TEMPTED BY THE UNREACHABLE

- TWO-LEVEL MODEL OF US BEHAVIOR IN THE KYOTO PROCESS -

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ABSTRACT

This thesis analyses the United States' behaviour during the international and domestic political processes that lead to the creation of the Kyoto Protocol in 1997 and eventually to its failure in the US in 2001. It presents an answer to the puzzle why a seemingly unratifiable agreement was signed by the Clinton administration. Methodologically, the analysis relies on a rational actor-based two level model that explains variance in policy outcomes through a detailed monitoring of both domestic and international socio-economic and political actors and their interaction.

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1. INTRODUCTION

Chess is a game of many figures with unequal strength. There are simple pawns that follow the lead and move straight ahead; and there are more powerful figures like the rook or the knight that can overcome pawns on the board easily. Similarly, in world politics there are smaller, weaker states and stronger states that possess overwhelming political, economic or military power compared to the other players in the game. Their capabilities differ enormously: stronger states may often use their sheer power to force their ways on the weaker states. And there are the superpowers, the 'queens', the most powerful figures of the game of world politics. Compared to their power, the rest of the states appear insignificant. In today's world, a sole superpower rules unchallenged: the United States of America.

Yet, paradoxically, the US has been a champion of multilateral institution building ever since it became a de facto superpower at the end of the Second World War. The US helped to create new international organizations like the UN that actually limit its sovereign authority or its policy autonomy. However, every time such an institution was created, the US also resisted entangling itself in obligations and commitments linked to these very institutions. (Ikenberry 2003) The puzzle is to explain this variation: why did the United States give up some of its own power to create one institution and why did it resist committing itself to another? A simple realist explanation would be to argue that a superpower only joins multilateral institutions if it can dominate them. Though simple and elegant, this explanation seems unsatisfactory. John Ikenberry (Ikenberry 2003) presents a more complex neo-realist approach: he argues that the attraction of international institutions for the superpower is that they can lock other states into a *predictable* and *stable* policy track. Such a lock would create a stable environment for the superpower to pursue its own interests,

while reducing the need for coercion against other states.[1] The price to pay for this kind of stability is the loss in policy autonomy and some constraints on the unlimited ability of the superpower to use its power. The rule of thumb of this argumentation is a simple cost-benefit estimation by the state as the unitary actor: if the expected benefits (i.e. the locking-in of competitor or hostile states) outweigh the expected costs (i.e. the loss of power), the superpower — or with a more fashionable term, *the hegemon* — will join/create the institution[2]. In any other case it will yield. In sum, a superpower will never join an international organization or sign a treaty that limits its power, unless the incremental long term benefits outweigh this limitation of power.

The United States emerged from the Cold War in an advantageous position. In the new political setting it still sought to broaden the existing strategic and economic international institution network (e.g. NATO or NAFTA) consistently with the neo-realist claim above. In addition, from the late 1980s on, another key issue, namely climate change politics emerged on the US multilateral agenda. This was not an entirely new question - ever since the problem of environmental change first surfaced in the 1960s through the 1980s, the United States has played a crucial role in seeking solutions on an international level parallel to domestic efforts[3]; however, the international endeavors were never institutionalized (Jacobson 2002). Both scholars and policymakers agree that global environmental problems, in particular climate change can only be solved with the participation of the majority of the world states. After the Cold War ended, such voices resurfaced and the UN's Framework Convention on Climate Change (UN-FCCC) was created in 1992. The Convention sought to prepare an

[1] If the institutions created become 'sticky' — i.e. they survive for a long period of time — they will provide the benefits entailed in such a limiting international order for the leading state, even when its power capacities have declined. Thus institutions can both *create and prolong* a stable environment for the leading state. For the possible causes of stickiness see Ikenberry 2003:52 footnote no. 5

[2] The expected stable environment is a long-term benefit. The immediate costs are easier to perceive.

[3] For example those of the Nixon administration in the 1970s led by Russel Train (Jacobson 2002:415)

efficient answer to the problem of global warming/climate change, culminating in the 1997 Kyoto Protocol. The Kyoto Protocol requires the developed countries[4] (in the technical term of the protocol: 'Annex I countries') to reduce their overall greenhouse gas emission (GHG) by at least five percents below their 1990 levels in the commitment period of 2008-2012. Among the developed, the US agreed to lower its emissions by 7% below 1990 levels, inferring huge economic costs of regulation. Yet, economic and/or political competitors of the United States such as China or India did not participate in the treaty.

Although the Protocol was not ratified by the Senate, it was still signed by then President Clinton; consequently the US's position on this particular treaty clearly defies realist logic. Why did the Clinton administration even sign the Kyoto Protocol, knowing that joining the accord would entail severe costs for the US (i.e. economic adaptation to new emission levels, consequently a loss in economic growth and competitiveness), while not locking in some of its key competitors? To explain this special case of US multilateralism is the goal of this very paper.

To adequately explain the case of the Kyoto negotiations leading to this exceptional puzzle of US foreign policy, it is essentially important to identify what realist — even structural or neorealist — approaches lack, and how an analysis targeted at these blind spots could explain the subject of this paper. By explaining variance in state behavior based on the assumption that states can be considered as unitary actors that only maximize their power; realist approaches enormously simplify the political context key decision makers meet their choices in. This simplification can often be methodologically or even theoretically justified; but on the other hand, domestic politics, cultural traditions or other considerations can matter greatly and influence state behavior in ways beyond the scope of realist models.

[4] The 40 Annex I countries (industrialized countries) are: Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, United States of America. Source: http://unfccc.int/kyoto_protocol/

Domestic variables in particular matter in the case of the Kyoto Protocol in three aspects. First, the question of environmental change is unlike any other policy issue, meaning that the problem at hand is long-term and complex thus a crisis-like internal policy compromise has not been necessary in the US. Maybe this is the reason why it could maintain a long standing policy split between activists and sceptics in the US government since the late 1960s (Hopgood 2003). These two factions disagree on three main questions: the extent of the environmental threat, the proper relationship between international politics and the domestic economy and the United States' proper role in the multilateral cooperation against environmental change. The two factions often coexist in one administration; however, depending on which one is dominant, US positions can differ. Historical trends show that Republicans tend to be skeptics, while Democrats tend to be activists. Note that the assumption that government composition matters in explaining state behavior again contradicts the realist unitary actor model.

Second, environmental change, but global warming in particular, is a complex issue. Also a relevant aspect in the division between skeptics and activists, it is a predominantly economic issue. While the dangers of global warning, but also the benefits of mitigating climate change are distant in time, the economic costs of mitigation policies are high and target key sectors of the economy. While these costs may also endanger the domestic economy as a whole; the fact that the sectors targeted possess considerable political bargaining power makes the whole issue deeply politicized. And finally, although climate change mitigation is a serious political and economic issue; US politics on the international level can remain symbolic due to a special feature of the US political system. Even if the executive — the negotiating party — knows that the treaty it is about to sign will not be acceptable for the legislation, joining such an accord does not entail any notable political

costs. Thus signing a treaty can appeal to certain domestic groups and thereby entail political benefits for the party in power for the next elections.

All these features combined draw attention to the weaknesses of the realist approach. In this thesis I will argue that domestic variables not only influence international policy making, but in the case of the Kyoto Protocol they present a mean of explaining the course of events that lead to the Protocols defeat in the United States. To efficiently deal with domestic variables I have chosen a two-level model of international negotiations put forth by Robert Putnam as a starting point of my analysis. After modifying the model to better suit environmental issues, I will recreate the international negotiations' most important events and key issues in order to explain how the tentative agreement that was to be ratified (i.e. the Protocol's final text). As for the domestic variables I will apply a methodology based on political economy literature, since as I will demonstrate, the Kyoto process is above all an economic issue, thus consequently key players in the domestic game can be mapped based on economic interests. Through the interaction of these key actors, the model will explain why and how the Protocol was eventually defeated. As a conclusion I will present two distinct and competing explanations on why the Clinton administration was willing to sign a technically unratifiable treaty.

2. THEORETICAL FRAMEWORK: INTERNATIONAL NEGOTIATIONS AS TWO LEVEL GAMES

2.1. The Logic of Two-Level Games

Policies constructed on the international level are only implemented if a politically powerful minority group favors them and pushes them through the ratification process. Domestic and international politics interact; but neither a purely domestic, nor a purely international analysis can deal with all of them. The two levels separated would not be able to deal with the interaction between the two layers, which could be decisive for the international sphere.

International negotiations can easily be analyzed as two-level games: on the national level domestic groups pursue their interests by exerting pressure on the government to adopt favorable policies, while politicians seek power via coalitions among these groups. At the national level, the government tries to maximize its own ability to satisfy domestic pressure, while at the same time minimizing the negative consequences of foreign development. (Putnam 1988:434)

National political leaders appear at both levels of the game; however, their co-players are different. On the domestic level they face other politicians, advisors and members of domestic pressure groups, while on the international level the decision-maker faces fellow national leaders from foreign countries and their advisors. This complexity of the game can lead to discrepancies in decision-maker behavior: a behavior (or move) rational on the international level might turn out to be inappropriate on the domestic level. Failure to satisfy one of the boards could lead to the failure of the preferred policy or even the government. The complex interaction between the two levels and the moves the leaders choose on both levels are the key questions Putnam (1988) treats.

To deal with the complexity, Putnam assumes a single leader representing the whole government, the so-called chief negotiator that does not possess any distinctive policy

preferences, but only seeks an agreement that is acceptable for its constituents. He then decomposes the process into two stages:

1. bargaining between the negotiators, leading to a tentative agreement (Level I)
2. a separate discussion within each group of constituents about whether to ratify the agreement (Level II)

Of course, the relationship between the two levels is not straightforward: prior bargaining is possible on the domestic level. The relationship between the two boards should rather be regarded as dynamic.

As Putnam (1988) also notes, the ratification process on level II can take many forms, in democracies ranging from referenda to the 2/3 majority vote of the US Senate. International agreements have to be accepted via the domestic ratification, thus it puts a constraint on the international negotiations. If a policy suggestion from level I is voted down on level II, it acts as a rejection and international negotiations have to be reopened. Thus domestic expectations have to be taken into consideration.

To model these expectations and their effect on both levels, Putnam introduces the concept of the so-called win-sets. Win-sets for a given level II constituency are constructed of all possible level I agreements that would "win" when voted on the domestic level (Putnam 1988:437) The larger the win set, the easier is to find an agreement that suits level II expectations, ceteris paribus. An agreement must fall into the level II win-set of all level I parties, thus the win-sets have to overlap so that a successful agreement becomes possible. The larger the win-sets, the easier they overlap.

Here I must note that the causes of a failed agreement are not evident - analysts must distinguish between voluntary and involuntary defection in international negotiations. Voluntary defection is defection by a rational actor in the absence of an enforceable contract, while involuntary defection in Putnam's model refers to "the behavior of an agent who is

unable to deliver on a promise because of a failed ratification." (Putnam 1988:438) Understanding and distinguishing voluntary and involuntary defection can be a daunting task for the participants and a strategic negotiator might abuse this problem by misinterpreting a voluntary defection as involuntary. This way he or she can force the other parties to adjust their policy proposal so that it fits the falsely defined new win-set.

A second reason why win-sets are important elements of a two-level analysis is because the relative size of the level II win-sets affects the distribution of the joint gains from the international bargain. The larger one's win-set, the easier is to push him or her around by level I negotiators. According to Putnam, win-sets are determined by three factors: 1) Level II preferences and coalitions, 2) Level II institutions, and 3) Level I negotiators' strategies.

As a final element, Putnam (1988:457) stresses the role of the chief negotiator, lifting the constraint that defines him as a mere formal link between the two levels. If we imbue the chief negotiator with distinct policy preferences, his or her motives include: a) Enhancing his standing on the domestic board by maximizing his political resources or minimizing losses, b) Shifting the balance on the domestic level to implement policies he favors for exogenous reasons, and c) Pursuing his own view on the national interest in the international context. Naturally, the chief negotiator can play a crucial role on both boards.

2.2. Explaining the domestic board

Putnam's theory presented a revolutionary challenge to realist approaches to foreign policy behavior. However, opening up „the black box" of the state as a unitary actor requires further elaboration which, in my opinion, the original text is lacking (see defining factors 1 and 2). Apart from the analysis of the chief negotiatior's role, a two level analysis of the Kyoto negotiations also has to deal with the composition of domestic groups the chief negotiation/government has to interact with. I believe that among several competing political

economic theories, Jeffry A. Friedens "modern political economy" is the most suitable for this purpose.

In his book *Dept, Development and Democracy. Modern Political Economy and Latin America*, Frieden (1984) analyzes the different patterns of national economic and political behavior that arose in Argentina, Brazil, Chile, Mexico, and Venezuela during the indebtment crisis of the late 1970's. To trace back the different policy choices and eventually the changes in the political systems in these countries, Frieden applies an analytical framework which he baptized "modern political economy" (Frieden 1984:26). According to the author, modern political economy explains how "rational self-interested actors combine within or outside existing institutional settings to affect social outcomes. Individuals can be assumed to act rationally to maximize their utility within constraints." (ibid) Thus, obviously this approach is based on the rational actor model commonly used in economics but also in foreign policy analysis. Here I would like to stress that although this model of choice is based on the RAM theory it does not fit the realist framework often confused with the rational actor model. On the contrary, in contradicts the realist approach that regards domestic political struggles as irrelevant for foreign policy analysis. Frieden argues that the cooperation among political-economic actors is the principal determinant of government economic policies and economic trends.

The theory itself consists of different schools of thought, among them neoclassical economics, Marxism and liberal institutionalism. All these schools commonly apply the rational actor model. Modern political economy as an analytical tool comprises four component parts:

1. defining the actors and their goals
2. specifying actors' policy preferences
3. determining how they group themselves

4. following their interaction with other social institutions

Actors are assumed to be maximizing utility, in this case income. This objective, to maximize income vie costs-benefits calculations lead to certain preferences of these actors towards government policies that enable them to maximize their income. If economic or political conditions change, these preferences can change along with them, but never the income-maximizing objectives. Along these lines, *actors and their preferences can be defined*, Frieden argues.

As mentioned before, in this framework *ceteris paribus* social actors prefer policies that maximize their income, thus purely economic characteristics of these actors are able to explain whether they will seek government policies and what sort of policies they will seek. When *specifying the actors' policy preferences*, the theorem looks at their assets. Actors earn their income from their assets, thus both policy preferences and bargaining power can be explained through assets. First, the less the policy can change the return from an asset – measured through the change in relative prices- the less inclined the owner is to affect policy. Second, the actors' policy preferences are a function of the degree to which they can be applied alternatively with a similar rate of return. The more specific the asset, that harder it is to move it to another sector of the economy, thus the more inclined the proprietor will be to influence the government to apply policies favoring the sector the asset is currently invested in. The point is that if the owner can move the asset he has no incentive to push for sector-specific government policies, given the costs of lobbying. If the asset is specific, the owners in that industry will use their resources to influence the government to apply sector-specific policies, as long as the costs of lobbying do not outweigh the costs of moving the asset to another sector. Combined with the first assumption, Frieden states that the greater the potential influence of a given policy on the rate of return of these assets, the greater the incentive is for lobbying. Basically the degree of the incentive for lobbying is the function of

the two factors added. This asset specificity is generally associated with industries of a high entry barrier and special technology; however, I believe that the incentive for bargaining and asset specificity can be understood in more general terms. I assume that as long as the costs of lobbying are lower than the costs of moving the assets, the actors will have the incentive to influence government policy, provided of course that the policies favored have an effect on relative prices.

Of course, the incentive for lobbying is not enough on its own for political pressure-making, the *actors also have to group themselves* to exert pressure effectively. This involves the organizations of actors (individuals and firms into groups). Two main factors can be used to define how actors group themselves: (1) the similarity of their assets; and (2) the logic of collective action they apply. The first is a purely economic indicator: the more similar the assets, the more likely the actors will form a pressure group. As for the second one must trace back collective decisions to the individual level. Some groups of individuals unite more easily then others- the degree of internal cohesion differs from group to group. Cohesion usually depends on two factors: the size of the group and the group's ability to provide selective benefits to members. The smaller the group is, the bigger the cohesion. The better the information or enforcement mechanisms within the group, the less likely freeriding is, thus the greater the cohesion of the group. According to Frieden (1984:25), the success of collective action eventually depends on the concentration of the given industry. The more concentrated it is, the more one expects its actors to form pressure groups.

In his guideline to groups and their relations with other social institutions, Frieden defines institutions broadly: he includes "all long-term agreements about patterns of social behavior-formal or informal social contracts." (Frieden 1984:24) If the organized political-economic groups want to exert pressure, they either have to work with existing institutions or build new ones. For example an interest group can tie itself with a political party. To

maximize utility, the actors have to choose the alternative leading to the highest expected utility, in this case the party of faction that offers the most suitable policies for their needs. If we take institutions as constant – which is obviously the case in today's US - interest groups strategize to form coalitions or resort to other lobbying channels.

As in any two-level model, the analysis must deal with the domestic interest groups have to be mapped, their preferences identified and the pressure channels they use traced. Frieden's model does exactly that by giving a toolkit not only for identification, but also for modeling the mechanics of political pressure-making. In the following chapter I will rethink both Putnam's and Frieden's models and combine them to create a two-level model specially tailored for environmental issues, such as the Kyoto Protocol.

2.3. A comprehensive two-level model of environmental policies

International negotiations aimed at negotiating treaties that concern environmental change, for example acid rain or climate change, can and should also be modeled by taking into account both the domestic and the international levels. Instead of regarding national unitary actors, two-level models assume that national positions are formulated through domestic political bargaining and conflict resolution (Underdal 2000:6).

Similarly to other international agreements, the two level modeling of environmental change comes with a set of basic assumptions that also distinguish the model from realist, unitary actor based modeling. These basic assumptions are:

1. A state can not be modeled as a unitary actor. Governments are complex decision making bodies composed of several individuals and groups of individuals. No single individual has full control over decision making that manifests in state action.
2. A state can not be modeled as a unitary actor. Decision making processes run parallel on two separate, but dynamically interwoven stages: the domestic and the international boards. Governmental decision makers appear on both levels.

3. Actors on both levels adhere to the rational actor model: they make choices based on their self-interest among a limited set of alternatives based on cost-benefit calculations.
4. Decision makers are influenced by - and only partially in control of - domestic groups.
5. Policies are a result of the international negotiations, governmental supply and domestic societal demand.
6. Policies constructed on the international level can only be adopted domestically, if a powerful domestic minority favors them and pushes them through the domestic ratification process. Also, the adoption of these policies is largely dependent on the domestic political system, especially on the ratification process.

Besides these general features, environmental issues also possess specific characteristics that have to be taken into account when constructing the model. First, environmental issues often are related to collective goods such as rivers or air, thus environmental change (e.g. climate change or acid rain caused by human activities) affect multiple states. Hence effective responses to environmental damage requires the close collaboration of states. Second, at the same time, counter-measures decided on the international level will have serious consequences on domestic society. Third, environmental change issues divide the population into victims of change and polluters that cause the change. The group of polluters, who will also bear the costs of abatement policies, will be smaller by default. These groups are usually parts of important sectors of the economy. However, the benefits attached to a successful policy will be distributed across society. Fourth, damage attributed to climate change is usually distant in time and uncertain in nature (e.g. the existence of climate change is still subject to scientific debate). Finally, negative environmental effects are usually the side effects of otherwise legitimate and essential human activities (e.g. pollution and energy

production). Environmental policies affect all these activities, but cannot supplement related policies, thus they have to penetrate them (Underdal 2000:71).

Policies aimed at averting environmental damage are consequently different from other policies (such as trade agreements) in both their effects and implementation. When considering environmental issues, Underdal (2000) argues, the policy measures that are the most easily implemented are those that offer visible and easily identifiable benefits to some important sectors of the economy or segment of society with costs widely distributed across all strata of society. Conversely, policies that offer widely distributed benefits with costs targeted to small, but nevertheless powerful sectors of the economy are the hardest to implement. According to this distinction a two-by-two matrix can be constructed that distinguishes policies according to the distribution of costs and benefits with 1 being the policy that is the most difficult to implement (Underdal 2000:72)

Table 1: Underdal's taxonomy of policy implementation based on cost-benefit distribution in society

		COSTS	
		CONCENTRATED	*DISTRIBUTED*
BENEFITS	*DISTRIBUTED*	1	2
	CONCENTRATED	3	4

Source: Underdal 2000:72

According to this argumentation and based on the special features of environmental issues, environmental policies fall into box no. 1. This means that in general, environmental issues bear considerable effects on the economy and thus they are highly politicized. Also, the distribution of costs and benefits across society makes environmental abatement policies hard to implement. This special characteristic of economic policies bears great importance especially during the ratification process by making efforts in favor of such policies more costly.

2.3.1. Structure of the model

Similarly to Putnam's general model, the two-level model of environmental negotiations I constructed also analyses policy variance as a dependent variable with the international and domestic board's games and their interactions as independent variables. The dependent variable can take three forms: acceptance, voluntary defection and involuntary defection. To explain the variance in national policies and deal with the involuntary defection problem with the Kyoto case study, the model's key variables have to be identified.

2.3.2. Level I negotiations: governmental environmental policy supply

As Putnam notes, failure to satisfy one of the boards could lead to the failure of the preferred policy or even the government (Putnam 1988:434). On the international level, the government's negotiator faces fellow negotiators from other countries in a series of bargaining rounds. Here an agreement can only be made if the win-sets of the parties overlap. Win sets are a function of level II preferences and institutions and level I negotiation strategies. Of course the negotiated policies are meaningless if they do not get ratified on the domestic board; so negotiators always have to bear in mind the domestic policy demand. Consequently, according to my model the environmental policy pursued by the government on the international level is a function of 1) the ideological characteristic of the government in power (the salience of ecological issues in politics); 2) level II institutions; and 3) the interest of domestic interest groups, especially those supporting the government in power. These variables sufficiently define the policy pursued and consequently the 'real' win-set of the delegating state. Of course, as Putnam also emphasizes, actual win-sets are seldom presented at level I negotiations. Masking one's real win-set may lead to better bargaining positions.

As noted previously, the interaction between the two boards is a dynamic process. Thus, when conducting an analysis on policy variation this model also has to take into account bargaining during negotiations at the international level between domestic interest

groups and the government and between domestic interest groups[5] and other negotiating states, provided the latter is relevant for the particular case study (Putnam1988:438).

2.3.3. Level II negotiations: domestic policy demand

In order to describe the perception of environmental damage and domestic demand for abatement policies and the opposition of these policies, the model has to identify what actors are affected the most, what values are threatened and how the threat is perceived. Note that domestic interests are one of the key variables defining the Level I win set. To be able to successfully bargain on the international board, decision makers have to be aware the domestic policy demand. Thus, looking at policies aimed against environmental change it is not sufficient to look at the costs and benefits at an aggregate national level, the model also has to deal with the domestic distribution of abatement costs and benefits.

Societies are of course to some extent socially stratified; some actors and group of actors have a larger influence on the policy making process than others.[6] In his article, Frieden (1984) argues that cooperation between socio-economic actors is the principal determinant of government economic policies and economic trends: economic actors bear a larger influence on governmental policy choices than other groups. Since environmental issues bear severe economic consequences —along with policies aimed at combating the negative effects of environmental change— they are of course highly dependent on the interests of domestic socio-economic actors. To structure and analyze the domestic game's players and their strategies, this model of environmental policy making will follow the analytical steps outlined by Frieden (1984). These steps are: 1) defining the actors and their goals, 2) specifying actors'

[5] If policy making power is shared among different branches of government, the level I delegation also has to take into account these institutions and their preferences. It is important to note that the beliefs and interests of these key decision makers (e.g. members of the domestic legislation) are often shaped by parochial interests. With the words of Graham T. Allison: "Where you stand depends on where you sit." (Allison 1971:176)

[6] The 'general public' can not be considered as a separate, distinguishable actor, since most of the pulic is politically dormant and does not react or is unaware of environmental issues. However, raising public concern can be a source of political mobilization.

policy preferences, 3) determining how they group themselves, and 4) following their interaction with other social institutions.

2.3.4. Identifying actors and preferences

As mentioned in the previous section, the costs of environmental policies usually target a smaller but important sector of the economy. To identify the actors and their interest in the political process, the model has to deal with the exact economic effects of environmental policies along with the targets of the environmental damages. Thus, the actors affected can be gathered under the labels of victims and polluters.[7] In the next step, the actors' policy preferences can be identified based on their share in the damages, benefits and costs attached to the issue in question. Actors will try to maximize their utility; thus, deducted from the general taxonomy of victims and polluters, victims will prefer abatement policies while polluters will oppose those.

2.3.5. Grouping and intermediate agents

In real life cases the grouping of involved actors is not simply dichotomous. Several groups of actors exist, and these groups interact with the government, existing institutions, and each other. Domestic societal actors exert their political influence directly (e.g a multinational company lobbying at key decision makers, such as a committee's chairman) or through intermediate agents, such as NGOs, business associations, lobby groups or political parties.[8] These agents — often a self-organized group of affected actors — aggregate, articulate, articulate and often shape social interests. Aggregating demand, these agents are the key for solving the collective action problems outlined by Frieden (1984). Once actors with similar

[7] In order to review all the relevant actors, a two-level model of environmental policy making has to go beyond Frieden's economic reductionism and also analyze the beliefs and values involved in the environmental debate; since these values partially explain the behavior of certain group of actors, for example environmentalist NGOs. Also, according to Putnam's model, the personal beliefs of the chief negotiator may very well influence the policy choices made on the international board.

[8] Since direct influence is often exerted through unofficial channels (e.g. corruption), the model focuses on the more easily traceable official channels, i.e. lobbying.

interests define and realize their common goals, they turn to or joint an intermediate agent to amplify their bargaining power.

The strength at which societal demand for policies or opposition against them is articulated depends on the presence and characteristics of intermediate agents. The political bargaining power of these agents is a direct function of 1) their financial resources; 2) their professional staff; 3) the size of their membership; 4) the similarity of the members' assets, i.e. the similarity of their interests; 5) their power to mobilize support; 6) their relationship with the media and last, but not least 7) their access to important political decision making processes in all branches of government, including representation in committees, government agencies and political parties.

Based on the general taxonomy of socio-economic actors, this model assumes that intermediate agents will also align themselves along the victim-polluter axis. Environmental NGOs will take up positions in the policy debate closer to the victims' and demand strict abatement policies, while industrial interest groups will position themselves closer to the polluters and oppose costly abatement policies.[9] According to the theorem of asset specificity, these economic actors will oppose such policies as long as the marginal costs of political pressure against abatement regulation is lower then the marginal cost of compliance (see Friedman 1984:32). Consequently, economic actors and their agents who have less specific assets (e.g. have access to environment-friendly technologies or R&D activities) will most probably promote stricter policies than polluters, but not as strict as the victims.

2.3.6. Interaction with other actors and institutions

Once the important actors have identified their interests and grouped themselves, the actual domestic game can begin: these groups will lobby for favorable policies at the government in

[9] Note that once abatement policies are implemented polluters do not openly oppose them, but accept the rules of the game.

direct interaction with opposing groups of actors, existing socio-political institutions such as the legislation and of course the government, i.e. the policy supplier. This model is aimed at monitoring this interaction through the traceable channels of political bargaining. The assumption is, that the more affected a group is by either the environmental change or the policies aimed at averting it *and* the more the specific the assets of affected socioeconomic actors are, the more inclined they will be to lobby in their own favor. This model assumes that this interaction will eventually decide the policy outcome among the existing institutional constraints. In other words, my model argues that the variation in the outcome of this interaction is the most adequate proxy for explaining policy variation.

I must note at this point that although Putnam implicitly represents the interaction of the two levels as sequential, in reality the interaction is dynamic, the two games run parallel. However, the Kyoto case rather deviates from this trend, thus I will not take this aspect of the model into consideration. I justify this theoretical simplification in claiming that the sequentiality of the two games does not influence the general logic of my model, thus it does not invalidate its application.

In short, the model I have constructed takes the interaction on both level I and II as initial inputs. Through a detailed analysis of domestic constituencies and key socioeconomic actors, it assembles a domestic political map where it follows the path of the tentative agreement made on the international level through the ratification process. By identifying key actors, their interests and their interaction with the policy supplier (i.e. the government), other groups and existing institutions, the model explains variation in policy outcomes. By involving the domestic level, it clearly exceeds the scope of realist models. In the remaining part of my thesis, I will follow this methodological guideline by first presenting the international level of the Kyoto case study.

3. LEVEL I: INTERNATIONAL NEGOTIATIONS IN KYOTO

3.1. The US and Climate Change – Historical Background

Ever since the problem of environmental change first surfaced in the 1960s, the United States has played a crucial role in seeking solutions on a multilateral international level. Both scholars and policymakers were aware of the so-called common problems, environmental problems that can only be solved through the collective action of most or even all states. Parallel to domestic efforts, the US sought international cooperation to achieve the same goals of protecting the environment on a global level as well. Of course this was not merely an altruistic motivation: the United States did not want its industry to suffer a competitive disadvantage because of domestic regulations (Jacobson 2002:415).

US leadership in multilateral solutions persisted in three key issues, namely the depletion of the ozone layer, the loss of biodiversity and the dangers of biotechnology (Hopgood 2003). Efforts continued the 1980s, except for the famous case when Washington refused joint actions with Canada to limit acid deposition (acid rain) across the border until 1989, due to scientific uncertainty about the environmental effects of acid rain, but more importantly the possible economic effects of legislation (see Underdal & Hanf 2000 Ch. 2). As for the protection of the ozone layer, the US was perhaps the most enthusiastic in seeking leadership in this field. During the Reagan administration, it leaded international negotiations to create the 1985 Vienna convention, the framework treaty dealing with substances damaging the ozone layer, and the 1987 Montreal Protocol that that committed signatories to phase out the consumption and production of CFC gases (Jacobson 2002:416)

Closely tied to the gases depleting the ozone layer, a new environmental issue made it to the international agenda in the late 1980s: climate change or global warming. The threat of climate change caused by the emission of the so-called greenhouse gases (GHGs) by human activities became one of the most serious, and also one of the most debated issues of the 1990s, as well as the 2000s. Although it is a scientific fact that there is a natural greenhouse

effect that enables life to exist on Earth, and also that the concentration of GHGs is increasing due to anthropogenic activities, the exact relationship is debated. To shed light on this serious problem, two United Nations institutions, the World Meteorological Organization and the United Nations Environment Programme established the UN's Intergovernmental Panel on Climate Change (IPCC) in 1988, evolving to be the most ambitious scientific program in the United Nations' fifty years long existence (Breidenich-Magraw-Rowley-Rubin 1998). After IPCC concluded in its final report in 1990 underpinning the assumption of human induced climate change, the leading states of the world met in 1992 in Rio de Janeiro to address the problem. They agreed to try to stabilize emissions of the gases that can cause climate change. But it was merely an agreement to make the efforts without any binding commitments or penalties for failing to reach the goal set: to reduce emissions to 1990 levels by the year 2000 (Anderson 1997). Clearly, with mitigation policies aimed at key sectors of the economy, the possibility of actually reaching the targets was considerably low. However, the conference at Rio de Janeiro had an important achievement: the United Nations Framework Convention on Climate Change (UN-FCCC) was opened for signature. The goal of FCCC is to stabilize atmospheric GHG concentration at a level that can still prevent dangerous environmental changes (Breidenich-Magraw-Rowley-Rubin 1998). Throughout some long negotiation rounds in the emerging Convention, the United States strongly opposed any firm targets for CO_2 reduction; while the European Union tried to push for them (Anderson 1997).

Though not a key issue in the presidential elections, in 1992 US voters elected Bill Clinton, a President more sympathetic to environmental issues that his predecessor, George Bush Sr. With devoted environmentalists in key positions in the administration, like Vice-President Al Gore — author of *Earth in the Balance,* a book on environmental issues published in 1992 — the FCCC process could enter a new stage with a more active US

participation.[10] In April 1993, to celebrate Earth Day, President Clinton announced that he would reverse the government's position on the FCCC and accept the limitations. Unfortunately, a suggested carbon tax was rejected by Congress, thus adherence to the convention was impossible – the President had to apply to the industry for merely voluntary limitations (Hopgood 2003). Consequently, the process has been slowed down in the FCCC (Anderson 1997). In 1995, the international cooperation against climate change reached another turning point. The First Conference of the Parties (COP I) of the FCCC met in Berlin to discuss the further development of the cooperation, reaching an agreement on a set of commitments often referred to as the Berlin Mandate (Bettelli 1997). The Berlin Mandate was to strengthen the FCCC's commitments through a protocol or other legal instruments. A new body, the *Ad Hoc* Group on the Berlin Mandate (AGBM) was created to formulate such a legal instrument that would be accepted on the third Conference of the Parties in 1997. The group met eight times from 1995 to 1997 and prepared a draft that served as the basis of the negotiations in Kyoto at COP III (Breidenich-Magraw-Rowley-Rubin 1998).

3.2. Pre-Conference Cleavages

The Third Conference of the Parties of the FCCC was held from 1-11 December 1997 in Kyoto, Japan. It was the biggest international event since the 1992 Rio summit with 160 Parties and over 10,000 participants; including government delegations, NGOs, international organizations, representatives of big multinational companies and the press. It was planned as a "more sincere" conference, not just for raising awareness, but also for negotiating binding commitments for signatory states. After a 30 months long preparation process, the actual

[10] Though collective goods like air are subject of both non-rivalness and non-excludability, thus encouraging free-riding in mitigation policies; the US's participation in the climate change mitigation process can be considered essential both for the US and for the rest of the world, due to the large share of US emission in total world GHG emissions. This share is estimated to be almost 25% of total world emission. (See e.g. Grubb-Vrolijk-Brack 1999:78)

conference was tended to be heated and politicized, since the issue itself had high stakes with global effects while the initial points of view of the participants were highly divergent on a set of key issues.

Most important of these general issues was the question of responsibility. Global climate change caused by anthropogenic emission of greenhouse gases is mostly a side effect of industrialization; but the warming experienced in the twentieth century was mostly caused by the exclusive industrialization of the developed countries, constituting Annex I of the Convention. As noted previously, climate change has global effects since air is a global collective good; however mitigation costs are much more concentrated and bear the danger of a potential loss in economic growth for the countries paying these costs. So the question arises: who should pay? This not-so-straightforward question divided the Parties at Kyoto once again into North and South, i.e. developed and developing countries. Developing countries, mostly the G77 led by China, argued that since the present tendencies in warming of the Earth's surface were caused by the developed countries, obviously they should bear the costs alone. Also, referring to the Berlin Mandate that secures the chance for continuous economic development and the GATT treaty that seeks to rule out trade restrictive policies; China argued at the last meeting of the AGBM that any policies and measures adopted at Kyoto should have "no adverse impacts on socio-economic conditions of developing country Parties" (Bettelli 1997:2). Consequently, developing countries opposed any *mandatory* participation in climate change mitigation throughout the Kyoto conference. On the other hand, developed (Annex I) countries argued that emission levels in developing countries are rapidly rising and will exceed developed country levels in a decade, and all Parties should bear the costs of mitigating a global environmental problem. As President Clinton put it, developed countries were interested in a "meaningful participation by developing countries" (Bettelli 1997:2).

Though united against developing countries, the group of Annex I countries was also divided. The main debate took place among the triumvirate of the European Union, the United States and Japan, with Japan being closer to the EU than the US. The main difference among the viewpoints of these states lay in the "fundamental clash of political and governmental cultures between the EU and the US" (Grubb-Vrolijk-Brack 1999:65). While the EU suggested a more coordinated approach with policies to be adopted clearly defined, the US as a liberal market economy[11] pressed for more market-based 'laissez-faire' policies. I believe this cleavage between EU and US approaches was the primary cause for clashes in all key areas of the negotiation rounds, ranging from defining included GHG gases to differentiation among Annex I countries; thus it serves as the guiding line in the following section through my summary of the debates at COP III.

3.3. The US at the negotiations

The US participated at the Kyoto negotiations with a delegation of more than one hundred people; among them — though just briefly — was Vice-President Al Gore. Also among the members of the delegation were several government representatives, seven senators[12] and a handful of congressmen with their staffs, and last but not least various scientific and political advisors from all relevant ministries. Besides the official delegation, several US-based NGOs and business interest groups also participated as observers[13]. The initial position of the narrow negotiating delegation was made clear at the last meeting of the AGBM. Not surprisingly, it was shaped by both domestic and international considerations and was strongly shaped by

[11] In *Varities of Capitalism*, Hall and Soskice (2001) distinguish two archetypes of market economies, based on firm behavior. In Liberal Market Economies (LME) firms "coordinate their activities primarily via hierarchies and competitive market arrangements" in Coordinated Market Economies (CME) they "depend more heavily on non-market relationships to coordinate their endeavors and with other actors and to construct their core competencies" (Hall-Soskice 2001:28). The United States is the best example for a LME, and Germany for a CME.

[12] Personal participation of US senators at international negotiations is a common practice in the United States. For more on this issue, see chapter 4.4.1.

[13] For the composition of the US delegation see: http://www.ccsr.u-tokyo.ac.jp/unfccc2/records/600000477.html

pre-negotiation domestic bargaining. Deriving from the above mentioned issues, the US tried to press for flexibility in every aspect of the future Protocol, while also arguing for the participation of developing countries in the process. Since the US is by far the biggest emitter of GHG gases (about 25% of total emissions) and mitigation policies would affect key sectors of its economy, like energy production, both of these general goals are understandable. If domestic implementation is flexible, the costs of adherence to the obligations of the negotiated Protocol could be moderated, negative economic — and consequently political — effects could be softened. Also, the US Constitution forces the US government to adhere to the obligations of any treaty it joins; thus, with a treaty of this magnitude, bargaining for flexibility in implementation is understandable[14]. And since China, one of the US's main economic and political competitors was not part of Annex I, the effects of implementing mitigation policies could very well have lead to a loss of relative competitiveness compared to that of China. For the US, it was imperative to avoid this both for domestic (economic) and international (national security and positions in world politics) considerations. Initially, these two points defined the US *win-set*; albeit only in general terms. Actually they rather acted as guidelines for assessing the US position on the key issues of the negotiations: the policies to be adopted; the quantified limitation objectives; and the methods for involving developing country participation.

First to be negotiated at COP III was the first item of the Berlin Mandate, the so-called *policies and measures* (Grubb-Vrolijk-Brack 1999:65), which would later constitute Article 2 of the Kyoto Protocol. Policies and measures are the actions Parties would implement to mitigate climate change. Some of these measures seriously affect the partaking countries' economic competitiveness (e.g. carbon taxes); consequently all Parties tried to negotiate for

[14] For more on constitutional constraints see chapter 4.4.1.

safeguards for protecting their own economies. After the initial proposals of the US for the inclusion of developing countries and the EU's for a detailed *mandatory* list of policies was rejected (Bettelli 1997), the debate was open. Of course, along the main cleavage, the EU with its rather long history of environment-friendly policies tried to further press for a specified range of measures, some of them mandatory. On the other hand, the US was interested in a less interventionist, vaguer listing, since the delegation was constrained by domestic industry and the citizens' sensitivity to cheap fuel (Bettelli 1997; Grubb-Vrolijk-Brack 1999:67; Jacobson 2002). Consequently, the US position was backed by a number of OPEC members (most notably Kuwait and Saudi-Arabia) that tried to protect their profits from oil exportation. After a total 12 proposals from the participating Parties, the EU failed to gain support for its proposal once again. Thus, the final version of Article 2 represents a compromise between the standpoints of the EU (detailed list) and the United States (non-mandatory, i.e. flexible policies and measures). Article 2 consists of four main paragraphs, that represent this compromise, even a slight US diplomatic victory by formulating the propositions with wording 'such as' instead of the EU's 'in particular' (Grubb-Vrolijk-Brack 1999:125). The list of the finalized policies and measures is the following[15]:

- enhancement of energy efficiency in relevant sectors
- protection and enhancement of sinks and reservoirs
- promotion of sustainable forms of agriculture in light of climate change considerations
- research and development on new and renewable forms of energy, of carbon dioxide sequestration technologies and of advanced and innovative environmentally sound technologies;

[15] Source: http://unfccc.int/resource/docs/convkp/kpeng.html (Full text of the Kyoto Protocol in html version)

- progressive reduction or phasing out of market imperfections (fiscal incentives, subsidies, tax reductions etc.) that counter the objective of the Protocol and of market instruments
- measure and limit emissions in the transport sector
- limitation and reduction of methane through recovery and use in waste management and provision of energy
- limitation or reduction of emissions from aviation and marine bunker fuels

As noted before, Article 2 represents a political victory of the United States' laissez-faire standpoint (with the sole exception of point 3 excluding developing countries), leaving room for domestic policy variation in implementing the Protocol's obligations. In addition, due to the EU pressure for a detailed policy recommendation list, Article 2 also serves as an excellent starting point for a detailed economic analysis of the possible implementation (thus its costs and effects) in the US that I will deal with in detail in chapters 4.4.2. and 4.4.3.

After an agreement was reached on policies and measures, the essence of COP III, i.e. the emission targets had to be set, along with the list of gases to be included in the targets and the timeframe they would have to be met in. Again, the US's position was heavily influenced by domestic considerations. As for the timeframe, in order to keep up the competitiveness of the economy and to be able to manage implementation, the US was pressing for flexibility and a manageable timeframe; once again clashing with the EU urging early state action. The US argued that early targets would be too costly to implement and would not leave enough time for institutional adaptation. This was reinforced by some domestic studies (e.g. those ordered by business groups opposing legally binding targets), showing the high entailed costs of early adaptation. Though the US delegation officially distanced itself from voices arguing for deferring abatement action (i.e. free riding) and pressed for commitments starting from 2010

at the latest; US industry — and the energy sector in particular — lobbied strenuously for early commitments throughout the conference; however it did so without any luck[16] (Grubb-Vrolijk-Brack 1999:69). As for the length of the legally binding commitment period, the US argued for a more extended timeframe so that implementation might keep up with the dynamic changes in the economy. So that the implementation may not be locked in the US electoral cycle, the delegation proposed a 5 years long commitment period. This reasoning led to another US diplomatic victory: the EU and the other Parties accepted the terms and they agreed on the first commitment period to last from 2008 to 2012.

The listing of included GHG gases also led to an EU-US disagreement. During the Framework negotiation process, the US advocated a so-called basket approach; i.e. including different gases in baskets with their atmospheric impact compared according to their global warming potential (GWP)[17] so that economically viable policies can be selected aimed at the gases that are the easiest to control. This provoked the disapproval of the EU delegation, who argued that this would merely mean avoiding real commitments (Grubb-Vrolijk-Brack 1999:72). Bearing in mind that excluding important gases altogether would seriously limit the Protocol's effectiveness, technical issues had to be overshadowed by political considerations; thus the two factions reached a compromise by accepting a basket of three gases: carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O). Despite the compromise reached, the US delegation pressed to include three further gases into the basket; namely the ozone-friendly hydrofluorocarbon (HFC) replacements for CFCs; perfluorocarbons (PFCs) and sulphur hexafluoride (SF6), a by-product of aluminum smelting (Grubb-Vrolijk-Brack 1999:75). Naturally, the selection of these particular sources of emission was not free of political considerations and the EU once again gave voice to its concern. Basically the EU

[16] In the Putnamian terms, this means that domestic pressure did not influence the US win-set in this particular field.
[17] Global Warming Potential is the measure of the warming (radiative) impact of the molecule relative to carbon dioxide

states protested that the US would gain a comparative advantage in mitigation with the inclusion of these gases, since the US already possessed an advanced chemical industry in the 1990s that started the conversion to more ozone-friendly HFCs. Proving once again the enormous bargaining power of the United States, all six gases were included into the Protocol.

As I mentioned previously in this chapter, the two major goals of the United States at COP III were to achieve developed country participation and to press for flexibility in every aspect of climate change mitigation. These goals were set bearing in mind the enormous domestic pressure against policies entailing high costs for the US economy: in the European Union, there was a considerable public support for mitigation policies; while the US had difficulties in mustering support even for limitations to 1990 levels (Grubb-Vrolijk-Brack 1999:84). This aspect of bargaining positions seriously limited the US win-set. However, members of the delegations turned out to be more than talented at using these limitations for their own goals; i.e. strengthening US positions at the negotiations. I have presented previously several examples for these considerable diplomatic victories. But the successful US campaign for flexibility did not stop at the inclusion of sinks into the Protocol (still a major achievement already on its own). Since the first question — namely developing country participation — seemed to be problematic, even unsolvable, the US delegation tried to bargain for flexibility in implementation on an international level as well, so that with the involvement of other countries domestic costs could be further moderated. Three main instruments were developed for this purpose at Kyoto (mostly under the auspices of the American delegation): the so-called Joint Implementation (JI) and the Clean Development Mechanism (CDM); and the international permit trading system. While joint implementation and the permit trading system were solely aimed at Annex I countries; with the clean development mechanism, Annex I

Parties succeeded in involving developing countries in emission abatement, even though not in a legally binding manner.

Joint Implementation is basically the cooperation of two or more Annex I countries, where a polluting country or company invests in a program for emission reduction in another country. The Clean Development Mechanism works in a similar way, but involves an Annex I and a developing country. Reductions achieved through such programs can be taken credit for by the investing developed country. Such flexibility would create a number of opportunities for US business: through JI, the US could assist the so-called Economies in Transition (EIT)[18] Annex I Parties and cost-effective investment opportunities in other countries could promote US investments globally.

The third mean, the international permit trading system, was a purely market-based economic instrument; thus it was closer to US wishes. Emission trading as such would have the economic benefit of creating incentives to reduce emission in cost-effective ways; but it is more appealing to the industry than other, non-market based approaches (e.g. taxes) since it also creates a tradeable asset, the permit. Unlike taxes that only extract revenue from, polluters who buy permits to cover their emission would also acquire the value of the permit as assets that can later be sold on the market. The international permit trading system could also be adopted domestically (See ch. 4.2.1.).

Though some Parties feared that the international permit trading system would limit the incentives for domestic implementation, looking at the enormous domestic opposition the US would face in domestic limitations, the emission trading system represents an

[18] EITs are the post-socialist states of East-Central Europe and the former Soviet Union. These states also joined Annex I of the FCCC along with developed (Western) states; but were successful at lobbying for a differentiation in their favor, e.g. they could choose a base year earlier than 1990. The reason for their willingness at taking part in the global effort for climate change mitigation is that their economies were mostly crippled after the end of the Cold War; thus their industrial emission strongly fell back compared to pre-1990 levels. Consequently, adherence to Kyoto targets would entail low costs. By using 1990 (or an earlier date) as a base year, these countries would also acquire a large amount of tradeable emission permits at the international emission market, turning climate change mitigation in a profitable endeavor.

economically sound compromise. Grubb, Vrolijk and Brack even argue that US participation solely depended on the creation of the trading system (Grubb-Vrolijk-Brack 1999:95)

Diplomatically, the US achieved a set of small victories in every key debate at the Kyoto negotiations, consequently pressing for flexibility out of political interests and economic ideology. Though the administration — and consequently the delegation — was more activist in environmental issues than was the Bush administration; US bargaining was nevertheless fierce and persistent. Taking domestic constraints into consideration, the negotiators were able to manipulate, even blackmail other Parties with US withdrawal. This attitude, combined with the paucity of counter-arguments, enabled the US to get all that it wanted at the negotiations, except for developing country commitments (a somewhat doomed issue from the beginning on), and the so-called borrowing mechanism that would have enabled states that do not achieve their targets in the assigned commitment period to 'borrow' limitation targets from the next period, i.e. postponing compliance. In spite of these major victories, the failure at the previously mentioned key issues later proved to be fatal for US participation. The US may have won the diplomatic battle at Kyoto, but the real war had just begun at home.

Throughout the conference, the US delegation was not sure about how the targets and the Protocol to be agreed on at COP III would be welcomed at home. Feedback was mixed: environmental NGOs present pressed for more, while economic interest groups opposed the whole Protocol spending millions of dollar on lobbying. The only, decisive reaction from the US legislation was introduced at a very late stage of the game, just prior to the negotiations: on July 25, 1997, the US Senate voted 95 to 0 against the infamous Byrd-Hagel resolution (Resolution 98) — named after its sponsors — that clearly stated that the United States would not agree to a treaty that would limit US GHG emission unless similar limitations would be adopted for developing countries as well. The resolution also specified that an agreement

should not seriously harm the US economy. The resolution would also require the president to present to documents when submitting a treaty to the Senate (Jacobson 2002:422). One of them should be a detailed list of any domestic regulation that would be required in accordance with the treaty, while the second document should be a report on the economic and financial costs of implementing the agreement.

The unanimous approval of this resolution proved that the Kyoto Protocol was no longer a partisan issue; looking at the end result at Kyoto, both Republican and Democrat senators would judge US participation at the negotiations as a failure: immediately after COP III, Republican senator Chuck Hagel, then an observer at the negotiations, announced in a press conference that "There is no way, if the President signs this, that the vote in the United States senate will even be close. We will kill this bill." (Jacobson 2002:417) His Democrat counterpart, John Kerry also noted that the protocol was "not ratifiable" at its present state (Jacobson 2002:417). Unfortunately, at the end of COP III, the Clinton administration was seemingly at a dead end: although they were able to negotiate very general and pro-US terms, the main points of the Senate's resolution still stood. The resolution seriously narrowed down the win-set of the United States; however, since the chances for renegotiating the Protocol were limited, the only chance for joining the Protocol was to play the domestic game and assemble a coalition for the Protocol's ratification.

Hence, during COP IV President Bill Clinton signet the protocol in 1998; however, he did not submit it to the Senate for ratification. The signed but not yet ratified protocol became an important issue of the 2000 elections: former vice president Al Gore, the Democratic Party candidate, urged ratification, while his Republican opponent, George W. Bush stressed that the protocol would not be ratifiable in its present form and stated that he would not submit it to the Senate for consent whatsoever. During the election campaigns to questions on climate change, Bush said he would "work for a comprehensive, fair and effective agreement— one

that harnesses the power of the marketplace and encourages international efforts to develop the technologies to reduce greenhouse gas emissions" stating that he supported "investing in technologies that rely on clean, abundant, renewable energy sources, as well as the development of cleaner cars and cleaner burning fuels and alternative sources of fuel and new fuel alternatives." (Jacobson 2002:417) After Bush became president, he clearly opposed the protocol and eventually backed out of it in 2001 claiming that it is not fair and it would "wreck the US economy" (Vidal 2005).

How the domestic game was played out, and how the Kyoto Protocol was finally defeated is the topic of the next chapter of my analysis.

4. LEVEL II: THE DOMESTIC BOARD

In its central provisions the Kyoto Protocol identifies allowable emission levels for Annex I countries for the first *commitment period* of 2008-20012. The treaty's goal is to decrease global emissions of these countries an aggregated 5.2 percent below 1990 levels, summarized in the first paragraph of Article 3:

> The Parties included in Annex I shall, individually or jointly, ensure that their aggregate anthropogenic carbon dioxide equivalent emissions of greenhouse gases listed in Annex A do not exceed their assigned amounts, calculated pursuant to their quantified emission limitation and reduction commitments inscribed in Annex B and in accordance with the provisions of this Article, with a view to reducing their overall emissions of such gases by at least 5 per cent below 1990 levels in the commitment period 2008 to 2012.[19]

In Annex B of the Convention, each industrialized country is assigned a quantified commitment level, for example the United States of America is listed with a reduction of 7 per cent below 1990 levels, actually adding up to more than 30 per cent taking into account the increase in emission of these gases from the 1990s. While the treaty is clear on the emission levels, it is relatively flexible in implementation only listing policy proposals for Annex I states, leaving the rest for domestic considerations.

Flexibility aside, these are serious commitments entailing huge adaptational costs for the economies of developed countries. As deduced from the general model in chapter 2.3.4., to adequately explain the domestic game that eventually led to the unintentional defection of the US government, one has to identify the domestic actors involved. Since climate change mitigation is above all an economic issue, an analysis of the cost and benefits of such policies will entail the best explanation of the behavior of affected socio-economic actors. Simply put, an economic cost-benefit analysis of climate change mitigation policies — with special

[19] Source: http://unfccc.int/resource/docs/convkp/kpeng.html (Full text of the Kyoto Protocol in html version)

emphasis on the Kyoto Protocol — is the most adequate analytical tool for identifying involved domestic actors and their policy preferences.

However, the special characteristics of environmental policies on climate change make this a difficult endeavor. In this chapter, I will discuss the scientific and economic uncertainties inherent to climate change analysis, since these uncertainties make economic analyses prone to produce uncertain results. Bearing in mind these inherent difficulties, I will then select one of the most prestigious economic analyses — namely the Energy Information Administration's[20] analysis and report prepared for the Committee of Science of the US House of Representatives — to deduce the economic effects of implementing the Kyoto Protocol in the United States. Since the uncertainties also make economic analyses open for political debate, instead of exact numbers I will rather focus on the sectors targeted and the approximate magnitude of the costs involved. After the foci of the policy's effect have been deducted, I will identify the actors and their interests relevant to the level II game.

4.1. The Uncertain Science of Global Climate Change

In economics, an externality is a cost or benefit from a transaction that parties of the transaction externally receive. It is often termed a side effect, although not always unintentional. Climate change, or global warning, is the most famous global *environmental externality,* in the terminology of economics the global side effect of human industrial activities. Because of its global scale, pioneer of climate change economics William D. Nordhaus[21] called climate change "the granddaddy of all public good problems"[22] (Nordhaus 1993)

[20] EIA is an independent statistical and analytical agency in the US Department of Energy.
[21] William D. Nordhaus is the Sterling Professor of Economics at Yale University; he is one of the most renowned experts on climate change policies. Active int he field since the late 1980s he is the author of books like Managing the Global Commons: The Economics of Climate Change and Warming the World: Economic Models of Global Warming

Though global warming is a famous example for a global externality, it is still scientifically debated. In 2001, the Intergovernmental Panel on Climate Change concluded that "during the twentieth century, global average surface temperatures increased by 0.6 +/- 0.2°C and that 'most of the observed warming over the last 15 years is likely to have been due the increase in [anthropogenic] greenhouse gas emissions' where 'likely' is defined to mean a 66 to 90 percent probability." (McKibbin-Wilcoxen 2002) In truth, however, it is impossible to say exactly how much warming has occurred to date, or how much will occur in the next century. At the heart of the scientific debate are only two undisputed facts: certain gases in the atmosphere are transparent to ultraviolet light, but absorb infrared light, and that the concentration of many of these green house gases has been increasing rapidly due to human activities. Beyond these simple facts, controversy arises, along with a large amount of uncertainty in the causes and effects of climate change. These uncertainties are clearly affecting scientific analysis – the vague langue of the above mentioned report is an example for that. Levels of certainty used in the estimates are rather indicators of an agreement among climatologists, than actual probability estimates.

As McKibbin and Wilcoxen (2002) note in their analysis, it is hard to prove that global warming has begun at all, but it is similarly hard to prove that is has not yet begun. Apart from the uncertainty of the mere existence of the phenomenon itself, uncertainty arises with the possible effects of climate change as well, due to a large part of the general characteristics of global environmental issues listed chapter 2.3. Both benefits and damages are distributed globally and are distant in future; thus they will be born by future generations. However, costs of mitigation are concentrated and will have to be borne by present generations. Probably this is one of the reasons why so far, little real action has been undertaken against climate damage.

[22] Public goods are non-rivalrous goods; consumption of the good by one individual does not reduce the amount of the good available for consumption by others. In the case of climate change/global warming various public goods are involved, for example air or sea levels.

Uncertainty in itself is undesirable and the uncertainty of future damages rather provides the rationale for action, than inaction, since benefits only arise if future damage is averted by actions in the present. Most of the possible impacts of climate change are negative, some catastrophic but with low probabilities.[23] However, even if the probability of these events is low, their risk value is high because of the huge costs associated with them.

The uncertainties of climate science have a strong effect on the economic analysis of climate change. Economists are forced to work with poorly defined categories and variables. Some are easy to measure and monetizable, while others are unquantifiable or can only be measured using a mixture of qualitative and quantitative methods. (Morgenstern 1991) Hence the costs of reducing greenhouse gas emissions — i.e. averting or at least prolonging the negative effects of climate change — is uncertain and varies from study to study.

However, economic uncertainty is not only scientific. Climate change mitigation is also a political issue. First, the benefits and negative effects are distant and global, but mitigation costs are present. So who should pay to avoid the catastrophes in the future? Internationally, this very question divides the nations of the world once again into North and South. Southern (developing) countries say the developed North should pay, since it was mainly their industrialization in the 19th and 20th century that caused the increase in GHG levels. On the other hand, Northern developed countries claim that the emission of developing countries is increasing at an accelerated level, thus the whole world should pay to avoid a global disaster. Second, the costs of mitigation target key sectors of the economy. With results of economic analyses so dependent on assumptions and methodology, economic estimates often serve political interests. Unfortunately, the overriding conclusion is that valuing the impacts of global climate change is fundamentally a political issue as much as it is a technical one. As

[23] Possible effects of climate change are: 1) Increasing energy demand for cooling; 2) Coastal zone inundation; 3) Exposure to storm surge; 4) Increased number of health-related problems; 5) Decrease I water supplies; 6) Decrease in agricultural productivity due to extreme weather conditions; 7) Extinction of species; 8) Ecosystem loss (McKibbin-Wilcoxen 2002)

McKibbin and Wilcoxen (2002) note: “In short, uncertainty is the single most important attribute of climate change. From climatology to economics, the uncertainties in climate change are pervasive, large in magnitude and difficult to resolve.” (

4.2. The Economics of Climate Change Mitigation

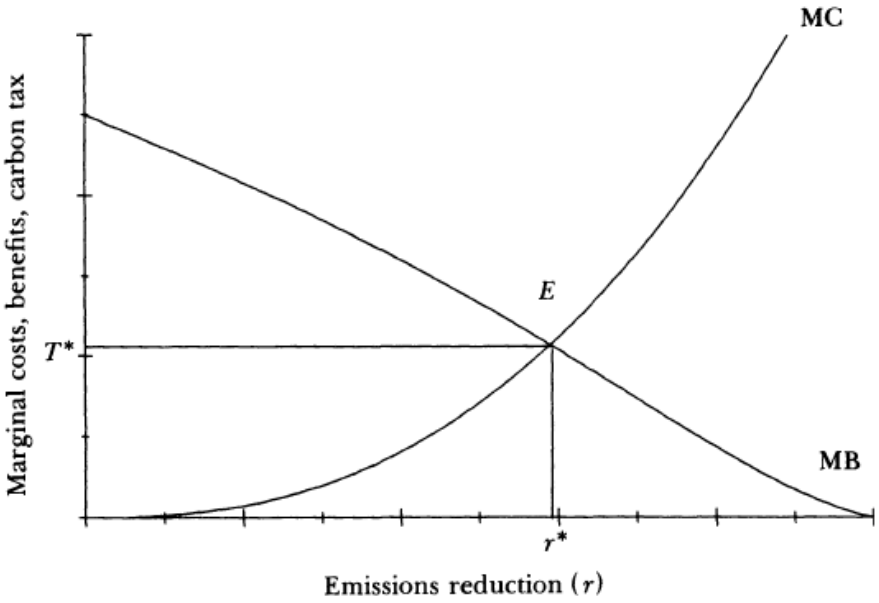
4.2.1. Basic Economic Theory

The economics of climate change has been a subject of extensive research and debate since the late 1980s. These debates received less attention than the scientific debate; but after the Kyoto Protocol was created in 1997 — assigning quantified emission levels – the debate became more intense and public. In spite of the long history of this debate, there is still no sign of a path leading to a consensus among economists. As mentioned previously, economic issues related to climate change are of great importance to governments and socio-economic actors alike. Thus these issues became highly politicized and different economic arguments are wielded to underpin different *political and economic* interests. Conflicting analyses vary both in methodology and basic assumptions. However, the basic economics used is undisputed. As Morgenstern (1991) puts it in his study:

> The goal of policymaking is to design an efficient climate change mitigation strategy that maximizes (under uncertainty) overall welfare, including measured GDP and the value of non-market goods and services (i.e. “Green GNP”). Such a strategy should select an amount of net emissions reduction and/or adaptation at which the marginal benefit of reduced GHG concentrations equals the marginal cost of reducing GHG concentrations or engaging in adaptation.

Basically this means that the efficient mitigation strategy has to be in the equilibrium point (see Graph 1) where the marginal cost of mitigation equals the marginal benefit achieved by further reduction of GHG emissions. But how can this be achieved?

Graph 1: Marginal Costs and Benefits of Greenhouse Gas Emissions Controls



Note: Efficient policy comes at point E, where marginal cost of further emissions reduction (MC) equals marginal benefit of emissions reductions in slowing climate change (MB). T^* is the efficient carbon tax while r^* is the efficient reduction rate.

Source: Nordhaus 1993

Governments could either regulate emission directly by extending the so-called command and control or best practiceable means approaches to environmental regulations of the emission of the greenhouse gases; or they could use economic instruments, the two most efficient of them being a carbon tax[24] and a tradeable permit system. Also, a mixture of the two is possible.[25] Extending the command and control mechanism could take many forms, ten of which the study by ACEEE[26] analyzes.[27] They claim that these are "technically and economically feasible" policy proposals (Geller-Bernow-Dougherty 1999) that could limit US

[24] A tax based on the carbon content of different fuels. It can be expressed in dollars per ton of carbon.
[25] For so-called hybrid policies see McKibbin-Wilcoxen 2002
[26] The American Council for an Energy-Efficient Economy is a nonprofit, 501(c)(3) organization dedicated to advancing energy efficiency as a means of promoting both economic prosperity and environmental protection.
[27] The suggested policies are: a) New appliance efficiency standards and product labeling; b) Greater adoption of building energy codes and market incentives for efficient new constructions; c)Stimulating building retrofits; d) Public benefit trust fund as part of electric utility restructuring; e) Renewable portfolio standards as part of electric utility restructuring; f) Standards, market incentives, and voluntary programs to increase the efficiency of passenger and freighter vehicles; g) GHG standards for motor fuels; h) Reducing barriers to combined heat and power; i) Voluntary agreements and incentives to reduce industrial energy use; j) Tighter emission standards on coal-fired power plants. (Source: Geller-Bernow-Dougherty 1999)

GHG emission to Kyoto standards. Why then should economic instruments also be considered?[28] First of all, the majority of economists agree that the above regulations would not achieve the limitations at minimum costs; the cost of reducing emissions would only be minimized if the marginal cost of reduction would equal for all abatement activities. (OECD 1991:57) To put it simply: command and control alone is too expensive. Second, most of the policies suggested by the ACEEE study (see footnote no. 27) are rather symbolic and compliance would be – again - costly to enforce.

On the other hand, economic means have the virtue that they would provide automatic incentives for actors to reduce emissions efficiently and — even if only implicitly — take environmental values into account. For example a net emission charge, better known as carbon tax, could be set at the same level for all sources in a given country ensuring that all the polluters face the same incentive to reduce emission, hence reaching the same goal at lower costs. (OECD 1991:57) A carbon tax would induce industry to substitute coal and other carbon-intensive fuels with less polluting sources, but would also force them –along with households- to reduce total energy consumption. Also, taxes could be an incentive for investment into R&D for more environment-friendly technologies, since the developer of such technologies would be rewarded on the market by consumers wanting to reduce their costs via non-taxed technologies. Finally, taxes could be collected by the government and be used to compensate for necessary disruptions in the economy, for example to finance a deficit. (OECD 1991:59) On the downside, taxes would not be borne equally: some emitters with lower reduction costs would be worse off, since they still would have to pay the tax; plus some percentage of the tax would be transferred to the consumers. (OECD 1991:59) Thus the government would have to turn to command and control methods to force polluters to change to less polluting substitutes. This of course can lead to opposition.

[28] For a comparative analysis of 'command and control' and economic means see OECD 1991

In theory, a tradeable permit system could also provide equal incentives for the economy. A required total limit of emission would be set and permits would be distributed according to respective emission levels. Distributing could be organized internationally, or through an auction organized by the government. Although a permit system would entail an allocation of wealth to low pollution firms, the rents could be taxed. (OECD 1991:60)

Although there is a consensus on the means of emission reduction among economists, as noted previously the analyses on the costs and benefits of such policies differ both in methodology and magnitude, and are subject to political interests as well. Nevertheless, in order to adequately reconstruct the domestic game, the groups targeted by the costs of abatement have to be identified. Consequently, understanding how the costs of climate change are being estimated is the key to make a judgment about the effects of these policies, irrespective of the study they appear in.

For constructing an economic model of abatement policy implementation, there exist two distinct methodologies: the so-called top-down and bottom-up models. A top-down model involves creating a model of the entire economy with equasions describing the dynamic path certain key variables — such as the GDP, energy prices or rate of growth — take over time. The model is run under a reference scenario, when no action is taken and the results are then compared to other policy cases with different levels of GHG limitations. All of these models are based on the assumption that limitation can only be achieved at the expense of a reduction in the output of other goods and services (Deciano 1997:16). Bottom-up models recognize that a variety of economic, organizational, political, cultural and institutional barriers prevent firms as well as individuals from taking advantage of best practice techniques. The studies focus on how these barriers can be eliminated, while

accepting the possibility that limitations can be achieved without a loss in economic output. (Deciano 1997:16-17)

The considerable differences between the two approaches pose a difficult scientific problem: both of them cannot be right, yet there is no consensus in how to make them consistent. In the next subchapter, after presenting the general features of the US case in this particular economic aspect, I will summarize a well-known and accepted *top-down* analysis prepared for the House of Representatives. Using a two-level model, my analysis does not primarily focus on the correctness or magnitude of the estimates, but rather on their focus; and I believe that top-down models are inherently more suitable for this purpose. I think that economic actors in their decisions take worst-case-scenarios into consideration with a greater emphasis than positive analyses (i.e. they are risk aversive in general); thus a study focusing on the costs and negative economic effects of abatement policies is a more adequate indicator of their position towards the supply side (i.e. the government), than would be a bottom-up study.

4.2.2. Possible effects of GHG Mitigation Policies on the US Economy

The United States' economy is the most liberal market economy in the world (Hall-Soskice 2001:32). Since it is so highly non-coordinated, implementation of economic policies on such a large scale as Kyoto obliges is inherently more difficult than in a coordinated market economy. But apart from this macro-level feature, the US case has some other peculiarities that make climate change a difficult problem for US policy makers. First of all, the emission levels of the United States add up to nearly 25% of global emissions making the country a target both for other states and environmentalist groups; some of them arguing that the US even has a moral-historical duty in reducing its emission level at a larger scale than any other country (see e.g. FoE) Second, the climate of the country (hot summers and cold winters) and the size of the domestic transport sector (Jacobson 2002) (huge distances in the country) make

the States a great consumer of polluting energy sources (Jacobson 2002). Third, as a result of individual preferences and public policies, residential patterns in the US emphasize a single family housing on relatively large plots of land (Jacobson 2002). Four, partly because of its historical role as a petroleum producer, the US is addicted to inexpensive energy, especially cheap gasoline (Jacobson 2002). Thus, American consumers have a strong aversion against increasing taxes on petroleum or against a decrease of state subsidies on fuel.[29] Five, the strength of the anti-nuclear movement limits the use of non-carbon-intensive sources of energy (Jacobson 2002). And finally, as Nordhaus (1993ű9 argues, the US economy has little direct interaction with climate, sectors that comprise 85% of US GDP (such as underground mining, most services and manufacturing) would largely be unaffected by climate change

All these special characteristics amplify the inherent difficulties of climate change, i.e. the uncertainties listed previously, making it one of the most heatedly debated issues in the US in the past 15 years. Already from the previous list it is obvious that several sectors of both society and the economy would be affected by abatement policies, and this sensitivity of the issue makes climate change all the more a political question in the United States. Normally, a complete appraisal of GHG abatement policies should list both the benefits of avoiding future risks and damages, as well as the costs needed to achieve the desired limitations. However, the political debate in the US still focuses exclusively on the costs of possible policies[30]. Special interest groups even tried to block action by presenting studies that envision huge, unbearable costs of the US economy. For example the Global Climate Change Coalition, an industry lobby group stated in their study that CO_2 emission limitation "would eliminate millions of American jobs, reduce America's ability to compete and force

[29] A good example for public aversion against such policies is the so-called BTU tax on gasoline, proposed by President Clinton. The proposal was killed by the Senate (strangely enough then run by a Democrat majority), but shortly after Congress enacted a smaller, 4.3 cent tax per gallon of gasoline. Eventually the bill was attacked by the Republicans and was repealed in 1996.

[30] In a way even green studies do so: they minimize the possible costs of mitigation to emphasize the uncertain benefits the limitations would entail. See for example Friends of Earth 1997

Americans into second rate lifestyles" (FoE 1997); while the US National Association of Manufacturers' study concluded that "The projected costs to the economy and to individual businesses that would result from carbon emission reduction proposals… will be unacceptably high." (FoE 1997) To maintain a distance from both extremes, I have chosen the study of the Energy Information Administration (EIA). It is a top-down analysis using the scientifically acclaimed National Energy Modeling System (NEMS)[31] comparing five policy cases to the reference case. My choice fell on this particular study because of its prestige in scientific circles, its rather influential role in forming decision makers' attitudes (since it was prepared for Congress), its six policy cases that make an approximate estimation of costs possible, its top-down methodology; and last but not least because it also includes the Kyoto Protocol case (labeled 1990-7% in the study).

Note that the economic and inherently political debate on mitigation costs began even before the Kyoto Protocol was prepared; but it became even more heated after COP III with a strengthening domestic opposition. There are numerous differences between pre- and post-Kyoto studies[32] and I believe that the post-Kyoto studies that take into account the quantified limitations as well as general economic phenomena associated with climate change mitigation were one of the key reasons the domestic opposition strengthened. As I have argued previously, economic analyses are key factors in influencing socio-economic actor behavior. Thus, I think these post-Kyoto analyses made clear for several economic actors that their interests were really threatened (or even brought new actors into the game) and propelled them onto the path my model envisions for socio-economic opponents of governmental policies. Hence my further analysis will be based on this study.

[31] NEMS is a computer modeling system that presents year-by-year projections over a 20 years horizon, accounting for capital stock turnover and the availability and penetration of specific energy-consuming technologies.

[32] On the policy level, taking the Kyoto Protocol into account means that models also deal with Kyoto's international permit trading system, and possibly with its joint implementation and clean development mechanisms. For more on these mechanisms see chapter 3.3.

4.2.3. Impacts of the Kyoto Protocol on US Energy Markets and Economic Activity – The EIA's Study[33]

EIA undertook this study to a request of the Chairman and ranking Minority Member of the House Committee of Science to analyze the economic effects of the Kyoto Protocol. At that time the Protocol has already been signed by President Clinton, but not yet submitted to the Senate for ratification; given the strong opposition against the treaty. This particular agency was asked to do this study for several special reasons, but most importantly because 80 percent of anthropogenic greenhouse-gas emissions are energy related in the US.

After a short summary of the negotiations and the Protocol, the analysis calls for the following market adjustments:

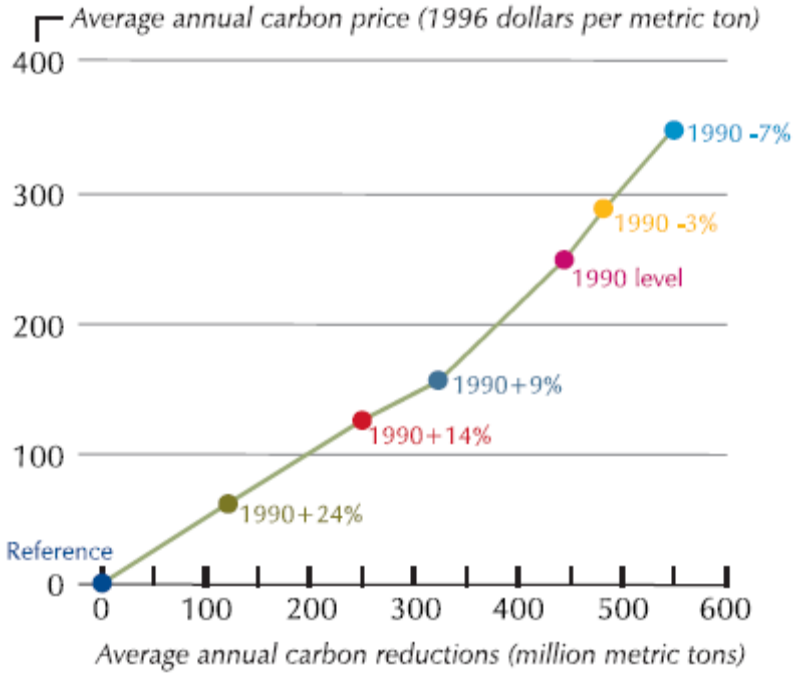
- Reductions in CO_2 will result in between 18 and 77 percent less coal use than in the reference case, particularly affecting **electricity generation**; and between 2 and 13 percent less petroleum use, mainly affecting **transportation**
- energy consumers will need to use between 2 and 12 percent more natural gas by 2010 and between 2 and 16 percent more renewable energy; and extend the operating life of existing nuclear power plants
- to achieve the Protocol's ends via market-based means, energy prices (in inflation-adjusted 1996 dollars) have to be between 17 and 83 percent higher

To reduce carbon emission, EIA assumes that a 'carbon price' (i.e. a carbon tax) is added to the price of delivered energy fuels based on their carbon content. Thus for example coal prices rise more than petroleum prices. The increase in carbon prices would also increase energy prices indirectly, since carbon-based fuels are also used for energy production. Of

[33] Based on Energy Information Administration 1998.

course this would not increase the price of non-carbon intensive energy (e.g. nuclear and renewable).

Graph 2: Carbon prices rising with different reduction levels



***Note*: Meeting the obligations of the Kyoto negotiations corresponds to the 1990 -7% case. The model estimates the increase in emissions since 1990 at about 30%, thus a -7% decrease would mean a total increase of more than 30% in US emissions.**
Source: EIA Study 1998

Graph 2 demonstrates how carbon prices would be affected at different levels of reduction. As I will further elaborate in this chapter, carbon prices would be the starting point of a cascade effect in the US economy caused by the Kyoto Protocol's limitations, i.e. their implementation: an increase in carbon prices will have large-scale effects on sectors of the economy seemingly unrelated to carbon-based GHG emission. Thus the included graph serves to demonstrate the magnitude of this baseline effect, and looking at the steadily growing cost curve; the Kyoto case clearly entails the highest costs. As I noted at the beginning of this section, I have chosen this study since it presents six different policy cases; thus an

approximate magnitude and focus of costs can be deducted from its findings. In any other circumstances, both on the theoretical and practical level, the policy cases other than the Kyoto case should only serve as illustration. In this very chapter they serve as a tool for cost-benefit estimation; however, as I will demonstrate in chapter 4.4.1., they are without relevance once the Protocol gets ratified by the US; since once the Senate ratifies any treaty, the Constitution obliges the government to thoroughly follow its provisions. In sum, once implemented, the US will have to stick to '1990-7% policies'.

The carbon, and consequently energy price increases encourage a reduction in present energy services for both industry and households (e.g. heating, electricity etc.) and a shift to less carbon-intensive fuels. Differences in energy prices will also affect the outlook for US jobs, consumer prices, investment, technical change, and economic growth. Whenever the use of a factor of production such as energy is decreased, economic output falls (Note: this is a top-down analysis), the price of goods increase and consumption and employment decrease. Also, if the price of a factor of production increases, other factors such as labor and capital become relatively cheaper. However, the relative price decrease in these factors of production would still go along an increase in the total costs of production. Although this particular study does not treat this problem, some analyses fear the increase in the costs of domestic production would induce a capital flight and production relocation out of the US towards states where production is cheaper. Apart from the necessary loss of jobs, this would also entail a loss in GDP and domestic output, an increase in imports and a loss of competitiveness.

According to the study, the sectors the most affected will be the *electricity and coal industry*, since over one third of all primary energy consumed in the US is used to create and deliver electricity; with coal being the most commonly used source, almost for half of the total energy produced. Since coal emits more carbon dioxide than any other fossil fuel, these

two sectors will be major targets of the Kyoto protocol, accounting for between 2/3 and ¾ of the domestic carbon reduction necessary to meet the Protocol's targets. The above mentioned carbon tax will necessarily increase the price of coal due to its large carbon content. Consequently *energy prices will rise in general*, with the rise moderated by other sources of energy — mostly renewable and nuclear energy[34] —that are unaffected by the tax. The problem for the US is that the share of these energy sources is relatively low compared to that of coal. On one hand, a shift to these sources in a relatively short period of time would involve huge costs and on the other hand energy sources such as hydroelectric dams and nuclear power plants would probably face environmentalist opposition.[35] Hence the only remaining option for the US would be natural gas as a substitution. The carbon content of natural gas is the lowest among fossil fuels and gas-fired combined cycle plants are highly efficient. In sum, although an increase in renewable energy sources is expected in the energy generation sector, their overall contribution is expected to remain relatively small compared to traditional sources, such as natural gas.

A carbon tax would also make *coal production in Western states less competitive* since both production and investment in further coal mines would be discouraged. Also, a shift to non coal-based sources of energy would reduce the size of the domestic coal market, causing similar effects in the West. Of course this would have severe effects on jobs. Although the number of miners employed by the Western surface mines has been decreasing due to advanced automated mining technologies for the past three decades, if the Kyoto targets would be met another 10.000-43.000 more jobs could be lost in the sector.

[34] The model does not deal with the construction of new nuclear plants arguing that the anti-nuclear lobby is too strong in the US; however, the extension of the lifespan of existing plants is taken into account which at least would keep their share in energy production constant at non-decreasing total energy production levels.

[35] Note that although it is difficult to mobilize the American public against environmental damage that is uncertain and distant in the future, short term damage such as the destruction of an ecosystem due to the construction of a dam is an issue that would most probably mobilize grass-root movements in the US; take for example the famous case of the Tellico Dam in the 1970s. For more information on the Tellico case see e.g. http://www.wbir.com/news/specials/ourstories/story.aspx?storyid=38042

A carbon tax would influence energy prices throughout the economy, but not all end-user sectors would be affected similarly. Like various other economic reports, EIA identifies four key affected sectors: **residential, commercial, industrial and transportation** users; which of course also react differently. In all cases, consumers have a price incentive to reduce their energy demand and to switch to less carbon-intensive fuel. Judging from the American population's addiction to cheap fuel, this would fuel great opposition among the populace. As for industrial consumers, rising carbon prices would be an incentive for investing into research and development of other energy sources and technologies. Since R&D is highly capital intensive, companies that have been investing in such research would enjoy a huge comparative advantage once the Kyoto Protocol is implemented. Such a comparative advantage would then be rewarded on the market (i.e. consumers would buy the products of these producers) and would eventually lead to a redistribution of assets throughout the economy. Here, I must add that in general, huge companies possess the necessary capital for research and development. Since technological breakthroughs are not public goods — they are protected by patterns —, without state subsidies and intervention, *smaller companies would suffer a comparative disadvantage* by default. Another interesting aspect of a price increase due to a carbon tax is that, according to economics, increased demand would increase natural gas prices as well, leading to a *redistribution of assets* from carbon intensive energy generation to natural gas-based generation.

The study concludes that since energy is one of the building blocks of an economy, literally all prices would feel the increase in energy prices. As higher energy prices are transmitted through the economy, consumers will have an incentive to buy less from every good, to some extent this means that domestic industry and business will face *lower domestic demand;* thus non-export oriented production has to decrease output, while higher energy prices would make *exports relatively more expensive*, and *lower the competitiveness* of the

US economy. Another effect on residential (as well as industrial) users is the increase in space conditioning prices, such as heating and cooling. As for industrial buyers, the model assumes that they will liquidate their present energy-intensive production and change to energy efficient technologies. This would again have a positive effect with the increase in energy efficiency and the investments in R&D, which can increase the competitiveness of the whole economy. However, the model itself does not deal with so-called breakthroughs in R&D thus the appearance of new technologies may not coincide with an increase in their demand; consequently general costs for industrial consumers would increase until the necessary technologies are available. In my opinion, the short time span of adjustment offered by the Kyoto Protocol would increase the likeliness of such a shift in demand and supply of new technologies again raising the level of uncertainty and consequently the expected costs for economic actors. At this point I must emphasize that rational actors, such as the economic actors involved in this issue, take into account *expected costs* in their decisions. Thus increasing levels of uncertainty will automatically increase their estimated costs and consequently the possibility of their aversion against policies leading to these costs.

After the industrial sector, the model moves onto the US transportation sector; representing the second single largest target of emission reduction policies next to energy production, since the domestic transportation sector is the largest consumer of petroleum by far. The study assumes that in order to achieve a reduction in emissions through the transport sector, a combination of more energy efficient vehicles and less travel would be the solution; since the price of gasoline would naturally increase, partially because of the carbon tax and also because of possible command and control policies, such as a removal of state subsidies on gasoline prices. Also, unlike in the energy production sectors, fuels in the transport sectors can not easily be substituted with other sources. Consequently, a larger demand for energy

efficient vehicles would influence the car industry as well, since they would have to adapt and increase their R&D activities in this direction.

On the macro level, the estimated effects of emission reduction policies are rather disturbing. The study concludes that because energy is a crucial factor for most of the goods produced in the US — though energy represents only 7 percent of the Gross Domestic Product (GDP)[36] — an increase in energy prices will necessarily lead to a decrease in economic potential, since energy will be substituted with other factors of production. This loss in potential GDP is estimated to range from 0.1 to 0.8 percent of the GDP, meaning that the economy will grow at a slower rate. The analysis also deals with short-run transition costs that have to be added to the loss in potential GDP. Transitional costs are caused by disruptions in the capital and/or employment markets; and are uncertain but possibly very severe. Since they affect the 'actual GDP, the losses caused by them are greater than potential losses. Such losses are more feared by economic actors and can not be avoided in a policy implementation process. However, their impact can be softened with corresponding (federal) fiscal and monetary policies. Here, the study introduces the previously treated tradeable permit system, namely a domestic auction system. An auction run by the Federal Government would produce substantial revenues that could be recycled back into the economy to bolster disposable income, encourage consumption and investment and compensate business and consumers for higher prices; thus speeding the transitional economy towards an equilibrium. The recycling can be done through a reduction in the personal income tax or through the social security tax.

In sum, EIA expects a slowing of economic growth. The total costs can be estimated as a loss in actual GDP (the loss in potential GDP plus the adjustment costs) plus the purchase of

[36] The study estimates US GDP at $7 trillion (1992 dollars) in 1998 and at $9.4 trillion in the reference case in 2010.

international permits.[37]Total cost range depending on the reduction case and how funds are recycled into the economy from an annual average $77 billion to $338 billion 1992 dollars in the commitment period from 2008 to 2012. As energy prices rise, the prices of all goods and services are affected, though at a different degree. According to the EIA, for the year 2010, each 10 percent increase in aggregate energy prices will lead to an average 1.5 percent increase in producer and a 0.7 percent increase in consumer prices.

4.3. IDENTIFYING PLAYERS AND THEIR INTERESTS

Having dealt with the economic impacts of both climate change and climate change mitigation policies, the domestic board (Level II) actors can be identified, depending on how they are affected by climate change itself or the Kyoto Protocol aimed at averting it. As I discussed it in the theoretical section, the socio-economic actors affected will align themselves along two axes: victims and polluters. These groups naturally possess conflicting interests which they try to represent towards both each other and the government. They do so either directly, or through the use of intermediate agents, where intermediate agents channel or amplify the interests.

4.3.1. The Government

The government participates in the level II game by default - national political leaders appear on both boards. Their immediate interests are also easy to identify: they want to gain political power on the domestic board by constructing coalitions among domestic actors; and they try to maximize their ability to satisfy the domestic pressures, while minimizing the adverse effects of developments on the international level (Putnam 1988). Policy options on the two levels are often contradicting — what seems to be a logical policy proposal on one level can

[37] International permit trading is run by the federal government; according to the study individual firms do not participate. EIA assumes the US will purchase permits at the marginal abatement cost in the US, i.e. the domestic carbon price.

be impolitic on the other — but there is a clear incentive for consistency between a two levels: a treaty can only be accepted with the support of a domestic minority. In general, failure to satisfy any of the boards leads to the failure of the policy itself (Putnam 1988).

Of course, the government is aware of these constraints as a policy supplier. In the Kyoto case; however, the US government acted in a peculiar way. This behavior is partly due to the ideology of the government, but also to the special characteristics of the Kyoto negotiations that distinguish them from other types of international conferences and negotiations (See ch. 1.)

As Putnam (1988) notes some foreign policy analysts, mostly realists, are mistaking when they treat the government as a unitary actor. Instead, he claims, analysts should consider that governments are often composed of several groups with different interests; one of those being the parochial interests of key decision makers Allison talks about (Allison 1969). Though I agree with both Putnam's and Allison's argument — which I have therefore included in my model — I must stress at this point that the US government seemingly contradicted these assumptions during the COP III negotiations in Kyoto. During my research I found no signs of partisan views voiced from inside the government, actually the Clinton administration acted as 'an organic whole'. This brings me to two assumptions important for the level two analysis. First, considering these special circumstances the government can indeed be treated as a unitary actor *on the domestic level*; and second, a theoretically constructed chief negotiator can be imbued with the interests and goals of the government as a whole.

In the introduction, I already treated the question of the activist-sceptic debate within the American administration. Needless to say, the Clinton administration was closer to the activist points (by default, Democrats tend to be more activist in environmental issues than Republicans). Also, in the case of the Kyoto negotiations I believe the interests and values

borne by the chief negotiator (i.e. the government) can closely be tied to Vice-President Al Gore. Himself a devoted environmentalist, he participated on the conference and strongly supported the Protocol internationally. He was generally seen as a possible successor of President Clinton in the White House with the likely support of environmentalist groups at the upcoming elections. Consequently, one of the short term goal of the government was to maximize political support for the future presidential candidate.

Contrary to basic assumptions, the government did not participate in the domestic board until the negotiations ended. Though the delegation tried to come up with a proposal that would be domestically acceptable, it did so independent of domestic groups: the actual interaction between the two levels was severed. Only after the conference ended and the Protocol was accepted, did the government try to rearrange domestic coalitions and force through the treaty. Simply put, although the government tried to take domestic interests into account during the negotiations; the actual domestic game only started after the international game ended.

In sum, the government, following the ideological profile of the 'chief negotiator' appeared as an advocate of the treaty's final text in the domestic game, trying to convince the Legislation — and the public to a lesser degree — of the Protocol's acceptability, while also bearing in mind the long term political goal of maximizing Gore's political capital. Basically, since a failed ratification did not entail considerable political costs, the government played for a win-win scenario; however, this made its efforts in favor of ratification less fervent.

4.3.2. The victims

As I have argued when constructing my model, environmental issues, and climate change in particular possess certain characteristics that render the accumulation of public support for mitigation policies more difficult. The main reasons for this inherent difficulty lie in the distribution and nature of the damages of global warming and the costs and benefits of

mitigation policies aimed at averting the potential damages of environmental change. The damages attributed to climate change are usually distant in time and uncertain in nature and at the same time they are widely distributed – climate change affects everyone. According to Underdal's policy matrix (see p. 16), climate change policies however offer widely distributed benefits with costs targeted to small, but nevertheless powerful sectors of the economy. Due to the uncertainties of damages related to climate change and their distance in time, few feel affected by them (Crabtree 2006). Consequently, the politically active victims are reduced to a small segment of society, namely environmental activists (and their intermediate agents, mostly environmental NGOs) who prize the possible damages more than the entailed economic costs of mitigation policies. Note that at first this phenomenon would render being a victim a merely ideological issue: if the actor is an environmental activist, it will join this camp. However, the economic reductionism applied by my model can still deal with this problem: in this respect, joining the victims' side is a salience issue when actors are performing their cost-benefit calculations. The more salient the future damage is for them, the higher their expected costs will be in a business-as-usual scenario. Consequently they will judge short term costs as negligible compared to long term expected cost, i.e. they will join the victims.

Closely tied to victims, I have to mention the non-polluter industrial actors with assets in environment-friendly sources of energy. Though for different reasons, these actors have similar interests: CO_2 abatement policies would necessarily entail a shift towards these sources of energy, consequently the revenues of these firms would increase. Thus, they also favor strong abatement policies.

4.3.3. The Polluters

According to Frieden's model, economic actors prefer policies that maximize their income. These actors earn their income from their assets, thus both policy preferences and bargaining

power can be explained through assets. First, the more the policy can change the return from an asset the more inclined the owner is to affect policy. Second, the actors' policy preferences are a function of the degree to which they can be applied alternatively with a similar rate of return. The more specific the asset, that harder it is to move it to another sector of the economy, thus the more inclined the proprietor will be to influence the government to apply policies favoring the sector the asset is currently invested in. Point is that if the owner can move the asset he has no incentive to push for sector-specific policies. If he cannot, he will lobby for favorable policies as long as the marginal cost of lobbying is lower than the marginal cost of adherence to unfavorable policies *or* lower than the costs of reinvesting in different assets.

Naturally, this logic stands for environmental policies as well. As I have demonstrated previously, mitigation policies like the Kyoto Protocol entail huge costs to the US economy, concentrated on special segments. These segments of the economy are various in their characteristics, but generally they are related to the use of carbon-based fuels, thus are easy to identify. They include among others the fossil fuel industry, the energy production sector, the transportation sector and the car industry. These are all oligopolic sectors of the economy with high entry barriers, relatively few and powerful players and specific assets. Obviously, the huge entailed costs of mitigation policies combined with these characteristics of the affected sectors make them inclined to lobby against abatement policies. However, the group of polluters is heterogeneous in the intensity of the incentives for lobbying. As EIA's study demonstrated, an increase in carbon prices would induce a shift to less carbon intensive fuels. Adaptation for these actors would first of all mean an increased investment of assets into research and development of new technologies. Since R&D activities are highly capital intensive, firms who have previously invested in such activities enjoy a comparative advantage that will eventually be rewarded by the market. Consequently these firms, whose

assets thus became less specific (investing into R&D is already an alternative to lobbying, i.e. it is a shifting of assets) will be less inclined to oppose abatement policies. Depending on how they estimate the marginal costs of lobbying compared to the marginal costs of adherence and the marginal benefit of being later rewarded on the market against their competitors, these firms align themselves in the domestic game between hardliner opponents of *any* abatement policies and the economic allies of victims I mentioned previously. In sum, these firms can afford to play for a win-win scenario: they have the incentive to invest both into lobbying against abatement *and* into adaptation (i.e. R&D).

4.3.4. Other, case-specific actors

At this point I would also like to mention two actors of the Kyoto case — already mentioned in the economic analysis — that were also active in the domestic game in the polluters' camp. Although these are not economic actors in the word's strictest sense, their interests can nevertheless be traced back to economic roots, thus they do not invalidate the applied economic reductionism. The two actors are coal producing US states and the US military.

As Grubb, Vrolijk and Brack (1999:53) note, the US Congress which is heavily influenced by the interests coal-producing states, and as EIA also stated, Western coal producing states would loose with the implementation of the Kyoto Protocol. they would loose competitiveness and a great number of jobs would also be lost. Naturally, if a state's economy is mostly based on the production of a single product (see asset specificity!), such a threat will have political consequences as well. After all, the workers who loose their jobs and the local firms that go bankrupt will participate in the next elections. By regarding politicians as rational actors that maximize votes to stay in office, this combination of circumstances heavily amplifies the bargaining power of these already powerful economies in Congress. This link becomes even more obvious by looking behind Senate Resolution 98. One of the sponsors was Senator Robert Byrd of West Virginia. Byrd, although he is a Democrat, defied

the administration's will by sponsoring this resolution with Senator Chuck Hagel, a moderate Republican. In the light of the argument I presented previously however, this behavior seems less awkward: West Virginia is one of the most important coal producing states (Jacobson 2002:422).

The other case specific actor active in the domestic game was the US military. Why did they get involved? The US military with its huge arsenal of vehicles and its troops stationed abroad is one of the biggest single American consumer of fossil fuels, consequently it is one of the biggest polluters. This of course propelled the military closer to the polluters' position. However, the army could not participate directly in the game, thus it took a different tactic: the Pentagon tried to reframe climate change as a matter of national security by arguing in congressional hearings that 1) funds spent on climate change mitigations will be drawn away from national defense, 2) high energy prices would render overseas commitment impossible, thus the US could not fulfill its role as a hegemon, and 3) by exempting China from mandatory commitments and putting Russia in a very favorable position trough the international permit trading system, the Protocol would endanger US national security by indirectly supporting its competitors (Committee on International Relations 1998). This lobbying effort was also successful since it could apply to sceptics.

4.4. PLAYERS' GROUPING AND THEIR INTERACTION

After the important socio-economic actors define their interests and group themselves accordingly, they begin their interaction with other actors, groups of actors and existing institutions. However, this interaction is constrained by the existing political system: in democratic states like the United States actors accept the rules of the game. In the case of the Kyoto treaty, similarly to other international treaties, these specific constraints manifest in the US treaty making procedure that is regulated by the US Constitution. In this chapter I will

present a short summary of this process and the constraints entailed in it that influence US behavior at international negotiations (I already mentioned some of these constraints previously, for example the majority rule applied for ratification). The US treaty making procedure also presents a good starting point for identifying the political chokepoints in the procedure, where the actors above could influence the policy outcome. After these critical points have been identified, I will move onto the actual analysis of the domestic game in the Kyoto case study.

4.4.1. The US treaty making process: from negotiation to implementation

Compared to other Western states, international treaties play a peculiar role in the United States' legal system but also in its conduct of its foreign policy. The United States theoretically adheres to the so-called dualist approach in the relationship between international and domestic law. (Murphy 2004:74) Dualists believe that international and domestic law are two separate systems that operate on two different, distinguishable levels. International law can only become part of the domestic legal system after it has been transformed to fit domestic law. Also, once domestically applied, international law falls under the constitutional limitations of the given country. However, the United States' system is not purely dualist. Most importantly, the constitutional role of international treaties in the US is ambiguous: Article VI, clause of the Constitution declares that ratified international treaties (as well as the Constitution) are "Supreme Law of the Land", thus they become equally binding for all the states; but the definition of treaties and their proper treatment is only vaguely defined. Treaties are not strictly distinguished from other international agreements, nor does the Constitution prescribe any purpose or limitations to treaties.

The special treatment of treaties in the US Constitution can be traced back to the age of the Founding Fathers. Given the situation of the new state in international politics, the US had to participate in several treaties. Perhaps due to the importance of these treaties is why the

Founding Fathers made it so difficult to make them (Henkin 1996). Though originally treaty making fell into the jurisdiction of Congress,[38] it was soon transformed to the executive, i.e. the President who is generally treated as the leader of US foreign policy. However, unlike other aspects of international affairs (e.g. appointment of ambassadors or international negotiations), treaty making power was not *fully* transferred to the President. Article II, section 2 (The article on the executive branch) declares that "He [the President] shall have Power, by and with the Advice and Consent of the Senate, to make Treaties, provided two thirds of the Senators present concur…", thus treaty making falls into the Executive's jurisdiction, but only with the approval of the Legislature (Senate). The president role is clearly defined in Article II: he is to decide whether to negotiate on a particular subject with a particular country (countries) or an international organization like the UN; appoint and instruct the negotiators and follow their work; and he is the one who approves the negotiated treaty (signs it) and then seeks the Senate's consents. If the Senate agrees, the treaty can be ratified.

On the other hand, the Senate's role in the treaty making process is somewhat controversial. At the beginning of US history, the upper house of Congress was rather regarded as an foreign policy advisory board to the president on the issues listed above, for example appointing representatives. Almost from the beginnings on, however, the President saw this Senate function as unworkable; and the Senate for itself was seeking to deliberate and pass judgment independently, even posteriorly, rather than to merely advise the President. (Henkin 1996) Of course, as the Senate — along with the states — grew in number; it soon became difficult, even impossible for the President to seek the advice of the Senate at every stage of an —often distant— complex negotiation process. Thus, the "advice and consent" practice was reduced to "consent": the Senate does not formally give advice before and

[38] Article I, section 10 forbade treaty making to the states, thus it is strictly a federal issue.

during negotiations. (Henkin 1996:177-78) However, failure to seek *informal* advice from the Senate can lead to failure of a later consent in the ratification process (Grubb-Vrolijk-Brack 1999:61)

To avoid such disagreement —that without doubt would result in a loss of political capital for the President— the Presidents developed informal substitutes for advice seeking, for example consulting influential senators or members of the Senate's Foreign Relations Committee[39]. Lately, the practice has been to appoint Senators to the negotiating delegation, so that the senators may contribute to the debate, channel the Senate's standpoint on key issues towards the presidency and also to later disarm Senate opposition during the ratification process. (Grubb-Vrolijk-Brack 1999:65)

The requirement of the Senate's consent acts as an important check on the Executive within the elaborate American system of checks and balances. However, it is also very controversial. A situation where the President's party would have an overwhelming 2/3 majority in the upper house seems unlikely, thus the majority constraint on treaty making seems severe. This dependence of the Executive on Senate approval often led to the misuse of power within the Senate[40]: treaties were often rejected not because they were against the "national interest" as seen by the Senate, but because of artisan politics; namely to deny political capital from the President, especially before election time. Because of this often cynical practice of the Senate, President Wilson called the Senate "the graveyard of treaties" (Henkin 1996:178) To avoid such unfavorable outcomes, Presidents often avoided sending treaties to the Senate for ratification when its consent seemed unlikely or pushing through a treaty would have required too much effort with uncertain outcomes. Whenever such political struggles were fought, the President was on the loosing side; there is no precedent for the Senate's withdrawal.

[39] Official site: http://foreign.senate.gov
[40] Note that formal rejetion of consent is never illegal, no matter the causes leading to the treaty's rejection in the Senate.

As mentioned before, the Senate has never been satisfied with th pratice of "advise and consent" and it was seeking ways to influence policy making in details. Thus often the Senate binds its consent to certain conditions (see e.g. Res. 98). It may insist on a modification of the treaty, on limitations of the obligations included in the treaty's text or limits on its domestic implementation. These obligations are of course informal and legally not binding, they act as a form of domestic political bargaining. It is only the president who can issue reservations on behalf of the United States. Basically, this Senate practice is the manifestation of its advisory function (Henkin 1996:181) In most of these cases, however, the treaty requires renegotiation, but multilateral treaties may be impossible to renegotiate once the ratification process has started in signatory parties. This constraint on the American delegations seriously limits the "win-sets".

Once the Senate has given its consent, the President is free to make (or not to make the Treaty). Once the treaty has been ratified, however, the Senate looses its authority. It merely contributes to the implementation process as part of the legislative branch, along with the House of Representatives. Becoming the "Supreme Law of the Land" after ratification, the treaty acts as all US laws. This also means that private parties can sue the United States government if it does not comply with the obligations of the ratified treaty, resulting in lengthy legal debates and potential loss of government resources. Thus, another important, yet implicit constraint exists in the US on treaty making: the US only ratifies treaties unless it thinks it can comply with them.

4.4.2. Political Chokepoints – Influencing Policy outcomes

Looking at the blueprints of the treaty making process, I was able to identify several political "chokepoints" where the policy making process can be influenced by a particular political, social or economic actor (actors). The key stages of the process are the following:

1. International negotiations, possibly with the Senate's participation; parallel treatment of the issue in the Senate's corresponding committee(s)
2. Optional interaction between the Executive (negotiator) and the Senate during the negotiation process
3. The ratification process
4. If ratified, the domestic implementation of the treaty
5. A possible change in the Executive with an election at any stage of the process, consequently changing its policy orientation

As for Kyoto, the treaty making process showed most of the peculiar aspects of the US system, obviously except for the implementation phase. After President Clinton decided to participate at the negotiations of the Third Session of the Conference of the Parties (COP III) of the UN Framework Convention on Climate Change (UN-FCCC) eventually creating the Protocol, the treaty making mechanism was set into motion.

First, as I have mentioned earlier in chapter 3.3., the US delegation tried to assess the domestic situation with negotiations prior to the delegation. Basically, as Putnam also notes (Putnam 1988:434), these *a priori* arbitrations serve as an opportunity to estimate the reservation price[41] (i.e. the policy demand) of the domestic actors, most importantly the aggregate reservation price of the Senate. Deduced from the reservation prices, the level I win-set can be sketched that will serve as a guideline for the delegation at the international level. The main indicator of the Senate's initial position was introduced late into the game: Resolution 98 was only accepted three months before COP III begun. Second, the delegation

[41] In microeconomics, the reservation price is the maximum price a buyer is willing to buy a good or service, or the minimum price a seller is willing to sell a good or service. In this foreign policy case, it is the minimum policy package the buyer (i.e. the Senate) is willing to accept. More precisely it could be described as the least favorable policy outcome the Senate would still ratify.

at Kyoto had seven senators in its rank, some of them members of important committees. Their membership in the delegation corresponded to the traditions described above[42].

However, their participation in the level I debates was limited, and parallel to the international negotiations there was no meaningful discussion between the two boards. Hence, I have to conclude at this point that Putnam's argument on the dynamic interaction does not stand in this case, due to the latter peculiarity of the Kyoto negotiations. Consequently I will argue in the following that the Kyoto case can rather be regarded as a set of two loosely tied games. Real interaction between the Executive, the Legislative and the domestic interest groups was more salient *after* the Level I game ended, i.e. during the ratification process[43]. This phase lasted from the Protocol's signing in November 1998 to March 2001 when eventually the Protocol's ratification failed due to a change in the Executive: President Bush withdrew from the treaty, thus reaching the equilibrium of the domestic game.

Note however, that although chronologically the *de jure* ratification process can be placed between these two dates, in this chapter I will apply a somewhat broader, *de facto* timeframe, since domestic opposition lobbied against legally binding commitments already before the Kyoto Protocol was signed by President Clinton. The modified timeframe starting in the mid 1990s represents the period when involved actors tried to influence the policy making process with a constant set of tools; while the de jure ratification process represents fiercest clash of the two sides[44].

[42] The seven senators present were John Chaffe (R) of Rode Island; Mike Enzi (R) of Wyoming; Chuck Hagel (R) of Nebraska; Dennis Hastert (R) of Illinois; John Kerry (D) of Massachusetts; Richard D'Amato (R) of New York; and Joseph Lieberman (D) of Connecticut.
Source: http://www.ccsr.u-tokyo.ac.jp/unfccc2/records/600000477.html

[43] Note that certain lobbyists of important business groups participated at the negotiations also lobbying against meaningful participation of the US (Carpenter 2001). However, these attempts were procedurally limited (they were only present as observers); while their lobbying activities were more intense and successful domestically. Thus, their presence at the negotiations does not contradict my assumption of a lack of real interaction between the two boards.

[44] Note that the anti-environmentalist lobby is still putting pressure on the government so that it doesn't voluntarily join any treaty entailing legally binding commitments (more extremist groups oppose all forms of GHG mitigation) years after the US backed out of the Protocol.

4.4.3. Playing out the Domestic game

The Kyoto process was eventually halted during the ratification process in 2001, but lobbying against the Protocol started even before COP III assembled in December 1997. In the following I will demonstrate how the socio-economic actors listed in chapter 4.3. exerted their influence against or in favor of the Kyoto Protocol and climate change mitigation in general. To demonstrate the channels of lobbying in this particular environmental issue, I will turn to the study of Aaron M. McCright and Riley E. Dunlap (2003) entitled *Defeating Kyoto: The Conservative Movement's Impact on US Climate Change Policy.* In their article the authors present a comprehensive literature review in this field and also engage in a quantitative analysis of anti-environmentalist lobbying and its connections with the conservative movement from the early 1990s till 1997. Though they analyze a pre-Kyoto period, I believe the logic of lobbying (goals and methods) stayed constant after the treaty was signed. As I have argued previously, signing the Kyoto Protocol merely fueled the opposition by presenting a clear, easily identifiable target. After having presented the logic of anti-environmentalist lobbying I will turn to some real life examples and demonstrate how some key interest groups exerted pressure on decision makers.

After the negotiations were closed the Kyoto Protocol was open for ratification. President Clinton eventually signed the treaty in November 1998, but did not submit it to the Senate knowing that it would be killed in its present form since it contradicted Resolution 98. Although the possibility of ratification seemed low, the Protocol's opposition had to mobilize and strengthen its efforts. At that time a change in the Executive (i.e. to a less activist administration) was not yet a viable option, thus lobbying efforts were directed at the Legislative so that the Senate would never ratify the Protocol no matter the circumstances. Also, with a politically dormant public these interest groups could focus their efforts solely on

Congress. While small businesses and interest groups were limited to direct lobbying at congressional hearings, big corporations like Exxon Mobile and important business lobby groups had a wider array of tools at their disposal, among them the direct funding of policy makers.

On the theoretical battleground, business groups with threatened interest had the unique possibility of basing their anti-Kyoto campaign on the inherent uncertainties of climate change science. Basically, the whole domestic game was turned into a framing issue: the science of global warming was heavily contested in the US until the debate brought effective policy making to a halt (McCright-Dunlap 2003). At first, in the early 1990s when climate change was still a "frontier finding", the mere existence of this phenomenon could be contested. In the late 1990s — i.e. the topic f this chapter — as the volume of evidence increased climate change/global warming became a "core finding" leaving the opposition with two reframing possibilities: they could either argue that climate change is not a social issue and/or they could argue that mitigation policies are too costly, thus they would do more harm than good. In practice, lobby groups challenged the legitimacy of global warming and overemphasized the costs side, a phenomenon McCright and Dunlap call "the social construction of non-problematicity (McCright-Dunlap 2003:349).

As Frieden notes (Frieden 1984:24) if the organized political-economic groups want to exert pressure, they either have to work with existing institutions or build new ones. Since in one of the most established democracies of the world political institutions can e considered constant, interest groups are left with existing institutions, for example an interest group can tie itself with a political party (the party can then act as an intermediate agent (see ch. 2.2.). To maximize utility, the actors have to choose the alternative leading to the highest expected utility, in this case the party of faction that offers the most suitable policies for their needs. The domestic game of the Kyoto process was no different: business groups opposing the

Protocol aligned themselves with segments of the American conservative movement. Why conservatives? In the US there are several anti-environmental groups active, and the American conservative movement is a key segment. As I have explained in the introduction of this paper, Republicans (i.e. conservatives) tend to act as sceptics in environmental issues. Indeed, the way sceptics view these problems corresponds conservative ideology on several accounts. Sceptics view climate change science as unconvincing, they have an ideological aversion against economic regulation and finally they are less interested in the US leading multilateral efforts in "social issues" like global warming, they rather believe that American foreign policy should solely serve the interests of US citizens (Hopgood 2003). The last two dimensions corresponds to basic conservative dogma: one of the key reasons why conservatives tend to turn skeptical in environmental issues is that environmental protection usually involves governmental intervention in the economy that is seen as a threat to economic libertarianism, a core element of conservatism (McCright-Dunlap 2003). Although pre-Kyoto US environmental policy — mostly regulation to control air and water pollution — was achieved through command and control measures that did not threaten industrial capitalism; the Protocol with its legally binding obligations was indeed seen as far more threatening to conservative values like sustained economic growth, the free market, national sovereignty and the abolition of governmental regulations (McCright-Dunlap 2003); than were the prior policies. In sum growing concerns about global warming and the emergence of a large scale social change resulting from mitigation policies aimed at combating climate change pose a threat to the ideology and material interests of the conservative movement, making it a natural ally of the business opposition of the Kyoto Protocol[45].

[45] The fact that Republicans had a majority in both houses of Congress from 1994 on (the so-called conservative takeover) made them an even more powerful political ally during the ratification process. For the composition of the 105th and 106th Congress see http://www.teachervision.fen.com/senate/house-of-representatives/196.html

Apart from directly funding decision makers, the business opposition used two other means of exerting pressure: 1) funding think tanks, both private and conservative[46] and 2) funding sceptical scientist. The goal was to convince decision makers (and to a lesser degree the general public) that first, the evidentiary basis of global warming is weak and uncertain; second, the net effects of global warming would be beneficial i.e. it is not really a social issue; and third, the mitigation policies offered via the Protocol would do more harm than good economically and thereby would threaten national security (McCright-Dunlap 2003). Visible influence was mainly exerted through congressional hearings and the printed media.

Think tanks serves as centers of policy research in the US and are generally understood to be shaping elite policy makers' opinions. Many of they possess publishing capabilities, thus they possess a huge legitimacy among the general public: they are seen as advancing science outside the scientific community. Since they are legitimate, they can serve the needs of business groups (most of the think tanks are funded by private companies). Merely by distributing scientific material contradicting standard activist positions on climate change they reinforce the common American belief that the science of climate change is in itself uncertain. On the other hand, by selecting the necessary variables for economic analyses (see ch. 4.2.1.) they can overemphasize the costs of mitigation policies. To exert their scientific influence think tanks publish policy studies, books, press releases, opinion editorial essays, they appear in radio and television programs, organize policy forums, conferences and give public speeches; but the most crucial of their methods is participating in congressional hearings (e.g. Committee on International Relations 1998) where they testify against unwanted policies. Of course think tanks maintain a considerable staff of renowned scientists

[46] McCright and Dunlap (2003:355) identify 14 important conservative think tanks addressing climate change. These are: American Enterprise Institute (AEI), Cato Institute, Citizens or a Sound Economy Foundation (CSEF), Claremont Institute, Competitive Enterprise Institute (CEI), Foundation for Research on Economics and Environment (FREE), Heartland Institute, Heritage Foundation, Hoover Institution, Marshall Institute, National Center for Policy Analysis (NCPA), National Center for Public Policy Research (NCPPR), Pacific Research Institute (PRI), Reason Public Policy Institute (RPPI)

who increase the credibility and the legitimacy of the think tank and its arguments. These scientist write policy studies, attend press conferences, give speeches and also testify at congressional hearings on behalf of the think tank that is employing. Note that freelancer scientists also were recruited by business groups to give the needed scientific background to anti-environmentalist lobbying. The more scientists testified on a single issue, the more contested it appeared to be. Consequently business groups spent fortunes on employing a huge staff of sceptical scientists.

In sum, lobbying was mostly prevailing in congressional hearings where business group representatives and scientists employed by business groups or by business-founded independent or conservative think tanks testified against the Kyoto Protocol. These individuals dominated the congressional hearings during the period I analyzed, while governmental administrators and research scientists received less attention.

The methods and aims outlined by McCright and Dunlop (2003) were put into practice by several **key polluters and their interest groups**. Perhaps the most important and mostly analyzed active actor was Exxon Mobile, the tactics of whom I will summarize in the following. Exxon Mobil as a company is a powerful player both on the world stage and the domestic US economy. It is the world largest publicly traded company: its 2005 revenues exceeded $36 billion, more than the GDP of most states in the world (Union of Concerned Scientists 2007:4). As the single biggest company in the fuel industry, Exxon is also one of the world's largest polluters. In 2005 its end products — gasoline, heating oil, bunker fuel, heavy fuels and diesel products — were responsible for 1.047 million tons of CO_2 equivalent pollution (Union of Concerned Scientists 2007:4). In comparison this means that if Exxon Mobile was a country, it would rank sixth in emissions. Its large market share would make

Exxon one of the biggest losers (i.e. polluters) of the mitigation policies the Kyoto Protocol would entail.

To counter the threat posed by these policies, Exxon Mobile became the world's most active corporate player in the anti-Kyoto movement. According to the study conducted by the Union of Concerned Scientist (2007), Exxon's political action committee and individuals affiliated with the company made more than $4 million in political contributions throughout the 2000 to 2006 election cycles. Much of this money was spent on President Bush's election campaign (see the induced change in the Executive), but Exxon's lobbyists spent more than $61 million between 1998 and 2005 to gain access to key decision makers alone (Union of Concerned Scientists 2007:5)[47].

To coordinate its campaign, Exxon created a small task force called Global climate Science team (GCST) in 1998. An early GCST task force memo outlined an explicit strategy to invest millions of dollars to create uncertainty on the issue of climate change. The goal the team outlined was simple and familiar. As the memo put it, "Victory will be achieved when average citizens understand (recognize) uncertainties in climate science" and when public "recognition of uncertainty becomes part of the 'conventional wisdom.'" (Union of Concerned Scientists 2007:10). To achieve this desired effect, Exxon projected the company's message through ostensibly independent nonprofit organizations. First, Exxon supported well-established groups such as the American Enterprise Institute, the Competitive Enterprise Institute, and the Cato Institute that actively oppose mandatory action on global warming (see before). Apart from these major think tanks, Exxon also supported a number of lesser-known organizations to further distribute global warming disinformation (Center for Cooperative

[47] Its strong aversion to mitigation policies made Exxon the most important target of environmental groups as well: due to the investigations conducted by NGOs such as Greenpeace, Exxon's lobbying strategies and funding activities are very well documented (e.g. http://www.exxposeexxon.org or http://exxonsecrets.org).

Research 2007). Between 1998 and 2005 the company channeled $16 million to these organizations.

Another important conservative think tank used to launder information is the George C. Marshall Institute. During the 1990s, the Marshall Institute had been known primarily for its work advocating a "Star Wars" missile defense program. However, it soon became a forum for industry-financed "climate contrarians," thanks in part to Exxon's financial support. Since 1998, Exxon Mobil has spent $630,000 primarily to support the Institute's climate change effort.Since ExxonMobil began to support its efforts, the Marshall Institute has served as a clearinghouse for global warming contrarians, conducting round-table events and producing frequent publications (Union of Concerned Scientists 2007:12). Apart from presenting scientific studies against climate change, the Marshall Institute, as an advocate of the National Missile Defense system, also emphasized the possible dangers the Kyoto Protocol would pose to US national security, introducing a completely new, but nevertheless crucial issue into the debate. In particular they argued that adherence to the Protocol would draw away funds from NMD and permit trading with Russia would indirectly fund the rearmamaent of their military (Committee on International Relations 1998). What makes Exxon an even more important player in this domestic game is its role in the 2000 elections. As I have argued previously, in 1998 a change in the Executive was not a viable strategy for the Protocol's opposition. However, they were successful at halting the effective policy making process until such a change became possible in 2000. Exxon was one of the major contributors in President Bush's election campaign and after he successfully won the election, Exxon's advisors managed to convince the new president to withdraw from the treaty. In White House document, leaked by Guardian (Vidal 2005) US under-secretary of state thanked Exxon executives for the company's "active involvement" in helping to determine climate change policy, and also sought its advice on what policies the company might find acceptable. Without going as far as

to claim that Exxon was the primary source of the Protocol's defeat or even Bush's victory, I must emphasize how important the company's contribution was to the anti environmentalist movement.

However, Exxon was not the only large business group active in this timeframe. The most **hard-line corporate business groups** such as the Global Climate Coalition (GCC), the Business Roundtable and the American Petroleum Institute incorporating hundreds of American firms openly fought against the Protocol, sometimes even questioning the existence of climate change[48]. Perhaps the most outspoken of the three was GCC, created back in 1989, that labeled the Kyoto Protocol a "unilateral economic disarmament" for the US (CEO 2000). During the negotiations, similarly to Exxon Mobil the GCC waged an extensive, multi-million dollar disinformation campaign, including fueling public scepticism through the creation of studies that emphasize potential job losses once the Protocol gets implemented to, or an *en masse* participation at the international negotiations. GCC also funded sceptical scientists who testified in state and federal legislation at several occasions. The GCC's influential role, its hard-line stance, and its questionable tactics also made it the target of environmental campaigns. Initially, these campaigns focused on individual corporate members, particularly on European oil companies, resulting in some prominent corporations leaving the coalition, for example Shell in 1998. In December 1999, Ford dropped out and was soon followed by Daimler-Chrysler, Southern Company, Texaco and General Motors, all of which left in the first three months of 2000. Since 2002 the GCC has been dormant, or in its own words, "deactivated".

Applying similar tactics, the membership of the American Petroleum Institute include major oil corporations such as BP Amoco, Royal Dutch Shell, ExxonMobil, TotalFinaElf, Texaco, and Chevron[49]. While always stressing scientific uncertainty around climate change,

[48] Summary of the three business groups' campaign against the Protocol is based on CEO 2000
[49] For the complete list of members see www.api.org

the API claims huge negative impacts will hit the US economy as a result of the Kyoto Protocol. API warns of rising prices on gasoline and electricity, over 2.4 million jobs lost and an average income decrease of US$2,700 per US household (CEO 2000). The Institute also cynically argues against taking action against climate change since "our actions in the next 10 or 15 years will have little impact on the concentration of CO2 in the atmosphere in the year 2050 or 2100." Representatives from the Institute regularly meet policy makers, attend UN negotiations, and organise conferences and media campaigns in which the oil and gas industry is portrayed as highly responsible and eager to take action to reduce greenhouse gases through voluntary action.

The Business Roundtable (BRT), is a group of the CEOs of more than 200 corporations including BP Amoco, Chevron, DaimlerChrysler, ExxonMobil, Ford, General Motors, Royal Dutch Shell and Texaco[50]. The BRT, a well-established actor in the US political arena that enjoys privileged access to US policy makers, is not a single-issue group working on climate issues. It rather focuses on the promotion of deregulated trade and investment regimes and policies that benefit US corporations domestically and abroad. It is for this reason that the BRT joined the GCC and the API in their anti-environmentalist campaign. Before COP III, in June 1997, BRT launched a million-dollar advertising campaign on climate change that urged the US administration not to agree to restrictive policy commitments. In October 1998, it sponsored the 'Conference on Global Climate Science', which concluded that it will take much longer before the full facts about climate change can be understood. The BRT also published a report in 1998, 'The Kyoto Protocol - A Gap Analysis', which besides harping on the uncertainty of existing science, focused on developing countries having to make commitments and demanded an unlimited use of the flexible mechanisms and carbon sinks. In June 1999, the BRT published another report

[50] For a complete list of members see www.businessroundtable.org

entitled 'Trade and Industry Impacts of the Kyoto Protocol', which claimed that unless developing countries take mandatory reduction commitments, US trade and competitiveness will be severely harmed. (CEO 2000)

In sum, the companies and business associations that were most strongly opposing the Protocol were those with either very specific assets (carbon-based fuel related activities solely in the US, e.g. small firms that joined larger business group), or those that would have been largely affected by mitigation policies, but possessed the necessary financial means to influence the policy making procedure. This means that the relative cost of lobbying was negligible compared to the costs; even if the assets were less specific[51].

Not all business groups were so fierce in the combat against costs entailed in mitigation policies. As the science of climate change became less uncertain in the late 1990s, some of the **firms that had less specific assets** or have already invested into R&D (see ch. 4.3.4) chose to play for a win-win scenario. In 1998 a growing number of major oil companies such as BP, Shell, Texaco and Sun Oil Co. began publicly acknowledging that fossil fuels might be changing the climate and suggested that companies begin focusing on how emissions could be reduced. Some even argued that the debate was no longer about the science, but about the actions to be taken by these companies, i.e. improving the efficiency of operations, reducing emissions from refineries or investing in R&D. Later that year, Shell followed by BP withdrew from the GCC so that they could maintain their good reputation (GCC then seemed too radically anti-environmentalist). BP and Shell also began work on internal emissions trading programmes, initiated forestry 'carbon sink' project, set voluntary emission reduction targets, and undertook work on new and renewable technologies, such as solar and wind energy and fuel cells.(Union of Concerned Scientists 2007:17).

[51] Note that the oil business is a sector with a high entry barrier and very specific assets. In general, all companies active in this field correspond to Frieden's theory, but to different degrees. Here, asset specificity is relative, but nevertheless salient.

In spite of these pro-environmentalist actions, sceptics characterize most corporate statements supporting the Protocol as public relations 'green washing' and stress that they still do not correspond the reality of industry trends. They argue that while many oil companies may have undertaken positive measures, their investments in developing alternative or renewable energy are dwarfed by the amounts spent to increase their capacity for oil exploration (Carpenter 2001). Basically this is the essence of the win-win scenario: even if the Protocol gets implemented, these companies would enjoy more public support than their more radical GCC counterparts, plus they would already possess R&D investments crucial in a post-Kyoto business environment.

To achieve policy decisions in their favor, **victims and their intermediate agents** had to face a strong opposition led by the affected economic actors, while putting pressure on the government and try to assemble a domestic coalitions to support pro-victim policies. The former was done by the previously mentioned campaigns aimed at exposing the various tactics polluters applied to achieve their own policy outcomes, while the latter goal could be achieved through raising public awareness. Unfortunately, this was a difficult endeavor in the United States exactly for the same reason the number of politically active victims is limited. Although the environmental community was able to get global warming on the national policy agenda (one of the reasons the US took part in multilateral efforts), the American public was hesitant in response to climate change and focused on the economic consequences of abatement policies. To put it simply: few of the Americans fealt affected by climate change, and cared more about direct, short term economic costs that affect their lives, such as higher fuel prices. Thus, the victims were in a comparative disadvantage compared to the polluters (even though the initial position of the government was more pro-victim, i.e. the government tried to get the treaty ratified), since it was more difficult for them to muster public support.

Consequently, the level of local political activity was relatively low during the ratification process compared to for example Western-European states, and lobbying, along with the anti-business campaigns, was mostly run by international environmentalist groups such as Greenpeace with the support of the pro-Kyoto scientific community.

How the game ended is well know. In the last few years of Clinton's presidency, there was no real possibility for submitting the Protocol to the Senate, while at the same time industry-led campaigns further undermined the Protocol's position both in Congress and in front of the general American public. In 2000, the Republican, environmentally sceptical candidate, George W. Bush became president and eventually backed out of the Protocol in 2001 referring to the very reasons both the conservatives and industrial opposition emphasized. The following quote from President Bush a most excellent summary of his argumentation:

> I oppose the Kyoto Protocol because it exempts 80 percent of the world, including major population centers such as China and India, from compliance, and would cause serious harm to the U.S. economy. The Senate's vote, 95-0, shows that there is a clear consensus that the Kyoto Protocol is an unfair and ineffective means of addressing global climate change concerns.
>
> President Bush's letter to Senators Hagel, Helms, Craig, and Roberts
> March 13, 2001

But was the Protocol really unratifiable?

5. THE OUTPUT OF THE MODEL: INEVITABLE DEFECTION?

I began this thesis with a significant puzzle of (neo)realism. Realist believe that a superpower like the United States will only join a multinational treaty if the entailed benefits, namely the locking-in of competitors in a stable policy environment, outweigh the costs, i.e. the loss of policy autonomy. However, in the peculiar case of the negotiations leading to the Kyoto Protocol's creation, and the domestic disputes in the United States that led to its failure presented realists with a paradox. According to the basic argument, the Protocol would not fit the requirement of locking in competitors such as China or India, but on the other hand it would entail huge costs for the US economy. Consequently, realists would say, the US would never join such a treaty. But it did: President Clinton signed the Kyoto Protocol in November 1998. Although the treaty was eventually not ratified by the US Senate leading to a final outcome foretold by realist theory, the act of signature is still a problem realism cannot deal with.

The basic reason for this theoretical failure is the realist treatment of states as unitary actors that simplifies the domestic processes that played a crucial role in deciding the policy outcome in the Kyoto case we all are familiar with by now. To efficiently deal with both domestic and international variables I chose the two-level model of Robert Putnam and tailored it with the help of Jeffrey A. Frieden's modern political theorem to fit environmental issues in particular. My model, while taking the special characteristics of environmental issues into account, analyzed both the international and the domestic game, while also monitored their interaction. My aim was to explain why the Kyoto case deviates from realists forecasts through a detailed analysis of the domestic game during the de facto ratification process.

The results were more than confounding – the Kyoto process turned out to be a peculiar case in several aspects. Though it could be modeled as a two level game like most international negotiation, the two levels were disjointed during the actual conference. Consequently the two games run rather sequentially than parallel. But its most peculiar aspect was the seemingly involuntary defection of the Clinton administration. Two level models of international negotiations argue that level I win-sets depend on three factors: domestic interests and coalitions, domestic institutions and Level I negotiator strategies. The larger the win-set, the easier it is to reach an agreement *ceteris paribus*. Taking these factors into consideration, the negotiating delegation can construct the state's win set prior to the actual international negotiations. It is, however very important that the negotiator(s) are aware of the reservation price (for an abstract environmental agreement) of the domestic constituency, since these reservation prices also stand for the negotiator (unless it favors even stricter policies). If the information on this domestic constraint is uncertain, Level I strategies become risky. With the words of Hungarian novelist Péter Esterházy "It is hard to lie when one does not know the truth". In sum all two-level games boil down to the single most important constraint: failure to satisfy one of the boards could lead to the failure of the preferred policy.

Assuming that the government is aware of these constraints and tries to act accordingly, the behavior of the Clinton administration seems once again irrational. With Resolution 98 introduced prior to the actual Level I game, it seems inexplicable why the US eventually signed the Protocol, a tentative agreement that clearly contradicts domestic interests. This actually turned out to be the most interesting question in my analysis.

Based on my research I have presented throughout the previous chapters, this seemingly reckless neglect of *actual* domestic demand can be explained by using two distinctive arguments. The first is based on the general logics of two level games and points towards an

involuntary defection, while the second is based on the special characteristics of the Kyoto negotiations (and other climate change mitigation-related negotiations) that I have mentioned in the introduction of this thesis and points towards *voluntary defection*.

The general two-level model does not explicitly exclude the possibility of a policy outcome different from the status quo domestic demand. To achieve such an outcome, the government would have to construct new domestic coalitions that would ratify the treaty. However, in the case of the Kyoto Protocol, this argumentation is flawed. Domestic opposition was literally overwhelming in the Senate, with Resolution 98 Democrat Senators distanced themselves from party politics and went against the administrations will. Also, as I have demonstrated in the chapters dealing with the economic aspects of the Protocol, the policies and measures of this very treaty would have harmed key sectors of the economy. Sectors that possess specific assets — thus they were inclined to lobby against ratification — and also have tight links to key decision makers, such as legislators. This combined with their considerable aggregated financial assets, these interest groups could outmatch advocates of the Protocol by putting the emphasis on the entailed costs while presenting the environmental issue as non-problematic.

The opposition was naturally known to the administration, thus coalition building seemed futile. Consequently, possible argument still within the framework of the general two level model that can underpin this explanation could be that the administration was not aware of the *exact* parameters of the domestic win-set; i.e. they were only able to assess an interval between a minimal and maximal hypothetical treaty. However, they could still have been able to estimate the conditions under which the treaty would definitely not be ratifiable. In the model's terminology, the negotiators misjudged the win-set and thus their overlap (the Protocol) did not correspond to political realities. In any case, this explanation argues that the Protocol's failure was due to involuntary defection.

The other explanation I deduced from the findings is based on the special characteristics of US climate change policy making. As I have previously argued, although climate change mitigation is a serious political and economic issue, US politics on the international level can remain symbolic due to a special feature of the US political system. Even if the executive knows that the treaty it is about to sign will not be acceptable for the legislation, joining such an accord does not entail any notable political costs. Thus signing a treaty can appeal to certain domestic groups and thereby entail political benefits for the party in power for the next elections. I believe this approach can at least partially explain the events during the ratification process. In 1998, the administration was already preparing for the upcoming elections with Al Gore as the most likely presidential candidate. Knowing Gore's activist background, he could very well count on environmentalist votes, but first these groups needed to be satisfied. Since the political costs of a failed ratification were minimal, signing the treaty could make the candidate appear as the devoted environmentalist, while the legislation and domestic interest groups could be blamed for the Protocol's failure.

The administration's behavior during the debates after the Protocol's signature seems to further underpin this explanation. Although President Clinton signed the treaty, he did not submit it for ratification, knowing very well the Senate's standpoint on this issue. Since domestic coalition building would have entailed considerable political costs (unlike a simple signature); the administration did not push for ratification at any cost. This explanation is more cynical, it argues that Clinton signed the treaty knowing it was unratifiable, just in order to mobilize green voters for the upcoming elections. In this case, defection was voluntary, though based on rational considerations.

In sum, the two explanation lead to different conclusions considering the nature of the administration's behavior, however, the policy outcome is the same. To decide which

explanation holds the truth, a new set of variables would be necessary, variables that are unfortunately unavailable to analysts. Nevertheless, the two-level model had its merits: it was able to map the domestic struggle for and against the Protocol that eventually led to its defeat, while also presenting scientifically sound explanations to a puzzle unexplicable through realist models. As for future negotiations, although the current state of knowledge may prove inadequate and even fallacious in the future, I still argue, that due domestic structure of interest groups in the US that are negatively affected by climate change mitigation, a Kyoto-like treaty that challenges the status quo will remain unratifiable, *ceteris paribus*. In my view, in 1998 the Clinton administration was tempted by an unreachable agreement, no matter which explanation one finds more appealing.

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