	80	80.3	80	79.7	79.5	79.2
IPS 10	0	0	0	8.22	24	26.1	28.6	30.5	33.1	35	38.3	45	60.6	68.5	74.5	77.3	79.2	80.8	81.7	79.2	77.6	76.6	76.7	77.7
IPS 12	0	0	0	8.22	24.3	25.5	30.3	37.1	38.2	40.6	56.1	63.5	69.2	73.6	77.4	80.7	81	82.5	82.7	80.1	78.1	77	77	77.8
IPS 13	0	0	0	0	18	42.8	42.2	42.3	41	40.3	40.6	41.9	43.7	44.6	45.5	45.6	46	46.5	48.5	53.6	55.8	57.5	59.6	63.4
TER 6	49	49.1	48.6	48.2	47.6	47.4	47.4	47.4	47.3	47	46.7	46.5	46.3	46.3	46.5	46.5	46.6	46.6	46.7	46.7	46.8	46.8	47.2	47.8
IPS 14	0	0	0	8.22	31.2	32.2	33.2	33.8	34.6	35.2	35.3	35.4	35.4	35.4	35.5	35.5	35.6	35.6	35.7	35.7	35.8	35.8	35.8	35.8
NGO 6	100	100	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
TER 8	33	33.7	34.6	35.2	35.7	36.7	37.8	39	40	40.8	41.3	41.6	41.9	42.1	42.5	42.9	43.2	43.5	43.8	44.1	44.4	44.6	44.8	45.1
NGO 7	100	99.3	95.9	96	96	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9	95.9
PP 4	0	0	0	8.22	24.3	25.5	30.3	37.1	38.2	40.6	56.1	63.5	69.2	73.6	77.4	80.7	81	82.5	82.7	80.1	78.1	77	77	77.8
PP 5	60	56.5	53.6	51.8	50.3	49.7	49.6	49.8	49.3	48.5	46.1	44.7	44.7	45.7	46.1	46.7	46.7	46.7	46.7	46.8	47	47.2	47.7	48.4
PP 6	0	0	0	0	10.2	39.8	42.5	41.1	40.6	40.6	42.4	44	47.5	51.5	57.5	63.5	71.7	76	78.4	79.7	79.6	79.3	79.2	79
FAC 4	49	47.8	46.5	46.1	45.8	46.1	46.7	47.5	48.3	49	49.6	50	50.5	50.9	51.4	52	52.4	52.8	53.2	53.6	54.1	54.5	54.9	55.3
S2	50	49.6	49.1	48.6	47.9	47.7	46.9	46.2	45.8	45.3	44.4	44	44.2	44.8	45.2	45.7	45.7	45.8	46	46.1	46.4	46.9	52.9	57

Round by Round Forecasts

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
Smoothed Mean	39	38.5	38	39.3	41.8	44.3	45.8	46.3	46.5	46.9	47.6	48.7	49.8	51.1	52.5	53.5	54.4	55	55.4	55.7	55.9	56.2	56.9	57.7
Round Forecast	39.9	38.1	37.5	38.5	41.9	45.1	45.8	46.6	46.5	46.5	46.5	47.7	48.5	49.7	51.2	52.5	53.7	54.4	55	55.5	55.8	55.9	56.1	56.7	57.8
Security Forecast	49	48.1	47.9	47.5	47.4	47.2	46.7	46.2	46.3	46.2	46.2	46.5	46.4	46.3	46.5	46.7	46.7	46.7	47.8	49.2	49	54.5	54.9	55.3
Utility Gain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Gain2	8.49	18.1	22.6	6.93	[12.47	[3.12]	[0.42]	1.3	19.3	64.1	106	141	165	173	185	196	197	193	192	189	181	183	184	188
Veto Min	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
Veto Max	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
End-Rule	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	1

Round by Round Summary of Actor Relationships

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
No_Dispute	12	6.67	6.02	0.86	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Status_Quo	29.5	38.8	41.2	43.2	48.5	50.7	51.2	50.3	50.8	51.3	47.4	47.9	45.3	45.2	43.9	41.7	40.3	38.8	37.5	36.7	35.6	35.9	36.7	37.9
Compromise	22.6	26.3	27.4	30.5	26.1	24.2	24.5	25.4	24.7	25.4	28.6	28.6	29.9	32	33.7	34.4	36.2	37	38.4	39.4	40	40.2	39.4	37.3
Coerce	15.7	18.7	18.1	21.8	24	22.8	22.8	22.6	22.4	21.4	20.9	20.1	19.3	18.8	19.1	18.9	19.1	19.4	19.4	19	19.1	19.1	18.8	18.6
Clash	20.2	9.46	7.31	3.55	1.18	2.15	1.29	1.51	1.94	1.72	2.9	3.23	5.38	3.76	3.12	4.73	4.09	4.62	4.52	4.73	5.05	4.52	4.95	6.02

Appendix K

Output File from Experimental Model Run (Salience +SD): Maximum Rate of the CO2 Levy

Project Description: Salience+SD_Input_CO2
Date and Time: 07.12.2022 17:05:58

Player's Data

Group	Name	Influenc	Positior	Salience	Flexibilit	Veto	FixedPo	Randon	Optimize
3	IPS 2	100	200	99	6	0	0	0	1
3	TER 2	75	70	99	1	0	0	0	0
2	FAC 1	100	120	75	0	0	0	0	0
3	IPS 5	75	120	99	2	0	0	0	0
3	TER 3	75	200	75	5	0	0	0	0
1	PP 2	25	120	75	8	0	0	0	0
3	NGO 2	25	260	99	6.5	0	0	0	0
3	IPS 6	75	120	99	1	0	0	0	0
2	FAC 2	100	170	75	7	0	0	0	0
4	S 1	25	300	75	9	0	0	0	0
3	TER 4	75	200	50	7	0	0	0	0
3	IPS 8	50	120	50	0	0	0	0	0
3	IPS 9	75	60	99	3	0	0	0	0
3	TUCP 1	50	0	50	0	0	0	0	0
1	PP 3	75	240	75	9	0	0	0	0
2	FAC 3	25	196	50	9	0	0	0	0
3	IPS 10	10	120	99	1	0	0	0	0
3	IPS 12	75	250	75	2	0	0	0	0
3	IPS 13	50	120	75	0	0	0	0	0
3	TER 6	100	96	99	0	0	0	0	0
3	IPS 14	25	0	1	8	0	0	0	0
3	NGO 6	75	500	77.4	0	0	0	0	0
3	TER 8	50	120	1	0	0	0	0	0
3	NGO 7	100	500	77.4	8	0	0	0	0
1	PP 5	75	210	75	5	0	0	0	0
1	PP 6	100	120	75	2	0	0	0	0
2	FAC 4	100	120	99	0	0	0	0	0
4	S 2	75	300	50	7	0	0	0	1

Round by Round Positions

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
IPS 2	200	200	192.7	188.8	183.8	179.4	184.8	178.1	170.8	170.5	175.6	183.2	186	190.2	193.8	196.7	198.7	200.1	201	201.6	201.9	202.1	202.3	202.4
TER 2	70	87.73	99.27	104.4	107.1	107.3	110	111.5	113.8	114.4	116.8	118.9	119.9	119.8	119.4	118.8	118.1	117.2	115.7	114.5	113.5	112.7	111.9	111.2
FAC 1	120	119.9	119.7	119.5	119.2	119	118.7	118.4	118.1	117.5	116.7	115.9	115.1	114.4	113.7	113.1	112.6	112	111.5	110.9	110.4	109.9	109.4	108.9
IPS 5	120	119.9	122.4	122.3	122.1	122.4	121.8	121.9	120.8	119.4	118.5	118.7	119.2	119.7	119.4	118.8	118.2	117.4	116	114.7	113.8	113	112.3	111.6
TER 3	200	204.2	209.3	213.1	219	220.2	214.8	206.4	204.2	199.4	195.7	197.1	193.1	193.8	195.6	197.5	198.7	200	200.8	201.5	201.9	202.2	202.3	202.5
PP 2	120	115.9	110.7	110.6	103.1	111.4	110	101.9	102.3	110.1	141.5	163.9	178.4	189	196	200.3	202.7	204.1	204.9	205.3	205.5	205.7	205.7	205.8
NGO 2	260	257	252.3	245.5	238	226.6	212.8	207.4	200.3	198.8	196.9	197.4	194.1	194.2	195.5	197.1	198.5	199.8	200.9	201.5	201.9	202.1	202.3	202.4
IPS 6	120	119.9	122.9	124.3	124.9	124.7	126.5	129.2	129.6	129.2	128.6	127.9	127.2	126.6	125.9	125.1	122.8	118	115.9	114.5	113.4	112.6	112	111.4
FAC 2	170	150.8	133.9	124.6	119.9	116.9	116.5	126.1	130.5	132.9	143.3	147.4	152.6	155.4	156.7	156.2	156.3	156.7	156.4	154.6	151.2	147.1	145.4	144.5
S 1	300	278.2	259.4	244.3	216.8	196	164.8	212	210.6	204.3	193.6	194.1	196.5	199.5	201.7	203.2	204.2	204.9	205.3	205.5	205.7	205.7	205.8	205.8
TER 4	200	196.8	193.7	190.1	183.2	178.6	164.8	154.4	146.3	142	138	132.6	131	126.8	124	122	120.4	119.1	117.7	136.8	145.9	153.9	157.5	159.2
IPS 8	120	120	119.8	119.6	119.3	119.1	118.9	118.6	118.3	117.7	117	116.1	115.4	114.7	114.2	113.6	113.1	112.6	112.1	111.6	111.1	110.6	110.2	109.7
IPS 9	60	92.11	108.4	117	119.8	119.1	118.1	117.3	116.8	116	118.9	122	120.8	120.1	119.5	118.9	118.2	117.4	116	114.8	113.7	112.8	112.1	111.4
TUCP 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02
PP 3	240	245.7	244	239.6	234.3	225.4	196.9	171.2	159.9	160.5	155.3	159.2	159.6	157.9	157.6	158	157.1	157.1	156.7	156.3	156.6	155.8	155.3	154.9
FAC 3	196	189.7	182.6	176.2	169.8	161.5	151.2	142.6	138.3	137	136.9	137.7	139.4	139.2	143.9	146.6	150.5	152.3	152.7	152.6	153.4	153.5	154.7	155.1
IPS 10	120	120	122.9	124.3	124.9	126	129.6	131.5	131.4	130.6	129.7	128.8	127.9	126.9	125.9	125	124	118.6	115.8	114.3	113.4	112.6	112	111.4
IPS 12	250	241.3	235.3	232.5	232.1	226.6	221.6	215.9	211	207.2	200.6	199.9	198.9	196.8	197.3	198.7	200.2	201.1	201.9	202.5	202.9	203.3	203.5	203.7
IPS 13	120	119.9	119.7	119.5	119.3	119	118.8	118.4	118.1	117.5	116.8	115.9	115.1	114.4	113.7	113.1	112.6	112	111.5	111	110.4	109.9	109.4	108.9
TER 6	96	96.38	113.7	122.6	126.5	127.9	128.1	127.9	129.4	128.2	126.9	125.7	124.6	123.5	122.6	121.6	120.7	119.8	119	118.1	117.2	116.3	115.5	114.6
IPS 14	0	0	0.11	0.11	0.11	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NGO 6	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
TER 8	120	120	119.9	119.6	119.3	119.1	118.8	118.5	118.2	117.5	116.8	115.5	114.2	113.3	112.5	112	111.5	111.1	110.7	110.4	110.1	109.8	109.5	109.3
NGO 7	500	488.8	494.5	496.2	497.5	498.4	430.1	370.4	318.8	286.1	226.3	211	212.6	210.9	209.7	208.8	208.1	207.6	207.2	206.9	206.6	206.4	206.3	206.2
PP 5	210	216.1	221	227.2	230.3	225.3	216.2	207.4	204.8	200.4	196.8	197.4	193.6	194.1	195.7	197.3	198.9	199.9	200.9	201.5	201.9	202.2	202.3	202.4
PP 6	120	118.3	117.1	114.6	113.6	112.4	112.6	114.4	118.6	117.2	121.6	123	125.4	122.9	120.8	119.5	118.6	117.6	116.3	115.2	114.1	113.1	112.4	118.7
FAC 4	120	119.9	119.7	119.5	119.4	119.2	119	118.7	118.4	117.9	117.3	116.4	115.5	114.8	114.1	113.6	113.1	112.6	112.1	111.7	111.2	110.8	110.4	109.9
S 2	300	285.6	266	250.1	228.4	203.2	185.1	160.8	178.4	176	186.8	196.3	199.4	201.4	202.9	204	204.8	205.2	205.5	205.7	205.8	205.8	205.8	205.8

Round by Round Forecasts

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
Smoothed Mean	181.3	180.1	178.1	177.1	175.9	172.9	168.8	164.4	161.3	158.9	157.8	157.7	158.5	159.3	160.1	160.9	161.5	161.9	162.4	163	163.5	163.9	164.4	165.2
Round Forecast	183.6	178.9	177.9	177.4	176.2	174	168.4	163.9	161	158.9	156.8	157.7	158.6	159.3	160.1	160.9	161.5	161.9	162.2	163.1	163.6	163.9	164.3	165
Security Forecast	120	120	122.9	124.3	124.9	124.7	126.5	127.9	130.5	132.9	138	132.6	131	126.8	125.9	146.6	150.5	152.3	152.7	154.6	151.2	153.5	154.7	154.9
Utility Gain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Gain 2	19.29	19.79	22.96	21.94	22.45	26.54	29.25	48.04	76.05	116	121.5	143.2	137	142.2	141.4	140.6	139.7	138.8	137.8	136.8	135.9	133.9	134.8	132.9
Veto Min	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
Veto Max	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
End-Rule	0	0	1	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	1	0	1	0

Round by Round Summary of Actor Relationships

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
No_Dispute	13.49	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Status_Quo	46.43	57.67	60.98	61.9	61.24	62.43	64.29	64.02	62.43	56.88	57.41	56.88	56.08	56.35	56.08	55.16	55.56	55.69	55.56	56.35	56.35	56.75	56.88	56.75
Compromise	29.1	31.88	29.63	28.84	29.37	28.04	26.32	26.19	28.17	30.82	33.47	34.13	34.52	35.05	35.32	36.24	35.85	35.71	35.85	35.05	35.05	34.52	34.52	34.52
Coerce	6.48	8.73	8.73	8.6	8.73	8.6	7.94	7.94	7.14	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75
Clash	4.5	1.46	0.66	0.66	0.66	0.93	1.46	1.85	2.25	5.56	2.38	2.25	2.65	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.98	1.85	1.98

Appendix L

Output File from Experimental Model Run (Salience +SD): Height of Domestic Reduction Target

Project Description: Salience+SD_Input_IR
Date and Time: 07.12.2022 17:06:12

Player's Data

Group		Name	Influenc	Positior	Salience	Flexibilit	Veto	FixedPo	Randon	Optimize
	3	IPS 2	100	70	75	6	0	0	0	1
	3	NGO 1	10	100	99	1	0	0	0	0
	3	TER 2	75	20	75	2	0	0	0	0
	3	IPS 5	75	50	75	3	0	0	0	0
	3	TER 3	75	60	75	5	0	0	0	0
	1	PP 2	25	33	25	4	0	0	0	0
	3	NGO 2	25	100	99	1	0	0	0	0
	3	NGO 4	25	100	99	0	0	0	0	0
	2	FAC 2	100	70	99	3	0	0	0	0
	4	S 1	25	80	75	8	0	0	0	0
	3	TER 4	75	60	25	10	0	0	0	0
	3	IPS 8	50	60	50	3	0	0	0	0
	3	IPS 9	75	10	75	5	0	0	0	0
	3	TUCP 1	50	100	50	10	0	0	0	0
	1	PP 3	75	100	99	6	0	0	0	0
	2	FAC 3	25	0	75	9	0	0	0	0
	3	IPS 10	10	60	99	5	0	0	0	0
	3	IPS 12	75	75	99	3.5	0	0	0	0
	3	IPS 13	50	50	50	5	0	0	0	0
	3	TER 6	100	20	75	2	0	0	0	0
	3	IPS 14	25	0	99	0	0	0	0	0
	3	NGO 6	75	100	99	2	0	0	0	0
	3	TER 8	50	100	99	0	0	0	0	0
	3	NGO 7	100	100	76.4	2	0	0	0	0
	1	PP 5	75	100	99	3	0	0	0	0
	1	PP 6	100	0	50	5	0	0	0	0
	2	FAC 4	100	60	99	0	0	0	0	0
	4	S 2	75	90	75	7	0	0	0	0
	2	FAC 1	100	60	75	0	0	0	0	1

Round by Round Positions

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
IPS 2	70	67.33	64.14	62.24	60.44	58.32	57.65	56.57	53.77	54.92	55.61	54.97	54.2	52.2	50.39	48.1	46.07	44.69	42.55	40.84	39.57	34.76	29.9	27.8
NGO 1	100	100	99.95	96.74	94.85	92.87	92.61	90.77	88.07	84.29	76.55	61.43	52.92	46.82	42.25	39.15	35.2	33.06	31.53	30.52	30.03	29.56	29.16	28.22
TER 2	20	20.16	20.32	20.47	20.63	20.83	21.06	19.86	17.04	19.85	29.72	41.69	42.93	39.21	33.96	29.19	22.88	19.5	18.96	19.27	20.3	20.98	22.03	22.44
IPS 5	50	50	49.94	50.4	51.23	51.23	50.87	50.33	48.99	47.53	45.99	45.51	45.83	46.73	46.52	46.39	45.21	44.17	43.44	42.68	39.8	37.96	33.45	28.89
TER 3	60	57.79	56.29	54.43	53.08	51.65	50.22	48.82	47.94	46.53	45.33	44.1	43.74	42.76	43.32	44.04	44.41	43.88	43.29	42.45	41.51	38.93	32.46	28.8
PP 2	33	32.78	31.35	31.35	31.35	31.35	31.35	31.35	31.35	31.41	31.42	31.43	31.43	31.43	31.43	31.43	31.43	31.43	31.43	31.43	31.43	31.43	31.53	31.53
NGO 2	100	100	99.95	96.74	94.85	92.87	92.61	90.77	88.07	84.29	76.55	61.43	52.92	46.57	42.19	39.12	35.18	33.03	31.51	30.5	30.01	29.54	29.15	28.2
NGO 4	100	100	100	90.6	69.67	66.56	63.72	61.15	58.75	56.01	53.33	51	49.6	47.95	46.73	45.13	43.51	42.11	40.87	39.76	38.77	37.86	37.03	36.36
FAC 2	70	65.85	62.82	59.92	57.4	54.83	52.53	50.58	48.95	47.41	46.42	45.84	45.58	44.83	44.04	43.21	43.27	43.26	43.09	42.01	40.99	39.74	38.73	38.09
S 1	80	84.17	85.44	87.39	87.16	86.73	86.17	84.64	80.37	71.31	59.26	49.55	40.13	31.92	26.32	23.18	20.7	18.32	16.89	17.19	17.24	18.83	20.42	20.82
TER 4	60	63.12	66.8	65.21	64.28	64.91	65.08	66.76	74.36	74.6	67.94	58.62	51.7	37.23	27.33	22.65	21.62	20.55	20.49	20.74	21.58	22.65	22.77	22.77
IPS 8	60	59.26	58.92	57.87	56.36	55.47	52.65	50.35	48.49	46.92	45.54	44.19	43.72	42.8	42.74	42.44	42.74	42.28	41.57	40.73	39.46	38.27	33.42	28.62
IPS 9	10	7.18	5.04	3.22	2.23	1.68	7.03	13.42	16.58	27.46	31.91	25.96	19.53	17.43	16.46	15.58	14.87	16.21	17.92	19.88	21.35	22.64	22.83	22.83
TUCP 1	100	99.5	99.27	97.81	95.44	90.96	84.56	68.44	60.21	56.54	50.71	44.94	37.23	30.71	25.67	22.28	19.97	20.05	20.47	20.79	21.62	22.67	22.77	22.77
PP 3	100	100	99.95	96.29	93.97	93.19	83.45	75.93	67.66	59.97	55.81	47.31	38.65	30.96	25.79	22.02	19.54	17.39	15.91	14.87	14.04	13.42	12.96	17.31
FAC 3	0	1.26	1.73	2.02	1.85	7.87	12.95	19.81	26.13	31.32	26.5	23.58	19.13	17.17	16.39	15.59	14.91	15.65	17.53	19.68	21.25	22.58	22.79	22.81
IPS 10	60	59.27	58.36	56.7	54.81	52.74	50.83	49.03	47.53	46.17	46.35	46.08	46.51	45.86	46.27	45.85	45.07	44.19	43.23	42.26	41.27	40.06	38.87	36.03
IPS 12	75	71.9	67.48	64.59	62.11	60.11	56.96	54.32	52.13	50.14	48.84	48.68	48.12	48.12	47.72	46.42	45.73	44.17	43.13	42.24	41.16	40.04	38.87	38.11
IPS 13	50	49.8	51.22	52.71	54.28	56.58	57.72	57.73	57.94	58.5	58.34	56.06	52.52	49.58	46.18	43.23	40.4	35.16	31.09	29.03	28.05	27.53	27.27	26.81
TER 6	20	20.16	20.32	20.47	20.63	20.83	21.06	19.86	17.04	19.85	29.72	41.69	42.93	39.21	33.96	29.19	22.88	19.5	18.96	19.27	20.3	20.98	22.03	22.44
IPS 14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NGO 6	100	100	99.95	96.78	94.85	92.87	91.35	88.73	86.55	80.25	65.29	56	49.4	43.7	39.56	35.19	32.81	30.98	29.44	28.66	28.27	27.95	22.98	23.02
TER 8	100	100	100	90.6	69.67	66.56	63.72	61.15	58.75	56.01	53.33	51	49.6	47.95	46.33	44.78	43.2	41.85	40.63	39.55	38.58	37.7	36.88	36.22
NGO 7	100	100	97.15	97.15	95.16	93.67	91.89	89.46	84.34	78.33	61.91	56.06	50.2	44.3	38.43	26.96	21.93	18.63	16.67	16.62	16.55	18.12	20.22	20.94
PP 5	100	100	99.95	96.78	94.85	91.8	89.86	88.71	78.07	66.35	62.12	53.9	43.88	34.04	26.45	22.34	19.74	17.51	16	14.94	14.09	13.46	16.63	18.71
PP 6	0	0.86	1.3	1.69	1.73	1.61	1.36	1.02	0.77	0.65	0.54	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
FAC 4	60	58.53	56.04	53.93	51.95	50.06	48.33	46.82	45.47	43.91	42.24	40.44	39.3	38.14	37.04	36.02	34.96	34.09	33.33	32.67	32.08	31.54	31.01	30.47
S 2	90	91.62	91.02	86.7	87.64	86.93	85.65	83.13	73.5	66.46	53.79	45.75	37.83	30.23	25.27	22.31	19.95	17.88	16.31	16.54	16.57	18.19	19.9	20.42
FAC 1	60	58.89	56.86	54.91	52.94	51	49.2	47.6	46.16	44.52	42.78	40.93	39.75	38.55	37.4	36.35	35.22	34.3	33.5	32.81	32.19	31.63	31.08	30.52

Round by Round Forecasts

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
Smoothed Mean	65.67	65.75	65.14	63.46	61.2	59.04	57.05	54.64	52.2	49.76	47.65	45.3	42.63	39.73	36.97	34.6	32.63	31.14	30.11	29.4	28.81	28.07	27.33	26.49
Round Forecast	65.38	65.95	65.91	63.57	60.9	59.14	57.09	54.93	51.89	49.79	47.61	45.56	42.75	39.57	36.88	34.46	32.48	30.96	30	29.38	28.82	28.22	27.19	26.57
Security Forecast	60	63.12	62.82	57.87	56.36	54.83	52.53	50.35	48.95	47.41	45.99	45.51	43.72	39.21	37.04	35.19	32.81	30.98	29.44	28.66	28.05	27.53	22.98	23.02
Utility Gain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Gain 2	46.74	59.71	104	96.58	92.92	92.64	90.89	104.8	128.6	167.9	199.2	222.6	260.8	266.1	276.4	285.1	302.9	298.6	292.7	284.5	271.5	261.9	254.9	242.4
Veto Min	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
Veto Max	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
End-Rule	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

Round by Round Summary of Actor Relationships

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
No_Dispute	14.04	7.14	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.49	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Status_Quo	34.73	38.79	43.47	44.09	45.07	44.95	44.33	43.72	43.6	43.35	44.33	48.03	47.91	45.94	43.23	38.18	35.59	34.61	33.62	32.64	30.54	31.9	35.1	39.04
Compromise	31.9	41.13	49.14	48.4	46.92	47.41	47.66	48.03	45.94	45.69	45.44	43.1	42.98	45.94	48.03	50.25	56.9	58	58.99	60.1	61.7	59.48	57.64	53.45
Coerce	2.71	4.19	4.93	5.3	5.3	4.93	4.8	3.94	4.31	4.43	4.43	4.93	4.31	4.56	4.06	4.56	3.94	3.69	3.69	3.69	3.57	3.33	3.2	3.45
Clash	16.63	8.74	1.72	1.48	1.97	1.97	2.46	3.57	5.42	5.79	5.05	3.2	4.06	3.08	4.43	6.77	3.33	3.45	3.45	3.33	3.94	5.05	3.82	3.82

Appendix M

Output File from Experimental Model Run (Salience +SD): Level of Partial Earmarking

Project Description: Salience+SD_Input_TZ
Date and Time: 07.12.2022 17:06:22

Player's Data

Group	Name	Influenc	Positior	Salience	Flexibilit	Veto	FixedPo	Randon	Optimize
3	IPS 1	25	0	99	0	0	0	0	1
3	IPS 2	100	49	50	3	0	0	0	0
3	NGO 1	10	100	78.8	3	0	0	0	0
3	TER 2	75	100	50	2	0	0	0	0
2	FAC 1	100	49	75	0	0	0	0	0
3	IPS 5	75	33	50	5	0	0	0	0
3	TER 3	75	50	75	3	0	0	0	0
1	PP 2	25	33	50	4	0	0	0	0
3	NGO 2	25	50	53.8	3	0	0	0	0
3	IPS 6	75	33	99	0	0	0	0	0
3	NGO 4	25	30	53.8	7	0	0	0	0
2	FAC 2	100	60	75	6	0	0	0	0
4	S 1	25	30	50	8	0	0	0	0
3	TER 4	75	49	75	3	0	0	0	0
3	IPS 8	50	40	50	2	0	0	0	0
3	IPS 9	75	40	50	5	0	0	0	0
1	PP 3	75	80	50	3	0	0	0	0
2	FAC 3	25	0	75	4	0	0	0	0
3	IPS 10	10	0	75	3	0	0	0	0
3	IPS 12	75	0	75	5	0	0	0	0
3	IPS 13	50	0	99	2	0	0	0	0
3	TER 6	100	49	25	3	0	0	0	0
3	IPS 14	25	0	25	5	0	0	0	0
3	NGO 6	75	100	53.8	5	0	0	0	0
3	TER 8	50	33	1	10	0	0	0	0
3	NGO 7	100	100	78.8	10	0	0	0	0
1	PP 4	75	0	75	5	0	0	0	0
1	PP 5	75	60	99	7	0	0	0	0
1	PP 6	100	0	50	5	0	0	0	0
2	FAC 4	100	49	99	0	0	0	0	0
4	S 2	75	50	25	7	0	0	0	1

Round by Round Positions

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
IPS 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IPS 2	49	48.36	47.67	46.8	45.82	44.79	43.69	42.8	42.6	41.77	41.41	38.9	38.24	38.62	39.06	39.62	40.21	41.81	43.16	44.18	44.99	44.74	44.07	43.28
NGO 1	100	83.33	83.41	83.48	80.78	78.47	76.31	73.31	70.9	60.83	51.09	45.15	42.12	42.03	45.29	48.21	50.01	51.6	53.51	54.13	46.73	43.42	41	39.59
TER 2	100	83.33	83.38	83.44	83.43	82.9	82.95	82.99	82.96	82.93	82.84	82.84	82.84	82.84	82.84	82.84	82.84	82.84	82.84	82.84	82.84	82.84	82.84	82.84
FAC 1	49	47.29	44.33	42.35	40.71	39.23	37.99	36.93	35.97	34.73	34.16	34.13	34.51	35.19	36.26	37.28	38.25	39.2	40.14	41.05	41.92	42.79	43.59	44.31
IPS 5	33	33.48	34.03	36.72	38.51	39.99	40.62	40.77	40.69	40.96	40.91	39.7	38.99	38.96	39.22	39.72	40.31	41.63	42.53	43.46	44.35	44.31	43.83	43.15
TER 3	50	48.44	46.93	45.97	45.45	44.46	43.2	42.23	41.53	40.89	39.81	39.27	38.41	38.36	38.86	39.05	39.49	40.56	41.59	42.74	44.51	44.55	44.1	43.49
PP 2	33	33.48	33.97	34.7	37.28	38.86	39.84	40.07	40.12	40.56	40.53	41.13	40.46	39.77	39.72	40.04	40.54	41.24	42.49	43.44	44.34	44.31	43.83	43.15
NGO 2	50	48.88	47.89	46.93	45.89	44.83	43.71	42.66	42.47	41.55	41.23	39.05	38.27	38.7	39.13	39.69	40.28	41.92	43.28	44.28	45.04	44.77	44.11	43.33
IPS 6	33	34.61	35.97	37.33	38.25	38.76	39.26	39.39	39.56	40.78	43.46	45.26	46.77	47.93	48.85	49.69	50.54	51.34	52.16	53.21	54.26	55.29	56.28	57.21
NGO 4	30	32.29	34.93	37.84	39.72	40.74	41	40.96	41.52	41.45	41.74	39.29	38.79	38.86	39.17	39.66	40.23	41.46	42.5	43.41	44.27	44.31	43.85	43.23
FAC 2	60	55.91	51.86	49.07	46.94	45.26	43.98	43.12	42.65	41.6	39.7	37.67	37.66	38.56	39.12	39.73	40.4	41.76	43.25	44.16	44.97	44.81	44.28	43.55
S 1	30	26.77	30.22	34.19	36.94	38.66	39.73	40.11	40.99	40.9	39.05	37.54	37.69	38.05	38.7	39.35	40.02	41.25	42.38	43.34	44.22	44.27	43.85	43.22
TER 4	49	48.17	46.77	45.87	45.39	44.43	43.18	42.21	41.52	40.88	39.8	39.27	38.41	38.36	38.86	39.05	39.49	40.56	41.58	42.74	44.51	44.55	44.1	43.49
IPS 8	40	39.42	38.2	37.05	36.37	35.92	35.63	35.51	35.66	35.86	35.81	35.04	35.07	36.84	38.33	39.43	40.29	42.23	43.24	44.21	45	44.74	44.07	43.31
IPS 9	40	39.67	39.89	40.2	41.48	42.21	42.55	42.46	42.04	41.98	41.61	40.01	39.11	39.02	39.26	39.73	40.31	41.9	43.18	44.11	44.88	44.67	44.06	43.3
PP 3	80	80	81.04	82.8	83.4	83.38	83.26	82.74	82.7	82.27	77.82	69.1	50.38	41.59	39.3	39.37	41.38	43.21	44.35	45.15	45.67	44.92	43.89	42.79
FAC 3	0	0	0	0	0	3.42	6	9.53	18.68	28.22	32.02	34.09	36.22	37.6	38.83	39.87	40.83	41.49	41.66	42.26	44.14	44.06	43.42	42.57
IPS 10	0	0	0	0	0	3.11	5.63	9.24	16.66	25.21	33.24	38.19	38.26	38.75	39.37	40.08	40.79	41.31	41.39	41.66	41.96	40.89	39.8	38.95
IPS 12	0	0	0	0	0	3.64	7.87	12.42	24.11	30.25	33.84	37.15	39.91	41.92	41.26	41.39	41.73	42.17	42.23	42.52	42.87	41.95	40.95	40.14
IPS 13	0	0	0	0	0	2.59	4.96	12.06	20	20.63	25.2	29.39	33.2	35.61	38.44	38.68	39.15	39.44	39.26	39.3	39.44	38.85	38.15	37.47
TER 6	49	48.4	47.52	46.65	45.88	44.95	43.99	43.28	43.6	43.17	43.99	40.58	39.77	39.5	39.5	39.78	40.24	42.11	43.4	44.27	44.96	44.65	43.9	43
IPS 14	0	0	0	0	0.01	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NGO 6	100	83.33	83.38	83	80.81	78.99	77.38	76.33	75.45	74.79	64.65	63.1	61.18	58.69	56.54	55.22	53.67	52.2	50.14	47.82	46.71	45.74	44.84	44.08
TER 8	33	34.12	45.64	45.66	45.25	44.71	44.23	43.66	43.34	44.19	46.97	48.97	50.59	51.85	52.86	53.79	54.78	56.1	57.44	58.77	60.03	61.24	62.33	63.31
NGO 7	100	87.84	86.3	84.28	79.62	75.1	60.83	49.56	45.27	52.27	55.7	55.51	56.8	56.51	56.91	56.95	54.95	53.86	54.49	54.6	46.88	43.5	40.96	39.49
PP 4	0	0	0	0	0	3.64	7.87	12.42	24.11	30.25	33.84	37.15	39.91	41.92	41.26	41.39	41.73	42.17	42.23	42.52	42.87	41.95	40.95	40.14
PP 5	60	55.53	51.46	48.79	46.92	45.45	44.16	42.96	42.26	40.85	39.16	37.04	36.9	37.29	38.41	39.21	39.88	40.19	40.92	41.43	42.41	43.15	42.89	42.3
PP 6	0	0	0	0	0	3.01	5.49	7.65	9.99	22.4	25.39	28.38	32.37	35.56	37.06	38.01	40.77	42.4	43.49	44.31	44.94	44.73	44.08	43.36
FAC 4	49	46.74	43.85	42.4	41.24	40.17	39.36	38.76	38.46	38.55	38.39	38.74	39.24	39.78	40.33	40.88	41.43	42	42.59	43.19	43.8	44.43	45.03	45.58
S 2	50	49.09	47.55	46.36	45.65	44.93	44.3	43.78	43.89	39.37	36.69	38.18	41.23	42.27	42.44	42.69	43.05	43.54	44.27	44.82	45.18	44.77	44	43.09

Round by Round Forecasts

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
Smoothed Mean	43.09	42.05	40.24	39.5	39.2	38.88	38.65	38.79	39.45	40.23	40.56	40.51	40.53	40.8	41.25	41.75	42.38	43.09	43.84	44.4	44.64	44.53	44.18	43.73
Round Forecast	44.96	41.23	39.96	39.51	39.04	39.04	38.55	38.37	39.45	40.54	40.71	40.44	40.38	40.77	41.24	41.74	42.28	43.12	43.88	44.52	44.8	44.61	44.18	43.74
Security Forecast	49	47.29	45.64	45.66	45.25	44.43	43.18	42.23	41.53	40.89	39.8	38.9	39.11	39.02	39.26	39.73	40.4	42	43.18	44.16	44.94	44.55	44.06	43.3
Utility Gain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Gain2	17.87	36.71	78.11	92.59	88.55	69.1	60.26	63.7	100.5	141.4	162.7	169.6	187.1	205	216.2	220.5	220.7	217.6	217.1	216.1	215.4	215.4	215.2	215.3
Veto Min	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
Veto Max	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
End-Rule	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0

Round by Round Summary of Actor Relationships

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
No_Dispute	12.04	6.67	6.02	6.02	4.52	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Status_Quo	32.04	36.24	41.72	45.81	46.56	48.17	48.49	47.42	47.42	49.03	49.14	48.49	47.96	45.38	44.95	44.95	46.24	49.46	51.94	54.52	53.66	54.19	53.76	53.12
Compromise	29.89	37.74	39.14	36.88	37.31	40	39.68	40.32	40.11	37.63	38.39	38.71	39.78	41.83	42.9	42.47	42.37	40	38.06	35.7	36.45	36.45	36.77	37.1
Coerce	6.02	7.74	7.74	7.63	7.96	7.96	8.06	8.71	8.92	8.82	9.03	8.92	7.96	7.53	7.63	7.53	7.42	7.1	6.67	6.56	6.56	6.13	6.24	6.56
Clash	20	11.61	5.38	3.66	3.66	3.66	3.55	3.33	3.33	4.3	3.23	3.66	4.09	5.05	4.3	4.84	3.76	3.23	3.12	3.01	3.12	3.01	3.01	3.01

Appendix N

Output File from Experimental Model Run (Salience = 1): Maximum Rate of the CO2 Levy

Project Description: Salience1_Input_CO2
Date and Time: 07.12.2022 17:06:35

Player's Data

Group	Name	Influenc	Positior	Salience	Flexibilit	Veto	FixedPo	Randon	Optimize
3	IPS 2	100	200	99	6	0	0	0	1
3	TER 2	75	70	99	1	0	0	0	0
2	FAC 1	100	120	75	0	0	0	0	0
3	IPS 5	75	120	99	2	0	0	0	0
3	TER 3	75	200	75	5	0	0	0	0
1	PP 2	25	120	75	8	0	0	0	0
3	NGO 2	25	260	1	6.5	0	0	0	0
3	IPS 6	75	120	99	1	0	0	0	0
2	FAC 2	100	170	75	7	0	0	0	0
4	S 1	25	300	75	9	0	0	0	0
3	TER 4	75	200	50	7	0	0	0	0
3	IPS 8	50	120	50	0	0	0	0	0
3	IPS 9	75	60	99	3	0	0	0	0
3	TUCP 1	50	0	50	0	0	0	0	0
1	PP 3	75	240	75	9	0	0	0	0
2	FAC 3	25	196	50	9	0	0	0	0
3	IPS 10	10	120	99	1	0	0	0	0
3	IPS 12	75	250	75	2	0	0	0	0
3	IPS 13	50	120	75	0	0	0	0	0
3	TER 6	100	96	99	0	0	0	0	0
3	IPS 14	25	0	1	8	0	0	0	0
3	NGO 6	75	500	1	0	0	0	0	0
3	TER 8	50	120	1	0	0	0	0	0
3	NGO 7	100	500	1	8	0	0	0	0
1	PP 5	75	210	75	5	0	0	0	0
1	PP 6	100	120	75	2	0	0	0	0
2	FAC 4	100	120	99	0	0	0	0	0
4	S 2	75	300	50	7	0	0	0	1

Round by Round Positions

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
IPS 2	200	201.6	204.1	209.9	212.9	218.3	225.8	231.5	233.6	234.3	234.4	234.2	234	233.7	233.3	232.8	232.3	231.9	231.3	230.7	230	229.2	225.6	217.2
TER 2	70	78.78	86.25	96.19	106.6	123.1	134.9	147	199.5	199.7	200	200.3	200.7	199.4	195.8	195.2	194.3	195.5	197	198.9	200.7	202.1	205	208.2
FAC 1	120	122.8	125.5	131.8	139.1	147.6	155.6	162.8	169.2	174.8	179.8	184.3	188.2	191.5	194.4	196.6	198.5	200.3	201.8	203	204	205	206	206.8
IPS 5	120	123.1	124.4	127.9	134.1	139.6	145.9	152.1	159	163.4	167.9	172.8	176.8	180.9	186	210.9	205.2	201.5	199.6	200.1	201.4	202.6	205.5	208.6
TER 3	200	201.2	203.1	209.3	211.5	215.9	223.4	228.7	231.4	232.7	233	233	232.8	232.6	232.3	232	231.6	228.3	219.4	212.1	210.2	209.4	209.2	209.6
PP 2	120	117.3	114	114.6	117.9	124.3	135.4	145.8	179	206.4	212.4	210.9	201.2	196.9	195.5	196.3	197.4	197.1	199.6	202.1	203.9	205.7	207	207.7
NGO 2	260	266.6	234.6	233.5	232	231.6	231	230.1	229.1	228.1	226.9	225.7	224.5	223.3	222.1	220.9	219.7	218.7	217.7	216.8	216	215.7	215.8	216
IPS 6	120	123.1	124.3	129.3	135.1	143.5	151.3	157	162.6	166.9	171.3	175.6	178.9	181.6	183.7	185.4	226.5	227	227.2	227.2	227.1	226.8	226.5	226
FAC 2	170	176.3	182.5	191.5	199.8	208	218.2	225.4	229.4	231.4	232.3	232.5	232.6	232.6	232.3	232	231.6	228.3	219.4	212.1	210	209.3	209.2	209.6
S 1	300	287.4	255.6	253.2	244.4	240.1	237.5	237	263.2	285.1	302.3	319.6	336.7	351.6	364.8	376.1	385.5	393	399.7	405.9	410.9	414.9	418	420.5
TER 4	200	204	210.9	218.9	228	232.9	235.2	235.9	235.1	236.9	281	320.7	337.5	352.1	365	376.2	385.5	393	399.7	405.9	410.9	414.9	418	420.5
IPS 8	120	121.9	124.1	129.7	136.7	145.2	153.2	160.6	167.1	172.9	178.1	182.7	186.8	190.3	193.3	195.7	197.7	199.6	201.2	202.4	203.6	204.6	205.6	206.5
IPS 9	60	69.73	78.04	91.74	107.5	170	159.4	154.1	156.5	162.5	168.1	173.2	178	182.5	185.8	189	191.6	194	196.4	200.3	204.2	205.9	206.8	207.7
TUCP 1	0	0	241.7	244.9	243.1	242.8	242.2	241.5	240.7	240.2	239.2	238	236.9	235.6	234.3	233	231.8	230.4	228.9	227.5	226.2	224.8	223.4	222.2
PP 3	240	241.6	241.9	242.5	242.3	239.1	237.5	235.9	235.1	268.4	295.3	316.1	335.8	351.4	364.7	376.1	385.5	393	399.7	405.9	410.9	414.9	418	420.5
FAC 3	196	201.5	210.3	219.1	227.9	232.8	233.7	234.4	234.3	268.9	306.6	322.3	338.5	352.7	365.4	376.5	385.6	393.1	399.7	405.9	410.9	414.9	418	420.5
IPS 10	120	122.2	123.8	129.4	135.2	143.5	151.3	157.1	162.6	166.9	171.3	175.6	178.9	181.6	183.7	185.1	186.4	189.2	195	223	224	224.6	224.9	224.8
IPS 12	250	241.5	234.7	233.4	234.4	235.8	236.2	235.9	235.2	236.3	240.3	243.4	241.6	228.5	213.4	203.6	200.1	199.5	200	201.1	203.3	204.8	206	207
IPS 13	120	122.4	125.1	131.5	138.9	147.5	155.5	162.7	169.1	174.7	179.8	184.2	188.1	191.5	194.3	196.6	198.4	200.2	201.8	202.9	204	205	206	206.8
TER 6	96	102.1	107.3	117.2	127.3	138.3	148.1	156.7	164.1	170.5	176.1	181.1	185.4	189.2	192.3	194.9	197	199	200.7	202	203.2	204.3	205.3	206.2
IPS 14	0	0	0.11	155.1	191.8	191.9	192	192.1	192.2	192.3	192.3	192.4	192.5	192.6	192.7	192.8	192.9	193	193.2	193.2	193.3	193.4	193.5	193.5
NGO 6	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
TER 8	120	120.1	272.1	259.3	256.8	256.2	255.5	254.6	253.5	252.7	251.6	249.8	248.4	246.9	245.1	243.4	241.8	240.2	238.6	237.3	236	234.6	233.1	231.6
NGO 7	500	497.6	487.4	487.4	487.4	487.3	487.3	487.2	487.1	487.1	487.1	487.2	487.2	487.2	487.2	487.2	487.2	487.2	487.2	487.2	487.2	487.2	487.2	487.2
PP 5	210	208.1	207.9	214.8	222.6	228.5	231.9	233.5	233.9	235.6	239.5	242.9	241.1	239.6	227.7	212.5	204.6	202	201.2	201.7	203.7	205.1	206.1	207.1
PP 6	120	122.7	123.9	126	130.1	136	140.8	146.9	155.8	162.2	167.9	194.1	188.4	186.9	187.5	189.3	191.3	193.4	197.4	200.1	203.2	205	206.1	207.1
FAC 4	120	123.7	126.8	133.8	141.4	149.9	157.9	164.9	171.1	176.5	181.3	185.6	189.4	192.6	195.3	197.4	199.1	200.9	202.3	203.4	204.4	205.4	206.3	207.1
S 2	300	296.1	292.4	260.3	253	246.2	241.8	238.9	238.4	291.4	316.8	326.1	340.8	354.4	366.6	377.3	386.2	393.5	400	406.2	411.1	415	418.1	420.6

Round by Round Forecasts

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
Smoothed Mean	150.1	153.4	158.9	165.5	172.5	179.5	186	191.7	198	204.9	211.6	217	221.1	223.5	226	228.8	231.6	233.9	235.5	237.2	239.1	240.9	242.4	243.9
Round Forecast	148.8	151.4	159.9	165.3	171.4	180.9	186.1	190.8	198.2	204.9	211.6	218.4	221	223.8	225.6	228.6	232.3	234	235.4	237.1	239.2	241	242.6	243.8
Security Forecast	120	123.7	182.5	191.5	199.8	208	218.2	228.7	229.4	231.4	233	233	232.8	232.6	227.7	220.9	231.6	228.3	219.4	212.1	210.2	209.4	215.8	216
Utility Gain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Gain2	[6.44]	[13.54]	[19.93]	4.5	9.7	18.16	39.44	88.05	128.9	120.3	156.2	169.8	182.2	181.6	183	181.6	182.3	183	184	181.6	179.8	178.8	177.7	176.4
Veto Min	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
Veto Max	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
End-Rule	1	1	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1	1	1	1	1	1

Round by Round Summary of Actor Relationships

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
No_Dispute	13.49	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Status_Quo	42.59	53.7	53.84	52.65	51.06	52.12	54.1	56.08	49.07	48.94	50.13	49.74	51.19	50.26	50.79	50.4	51.59	51.32	51.32	50.4	50.4	50.26	49.87	49.47
Compromise	24.74	27.51	28.17	29.1	30.82	29.89	28.04	26.06	28.17	31.75	33.07	32.54	32.67	32.8	33.2	33.6	32.67	32.94	32.94	33.73	33.6	33.73	34.13	34.52
Coerce	14.29	16.67	17.33	17.2	16.93	15.87	15.74	14.95	15.21	14.81	14.42	13.89	14.02	14.15	13.76	13.76	13.62	13.62	13.62	13.76	13.89	13.89	13.89	13.89
Clash	4.89	1.85	0.66	1.06	1.19	2.12	2.12	2.91	7.54	4.5	2.38	3.84	2.12	2.78	2.25	2.25	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12

Appendix O

Output File from Experimental Model Run (Salience = 1): Height of Domestic Reduction Target

Project Description: Salience1_Input_IR
Date and Time: 07.12.2022 17:06:48

Player's Data

Group	Name	Influenc	Positior	Salience	Flexibilit	Veto	Fixed Po	Randon	Optimize
3	IPS 2	100	70	75	6	0	0	0	1
3	NGO 1	10	100	1	1	0	0	0	0
3	TER 2	75	20	75	2	0	0	0	0
3	IPS 5	75	50	75	3	0	0	0	0
3	TER 3	75	60	75	5	0	0	0	0
1	PP 2	25	33	25	4	0	0	0	0
3	NGO 2	25	100	1	1	0	0	0	0
3	NGO 4	25	100	1	0	0	0	0	0
2	FAC 2	100	70	99	3	0	0	0	0
4	S 1	25	80	75	8	0	0	0	0
3	TER 4	75	60	25	10	0	0	0	0
3	IPS 8	50	60	50	3	0	0	0	0
3	IPS 9	75	10	75	5	0	0	0	0
3	TUCP 1	50	100	50	10	0	0	0	0
1	PP 3	75	100	99	6	0	0	0	0
2	FAC 3	25	0	75	9	0	0	0	0
3	IPS 10	10	60	99	5	0	0	0	0
3	IPS 12	75	75	99	3.5	0	0	0	0
3	IPS 13	50	50	50	5	0	0	0	0
3	TER 6	100	20	75	2	0	0	0	0
3	IPS 14	25	0	99	0	0	0	0	0
3	NGO 6	75	100	1	2	0	0	0	0
3	TER 8	50	100	99	0	0	0	0	0
3	NGO 7	100	100	1	2	0	0	0	0
1	PP 5	75	100	99	3	0	0	0	0
1	PP 6	100	0	50	5	0	0	0	0
2	FAC 4	100	60	99	0	0	0	0	0
4	S 2	75	90	75	7	0	0	0	0
2	FAC 1	100	60	75	0	0	0	0	1

Round by Round Positions

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
IPS 2	70	70.14	70.54	71.57	72.02	72.33	72.77	72.42	71.95	71.45	71.32	70.92	70.37	69.18	68.33	67.14	66.46	66.11	66.19	66.48	66.85	67.22	67.57	67.87
NGO 1	100	99.99	99.97	99.97	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96
TER 2	20	20.22	20.44	20.44	20.44	20.44	15.79	11.04	10.61	18.33	42.95	58.45	60.76	59.32	60.66	62	63.2	64.21	65.05	65.72	66.22	66.61	66.87	67.04
IPS 5	50	53.47	56.29	58.89	61.35	63.42	65.25	66.64	67.8	68.93	70.05	70.33	70.36	70.73	71.01	70.17	68.24	67.49	67.37	67.56	67.86	68.2	68.52	68.8
TER 3	60	60.7	61.08	62.15	63.71	65.07	66.39	67.38	68.08	68.61	69.24	69.74	69.61	69.31	69.05	68.16	66.96	66.41	66.37	66.59	66.91	67.25	67.58	67.87
PP 2	33	32.78	61.67	63.58	65.78	67.76	69.46	70.83	71.93	72.65	73.23	73.54	73.86	74.17	74.47	74.76	75.05	75.32	75.6	75.87	76.14	76.4	76.67	76.93
NGO 2	100	99.99	99.97	99.97	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96
NGO 4	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
FAC 2	70	69.14	68.8	69.5	69.75	70.04	70.4	70.62	70.68	70.5	70.48	70.42	70.29	70.47	70.61	69.68	67.76	66.95	66.76	66.89	67.15	67.46	67.76	68.03
S 1	80	80.62	79.19	78.06	77.21	79.05	82.33	84.38	85.17	84.26	81.81	76.09	72.62	70.88	69.9	69.54	69.33	69.21	69.47	69.8	70.56	71.15	71.62	71.98
TER 4	60	60.31	59.94	61.94	63.74	65.39	66.78	68.01	68.83	68.97	69.55	70.42	69.48	68.68	67.45	66.35	65.69	65.58	65.66	65.96	66.34	66.74	67.11	67.43
IPS 8	60	60.81	62.35	64.79	66.55	68.14	69.59	70.76	71.6	71.8	72.25	72.12	71.4	70.56	69.85	68.59	67.14	66.48	66.4	66.62	66.95	67.31	67.66	67.96
IPS 9	10	7.18	4.88	3.24	2.31	7.06	9.12	12.97	30.84	42.21	47.77	47.53	51.75	54	58.44	60.62	62.32	63.66	64.7	65.48	66.1	66.57	66.84	67.02
TUCP 1	100	99.5	99.16	98.88	98.72	98.13	97.72	96.38	95.46	94.6	86.69	76.72	72.2	70.13	69.18	69.07	69.54	67.1	66.37	66.33	66.51	66.76	67.01	67.22
PP 3	100	100	99.95	98.94	97.73	96.34	95.85	95.67	86.47	77.13	68.33	65.2	62.86	62.22	62.15	62.74	63.55	64.4	65.16	65.79	66.27	66.62	66.87	67.05
FAC 3	0	1.87	2.14	2.25	6.62	8.23	12.72	25.62	37.66	43.42	42.75	45.54	51.32	55.65	58.54	60.66	62.47	63.83	64.81	65.56	66.11	66.58	66.84	67.02
IPS 10	60	60.92	62.11	64.07	65.32	66.41	67.44	68.15	68.67	69.17	69.65	70.05	69.82	69.45	69.18	68.17	66.87	66.43	66.46	66.71	67.05	67.39	67.73	68.01
IPS 12	75	73.6	71.54	70.93	70.29	69.8	69.56	69.29	69.04	69.43	69.86	70.05	69.83	69.74	69.12	67.88	66.75	66.4	66.47	66.74	67.08	67.43	67.77	68.05
IPS 13	50	52.86	55.59	58.37	60.74	63.38	65.65	66.77	67.86	68.76	70.34	70.9	70.65	69.56	68.59	67.3	66.64	66.55	66.63	66.93	67.31	67.69	68.05	68.35
TER 6	20	20.22	20.44	20.44	20.44	20.44	15.79	11.04	10.61	18.33	42.95	58.45	60.76	59.32	60.66	62	63.2	64.21	65.05	65.72	66.22	66.61	66.87	67.04
IPS 14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NGO 6	100	99.99	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96
TER 8	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	99.99	99.99	99.99	99.99	99.99	99.99
NGO 7	100	99.99	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96	99.96
PP 5	100	100	99.95	99.87	99.69	99.43	98.17	96.31	94.49	93.76	85.55	75.23	71.2	69.99	69.45	69.44	69.37	69.31	69.38	69.7	70.03	70.48	70.84	71.14
PP 6	0	1.25	1.57	1.9	1.9	2.31	2.73	2.06	1.55	1.16	0.87	0.65	0.49	0.37	0.28	0.21	0.16	0.12	0.09	0.07	0.05	0.04	0.03	0.02
FAC 4	60	61.62	62.43	64.25	65.51	66.67	67.81	68.7	69.41	69.91	70.37	70.61	70.82	70.83	70.79	70.75	70.7	70.66	70.64	70.67	70.75	70.87	71.03	71.22
S 2	90	91.12	90.48	86.32	88.43	90.08	91.32	92.54	92.64	81.44	70.13	66.16	63.67	62.59	62.33	62.84	63.59	64.42	65.18	65.8	66.27	66.62	66.88	67.05
FAC 1	60	61.23	62.1	63.87	65.17	66.37	67.55	68.49	69.23	69.75	70.23	70.49	70.71	70.73	70.7	70.67	70.63	70.59	70.58	70.61	70.69	70.82	70.98	71.18

Round by Round Forecasts

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
Smoothed Mean	60	60.45	61.28	61.91	62.53	62.98	63.24	63.39	63.65	64.4	65.24	65.87	65.9	65.74	65.63	65.59	65.51	65.53	65.7	65.96	66.25	66.51	66.74	66.92
Round Forecast	59.4	60.6	61.35	61.9	62.49	63.19	63.27	63.25	63.65	64.06	65.49	66.16	65.97	65.57	65.7	65.62	65.45	65.47	65.68	65.96	66.25	66.52	66.75	66.93
Security Forecast	60	61.62	62.43	64.79	66.55	68.14	69.56	69.29	69.41	69.91	70.23	70.42	70.36	69.99	69.18	68.59	67.14	66.55	66.47	66.74	67.08	67.43	67.76	68.03
Utility Gain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Gain 2	4.29	32.63	64.57	58.94	56.06	52.83	55.94	63.74	75.42	104.4	134.1	162.1	183.3	182.9	181.6	180.3	179.5	179.2	179.2	178.9	178.7	178.6	178.4	178.2
Veto Min	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
Veto Max	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
End-Rule	0	0	1	1	1	0	0	0	0	0	0	0	1	1	1	1	1	0	1	1	1	1	1	1

Round by Round Summary of Actor Relationships

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
No_Dispute	14.04	2.22	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Status_Quo	31.28	41.63	46.43	46.18	45.44	44.83	44.21	43.6	43.23	40.27	42.86	40.39	40.76	41.38	42.36	44.46	45.69	46.92	47.17	47.66	48.52	47.78	47.78	47.54
Compromise	24.75	27.96	33.62	31.65	32.02	32.64	33	33.74	34.36	35.71	33.25	35.47	36.08	36.21	35.34	33.25	32.14	30.91	30.67	30.17	29.31	30.05	30.05	30.3
Coerce	11.08	16.5	15.27	17.12	17.49	17.49	17.24	17.61	16.26	15.76	15.89	15.52	16.01	15.64	15.64	15.39	15.39	15.52	15.52	15.52	15.52	15.52	15.52	15.52
Clash	18.84	11.7	4.43	4.8	4.8	4.8	5.3	4.8	5.91	8	7.76	8.37	6.9	6.53	6.4	6.65	6.53	6.4	6.4	6.4	6.4	6.4	6.4	6.4

Appendix P

Output File from Experimental Model Run (Salience = 1): Level of Partial Earmarking

Project Description: Salience1_Input_TZ
Date and Time: 07.12.2022 17:07:04

Player's Data

Group	Name	Influen	Positio	Salience	Flexibilit	Veto	FixedPo	Randor	Optimize
3	IPS 1	25	0	99	0	0	0	0	1
3	IPS 2	100	49	50	3	0	0	0	0
3	NGO 1	10	100	1	3	0	0	0	0
3	TER 2	75	100	50	2	0	0	0	0
2	FAC 1	100	49	75	0	0	0	0	0
3	IPS 5	75	33	50	5	0	0	0	0
3	TER 3	75	50	75	3	0	0	0	0
1	PP 2	25	33	50	4	0	0	0	0
3	NGO 2	25	50	1	3	0	0	0	0
3	IPS 6	75	33	99	0	0	0	0	0
3	NGO 4	25	30	1	7	0	0	0	0
2	FAC 2	100	60	75	6	0	0	0	0
4	S 1	25	30	50	8	0	0	0	0
3	TER 4	75	49	75	3	0	0	0	0
3	IPS 8	50	40	50	2	0	0	0	0
3	IPS 9	75	40	50	5	0	0	0	0
1	PP 3	75	80	50	3	0	0	0	0
2	FAC 3	25	0	75	4	0	0	0	0
3	IPS 10	10	0	75	3	0	0	0	0
3	IPS 12	75	0	75	5	0	0	0	0
3	IPS 13	50	0	99	2	0	0	0	0
3	TER 6	100	49	25	3	0	0	0	0
3	IPS 14	25	0	25	5	0	0	0	0
3	NGO 6	75	100	1	5	0	0	0	0
3	TER 8	50	33	1	10	0	0	0	0
3	NGO 7	100	100	1	10	0	0	0	0
1	PP 4	75	0	75	5	0	0	0	0
1	PP 5	75	60	99	7	0	0	0	0
1	PP 6	100	0	50	5	0	0	0	0
2	FAC 4	100	49	99	0	0	0	0	0
4	S 2	75	50	25	7	0	0	0	1

Round by Round Positions

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
IPS 1	0	0	0	0	0	0	0	0	0	0	32.7	54.1	53.9	54	53.8	53.7	53.5	53.2	53	52.6	52.3	51.9	51.4	50.9
IPS 2	49	48.4	48.1	47.6	47	46.5	45.9	45.4	45.1	44.8	44.3	43.6	43.3	42.8	42.9	43.1	43.3	43.4	43.5	43.5	43.5	44	44.3	44.6
NGO 1	100	100	99	99	99	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
TER 2	100	100	99.9	99.5	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5
FAC 1	49	48	47	46.1	45.3	44.9	44.5	44.1	43.8	43.5	43.2	43	42.8	42.7	42.6	42.5	42.5	42.4	42.4	42.5	42.5	42.5	42.6	42.7
IPS 5	33	33.4	33.8	34.8	35.8	37.2	38.4	39.3	39.6	39.9	38.8	38.6	38.5	39.3	40.4	41.3	41.9	42.4	42.7	43	43.1	43.7	44.1	44.4
TER 3	50	48.9	48.1	48	47.7	47.2	46.6	46.2	45.8	45.6	45.4	45.1	45.2	45.2	45	44.8	44.5	44.2	44	43.8	44.3	44.5	44.6	44.6
PP 2	33	33.4	33.7	34.2	34.7	35.6	36.4	37.5	37.8	38.1	37.2	36.9	37.2	38.4	39.8	40.8	41.6	42.2	42.6	42.8	43.5	43.9	44.2	44.5
NGO 2	50	50	49.9	49.8	49.5	49.5	49.4	49.4	49.4	49.4	49.3	49.3	49.5	49.6	49.9	50.2	50.5	50.9	51.3	51.8	52.2	52.7	53.2	53.7
IPS 6	33	34	34.5	34.9	35.4	36.2	36.9	37.6	38.2	38.6	38.9	39.2	39.4	39.6	39.9	40.1	40.3	40.5	40.7	40.9	41.1	41.2	41.4	41.6
NGO 4	30	30.8	38.1	38.3	38.5	38.9	39.2	39.6	40	40.2	40.3	40.4	40.5	40.5	40.7	40.8	40.9	41	41.1	41.3	41.4	41.5	41.6	41.7
FAC 2	60	57	53.9	51.8	50	48.9	47.2	44.3	42.3	39.6	38.8	39.1	40.1	41.1	42.1	42.6	42.8	42.9	43	43.6	43.9	44.1	44.3	44.5
S 1	30	32.7	35.9	38.7	40.2	40.4	39.9	38.6	36.4	35.4	35.7	36.8	37.5	38.8	40.1	41.4	42	42.4	43.2	43.7	44	44.2	44.4	44.6
TER 4	49	48.3	47.7	47.2	47.2	46.8	46.3	45.9	45.6	45.3	45.2	44.9	44.8	44.6	44.6	44.5	44.2	44	43.9	43.7	43.6	44.1	44.4	44.6
IPS 8	40	39.9	39.7	39.7	40	40.7	41.4	42	42.8	43.5	44	44.4	44.6	44.6	44.5	44.5	44.3	44.1	44	43.9	43.8	43.7	43.6	44.2
IPS 9	40	40.6	41.8	43.1	44.2	44.5	44.8	45.1	45.5	45.7	45.5	45.1	45	44.7	44.5	44.4	44.3	44.2	44.1	43.9	43.8	43.8	44.2	44.5
PP 3	80	80	80.1	80.1	80.2	80.2	80.3	80.4	78.2	72.8	67.3	57	51.4	59.3	65	69	71.8	73.2	74.4	75.4	75.8	76.1	76.3	76.5
FAC 3	0	0	0	8.5	24.3	26.9	29.1	28.7	28.6	31.8	33.8	48.1	55.4	61.9	65.7	69.4	71.6	73.2	74.4	75.4	75.8	76.1	76.3	76.5
IPS 10	0	0	0	8.5	24.2	26.6	28.7	30.4	29.6	29.5	31.9	35.8	39.9	44.3	50	60.5	66.4	69	70.7	71.8	72.3	72.4	72.4	72.4
IPS 12	0	0	0	8.5	24.4	27	27.1	27.2	30.7	33.7	43.6	49.5	56.2	62.3	67.7	71.8	74	75.6	76.9	75.3	74.1	73.4	73.2	73
IPS 13	0	0	0	8.5	25.5	27.4	29.2	30.5	31.4	32.2	33.3	35.6	39	42.5	45.3	46.1	45.6	44.9	43.9	43.5	43	45.1	50.2	52.9
TER 6	49	49	48.6	47.9	47.1	46.7	46.3	46	45.9	45.8	45.9	46	46	45.8	45.6	45.4	45.2	45	44.9	44.8	44.6	44.5	44.4	44.4
IPS 14	0	0	0	8.5	29.4	29.8	30.3	31	32	32.5	32.9	33	33	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.7	33.8	33.8	33.8
NGO 6	100	100	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
TER 8	33	33.7	34.6	35.1	35.6	36.2	36.8	37.3	37.9	38.4	38.7	38.8	39	39.3	39.5	39.7	40	40.2	40.4	40.6	40.7	40.9	41	41.2
NGO 7	100	98.7	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9
PP 4	0	0	0	8.5	24.4	27	27.1	27.2	30.7	33.7	43.6	49.5	56.2	62.3	67.7	71.8	74	75.6	76.9	75.3	74.1	73.4	73.2	73
PP 5	60	56.4	53.1	51	49.4	48.5	47.8	47.3	47	46.8	45.3	44.1	43.7	43.3	43.6	43.8	43.8	43.8	43.9	44.1	44.2	44.7	45.1	45.7
PP 6	0	0	0	8.5	24.3	25	25.6	26.1	26.7	27.4	29.7	34.8	42.2	54.2	64	67.1	69.3	70.6	71.7	72.6	73	73.1	73.1	73.1
FAC 4	49	47.7	46.2	45.3	44.8	44.8	44.9	45	45.2	45.4	45.6	45.8	46.3	46.8	47.4	48	48.6	49.2	49.8	50.3	50.7	51.2	51.6	52.1
S 2	50	49.5	49.2	48.4	47.6	47.2	46.8	46.7	46.6	46.6	46.3	45.6	45.7	45.2	45	44.9	44.8	44.6	44.5	44.4	44.3	44.2	44.6	45

Round by Round Forecasts

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
Smoothed Mean	38	37.6	37.5	39	40.8	42	42.1	42.2	42.3	42.8	43.7	44.9	46.2	47.7	49.1	50.3	51	51.6	51.9	52.2	52.4	52.7	53	53.4
Round Forecast	38.7	37.3	36.8	38.5	41.7	42.1	42.2	42.1	42.3	42.4	43.8	44.8	46	47.7	49.3	50.4	51.1	51.6	52	52.2	52.3	52.6	53.1	53.4
Security Forecast	49	48	47	47.2	47	46.5	45.9	45	45.2	45.3	45.2	45.1	45	45.2	45.3	45.4	45.2	45	44.9	44.8	44.6	45.1	50.2	52.1
Utility Gain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Gain2	8.31	17.3	26.3	5.75	[21.09	[23.82	[23.83	[20.31	[7.72]	29.7	94.8	130	154	176	200	205	202	200	198	196	194	190	184	183
Veto Min	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
Veto Max	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
End-Rule	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1

Round by Round Summary of Actor Relationships

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
No_Dispute	12	6.67	6.02	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Status_Quo	29	38.5	40.3	44.3	48.9	50.8	51.5	52.4	52	51.8	47.5	49.3	48.6	44.7	43.8	43.4	41.8	41.2	40.8	41	41	41.4	41.5	39.6
Compromise	22.9	26.7	28.2	30.1	25.6	23.8	23	22.4	23	24.3	27.1	26.5	25.3	31.9	31.8	33.3	34.2	34.8	35.2	35.1	35.4	34.8	34.5	36.6
Coerce	16.1	18.7	18.3	23.6	24	24	24	22.7	21.9	21.3	21.4	20.9	19.1	19.8	19.3	19.3	19.3	19.3	19.4	19	19	19.1	19.1	19.1
Clash	19.9	9.46	7.2	1.83	1.29	1.29	1.29	2.37	2.8	2.37	3.76	3.23	6.77	3.33	4.95	3.76	4.52	4.52	4.52	4.73	4.41	4.41	4.62	4.52

Appendix Q

Output File from Experimental Model Run (Salience = 99): Maximum Rate of the CO2 Levy

Project Description: Salience99_Input_CO2
Date and Time: 07.12.2022 17:07:30

Player's Data

Group	Name	Influenc	Positior	Salience	Flexibilit	Veto	FixedPo	Randon	Optimize
3	IPS 2	100	200	99	6	0	0	0	1
3	TER 2	75	70	99	1	0	0	0	0
2	FAC 1	100	120	75	0	0	0	0	0
3	IPS 5	75	120	99	2	0	0	0	0
3	TER 3	75	200	75	5	0	0	0	0
1	PP 2	25	120	75	8	0	0	0	0
3	NGO 2	25	260	99	6.5	0	0	0	0
3	IPS 6	75	120	99	1	0	0	0	0
2	FAC 2	100	170	75	7	0	0	0	0
4	S 1	25	300	75	9	0	0	0	0
3	TER 4	75	200	50	7	0	0	0	0
3	IPS 8	50	120	50	0	0	0	0	0
3	IPS 9	75	60	99	3	0	0	0	0
3	TUCP 1	50	0	50	0	0	0	0	0
1	PP 3	75	240	75	9	0	0	0	0
2	FAC 3	25	196	50	9	0	0	0	0
3	IPS 10	10	120	99	1	0	0	0	0
3	IPS 12	75	250	75	2	0	0	0	0
3	IPS 13	50	120	75	0	0	0	0	0
3	TER 6	100	96	99	0	0	0	0	0
3	IPS 14	25	0	1	8	0	0	0	0
3	NGO 6	75	500	99	0	0	0	0	0
3	TER 8	50	120	1	0	0	0	0	0
3	NGO 7	100	500	99	8	0	0	0	0
1	PP 5	75	210	75	5	0	0	0	0
1	PP 6	100	120	75	2	0	0	0	0
2	FAC 4	100	120	99	0	0	0	0	0
4	S 2	75	300	50	7	0	0	0	1

Round by Round Positions

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
IPS 2	200	200.6	193.1	187.3	182.4	179.4	174.2	166.3	157.8	156.7	154.2	155.9	154.7	153.7	152.6	151.6	150.6	149.7	148.7	147.9	147	146.1	145.3	144.5
TER 2	70	69.14	81.59	90.85	99.15	101.1	107.3	109.2	112.5	113	114.7	114.8	114.4	113.5	112.8	112.2	111.7	110.7	110	109.3	108.8	108.4	108	107.6
FAC 1	120	119.9	119.8	119.6	119.3	119.1	118.9	118.6	118.2	117.8	116.8	116.2	115.5	114.8	114.2	113.7	113.1	112.6	112.1	111.6	111.1	110.6	110.1	109.6
IPS 5	120	119.9	119.6	118.6	117.1	116.6	115.7	114.2	116.4	116.6	117.5	117.4	116.9	116.3	113.7	112.5	111.8	110.9	110.1	109.5	109	108.6	108.2	107.8
TER 3	200	200.5	202	202.9	208.1	211.2	208.2	205.4	200.2	195.7	194.3	190.6	195.9	203.2	207.3	209.8	212.1	214.1	215.3	216.3	216.8	217.2	217.4	217.5
PP 2	120	115.9	108.5	103	85.74	74.33	72.92	67.53	106.6	160.4	186.6	198.7	211.5	215.8	219	225.1	226.2	227.2	228	228.5	228.9	229.2	229.4	229.6
NGO 2	260	258	253.8	246.7	238.2	223.4	213.6	208.7	203.4	199	196.6	191.8	195.7	201.6	206.7	209.9	213.1	214.8	216	216.7	217.2	217.4	217.6	217.7
IPS 6	120	119.9	119.5	119.3	118.8	118.8	118.1	118.5	118.5	118.3	118.1	117.5	116.8	116.1	115.4	114.7	111.9	110.7	109.8	109.3	108.9	108.5	108.1	107.7
FAC 2	170	150.9	136.4	123.9	116.4	112	106.5	103.3	98.12	102.1	113.6	123.9	131.8	144.8	148.5	156.1	159.1	162.5	164.3	166	166.6	164.6	162	160.9
S 1	300	279.6	261.7	246	207.9	173.2	150.3	129.5	114.8	144.4	164.5	200.6	199.8	210.4	222.5	222.7	224.9	226.4	227.4	228.2	228.7	229	229.3	229.5
TER 4	200	190.4	183.5	174.3	162.9	149.4	137.8	129.1	122.3	120.8	122.8	121.8	119	117	115.5	114.2	123.7	139.1	155.6	163.7	167.5	170.5	170.5	169.1
IPS 8	120	120	119.8	119.7	119.5	119.3	119.1	118.9	118.6	118.2	117.5	116.9	116.3	115.6	115.1	114.6	114.1	113.6	113.1	112.7	112.3	111.8	111.4	110.9
IPS 9	60	78.39	96.05	106.8	112.9	113.1	110.6	108.2	107.9	112.3	120.1	120.2	115.8	114.2	113.3	112.5	112	111	110.2	109.6	109	108.6	108.2	107.7
TUCP 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01
PP 3	240	245.6	243.4	238.9	232.8	221.1	193.3	158.8	141	135.3	136.9	141.9	147	154	157.2	158.9	160	160	162.4	163.3	163.7	163.7	161.9	161
FAC 3	196	184.8	176.9	166.2	154.9	140.7	130.7	125.5	120.4	121.3	129.5	138.7	147.7	156.6	161.4	164.2	167.1	168.9	171.1	171.1	171.1	170.3	169.2	168.4
IPS 10	120	120	119.5	119.3	118.8	118.8	118.9	118.8	118.6	118.4	118.1	117.4	116.7	116	115.3	114.7	111.9	110.5	109.9	109.3	108.9	108.5	108.1	107.7
IPS 12	250	242	236	232	230.8	224.3	216.8	210	204.1	199.2	197.1	195.7	195.3	200.4	206.6	210.3	213	214.8	216.1	216.9	217.4	217.6	217.7	217.7
IPS 13	120	119.9	119.8	119.6	119.4	119.1	118.9	118.6	118.2	117.8	116.8	116.2	115.5	114.8	114.2	113.7	113.1	112.6	112.1	111.6	111.1	110.6	110.1	109.6
TER 6	96	96.34	96.62	96.82	96.95	97.07	97.2	97.33	97.5	97.67	97.18	96.8	96.46	96.18	95.99	95.85	95.75	95.68	95.62	95.57	95.53	95.49	95.45	95.41
IPS 14	0	0	0.11	0.11	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NGO 6	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
TER 8	120	120	119.9	119.7	119.4	119.2	118.9	118.6	118.3	117.9	116.6	115.5	114.4	113.5	112.9	112.4	111.9	111.6	111.2	110.9	110.7	110.4	110.1	109.9
NGO 7	500	500	500	500	500	500	434.9	382.4	355.7	316.8	277	249	227.2	216.5	207.6	207	206.1	205.8	205.8	205.8	205.7	205.5	205.2	204.9
PP 5	210	213.1	215.5	220.8	225.2	220.2	213.3	207.3	201.5	197.5	195.5	191.6	195.7	202.3	206.5	209.5	212.3	214	215.4	216.3	216.9	217.2	217.4	217.4
PP 6	120	118.4	117.1	114.3	109.9	106.2	103.1	101.1	105.7	112.1	118.9	124.3	127.7	135.5	135.4	139.7	141.5	141.1	141.7	138.1	126.6	116.1	111.5	109.4
FAC 4	120	119.9	119.8	119.6	119.5	119.3	119.1	118.8	118.6	118.2	117.2	116.3	115.5	114.8	114.2	113.6	113.1	112.7	112.2	111.8	111.4	111	110.6	110.2
S 2	300	286.5	267.3	250.3	221.1	195.8	169.6	141.1	159	202.6	211.8	223	224.6	225.8	224.8	229	229.4	229.7	229.8	229.9	229.9	230	230	230

Round by Round Forecasts

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
Smoothed Mean	188.1	185.9	182.1	180	177.9	173.8	168.1	162.7	159.9	159	158.9	158.7	159.4	160.2	161.6	162.6	163.8	164.8	165.7	166.2	166.2	166.1	166.1	165.1
Round Forecast	191.7	184.4	181.6	180.3	178.2	175.3	167.9	161.2	159.1	159.3	158.6	159	158.6	160.7	161.2	162.8	163.8	164.8	165.9	166.4	166.3	166	166.1	166.1
Security Forecast	120	120	119.9	119.7	119.5	119.3	119.1	118.8	118.5	118.2	118.9	123.9	127.7	135.5	135.4	139.7	141.5	141.1	148.7	147.9	147	146.1	145.3	144.5
Utility Gain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Gain 2	17.69	26.03	29.92	29.4	30.18	32.21	31.19	40.78	76.01	101.9	111.1	138	140.5	144.9	145.9	144.6	143	142.3	141.1	140	138.5	132.4	137	136.3
Veto Min	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
Veto Max	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
End-Rule	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	1

Round by Round Summary of Actor Relationships

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
No_Dispute	13.49	0.53	0.26	0.26	0.26	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Status_Quo	43.92	57.28	57.28	58.73	59.79	59.52	61.64	62.3	61.38	57.28	57.41	55.56	55.29	55.42	55.03	53.57	53.97	54.23	55.03	54.76	55.16	54.76	55.16	56.35
Compromise	31.48	32.94	33.99	32.67	31.75	32.01	30.16	29.23	30.42	32.67	34.79	36.11	35.98	36.64	37.7	39.02	38.49	38.36	37.57	37.83	37.3	37.17	37.43	36.24
Coerce	5.95	7.8	7.8	7.67	7.28	7.41	7.28	6.88	6.48	6.22	5.95	6.08	6.35	6.22	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95
Clash	5.16	1.46	0.66	0.66	0.93	0.79	0.93	1.59	1.72	3.84	1.85	2.25	2.38	1.72	1.32	1.46	1.59	1.46	1.46	1.46	1.59	2.12	1.46	1.46

Appendix R

Output File from Experimental Model Run (Salience = 99): Height of Domestic Reduction Target

Project Description: Salience99_Input_IR
Date and Time: 07.12.2022 17:07:43

Player's Data

Group	Name	Influenc	Positior	Salience	Flexibilit	Veto	Fixed Po	Randon	Optimize
3	IPS 2	100	70	75	6	0	0	0	1
3	NGO 1	10	100	99	1	0	0	0	0
3	TER 2	75	20	75	2	0	0	0	0
3	IPS 5	75	50	75	3	0	0	0	0
3	TER 3	75	60	75	5	0	0	0	0
1	PP 2	25	33	25	4	0	0	0	0
3	NGO 2	25	100	99	1	0	0	0	0
3	NGO 4	25	100	99	0	0	0	0	0
2	FAC 2	100	70	99	3	0	0	0	0
4	S 1	25	80	75	8	0	0	0	0
3	TER 4	75	60	25	10	0	0	0	0
3	IPS 8	50	60	50	3	0	0	0	0
3	IPS 9	75	10	75	5	0	0	0	0
3	TUCP 1	50	100	50	10	0	0	0	0
1	PP 3	75	100	99	6	0	0	0	0
2	FAC 3	25	0	75	9	0	0	0	0
3	IPS 10	10	60	99	5	0	0	0	0
3	IPS 12	75	75	99	3.5	0	0	0	0
3	IPS 13	50	50	50	5	0	0	0	0
3	TER 6	100	20	75	2	0	0	0	0
3	IPS 14	25	0	99	0	0	0	0	0
3	NGO 6	75	100	99	2	0	0	0	0
3	TER 8	50	100	99	0	0	0	0	0
3	NGO 7	100	100	99	2	0	0	0	0
1	PP 5	75	100	99	3	0	0	0	0
1	PP 6	100	0	50	5	0	0	0	0
2	FAC 4	100	60	99	0	0	0	0	0
4	S 2	75	90	75	7	0	0	0	0
2	FAC 1	100	60	75	0	0	0	0	1

Round by Round Positions

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
IPS 2	70	67.39	64.24	62.38	60.46	58.02	55.99	54.57	51.7	51.16	50.85	50.26	50.66	50.18	49.31	48.2	47.08	46.02	45.24	41.77	36.56	32.61	30.52	28.92
NGO 1	100	100	99.95	97.03	95.28	93.43	92.75	91.4	89.15	86.04	77.4	61.43	51.95	46.44	42.4	38.73	35.01	33.13	32.7	32.32	32.23	31.5	30.34	29
TER 2	20	20.16	20.32	20.46	20.62	20.81	21.11	20.12	17.08	21.75	36.61	43.48	42.54	40.33	36.96	34.32	31.56	29.92	27.92	26.13	26.15	25.63	24.7	23.81
IPS 5	50	50	49.95	50.42	51.07	51.71	51.14	50.09	49.22	48.73	49.51	49.19	50.5	50.36	49.19	47.8	46.79	45.78	42.55	40.02	35.24	31.99	30.28	28.88
TER 3	60	57.81	56.35	54.49	53.09	51.95	50.49	49.1	47.84	47.54	46.52	46.11	47.41	48.03	47.97	47.38	46.5	45.54	44.78	42.88	39.72	34.8	31.12	28.99
PP 2	33	32.78	31.35	31.35	31.35	31.35	31.35	31.35	31.35	31.4	31.42	31.43	31.43	31.43	31.43	31.43	31.43	31.43	31.43	31.43	31.43	31.43	31.43	31.36
NGO 2	100	100	99.95	97.03	95.28	93.43	92.75	91.4	89.15	86.04	77.4	61.43	51.95	46.22	41.57	38.55	34.97	33.13	32.72	32.35	32.25	31.52	30.36	29.02
NGO 4	100	100	100	90.49	69.66	66.22	63.18	60.49	57.96	55.21	52.59	50.55	49.31	47.95	46.92	45.45	43.89	42.51	41.3	40.1	39.04	38.07	37.26	36.7
FAC 2	70	65.94	62.97	60.09	57.55	55.01	52.79	50.92	49.34	47.93	47.41	47.14	46.43	45.59	45.25	45.83	46.11	45.43	44.36	43.03	41.78	40.26	37.45	32
S 1	80	79.12	76.38	74.16	76.34	74.13	74.23	79.35	78.85	77.59	68.07	59.14	50.77	44.77	40.02	25.54	18.58	20.32	22.6	24.2	25.27	25.28	24.57	23.77
TER 4	60	63.31	67.16	64.5	63.02	63.47	63.45	65.14	70.52	72.23	64.43	56.76	49.84	34.24	24.51	18.47	19.72	22.09	24.37	25.72	26.31	25.92	24.8	23.85
IPS 8	60	59.28	58.96	57.95	56.34	54.99	54.12	51.31	49.16	48.42	47.95	46.84	46.11	46.81	47.19	46.97	46.4	44.55	42.38	40.5	34.85	31.77	29.99	28.65
IPS 9	10	7.18	4.86	3.21	2.29	2.62	7.96	14.03	20.02	32.3	32.53	27.15	21.32	19.05	16.97	15.13	15.7	20.33	23.65	25.63	26.35	25.98	24.86	23.88
TUCP 1	100	99.5	99.28	99.57	97.95	88.88	80.16	61.94	53.22	48.38	45.54	39.5	33.03	25.9	21.76	18.16	20.14	22.41	24.6	25.87	26.39	25.96	24.82	23.86
PP 3	100	100	99.95	97.05	94.57	94.61	85.29	77.12	63.47	53.71	49.77	41.15	33.56	25.3	21.27	17.54	15.37	14.08	13.24	18.47	19.96	21.04	21.77	22.17
FAC 3	0	1.5	1.85	2.12	6.58	12.46	15.13	18.97	22.43	26.37	22.98	19.53	16.68	14.94	13.51	12.44	12.77	16.29	20.49	23.73	25.47	25.56	24.67	23.8
IPS 10	60	59.28	58.51	56.81	54.83	52.53	50.79	49.15	47.75	47.4	46.31	45.98	45.41	45.16	45.12	45.74	46.08	45.51	44.5	43.34	41.73	36.18	32.64	29.82
IPS 12	75	71.98	67.63	64.8	62.11	59.86	56.87	54.4	52.32	51.14	50.4	50.56	50.28	49.23	48.54	47.54	46.32	45.62	44.63	43.36	41.92	40.59	34.21	28.87
IPS 13	50	49.81	51.27	52.23	52.83	55.63	57.87	59	57.78	57.69	56.1	54.13	52.55	49.89	47.26	44.52	41.64	37.71	32.94	31.18	30.69	30.23	29.54	28.63
TER 6	20	20.16	20.32	20.46	20.62	20.81	21.11	20.12	17.08	21.75	36.61	43.48	42.54	40.33	36.96	34.32	31.56	29.92	27.92	26.13	26.15	25.63	24.7	23.81
IPS 14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NGO 6	100	100	99.95	97.03	95.27	92.94	92.16	89.28	86.44	78.11	63.06	54.62	48.35	43.15	36.85	32.26	21.55	22.52	22.59	23.12	22.95	23.04	23.11	23.05
TER 8	100	100	100	90.49	69.66	66.22	63.18	60.49	57.96	55.21	52.59	50.55	49.31	47.95	46.58	45.16	43.64	42.29	41.1	39.92	38.88	37.93	37.13	36.57
NGO 7	100	100	99.95	97.03	95.27	92.94	92.16	89.28	86.44	78.11	63.06	54.62	48.35	42.92	35.24	24.99	17.88	21.68	22.35	23.03	22.91	23.02	23.1	23.05
PP 5	100	100	99.95	97.03	94.58	92.85	92.15	89.28	77.4	65.22	58.51	51.85	39.65	29.75	22.44	17.97	15.59	14.24	13.36	18.54	20.02	21.08	21.8	22.19
PP 6	0	1	1.75	1.98	1.93	1.68	1.57	1.18	0.89	0.74	0.62	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
FAC 4	60	58.56	56.12	54.03	52.05	50.19	48.52	47.06	45.73	44.26	42.61	40.84	39.7	38.6	37.56	36.58	35.55	34.65	33.86	33.09	32.41	31.79	31.19	30.58
S 2	90	91.62	86.43	88.86	88.92	88.05	86.34	84.08	75.16	65.82	49.77	40.93	33.15	25.15	21.04	17.42	15.75	17.77	19.22	21.6	23.2	23.77	23.63	23.41
FAC 1	60	58.91	56.92	54.99	53.02	51.11	49.37	47.83	46.42	44.86	43.15	41.34	40.16	39.02	37.94	36.92	35.84	34.9	34.09	33.27	32.56	31.91	31.29	30.66

Round by Round Forecasts

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
Smoothed Mean	66.14	66.04	65.29	63.52	61.32	59.23	57.26	54.85	52.38	49.99	47.87	45.46	42.72	39.83	37.05	34.56	32.88	31.86	31.45	30.83	30.07	28.96	27.76	26.6
Round Forecast	65.93	66.36	65.85	63.68	61.04	59.26	57.39	55.14	52.04	49.96	47.98	45.67	42.74	39.77	36.98	34.39	32.3	31.96	31.33	31.06	30.09	29.04	27.75	26.48
Security Forecast	60	63.31	62.97	57.95	56.34	55.01	52.79	50.92	49.22	48.38	47.41	46.11	42.54	40.33	36.96	34.32	31.56	29.92	27.92	26.13	26.35	25.98	24.86	23.88
Utility Gain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Gain 2	51.92	72.63	105.9	93.8	86.13	88.86	93.04	108.1	146.1	170.3	179	209.8	239.7	260.7	276.9	290.2	297.4	277.8	280.8	271.4	256.5	243.8	237.5	229.2
Veto Min	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
Veto Max	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
End-Rule	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1

Round by Round Summary of Actor Relationships

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
No_Dispute	14.04	7.14	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.49	0	0.25	0	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Status_Quo	35.59	39.04	44.58	45.81	45.69	46.55	45.94	45.07	44.21	45.07	48.89	48.15	45.57	45.07	43.84	37.56	33.13	32.64	30.05	32.76	35.71	39.41	40.27	40.89
Compromise	31.9	43.23	48.4	47.29	47.29	46.31	46.67	46.18	46.43	46.06	40.52	43.35	42.86	46.67	47.78	53.2	58.5	58	60.96	59.11	56.16	52.59	51.6	50.86
Coerce	2.71	3.82	4.68	4.8	4.8	4.31	4.31	3.82	4.56	4.68	5.17	5.67	5.42	4.56	4.43	4.68	5.05	4.68	4.43	4.31	4.31	4.31	4.31	4.56
Clash	15.76	6.77	1.35	1.11	1.23	1.85	2.09	3.94	3.82	3.2	4.43	1.85	5.17	3.2	3.94	4.31	3.33	4.43	4.31	3.57	3.57	3.45	3.57	3.45

Appendix S

Output File from Experimental Model Run (Salience = 99): Level of Partial Earmarking

Project Description: Salience99_Input_TZ
Date and Time: 07.12.2022 17:07:56

Player's Data

Group	Name	Influenc	Positior	Salience	Flexibilit	Veto	FixedPo	Randon	Optimize
3	IPS 1	25	0	99	0	0	0	0	1
3	IPS 2	100	49	50	3	0	0	0	0
3	NGO 1	10	100	99	3	0	0	0	0
3	TER 2	75	100	50	2	0	0	0	0
2	FAC 1	100	49	75	0	0	0	0	0
3	IPS 5	75	33	50	5	0	0	0	0
3	TER 3	75	50	75	3	0	0	0	0
1	PP 2	25	33	50	4	0	0	0	0
3	NGO 2	25	50	99	3	0	0	0	0
3	IPS 6	75	33	99	0	0	0	0	0
3	NGO 4	25	30	99	7	0	0	0	0
2	FAC 2	100	60	75	6	0	0	0	0
4	S 1	25	30	50	8	0	0	0	0
3	TER 4	75	49	75	3	0	0	0	0
3	IPS 8	50	40	50	2	0	0	0	0
3	IPS 9	75	40	50	5	0	0	0	0
1	PP 3	75	80	50	3	0	0	0	0
2	FAC 3	25	0	75	4	0	0	0	0
3	IPS 10	10	0	75	3	0	0	0	0
3	IPS 12	75	0	75	5	0	0	0	0
3	IPS 13	50	0	99	2	0	0	0	0
3	TER 6	100	49	25	3	0	0	0	0
3	IPS 14	25	0	25	5	0	0	0	0
3	NGO 6	75	100	99	5	0	0	0	0
3	TER 8	50	33	1	10	0	0	0	0
3	NGO 7	100	100	99	10	0	0	0	0
1	PP 4	75	0	75	5	0	0	0	0
1	PP 5	75	60	99	7	0	0	0	0
1	PP 6	100	0	50	5	0	0	0	0
2	FAC 4	100	49	99	0	0	0	0	0
4	S 2	75	50	25	7	0	0	0	1

Round by Round Positions

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
IPS 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IPS 2	49	48.25	47.62	46.54	45.93	45.14	44.2	44.16	44.04	43.06	41.58	39.07	38.11	38.09	38.77	39.88	41.09	42.49	44.01	46	46.11	45.11	43.42	41.42
NGO 1	100	100	100	100	92.47	87.96	84.54	79.99	69.92	52.36	39.99	35.11	35.93	44.76	48.42	50.98	52.87	54.24	55.13	50.72	46.9	43.61	40.95	42.19
TER 2	100	100	100	100	97.9	95.96	94.75	93.83	93.17	93.17	93.17	93.17	93.17	93.17	93.17	93.17	93.17	93.17	93.17	93.17	93.17	93.17	93.17	93.17
FAC 1	49	47.45	45.45	43.96	42.45	41.08	39.47	38.33	37.02	36.36	36.39	36.66	37.47	38.31	39.17	40.05	40.92	41.77	42.71	43.62	44.47	45.18	45.72	46.12
IPS 5	33	34.49	35.17	36.15	37.38	38.19	38.66	39.41	40.16	40.46	39.37	38.35	37.63	37.81	38.7	39.81	41.22	42.57	43.97	45.17	45.59	44.77	43.29	41.45
TER 3	50	48.58	47.01	46.14	45.19	44.16	43.18	42.72	42.16	41.74	40.05	38.33	37.5	37.92	39.16	40.46	41.71	43.08	44.47	45.58	45.67	44.49	42.8	40.88
PP 2	33	34.29	34.95	35.93	37.16	37.98	38.39	38.77	39.51	39.22	38.27	37.38	37.03	37.52	38.61	39.56	40.71	42.13	43.65	45.04	45.51	44.73	43.27	41.43
NGO 2	50	48.12	46.72	46.27	45.42	44.78	44.31	44.19	43.88	44.39	44.18	43.94	41.64	39.64	40.08	39.69	40.29	41.38	42.63	43.61	44.22	43.64	42.22	40.51
IPS 6	33	34.74	36.08	37.44	38.32	38.94	39.06	39.23	39.33	39.47	39.68	39.94	40.36	40.84	41.39	42.01	42.66	43.34	44.12	44.89	45.61	46.23	46.72	47.06
NGO 4	30	33.89	35.89	37.63	39.42	40.42	41.7	42.74	43.18	42.13	41.4	39.07	38.08	37.7	38.42	39.68	40.18	40.99	42.27	43.3	44.45	43.88	42.59	40.98
FAC 2	60	55.85	51.27	48.42	47.11	45.95	44.95	44.77	43.89	42.63	40.91	38.26	37.64	37.83	38.82	39.99	41.36	42.66	44.21	45.53	45.65	44.41	42.66	40.71
S 1	30	26.76	30.32	33.53	35.89	37.61	39.04	42.14	40.05	38	37.26	37.27	37.04	37.42	38.33	39.5	40.8	42.15	44.18	45.89	46.04	45.15	43.44	41.43
TER 4	49	47.88	46.71	45.95	45.06	44.08	43.12	42.69	42.13	41.72	40.04	38.32	37.5	37.92	39.16	40.46	41.71	43.08	44.47	45.58	45.67	44.49	42.8	40.88
IPS 8	40	40.19	39.21	38.52	37.85	37.49	36.88	36.69	36.79	37.15	37.17	36.5	36.48	37.2	38.4	39.7	41.08	42.46	44.08	46.21	46.21	45.11	43.43	41.6
IPS 9	40	39.64	39.72	39.99	40.6	41.6	42.47	43.34	43.76	43.37	42.15	39.52	38.36	38.21	38.77	39.73	40.95	42.28	43.75	45.77	45.99	45.05	43.56	41.47
PP 3	80	76.19	77.51	53.89	50.71	48.35	46.5	45.81	44.98	43.55	41.7	39.74	38.32	38.14	38.86	39.94	41.29	42.68	44.2	46.31	46.26	45.18	43.37	41.39
FAC 3	0	0	0	0	3.44	5.91	16.47	19.53	22.06	26.49	33.72	34.53	36.22	37.75	39.32	40.95	42.49	43.56	44.72	43.56	41	38	34.25	36.13
IPS 10	0	0	0	0	3.13	5.53	14.8	17.06	20.91	26.01	29.29	35.75	36.74	37.82	39.31	40.88	42.38	43.43	44.48	41.46	37.29	34.15	31.94	34.76
IPS 12	0	0	0	0	3.68	6.44	16.98	20.38	25.29	31.37	35.33	37.78	40.06	41.86	43.96	45.86	47.53	48.91	49.9	46.08	42.75	39.52	35.5	36.88
IPS 13	0	0	0	0	0	4.38	14.04	14.96	18.01	23.79	30.58	33.41	34.91	36.1	37.4	38.86	40.07	45.02	45.24	45.37	43.81	41.38	38.86	36.46
TER 6	49	48.05	47.58	46.58	45.49	45.41	45.02	45.19	45.16	44.49	42.18	39.78	38.26	38.22	38.98	40.1	41.49	42.86	44.83	46.86	46.66	45.34	43.49	41.25
IPS 14	0	0	0	0	0.01	0.37	0.25	0.17	0.11	0.07	0.05	0.03	0.02	0.01	0.01	0.01	0	0	0	0	0	0	0	0
NGO 6	100	82.53	81.27	80.39	74.74	63.16	57.98	48.45	39.19	35.58	32.49	36.81	43.59	46.46	49.22	51.44	53.13	54.4	55.23	50.78	46.93	43.62	40.95	42.19
TER 8	33	34.01	45.14	44.92	44.19	43.22	42.07	41.15	40.57	40.46	40.85	41.34	41.96	42.59	43.23	43.91	44.62	45.35	46.19	47.02	47.81	48.5	49.05	49.44
NGO 7	100	83.98	81.52	80.41	79.09	60.06	48.25	48.56	47.66	54.3	55.23	59.1	61.11	62.22	62.79	62.91	62.85	62.23	61.7	54.49	48.69	44.3	40.95	41.94
PP 4	0	0	0	0	3.68	6.44	16.98	20.38	25.29	31.37	35.33	37.78	40.06	41.86	43.96	45.86	47.53	48.91	49.9	46.08	42.75	39.52	35.5	36.88
PP 5	60	55.62	50.87	48.24	47.01	45.88	44.94	44.87	44.2	43.61	41.38	39.31	37.51	37.76	39.05	39.63	40.52	41.3	42.49	43.46	44.16	43.66	42.33	40.67
PP 6	0	0	0	0	3.09	5.48	7.85	11.3	15.54	19.25	23.93	28.39	31.41	33.17	35.1	36.7	39.08	40.64	41.92	45.12	45.78	44.89	43.33	41.22
FAC 4	49	46.96	44.1	42.59	41.25	40.15	39.15	38.73	38.45	37.85	37.12	36.68	36.26	36.08	36.07	36.18	36.37	36.61	36.88	37.19	37.55	37.96	38.46	39.05
S 2	50	48.96	48.53	47.68	47.5	46.89	46.1	47.19	46.59	41.61	38.97	38.09	38.28	39.06	40.29	41.82	43.18	44.4	45.66	46.96	46.69	45.34	43.23	41.06

Round by Round Forecasts

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
Smoothed Mean	45.44	44.41	42.35	41.36	40.2	39.46	38.81	38.69	38.79	38.9	39.12	39.3	39.75	40.52	41.47	42.53	43.59	44.62	45.19	45.1	44.24	42.97	41.8	41.12
Round Forecast	47.24	43.65	42.35	41.04	40.68	38.89	38.83	38.71	38.52	39.14	39.04	39.18	39.68	40.4	41.49	42.53	43.59	44.67	45.62	45.28	44.4	43.06	41.46	40.87
Security Forecast	49	47.45	45.45	44.92	44.19	43.22	43.12	42.72	42.13	41.61	39.68	38.32	38.11	38.14	39.05	40.05	41.36	42.68	44.21	45.58	45.67	44.49	42.8	41.22
Utility Gain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Gain2	6.61	46.94	70.82	64.59	49.53	38.6	33.68	64.13	92.57	134.2	171	197.3	212.6	212	210.7	212.3	219.6	224.4	221.2	220.9	220.5	219.9	217.5	218.2
Veto Min	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
Veto Max	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999	999
End-Rule	0	0	1	1	1	1	0	0	0	0	0	0	1	1	0	0	0	1	1	1	1	1	0	0

Round by Round Summary of Actor Relationships

	Rd 1	Rd 2	Rd 3	Rd 4	Rd 5	Rd 6	Rd 7	Rd 8	Rd 9	Rd 10	Rd 11	Rd 12	Rd 13	Rd 14	Rd 15	Rd 16	Rd 17	Rd 18	Rd 19	Rd 20	Rd 21	Rd 22	Rd 23	Rd 24
No_Dispute	12.04	6.24	6.24	6.24	0.43	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Status_Quo	30.11	42.37	45.91	49.35	50	50.65	51.94	49.57	46.67	47.53	52.69	52.9	49.68	48.82	48.82	50.32	49.89	50.75	51.61	53.12	51.08	52.26	53.23	54.73
Compromise	29.25	35.91	37.74	34.3	39.14	38.71	37.31	39.68	41.83	39.46	35.7	35.81	39.46	40.43	40.54	39.03	39.57	38.6	38.06	36.45	38.28	37.31	35.81	35.38
Coerce	6.13	7.63	7.85	7.96	8.49	9.14	9.46	9.68	9.46	9.03	8.28	7.96	8.17	8.28	8.28	7.96	7.85	7.63	7.63	7.96	8.06	7.85	8.06	7.42
Clash	22.47	7.85	2.26	2.15	1.94	1.29	1.08	0.86	1.83	3.76	3.12	3.12	2.47	2.26	2.15	2.47	2.47	2.8	2.47	2.26	2.37	2.37	2.69	2.26

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Declaration of consent

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Supervisor: Prof. Dr. Karin Ingold

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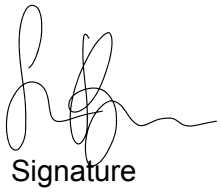

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