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"European Union Climate Change Policy in the Nexus of Internal Policy-Making and International Negotiations"

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Abstract

The aim of the dissertation is to examine the European Union's climate policy in the nexus of domestic policy-making and international negotiations. I firstly test the EU's internal climate policy-making by applying the rational choice institutionalism on the model of "institution and preference affect EU's policy outcomes" and conclude that: as the EU has a convergent preference, the EU's unique decision-making procedure, the entrepreneurship and EU's membership had been driving EU's climate policies into preferable outcomes. As the EU's preference is divergent, for instance, in the case of adopting the EU emission trading scheme (EU ETS) after the signature of the Kyoto Protocol, external factors affected the EU's divergent preferences and unified it to approve the ETS in the EU-wide. Second, I examined the relations of the EU's internal climate policy-making and international negotiations by applying the two-level game approach. I conclude that the Kyoto Protocol has a crucial impact on the development of EU's climate change policy in terms of driving the EU's internal climate policy-making into a regulatory, centralised and market-based instruments direction. In return, the sophisticated EU' instruments, such as the EU ETS, are becoming more influential at the international climate negotiations since the aviation industry was included into the emission trading.

Key words: EU, climate policy, rational choice, two-level games, institution, preference

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Contents

Introduction

The EU did not take a leading role until for the preparation of the Kyoto meeting of the United Nations Framework of Coordination on Climate Change (UNFCCC). For a first time, the EU set a legal binding agreement on stabilizing emissions reduction 9.2% (lately revised to 8%) in 1997 on the base level of 1990 as a commitment to meet international requirements for climate negotiation. However, the EU was then skeptical to international emission trading on greenhouse gases (GHGs). With the signature of the Kyoto Protocol, the EU positioned herself at the cross-road on how to ratify the Kyoto Protocol. There were divergent preferences emerged among Member States and non-state actors on whether the EU should adopt the legal binding emission trading system. The European Commission's proposal on the emission trading was on the agenda of both the Council of Ministers and the European Parliament in 2001. By the opposition of major member states, the ET proposal was heavily criticized and doubted. Not until the withdrawal of the United States from the Kyoto Protocol in March 2001, the EU, particular the Commission, viewed it as the "window of opportunity" to push the ET proposal up front to Member States and industrial representatives again. Under the co-decision procedure of qualified majority voting rules, the directive on emissions trading was formally adopted by Member States in the Council of Ministers and by the European Parliament in October 2003. Since the operation of the EU ETS in 2005, the EU became a leader in emission trading equipped by a market-based instrument in the world.

The aim of the research work is to understand the relations between EU's internal policy-making and international negotiation on climate change issue. How did EU's internal formal rules and institutions affect its climate policy outcomes? Why did the EU change its preference, saying from emission trading aversion to a promoter? How did the international negotiation influence the EU internal climate policy-making?

The study on making of the EU climate change policy is important for several reasons. First, the EU has rapidly developed its climate policy in recent years. In particular, after the Kyoto Protocol, the EU's institutionalization on climate change has been led by the Community institutes and leading member states. With the Commission's skillful proposals, the qualified majority voting with co-decision procedure makes the most crucial policies approved at the EU level. Second, it is worth to notice that the operation of the EU emission trading scheme (EU ETS) constitutes the major climate policy instruments of the EU, which affect the extent if the EU will be able to reduce its CO_2 emissions and to comply with its commitments in the Kyoto Protocol. Third, as a domestic emission trading instrument, the EU ETS has its numerous impacts on the international climate negotiations since the directive of inclusion for the aviation industry into ETS passed in 2008.

The research on EU's internal and external climate policy is also theoretically challenging

from a political sciences perspective. Different schools of thought offer different answers to the research question above. The intergovernemtnalist has focused on the interstate bargaining, for instance, the preference of EU member states are the key to understanding the EU climate policy. The neo-functionalists argue that the Community institutes are the key to push the EU climate policy forward. Additionally, the multi-governance approach explained that the EU climate policy is a complexity of the actors and institutions involved at different levels of decision-making. The EU institutions, industries and environmental non-governmental organisation (ENGOs) compose in the line of the EU's position and strategies on climate change.

However, none of the above approach explained the EU climate policy in corresponding my research question. Firstly, the intergovermentalism and multi-level governance approach emphasize EU internal actors and institutions as key determinants for EU policy-making. But the main causes of the rapid development of the EU climate policy, especially the EU ETS, lie outside of the EU itself, saying in the interaction with the international climate negotiation. The neo-functionalism has focused on the supra-institutional functions in the internal policy-making but little in the international negotiation. Thus, the three approaches can only roughly be reflected some aspect of the EU climate policy-making internally and externally.

In the context of the both EU's internal and external climate change, the method has also been challenged. One of central assumptions in my research is that the EU is a political system. Another underlying assumption is that what happens in the international negotiation will have important consequences for how the internal system will work in practice.

Next, the brief history of the EU climate policy will be presented without reference to non-states actors, member-states, the Community institutes and the international climate negotiation. The objectives of the research work will be followed.

Historical overviews on the EU's climate change policy

The European Union (EU) did not start to develop its climate change policy until the beginning of 1990s. The European Council for the first time with EU leaders called for "targets and strategies" to be agreed for limiting GHG emissions. Due to the lack of specific distribution of "burden share" and implementing measurement, the Council of Ministers (the Council) failed to achieve its goal in 1990. The substantial disagreement persisted on the need and content of common measures to implement the Community's emission stabilization commitment at the European level (Oberthur and Lefeber, 2010). In 1992, a proposed CO_2/energy tax bill by the European Commission (the Commission) to the Council was blocked by its member states on the ground of that a fiscal measure requires unanimous agreement of the member states, according to Article 130s of EC

Treaty. Although the Council passed the Directive 93/76/EEC ("SAVE") and Decision 93/389/EEC to its member states to establish programme limiting and monitoring the CO_2 and GHG emissions, these legislations however did not contain commitments of individual Member States.

Not until the preparation for the Kyoto Protocol, as a first significant step in June 1996, the EU Council of Environment Ministers established the objective that 'global average temperatures should not exceed 2 degrees above pre-industrial level' (Council, 10458/96). Ever since then, this objective has continuously guided EU (external) climate policy. The EU finally agreed on a common proposal that industrialized countries reduce their emissions of the three main GHGs by 15 per cent by 2010. For the first time, the Council has agreed on a "burden sharing agreement" among its 15 Member States (Council, CONS/ENV/97/1).

The Kyoto Protocol did not just about establishing a set of targets for industrialized countries to limit and reduce their emissions of a basket of GHGs during the commitment period 2008 - 2012 compared to 1990, but also to create a number of market –based mechanism for implementing these targets, including international emissions trading, the clean development mechanism (CDM) and joint implementation (JI).

Internally, with the pilot operation of the EU emission trading scheme (EU ETS) in 2005, the EU has pushed its GHG reductions forward into a market-based instrument. The Union has gradually undertaken a series of steps to design a regional regulatory regime on climate change policy. The 2007/2008 climate/energy package comprises a range of legislative measures that lifts the communitarisation of policies in this field to an unprecedented level. On one hand, the EU is formulating its internal climate policy to achieve a common position; on the other hand, the EU is exerting influence to other international actors through a marketable instrument, for instance, the EU ETS.

At the international level, started from 1990s, the EU has been playing an important role trying to reach an international binding agreement in GHG emissions reduction to a certain level. For example, to ratify the Kyoto Protocol has challenged major actors in the international negotiations and its domestic politics. Following the U.S' withdrawal from the Kyoto Protocol in 2001, the EU has taken a leading diplomatic role in convincing other actors to ratify the Kyoto Protocol. However, the EU has not always been the effective foreign policy player in the international climate policy arena that it desired to be (Schunz et al., 2009). The European Parliament has complained that the Copenhagen Summit in 2009 was a disaster for the EU 'not speaking in one voice in the international climate negotiation' (European Parliament 2010).

The EU nevertheless is taking its legal binding commitment on 20% reduction target without achieving an international agreement. Bearing in mind, the EU recently has developed the EU ETS as a marketable instrument by adopting the Directive 2008/101/EU

on inclusion of the aviation in the scheme of greenhouse emission reductions area. Ever since the new directive passed, the EU's climate regulation has impact on other major international actors. All these make the analysis of internal climate change policy the most important areas of studies on EU external policies.

Objective of the research

The objective of the thesis on the European Union's climate policy is two fold: first, the EU's internal climate change policy-making process; second, the relations between the internal policy-making and international climate negotiations.

Without a doubt, international climate negotiations are becoming the European Union foreign policy priority (European Parliament 2010):

> "*…there is a need to create a new 'climate diplomacy'… Climate policies should be included in every strategic partnership and bi- and multilateral co-operation agreements in order to establish a more coherent external climate protection strategy*."

However, due to the complex of shared competence on policy-making and shared external representation, the EU climate policy in the nexus of internal and external dimension is far from clear on: how the EU internal climate change policy interacts with its international negotiation.

Before answering the question above, it is inevitable for me to study on: what determines the EU internal climate policy? how the climate change policy becomes part of EU's foreign policy and influences the international climate negotiation?

It is noticed that the literature on European climate policy, and especially on the theme of EU internal and external relations – is relatively thin. The study on the relations between the EU domestic climate change policy making and its external outreach is rather rare in the schools of international relations and political science.

This thesis takes stock of the progress that has been reached and critically evaluated established theories to expand the narrow range of empirical knowledge about EU climate policy-making and international negotiations, and suggests new avenues for theoretically informed research. Furthermore, the paper aspires to contribute to the integration of research on EU climate negotiations into the broader literatures on the EU as an actor in international relations.

Rationale of the research work

To study the relations between the internal climate policy-making and international negotiation, I select the case on EU's performance on Kyoto Protocol and EU Emission Trading Schemes (EU ETS) during the period of the early 1990s till present.

In the beginning of the 1990s, the EU's commitments to the Kyoto COP-3 were crucial of making the EU's climate change policy into a regulative policy at the EU level by agreeing on a legally binding emission-burden sharing target as the first step. Based on the highly regulated environmental policies, the EU since then developed its climate policy into a more legally-binding, centralized, market-based approach towards limiting greenhouse gas (GHG) emissions. The ratification of the Kyoto Protocol has pushed the EU into a consideration of using market-based emission trading instrument in the EU-wide. However, it was not come into a concrete agreement until the exist of the United States from the Kyoto Protocol, the EU, the policy-makers in particular seized it as an opportunity to take a lead in the international climate negotiation not just for her efforts to saving the Kyoto Protocol in reality, but also demonstrating the integrity of the EU on tackling the climate problem. Therefore, the EU ETS has been a core to the EU's climate policy.

There are several reasons for the selection of the EU ETS to be a case study. First, it constitutes the major climate policy instrument of the EU. The success or failure of the scheme will affect the extent to which the EU will be able to reduce its CO_2 emissions and to comply with its commitments under the Kyoto Protocol. Second, the EU Emissions Trading Scheme is the first international emissions trading scheme ever. As such, it represents an innovative political solution to one of the most pressing ecological challenges facing the planet today. Third, and for the same reason, the EU ETS represents a 'grand policy experiment' with ramifications extending far beyond the EU. The performance of the EU ETS will have consequences on how the international climate negotiations can be brought forward beyond the initial commitment period (2008–12) of the Kyoto Protocol.

The rationale behind between the hypotheses and case studies is to explore the interaction of how INSTITUTION and PREFERENCE affect the EU internal climate policy outcomes through the lens of the Kyoto Protocol and the EU ETS. In other words, as the preferences converged, how the EU utilized its INSTITUTION, in my following works, variables such as the EU unique decision-making procedure, the entrepreneurship and EU's membership, to lead the EU into preferable climate policy outcomes (will be examined in Chapter Two). Under the pressure of the external factors, how has the EU's internal divergent preference (for instance, on the case of how to ratify the Kyoto Protocol) been affected by the exogenous factors (will be tested in Chapter Three).

The rationale of choosing the EU ETS and Kyoto Protocol to examine my hypotheses is also laying down to the need of bridging the EU internal and external relations on climate change issue. The essence of my research work is to test how the EU's internal climate policy-making interact its international negotiations. I believe that, the Kyoto Protocol has opened the window of opportunity for the EU to develop its internal climate policies and in return to influence other non-EU countries in the international arena. On one hand, the track of passing the ETS directive at the EU has shown how the key EU Member States, the Community institutions came into an agreement by the fact of the U.S's pulling out form the Kyoto Protocol. On the other hand, the case of the EU ETS's inclusion of the aviation has been an evidence of demonstrating the movement of the EU's influence on the international communities (will be discussed in Chapter Four).

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Chapter One: Theoretical framework, literature reviews and methodology

1.1State of Art

1.1.1 Research question

As the topic given, the thesis is not just about sketching the EU internal climate change policy-making, but also about its relations with the EU's international negotiation. Robert Putnam's two-level game approach presents a broad picture to understand the relations between state's internal policy-making and its external performance. Putnam points out that state's foreign policies have been constrained by its domestic politics (Putnam 1988). Referring to the European Union, a supernatural structure makes studies more complex than a single state. Nevertheless, the basic logic will be the same: how does the domestic/internal politics (policy-making process) constrain its foreign policy and vice versa.

European Union's climate change policy-making poses some fundamental challenges to the Union's capacity. It is an issue that is inherently multi-sectoral, requiring horizontal coordination across a range of issue; inherently multi-level, requiring vertical coordination across the national, supranational and international arenas; and inherently concerned with highly contested decisions about the role of science and politics in the assessment and management of risk to European, even global societies.

To make a research design on the EU internal/external climate policy, it is better to understand the concepts and the causality involved since the issue has emerged in the context of the debate on definitions. Definitions bring in the question of concept of formation and in turn concepts lead to research design:

【Research question】: How does the EU internal policy-making on climate change inter-act with its international negotiations?

The research question can be further streamlined down into: how does the EU make climate change policy? What does the EU foreign policy stand for? How does the EU external climate change policy formed? How does the EU reach a common position to negotiate in the international climate arena?

Regarding to this question, I am convinced that the EU policy-making is an interplayed, ongoing process between (1) the process of formal institutions results policy outcomes as Member Satates are given a fixed preference (rational choice institutionalism approach),

and (2) the external factors changed actors' interests, reshapes their preference to achieve a preferred policy outcome. In other words, what matters to me is: how do the EU institutions affect its policy-making? How do the EU actors change their preferences to reach a preferred climate policy outcome? How does the climate policy-making matter to it external relations and role-play in the international arena?

1.1.2 Analytical framework

Scholarships studying European climate policy have been producing fruitful works alongside the process of European integration. Among them, the governance approach is the mostly applied in environmental policy analysis from the topic on transformation in a context-oriented governance (Lenschow, 1999), to a primarily governance-related conception (sustainable development) (Weale et al., 2000:61), and policy convergence cross nations (Holzinger and Knill 2005; Holzinger et al. 2006; Knill et al. 2008). There is however little research focused on the policy-making process within the relationship between actors' preference, institutions and policy outcomes. Furthermore, it seems in lack of a theoretical framework to overlook the relationship between the internal (EU level) policy-making and its external relation on the issue concerned.

In this dissertation, I will try to examine EU policy-making on climate change with an overview of two-level game approach as well as new-institutionalisms approaches, namely, rational-choice institutionalism approach. The EU did not development a concrete climate change strategy until the preparation for Kyoto Protocol (discussed in following chapters). This means the international factors push the EU reaching a comprehensive programme internally in order to meet its international commitments, and later to ratify them domestically. Putnam' two-level game is well illustrated the interaction of the movement, where domestic politics constrains national foreign policy and vice versa (Putman 1988).

The starting point of the study is to set up a conceptual framework outlining what the two-level game approach stands for in the context of the European Union. Then, the analysis will be divided into three phases: firstly, how do the formal institutions matters to the EU's domestic climate policy? Second, how does the EU to achieve foreign policy on climate change (common position), how the external factors affect the EU's preference, and eventually matters to EU internal climate policy? And third, how does the domestic politics (policy-making) interact to international negotiation?

It is not difficult to understand causal relations between the domestic politics and foreign policy, however, does it mean that the factors determining on domestic climate policy making, are also the ones affect its external foreign policy-making? Due to the complex of the shared competence on climate policy making and external representation, the EU has its genius characteristics on the two-level game.

To analyse the policy-making process, both internal and external, I employ rational choice institutionalism to test how institutions and preferences of actors determine the EU's climate policy outcomes. However, the actors will be further explored on the internal and external policy-making dimension respectively.

Above all, as an assumption of the research, I model the EU is a federal-like political system, which the EU external climate change policy is made by the supranational institutions at the EU level. The EU's internal climate policy is made at the EU level, but enforced in the member states' national level.

1.1.2.1 Assumption of research

In this research work, it is assumed that the EU is a political system as any state does. I employ the model of Simon Hix (2005) to understand the process of the EU's policy-making. Hix argues that the policy outcomes come from the two variables, preferences of actors, and institutions. In order to make the dissertation being falsifiable and logical, I apply rational-choice institutionalism approach to probe the casual relationship between the institutions, preference, and policy outcomes.

Scholars of comparative politics take the EU as a constitutionally structured process of oscillation between states and central government familiar from other federal systems, in which: a) public authority is divided between state government and a central government; b) each level government has some issues on which it make final decision; and, c) a federal high court adjudicates dispute concerning federalism (Pollack, 2005). The EU treaties feature broad and flexible clauses which authorize the federal legislature to regulate interstate climate change Article 175 (1) EC in the EU, or need to adopt any legislation deemed to be 'necessary and proper' in achieving eh fundamental aims of the federation (Pollack, 2005). Though suffering from the weakness of 'fiscal federalism' and the dominance of 'regulatory federalism', the federal-like EU engages in substantial policy outcomes. Majone (1996) argues that this has been driven by two factors. On one hand, member states, who are under the pressure of creating a single market, naturally expect to adopt common or harmonized EU-wide regulations throughout the Union. On the other hand, as entrepreneur, the European Commission has seen regulation as viable way to enhance its own policy competence. The Council and the European Parliament (EP) as a bicameral legislature, and the European Court of Justice (ECJ) and national courts as a dual role in enforcing EU regulations and policy implementation.

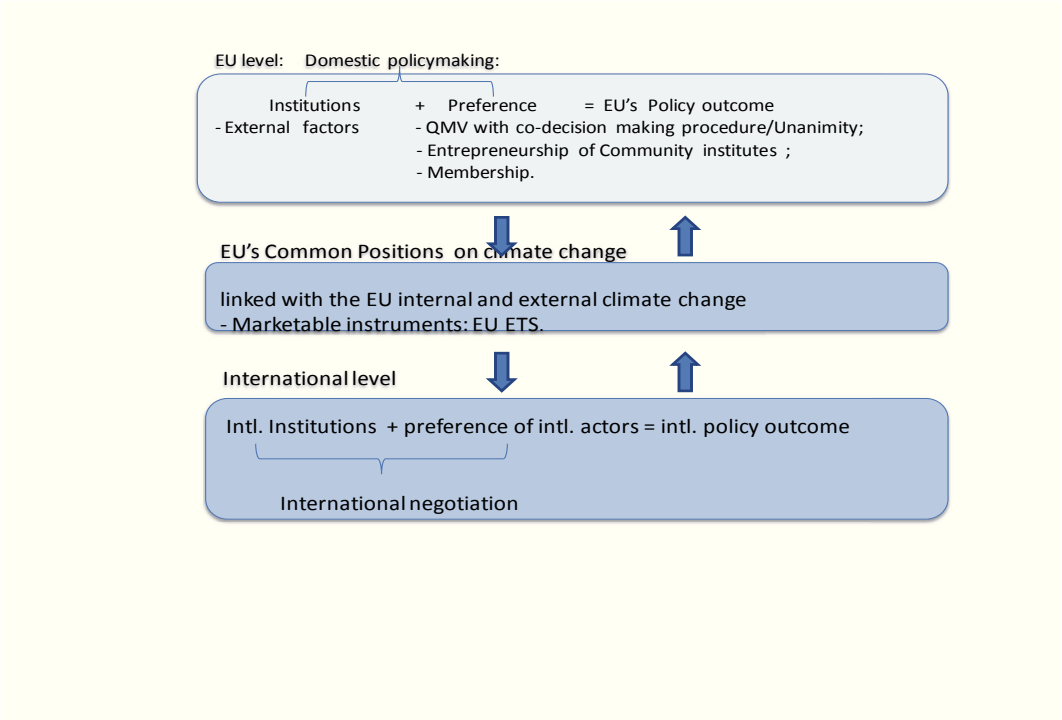
1.1.2.2. Conceptual framework on two-level game approach in the context of the EU climate change policy

The extent to how the EU domestic climate policy interacted with its external common position can be answered with the help of a model based on Putnam's "two-level game theory" (see Diagram 1). To explain the internal and external policy relations, Putman distinguishes between a domestic and an international level and stresses that both have to be taken into account simultaneously. Accordingly, 'neither a purely domestic nor a purely international analysis' can explain the outcome of international negotiations (Putnam 1988). However, the model was originally designed for nation states. For this thesis, I examine that the domestic level is replaced by the European level. This adjusted model is based on the assumption that the EU is a political system as a state (Hix, 2005). Nevertheless, the Member States are accounted as actors in the process of the EU climate policy-making internally and externally.

The essence of the conceptual framework is, illustrated by Diagram 1: as a political system, EU's domestic policy-making interacts with its external policy (international negotiation) bridged by the EU's common position. At the domestic level, as a given preference, EU's formal institutions shape its internal climate policy outcomes, which articulate to form a ground of reaching a common position for its international negotiation. The formal institutions include the formal policy making procedures and regime of the EU. At this level, actors include Community institutes, such as the Council, the Commission, the European Parliament, and the European Court of Justice. Actors also include Member States' governments, industrial groups and NGOs. Based on the internal policies, where refer to directives, regulations, and decisions made through the legislative procedure, the Council intends to declare the EU's common position before to take part in an international climate negotiation. At the international level, EU's common position is affected by the international conditions or factors, which eventually influence the EU actors' given preferences, and re-shape its internal climate policy to a new outcome.

The two-level game framework is a repeated cycle which there is no clear starting point, or ending one. The nexus of the EU's internal and external climate policy is a COMMON POSITION made by the Council of Ministers, which is a declaration to guide all EU Community institutes and Member States acting in one voice in the major international climate events, such as Conference of the Parties (COP) meetings under the United Nation Framework of Climate Change (UNFCCC). In the conceptual two-level framework, a common position is a core of linking the EU internal and external climate policy at a common ground. For instance, the EU's first internal biding burden-sharing target on emissions reduction in 1997 is the common position for the preparation of Kyoto Protocol.

Diagram 1: conceptual framework of applying two-level game theory in the context of EU climate change policy.



1.1.2.3 Significance of the work

To make the research logical, the work will be divided into the following chapters: Chapter Two focuses on the institutionalization of the EU climate change policy, in which contains rational choice institutionalism approach. Chapter Three examines the formation of actors' preference to reach a common position, in which I employ the rational institutionalism approach. The interaction of domestic politics and EU external climate change will be tested in Chapter Four with two-level game theory.

The analytical research is mainly based on the case of Kyoto Protocol and the establishment of the EU ETS.

The significance of works is 1). Set an analytical model and framework to test the relationship between firstly, the interaction of preference, institution and European climate change policy outcomes for the first time. And Second, to examine the relations of internal and external EU climate policy making. 2). Try to theorise the preference formation at the European level and to understand how the preference are accumulated in the domestic agenda-setting process from the actors, including Member States, Community institutes, interesting groups, to EU institutions, and are formulated as European preference in influencing the policy outcomes. 3) Ultimately, the purpose of studying on the European internal and external climate police making is to contribute my

knowledge to the less developed field due to the 'lack of comprehensive systems of testable generalizations' (Rosenau, 1966).

1.2 Literatures reviews

1.2.1 Literatures on EU climate change policy process

Literatures on the EU internal environmental/climate change policy making have been fruitful. There are two approaches on it: multi-level governance approach, intergovernmental approach, and historical-institutionalism.

The making of EU environmental policy has been characterized as a prime example of multi-level governance (Weale et al., 2000; Fairbrass and Jordan, 2004). In the multi-level approach, decision-making competencies and influence on EU environmental policy-making are shared at several levels of governments– from the sub-national, through the national to the supra-national and international levels. Another distinctive feature of EU environmental policy is shaped and implemented in the area between international and EU institutions, national authorities, industry and other target groups, and environmental NGOs at various levels of decision-making process. Hooghe and Marks (2001) argue that supra-national institutions have an independent influence on policy making that exceeds their role as agents for national governments, for instance, the Commission's right as agenda-setter and the qualified majority voting in the Council. Thus, Institutions as arenas determine who deals with what, how, when and where. All organizations can serve these functions, but to qualify as actors in their own right they have to provide independent input to the policy-making process (Skjærseth and Wettestad, 2008:16). However, the approach is criticized by blurring the separation of domestic and international politics since the actors' variety from either state or non-state, from national or international level (Fairbrass and Jordan, 2004). Additionally, the approach has attracted criticism by the problem involved with that it serves as a good idea but with complex description of contemporary changes at EU level, rather than pointing to the causal drivers and mechanisms of EU integration and policy-making (*ibid.*) .

Andrew Moravcsik 's (1998) liberal intergovernmentalism theory argues that the EU''s policy outcomes are shaped by the preferences and interests of Member States. Super-national institutions have insignificant roles in EU's policy-making process (Moravcsik, 1998). The theory assumes that the EU is sufficiently similar to other international systems to be studies from an international relations perspective. It argues that throughout the history of the EU, heads of the Member States have pursed European integration in order to secure their national economic interests. Member States are assumed to be rational, self-interested actors that assimilate national societal demands at the domestic level, and then negotiated with other states at the European level to achieve

the best possible outcome. Member States therefore are de facto the primary policy-makers of the EU.

The liberal intergovernmentalism theory suggests that the choices made by Member States in intergovernmental venues such as the European Council more or less determine the course of European integration. EU's policy is therefore regarded as a direct consequence of Member States' choices (Moravcsik, 1998). Domestic groups seek to impose constraints on these choices to ensure they are aligned with their interests. Member States do their best to 'keep the gate' between national and international politics, but are generally unable to make concessions beyond these domestically determined preference. This automatically drives choices (as expressed in policy outputs) towards the lowest common denominator of Member States preference (summarised by Jordan et al., 2010:44).

Therefore, it is not surprisingly for one to figure out that the liberal intergovernmentalism theory has been criticized for some reasons. First, it makes unrealistic assumptions by over-simplifying the nature of international cooperation (Young 1999; Fairbrass and Jordan 2004). Second, it overlooks the endogenous impact of EU membership on domestic preferences (Jordan et al., 2010: 45). Third, although Member States are important, the EU has many levels, each inhabited by many different actors who are adept at finding ways to evade state control (Peterson and Bomberg, 1999). Finally, the theory stands accused of focusing exclusively on the venues where one would expect to find states acting rationally and coherently. Nevertheless, liberal intergovernmentalism arguably remains a powerful and highly parsimonious 'baseline theory' of the EU (Schimmelfennig, 2004: 74).

Despite of the liberal intergovernmentalism theoretical shortcoming discussed above, the EU's decision-making on climate policy also constrains the application of the theory. As mentioned before, the most environmental/climate policy has mainly applied qualified majority voting in the Council (after the Maastricht Treaty in 1993, the most legislature were adopted by the co-decision procedure), that will deny the veto power of member states who may holds bargaining power of in the course of negotiation in the EU.

1.2.2 Literatures on relations between domestic and international climate policy

Regarding to policy analysis method, Sabatier's Advocate Coalition Framework (ACF) and policy networks are mostly used in testing the relation between domestic and international climate policy-making.

The ACF portrays the policy process as a function of interactions among competing coalitions within an issue-specific sub-system and the effect of system-wide parameters and events on the constraints and resources of the various coalitions (Sabatier, 1988; 1991). Sewell (2005) used the ACF approach to explain the nature of the interactions between international, national and sub-national climate policy decision-making process, particularly those involving the implementation of international environmental agreements, such as UNFCCC. Sewell argued that the ACF portrayed the policy process as a function of interactions among competing coalitions within an issue-specific sub-system and the effect of system-wide parameters and events on the constraints and resources of the various coalitions. However, the limitation of using ACF on climate policy analysis is obvious. First, the ACF may fail to explain particular phenomena occurring in relationships among states, saying the involvement of a dominant power in regime creation and maintenance, which is the main characteristic of the international climate negotiation in UNFCCC. Second, the approach only contains a small set of propositions drawn from the hypotheses of the ACF (Sewell, 2005:209)

Policy networks approach (Marsh and Rhodes 1992; Rhode 1999) is similar to the Sabatier and his colleagues' ACF framework. Policy networks approach focuses on relationships and applies variables to describe those relationships, whether policy communities, issue networks, does not account for how those relationships form and why they change. As Marsh and Rhodes (1992) argue that that it is possible to observe how networks change under the influence of outside events, such as economic change, ideology, knowledge and supranational policy-making. One of criticisms is that the network approach is about everything but nothing, which occurs in all aspects of policy-making. Not until integrated with multi-level governance approach (Marks 1992), the policy networks approach has developed in EU studies, particularly in European foreign policy (Knodt and Princen 2003; Tonra and Christiansen 2004; Schimmelfennig and Wagner, 2004; Carlsnaes *et al*., 2004, Hill and Smith, 2005; Bretherton and Vogler, 2006; Elgström and Smith, 2006; Smith K., 2003; Keukeleire and MacNaughtan, 2008). It is noted that most of these publications only slightly mention the role of small groups of member states, without linking this with the literature on policy networks.

Since the underline of the research proposal is focused on policy making and variation emerges from the interaction of process, for example, the interplay of preference or actors with policy outcomes, in the process of policy implementation, how the outcomes reshape the actors' interest and the institutions? Is there an integrated theory to interpret the dynamic of policy making process?

1.2.3 Literatures on EU's foreign policy-making

In international relations theories, the approaches towards European foreign policy can be categorized into four schools. First, it is the realism approach, which downplays the

role of EU process with focusing on national variables (Hill and K. Smith 2000; Ginsburg 2001; White 2004). Secondly, neo-institutionalism approach focuses of the process on collective EU process with fixed national preference or process (Bulmer and Lequesne, 2005). However, taking the rationalist assumptions, neo–institutionalism is better to explaining the policy stability rather than policy change in the sense of 'stick' nature of institutions follow path-dependency behaviours in resistant the policy change (Pierson 1996). Thirdly, domestic politics or liberal inter-governmental bargaining approach focus on the both national and European inputs as two relatively separate but clearly linked variable processes (Moravcsik 1998; M.E.Smith 2004; Tallberg 2008).

Lastly, it more like social-constructivism, which is somehow in conjunctions with all approach in terms of all factors matters (Bretherton and Vogler1999; Manner and Whiteman 2000; Sjursen 2001; Carlsnaes 2004). Constructivists generally reject the rationalist conception of actors as utility-maximizes operating according to a 'logic of consequentiality' but in favour of March and Olsen's (1998) conception of the 'logic of appropriateness'. In this view, actors confronting a given situation do not consult a fixed set of preference and calculate their actions in order to maximize their expected utility, but look to socially constructed rule and institutional rule and ask what sort of behaviour is appropriate that situation. Thus, social-constructivism suggests that institutions influence individual identity, preference, and behaviours in more profound ways than those hypothesized by rational-choice theorists.

However, the above IRs school on 'actorness' studies have only partially related to my hypotheses, for example the new-institutionalism, rational choice approach in good explaining co-decision rapid-making of EU climate policy as she has influenced by endogenous factors, such as the withdraw of USA from the KP etc. But the assumption of the given preference of actors is contradicting to my hypotheses. Historical–institutionalism offers the insight to understanding the stable relationship between the institutions and policy outcomes. It seems that the approach is good at explaining policy stability rather than changing. Constructivists make all factors, such as identity, preference, and institutions, relevant to the policy outcomes change, despite of being failed to construct 'distinct falsifiable hypotheses' (Moravcsik, 1999). To response the critiques, constructivists test hypotheses in socialization, norm diffusion and collective preference formation in the EU lately (Wendt 1999; Checkel 2003). These study utilizing qualitative rather quantitative methods to test hypotheses about whether, and under what condition actors are socialized into new norms, preference, and identities.

1.3 Applied methodology

Since the research work is focused on the nexus of the domestic policy and international negotiation on climate change, it implies that the methodology shall be applied both internal policy-making process and its interaction with external implementation.

The multi-actor, multi-level nature of EU climate policy means that there is no single theory can be fit into explaining all phenomena (Hill and K. Smith, 2002). Additionally, EU climate policy's 'multi-pillar', and 'multi-location' characteristics (Knodt and Princen 2003; Keukeleire and MacNaughtan 2008; Wallace *at el.* 2005) are also regarded to both policymaking and policy implementation. As I mentioned in previous part, the objective of the research work is a problem-driven rather than theory-oriented (Checkel, 2007). To avoid the fallacy caused by one single theory, I will try to employ simplified thoughts of school to interpret the relationships variables. The employment of approach will be composed by two streams: one from internal policy-making process, the other is from the relation of domestic policy and international negotiation.

1.3. 1 Approach

1.3.1.1 Approach related

John Kingdon's (1984) policy streams analysis (PSA) is one of the few treatments of public policy that examines the political system as a whole with inclusion of individual agents, preference, institutions and external process. Deploys Cohen et al. (1972) 'garbage can model', Kingdon assumes the continual policy change and offers the insight of all the elements to the policymaking process shift and change. He regards policy-formation as the result of a flow of three sets of process or stream: *problems, policies and politics.* Problems are public matter as require attention (policy window). Policies are proposals for change based on the accumulation of knowledge and development of interest amongst the actors. Policy entrepreneurs mobilize interest and institutions and try to ensure the interest does not fall off the agenda. Political process involves all the movements of policymaking process, including agenda-setting (preference formation) and decision-making.

Kingdon modified his work to policy multi streams approach (1995), which has emerged as a major theoretical breakthrough in the study of public policy (Sabatier, 1999). Application in the international arena, Nikolaos Zahariadis (2008) introduces the approach into the EU policymaking process. He argues that 'policy outputs depend heavily on a complex interaction between problems, solutions, and politics during fleeting open windows of opportunity. Policy windows pose limitations to rational policy-making by framing the context within which choice is made, while the notion of coupling stresses the impact of entrepreneurial politics and strategies in EU policy-making' (Zahariadia, 2008).

Kingdon' PSA fits my research work in the sense of 1), preference of actors and institutions both in policymaking and implementing stage has been taken into account. 2), the process of problems becoming a 'policy-window' is a simplified interpretation of

how the issue becomes an agenda in the EU member states. Policy entrepreneurship/leadership may use EU-level institutions where they anticipate a more sympathetic hearing. Interest groups regularly engage in this type of behaviour (Richardson 2000). For a variety of reasons, the Commission and the EU Parliament have actively courted input by interest groups (Mazey and Richardson, 2006). The dynamic movement is also reflecting the formation of European interest as long as the agenda shifted to the EU level on the condition of convergence of member states' interests (Bicchi, 2008).

The neo-institutionalism school believes that actors result the outcomes, through cooperation by using bargaining strategy. But the both are constrained by the institutions. This is particular a case in the European integration interpreted from neo-functionalism to new institutionalism approach, whereas the supranational institutions or process of socialization play a significant role in the policy-making. In EU foreign policy area, recently, the institutional growth involves three aspects: 1) intergovernmental bargaining over the establishment and general development of the political issue-area; 2) the establishment of communications network among foreign ministers, and other specialists; 3) the emergence of norms or shared standards of behaviors. The empirical evidences showed that the state preference can be changed by adaptation of national institutions for 'downloading' EU policies or socialized by the common norms recognized in the process of European integration. As Keukeleire and MacNaughtan (2008) show that an increasing institutionalization of CFSP and ESDP through reinforcement of the common CFSP actors in the Council's Secretariat (such as the High Representative, Special Representatives, Policy Unit, DG etc.). Institutions provide a setting for Member States to accept constraints on their behavious in order to pursue preferable policy outcomes at the European level. For example, the EU Member States accepted limits on their Balkans policies in favour of a common EU policy towards the region (Keukeleire and MacNaughtan, 2008). These institutional changes will be investigated in my research work.

These theories relevant to my research are to explain how the EU, as a regional or world actor, influences non-EU states through its policies implementation in the sense of dealing crisis preventing, conflict management, peace keeping, climate change issues as well as promoting democracy.

Constructivists interpret norms as "independent " or "intervening" variables (Ruggie, 1982). Finnemore and Sikkink (2001) examined the process of formation and diffusion of international norms as the foundation of international institutions. They believe that International relations are the result of interaction between changes of actors and changes of structures. Human beings are capable to evaluate their actions and learn from others. The capabilities of learning are somehow intermediate the interaction of actors and structures during the process of changes (Ruggie, 1998).

Draw from sociological-institutionalism, which has believe in a "logic of appropriateness" (March and Olsen 1998), socialization means the process of social earning by other state actors and organizations incorporate EU rules, norms, practices and meanings. Other states actors are socialized into European norms and rules of appropriateness through process o persuasion and social learning and redefine their interests and identities according (Checkel, 2001). This perspective also generates expatiations on democratization and regime change.

There are several studies have been carried on how the European military forces involve in peace keeping missions (Attinà, 2007), as a security provider (Longo, 2005) and EU' civil society or NGOs associating to conflict management and humanitarian intervention even though suffering from the ineffectiveness (Irrera, 2010). As Nye stated that, unlike hard or military power, soft or civilian power is that 'getting others to want what you want… through co-optation' (Nye, 1990). It is an 'indirect, long-term and works more through persuasion than force' (Hill, 2003). In the international arena, not mention the environmental issue led by the EU over the U.S (Vogler and Bretherton, 2006), the capacity of soft power to shape non-EU states' behaviours, image and value can have concrete pay-offs (Chong and Valencic, 2001).

By studying the enlargement of European Union, extensive empirical evidences showed that EU, as a normative power, deploys several political, economic and social instruments, such as political conditionality, and that eventually give substance to its own discursive practice of value, norms and ideas (Panebianco 2006; Adler and Crawford 2008; Schimmelfennig and Scholtz 2008). In the research work I will examine the how EU foreign policies are implemented to achieve their goals even on some circumstance, such as the authoritarian regimes, nationalism, xenophobes, even the divergence of expectations and goals of different actors. This is particularly will be carried in the EU external relations with southern Mediterranean countries.

In sum, the approaches applied to my research work are not limited to either comparative politics study or the international relations "ism" schools. In explaining the relationship between the multi-actor and multi-institution, and the actors' preference and structure changes within the EU foreign policy, my approach is likely to be described as multi-level, but not the multi-level governance one. To test my hypotheses built upon models with theory supporting, the methodological analysis will be presented in the next part.

1.3.1.2. Approach applied

As discussed in section 1.1.2.2, a conceptual framework of two-level game theory will be employed by testing the relation between the EU internal climate policy and international negotiation. For analysing EU's internal policy-making process, the rational

choice institutionalism (RCI) is employed.

In my work, it starts from policy-makers with exogenous preferences who strive for minimal costs and maximal benefits. If I would apply this reasoning on my research question, I would devaluate the Sociological Institutionalism (SI) component of the policy-making process and depart with a theoretical bias in favour of RCI. As a result, socializing mechanisms would have no chance, because acting on a basis of a cost-benefit analysis is inherent to RCI approach, in which the assumption of 'actors want to realize their interests'. I conceptualize it as a general assumption of my research.

Institutionalism argues that institutions matter, because they reduce transaction costs, provide information under uncertainty and stabilized expectation about the behaviours of others. New-institutionalism approach can be classified into three approaches: rational choice, sociological institutionalism and historical institutionalism.

Institutions matters to the EU policy outcome was firstly introduced by American political scholars, who used rational-choice approach, to understand the origins and effects of US Congressional design, in particular the committee system, could produce 'structure-induced equilibrium' by structuring the voting power and the veto power of various actors in the decision-making process (Shepsle,1986). Others developed transaction-cost approach (Epstein and O'Halloran 1999; Huber and Shipan 2002) and argued that legislators deliberately and systematically design political institutions minimized the transaction costs associated with the making of public policy.

In the context of EU studies, scholarships focus on the importance of EU institutional rules, such as cooperation and co-decision procedures, whereas that liberal intergovernmental model of EU decision-making underestimated the importance of formal rules in shaping policy outcomes. For instance, applied by a rational-choice approach, Scharpf (1988) argues that the unanimous decision-making in Common Agriculture Policy (CAP) has partially result its nature of rigidity. Bulmer and Lequesnes (2005) focus on collective EU process with fixed national preference or process.

Yet, using the theoretical tools developed in the study of domestic politics, the rational-choice institutionalism approach on the EU studies was under challenges (Pollack, 2005). Lindberg and Scheingold (1970) suggest to theorize the EU as a political system, which a dense of legislative, executive, and judicial institutions that adopted binding public policies and hence influenced that 'authoritative allocation of values' in European society. Furthermore, Simon Hix (2005) argues that the EU, as a political system, 'could, and should be studies using the tools, methods and cross-systemic theories from the general study of government, politics and policy-making' (Hix 1999).

Sociological institutionalists (SI) generally reject the rationalist conception of actors as utility-maximizes operating according to a 'logic of consequentiality' (Bretherton and

Vogler1999; Manner and Whiteman 2000) but in favour of conception of the 'logic of appropriateness' March and Olsen's (1998). In this view, actors confronting a given situation do not consult a fixed set of preference and calculate their actions in order to maximize their expected utility, but look to socially constructed rule and institutional rule and ask what sort of behaviour is appropriate that situation. Thus, SI suggests that EU institutions shape not only the behaviours, but also the preference and identity of actors to achieve a preferred policy outcome in more profound ways than those hypothesized by rational-choice theorists (Sandholtz 1993; Jorgensen 1997; Lewis 1998). However, constructivists make all factors, such as identity, preference, and institutions, relevant to the policy outcomes change, despite of being failed to construct 'distinct falsifiable hypotheses' (Moravcsik, 1999). To response the critiques, constructivists test hypotheses in socialization, norm diffusion and collective preference formation in the EU lately (Wendt 1999; Checkel 2003). These study utilizing qualitative rather quantitative methods to test hypotheses about whether, and under what condition actors are socialized into new norms, preference, and identities.

Finally, it is import to mention the historical institutionalism approach though I will exclude it from my work. The EU has a historical track upon its environmental policy since 1970s, where the historical institutionalism has a solid ground. Historical institutionalism suggests that policy making is better understood as a cumulative process rather than a series of one-off events. What has happened in the past shapes future choices (Thelen and Steinmo, 1992: 8). For example, the EU's trade liberalisation in 1980s is the way of handling its new challenges, such as energy insecurity and pollution. Moreover, societal adaptations made in the past (e.g. the construction of pollution control facilities or the development of national energy policies) is a "path" for actors depended on as facing new problems. Historical institutionalism argues that an accumulation of problems, a sudden focusing event or a political crisis are normally required to shift actors and systems of governance onto entirely new paths (Peters, 1999: 68).

However, Pierson (1996) critiques that historical institutionalism approach fails to explain the EU's policy making process for several reasons: First, heads of Member States normally have very short time horizons: politicians are under electoral pressure to agree to policies with short-term pay-offs and/or overlook events that generate no immediate effects. Second, states' preferences are not immutable: historically, Member States regularly change their preferences as a direct result of their continuous involvement in the process of EU policy-making (i.e. process and context matter). Third, supranational policy making is complex: the heads of member states find it difficult to anticipate the long-term consequences of ceding power to the EU. Finally, EU institutions such as the Commission and the ECJ are partly autonomous of Member States: they look for opportunities to behave entrepreneurially by exploiting gaps in state control to increase their autonomy (Héritier, 1999).

Furthermore, in my work, the core instrument of EU climate policy, the EU Emission

Trading Scheme, is novelty that the EU had no previous experience on it. Therefore, historical institutionalism has little effect on explain the EU ETS, further the linkage my study on EU climate policy, whereas institutions are conditioned by the past and institutional development tends to be path-dependent (Homeyer, 2004).

1.3.2. Model

If the European Union is regarded as a political system, then it shall works as a state polity, which includes the politics and policies. I employ the concept of Simon Hix (2005), whereas he describes, as a political system, the EU' policy outcomes are related to the change of preferences of actors and the change of institutions. The equilibrium is shown as the below

Preferences + Institutions = Outcomes (M1)

Whereas:

*Preference = interests and values of Member States, Community institutes, and the interesting groups;

*Institutions = regime + formal/informal rules + norms that determine how collective decisions are made;

* Outcomes = policies, or new institutional forms;

Due to the changeable nature of independent variables, preference and institutions, outcomes are changeable. Thus, policy is an ongoing process. In this formula, preferences and institutions are independent variables resulting to the dependable variable factor - outcomes.

Accordingly, as Daniel C. Thomas (2009) defined that:

"…the dependent variable for empirical analysis of EU foreign policy could be any of the following policy outputs, which we defines as 'common policies': Council Conclusions related to world affairs; the principal instruments of CFSP/ESDP (Common strategies, Common Positions and Joint Actions); and the wide variety of position adopted in other areas of external relations, such as mandated for international negotiation on trade, environment or EU accession, decisions on development or humanitarian assistance, or the imposition of sanctions.."

However, the above outcomes only refer to the policies on paper made by legitimate procedure. The EU, like other political systems, needs to have instruments to carry out its external policies in order to successfully achieve the objectives. Indeed, EU has currently developed a variety of instruments, such as strategies/positions/actions, enlargements and conditionality, diplomatic recognition, economic aid, humanitarian aid, sanctions etc. (Ginsberg, 2001). Joint actions, common positions, and common

strategies have a significant impact on EU foreign policy. Joint actions address specific situations where action of the EU is considered necessary and lay down the objectives of the CFSP, whereas common position permits the alignment of policies without necessarily taking action or committing resources. The logic of the instruments is explained by Roy Ginsberg (2001) as: ' …Whereas joint actions were seen by the Council to enable the EU to act in selected high-profile areas, common positions were seen as a means to respond to day-to-day matters.' Common strategies, on the other hand, are one of the most recently created instruments.

Relating to my research proposal, the outcomes, EU climate policies, is a dependant variable, whereas is determined by the actors' preferences and institutions. Actors include member states, the interest representations refer to the civil society and non-governmental organizations (NGOs) at the EU level. Since the partisan politics at the EU level have been playing a less significant role (Tallberg, 2008), I will exclude the party variable at EU level in this work. However, the Member States' preference will be regarded as the interest of national governments.

Institutions will refer to the international institutions, which are sets of implicitly or explicitly principles, norms, rules and decision-making procedures around which actors' expectations converge in a given area of internationals relations" (Krasner, 1983). Thus, institutions are also sets of mutual expectations, rules and regulations, plans, organizational agencies, and financial commitments accepted by a group of states" (Ruggie, 1982). Here, institutions include the regulations, formal rule, directives made in the Community institutions, such as the Council of Ministers (Council), the European Parliaments (EP), and European Court of Justice, and informal norms.

The equilibrium will be modified eventually as shown in Diagram 2:

Diagram 2: Relation between preference and institution and the outcomes.

1.3.3 Define variables of EU climate-change policy-making process

Focused on the internal-external policy-making interaction, the variables can set as the following:

A). Dependable Variable - policy outcomes
Here, policy outcomes refer to regulations, directives and decision made by the Council and the EP related to environmental issues. The principal instruments of external policies related to environment (common strategies, common position), such as in UNFCCC/Kyoto Protocol are also considered as environmental policy outcomes.

B). independent variable – institutions
Institutions are the regime existing with the policy-making procedural process with a combination of formal, informal rules and norms authorized to develop policy outcomes. Here, three sub-variables will be set to test the hypotheses. First, the policy outcome is conditioned by the unique EU decision-making procedure; second, the entrepreneurship, and third, the EU's membership.

The EU's policy decision-making procedure mainly follows two rules: unanimous voting or qualified majority voting. Majority of climate policies are based on the majority qualified voting from Article 175 (1) EC. Since the Maastricht Treaty in 1993, the legislature requires co-decision procedure between the Council and the Parliament. The decision-making method gives the super-institutions an advantage to 'promote' their proposals and relatively easy to be approved by the Council and the Parliament as there are supportive ground among Member States. Any bill relating to energy or taxation with regarding to fiscal requirement will be applied unanimity by the Council. In other words, any of Member States hold a veto to block the Commission's proposal. The means of decision-making in the EU is crucial to the outcome of policy, for instance, the Council watered down the Commission's energy tax proposal on the ground of unanimity requirement relating to fiscal issue in 1992. Even there were some Member States opposed the Proposal on emission trading directive 2001 based on that the energy issue should be required by the 172 (2) EC on unanimity procedure, however, the Proposal has approved on the legal basis of 175 (1) EC, and enforced by the European Court of Justice later.

Second, an entrepreneurship affects the EU policy outcome as there is/are a/some domestic uncertainty and disagreement/disagreements — implying that the Member States' positions are more open to supra-institutions, such as the Commission who carried three functions labeled by Moravsick (1998) of being ' initiative, meditative and mobile' to make deal among Community institutes and governments from member states.

Third, the EU's membership constrains Member States to commit its climate policies internally and externally.

C). Intervene variable – Preference of actors
Actors, in the dissertation, include the Community institutes, such as the Commission of

European Community (the Commission), European Parliament, the Council of Ministers (the Council); Member States' governments and interesting groups in environmental activities are accounted in this work.

1.3.4 Hypotheses

In order to test the research question, a set of hypotheses will be divided into three phases:

Phase One: as a preference is given, the institution-building increase the probability of resulting a preferable climate outcome.

H1: the more convergent preference, the EU's unique qualified majority voting on co-decision procedure as formal rules result a more preferable climate policy outcome.

H2: the more convergent preference, an effective entrepreneurship results a more preferable EU climate policy outcome.

H3: the more convergent preference, a membership results a more preferable EU climate policy outcome.

Phase Two: The preference is formed under new challenges and it intends to lead a common position with regard to external policy.

H4: Preference change occurs when the EU perceives new political and security challenges from external factors (Bicchi, 2008);

H5. The course of formulating a new preference at the EU level will interact with the EU institutions and drive the EU's internal climate policy into a new outcome.

Phase Three: the new common position becomes the EU's external policy to influence the international climate negotiation.

H6: the more internal legal binding agreements made, the EU is more preferable to reach international climate agreement in a legal binding form.

H7: the more internal market-based instruments used, the EU is more preferable to push international climate negotiation into a market-based instrument.

1.3.5 Case studies

Once the research design, hypotheses and theoretical framework have been built, a methodological analysis will be emerged to the scholarship: in which way the goal can be achieved effectively and sufficiently? What is the causal-effect relation in the model? How one can transfer the qualitative independent or dependant variables into quantitative data, and vice versa? How to collect, sort and analyze these data in a less biased way? How to select samples for the case study or if carrying a survey?

In my research paper, the methodological infrastructure will be constructed case studies, content analysis and discourse analysis. Quantitative and qualitative analysis will be applied as required. The methods structure can be illustrated as the below. It is however the expression bout the domain does not mean the sequence for applying the method one after another, but rather an epistemological way of describing the relationship between different methods. In other words, all the methods shall be instrumented as necessity.

Case studies method will be a complementary approach to offer scholars a deep insight of the phenomena (Lijphart, 1971). Cases can uncover patterns of variances and constant association, and ultimately cast doubt on a cause-effect relationship established on the basis of many observations. To discover the dynamics of EU' climate policy, two cases will be selected and be tested to the hypothesis. The cases selection will be presented as the following:

Table 1: Cases selected to analyze EU climate change policy-making

Kyoto Protocol Copenhagen Summit	1. Integrate the EU internal climate change policy; achieving a common position in its external policy;
	2. EU foreign climate change policy performance in the International negotiation.
EU ETS	3. EU marketable instruments on climate change policy

The Kyoto Protocol is a turning point on the EU' climate policy-making history: first, it is first time that the EU set a legal binding target on emissions reduction in order to take a lead in the UNFCCC negotiation. Second, in order to ratify the Kyoto Protocol, for the first time, the EU decided to establish emission trading to comply with international commitments. The Kyoto Protocol flexible mechanism has determined that the framework of the EU current climate instrument. Therefore, the Kyoto Protocol provides the EU a stage for maturing its internal climate policy and its international performance.

There are several reasons for the selection of the EU ETS to be a case study. First, it constitutes the major climate policy instrument of the EU, so the success or failure of the scheme will affect the extent to which the EU will be able to reduce its CO_2 emissions and comply with its commitments under the Kyoto Protocol. Second, the EU Emissions Trading Scheme is the first international emissions trading scheme ever. As such, it represents an innovative political solution to one of the most pressing ecological challenges facing the earth today. Third, and for the same reason, the EU ETS represents a 'grand policy experiment' with ramifications extending far beyond the EU (Kruger and Pizer, 2004). How the Emissions Trading Scheme performs will have consequences for how the international climate negotiations can be brought forward beyond the initial commitment period (2008–12) of the Kyoto Protocol.

Since the hypotheses are built on the formula of: preferences + institutions = policy outcomes. Two sets of variables will be tested to result the EU climate policy. First, the preference s of actors is as independent variable, which include

Table 2: Set of variables towards the relationship between actor' preference, institutions and outcomes

Intervene variables (IV1) : **Preferences of actors**	Independent variables (IV2): **Institutions**	Dependant variable (DV): **Outcomes**
Preference/interest: - preference of member states, - interest representations at the European level; - EU institutes (Council, EC,EP)	rules, regulations - EU's decision-making procedure; - Entrepreneurship - Membership;	EU climate change policy

1.3.6 Data collecting, sorting and analyzing

For data designing and sampling selection, I will choose the cases selected in Table 3 as samples standing for independent variables of PREFERENCE (see Table 2). The balance between the issues, countries and interests' variation has been taken into account in order to avoid bias. The collected data will the vehicles for undergoing an investigation on how interests and the change of preferences of member states, interest representatives, Community's institutes might influence the EU climate policy outcomes.

According to the variables setting, the data collecting can be classified into two groups: one from the actor's preference side, the other from institutions' side.

Independent variable on member states' PREFERENCE will be collected from public documents of Member States' governments. The public speech of government leaders or representatives in domestic or international arena will also be treated as the government interest.

Date for the independent variable INSTITUTION (see Table 2) will mainly come from the existing political documents available amongst the Council, the European Parliaments, and the Commission. Additionally, I intend to utilise secondary research resources, such as academic articles, expert interviews, and surveys in supporting my research work.

For data sorting and analyzing, both quantitative and qualitative approach, will be tooled in my research work. Rather than purely numerical measures or narrative

description, a computer-based mixed method will also introduced in relating text-mining analysis. The main advantage of this method is to have the strength combining both quantitative and qualitative approach' advantages into one, increasing the generalisability of results, and providing empirical evidence for theory or hypotheses on one hand, confronting difficulties to carry out work by a single researcher, on the other hand. It can be also demanding on the knowledge about quantitative and qualitative methods in deep technique, for instance, how to quantitising (i.e., converting qualitative data into quantitative data or how to qualitising (i.e., converting quantitative data into qualitative data) (Onwuegbuzie and Teddlie, 2003).

Above all, the methodology applied in my research work will be a combination of rational institutionalism approach in internal policy-making and two-level game theory in testing the relations between the domestic and international climate policy. The Kyoto Protocol and the EU ETS will be selected as the empirical case studies to examine how institutions and preferences of actors constrain the EU's climate policy outcome and how international climate negotiations interact the preferences of the EU actors, and consequently re-shape EU climate policies.

1.4 Expected Result and Significance

The meaning of study on the EU climate policy in the nexus of domestic policy-making and international negotiation, as mentioned above, is a challengeable area to scholars who are aware of the existence of the phenomena, on one hand; but no single theory to fit on interpreting it on the other hand. In my work, a result will be expected that dependable variable positively in responding with independent variables as proposed by hypotheses shown as Appendix. In short, as the preferences given, institutions constrained the EU internal climate policy-making, where the Community method and Leadership play the key role. Under the external factors, the changed preferences will drive the EU climate policy into a new preferable outcome. The EU utilises its domestic policy to gain bargaining power in the international climate negotiation.

The significance of works is 1). Set an analytical model and framework to test the relationship between firstly, the interaction of preference, institution and European climate change policy outcomes for the first time. And Second, to examine the relations of internal and external EU climate policy making. 2). Try to theorise the preference formation at the European level and to understand how the preference are accumulated in the domestic agenda-setting process from the actors, including Member States, Community institutes, interesting groups, to EU institutions, and are formulated as European preference in influencing the policy outcomes. 3) Ultimately, the purpose of studying on the European internal and external climate police making is to contribute my knowledge to the less developed field due to the 'lack of comprehensive systems of testable generalizations' (Rosenau, 1966).

To make the research logical, the work will be divided into the following chapters:
Chapter two focuses on the institutionalization of the EU climate change policy, in which contains rational choice institutionalism approach. Chapter three examines the formation of actors' preference to reach a common position, in which I employ rational choice institutionalism approach. The interaction of domestic politics and EU external climate change will be tested in Chapter Four with two-level game theory. The conclusion will be summarised in Chapter Five.

Appendixes:

1-1: Summary for theories and hypothesis

Hypothesis	Theory
<u>Phase one: preference as given</u> *H1: the more convergent preference, the EU's Community Method and formal rules result a more preferable climate policy outcome.* *H2: the more convergent preference, an effective entrepreneurship results a more preferable EU climate policy outcome.* *H3: the more convergent preference, an membership results a more preferable EU climate policy outcome.*	Rational choice Institutionalism approach
<u>Phase two: preference formation at the EU level.</u> *H4: Preference change occurs when the EU perceives new political and security challenges from external factors.* *H5: The course of formulating a new preference at the EU level will interact with the EU institutions and drive the EU's internal climate policy into a new* outcome.	Rational choice institutionalism approach
<u>Phase three: common position achieved as an lever of external policy-making</u>. *H6. the more internal legal binding agreements made, the EU is more preferable to reach international climate agreement in a legal binding form* *H7: the more internal market-based instruments used, the EU is more preferable to push international climate negotiation into a market-based instruments.*	Two-level game theory

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Chapter Two: Institutionalization of the EU internal climate policy-making

Institutions have been a foundation for EU's climate change policy-making process. As member states have a convergent preference on setting binding target on GHG emissions reduction, EU's formal rules have driven the climate policy into preferable outcomes. The Commission, somehow, the Council and the Parliament and leading Member Sates acts as an entrepreneur to making EU's climate change policies. Membership also constrains EU Member States to comply its national climate policy with the EU regulatory climate framework in principle.

In this chapter, I employ a rational choice institutionalism to test how the EU's formal rules affect its climate policy outcomes. An understanding on EU climate policy process will be introduced in the first section, then followed by the analysis of how the EU's INSTITUTION as an independent variable to affect the policy outcomes by applying rational choice institutionalism. The effectiveness of the EU climate policy will be examined in the third section.

2.1 An Understanding on EU climate change policy process

EU climate change policy is originated from its environmental policies. In 1957, the Treaty of Rome, which created the European Economic Community (EEC) was no mention of the environment, and no specific authority for environmental policies to be introduced. Nevertheless, over several years it became apparent that damage to the environment and, therefore, environmental protection needed to be considered. At the Paris Summit in 1972 ministers decided that the Community should take measures to address environmental issues.

Following the decision in 1972 to consider environmental concerns, the European Council adopted their First Action Programme on the Environment in 1973. Primary objectives that were identified in this first programme were for EEC environmental policy to:

- prevent, reduce and as far as possible eliminate pollution and nuisances;
- maintain a satisfactory ecological balance and ensure the protection of the biosphere;
- ensure the sound management of and avoid any exploitation of resources or of nature which cause significant damage to the ecological balance;
- guide development in accordance with quality requirements especially by improving working conditions and settings of life;
- ensure that more account is taken of environmental aspects in town planning and

land use;

- seek common solutions to environmental problems with States outside the Community, particularly in international organizations. (Commission of the European Communities, 1984:18)

EEC environmental policies developed in 1970s and 1980s. It was not until the Single European Act amended the Treaty of Rome in 1987 that express authority for an environmental policy was provided, thus effectively legitimizing the extensive body of environmental legislation that had by then been adopted under a rather elastic interpretation of the original Treaty. (Haigh, 1996:159). Additionally, the Single European Act decrees that a number of environmental principles shall be followed. These principles determine that preventive action should be taken to avoid environmental degradation; that environmental damage be addressed at source as a matter of urgency; that the polluter should pay; that environmental protection requirements be incorporated within other EEC policies; and that the principle of subsidiary should apply. This latter principle means that action should be taken by the EEC only where the required objectives can be better achieved by the EEC than by member states acting alone

Since then the member states of the EEC had agreed on the general development of environmental policies; the de facto existence of such policies eventually leading to their legitimization and the right to introduce future policies.

The European Council's 1988 declaration in Rhodes Summit (Bull EC 12/1988, p 10: 1.1.6) gave these internal developments high level political backing, and just as importantly, signaled the EU's determination to adopt a leading position in the international governance of climate change. As this desire was phrased in such general terms and because its implications for the EU's policies were arguably not that obvious to those involved. It was a common position to which is about everyone in the EU could sign up.

After 1988, the initial phase of agenda setting quickly gave way to a period of more determined policy initiation, strongly dominated by the member states of the EU. Internal EU proposals developed quickly where EU was lagging well behind the U.S (Stragia and Damro, 1999).

The Council of Ministers had an appetite for common emission reduction policies grew among the 'greener', front-runner states such as Denmark, the Netherlands and Germany. However, when the Commission eventually table proposals for relatively strong EU-level policies (namely a common carbon/energy tax in 1990), it found itself blocked by a small but determined group of 'laggards' in the Council. In many ways, the Commission's determination to campaign its tax proposal among opposed DGs within the Commission and Member States' governments. Clearly, although the EU played a significant part in securing the adoption of the UNFCCC, its own policy till 1992 remained largely symbolic, adding up to little more than the combined total of national

policies.

Along with the Maastricht Treaty came into effect in 1993, the requirement for environmental protection to be integrated both in definition and in the implementation of other policies has been strengthened, i.e. that the environment must be considered in all policy-making, not only that which is purely environmental. A significant point made by the Maastricht Treaty was the requirement of co-decision procedure adopted on legislating regulations relating to climate issue.

2.2 Rational-choice institutionalism approach on EU internal climate change policy

2.2.1 Variables identified

As noted above, the huge amount of EU environmental instruments seem to be illustrative of "Brussels conveying belt of legislation" (Parker, 2005); While Trubek et.al properly point out "hybridity" (Trubet et al., 2005), EU environmental governance as a political process for setting a political goal and controlling/monitoring compliance (Kohler Koch, 2005) seems to gradually become characterized as stakeholder inclusion and softer legislation, as suggested above. The emergence of the institutionalization in the EU climate change strategy can be summarized in Appendixes 2-1.

However, in this work, I try to employ the rational choice institutionalism as an approach to test, as a convergent preference, in which all actors commit to GHG emissions reduced to a stable level, how the EU institutions shape the EU climate change policy outcome at the European level. According to the school of rational choice institutionalism, I identify that the institutional-building is relied on three variables: 1) unique structure of the EU decision-making process to make climate change policy into a preferable outcome; 2) the entrepreneurship of the Community institutes and leading countries, which explores the “window of opportunity” takes advantage of the exit of U.S from the Kyoto Protocol; 3) EU’s membership.

2.2.2 Analysis

2.2.2.1 Common position as a given preference at the EU level

The burden-sharing targeting GHG emissions reduction in the EU was set up as a political common position in the Environmental Council. After this pure intergovernmental political process to the legal translation of the burden -sharing agreement was carried out. Table 3 shows the outcome.

Table 3: The EU Burden-Sharing Agreements of 1997 and 1998/2002

Member States	March 1997: emission reduction by 2010	June 1998: emission reduction by 2008-2010
Austria	- 25 %	- 13 %
Belgium	-10 %	-7.5 %
Denmark	-25 %	-21%
Finland	0	0
France	0	0
Germany	-25 %	-21 %
Greece	+30 %	+13 %
Ireland	+15 %	+ 13 %
Italy	-7 %	-6.5 %
Luxembourg	-30 %	-28 %
Netherlands	-10 %	-6 %
Portugal	+40 %	+27 %
Spain	+17 %	+15 %
Sweden	+5 %	+4 %
United Kingdom	-10 %	-12.5%
EU – Total	-9.2 %	-8 %

Source: Council, CONS/ENV/97/1; Decision 2002/358/EC

The Kyoto protocol set up binding targets of GHGs emissions reduction for the so-called Annex I countries, which are 38 developed countries including EU15. in March 1997, under the Dutch Presidency, the Environmental Council already reach an agreement for sharing the burden of GHG emissions reduction, the adoption of which were initially seemed impossible (Lefevere, 2000:363). This agreement was nine months before the Kyoto COP-3 (the third Conference of the arties to UNFCCC). The target was ambitious: a 15% cut in EU emissions of three GHGs (CO2, methane and nitrous oxide) from the 1990 level by 2010 (Lefevere, 2000:363), and the burden of each Member States was allocated as if the principle of common but differentiated responsibility was applied (for burdens of each Member State, see Table 3). This burden sharing agreement was far from perfect because the total emissions of agreed burdens amounted to only two thirds of the 15% (*Ibid.*). Notwithstanding, this become the EU's position at the international negotiation, saying the Kyoto COP.

An aim of the EU in the negotiation in Kyoto COP was to gain the entitlement for the EU-15 as a whole to meet Kyoto targets, such as a model of the 1997 burden-sharing agreement, and the EU won the negotiation. The Kyoto commitments of EU countries well reduce to emission 8% by 2008-2012 from level of 1990. However, the EU-15 are allowed to re-allocate the burden emissions reduction. This is called "bubble" (see Table 3). The March 1997 burden-sharing agreement was model of this method, and now this agreement, which was for - 15% reduction, required to be modified according to the new

- 8% reduction target. Then, the 1998 burden-sharing agreement was adopted in the Environmental Council. For the ratification of the Kyoto Protocol, the "legal translation" of the agreement (COM 1999/88:2) was needed, and it was incorporated into Decision 2002/358/EC, which transposed the Kyoto Protocol into the EU legal order. In this way, the so-called "EU bubble" was established.

Here attention needs to be paid to the fact that these two burden-sharing agreements were not owing to the proposal of the Commission (Kramer, 2003:303). They were outcomes of a pure intergovernmental political process. Soon after the adoption of the 1998 burden-sharing agreement, the EU climate change strategy begun to develop.

A non-binding guideline for developing the principle of environmental integration (PEI), which Amsterdam Treaty of 1997 graded up by newly establishing Article 6 EC Treaty as one of basic principle of the EU. It has framed EU policies for climate change as a single and fundamental issue against which the EU must tackle. This process of developing the PEI is, to a large degree, not legislative, but political process. A non-binding guideline is the 1998 Guidelines for a partnership for integration of environment into the policies (COM: 1998/333), which initiated the Cardiff process that is followed by the EU Sustainable Development Strategy.

Climate change is a cross-sectional issue. This means the wide-ranging legal bases are required for climate policies. The expected legal bases are agriculture (Article 37 EC), transport (Article 71 or 80 EC), taxation (Article 93 EC), internal market (Article 95 EC), trade (Article 133 EC) and energy (Article 175(2) or 308) (Kramer ,2003:300). However, many instruments for climate change policies have been based on Article 175(1) EC *(Ibid.*). Climate change policies have been framed as a single issue through the process developing the PEI. While the PEI does not set any substantive obligation but procedural obligations and has been applied by the European Court of Justice to the legal base disputes in which environmental legislation based on non-environmental legal bases is contested (Usui, 2005), this PEI also seems to have a sort of policy-framing effects. In the process of developing the PEI, climate change policy-making has been stress as one of major objective of the EU. This development has been prompted and supported by "Guidelines for the Partnership for Integration of Environment into other policies" (COM: 1998/333), proposed by the Commission and agreed by the Council. The Guidelines require the EU institutions to cooperate one another as follows (*Ibid.*, 6-7):

All institutions review organizational arrangements and ensure that environmental requirements are reflected in their own decisions;

- The Commission review existing polices and incorporate environmental concerns into all key proposal;
- The Council and the Parliament identify a set of priority actions for PEI;
- The European Council review periodically environmental integration into key sectoral polices.

On the base,

> "... *the Council, Parliament and Commission should jointly discuss the development of mechanisms implementing these guidelines and for monitoring their implementation.*" (*Ibid.*, 7).

In the policy document that proposal this Guidelines, the Commission states that 'Fulfillment of (Kyoto) commitment…. must become a primacy consideration in the framing of all key policy areas' (*Ibid.*, 9). The Guidelines have initiated and activated the Cardiff process since 1998 and the EU Sustainable Development Strategy since 2001. These policy processes have produced policy responses of the Council in the form of policy planning reports.

2.2.2.2 Variable – EU decision-making structure on internal climate change

> *Hypothesis 1: the more convergent preference, the EU's formal rules result a more preferable climate policy outcome.*

The unique structure of EU policy-making process plays a dominant role to affect the policy outcome. This is particularly in the case of the environment, and latterly the climate change.

There are several methods for making decisions in the EU.

1. The Community Method (Monnet method): it is the method that define end points would generate disagreement and thus stifle European integration (Olsen, 2007), which based on the Commission and the Council working together in a closed and technocratic manner to advance European integration 'by stealth'. This method has been formally excluded from two other pillars of the EU in 1993.
2. The Regulatory Method: it is the method was strongly implicated in the pursuit of 'negative integration' from the mid 190s - the removal barriers to trade to create a single market in Europe. It brings together the Commission, the Council and the Parliament in a more equal relationship (Jordan et al., 2010:36).
3. The policy Coordination method: also known as the Open Method of Condition, this network-based method is increasingly applied in areas such as employment and social policy where there is perceived need for greater hamonisaiton but the EU lacks competence and /or political support to govern hierarchically by regulating (*ibid.*).
4. The intergovernmental Method: it is a method that relies on intensive cooperation between national officials, with little or no involvement from the EU institutions. It has normally been applied to the most sensitive policy areas such as foreign

affaires, energy, defense and fiscal policy. Although this may appear weak, its use is often a precursor to deeper EU involvement.

The EU has the Community method on its internal climate change policy-making despite the issues relating to fiscal matters, such as carbon tax, which requires unanimity voting in the Council. By having a commitment on emission reduction, the Community institutes have a chance to bypass the national governments to unify its legislative framework on climate policy though these outlined legislations shall be complied by incorporated into national law in the Member States level.

Member States delegate negotiation authority to the Commission, the procedure of article 300 TEC is followed. According to this article, the Council delegates authority to the Commission and optionally gives a mandate determining the limits of the Commission's negotiation autonomy. The Council can only authorize the Commission when the Commission – as agenda setter – has laid down an authorization proposal. This prerequisite demonstrates that the Member States and the Commission are mutually dependent in case they want to conduct external relations on first pillar issues: the Commission cannot be allowed to negotiate without an authorization from the Council and the Council cannot delegate authority without a Commission proposal. At the same time of the authorization, the Member States establish an ad hoc committee that follows up the external negotiations parallel with the Commission's activities. This ad hoc committee itself is not an actor on the external level. Finally, the externally negotiated agreement has to be ratified by the Council (and eventually by the national parliaments, dependent on the division of competences). In addition, the European Parliament can be a veto-player in the ratification stage as Article 300, paragraph 3 EC Treaty stipulates that in certain occasions the co-decision procedure prevails.

In the phase of *policy initiation*, several factors would lead us to expect a prominent role for the Commission. As mentioned earlier, the Commission is basically the main formal agenda-setter in the EU. The specific case of emissions trading has been characterized by a generally high lack of knowledge and intrinsic level of complexity. This was an instrument which few actors in the EU, apart from scientists and researchers, knew much about or had any practical experience with. Taken together, this forms the basis for an assumption along the lines that the emissions trading initiative belonged to the minority category referred to above: it was the Commission that independently launched emissions trading as a major EU climate policy instrument. The Commission may have been motivated by the need for new policy instruments to achieve relevant climate goals. With regard to the Commission's ability to take things forward speedily, this is clearly related to the degree of internal cohesion and agreement in the Commission itself, a body that has been characterized as basically segmented (Sbragia, 2000). Among the 23 directorates general, Directorate General (DG) Environment has been depicted as being weak, with a very small staff compared to other DGs; some have even claimed it is dominated by 'ecological freaks' (Grant et al., 2000: 21). In the intra-Commission power

play, it has been maintained that the DGs concerned with industrial and economic affairs generally try to weaken or block proposals introduced by DG Environment (will be changed to DG Climate Action since 2010), and these DGs concerned with economic affairs typically have far greater resources and technical expertise than DG Environment (Sbragia 2000; Weale et al. 2000:119).

One would assume that the DG Environment of the European Commission has the easiest internal ride with policy ideas and proposals that resonate – or can be framed to resonate – well with main thinking and preferences in these other and more powerful directorates. Seen in this light, emissions trading could have been a comparatively good case for DG Environment. Such trading offers industry greater flexibility and financial incentives than command-and-control and taxes. Hence, the trading idea can be assumed to have resonated with the traditional DG Environment counterparts indicated above.

In the decision-making phase, the Commission has often continued to play an important role. Although the Commission is no formal legislator, as is the case of the European Parliament (EP), it may still be quite influential in the decision-making phase. As noted by Nugent (1999, 120 and 370), under the co-decision procedure (after the Maastricht Treaty in 1993), it is difficult for the Council or the EP to amend a Commission proposal without the Commission's agreement. If the EP and the Council agree to adopt a proposal at the first reading in the Parliament, then this is possible only if there is unanimous support in the Council for the amendments on which the Commission does not agree. If the Council and the EP do not agree at the first reading, the Council goes on to adopt a common position, and subsequently a second reading takes place in the EP. To assist the EP in its deliberations, the Commission must explain its position, includes whether or not it will accept EP amendments. The EP can then only adopt amendments not accepted by the Commission in the second reading with the support of an absolute majority of its component members (and, similar to the first reading situation, the Council can do so only by unanimous support). As commented by Nugent (1999, 367), this is a procedure 'that strongly encourages the EP, the Council and the Commission to engage in intensive and extensive inter-institutional bargaining

Furthermore, the Commission can influence decision-making through information and expertise demanded by the Council of Ministers. As pointed out by Nugent (1999, 140), being seen as non-partisan, the Commission is well-placed to act as mediator and conciliator. But it also has a more active side: Hix (1999) and Hooghe and Marks (2001) provide several examples of the Commission's ability to act as a tactically very capable player, at any time able to issue revised proposals and free to frame policy issues in the way it perceives most likely to secure support in the legislative process.

The Commission can be seen as a policy entrepreneur, 'selecting the policies that promote its interests; restricting the available choices for governments; continually pressing and negotiating until it gets what it wants; and involving other actors in the

policy process to force reluctant governments to accept its proposals' (Hix, 1999: 237). Given the specific issue characteristics of emissions trading discussed above, there are good reasons to expect a relatively prominent continuing role for the Commission in the EU ETS decision-making phase. This is particularly likely if the Commission initiated the ETS independently. The Commission is likely to seek backing for upholding a system with high degree of harmonization at EU level, giving it a comparatively strong position in the further development of the system.

The European Parliament has become increasingly important and in fact a co-legislator together with the Council of Ministers. The 1993 Maastricht Treaty introduced the co-decision procedure and the 1999 Amsterdam Treaty made it the standard procedure on environmental legislation (Haigh, 2006). As noted above, co-decision means, among other things, that the EP can propose amendments in two rounds ('readings') and may veto the adoption of an entire proposal if it feels that its amendments are not sufficiently reflected in the final text.

The development of the EU climate change climate can be divided into two phase: before and after the Kyoto Protocol in 1997. The first phase was for the construction of a shared understanding. Individual instruments were simple and not successful. The second phase was for the institutionalization of the EU climate change policy companied with maturing EU emission trading scheme (EU ETS).

Before the Kyoto Protocol

In 1985, the Commission first raised a need for EU (EC by then) policies on climate change, by issuing a research policy statement (McCormick, 2001:280). It seems that this was response to the 1985 Villach international research conference on climate change. The 1988 UN General Assembly recalled the conclusion of the Villach conference (A/RES/43/53, December 1988) and grade up climate change as an international agenda. The development of EU climate change policies have been contextualised by evolving international climate change regime. The UN Framework Convention on Climate Change (UNFCCC) of 1994 (Decision 94/69/EC) and Kyoto Protocol of 1997 (Decision 2002/358/EC) have frame the EU climate change strategy, as will be examined below. What needs to be paid attention to is the fact that the international agenda of climate change incorporated into the EU through Commission communications, Council resolutions and Euro Council Presidency Conclusions, not through political statements by Member States' leaders, and in turn the UNFCCC and the Kyoto Protocol were incorporate into the EU legal order. This demonstrated that instruments are a tool of developing a shared understanding between EU institutions and Member States following show this process.

1. 13 October 1986. Resolution on measure to counteract the rising concentration of carbon dioxide in the atmosphere (the greenhouse effect) (OJ 1986 C255/272).

2. 16 November 1988. The Commision's Communication to the Council: the greenhouse effect and the commission work programme concerning the evaluation of policy options to deal with the greenhouse effect. (COM:1988/656-2).
3. 2-3 December 1988. Rhodes Declaration on the Environment. Presidency Conclusion, Rhodes, December 1988 (Bull EU 12-1988).
4. 20 July 1989. Council Resolution on the greenhouse effect and the Community (OJ 1989 C183/4)
5. 25-6 June 1990. Declaration by the European Council on the Environmental Imperative. Presidency Conclusions, Dublin, June 1990 (Bull EC 6-1990).
6. 29 October 1990. Conclusions of the joint Council of Environment and Energy Ministers (Bull EU- 1990).

In this process, scientific uncertainties were rejected as an excuse of delaying policy responses to climate change. The 1988 Rhodes Declaration on the Environment underlined "the greenhouse effect" alongside the depletion of the ozone layer and the loss of biodiversity (Bull EC 12-1988, point 1.1.11), and then the Council Resolution stated that:

> "*… such a response (to problems of climate change) should be made without further delay, irrespective of remaining uncertainties on some scientific aspects of the greenhouse effect.*" (OJ 1989 C183/4:para.1)

In part, this is because the EU aimed at establishing a strong position in preparation for UN Conference on Development and Environment (or the Rio Summit) of 1992, as the 1990 Dublin Declaration claimed (Bull EC 6-1990: Annex II, point 1.36). In this process of norm-building, the EU established the first target-setting in 1990 joint Energy/Environment Council. This target was the "stabilization of the total carbon dioxide emissions by the 2000 at the 1990 level in the Community as a whole (cited from Directive 93/76/EEC). It was non-binding and quite flexible. The conditions were that "… other leading countries undertook similar commitments' (*ibid.*). Furthermore,

> "*… Member States which start from relatively low levels of energy consumption and therefore the emissions measured on a per capita or other appropriate basis are entitle to have carbon dioxide targets /or strategies corresponding to their economic and social development…*" (*ibid.*)

Though other industrial counties did not begin to undertake similar commitments in a visible measurement signing of the Kyoto Protocol of 1997, this flexible commitment anticipated the principle of differentiated responsibility' established by the UNFCCC.

The Commission announce the state of climate change policies in the 4th EAP of 1987 (OJ 1987 C328/5, point.2.3.20) and envisaged a set of climate change policies in the 5th EAP

(OJ 1993 C138/5) (Krilmer, 2003:299). The strategy in this early stage of the development of climate change polices was simple. Measures to combat global warming were 'a three part climate package' (McCormick, 2001:281): energy efficiency and alternative/renewable energy, monitoring mechanisms and a carbon/energy tax (COM: 1991/249)'. The measures had been proposed and implemented in forms of directives and decisions; however, they were by and large "soft in terms of flexibility in meeting obligations. With regards to energy, financial supports were provided for national programmes: SAVE Programmes for energy efficiency; and ALTENER Programme for a renewable programme. However, the amount of financial supports was small. Energy policies developed by arranging indicative targets and annual report requirements (ex. Directive 2003/30/EC). A monitoring mechanism was set up by Decision 93/389/EC, under which Member States are required to submit national reports concerning the monitoring of all anthropogenic GHGs and the Commission publishes regularly reports. This monitoring mechanism has later evolved in order to meet the Kyoto commitments (Decision 280/2004/EC). However, fiscal measures did not reach consensus. At first, the Commission envisaged a carbon tax (COM: 92/226). Although the Parliament supported the adoption of the carbon tax, the Council did not approve by key Member State, in which the decision-making has been required by unanimous voting on fiscal issues, even after the carbon tax was dressed up as an energy tax (Directive 2003/87/EC) (Wettestad, 2005:8). Later on, a fiscal policy on climate change has been established as a flexible energy tax directive (Directive 2003/96/EC), as well be examined as below.

The EU climate change policy, not a mere aggregation of individual measures, has emerged since the significant of Kyoto Protocol of 1997. After the year of 1997, a renewal policy-making started. This is illustrated of a spread of the institutionalization of climate change policy in the EU in a more visible way.

After the Kyoto Protocol

EU climate policy has been carried out by the European Climate change programme (ECCP), which was initiated by the Commission in 2000. The document, "Main Elements of the ECCP to be initiated by the European Commission" (COM: 2000/88, Annex 2), launched "a multi-stakeholder consultative process (Commission 2001b:6) for adopting instruments of EU climate policies. This can be said to de done by the degree at the expense of the Commission's prerogative of the "initiative" (COM: 2000/88, 5-6), because the Commission announced that the ECCP results would be converted into "a clear political commitment from the Commission" (Commission 2003:6) in supranational legal processes based on the Community method. However, the expected list of common and co-ordinate policies and measures on climate changes was attached with the Annex 3 of that document (COM:2000/88) as if the Commission confined results of the ECCP with an expected scope.

The origin of the ECCP was the Commission Communication for preparing for the implementing of the Kyoto Protocol (COM: 1999/230). On this basis, the Environmental Council made proposals in June 1998 and October 1999, for urging the Commission to put forward a list of climate policies and measure and to prepare policy proposals (Commission, 2003:4). Soon after this political process, the ECCP has become "an essential part of the EU Sustainable Development Strategy" (Commission 2001b:157). There were consensus between the Commission, the Council and the Parliament. In October 2000, the Environmental Committee of the Parliament adopted an opinion on the ECCP, which stressed the priority of the ECCP (Commission 2001b:7). In November 2000, the Commission submitted a progress report to the "special climate Council". In the second ECCP report, the Commission emphasizes the broad consensus at the first phase, stating that:

> "…*Despite the very short time available, the Programme already set out a first list of likely measures to the relevant sectors taking fully into account the proposals made in the Parliament's Resolution and the Council* " (Commission 2003:7).

The objectives of the ECCP is "to identify and develop all those elements of a European Climate Change Strategy that are necessary for the implementation of the Kyoto Protocol" (COM: 2000/88, Annex 2, 8) and to pursue "a co-operative effort of al relevant stakeholders such as representatives of the Commission, the Member States, industry and the NGO community" (*Ibid.*). The policy target is quite a simple no matter how the effort anthropogenic GHG emissions on the rise of global surface average temperature, or global warming, is still uncertain: the reduction in 2010 with respect to 1990 (Commission 2001b:5). This amount of reduction is what the Commission calculated for corresponding to an 8% reduction in GHG emissions to 1990 level by 2008-2012, which is the Kyoto commitment of the EU 15 (*Ibid.)*. A multi-stakeholder consultative process was launched for envisaging policies and measures to achieve this objective.

The document, "Main Elements of the ECCP", set up Steering Committee and Working Groups. The former is composed of all DGs that take part in the ECCP (COM: 2000/88, Annex 2,8). The WGs have their "specific set of stakeholders representing a European rather has a national or regional cliental and about 15 personal s par WG (*Ibid.8*). Respective WGs have reporting requirements to the Steering Committee (*Ibid.*) on this base, the Commission prepares 'policy proposals containing instruments such as technical regulation, taxation, voluntary agreements, or flexible mechanisms' (*Ibid*.). Initially, five WGs were set up, further WGs were expected to be established later *(Ibid.*, 10). In the course of the ECCP, the following WGs and sub-WGs have been activated (Commission 2001b:6 and Commission 2003:5):

- WG1: Flexible mechanism
  Sub-WGs: JI/CDM and Emission trading;
- WG2: Energy supply

- WG3: Energy consumption.

  Sub-WGs: "Energy efficiency in end-use equipment and industrial process"(a joint sub-working group with WG5).
- WG4: Transport

  Sub-WGs: Vehicle technology and fuel, Transport infrastructure, Use and charging, Fright logistic, Awareness raising and behavioral change and data validation.
- WG5: Industry

  Sub-WGs: Fluorinated gases, Renewable raw materials, Voluntary agreements and "Energy efficiency in end-use equipment and industrial process (a joint sub-working group with WG3).
- WG6: Research
- WG: Sinks in agricultural soil (WG number is unknown)
- WG: Forest-related sinks WG number is unknown).

Wide-ranging stakeholders have been invited to these WGs and submitted each policy report as if the policy-makers in collaboration with the Commission. Table 3 summarizes participants into the WGs. They are shown as follows (see Table 3; cf. Michaelowa, 1998).

- Commission officials (from various DGs such ENV, ENTR, ECFIN, RLARG, TREN, RES, RTD, ADRI).
- National experts and independent researchers.
- Emitters group such as UNICE, and sector-specific group and national lobby groups.
- Climate protection industry.
- Environmental lobbies such Climate Network Europe (a network group of various national NGOs), Greenpeace.

Attention must be paid to the participation of one member o the Parliament into WG5's sub-group that addresses voluntary agreement, with which the Parliament has been concerned because of the possibility that the Parliament may be circumvented and left out of policy-making process. In addition, the participation officials of CDM Executive board of UNFCCC, EBRD and EIB into JI/CDM sub-group needs to be kept in mind for understanding an open policy-making process in the EU climate change strategy.

To a large degree, the Commission has orientated these WGs towards the use of new modes of governance though improvements in the implementation of exiting legislation and the planning of new legislation are at the same time stressed (Commission, 2001b:157). Basic strategies produced by the ECCP are as follows.

1. Taking the full range of policy instruments including legislation (existing, new and planned) voluntary actions, supporting measures, awareness and best practice initiatives, market instruments research/technology development (*Ibid*., 158).

2. Taking the full range of stakeholders in the process of developing a strategy with a view to launch a process that gathers the required expertise and promotes consensus-building (Commission, 2003:4-5).
3. Horizontal policy integration that enables all DGs to collaborate one another and established a coherent strategy (*Ibid*. 4 and Commission 2001b:157).
4. Target-sharing and monitoring with a view to underlining 'the responsibility of member States in establishing their own policies and measures ' for reducing GHGs (Commission, 2003: 6).

The first phase of the ECCP indentified 42 cost-effective measures, which was expected to total "a technical potential of 66-765 $MtCO_2$" (Commission, 2003:6). While some of them are, or going to be, taken shape in form of directives, such as the 2003 EU Emission Trading Scheme Directive, the 2004 JI/CDM Directive, and the directive on biofuels, energy performance of building, energy efficient pubic procurement, fluorinate combined heat and power, energy services, and so on, these contain more or less flexible measures on target-sharing and monitoring schemes. Following the first phase in which 'the ECCP acted predominant initiator, catalyst and discussion forum' to prepare a strategy, the second phase of the ECCP has moved to 'monitoring and implementation of the agreed measure' (*Ibid*.).

2.2.2.3 Variable – Entrepreneurship of the Commission and leading Member States

Hypothesis 2: the more convergent preference, an effective entrepreneurship results a more preferable EU climate policy outcome.

In neo-institutionalism school, Andrew Moravcsik states that the entrepreneur influences international institutions on two conditions: "First, actors are able to provide three essential entrepreneurial functions: initiatives, mediation, mobilization - must be scarce. Second, actor must enjoy …privileged access to the information … to act as entrepreneurs and in use more efficient interstate bargains." (Moravcsik, 1999:811).

In the case of the EU, the Commission as a perfect position to be an entrepreneur stated by Moravcsik's (1999:811) that its entrepreneurial role is most prominent when there is domestic uncertainty and disagreement—implying that the member states' positions in these cases tend to be less axed or strong and the field more open for supranational entrepreneurs. In other words, the Commission initiate a proposal to the Council be a mediation to convey the agenda-setting between the Member States as well as all shareholders. The DG environments (established as the DG Climate Change after 2009)

and the working groups in the Council are the essence for mobilising the interests of Member States and knowledge of experts across sectors.

Regarding to EU policy-making process, the Single European Act (SEA) added several provisions to the EC Treaty designed to address the complexity of the decision-making process and the existence of competing interests among member states. First, the SEA replaced the traditional unanimity voting system by a system of qualified majority voting; Article 100a (1) has considerably simplified the decision-making process, thus facilitating the adoption of strict emission standards over the objections of laggards. Second, Article 100a (3) requires the Commission to 'take as a base as high level of protection' in its proposals concerning health, safety, environmental and consumer protection. Third, Article 100a (4) authorizes, in certain circumstances, member states can apply more strict national standards rather than EU one if they deem it necessary to protection the environment.

Although during the process of EU climate change policy-making, the EU remains heavily dependent on national enforcement on climate policy framework made of regulations, directive and decision proposed by the Commission, and approve by the Council and the Parliament. None the less, the Commission plays a key role in agenda setting, implementation and enforcement. Simon Hix argues (1999) the Commission can be seen as a policy entrepreneur, who selecting the policies that promote its interests; restricting the available choices for governments, pressing and negotiation till it gets what it wants. He adds that the Commission can selectively involving other actors in the policy process to force reluctant governments to accept its proposal (Hix, 1999:237)

In the 1990s, the EU was a skeptic to ETS; however, "the very about turn of the EU from ETS freaked to be a front runner" (Wettestad, 2005:2) occurred, thanks to "the strong entrepreneurial role of the Commission" (*Ibid*.). As Butzengeiger and Michaelowa point out that '… the speed of its implementation has surprised seasoned observers of Brussels decision processes' (2004:118). According to the study of Wettestad, the background of the turn is: the failure of the adoption of a carbon tax; the existence of the IPPC system (which has already emission permit scheme); liberalisaiton of an energy market (which may be disadvantageous for renewable energy); experiences of ETS among central industrial actors and by some Member States (the Danish system and the UK system); and the rejection by Bush administration of the Kyoto Protocol (which prompt the leaders to save the Kyoto Protocol and to get the leading position of global environmental diplomacy (Wettestad, 2005:10-12).

Attention needs to be paid to the legal base of this Directive, which was Article 175 (1). In a sense, it can be said that this ultimate market instrument was produced in the context of international climate politics forced collaboration between the Commission, the Council and the Parliament. The 2004 JI/CDM Derivative made this market instrument develop further, by activating flexible Kyoto mechanisms.

The political priority led by the Council, the Parliament and the Commission, has speeded up the EU internal institutional-building, and ultimately has resulted a favourable policy outcome: EU climate and energy package in 2009.

The development of EU climate policy in the second half of the 2000s goes a long way to closing the gap between international words and domestic deeds that has characterized EU climate policy for a long time. Most importantly, the Council and Parliament agreed a set of legislative proposal, widely known as the "climate and energy package", in order to implement the European Council's decisions of March 2007. After the Commission presented its proposals in January 2008, they progressed through the legislative process with record speed, with a political agreement reached in the European Council in December 2008 and a first reading agreement adopted by the Parliament on 17 December 2008. The Council formally adopted the package in April 2009 was complemented with a number of other legislative agreements reach in 2008, including a Regulation on CO_2 emissions of new passenger cards and a Directive including aviation in the EU ETS. In the following, I focus on the four legislative acts forming the climate and energy package.

The speed at which the package progressed through the legislative procedure – only eleven months from proposal by the Commission to political agreement in December 2008 - reflects the high level of political resolve on the part of EU leaders as well as the increase political profile of the combined energy and climate policy fields. The climate and energy package was declared a key priority by the French Presidency, which invested substantial political effort in achieving agreement within the ERU a few days before the end of the UNFCCC conference in Poznan in order to preserve European leadership ahead of the crucial Copenhagen conference in December 2009. However, this political objective was achieved at the expense of a significant watering down of the Commissions initial proposal.

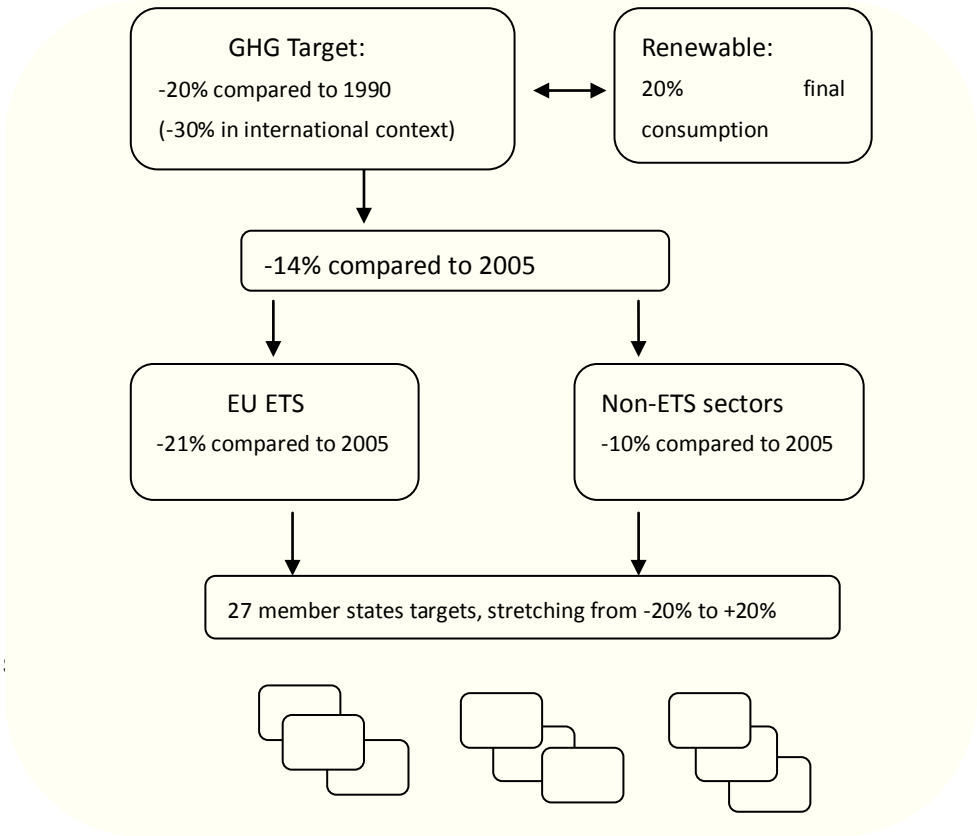
Marking the start of important new stage in the development of EU climate and energy policy, the climate and energy package consists of four pieces of legislation: a revision of the 2003 Emission Trading Directive, a Decision on sharing the effort of GHG emissions reductions in the non-ETS sectors among Member States, a new and comprehensive Renewable Energy Directive, and a Directive on carbon capture and storage (CCS). Amended guidelines on state aid for environmental measures formed the fifth element of the package and were adopted by the Commission itself pursuant to its Treaty powers to regulate states aid.

The individual elements of the climate and energy package together regulate the whole of the EU's GHG emissions, determine the division of the reduction efforts between ETS and non-ETS sectors and set the framework for how best to create synergy in achieving the objectives set by the European Council for 2020. The revised Emissions Trading Directive and the Effort-Sharing Decision together regulate the whole of the EU's GHG

emissions so as to reduce them by 14% from 2005 levels by 2020 (equivalent to the 20% reduction from 1990 levels). Following cost-effectiveness considerations, the ETS sectors were accorded the lion's share and have to reduce their emissions by 21% from 2005 levels. The diffuse sources of the non-ETS sectors regulated under the Effort-Sharing Decision need to reduce their emissions by 10% from 2005 levels to achieve the overall objective. The Renewable Energy Directive's target of 20% renewable energy in total final energy consumption in 2020 influenced this distribution and set certain parameters fro implementing the GHG emission reduction target. In contrast, the CCS Directive primarily set a framework for developing CCS technology whose major potential for influencing EU GHG emissions lies beyond 2020. Diagram Two illustrates the relationship between the revises ETS Directive, the Effort-Sharing Decision and the new Renewable Energy Directive.

Directive 2009/29/EC on an improved and extended EU ETS significantly amends the ETS Directive 2003/87/EC. In particular, a single EU-wide cap is defined, replacing the existing system of 27 national allocation plans. Installations covered by the ETS will collectively be required to reduce emissions by 21% compared to their aggregate 2005 emissions levels by 2020. The cap is reduced stepwise from 2013 to 2020 to achieve this goal, following a linear trajectory. Instead of granting most of the emission allowances free of charge, as is the case under the current system running until 2012, auctioning will become the principle and free allocation the exception, staring with power plants in 2013. However, contrary to the Commission's original proposal, a transitional and gradually decreasing possibility for the agree allocation of allowances will apply to certain power plants in new Member States during the periods 2013-2020. In the manufacturing sector, auctioning will be phased in gradually through out the EU, 'with a view to' reaching full auctioning by 2027. However, a broad exception was inserted for industrial sectors at risk of 'carbon leakage', which are to be identified through a comitology procedure. While the European Parliament's Environment Committee has sought to earmark all auction revenues for the purpose of funding climate-related measures and research and development, the final compromise agreement only contains a legally unenforceable recommendation stating that 'at least 50 per cent' of the proceeds 'should' be used for climate related adaptation and mitigation purposed (Skjaeseth and Wettestad, 2008)

Diagram 3: The relationship between the revised ETS Directive, the effort-Sharing Decision and the new Renewable Energy Directive



As mentioned above, from failed carbon tax bill in early 1990s to the burden-sharing system, till the recent 20/20/20 policy, the EU has made a long way to build up its regime on climate change in terms of distribution of costs for carrying on GHG emissions reductions at the national level.

Decision 406/2009/EC – now entitled "effort-sharing" in contrast to its predecessor Decision 2002/358/EC informally known as the "burden-sharing" decision- lays down national reduction targets in the non-ETS sectors (i.e. households, buildings, transport, services, agriculture and smaller industrial installations) in order to contribute the remaining share of the 20% overall reduction objective by 2020. The national reductions targeting for a period 2013-2020 is formulated differently form those for the current 2008-2012 period. In particular, the reference year is 2005 instead of 1990 and the effort has been divided among Member States taking into account their per-capita GDP, in order to grant more leeway to the new member states that are not included in the EU "bubble" for the first Kyoto commitment period. The decision also allows Member States to transfer part of their assigned GHG emissions allocation to subsequent years and to other states, as well as to acquire credits resulting from CDM and JI in development countries and Eastern European countries. Respectively, up to an annual limit which shall not exceed three per cent of their respective GHG emissions in the baseline year

2005. [1]

The Commission's initial proposal would have provided for an automatic proportional adjustment of both the effort-sharing targets and the overall reduction under the ETS in the context of an international agreement on climate change under which the EU would commit itself to a higher 30% reduction target, as indicated by the European Council in March 2007. However those provisions were deleted from the agreed texts and replaced by a simple invitation to the Commission to put forward proposal to amend the Effort-Sharing Decision and the Emission Trading Directive for consideration by the European Parliament and the Council through the regular co-decision procedure in the event of such a global agreement.

The new Renewable Energy Directive 2009/28/EC lays down mandatory national targets for Member States' use of renewable (electricity, heating and cooling , and transport sectors) adding up to 20% of the EU's total energy consumption by 2020. These targets were determined on the basis of two main criteria: first, all Member Stats are to increase the share of renewable energy by 5.5%; secondly, further mandatory increases were apportioned on the basis of GDP, with a adjustment to reward early movers. The Directive allows Member States to cooperate in order to achieve their renewable targets jointly, e.g. by running joint projects or transferring renewable energy "statistically" between them. It also provides that by 2020 renewable energy shall account for at least 10% of each member states' total fuel consumption in all forms for transport. This measure replaces the 2003 biofuels Directive 2003/30/EC which set lower, non-mandatory targets fro biofuels only. The 2009 Directive furthermore establishes binding criteria to ensure that biofuel production is sustainable. In particular, it requires a minimum, of 35% GHG emissions reduction compared to fossil fuels from 2013, increasing to 50% from 2017 onwards.

Finally, Directive 2009/31/EC on the geological storage of CO_2 established a legal framework for the permanent containment of CO_2, designed to ensure that CCS technology is deployed safely and responsibly, the provisions of the Directive, therefore, mainly concern the regulation of CO_2 storage and the removal of unintended barriers in existing legislation to such storage. It ensures that CO_2 capture is subject to permitting procedures under Directive 2008/1/EC on integrated pollution prevention and control (IPCC) for certain industrial activities and that both the capture and pipeline transport of CO_2 are activities for which a environmental impact assessment (EIA) is mandatory in accordance with the requirements of the EIA Directive (Directive 85/337/EEC). Criteria for site selection are set out to ensure that only sites with a minimal risk of leakage are chose, while it will be up to Member States to determine the areas to be made available for CCS operations and the condition for site use, the new Directive provides for a review

[1] In addition to this three per cent, certain member states with stricter targets will be able to use additional credits from projects in least developed countries and small island developing states amounting to up to one per cent of their 2005 emission.

of draft permit decisions by the Commission, assisted by an independent scientific panel. The main financial incentive for the deployment of CCS technology will be provided by the EU ETS, under which the CO_2 captured and safely stored according to the provisions of the CCS Directive will be considered as not emitted, In addition, up to 300 million allowances will be made available from the ETS new entrants' reserve until the end of 2015 to subsidize the construction of up to twelve CCS demonstration plants. The actual value of this support mechanism will ultimately depend on the price of emission allowances at the relevant time.

Three other legislative measures relating to the EU's climate change mitigation policy were proposed by the Commission prior to January 2008 and adopted by Parliament and Council in 2008-2009. Directive 2008/101/EC amending the Emissions Trading Directive 2003/87/EC with a new to including aviation activates in the EU ETS from 2012 was adopted in November 2008, prior to the more far-reaching overhaul of he ETS by Directive 2009/20/EC. Directive 2009/30/EC sets new harmonized specifications for liquid fuels aimed at curbing emissions not only of CO_2, but also of other air pollutants such as sulphur and nitrogen oxides. Finally regulation 443/2009/EC set CO_2 emission performance standards for cars. The later two were effectively added to the climate and energy package by the European Parliament, which decided to vote on these proposals at the same plenary session as the other four Commission proposals.

While the climate and energy package and the related legislative act primarily aimed at the post-2012, the new climate policies of the EU are also relevant for the implementation of the EU's Kyoto Protocol targets. Several of the agreed policies are set to lead to a reorientation of Member State policies that may deliver first results even before 2012. Most importantly, agreement on the ETS framework until 2020 has had an immediate stabilizing effect on prices on the emissions trading market because emission allowances issued prior to 2012 can be transferred to the third phase of the ETS. In this sense, 2009 prices reflect expectations of supply and demand not only until 2012, but up to 2020.

Overall, the package amounts to a major overhaul of EU climate policy and constitutes a significant step for EU climate policy, even though ambitions are still far from compatible with the EU objective to limit global temperature increase to two degrees celsius. The new EU climate policies support the EU's international leadership by implementing a significant GHG emission reduction by 2020 ahead of international agreement. They are also significant for European integration more broadly because they resulting a considerable harmonization and communitarisation of this important policy area, which can be interpreted as partial renunciation of the EU's "better regulation "agenda. On the negative side, the new climate policies require little more than half of the emission reductions to be achieved in the EU itself. Perhaps more importantly, even a 30% reduction – the proposed the EU target in the case of a satisfactory international agreement – is at the lower end of range of 25% - 40% of emission reductions expected from industrialized countries as a whole by 2020. Arguably, more ambition may be

expected from an actor aspiring to lead other international actors in the fight against climate change.

2.2.2.4 Variable - Membership

H3: the more convergent preference, a membership results a more preferable EU climate policy outcome.

The EU law enjoys unqualified supremacy on all member states. In other words, the status of EU law creates the possibility of legislating the climate regulations or creating other climate laws in Brussels that must be enforced at the national courts despite the inactions by the national legislation or the existence of the prior inconsistent national law. To be or will to be a member state of the European Union means to commit of being constituent of EU legislation, and implementing them at the national level.

The EU enlargement, which composes of 27 Members States by 2010 creates the 'implementation gap'. The fact that for most EU candidates integration overlaps with transition make this enlargement the most difficult and complex climate change policy challenge the EU has even had.

In order to trigger legislative disputes between the new and old Member States, in particular, to avoid the lack of harmonization of standards and specification on emissions reduction, the EU wants the preparation of the acceding countries to the *internal market* to be at the heart of a pre-accession strategy. In case candidate countries acceded to the EU without their legislation being harmonized, current member states could retaliate. These requirements will be included by the Europe Agreements.

In the Europe Agreements, acceding countries commit themselves to ensuring that their future legislation will be compatible with EC specification and standards as far as possible. For example, the Copenhagen European Council wanted these countries to harmonize the EU law before their accession to the EU, in an attempt to avoid the distortion of competition and industrial relocation.

By applying for membership, the candidate countries have made it clear they are ready for adaptation of EU's climate policy.

However, the controversy over which regulatory technique should be used to harmonize industrial process has been problematic. For instance, as the first target-on emission reduction in early 1990s, some candidate countries disagreed over how to set emissions limits for the fear of hurting national competition against other in- or out- of EU. Along with acceding countries, certain Member States argue that these limits should be fixed at

the EU level on the basis of the best available techniques, that is, technology-based standards. Others argue that limits should be adopted at the national level pursuant to more environmental quality standards in case to avoiding one might exploit its natural locational advantages. The COMMON POSOTION reached by the Council (1995), and then the Directive 96/61, which has been formally adopted and become legally binding law to reconcile these competing positions.

In general, the measurement, for instance the emissions reduction target, set out in Community formal rules, including directive, regulations, decisions, established a 'floor' of obligations below which member states and acceding countries may not go. The 'ceiling' is constitutes by the EC Treaty in relating to climate change issues.

2.3. Effectiveness of the EU internal climate change

2.3.1 Market Instruments – the core of the EU climate policy

In January 2005, the 2003 EU ETS (emission trading scheme) Directive 2003/87/EC entered in force. In the first phase, about 12000 plants in the industries of iron and steel, glass, cement, pottery and bricks cross EU-25, which cover about 40% of total CO_2 emissions in the EU, are under this scheme (*EurActiv.com*, 21 April 2005). Allowances to emit CO_2 is now a goods for businesses to be able to sell and buy; however, if emissions exceed the allowances, which are subject to Member States' national allocation plans (NAP), fines of 40 euros per excess tonne of CO_2 will be imposed. Three years later, the fines will rise to 100 euros. This EU ETS is a core market instrument of the EU climate policy, which the 5th and 6th EAPs have also envisaged.

A point is the allocation of the allowances (Wettestad, 2005:19; Butaengeiger and Michaelowa, 2004:117). In the EU ETS Directive, the allocation of emission entitlements is arranged in accordance with National Allowance Plans (NAPs). Although the Commission provided broad criteria, member states can decide the amount and opt-out of some individual plants, unless the Commission vetoes it. Already legal disputes occur, for example between the UK and the Commission, concerning the amount of the allowances (*EurActiv.com*, 11 March 2005). Member States are also allowed to issue additional allowances in case of *force majeure*. In addition, the allocation mechanism basically not auctioning but grandfathering, through the Scheme prescribes 5% auctioning up to 2008 and 10% after (Wettestad, 2005:6). Incidentally, the 100% auctioning can be said to theoretically implicate the same effect as the introduction of a sort of carbon tax in terms of its effect on businesses.

2.3. 2 Co-/Self-Regulation

In1999 and 2000, the Commission reached environmental agreements with ACEA (the European auto manufacturers associations) (Commission Recom., 1999/125/EC), with JAMA (the Japanese auto manufactures associates) (Commission Recom., 2000/304/EC) and with KAMA (the Korean auto manufacturers associations (Commissions Recom., 2003/304/EC). The ACEA also represents the major U.S car manufacturers (Gonalez-Calatayus, 2002:304), and therefore these agreements cover almost manufacturers in Europe. All legal bases are Article 211 EC Treaty, which are competences conferred on the Commission. The commitments are to achieve he reduction of CO_2 emissions from new passengers' cars as follows:

1. ACEA: 140g/km CO_2 by 2008 and 120g/km CO_2 by 2012.
2. JAMA: 140g/km CO_2 by 2009 and 120 g/km CO_2 by 2012.
3. KAMA 140g/km CO_2 by 200 and 120 g/km CO_2 by 2012.

These environmental agreements also provide a scheme of collaboration between the Commission and automobile manufacturers associations, and the structure of the schemes is the same in three agreements as follows:

1. Cooperation between the Commission and an association in monitoring of the commitments.
2. Interim evaluation of the potential for additional fuel-efficiency improvements towards the objective of 120 g/km CO_2 by 2012.
3. Trial by individual members of an association to place on the market the models emitting 120 g/km CO_2 or less.
4. Intermediate CO_2 emission target in the range of 165-170 g/km CO_2 in an early stage.
5. The additional counting of target in cases of the technological innovation for replacing conventional cars to new cars that do not produce CO_2 emissions or using alternative fuels.

It can be said that these agreements are an outcome of political exchange between the Commission and the associations. The Commission would not make a legislative proposal, and not provide fiscal measures on CO_2 emissions from passenger cars, unless the associations would fail to achieve the targets to reduce CO_2 emissions at their own initiatives and methods.

The Parliament has rejected the use of environmental agreements, and instead claimed the adopting legislation and fiscal measures (Lefevere, 2000: 368). The policy process has proceeded in the collaboration between the Commission and the Council. ACEA initially rejected the proposal of the Commission and proposed a target of 150-160 g/km CO_2 by 2005 (Ibid.); however in December 1999, the Environmental Council rejected this ACEA's proposal, following the suggestion of the Commission *(Ibid*.), and threat of legislation can be said to unction in this case. ACEA revised its proposal and offered the target 140 g/km

CO_2 by 2008. This Commission accepting it, and then finally the Environmental Council approve the agreement with ACEA (*Ibid*., 368-9).

Various industry associations welcomed the agreement. In contrast, environmental NGOs and the Parliament were opposed to this (*Ibid*.). The Commission already issues Communication on environmental agreements (COM:1996/56) and Commission Recommendation concerning them (Commission, Decision 96/733/EC), in which a guideline was set up: consultation, contractual form for the legal status of agreements, quantified objectives, staged approach, monitoring of results, public information, transparency, independent verification of results, and so on (Commission, COM: 1996/561:11-17). Already many and various environmental agreements have been concluded at European and national levels (for example, see Appendix 2.1), and these guidelines require to be further refined. In order to reiterate these points, the Commission further issued that Communication concerning Environmental Agreement Community Level (COM: 2002/412). Notwithstanding the checklists and their further refinement environmental agreements continue to be controversial.

2.3.3 Monitoring and Reporting Requirements

In 1993, the EU adopted Decision for a monitoring scheme (Commission, Decision 93/389/EC), in which Member States are required to monitor all anthropogenic GHGs. This Decision has been amended twice by Decision 1999/296/EC, and Decision 280/2004/EC. The last one is entirely devoted to implementing Kyoto mechanisms, which are ET (emission trading), JI (joint implementation) and CDM (clean development mechanism). These mechanisms need the national registry system of Kyoto units (i.e. CRU (certified reduction unit) for JI and ERU (emission reduction unit) for CDM). These Decisions have obliged the Commission to issue regular reports with a view to grasping the state of affaires in GHGs emissions in the EU. Therefore, this monitoring scheme can only for a learning system between Member States, but also for the implementation of the Kyoto Protocol.

The EU has also operated an issue-specific monitoring scheme, which is to monitor the average emissions of CO_2 from new passenger cars (Commission, Decision 1753/2000/EC). As noted above, this is to supplement environmental agreements with car manufacturer associations. Article 8 of this Decision reads that:

> "…t*he data collected under the monitoring system from the year 2003 onward shall serve as basis for monitoring voluntary obligations to reduce emissions of CO2 from motor vehicles agreed between the Commissions and the automobile industry and, where necessary, for their revision.*"

The Decision was adopted based on Article 175 (1) EC. In the process of co-decision procedure, the Parliament and the Council formulated "an objective of 120 g/km as a mean value for CO_2 emissions in 2005 (2010 at the latest (*Ibid*., preamble) in the monitoring schemes support environmental agreements.

2.3.4 Indicative Targets and Reporting Requirements

Despite the fact that energy policies are the prerogative of Member States, already around 100 instruments (directives, regulations and decisions) have been adopted in the EU till 2000. However, this is far from an EU core energy action (Collier, 2002: 177). As noted above, in the early state of EU climate policies before the year 1997, financial supports were carried out in SAVE for energy efficiency and ALTENER for renewable energy. In addition to these financial supports, two directives have been adopted in the course of the ECCP: the 2001 Directive on the promotion of electricity produced from renewable energy sources in the internal electronic market (Directive, 2001/77/EC) and the 2003 Directive on the promotion of biofuels or other renewable fuels (Directive 2003/30/EC). The former set the indicative target of 22.1 % share of electricity produced from renewable energy sources in the EU (Kramer, 2003:307). The latter set the indicative target of 5.75% of biofuels in total sales of fuels in the EU (*Ibid*.) both directives obliged Member States to submit their reports. Attention must be paid to legal basis of these two directives, which are Article 175 (1) EC, not 175(2) EC despite the fact that energy is listed up in the latter. This means that the Parliament can be involved legislative process not with consultation procedure but co-decision procedure. And the Council can process by the qualified majority not the unanimity voting.

2.3.5 Fiscal Arrangements

As noted above, the Commission aimed at the adoption of a carbon/energy tax in the early 1990s on EU climate change policies. While the Commission's effort was in vain, the use of "enhanced cooperation for climate policies has sometime been suggested in the Council (Gonzales-Calatayud 2002:303). The 2003 Directive for restructuring the EU framework for the taxation of energy products and electricity (Directive 2003/96/EC) seems to be one of examples for a differentiated policy co-ordination model. On one hand, the legal base is not Article 175 but 93 EC (Taxation). This means that the consultation procedure was applied in which the Parliament cannot have a veto power. On the other hand, the PEI is referred to in the preamble (para.6), and the notion reaffirmed such that "energy prices are key elements of Community energy, transport and environment (para.12) on this basis, the Directive offers the view hat " the taxation of energy products and where appropriate, electricity Is one of the instruments available for achieving the Kyoto Protocol objectives (*Ibid*., preamble, para.7). In this way, the

rationales of this Directive are found not only in the building and functioning of internal markets but also in climate change.

The Directive 2003/96/EC sets the minimum levels of taxation on electricity and energy products. On this basis, the arrangements are set up, in which almost all competences remain in Member States. They can "define and implement policies appropriate their national circumstances" (preamble, para.9). Fiscal arrangement on the taxation of energy products and electricity are a matter for each Member State to decide (*Ibid*., para.11). Only if Member States wish to introduce those taxation, they are required "to comply with the Community minimum taxation levels" (*Ibid*., para.10). In addition, if Member States apply "differentiated national rate of taxation to the same product", they are obliged to respect "Community Minimum levels of taxation and internal market and competition rules *(Ibid*., para.15). It can be said that the softness in the type of legislation has become beneficial insofar as a mutual learning of effective taxation policies on GHGs emissions reduction that be carried out in a huge variety of national circumstances.

2.4 Conclusion

In sum, as discussed in this chapter, INSTITUTIONS, as a variable, has positively resulted in EU internal climate policies into preferable outcomes (see Appendix Table-3-1). Three sub-variables have been identified to test the hypothesis.

First, I have tested that EU's formal rules have driven its climate policies into preferable outcomes. Mostly important, after the Maastricht Treaty in 1993, the qualified majority voting (QMV) of co-decision requirement allow the Community speeding up its legislative procedures to result a preferable policy. Climate change is a cross-sectional issue. This means the wide-ranging legal bases are required for climate policies. The expected legal bases are agriculture (Article 37 EC), transport (Article 71 or 80 EC), taxation (Article 93 EC), internal market (Article 95 EC), trade (Article 133 EC) and energy (Article 175(2) or 308) (Kramer, 2003:300). However, many instruments for climate change policies have been based on Article 175(1) EC *(Ibid*.), which requires the qualified majority voting on co-decision procedure.

I agreed with many scholars that, this change of decision-making rules partially come from the experience on failed carbon tax proposal in 1991/1992 on the requirement of unanimous voting in fiscal/tax issues. Therefore, the Maastricht Treaty amended the unanimous decision-making procedure on climate-related issue into a qualified majority voting (QMV) of co-decision procedure, where the Parliament has a veto power to block on final amended text of a proposal. However, considering the preference of being always push the Commission into adopting more radical market-based instruments on GHG emission reduction, the veto-power of the Parliament can be neglected. Most importantly, the QMV co-decision procedure denies the Member States's veto playing in

the Council, and decreases its indirect influence over the Parliament if there is majority consensus on the Commission's climate proposals.

The Amsterdam Treaty also had added weights on EU climate policy-making, in which identify that EU policy for climate change as single and fundamental issue against which the EU must tackle (COM: 1998/333). This implies to give the climate policy a priority status for the Commission to raise proposal afterwards.

Secondly, this has brought my next sub-variables to test INSTITUTION-OUTCOME hypothesis. By giving the power in agenda-setting, the Commission can select agendas according to its interest, involving other actors into the consultation process, taking expertise (particularly in ETS case), negotiating with and out the Commission till its proposal get approved. Besides, the Commission and the Council influenced by the international negotiation, has been playing a entrepreneurship to make the key milestone, such as the legally binding on emission reduction, the EU ETS etc. on the EU's agendas, and the Commission made a skillful package-deal to wrap climate and energy into a proposal passed by the co-decision making procedure.

Thirdly, the membership will be another sub-variable to formal rules resulting the policy outcomes on EU climate change.

Appendixes:

2.1 Table: main EU climate policies during the year of 1990 - 2010

Policy cycle	Contents	Institutions (regulation, directives and decisions)	Time
Agenda-setting (late 1980s – early 1990s)	MSs commitment to limiting GHG emissions in response to UNFCCC	European Council 1990	June 1990
	be prepared to take measures to stabilize CO2 emissions at their 1990 level by the year 2000 in the Community as a whole	a joint meeting of the Community's energy and environment ministers	Oct.1990
	provides a framework for the development of future climate policy and law	UNFCCC Convention in Rio	June 1992
	Ratify the UNFCCC	Decision 94/69/EC	1993
	Failed to implement the Community's emission stabilization commitment due to a fiscal measure required unanimous agreement of the MSs under the Art.130s of EC Treaty.		
	Harmonized energy efficiency standards for consumer products (hot water boiler) under Art. 100 EC Treaty.	Directive 92/42/EEC/	1992
	complemented to the harmonized labelling system for consumer for energy consumption.	Directive 92/75/EEC	1992
	required Member States to establish "programme" to limit CO2 emissions through improvements in energy efficiency	Directive 93/76/EEC	1993
	established a "monitoring	Decision	1993

	mechanism" for CO2 and other GHG emissions.	93/389/EEC	
	a Community financial instrument for the promotion of renewable energy sources	Decision 93/500/EEC	1993
	household refrigerators and freezers	Directive 96/57/EC.	1996
Formulation (1995-2001)	Legally binding emission reductions	Directive 96/61, supra note 178, at Article 9(4)	1995
	burden-sharing agreement	Council, CONS/ENV/97/1; Decision 2002/358/EC	1997, 1998
	strengthen the monitoring mechanism of Community GHG emissions and the exchange of information on national emission reduction programmes.	Decision 1999/296/EC (amending Decision 93/389/EEC)	1999
	European Climate Change Programme	Commission 2000.	2000
	To comply with the Kyoto Protocol measure of reduce GHG emissions from the power sector and integrate environmental considerations in energy policy	Directive 2001/77/EC	2001
Decision-making and Implementation (2002- present)	ratification of the Kyoto Protocol	Decision 2002/358/EC	2002
	Emission trading system	Directive 2003/387/EC	2003
	ETS linked with UNFCCC' CDM and JI	Directive 2004/101/EC	2004
	A mechanism that is intended not only to monitor GHG emissions, but also to implement the Kyoto Protocol.	Decision 280/2004/EC (amending Decision 1999/296/EC And Decision 93/389/EEC)	2004

	energy efficiency fields taken after the entry into force of the Kyoto Protocol: a framework for the setting of eco-design requirements for energy-using products	Directive 2005/32/EC	2005
	national programmes for energy end-use efficiency and energy services.	Directive 2006/32/EC	2006
	Other important pieces of EU legislation on climate change adopted in the 2000s to implement the Kyoto Protocol include • Directive 2002/91/EC on the energy performance of buildings; • Directive 2003/30/EC on the promotion of the use of biofuels in transport; • Directive 2004/8/EC on the promotion of combined heat and power production; and • Regulation EC 842/2006 and Directive 2006/40/EC on reducing the emission of fluorinated GHG.		
	Relating to Emissions from Air-Conditioning Systems in Motor Vehicles	Directive 2006/40/EC (amending Directive 70/156/EEC)	2006
	Concerning Integrated Pollution Prevention and control	Directive 2008/1/EC	2008
	Scheme for Greenhouse Gas Emission Allowance Trading within the Community	Directive 2008/101/EC (Amending Directive 2003/87/EC)	2008
	lays down mandatory national targets for Member States' use of renewable (electricity, heating and cooling , and transport sectors) adding up to 20 per cent of the EU's total energy consumption by 2020	Directive 2009/28/EC	2009
	Improve and Extend the Greenhouse Gas Emission Allowance Trading Scheme of the	Directive 2009/29/EC (Amending Directive 2003/87/EC)	2009

	Community		
	a Mechanism to Monitor and Reduce Greenhouse Gas Emissions	Directive 2009/30/EC (Amending Directive 98/87/EC, Directive 1999/32/EC, Directive 93/12/EEC)	2009
	Geological Storage of Carbon Dioxide	Directive 2009/31/EC (Amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006)	2009
	Effort of Member States to Reduce their Greenhouse Gas Emission to Meet the Community's Greenhouse Gas Emission Reduction Commitments up to 2020	Decision 2009//406EC	2009
	Detailed interpretation of the aviation activities	Decision 2009/450/EC	June 2009
	List of aircraft operators relating to ETS on aviation industry	Decision 2009/748/EC	August 2009
	List of aircraft operators specifying the administering Member States	Regulation No. 82/2010	January 2010
	CO2 emission performance standards for cars	Regualtion No. 443/2010	
	Standardize and secure system of registries for ETS	Regulation No. 920/2010	October 2010
	Timing administration of auctioning ETS	Regulation No. 1031/2010	November 2010

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Chapter Three: Rationalisation of divergent preference on EU climate change policy: case on EU ETS

In the previous chapter, I have demonstrated that, a common position as a given preference, how the EU has been making its regulatory framework at the European level, how the policy outcomes produced by using rational choice institutionalism approach. In this chapter, I will examine how the actors formulate their preferences at the EU level to achieve common position in order to meeting its commitments in the international negotiations as well as speaking in one single voice.

3.1 explaining rational choice institutionalism on changed preference

H4: Preference change occurs when the EU perceives new political and security challenges from external factors.

H5. The course of formulating a new preference at the EU level will interact with the EU institutions and drive the EU's internal climate policy into a new outcome.

Rationalists argue the preference of actors are stable in the process of policy-making, it can be changed only by external factors. Regarding to EU climate policy making, during the KP negotiation, Member States were hostile to the emission trading system (Grubb et al., 1999:94). However, afterward, the EU has speeded up its institutions-building on emission trading scheme. Why did this happen? It is simply that the Member States and the Community institutes have changed their preferences (Skjaeseth and Wettestad, 2008:19). This explanation is compatible with rational choice institutionalism approach to EU policy-making, in which actors' interests and preferences changed by the exogenous factors, reshaped by the institutions, and ultimately influence the policy outcome. The change mainly comes from external factors, in this case, there were the exit of the U.S from the Kyoto Protocol in 2001, competition of using the emission trading instrument, the IPCC report on deteriorated global climate.

The section of the dissertation presents the core hypotheses regarding to why and how actors (Community institutes, Member States and NGOs) overcomes divergent preferences to reach a policy outcome on common position. Institutionalism differ its hypotheses on the way of reaching an outcome during EU policy-making process. The core hypotheses reflect rational choice institutionalism approach to IR and European policymaking, which posits that the EU's institutions significantly shape the behaviour of its Member States, and to achieve a common position before the international negation,

such as the UNFCCC.

To examine the hypotheses, I will set three variables in test EU's rational behaviour in international climate change negotiation. First, the external pressure is the key to explain exogenous factors influence institutions. Second, EU's willingness takes account to have its preference changed. The transaction cost will be the third factor to rationalise the divergent Member States' preferences into a common position.

To explore the validity of what made the preferences of actors changed, it should be better to figure out what are the preferences of them during the Kyoto Protocol negotiation and which Member States changed their preferences, and how such changed became converged through the EU system

3.2 EU's position on emission trading before the Kyoto Protocol

The idea of trading on emission has come firstly in the first Conference on Parties (COP-1) to the United Nation of Framework of Climate Change (UNFCCC) held in Berlin in 1995. Due to the inadequacy of the current UNFCCC commitments, the Berlin Mandate therefore suggested to initiate follow-up process on measuring and setting binding emission reduction objectives. At the second COP-2 at Geneva, the U.S announced her support on a legally binding protocol, linked to international flexibility instruments including a tradable permit system (*ENB*, 1996:38). These behaviours were seen as the most effective way to ensure international flexibility and making it possible to agree on emission reductions at lower national costs. Grubb et al (1999:34) argue that the Umbrella Group (including the U.S, Japan, Switzerland, Canada, Australia, Norway and New Zealand) emerged as a serious counterweight to the EU in the Kyoto negotiations.

The general positions of the EU on emission trading before the Kyoto Protocol were uncertain and suspicious to U.S' tradable emission permits proposal. In addition to the concern that the emission trading would be practical in reality, the main concern of the EU was that the international flexibility would provide a strategy for the main emitters to avoid significant domestic action (Grubb et al., 1999:92). For instance, the Eastern Europe and Russia would transfer their free emission allowances to the OECD countries, the U.S and Japan in particular, to drift their domestic dependence away from the EU. Additionally, the developing countries were opposed the idea of emission trading who were frightened that the rich industrial countries would shift their burden of controlling GHG to the South (Yamin, 2005:5). For the EU, to win the support from the developing countries were crucial to get the Kyoto Protocol approved at the international climate negotiations.

There were several negotiations meeting between Berlin COP-1 in 1995 to Kyoto COP-3 in 1997 to discuss the emission trading as one of consideration of policies and measures. The EU favoured a mandated approach to a new legal instrument based on common and

coordinated polices and measures which against by the U.S's flexibility proposal through national programmes based on national circumstances. (*ENB*, 1996:39)

To forward its commitments to the emission reduction in the UNFCCC, the Council approved a binding agreement on burden-sharing target among Member States in order to meet EU's commitments on stabilisation of emission reductions before Kyoto COP in 1997. Meanwhile, the EU's common position on emission trading on COPs was ambiguous, on one hand, the EU opposed to the inclusion of international emission trading into COPs as a commitment to developing countries; on the other hand she accepted the trading system as a negotiation compromise to other industrial countries.

In 1997, the European Council at the Dutch presidency concluded that:

> ' *The Council regrets that not all industrialized countries have come forward with proposals for quantified targets or common and coordinated polices and measures, while some of these countries have outlined proposals for emissions trading as a mechanism for achieving such targets*'. (Council, 9375/97)

These statements clearly showed that the EU in opposition to international emission trading included in the COPs. However, the Council went on to state:

> '*The Council considers that the mechanisms such as emissions trading are supplementary to domestic action and common and coordinated policies and measures, and that the inclusion of any trading system in the Protocol and the level of the targets to be achieved are independent. It therefore calls upon all industrialised countries to indicate the targets they envisage for 2005 and 2010*'. (*ibid.*)

The conclusion indicated that the EU could accept international emission trading as a negotiation compromised. Furthermore, in 1998, as the first step towards emission trading, the Council underlined that 'emissions trading should be subject to appropriate rules and that these rules should be developed at COP-4' (Council, 7125/98).

The conflicting stance of the EU toward the emission trading has reflected the diverged preferences of its Member States on climate change policies. In the EU, Germany, the Netherlands and Denmark traditionally support strict standards and other environment friendly measures, where Greece, Italy, Portugal and Spain tend to follow weaker and measures; and France and Britain usually fall somewhere in between.

For the Member States, as Andersen and Liefferink (1997) argue that the leader–laggard dynamics between the EU member-states has been identified as one important driving force behind the expansion of EU environmental policy. The Netherlands, Sweden, Denmark, Finland, Germany and Austria tend to be placed in the leader category, whereas Greece, Spain, Portugal and Ireland are frequently placed in the laggard group.

In-between, Belgium, Italy, Luxemburg and France, whose support varies on a case-by-case basis. The UK represents a special case inasmuch as it left the laggard group in the late 1980s and edged towards the leader group (Wettestad, 2002). The green profiles of some of the leaders have faded quite considerably. This is particularly the case in Denmark, which has cut its environmental bureaucracy dramatically and adjusted its once ambitious external environmental positions considerably. Also the Netherlands has reduced environmental policy spending considerably in the recent years.

However, before the Kyoto COP-3, there is a consensuses generated among Member States governments towards a binding agreement for stabilising emission reductions. A board support from the Member States guaranteed that the Commission's proposal on burden-sharing bill had passed with no difficulty but a slight modification from original 9% reduction by 2010 to 8.2% by 2008-2012 from the level of 1990.

3.3 After the Kyoto Protocol: convergent preference on ETS

To have a biding a burden-sharing agreement is one thing, to have market-based emission trading system is another matter. Although the EU officials' view on emission trade was relatively unforthcoming in the late 1990s, further learning as to the pros and cons of this instrument inevitably took place. Nevertheless, it was a fact that the emission trading instrument was included in the Kyoto Protocol and the EU just had to "get on with it" too.

Nevertheless, the most significant change that helped to unify the positions of the Member States was external: the U.S' rejection of the Kyoto Protocol in March 2001. This stimulates the EU political instinct and affected the collective will of its member-states.

3.3.1. Convergent preference on ETS after the signature of the Kyoto Protocol

3.3.1.1 The European Commission

The EU's internal target-sharing agreement, preliminarily adopted in March 1997 and formally adopted in June 1998. Although the target-sharing agreement clarified the Member States' basic separate responsibilities in this context, the need for effective common EU policies in the field of climate policy was becoming increasingly pressing.

The EU's failure to adopt effective climate policies paved the way for an EU emissions

trading system. For example, the Directive (96/61/EC) on Integrated Pollution Prevention and Control (IPPC) was adopted in September 1996 were failing to address the important linkages between various policy options and the environment as a whole. Although the Directive IPPC was not designed with emissions trading in mind, but as the EU trading idea started to develop, appreciation of the potential synergies with the Directive IPPC permits which were to be issued from 1999 on probably spread rapidly. In essence, the IPPC permission system could be amended to include greenhouse gases and form the regulatory blueprint for issuing GHG trading permits

It was discovered that in the Commission's 2001 ET proposal, which explicitly stated that "the sectoral coverage of this Directive builds upon the framework of regulation arising from the IPPC Directive" (COM: 581/2001 final). it is noted that "for administrative simplicity, Article 8 of the EU emissions trading proposal would allow member-states to combine the permitting procedure for greenhouse gas emissions trading with that for the IPPC Directive" (*ibid*., p. 2).

The first EU document to draft a possible EU ET system was the 1999 Communication on Kyoto implementation (COM: 353/1998). In this paper, as Wettestad (2005) analyse that although it contained a feasible scope to start with large emitters or a single sector, it made the connection to the two other main flexibility mechanisms in the Kyoto Protocol, i.e. the Joint Implementation (JI) and the Clean Development Mechanism (CDM), was barely commented upon (*Ibid* 16-17). However, it did not address the bindingness, compliance mechanism, and internal link regarding to how to reduce emission, which concerned to the binding burden - sharing targets on the KP.

It was really the Commission's 2000 ET Green Paper that started to take on the EU ET scheme on the agenda table. The Green Paper outlined several options with regard to the bindingness of the system, including a more flexible options for the genuinely interested Member States and options for certain sectors. In this Paper, auctioning is technically preferable while 'free allocation should not be easy option" (Wettestad, 2005:3). Regarding to external ink with Kyoto Protocol's JI and CDM has little been addressed. In contrary, to the internal link, energy taxes, environmental agreements and emission trade was highlighted that they should be a complementary ET to be introduced within context of IPPC *(ibid,.*).

Another factor for the EU being drugged towards ETS is the deregulation in 1990s in the EU. As the prospects for carbon tax continued to look gloomy in 1997/98 (Commission's proposal in carbon tax was turned down by the Council in 1992). It was a possibility for EU policy-makers to look at the emission trading to counteract the negative externalities of deregulation (Hasselknippe and Christiansen, 2003:27). [2]

[2] The EU energy liberalization strategy is basically laid down in two directives: 96/ 92/EC concerning common rules for the internal market in electricity and 98/30/EC, concerning common rules for the internal market in gas (Hasselknippe and Christiansen, 2003).

Above all, it was noted that, till 2000, there was a little solid ground for the emission trading in the EU. The withdrawal of the U.S from the KP give the EU an opportunity of window" to take a leading role in saving the Kyoto Protocol. In order to ratify the Kyoto Protocol, the EU has to push forward its ETS into an operational instrument on emissions reduction. The DG environment started to draft the ET directive on the basis of significantly diverging Member-State positions. An ET directive proposal was planned before the resumed COP-6 in Bonn in July 2000. The DG Environment finished the draft proposal in May and forwarded it to other DGs for intensive consultations. However, Environmental Commissioner Margot Wallstrom decided to postpone the proposal due to opposition from several industry lobby groups

The DG Environment organised a round of consultation with industry, ENGOs and Member States in September 2001 respectively. In particular, the consultation meeting with the member-states was structures by the presentation of key questions prepares by the climate change unit in the DG Environment and based on the widely-leaked draft proposal (*ENDS Daily*, 25 June 2001). After the consultation, a significant change in member-states positions toward convergence around a common EU ETS, compared to the reposed to the earlier Green Paper (Skjaeseth and Wettestad, 2008:104). According to Skjaeseth and Wettestad (2008) findings that consensus about the ET was reached afterwards:

1) Proposed ET at the EU level was supported by all Member States;
2). ETS on selected sectors over certain activities were favoured by majority of member states;
3) There was general agreement that allowances should be allocated by the member-states within the constraints of the Burden-sharing Agreement;
4) A common method for allocation of allowances was preferred;
5) A common monitoring, reporting and verification standards and harmonised penalties for non-compliance.

Meadows (2006, 92) argues that point 4 and 5 reflect the EU's strong support for the market nature of emissions trading and single -market considerations.

However, there are still disagreement appeared on some ET design elements. For instance, whether or not should the emission trading have a legal nature in the period of pre-2008? In particular, Germany, the UK and Finland were preferred a voluntary scheme, where others preferred a mandatory scheme. Additionally, there was no clear convergence around whether a allocations should be based on payment (auctioning), be free or a combination (Skjaeseth and Wettestad, 2008:104), such as Sweden preferred auction than others preferred allocation for free.

The DG-Evi presented a new draft EU directive to other Commission services after the consultation meetings in September 2001, which took a clear position on:

1) The scheme should be binding in the pre-2008 phase;
2) It should be based on allocation for free;
3) With common penalties for non-compliance;

The possibility for Member States to temporarily excluded installations from the EU trading scheme, where came as a result of pressure from industry, but was removed by Commissioner Wallstrom in the final ET proposal (*ibid., 105*). The final proposal for an ET directive was presented by the Commission to the European Parliament and the Council in October 2001.

3.3.1.2 The Council

The proposal for an ET directive was based on Article 175 (1) and the co-decision procedure set out in Article 251 of the European Community Treaty, which requires for qualified majority voting in the Council and allows member-states to be outvoted (and the European Parliament to veto the proposal) (Skjaeseth and Wettestad, 2008: 107).

This legal base was attacked by the Member States who against the Commission's ET proposal. They preferred Article 175(2), which can be used if measures are fiscal or significantly affect member-state's choice of energy sources. If so, the proposal for ET directive has to be adopted by unanimity. This is the case for failed energy/carbon tax proposal in 1994. Unanimity would have increases the influence of individual Member State on the system, but reduced the chance that the ET proposal approved. In other words, the unanimity increases the risk of the proposal being blocked by one member state who opposed it.

In 2002, the Environmental Council adopted a legal instrument obliging the Member States to ratify the Kyoto Protocol. The legislation was proposed on the basis on qualified majority voting rules, where some states argue that the law concerned energy policy, which requires unanimity. The Commission worried that changing the legal base could provide a precedent for similar changes in relation to the ET Directive. Nevertheless, the European Court of Justice ruled out that the ET directive should be settled by the Article 175 (1) rather than 175 (2) because it did not satisfy the condition for the later (Meadows, 2006: 65).

As Skjaeseth and Wettestad (2008) point out:

> *'…Unanimity would have provide Germany and the UK with veto power over the propose ET directive. This would most likely have resulted in a voluntary ET scheme or no EU ETS at all - as in the case of the EU carbon/energy tax. In the Council there is a norm of consensus-seeking and unanimity, despite the possibility of qualified majority is*

allowed for. This norm was particularly strong in the case of the ET Directive, as this was a totally new policy instrument with potentially significant economic implications for energy producers and energy-intensive industry. It was therefore important to get the directive adopted by unanimity'.

With regard to allocation of allowances, a vast majority of the Member States held that it should be free of charge and the method of allocation should be harmonized criteria to prevent distortion of competition. Although there are a few wanted to included additional sectors on a voluntary basis, while others stressed that criteria for expansion should be harmonised at Community level, the majority preferred that the costs should be borne by the electricity producers, in line with the 'polluter pays principle'. The Council President concluded that:

'… positions were not firmly fixed, since consultations were still under way in some member-states, which had therefore expressed preliminary views. … many states were keeping an open mind and that positions could therefore change.' (Council, Conclusion, 15060/01*).*

The Council's efforts to push making the ET directive can also be mirrored on the Danish presidency in late 2002 when the Parliament amendments after the first reading clashed with the Commission's strong objection. This will be discussed as the below.

3.3.1.3. The European Parliament

According to the co-decision procedure applied in climate change issue, the Parliament has the right to propose amendments to the Commission proposal. The Parliament can veto the adoption of the whole proposal if it thinks that its amendments have not been taken sufficiently into account in the final text. This gives the Parliament significant formal power in the decision-making process. The Parliament amendments are proposed through 'readings'.

Before the first reading of the Commission's ET Proposal, the EP's reactions were rather fuzzy. The Green Party criticized the Proposal as a 'bad start' for handing out free allowances (remarks of MEP Alexander de Roo, quoted by IER, 24 October 2001). On the other hand, MEPs from Germany, the UK, and Finland were against the mandatory Proposal on emission trading. In the middle, the Parliament's ET rapporteur Jorge Moreira Da Silva, EPP-ED Portugal, [3] praised the proposal on 90% free allowances and indicated that the proposal would not extend its coverage to gases or other industry sectors. He generalizes that the EP should focus on the issues of whether a more centrailsed Community level control over national allocation of allowances and more

[3] EPP-ED is the Group of the European People's Party (Christian Democrats) and European Democrats. From 1999 to June 2004, it was the largest group in the European Parliament, with 232 of the total of 625 seats

auctioning in the allocation of allowances. Based on Da Silva's preliminary report, the EP started its first reading in March 2002.

After the intensive debates, about 74 amendments out of 500 were passed regarding to all aspect of the Commission ET proposal. According to the 1st amendments of the EP, the idea of a centralized control over allocation of allowances has been abandoned. The Parliament's Environment Committee also suggested that the gases and more industry sectors should be covered by the emission trading scheme. The two new actives/sectors of chemicals and aluminum were suggested for inclusion, as well as all six Kyoto gases, provided that data quality and ' acceptable measurement, monitoring and calculation methods' were developed by the Commission (Amendments 17, 54 and 61). Regarding to the method of allocation, there was no amendment on Commission's proposal.

The amendments of the Parliament first reading could reflect the lobbying results of interest groups, where the industrial groups won the allocation method in opposition allocation for payment. The environmental NGOs won the inclusion of more industrial sectors coverage, a mandatory scheme from the start and a cap on the total quantity of allowances to be allocated to each member state.

All in all, the outcome of the Parliament's first reading showed that the Parliament was preferred a more radical approach in emission trading with a broader scope, mandatory auction in the pilot stage and centrialised allocation method. However, the Commission rejected the most amendments, saying 55 out of 74, with strong arguments. The Environment Commission Wallstrom defended that unconditional participation by all countries' installations and no auctioning of allowances in the pilot phase were vital to keep the industries and member-states' interests to accept the emission trading scheme (*ENDS Daily*, 16 October 2002).

In order to bridge the gas between the Commission's proposal and the Parliament's first reading, the Council made a common position on the ET proposal, [4] which stated:

- A mandatory but still decentralized system, with a right for the Commission to approve National Allocation Plans, but no cap on total quantity of allowances;
- A system initially covering only CO_2 and with sectoral coverage in lime with the Commission proposal, organized into four main activities as in the Commission proposal, excluding aluminum and chemicals;
- Allowance allocated free of charge in the pilot chased 2005-2007.

To respond the common position made by the Council, the Parliament started its second

[4] The common position was formally adopted in March 2003. Council (18 March 2003), 15792/1/02, Common Position Adopted by the Council on 18 March with a View to the Adoption of Directive of the European Parliament and of the Council Establishing a Scheme for Greenhouse Gas Emission Allowance Trading within the Community and Amending Council Directive 96/61/EC (Brussels: Council of the European Union).

reading though there was lack of supportive stance for it. However, constrained by the institutional design and political urgency caused by the withdrawal of the U.S from the Kyoto Protocol, the EP made a quicker second reading and approved only a few amendments in early 2003.

The Parliament's ET repporteur Da Silva implied that the Parliament was not likely to accept the common position among the Member States and that he expected the second reading to be quite difficult. He also expressed worried over the tight timetable and expectation to go to the conciliation committee (*IER*, 15 January 2003). Lefevere (2005:101) argues that a conciliation process would have delayed the decision-making process and made the 2005 start less certain.

Another factor to make the Parliament fasten its second reading came from the political urgency to save the Kyoto Protocol caused by the withdrawal of the U.S in 2001. The external factor turning into an internal pressure had poured upon to the Parliament, as the Parliament's ET repporteur Da Silva admitted that, delaying a decision would create enormous problems for national authorities and companies. In the mood of 'reach a directive on emission trading in order to demonstrate some progress by 2005', all actors were involved to lobby at the Parliament, where traditionally dominated by the environmental NGOs and industrial groups. The Commission had campaigned to emphasizing that finalization of the emissions trading directive was necessary to keep timetable and to ensure the European leadership in fighting against climate change at the international level (European Commission, SEC 364/2003). The intention of all stakeholders lobbying at the Parliament was to avoid it making too many amendments and accept the common position (Lefevere, 2005:101). In June 2003, the Parliament Environment Committee agreed 25 amendments for its second reading. Most significantly, all six greenhouse gases and chemicals and aluminum industry were included in the amendments. Late on, a compromise proposal was reached between the Commission and the Parliament after a joint meeting between the Parliament's repporteur, the President, and the Commission on 25 June. The Council formally adopted the ET directive in uly 2003.

3.3.1.4 Preference of Member States towards EU ETS

Germany

Germany has a tradition on environmental legislation which, however, mostly based on voluntary agreements between the government and industries. In the 1990s, due to the economic recession, the cost of unification and increased competition (from the EU's internal market) have driven Germany' policy-makers in considering for more cost-efficient policy tool, market based instrument in particular. Additionally, EU's proposal for emission trade and pressure from the OECD countries has pushed Germany into a market-based instruments direction.

There are consensus towards environmental protection cross parties in Germany's politics. For example, during the 1990s, the central-right CDU/CSU/FDP coalition government strongly supported the introduction of an EU-wide carbon/energy tax but for fear of creating a competitive disadvantage for German industry (Wuzel 1996; Zito 2000). This was the reason opposed by then Chancellor Kohl to introduce ecological tax reform. However, the ecological tax bill was adopted by SPD/Green coalition in 1998 when they won the election.

The idea of levying on ecological tax was to increase the cost of resource consumption while reducing labour cost (Wuzel et al, 2003:119). It was phased into different stages in order to allow companies to adapt gradually without damaging their competitiveness. However, it was opposed by the industry, eventually caused then opposition party CDU/CSU/FDP to initiate a parliamentary hearing for the withdrawal of eco-tax in 2000. Although the Schroder government rejected opposition' demand, but adopted measurement to compensate socially disadvantaged and politically influential groups, for example, increasing tax allowances for commuters on the concern of avoiding adverse public opinion for his party (*ibid.*).

Despite the fact that Germany started academic debate over emission trading in 1970s, there was no political support for this policy instrument (*ibid.*, 121). Emission trade arrived on the German government political agenda only in the later 1990s and mainly as a response to the Commission's proposal for an EU-wide emission trade scheme in turn was reaction to the Kyoto Protocol.

The German Ministry of Environment tried to set up emission trade pilot schemes in the 1990s, but failed by the blockade made by industry. With the Commission's Green Paper (2000) for an possible emission trade scheme as means of complying with the Kyoto Protocol, German government set up a working group on emission trading in the late 2000. During the 2002 election campaign, Chancellor Schroder (SPD) also opposed ETS while the Ministry of Environment favored it. However, with the slow progress of national ET scheme, some of regions in Germany have started to set up their own tradable permit pilot schemes.

German industries were divided into both pros and cons over emission trade scheme. Energy intensive industries and chemical industry were strongly opposed to this emission trade instrument while preferring the traditional voluntary agreements (VAs). [5] Other industries, such as the banking, are keen to adopting of tradable permits (ibid.).

[5] Germany have adopted large number of voluntary agreements, which covers issue from reduction of energy consumption, the phasing out of harmful substances and the early commitment in reducing carbon dioxide emission. It was often adopted between government and industry after publicized negotiation, where industry wants to avoid government legislation by offering a VA instead. The

Environmental NGOs rejected ET which they perceived it as a "license to profit from pollution'. However, with the German and the EU champion for promoting the ET, their attitudes have begun to change.

It is clear that the EU' initiative on emission trading has become a major engine to push German government adopting the market-based instrument.

UK

In the late 1990s, only the UK, Denmark, the Netherlands, Sweden and Ireland supported emissions trading within the EU. Most of the other 10 members either opposed it or were indifferent to the idea of an EU ETS. The early support of the UK was politically important for the Commission, as the UK had previously contributed to blocking the adoption of the common energy/carbon tax (Skjaeseth and Wettestad, 2008:109). National responses to the Green Paper indicated that the distribution of votes for and against emissions trading in 2000 were roughly equal. Among those that were positive, positions varied widely on the degree of harmonization and specific design principles. Moreover, Germany, as the largest EU emitter, opposed a mandatory EU ETS in the first phase due to its own voluntary climate agreements with industry.

In the UK, the ET idea was being floated and discussed in 1990s. However, a consultation paper on the role of economic instruments in meeting UK climate targets, chaired by Sir Colin Marshall, concluded that a tax would be easier to administer than an ET system (*ENDS*, 1998:39*)*. Hence, no clear decisions had been made with regard to an UK ET system at this stage.

Others

So what about other EU ET frontrunner states, such as Denmark? Legislation was drafted and discussed in May 1998. But the Bill on CO_2 quotas for electricity production was not adopted until the end of May 1999.

In October 2001, the European Commission formally proposed the ET directive. The proposal built on responses to the 2000 Green Paper and on consultations with stakeholders within the European Climate Change Programme. The proposal required adoption by a qualified majority among the member states in the Council and a co-decision with the Parliament. The anal ET Directive was adopted by the Council in July.

To the nature of EU decision-making process, without the support from Member States in the Council, the ET Directive (2001) would not be approved. Did the Member States

non-binding characters of VAs has been criticised by environmental NGOs in 1990s, who demand great transparency, better monitoring and sanctions in cased of non-compliance (Wuzel *et al*, 2003:122-123).

changed their preference through consultation process of the Green Paper or the Commission has managed to take interest of Member States into a proposal?

Skjaeseth and Wettestad (2008) argue that the Member States did change their preferences during the time between the Green Paper in 2000 and ET Directive in 2001. It was found that in the first Commission consultation round, a consensus was reached over the Green Paper with remaining challenge raised by the major Member States, the UK and Germany, who what to have a voluntary EU ETS in the pilot phase before 2008. However, due the structure of EU decision-making process (refer to the Council's qualified majority voting system), their reservation was ignored.

But why did the Member States shift their preferences in the short period of time?

It was determined by withdraw of Bush Administration's from the Kyoto Protocol in the early 2001. This left practical implementation of the Kyoto Protocol uncertain, and led to a crisis in the international climate regime cooperation that penetrated the internal EU decision-making process.

The U.S exit from the KP has served the EU to act as a Unity among actors and institutions in the EU climate policy. This meant that it helped to unify the positions of the EU Member States (and other actors) in support for the EU ETS. U.S action also caused the Commission to significantly advance its agenda on the ET directive proposal. The Commission had the tools to make the "save Kyoto campaign" credible to other major industrial emitters by preparing for emissions trading. "Emissions trading came to be seen as the practical measure that would test the credibility of the EU's promises to act", called by the Commission's Peter Vis (Vis 2006a, cited by Skjaeseth and Wettestad, 2008:112). The Climate Change Unit in the Commission was quick to recognize this as a "window of opportunity" for realizing plans for a European emissions trading, and for the EU to show leadership in global climate diplomacy. The EU's leadership ambition expressed itself in diplomatic efforts to win the support of other states to ratify the Kyoto Protocol.

It can be argued that without the willingness of the EU following the withdrawal of the USA from the Kyoto Protocol, it is likely that the Protocol would have completely collapsed. Ratification of the Kyoto Protocol by the EC and the EU Member States along with Japan meant that when Russia ratified the Protocol on 18 November 2004, the required ratification by 55 parties to the convention making up at least 55 per cent of 1990 emissions of Annex I parties (industrialised countries) occurred. The Protocol entered into force in February 2005.

3.4 Transaction cost on ETS

The Kyoto commitments could be achieved by various types of climate policy instruments. In this situation, the Kyoto Protocol gave the EU particular incentives to engage in emissions

trading as that could reduce the costs of complying with the Kyoto target. Emissions trading thus represented a new economic opportunity for the EU. When the Commission presented its Green Paper (2000) on emissions trading in March 2000, it attached an economic analysis showing significant savings from emissions trading. This analysis showed that individual compliance with the Burden-sharing Agreement would annually cost €9.0 billion, EU-wide trading among energy producers would cost €7.2bn, EU-wide trading among energy producers and energy-intensive industries would cost €6.9bn, and EU-wide trading among all sectors would cost €6.0bn (Vainio and Zapfel 2006; COM: 87/2000) .

Additionally, early movers could also gain additional benefits by acquiring administrative experiences of running emissions trading systems (Oberthur and Tanzler, 2007).

3.5 How the EU's common position is formed?

The EU presents a united position at global conferences such as those held annually by the Conference of the Parties to the UNFCCC. The EU (represented by the DG Environment) and the EU Member States attend such conferences, but it is the 'troika', which consists of the current EU Presidency, the incoming Presidency and the European Commission, that negotiates on behalf of all member states. The announcement made by the Council presents the pre-agreed common position. Speaking with 'one voice ' gives the EU a strong bargaining position in that presents a large power bloc. The bloc of twenty-seven countries that are presenting a united argument have a greater chance of influencing events than dos any individual European state acting alone.

In order to reach a EU's common position prior to international negotiations, delegations from Member States meet regularly together with representatives of the Commission (from the DG Environment). Normal practice is for meeting of the 'working party on international environmental issues - climate change' to be held approximately monthly. These working party meetings are official meetings where preparations fro Council meetings are conducted, together with the preparations and coordination of the position to be taken at the international level. Additionally, expert groups are held to look into specific issue areas; these expert groups are initiated by, and report back to, the working party. Member States can appoint an expert to attend these groups and to accompany governmental representatives to conferences. In addition to the monthly meetings, at the start of each Presidency (January and July) a meeting is held that lasts for about three days.

The process of arriving at an EU common position is multi-layered, and complicated. Discussions and agreements need to occur at the domestic level, and then EU level, recommendations and considerations may then be referred back to the domestic level before being brought back to the EU discussions. Discussions are not always between the EU institutions and national governments, but also the interesting groups, such as

industrial groups. Minutes are not taken at the EU discussion meetings; it is therefore, difficult to restore the exact course of events. The outcomes of such meetings can only be presented by the declarations made by the Council prior to the international negotiations.

Although during the international conference, in order to speak with one voice, EU coordination meetings are held at the start of each day so that Member States can keep up to date with events and agree on a unified position. Coordination meetings can be held during the course of the day to ensure that the EU keeps apace with developments (Zito, 2005:112). When discussion move to a new agenda that was not expected, the EU tends to be left out of the ongoing debate whilst the EU Member States gather to talk about the new situation in order to come to some agreement amongst them before returning to the bargaining table. Thus, the EU can be rather slow and inflexible at international negotiations. Schelling (1960:29) argued that when a bargain process has a time limit and there is seen to be inflexibility o the part of an actor that this can in fact works as an incentive to others to agree on a position near to that put forward by the inflexible actor.

Table 4: Key Common positions of the EU on the climate policy

Common position	Year	Document	International negotiation
Leading role in international climate change	1988	Council Declaration in Rhodes, EC 12/1988, Part 1.1.6	Rhodes Summit of the European Council
Legally binding on emissions limits	1995	Directive 96/61, supra note 178, at Article 9(4)	Preparing the Berlin CoP-1 in 1995
9.2% GHG emission reductions; (revised by 8% reductions lately)	1997	Council, CONS/ENV/97/1	Signature of Kyoto Protocol
Emission trading	2001	Council, Conclusion 12994/01	Preparing to ratify the Kyoto Protocol on EU' emission trading proposal.

Through the process of the making commitment on EU climate change issue, a common position shall reflect the current policies before to take part in an international negotiation. Political willingness and relatively sophisticated regulating skill has driven the EU toward more 'aggressive' role-playing in the UNFCCC. Taking an international negotiation as a 'spring board', common positions has pushed the EU emission reductions into more regulative, centralized, market-based instruments-using direction. The change of common

positions has highly correlated to the development the EU climate policy circle from 1980s. Faced by the increasing threat of climate change, the Rhode Declaration made the EU's position to take 'any initiatives' to combat environmental problem at the international level (Bull, EC 12/1988: 10). The common position raised the awareness of agenda-setting on climate issue for the EU's policy makers. Certainly, it was taken off from the successive development of the EU environmental policies dated from 70s. As Chapter Two discussed, the EU started to develop a framework on how to make commitments to the UNFCCC on GHG emission reductions. However, with the failed Proposal on carbon tax in early 1990s, the EU was the in the cross of how to limit the emission reductions in the EU-wide territories to fulfill its international leader ambition.

A common position on legally binding GHG emissions reduction in 1995 made the EU started to formulating climate policy in a serious way. Further, alongside with the signature of the Kyoto Protocol in 1997 provided the EU's opportunity to frame its hesitated climate policy upon legalizing its GHG emission reductions by 9.2% lower than 1990 level by 2010 (the percentage had been revised by 8% lower between 2008-2012 in 1998). A binding burden sharing on emissions reduction has arrived into a legislative format. To cope with the climate change, the EU started the EU Climate Change Programme in line with the emissions reduction target at the national level. However, due to the different preferences on how to ratify the Kyoto Protocol regarding to EU's commitments of emission reduction target among member states' governments, the DGs of the Commission, and the industrial groups, the development of emission trading scheme was halted in middle of the hemisphere over the European sky.

The common position on emission trading in order to comply its commitments for the Kyoto Protocol made the EU to seize the opportunity after the exit of U.S and to finalize its Emission Trading Proposal in 2001, which has eventually become the core of the EU climate change policy ranged from the energy efficiency to carbon storage. The most significant of the EU ETS's implementation is to include the aviation industry into the Scheme.

3.5 Conclusion

In sum, the EU's adaptation of emission trading has come a long way to be fulfilled at the European level. The preference on emission trading has differed within the Union even after the signature of the Kyoto Protocol. In this Chapter, I examined different preferences toward regulating emission trading within the EU among the Community institutes, clustered member states and industrial groups before and after the Kyoto Protocol. Before the Kyoto Protocol, the EU had an ambiguous position toward the inclusion the emission trading into the Protocol. On one hand, it opposed the idea and in favour of a common and coordination policies and measures for all members of the UNFCCC; on the other hand, it accept the international emission trading as a negotiation

compromises to industrial countries.

It is nevertheless clear that, the divergent preferences did not reach an agreement on the emission trading until the withdrawal of the U.S from the Kyoto Protocol in 2001. I argue that the exit of the U.S from the Kyoto Protocol has been a major factor to push the EU taking a converged position to ratify the Protocol by passing its ETS proposal. The changed preference of the Community institutes and Member States come from the willingness to take a leadership in the UNFCCC negotiations and economic potential regarding to the adaptation the market-based emission trading scheme. The Commission took the opportunity to propose the ET bill backed by the Council and represented by the interested of member-states and industrial groups

The European Parliament had more radical version on emission trading who demanded a broader scope, mandatory auction in the pilot stage and centrialised allocation method on its readings on the Commission's proposal. However, under the pressure political urgency caused by the US pull out from the Kyoto Protocol, and willingness to take a leadership in the international climate negotiation, the Parliament converged its preference with the Commission, Member States and industrial groups.

Regarding to the hypothesis 4 and 5, this chapter has demonstrated that the exit of the U.S from the Kyoto Protocol in 2001 has been a major factor to motive the Council unifying the most of Member States' preferences on emissions trading in the EU and support the Commission proposed the ET directive bill in October that year. The political urgency had altered the Parliament's preference to make a compromised proposal in order to save the Kyoto Protocol before the 2005 and to ensure the European leadership in fighting against climate change at the international level. The qualified majority voting with co-decision procedure made the main opponent Member States, Germany and the UK converged into the ET proposal followed by the heavy campaigns of the Commission.

I further test on how the EU's common position is formed, and changed the preference of actors, and how does it related to the development of the EU climate policy. I argued that the EU policy-maker has taken an international negotiation as 'spring board' to 'neil' a existing common position into a new position for the sack of its political will.

In the following chapter, I will examine how dynamic the relations between the EU's internal policy-making and its international climate negotiations are.

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Chapter Four: Two-level game approach in the EU internal climate policy-making and international negotiation

The Kyoto Protocol under the Framework of Convention on Climate Change opened a window of opportunity for the EU and its Member States to reach a legally-biding common position on GHG emissions reduction. Though it was far from unproblematic, but it has been seen as a first step in international treaties to reduce GHG emissions. In this chapter, I employ the two-level game approach to demonstrate how the EU along with MSs interacted in the international climate change negotiation.

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The essence of the two-level game approach in the international relations is to understand how the international negotiations affect domestic politics and vice versa. Understanding why the EU was willing to take a leading role to ratify the KP and how the EU' domestic climate policy-making influences its bargaining power in international climate change negotiation. Then the proposition will be followed as the below:

<u>International negotiations affect domestic climate policy-making by fatally changed its preference to reach a common position:</u>

- The preparation for Kyoto Protocol and pressure of ratification of KP has pushed the EU to reach a common position in the domestic climate policy on legally binding emissions reduction;
- The self-claimed leadership in the international climate change negotiation demands the EU to speed-up its regulation on GHG emissions reductions at the European level. Eventually push the Member States to adopt EU ETS into national legislations.
- External factors, such as the U.S exit from the KP, IPCC's report, competition on technology and rules-making with the U.S, push the EU to be a frontrunner of ratifying KP in the international leader;

<u>Domestic policy-making affects international negotiation</u>

- In return, the market-based instruments on emission reduction, such as EU ETS, have support the EU to perform its leading role in the international climate change negotiation and diplomacy as well as cooperation with third centuries.

4.1 Background

The UNFCCC established the international climate regime, although there was a divergent preferences expressed by its members, mainly from the U.S and the EU. The U.S has been a leader in the international environmental negotiation since 1960s, and has clearly shown it through the 1987 Montreal Protocol to limit chlorofluoro carbons (CFC)

usage globally. Whereas the EC was quite fragmented as the various Member States disagreed on aspects of the treaty. However, this situation was completely reversed just a few years later, when the EC (eventually becoming the European Union in 1992) suddenly took over as the international environmental leader and the U.S began to hold back on the more ambitious goals being proposed by the Europeans (Vogler and Bretherton, 2002:8).

During the negotiations leading up to creation of the UNFCCC, the EU countries agreed to overarching a common negotiating position which called for legally-binding emissions goals to be imposed upon all industrialised, or Annex 1 countries. [6]the EU proposed that CO_2 be a main target of Annex I reductions, and called for binding commitments to stabilised all GHG emissions at 1990s levels by the year 2000 (Paterson, 1996:73). Meanwhile, the U.S opposed the proposal on legally binding emission reduction target, setting up a timetable and providing special aid to Annex II countries (Schroder, 2001:34-35).

In the preparation of the Kyoto COP-3 in 1997, the EU Environmental Council announced that all Annex I countries should reduce emissions by 15% of 1990 levels by the year 2010 in a legally binding commitment to be finalised at the COP-3 Meeting (Schroder, 2001:32-33).

The Council proposed that all countries be assigned a universal emissions reduction target but argues that European Members be allowed to working an "EU Bubble" of differentiated targets, as long as the Union collectively reached to 15% below 1990 levels (Agrawala, 2001:122). However, since the energy issues are related to fiscal policy, the EU requires unanimous consensus among Member States before it can adopt a policy position (Schroder, 2001:52), the Bubble-target was more symbolic rather than an action.

As analysed in the previous chapter, although European countries in general have been proactive on climate change issues, its Member States have varying levels of commitment to reduce emissions. While wealthier countries in North support strong environmental treaties, other states, particularly those in the less-developed South, have been more hesitant. Greece, Spain and Ireland have argued that they were entitled to a growth in emissions in order to reach a level of deployment enjoyed by other EU members (Newell, 2000:14). As a compromise, the EU adopted a differentiated targeting agreement on emission reduction.

The EU signed an umbrella target of 8% below 1990 levels by 2008-2012 and the U.S 7% below. The Protocol outlines the GHGs involved as well as the flexibility mechanism (Joint Implantation, the Clean Development Mechanism, and emissions trading), and prescribes a 2008-2012 timeframe for commitments to be met.

[6] Exempting developing Annex II countries, which cannot afford new technologies and historically have not emitted as many tons of greenhouse emitted as many tons of GHGs as developed states).

In 1998, after the Protocol was opened for signatures, the Clinton Administration (along with most Annex I arties) signed onto the treaty in preparations for ratification. Even with the Clinton Administration agreed on the Kyoto Protocol, but the Byrd-Hagel Resolution expressed that U.S can hardly ratify it on the ground that developing countries are excluded to obligate the Protocol. By 2002, the EU, Japan, and Canada ratified the Kyoto Protocol, but the U.S Congress refused to approve of the treaty for ratification. It was blocked by U.S domestic legislative procedure: the Senate refused to prove Clinton's commitment to ratify the Kyoto Protocol. It was a typical domestic politics affect it international negation. This time was on the climate change issue.

For the EU, the significance of the EU ETS is related to whether the EU is able to comply its Kyoto Protocol commitment and carrying on a leading role in the international climate negotiation. To have the EU ETS operated at least in the EU level will weight its bargaining power on the international negotiating, furthermore, as the market-based instruments on GHG emissions reduction,

4.2 Two-level game analysis on the EU's internal climate change policy and international negotiation

4.2.1 International level: how does the international negotiation effects domestic decision-making in climate change?

The two-level game approach, which combines both the domestic and international levels of analysis, provides a more detailed explanation of how domestic and international interests work together to shape decision-making with regards to the Kyoto Protocol and the UNFCCC. Before the approach can be employed, however, it is necessary to understand why the EU and its Member States are rational actors in the international climate negotiating and how they take rational strategy in the UNFCCC and Kyoto Protocol.

4.2.1.1 The EU and its Member States are rational actors in the UNFCCC negotiation

One might argue that the EU's decision to ratify Kyoto Protocol and push for greater action to mitigate climate change should not fit in rationalism school, because the way of EU acting is not be utilitarian. Here, I would argue that to ratify the Kyoto Protocol was a rational choice made by the EU on the ground of rationality of actor. As Elster (1989:22)

states that 'when faced with several courses of action, people usually do what they believe is likely to have the best overall outcome.' People are rational actor to make a choice as they like regardless if it worth or not. Rational choice is straightforward. Individuals want things, and they at in such a way as best to obtain what they want (Jupille *et al*, 2003:12). In rational choice, the preferences with respect to which they optimally choose. Contrary to much common usage, utility is a highly open-ended concept and an actor's unity need be neither self-regarding nor materialist (*ibid*., 13).

As analysed in the Chapter Three, there are several factors resulting the EU and Member States to make a decision in ratify Kyoto Protocol and the EU ETS. First, U.S' rejection to the Kyoto Protocol was that it helped unifying the actors and institutions involved in developing EU climate policy, which they were able to overcome internal disagreements and present a strong united supporting for the Kyoto Protocol (Schreurs, 2004: 209). More specifically, it brought divergent preferences among Member States, industries, interesting groups, public opinion, and even the Commission itself into a convergent position towards the Kyoto Protocol and the EU ETS.

As a key measure to implement the Kyoto Protocol, the Commission's 2001 ET proposal was given a priority on the EU political agenda. The Council of Ministers agreed that efforts should be made to save the Kyoto Protocol by accompanying the ET directive proposal in order to ratify the Kyoto Protocol. In this sense, the EU's implementation of the Kyoto commitments became deliberately linked to the ratification of the Kyoto Protocol (the Council, 12994/01). It was perceived by the Climate Change Unit in the Commission as a window of opportunity or realizing plans for a European emissions trading system, and for the EU to show leadership in global climate diplomacy.

The Commission worked to ensure compatibility between the international emissions trading system and the EU trading system. In practice, the Commission has had an important say in the development of EU positions in the international climate negotiations even though the Council formally adopts its position prior to or during the COPs (Slingenberg, 2006:23). The EU is represented in negotiations by a troika: the country currently holding the Presidency, the country next in line, and the Commission. Since the COPs take place every year, the Commission is the stable factor in the EU's participation in international negotiations (*ibid*.).

The Climate Change Unit in the DG Environment participated in all Conferences of the Parties to the UN Framework Convention on Climate Change and guarded the EU emission trading plans. The Commission would have opposed any proposals for amendments in the international system that did not fit with the plans for the EU system. However, bearing in mind is that the U.S' withdrawal from the Kyoto Protocol fatally affects the EU's decision-making on ratifying the KP and its EU ETS directives, but these

international events did not significantly affect the design of the proposed ET directive

The second external factor is the EU's perception of deteriorated climate condition. Followed by the third Assessment Report of IPCC in 2002, the Council responded that:

> "*…deep concern about the robust findings in the TAR [Third Assessment Report], and NOTES with deep concern the important message of the IPCC that human interference with the climate system carries a risk of triggering irreversible or abrupt changes*." (The Council, 12976/01)

To sum up, game theoretical model cannot wholly account for European behaviour or for the game variances between the EU and other actors, such as U.S. Nevertheless, the strategies options do provide an insight into collective action problems and actors concerns dealing with free riding in the international climate change negotiation. The KP is a regime to conduct cooperative actions in legally binding GHG reductions globally by providing flexible mechanisms (JI, CDM, ETS) on recognising the principle of "same but differentiated responsibilities" among state-actors. All of designed agreements are expected to reducing uncertainty and transaction costs on combating global climate change. However, due to the same reason, the U.S' Senate and Congress argue that the free-riding problem was arisen from the designed regime itself, the developing countries should be included within the legally-binding text. With the U.S abandoned the KP, the EU rationally took strategic action in a leading role to coordinating with others to ratify the KP. The decision made by the EU is rational and strategic in reflecting its domestic politics. In other words, the politicians from the EU and its Member States seized the opportunity to open a policy window to legally formulate its climate change policy at the EU level by reaching a strong commitment on GHG emissions reduction. The result of international climate negotiation has altered the divergent preference among Member States into a convergent one, which is to preferred a legally-binding on emission reduction, further, the pressure for ratify the Kyoto Protocol and withdraw of U.S has speeded up the EU politicians to adopt the EU ETS through a massive institutionalisation as described in the Chapter Two and Three.

4.2.1.2 EU's strategy on the international climate negotiation: Game theory approach

The rational choice institutionalism school argues that the necessity of the collective cooperation among actors is based on the actor's rationality and his belief's on that the international cooperative regime or organisation will bringing the converged expectation

for reducing transaction costs, risks caused by defection or any uncertainties involed. In the course of cooperation, each actor chooses its strategy to maximise its interest, where it is not necessarily utilitarian but suitable for actor to achieve its goal. In the following part, I will use game theory to simulate the EU's strategy at the UNFCCC and Kyoto Protocol.

In the International Relations school, realism and institutionalism reckon that the anarchic international system creates rational actors to be self-helped, and interests-pursuing. The rationality of actors drew the shared common ground for the two schools of thought, saying the rationalism.

Since sharing the assumption of rational actors[7] and accept the function of regimes, neo-realists and neo-liberalists have a common ground in studying international institutions toward cooperation (Katzenstein et al.1998; Keohane 1988). The definition of international institutions given by different schools of thought may demonstrate the understanding towards institutions.

- Neo-realists think "institutional regimes are sets of implicitly or explicitly principles, norms, rules and decision-making procedures around which actors' expectations converge in a given area of internationals relations" (Krasner, 1983).
- Institutions are "recognized patterns of practice around which expectations converge" (Keohane,1984)

Neo-realists have explained the creation and persistence of regimes on the basis of hegemonic stability theory (Gilpin1981; Kinderberger 1981; Snidal 1985). Secondly, regimes are useful for providing stability since there is a possibly optimal outcome. Regimes are important in mediating between interests and outcomes, and providing a compelling explanation in certain circumstances (Krasner, 1983). Finally, Regimes may provide useful instruments in facilitating cooperation by mitigating cheating and allowing for the resolution of distributional issues (Grieco, 1988).

Rationalists reckon, in accordance with rational choice theory, cooperation with non-cooperative game can be achieved till there is a state of stability of Nash equilibrium. These actors and repeated actions will be translated into practice step by step with rules, where the institutions come into being. Institutions can reduce the uncertainty of the environment (defection), improve the quality of information (information asymmetry), reduce transaction costs, increase an expected convergence behaviour (convergence of

[7] Actors have GIVEN preferences to pursue their goals, which are guided by beliefs about each other preference and relative costs and benefits of different outcomes. Actors are constrained by their capabilities.

expectation), and ultimately provide reciprocity among actors (Keohane 1984; 1988).

But how does the actor to deal with the collective action problems occurred by the uncertainty, defection or asymmetric information among actors (Olsen, 1965)?

Regarding to international climate change negotiation, it faces a collective action problem: although their common interest is to prevent further damage to the global environmental which they interdependent on each other for living in the same planet, individual states have many divergent interests which may take precedence over international cooperation. Even if states would prefer to act in their collective interest, Olsen explains that they may still fear that others will defect on any agreed commitments; although states share an interest in preserving a common good, they do not share an interest in paying the costs for goods (*ibid.*, 21). Facing greater obstacles since a climate is a common good which no state can be excluded from having, so there is even greater incentive to free-ride on the efforts of others.

Reflecting on the international institutions, the collective action problems can be classified as (1) enforcement, which mainly refers to the problem of incentives of defection; (2) distribution; (3) the number of actors and balance of power issues; (4) uncertain to other actors' behaviours, intentions and the consequences (Koremenos et al., 2001). Those problems can also interact to each other, for example, how enforcement problem across different issues affects institutional design, such as defection, cheating, interacted with distributional problem.

Lisa Martin (1992) classifies cooperative problems into four categories and followed by its strategies correspondingly by employing game theory. Her study was summarized as the below Table 5.

Table 5: Rational solution to cooperative problems and its strategies

Problem	Reason	Strategy
Collaboration	crises come from reductions in the "shadow of the future" and reductions in states' information on others behaviour	Prisoners' Dilemma
Coordination	if one states to change the equilibrium (domestic or technological), cooperation will undergo a crisis	Battle of Sexes
Suasion	As hegemony declines, they will be less likely to bribe others into cooperating.	Persuasion or coercion under hegemony
Assurance	worry about other's preference as domestic or technological changes	Stag Hunt

(*Source*: Lisa Martin, 1992)

By applying game theoretical analysis, Lisa Martin (1992) demonstrates "Prisoners Dilemma" (PD) to explain how the cooperation by sharing information and punishing defection is achieved over collaborative problems. In the case of coordination problem, a strategy of the "battle of sexes" is to solve the distributional problem rather than the cause of asymmetrical information or defection. To deal with the suasion problem, the feasible way is that the hegemony to persuade or coerced those weaker or who has the potentials to break the equilibrium. The strategy of "Stag Hunt" (ST) is suggested to cure the assurance problem.

The question is followed: which strategies will mostly portrait the EU's behaviours in the international climate negotiation?

As mentioned above, game theory assumes all actors to be rational self-maximizing interest, avoiding of any meaningful internal differences, it is complementary with the systemic level of analysis. The PD seems to accurately characterise state-actors' natural preferences for emissions reductions. Each actor would most prefer hat all other players cooperate to reduce their emissions while they themselves free ride to avoid the costs of changing their own behaviour. Meanwhile, just as in the PD, the second best scenario for any given state would be mutual cooperation. If all states agree on the costs to reduce emissions, costs would be more diffuse, and everyone would receive healthier atmosphere and prevent further climate change. The thirds best option for states dealing with climate change is mutual defection. If everyone defects, on one takes on the costs of reducing emissions – but climate change will create serious global problems that all actors will eventually be forced to deal with. Finally, in the worst scenario, a sate will take on the costs of reducing emission unilaterally and will not receive much in return since averting climate change required that emissions are significantly reduced.

Such sequence of preferences is reflective of a PD, and game theorists warn that in most cases, state-actors will avoiding the least preferred scenario in the PD by defecting on an agreement – ensuring they receive either their first preference (free riding on others' cooperation) or their mutual defection. Even though mutual cooperation is rank higher than mutual defection, most states will not want to take on the risk of being the sucker.

Due to the fear of defection by other possible international cooperation, a regime must be set up to avert the individually- rational collective action problem. The Kyoto Protocol under UNFCCC was created to bridge the relationship between states which agreed to the legally binding agreement on stabilising emissions reduction. The goal of the Kyoto

Protocol is coordinating international action and making cooperation on climate issues easier in terms of decreasing defecting and reducing uncertainty. Therefore, the PD is the one mostly accurately described nature of actor's strategy chosen in the international climate politics.

However, it could be arguable that the climate change regime transformed the mitigation of climate change from a Prisons' Dilemma scenario which favours free-riding to a Stag Hunt which favours and facilitated mutual cooperation. In fact, it is apparent that many Annex I nations prefer mutual cooperation and understand the prevention of climate change to be a SH. Countries such as the EU, in particularly, Germany, the Netherlands, and small island states pushed for a stronger UNFCCC commitments as well as for more stringent guidelines at the subsequent COP meetings. SH is more suitable to explain how the U.S' action to undermine UNFCCC before reaching the Kyoto Protocol and even its withdrawal on its domestic reasons. But Stag Hunt cannot explained why the EU did not defect (do not ratify the Kyoto Protocol) while the U.S withdrew from the Kyoto Protocol. On the contrary, the EU made clear reductions target in GHG emissions through EU ETS accompanied with JI and CDM in 2002.

The EU may not alike the U.S who has hegemonic power to coerce on others, but the EU does have its capability to persuade its international counterparts to join with her ratifying the Kyoto Protocol. This has been tested after the U.S' exit from the Kyoto Protocol in 2001. The EU has been developing its diplomacy and exercise its economic and technology to softly persuade other counterparts to give the Kyoto Protocol a green light. For instance, in order to gain the support of developing countries to ratify the Kyoto Protocol, the EU promised to help them on reducing GHG emissions by transferring technology and arranging financial compensation. In exchange of support of Russia' ratification on KP, the EU promised to support her membership application in the WTO.

With the operation of the EU ETS, the EU is more like to choose the PD strategy along with institutional power acting in the international climate negation. The EU ETS is in accordance with the U.S idea on the principle of "polluter pays". Free rider will be excluded by the market-based instruments. Shown as the following part, the EU ETS is not just a regulation on GHG emissions within the EU-wide but also within the world-wide.

Since there is no dramatic change on domestic politics and innovation of technology, the Sex of Battle for the EU is unlikely.

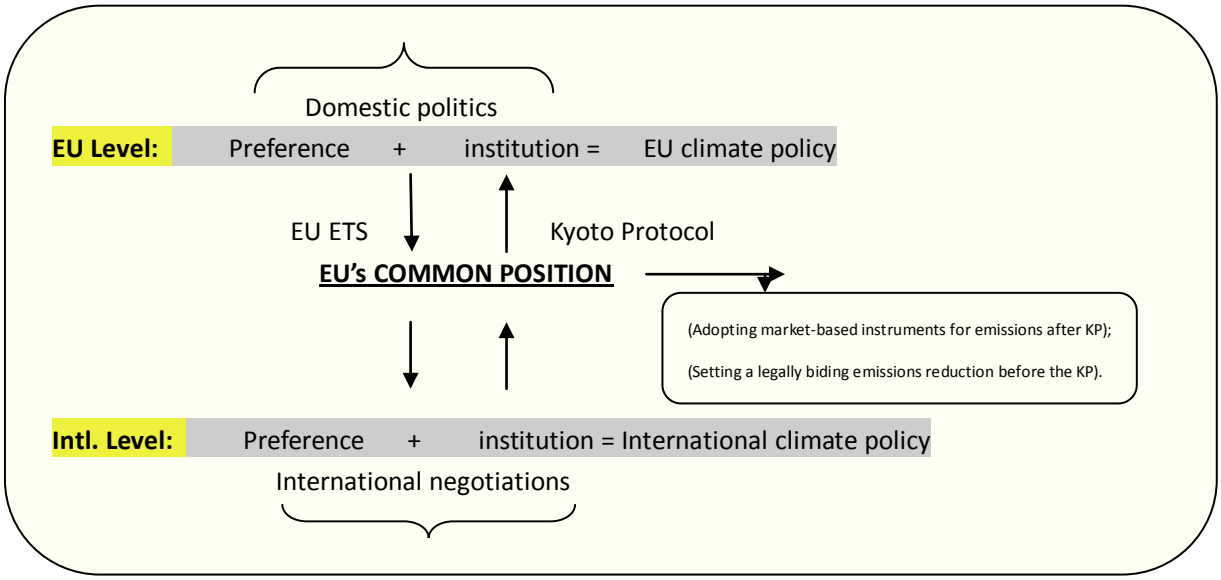
To sum up, the EU' strategies taken in the UNFCCC and Kyoto Protocol have been flexible. For the signing and ratifying stage of the Kyoto Protocol, the EU took strategy on Staging Hunting mingling with persuasion to have most nations joining in the Kyoto Protocol regime. Following the establishment of its emission trading scheme, the EU starts to take Prisons' Dilemmas strategy to deal with its international counterparts by including aviation industry into emission trading.

4.2.2 Two - level game approach - international level: how international negotiations affect the EU domestic politics

The above analysis demonstrates why the EU and its Member States are rational actors at the UNFCCC and Kyoto Protocol. Its rationality allows them to take different strategies to achieve its goal: signing and ratifying the Kyoto Protocol. At the domestic level, the Community institutes and national governments are also rational with its concerns on climate/energy problems (will be present in the following section). Its internal rationality gives them motivation to make climate policy into a legally binding target on emissions reduction. Therefore, the junction of the two levels is the **COMMON POSITION** of setting legally-biding target on emissions reduction before the Kyoto Protocol and adopting a market-based instrument for monitoring and controlling emissions after the Kyoto.

However, shown as in Chapter Three, the common position has not been raised up to the EU agenda until the "EU targeting Bubble" for the preparation of the Kyoto Protocol (external factor) in 1995. Further, after the signature of the Kyoto Protocol, the EU's emission trading scheme has been tackled by many domestic concerns (Chapter Three), again, it was the exit of the U.S from the Kyoto Protocol (external factor) to motivate the EU' approval the ET Proposal as the its promise to ratify the Kyoto Protocol in 2002. In return, the EU ETS affects international climate negotiation (in the next section).

Diagram 4: Two-level game theory in the context of EU climate change policy



The interaction of domestic and international level in climate policy can be illustrated by the two-level game approach (approach (Putnam 1998), where he took the domestic politics into analysis the strategy chosen by a state in the international relations. Shown as the above diagram, it states that domestic politics (interest, institutions) affect international outcomes. In order to understand why the EU same to such a "self-claimed" leading role and preferred a legally binding agreement in the international climate regime, it is useful to examine EU and its member state's policy-making at the domestic level.

4.2.2.1 Domestic rationales of the EU and member states acting leader in the international climate negotiation

Perception of climate threat

At the beginning of preparation for the Kyoto Protocol, there is a common perception of the threat from climate change and the common belief on the validity of scientific evidence (IPCC report) among EU and its Member States. This perception is likely contributed to the policy stances of reaching an international agreement in stabilising GHG emissions reduction. Further, energy dependence is added to be another indicative of EU climate policy preference.

In the EU, the perception of threat of climate change exists cross political parties and countries. As empirical study on case of Germany, France, the UK, no matter the left or right, green or non green, all promote the environmental/climate change issues in their policy-making domains. The long history in making regulation on environmental

protection has been an crystal evidence that the EU takes the environmental/climate change issue more serious than other states, although individual states has its means to deal with challenges.

As the political will generated, it became a condition to drug global states sitting round the international table in negotiating for searching a possible climate change regime to battle with the common threat. This was the idea of starting with the UNFCCC. (source from principle of UNFCCC). Along with the findings of IPCC first report in 1990, the domestic perceptions of threat are likely to move to the increased demanding on international regime. In other words, the belief of IPCC and existing perception of threat has urged the EU and its Member States' political will of shaping its external climate policy in international climate change negotiations.

Energy concerns

Energy dependence in the EU is additional key determining factor of its policy preference in the climate regime. By experiencing the oil crisis in 1970s, the EU countries decided to promote the development of new and more efficient technologies through the use of extensive subsidies in hoping to prevent an economic hardship replying in the future. For instance, Denmark subsidise wind energy after the 1973 shock, France in nuclear power energy etc. Some Member States also subject to levy tax on usage of fossil, such as Germany, the Netherland, France and the UK, (Brandt and Swendsen, 2004:331-332).

Alongside the global economic development, energy as a scarcity commodity has become more important than not just meeting economic development but also social stability. With the perception of next oil crisis and interruptions or sudden price increases can disturb economic activity, lead to income losses and cause strong inconvenience in daily life, especially if heating systems are affected in winter time, governments in industrial countries and emerging economies thus have an interest in preserving energy supply security and in preventing exporters from interrupting energy flows or increasing prices.

Tuning to the twenty-first century, the phenomenon of dependent foreign energy supplying has NOT been changed since the 70s. Almost thirty-five years on, the majority of Member States in the EU are also net energy-importers. Some countries can be fatally affected by external shock in relating to interruption of energy supply, such as Spain, Italy, Portugal and Ireland. In average, over 50% of energy consummated by the EU member states relies on the external suppliers. According to Commission report, In 2008, EU-27 dependency on energy imports increased from 46% of gross energy consumption in the 1990s to 54.8% by 2008 (see Table 6), with the highest energy dependency rates

recorded for crude oil (84.2%) and for natural gas (62.3%). Among them, EU's 27.4% of EU oil imports and 21.4% of gas imports came from the Middle East and North Africa (European Commission, Eurostat 2009).

Table 6: "Energy dependency rate, EU-27 (% of net imports in gross inland consumption and bunkers" (1998-2008)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
All products	46.1	45.2	46.8	47.5	47.6	49.0	50.3	52.6	53.8	53.1	54.8
Solid fuels	26.6	27.8	30.7	33.8	33.1	34.9	38.1	39.9	41.1	41.5	44.9
Crude oil	76.0	73.0	74.5	76.7	75.4	75.4	80.0	81.6	83.2	82.9	84.2
Natural gas	45.6	47.9	48.9	47.3	51.2	51.2	54.0	57.7	60.8	60.3	62.3

Source: Eurostat statistic books 2009

The future of shadow on the increasing consumption and declining production turn the energy into a core European Union interest. In Europe, according to the Commission (European Commission, 2007), the EU is expected to consume 15% more energy in 2030 than it consumed in 2000, on one hand; production of the EU in 2030 will be 25% below 2000 levels, on the other hand. Dependence on imported oil will remain extremely high, reaching 94% in 2030. Dependence on imported gas will rise from about 50% today to 84% in 2030, and imports of solid fuels are projected to reach 59% in 2030 (*Ibid.*). Therefore, 1n 2007, the Commission launched a proposal on "The Europe Energy Policy" to firstly establish the Union's core energy policy objective of "competitiveness, sustainability and security of supply" (COM: 2007/1 final)

In its Second Energy Review (COM: 2008/781 final), the Commission recognized that the security and solidarity are essential factors for its energy policy in the Union. The plan aims to reduce energy consumption by almost 15% and energy imports by 26% by 2020. In this perspective, the proposed plan, organized around five main points, should contribute to achieving these aims. The five points includes: 1) introduce an energy infrastructure and diversify energy supply; 2) energy supply must be considered as priority in international relations; 3) revise European legislation concerning emergency strategic oil stocks; 4) improve in energy efficiency by 2020 as part of '20-20-20 objectives'; 5) increasing the use of renewable energy to 20 per cent of its total energy consumption. It is hoped that by 2050 renewable energies will completely replace carbon-producing energies, which has depended on foreign imports for ages (*Ibid.*).

Economic motivation

A strong economic interest for either developing new energy or tax on energy consumption is behind rationale for governments making its climate policies. The world market in wind-energy is dominated by EU turbine producers of 85% of market share (Brandt and Svendsen, 2004:331-333). EU has the highest share of nuclear power stations as well as the intellectual property rights among France, the UK, and Germany. The structure of energy allocation among the Member States pushed the EU in favour of more stringent reductions commitments. To seek clean, renewable energy has become a climate-related political agenda in the Community.

Without strong energy-product companies, reduce the dependency on the usage of fossil fuel has made the EU climate/energy package passed easily than its industrial counterparts which well-funded industries fight to protect their interests, such as the U.S and Australia. In a long run, the comparative advantages in the EU who uses renewable, clean energy will be a concern to the U.S and its followers. As Schroder (2001:57) analyzed, Germany emits much less CO_2 per unit of energy and would benefit if the U.S committed to lowering GHG emissions, because it would then gain the former comparative advantage than the later. [8]

Some EU countries hold economic interest in promoting wind energy. Brandt and Svendsen (2004) explain that the share of the market held by in 2000 was 51% for Denmark, 18% for Germany, and 15% for the others. Therefore, the wind market is dominated by the EU wind turbine producers who have more than 85% of world market share (Brandt and Svendsen, 2003:331-335). Similar alternative energy interests in France, which is an exporter of nuclear energy, and highly-efficient industrial interests in Germany allied to push the EU in favour of more CO_2 reduction commitments (*Ibid.*, 335)

Even more, EU industries promoting green energy and built an alliance with environmentalists seeking to reduce global GHG emissions. The Kyoto Protocol provided an opportunity to allow European countries cooperating in the international community while promoting their own economic agenda. Thus, the Europeans were not entirely motivated by idealism. Instead, rational self-interest motivated the EU to support GHG reduction commitments in the climate regimes (Schroder, 2001:56).

From the European Union as a whole, the Commission reckoned that the Kyoto Protocol could give the EU particular incentives to engage in emissions trading as that could reduce the costs of complying with the Kyoto target. Emissions trading thus represent a new economic opportunity for the EU. When the Commission presented its Green Paper (2000) on emissions trading in March 2000, it attached an economic analysis showing significant savings from emissions trading. This analysis showed that individual compliance with the burden-sharing agreement would annually cost €9.0 billion,

[8] This provides an alternative explanation for U.S' Byrd-Hagel Resolution' in 1998 which declares Congress would not ratify any international treaties with legally-binding emissions targets for the U.S if the agreement did not also commit developing countries to binging targets and timetables. The later to commit, the more comparative economically advantage will be lose.

EU-wide trading among energy producers would cost €7.2 billion, EU-wide trading among energy producers and energy-intensive industries would cost €6.9 billion, and EU-wide trading among all sectors would cost €6.0bn (Vainio and Zapfel 2006; COM: 87/2000) .

Additionally, early movers could also gain additional benefits by acquiring administrative experience of running emissions trading systems (Oberthur and Tanzler, 2007).

EU's Community method on climate policy-making

Regarding to interest groups, as Schroder points out (2001:47), that European industry has not opposed the EU's commitment to enhance action on climate change at the international level, enabling the EU to hold a strong position throughout climate change negotiations.' Though the Union's, such as the two largest EU business coalitions-UNICE (the Union of Industrial and Employers' Confederations of Europe) and EUROPIA (the European Petroleum Industry Association), were only concerned about their competitiveness with countries outside the EU, whereas the emissions targets would be acceptable as long as all other industrialised competitors were held to the same standards.

The Commission' carbon tax proposal failed in 1992 due to a strong industrial lobbying in their countries, particularly the UK, as well as the Council' unanimous voting system required on fiscal issue. Ten years later, the adaptation of EU ETS had being halted in some EU Member States due to strong opposition of industrial unions since the Commission's Green Paper initiated in 2000. As the pre-existing voluntary agreements between government and industry, EU industry strongly opposed the mandatory agreement on first pilot phase of ETS. Like in Germany, the energy intense industries and chemical industry had furious fight at the consultation meeting organised by then Schroder government. As a result, the EU ETS excludes the chemical industry as target sector.

Environmental NGOs has little impact on climate change policy making in the EU, particularly on the late stage of making the EU ETS instrument and following directives. On one hand, the Commission has promoted the EU ETS smartly to the Parliament and the Council, where the NGOs have their voices on. On the other hand, the nature of complicity of ETS has drawn little attention of the public in general. Additionally, a divergent preference made environmental NGOs hardly form their strength against the adaptation of EU ETS at EU policy making process. For instance, the Environment of Friends and Greenpeace opposed EU ETS on the ground of moral principle, whereas thought ETS is a least market-based instrument to tackle GHG emissions reduction.

Above all, the EU policymaking process has constrained the interest groups lobbying to

influence policy makers at the EU level. As mentioned in the Chapter Two, the policy making relating to climate change are mostly subjected to the qualified majority voting on co-decision procedure, means that Council and Parliament are co-legislator. However, since the Member States were prefer to have a common position to ratify Kyoto Protocol and be willing to take a leading role in the international climate change negotiation, their political were circulated and transformed to the Commission initiating proposals according to the guide of the Council of the Parliament. Therefore, the Commission' proposals are in accordance with the Council and the Parliament with more realistic, practical perspectives. The only voted institution at the European level is the Parliament. With the treaty of Lisbon ratified, the Parliament has more powerful in the co-decision procedure. On the climate change issue, the Green party has strong alliance along with environmental NGOs in the Parliament, however, by citing the documents, it is clear that the Parliament is even "radical" than the Commission's proposal in supporting EU ETS in terms of it suggested that it should cover all sectors rather than the current selected sectors.

4.2.2.2 EU domestic climate policy affects international climate negotiation: the EU ETS on international aviation industry

The influence of the EU climate change policy on the international negotiation has two fold: first, setting a model for other nations by practically operating market-based emission trading scheme in the EU-wide as a promise to ratifying Kyoto Protocol. Second, and most importantly, the inclusion of aviation industry to the EU ETS affects the international community, including international organizations, individual governments, and industry economically and politically.

The EU ETS is a market-base instrument to price on carbon in selected sectors within all 27 Member States. As designed, the EU ETS' National Allocation Plans (NAPs) have linked with the Kyoto mechanism' Clean Development Mechanism (CDM), which indicates the possibility for EU member-states to use credits/allowances stemming from CDM projects already from 2005 on. It potentially influence both the NAP I processes (2005-2008) and the functioning of the emission trading market. As CDM projects in developing countries entail higher risks and greater complexity than allowance trading between industrialized countries, it is generally assumed that CDM allowances/credits will be traded at lower prices than EU allowances. The availability of CDM credits would thus make it easier for industries to agree to ambitious measures, implying that a strong link between the NAPs and CDM is likely to increase ambitiousness. The practice of EU ETS will of course add EU bargaining power in the international climate negotiation, and other important political and trade arenas, such as the G8, G20 and WTO.

However, the influence of EU ETS did not truly affect the rest of the world until the EU legalises to include the aviation industry into the EU ETS as tackling the 'small but fast

growing' sector's GHG emissions in 2008 (Directive 2008/101/EC). Nevertheless, it brings the most tangible impact of the EU domestic policy to the international climate negotiation.

4.2.2.2.1 How does the EU ETS affects the international aviation industry

The aviation industry is excluded from the UNFCCC and Kyoto Protocol, [9]therefore, the EU has been considering to taking the industry into the EU ETS framework since 2005 after realisation its growing contribution to the GHG emissions (Commission, 2005). [10] Further, in December 2005, the Council recognised that the inclusion of the aviation sector in the EU ETS seems to be the best way forward the Commission to urgently put a legislative proposal (Commission, AWG report 2006).

With the support of the Council and the Parliament, the Commission set up an Aviation Working Group (AWG) under the second European Climate Change Programme (ECCP II) in order to "consider options and identify the advantages and disadvantages of various design and policy choices" (*ibid*., 2) in 2005. Four consultation meetings between industries, consumers and environmental organizations from Member States and key stakeholders were held during the period of 2005 to 2006. The intensive works reached to the Commission's Proposal for a directive of amending to Directive 2003/87/EC as to Include aviation activities in the EU ETS (COM: 2006/ 818 final).

To incorporate aviation into the existing EU ETS, the most crucial issues is: how much is should pay, when it starts, and whether if all flights will be included. The Commission's Proposal set two start dates for the aviation industry: intra-EU flights would be subject to the ETS by 2011 and international flights would be subject to the ETS by 2012.The European Commission's Proposal also sought to reduce carbon dioxide emissions to one hundred percent of the levels released between 2004 -2006. in November 2007, the European Parliament agreed with the European Commission's recommendation to incorporate aviation into the existing EU ETS and expressed preliminary approval of the Proposal (European Parliament, P6_TA:2007/ 0505). However, the Parliament altered the Proposal to require airlines flying within the EU and all airlines flying to and from EU airports to submit to the EU ETS by one start date, 2011, and to reduce aircraft carbon dioxide emissions to ninety percent of emissions released between 2004 - 2006. The Proposal was altered once again in December 2007 when the Council of Ministers approved the recommendation to include aviation into the EU ETS but set a 2012 start date for all flights and a reduction in carbon dioxide emissions to one hundred percent of

[9] Article 2.2 of the Kyoto Protocol directs Annex I signatories to work through the International Civil Aviation Organization (ICAO) to control and reduce aviation greenhouse gas emissions. ICAO's efforts in this area are discussed infra. See Kyoto Protocol, supra note 12, Article 2.2.

[10] Since 1990, CO2 emissions from aviation – which are directly related to the amount of fuel consumed – have increased by 87% and now account for around 3.5% of total 'human activities' contribution to climate change. The Intergovernmental Panel on Climate Change (IPCC, 2006) has estimated that this share will grow to 5% by 2050 – undermining efforts made by other industrial sectors to fulfil Europe's Kyoto commitments

the average emissions released between 2004 and 2006. The Council finally adopt the Proposal into the directive in 2008 (Directive 2008/101/EC) which entered into force in February 2009.

Therefore, all operators who fly to, from and within the EU's sky are legible to pay for the CO2 emissions started 2012 under the current EU ETS. Additionally, all flights have no special treatments under the Scheme.

As the key measure to be brought into the EU's carbon trading scheme, the first yearly (2012) allowance was announced by the Commission about 213 million tonnes CO_2 (Commission press, 7/3/2011). It represents 97% of the average annual emissions for the years 2004, 2005 and 2006 which were chosen as the basis to calculate the aviation sector's "historic" emissions. For airline operator, 85% of its emission will be free, but the rest 15% will be auctioned through the EU ETS.

Analysts estimate that the aviation industry will add the cost of joining the scheme between €1 billion and €1.4 billion in 2012, rising to as much as €7 billion in 2020 (*EurActiv.com*, 11/03/2011). [11]Lufthansa, for instance, the Europe's second-biggest airline, expects the EU ETS to cost it an extra €350 million a year from 2012, rising each year after that (Ibid.). The Chinese analysis report estimates that, by levying carbon emission on EU ETS, the Chinese aviation industry will cost additional €80 million in 2012 and rise up to €300 million in 2020 (*Asiaone.com*, 24/3/2011).

Likely, the costs will pass on to the passengers who take flights on their purposes. According to study by Albers et al (2009), the international long haul flight will cause additional charge of 20 euro per passenger per trip. [12]For the Europe to New York, the return ticket will rise €12 (Commission's statement, quoted by *EurActiv.com*, 8/03/2011).However, the passenger for the trip from Europe to Beijing, a return non-stop flight will also cost roughly €40 more (*Asiaone.com*, 24/03/2011. Considering fluctuate carbon price (currently is at €15), the actual increase of flight ticket will be higher, possibly the double (David Henderson of Association of European Airlines, quoted by *EurActiv.com*, 8/03/2011).

Not surprisingly, the EU's Directive on include aviation industry into its ETS has caused numerous impacts not only economically, but also legally and politically.

[11] Figures are varied from the method used and the price of fuel assumed. In Standard & Poor (2011) study, the trading for airline under the EU ETS will cost additionally 1.12 billion euros in the first year; A study from WWF (2006) estimates that the airlines will make up to 3.5 billion euros per year for inclusion of EU ETS.

[12] Albers et al (2009) study sets a model of a long haul flight between Singapore and Frankfurt, and presumably stopped by Zurich, or Istanbul or Dubai to compare if the airline operator could be disadvantage of direct or indirect flight trigged by the inclusion of the EU ETS.

4.2.2.2.2 EU ETS impact on International climate negotiation

No matter passively or positively, the EU has pushed the international community to liming GHG emissions on aviation industry towards a resolution, even though it is far from the EU standards, and caused political dispute more than just a climate problem.

The political dispute mainly comes from whether the EU has jurisdiction to include the non-EU airline operators into its EU ETS.

International organization

Since the Kyoto Protocol and the UNFCCC specifically exclude international emissions from aviation transport from developed countries' national targets, instead, Kyoto calls on the International Civil Aviation Organization (ICAO) to tackle the issue.

However, the ICAO has failed to set a plan toward emissions reduction. Within in the entering the force of EU ETS and U.S' objection to it, the ICAO has been pushed to have the agenda as priority list. But the divided position has obstacle for the members of ICAO to reach a common agreement. For instance, in Copenhagen COP in December 2009, US, Canada, Japan and potentially Australia against the EU to calling a weak formulation, for medium and long-term goals to be set in tackling GHG emissions of aviation industry in ICAO. While the developing countries were equally divided: China, India, Brazil, Saudi Arabia and South Africa versus a good number of Least Developed Countries (LDCs) mainly in Africa (notably Malawi) and Small Island States – though some in this latter group were not vocal because of concerns – justified or otherwise – that they would ever see the money. Singapore played a spoiling role on bunkers in the Small Island Developing States (SIDS) (*EurActiv.com*, 12/1/2010). To date, however, the ICAO had not been able to reach agreement on substantive binding actions aimed at limiting GHG emissions.

Not until October 2010, about 190 members of the ICAO approved a resolution in which they agreed to improve fuel economy and strive to limit GHG emissions from aircraft. For the resolution, the ICAO sets a goal to improve fuel efficiency 2% per year through 2050, cap GHG emissions at 2020 levels, develop a global framework for the use of alternative fuels, and propose a GHG emissions standard for aircraft engines by 2013. The ICAO also agreed to develop a framework for market-based measures and issued 15 guiding principles for the design and implementation of measurement for international aviation. Member states are encouraged, but not required, to submit action plans to the ICAO by the end of June 2012, outlining their plans for reducing and reporting their international aviation GHG emissions. (Ford - Brust, 2010).

However, the Commission opposed the sections of the ICAO's resolution that refer to guiding principles that may conflict with the EU ETS, which will include aviation

beginning in 2012. Starting in 2012, the EU ETS will require non-commercial operators and most commercial operators who conduct flights that in and out of the EU to reduce GHG emissions. Commercial operators that emit less than 10,000 metric tons of carbon per year or operate fewer than 243 flights per period for three consecutive four-month periods are exempted (*Ibid.*). It still remains uncertainty between the ICAO and EU ETS to which is the legitimate jurisdiction for regulating the GHG emissions on the aviation industry.

The International Air Transport Association (IATA) has also 'condemned a decision by EU ministers to ignore the economic downturn and approve a deal on including aviation activities in EU ETS' (*EurActiv.com*, 27/10/2008). According to IATA, 170 countries oppose the proposal (Milmo, 2007). '… [which airlines estimate] will impose €3.5 billions in extra costs on an industry of bringing airlines into the European ETS. It's Brussels acting in a bubble - even in the middle of a global economic crisis,' said Giovanni Bisignani, IATA's director general and CEO (quoted by *EurActiv.com*, 27/10/2008).

Unite States

The U.S insists that the international GHG emissions regulation on aviation industry shall be carried by the ICAO according the Kyoto call. Since the agenda of EU ETS inclusion the aviation industry emerged at the EU level, the U.S officials have been stressing that the inclusion of non-EU airlines in the scheme without their consent would be illegal (Environmental New Service, 2/10/2007). The president of the Air Transport Association of America (ATA) James May said it was 'sure to spawn a legal challenge' as it contravened the 1944 Chicago Convention (*EurActiv.com*, 11/10/2007). Carl Burleson (2007), the environment director of the US Federal Aviation Administration, added that 'the Proposal doesn't go along with what the world community agreed to, which is that you should undertake this on the basis of mutual agreement ... (and) forcing foreign airlines to subsidise the EU aviation industry'. U.S Mission in Brussels (2005) further said the EU's unilateral action would 'undercut rather than support international efforts to implement system improvement to manage the impact of aviation emissions.'

On one hand, the U.S aviation industry and government is battling with the EU on ETS inclusion to its airline operators, on the other hand, it still examine the possibility to have legally binding GHG emissions reduction, including aviation industry, domestically. In 2007, American Climate Security Act (Bill 2191) was proposed in the Senate. [13]In the Bill 2191, it seeks to 'require the Environmental Protection Agency to commission a study by the National Academy of Sciences to gather data on aviation's contribution to greenhouse gas emissions' (*Ibid.*). However, the Bill 2191 was killed by the Senate in June 2008 over worries that it would damage the economy. Then-president Bush also quickly issued a statement pledging to veto the Bill, stating that it is too strong, and 'potentially a mere floor' for carbon emissions reductions (White House Statement, 2/6/2008).

[13] The America Climate Security Bill was issued by Senator Lieberman and Warner in 2007.

China

China' aviation industry did not quickly response to the EU regulation on inclusion of the aviation sector to the EU ETS until recently, despite the fact that the China's carbon emissions are growing significantly. According to the Tsinghua University' report (2011) that China's total carbon emissions will reach to 10 billion tons in 2015, the amount is equivalent to the sum of the U.S and the EU. [14] Regarding to the aviation industry, China has become the second largest market in the world.

In September 2007, China Air Transport Association (CATA) sent a letter to Jacques Barrot, then vice president of the European Commission, expressed that Chinese aviation industry have paid close attention to the Commission's proposal on inclusion aviation industry into the EU ETS and strongly opposed it. However, not until March 2011, the CATA made an official statement to claim that it objects to inclusion of the aviation industry into the EU ETS. In the statement on the ground that the regulation of the EU to include all flights in and from the EU has 'violated the principle of Common But Differentiated Responsibilities" (CBDR) followed by the international community on climate change issue. The EU' unilateral action has not just against the rule of the Chicago Convention, but also add global transaction costs for aviation industry to combating the carbon emission reductions' (CATA, Declaration 10/3/2011).

As time passing by, the pressure of the Chinese airline operators for paying flying European sky is increasing. In particular, it is the case for the Air China Airline, China Southern Airline, and the China Eastern Airline, who account to 70% of China to Europe market. Although there is lacking of official data about how much the EU ETS affect the Chinese aviation industry, however, Zuan Qi (2009) analyses that, the total carbon emissions of Chinese aviation industry has reached to 37.89 million tons in 2007. Assumed the emission will be 3% higher in 2012 than in 2007, taking the carbon prices at €15 per ton in May 2011, then, the total amount of carbon emissions will be priced at €568 million in 2012. The part of 15% of EU's auctions purchased by the Chinese airline operators will be up to €85.25 million in 2012. The IATA estimates that each passenger for a trip from China to Europe will pay additional €20 to €100 more according to different carbon price between 2012 till 2020 (quoted by Fu, 2011).

Alongside the fast growing market, Chinese airline operators are facing more difficulties than its international counterparts. It is noticed that of changing route for long haul or replacing more efficient aircrafts will not help China' aviation industry to cut the CO2 emissions reduction significantly from now on. First, as Albers et al (2009) analyse that to set a new stop outside the EU countries by avoiding the EU ETS will equally added maintained costs for non-EU airline operator. Besides, the longer time for transit will not

[14] In Tsinghua Univeristy's report, the data is calculated on the condition of: the annul growth of GDP will be remained at 10%; the total coal consumption will reach to 4.5 billion tons in 2015.

be favoured by passengers. Secondly, the EU ETS for taking 97% of 2004 - 2006 as baseline to accounting the emissions in 2012 has posed a great disadvantage for Chinese aviation industry due to the fact that most Chinese airlines have just updated their aircrafts during the same period (remarks of Huang Bin, the secretary of Board in Air China, quoted by Fu, 2011). Thirdly, the fast growing market for international flights will make China's operators unlikely to reduce carbon emission in downsize from 2012 to 2020. In other words, China' aviation industry will be the potentially biggest purchaser of the EUA through the EU ETS as it implements in 2012(Fu 2011). CATA threats that Chinese airlines have intended to join the U.S for taking legal action in opposing the EU ETS (*EurActiv.com*, 11/4/2011).

For the domestic law-making, influenced by the EU ETS hands-on its airline industry, Chinese policy-makers have considered to establish market-based carbon emission trading system. In October 2010, the Proposal of the 12th Five-Year Plan has stressed that the government 'should actively to deal with climate change in aiming of setting a biding targeting to dramatically reduce energy consumption intensity and carbon emissions intensity' (*Xinhuanet.com*, /2710/2010). In 2011, A Managerial Guidance on Voluntarily Reducing Greenhouse Gas Emissions and Trading Activities (draft) was introduced by China's National Development and Reform Commission. Compare to the U.S to set regulation on limiting emissions, China's is more likely to administrative instruments in dealing with climate issue.

4.2.2.2.3 International challenge to the EU ETS

Not surprisingly, political negotiations mingle with trade disputes have raised between third countries, the European Commission and Member States.

The U.S has made it clear that it would retaliate with trade sanctions if the EU makes any attempt to force foreign airlines to comply with its emissions trading system - whatever the timeline. Further, in December 2009, three U.S airline companies along with Air Transport Association of America (ATA) filed a lawsuit at the British court, and then forwarded to the European Court of Justice on question the jurisdiction of the EU ETS inclusion on U.S airlines to Europe. [15] It regards that the unilateral application of the EU ETS to non-EU airlines violates international law (ATA, 16/12/2009).

Through Member State's government and industry, China's government has signalled that it would take a consideration on trade retaliation against EU ETS levy on its airline operators. In June 2011, Tom Enders, the chief executive of Airbus of France, sent a letter

[15] In December 2009, American Airlines, Continental Airlines and United Airlines, backed by the Air Transport Association of America, filed for judicial review in the British courts, challenging their inclusion in the EU ETS. The airlines are arguing that the EU lacks jurisdiction to regulate flights to and from the United States to Europe. On 20 January 2010, the UK Government referred the matter to the European Court of Justice. The ECJ will decide in July 2011.

to EU' Climate Action Commissioner Connie Hedegaard, warning that it would be 'madness to risk retaliation' from countries such as China by including their planes within the EU's cap and trade system (*EurActiv.com*, 7/6/2011). German Transport Minister, Peter Ramsauer, wrote to the EU's Transport Commissioner, Siim Kallas, warning that foreign airlines should only be subject to the ETS if it caused no harm to European airline *(EurActiv.com*, 11/5/2011).

However, it is not wise to assume that German or France' government will step down the EU ETS regulation on inclusion of aviation industry. As analysis in Chapter Four shows that Germany has strong support for EU eco-climate policy cross parties and parliaments despite there has been a disagreement between departments, industry and NGOs due to conflicting interests. Additionally, 'there is no chance that (the EU) is backing down from already approved legislation,' said by Isaac Valero, spokesperson for Commissioner Hedegaard (*EurActiv.com*, 7/6/2011).

Facing the increasing pressure, the Commission seems be prepared for external and internal reaction over it ETS regulating to foreign airline operations. In the letter to Airbus, Hegegaard addressed that 'If nations and regions do not defend their legitimate right to legislate, it would send an extremely unfortunate signal and create problems not just for the global climate but also for European companies and businesses' *(Ibid.*). The letter was also approved by Transport Commissioner Kallas and Trade Commissioner Karel de Gucht, and it was supported by Commission President José Manuel Barroso *(Ibid*.).

The EU has shown "polluter pay" principle for including more industry into the EU ETS. Recently, the Council approves the revision of EU Directive of setting road tolls for heavy goods vehicles. The Directive will allow Member States to charge all vehicles above 3.5 tonnes not only for infrastructure costs but also for noise and pollution (*EurActiv.com*, 8/6/2011). Though it has failed in Copenhagen in 2009, but the EU's proposed 10% cut for aviation and 20% for shipping over 2005 levels for international aviation and maritime emissions on the ground of there was neither agreement on whether the UNFCCC or ICAO/International Maritime Organization (IMO) should set them, nor the level of cuts required (*EurActiv.com*,12/12010). Followed by the aviation, road freighting, the shipping industry shall be the next sector included into the EU ETS regulating on carbon emissions. And logically, the maritime shipping will also linked to non-EU operators.

4.3 Conclusion

With the two-level game approach, at the international level, all state-actors are rational, not necessary utilitarian, who performance in the international climate change negotiation are interacted to its domestic politics. In other words, the domestic

institutions and preference affect its position and bargaining power in the international negotiation, meanwhile, international outcome also influence domestic policy-making by shaping its institution and preferences.

At the international level, the EU has not taken a legally-binding target on stabilising emissions reduction until to the preparation of UNFCCC' COP-3 in Kyoto. The political will was motivated by the Member States' governments, industrial, environmental support as well as the general public on the perception of climate threat. The preference was also articulated from its rational characteristics on energy concerns, economic competition and EU's unique policy-making method.

The rationality of EU is also reflected to the exit of U.S from the Kyoto Protocol which has opened 'the window of opportunity' for EU's policy makers walking away from the pressure of ratifying the Kyoto Protocol, and seizing it to put forward formulating climate policy, in particular EU ETS, at the European level. The competition of making a standardised policy in the international regime, such as market-based emission trading has also been a factor for the EU to step forward after 1997 to signify the Kyoto Protocol. However, the pressure of ratify the Kyoto Protocol has being bothered EU policy makers since the signature of it in 1997. This has a direct impact on EU domestic policy making. Meanwhile, EU's domestic policy constrains the EU and its Member States' position on whether or not to ratify the Kyoto Protocol as a legally-binding climate change regime.

Regarding to the domestic level, a legally-biding on GHG emissions reduction were preferred cross parties and countries due to the preparation of the Kyoto COP for the first time at the European level. However, Although the EU internal climate policy making has followed sociological path built on social learning and broad consultation in different levels, it is however, with the unique qualified majority voting on co-decision procedure rules, the community institutes have ability to bypass the national legislative procedures, and making institutionalised framework on climate change issues at the European level. The Commission, the Council and the Parliament as well as leading Member Sates have been acting entrepreneurs to enlist climate issues into top political agendas in sense of speeding up its legislative process. Additionally, the internal financial arrangement and differentiated target agreement guaranteed that of all of Member States are in favour of the legally-binding of GHG emissions reduction.

The EU's internal institutionalisation has not just shaped the climate policy outcomes, but also indirectly shaped preferences of Member States governments, the interest groups and the pubic. At the stage of Commission's introducing the Green Paper in 2000 and proposal of ETS in 2001 to comply on the Kyoto Protocol, the divergent preferences emerged among Member States, interest groups.

At the international level, the rationality of the EU as an actor is self-interested and self-help, but not necessarily be unitary. The EU's interest is based on the perception of an

increasing threat caused by the global climate change and the belief in the IPCC scientific report, the EU and its Member States are in favour of establishing an international cooperation (UNFCCC) on the legally-binding regime (the Kyoto Protocol). The idea of the Kyoto Protocol is that the regime can reduce uncertainties caused by defection (unlimited emissions) and asymmetrical problem (monitoring and transparency), and converge the expectation (reduce GHG emissions). The game theoretical model portrayed that the EU's strategy choice on international climate change is more like Stag Hunt, but not quietly since she is still in the game of Kyoto Protocol while the U.S' withdrawal in 2001. With the development of the EU ETS in recently years, the EU's strategy is more alike of choosing Prisons' Dilemma, who is insisting on principle of 'polluter pays' principle rather than the Kyoto Protocol's principle of 'Common but Difference Responsibilities'.

The strategy chosen by the EU as a leader to ratify the Kyoto Protocol is a rational behaviour to reach a consensus without a hegemonic power. To have flexible mechanism and insisting on "common but differentiated responsibilities" has shown that the EU chooses both Stag Hunt and persuasion strategy as a means to convincing its industrial counterparts in the Annex I and developing countries. Besides, the commitment to develop financial aids and technological assistance has its strategic importance for its climate diplomacy and economic cooperation with developing countries in the future. However, following the implementation of the EU ETS, the EU is likely to choose Prisons' Dilemma by employing the market-based instrument of including international aviation industry into its emission regulation regime, although it has caused international political and economic disputes, mainly from the U.S and China.

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Chapter Five: Conclusion

5.1 Summary

This study has examined European Union's climate policy in the nexus of domestic policymaking and international relations. In order to accomplish this, the interaction of EU's domestic policies and its international relation of climate change have assessed by the two-level games approach. Exogenous actors that have affected EU's domestic policy-making process have been discussed as the key to drive the EU climate policy into preferable policy outcomes. It is argued that, the external factors affected the preferences of EU actors. As preferences aggregated at the EU level (can be regarded as EU's commitments to the international negotiations), the EU's formal rules result the climate policies into more preferable outcomes. A rational choice institutionalism has been employed to examine the EU domestic policy make on climate change from the institutional side and preferences of actors' side.

As the starting point, the Chapter One introduced the conceptual framework for analyzing the relations between the internal policy-making and international negotiation of the EU. Assumed as a political system, EU's domestic policy-making interacts with its external policy (international negotiation) bridged by the EU's common positions. At the domestic level, as a given preference, EU's formal institutions (rules) shape its internal climate policy outcomes, which articulate to form a ground of reaching a common position for its international negotiation. The formal institutions include the formal policy making procedures and regime of the EU. At the international level, EU's given common position has affected by the international negotiations, which eventually influence the EU actors' given preferences, and re-shape its internal climate policy to a new outcome. The relationship can be illustrated as the Diagram 5 as below. The two-level chart represents a repeating cycle which there is no clear starting point, or ending one. The nexus of the EU's internal and external climate policy is a COMMON POSITION made by the Council of Ministers before the international climate events.

In order to simulate the two-level relations logically, I intend to test it separately. First, the EU's internal (domestic) climate policy making from both the INSTITUTION (ChapterTwo) and PREFERENCE (Chapter Three) was scheduled in the first part. Secondly, the conceptual two-level game on illustrating the dynamics between the EU domestic policies and international negotiation was followed.

In Chapter Two and Three, rational choice institutionalism as the methodology has been introduced to sketching EU's domestic climate policy making: where INSTITUTION as an independent variable constraining the policy outcome. Additional, PREFERENCE also is an intervening variable affecting EU's climate policies. A set of hypotheses have been initiated to verify my research question. Here, I argue that:

H1. The more convergent preference, the EU's Community Method and formal rules result a more preferable climate policy outcome.

H2. The more convergent preference, an effective entrepreneurship results a more preferable EU climate policy outcome.

H3. The more convergent preference, a membership results a more preferable EU climate policy outcome.

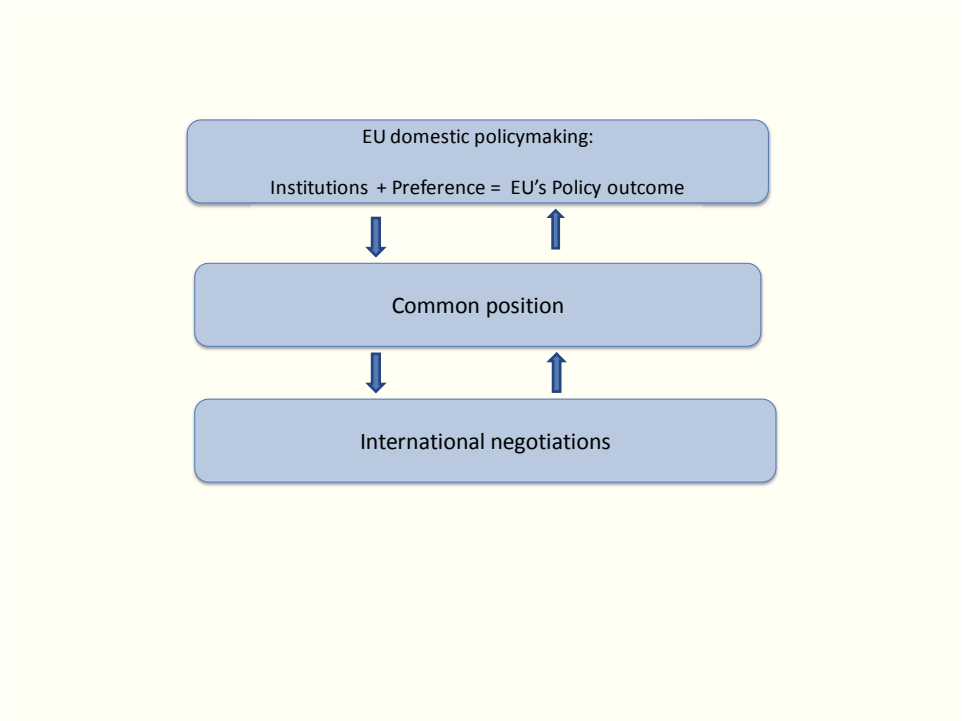
H4. Preference change occurs when the EU perceives new political and security challenges from external factors;

H5. The course of formulating a new preference at the EU level will interact with the EU institutions and drive the EU's internal climate policy into a new outcome.

H6.The more internal legal binding agreements made, the EU is more preferable to reach international climate agreement in a legal binding format.

H7.The more internal market-based instruments used, the EU is more preferable to push international climate negotiation into a market-based instrument.

Diagram 5: Simplified framework on two-level game approach illustrating the EU internal and external climate policy.



The Chapter Two has been focused on if INSTITUTION constrains EU's climate policy. It argued that as a variable, the INSTITUTION has positively resulted in EU internal climate policies into preferable outcome. Three sub-variables have been identified in supporting to examine my Hypothesis 1, 2 and 3.

First, I have tested that EU's formal rules have driven its climate policies into preferable outcomes. Mostly important, after the Maastricht Treaty in 1993, the qualified majority

voting (QMV) with co-decision requirement allow the Community speeding up its legislative procedures to result preferable policies. Though climate change is a cross-sectional issue, such as taxation, agriculture, transport, trade or internal market and even energy under the umbrella of EU policy strands, however, many instruments for climate change policies have been based on Article 175(1) EC *(Ibid.)*, which requires the qualified majority voting on co-decision procedure.

I agree with many scholars that, the change of decision-making rules partially come from the experience on failed carbon tax proposal in 1991/1992 on the requirement of unanimous voting over fiscal/tax issues. Therefore, the Maastricht Treaty amended the unanimous decision-making procedure on climate-related issue into a qualified majority voting of co-decision procedure, where the Parliament has a veto power to block on final amended text of a proposal. However, considering the preference of being always push the Commission into adopting more radical market-based instruments on GHG emission reduction, the veto-power of the Parliament can be neglected. Most importantly, the QMV with co-decision procedure denies the Member States' veto power in the Council, and decrease its indirect influence in the Parliament if there is majority consensus on the Commission's climate proposals.

The Amsterdam Treaty also had added weights on EU climate policy-making, in which identify that EU policy for climate change as single and fundamental issue against which the EU must tackle (COM: 1998/333). This implies to give the climate policy a priority status for the Commission to raise proposal afterwards.

Secondly, this has brought my next sub-variables to test INSTITUTION-OUTCOME hypothesis. By giving the power in agenda-setting, the Commission can select agendas according to its interest, involving other actors into the consultation process, taking expertise (particularly in ETS case), negotiating with and out the Commission till its proposal get approved. Besides, the Commission and the Council influenced by the international negotiation, has been playing a entrepreneurship to make the key milestone, such as the legally binding on emission reduction, the EU ETS etc. on the EU's agendas, and the Commission made a skillful package-deal to wrap climate and energy into a proposal passed by the co-decision making procedure.

Thirdly, the membership will be another sub-variable to formal rules resulting the policy outcomes on EU climate change.

In Chapter Three, I examined the Hypothesis 4 and 5 where different preferences toward regulating emission trading within the EU among the Community institutes, clustered Member States and industrial groups before and after the Kyoto Protocol. Before the Kyoto Protocol, the EU had an ambiguous position toward the inclusion the emission trading into the Protocol. On one hand, it opposed the idea and in favour of a common and coordination policies and measures for all member of the UNFCCC; on the other

hand, it accept the international emission trading as a negotiation compromises to industrial countries.

It is nevertheless clearly to be shown that, the divergent preferences did not reach an agreement on the emission trading until the withdrawal of the U.S from the Kyoto Protocol in 2001. I argued that the exit of the U.S from the Kyoto Protocol has been a major factor to push the EU taking a converged position to ratify the Protocol by passing its ETS proposal. The changed preference of the Community institutes and Member States come from the willingness to take a leadership in the UNFCCC negotiations and economic potential regarding to the adaptation the market-based emission trading scheme. The Commission took the opportunity to propose the ET bill backed by the Council and represented by the interested of Member States and industrial groups

The European Parliament had more radical version on emission trading who demanded a broader scope, mandatory auction in the pilot stage and centrialised allocation method on its readings on the Commission's proposal. However, under the pressure political urgency caused by the US pull out from the Kyoto Protocol, and willingness to take a leadership in the international climate negotiation, the Parliament converged its preference with the Commission, Member States and industrial groups.

Regarding to the hypothesis 4 and 5, the chapter has demonstrated that the exit of the U.S from the Kyoto Protocol in 2001 has been a major factor to motive the Council unifying the most of member states' preference on emissions trading in the EU and support the Commission proposed the ET directive bill in October that year. The political urgency had altered the Parliament's preference to make a compromised proposal in order to save the Kyoto Protocol before the 2005 and to ensure the European leadership in fighting against climate change at the international level. The majority qualified voting with co-decision procedure made the main opponent Member States, Germany and the UK converged into the ET proposal followed by the heavy campaigns of the Commission.

In Chapter Four, I explored the relations between the EU's domestic policy-making and international negotiation on empirical case study on EU emission trading scheme. With the two-level game approach, at the international level, all state-actors are rational (not necessary being utilitarian), who performance in the international climate change negotiations are interacted to its domestic politics. In other words, the domestic institutions and preference affect its position and bargaining power in the international negotiation, meanwhile, international outcome also influence domestic policy-making by shaping its institution and preferences.

At the international level, the EU has not taken a legally-binding target on stabilising emissions reduction until for the preparation of COP-3 in Kyoto of the UNFCCC. The political willingness was motivated by Member States' governments, industrial,

environmental support as well as the general public on the perception of climate threat. The preference was also articulated from its rational characteristics on energy concerns, economic competition and EU's unique policy-making method.

The rationality of the EU is also reflected to the exit of U.S from the Kyoto Protocol which opened the 'window of opportunity' for EU's policy makers walking away from the pressure of ratifying the Kyoto Protocol, and seizing it to put forward formulating climate policy, the EU ETS in particular at the European level. The competition of making a standardised policy in the international regime, such as an instrument for market-based emission trading has also been a factor for the EU to step forward after 1997 to sign the Kyoto Protocol. However, the pressure of ratifying the Kyoto Protocol has being bothered EU policy makers since the signature of it in 1997. This has a direct impact on EU domestic policy making. Meanwhile, EU's domestic policy constrains the EU and its Member States' position on whether or not to ratify the Kyoto Protocol as a legally-binding climate change regime.

Regarding to the domestic level, a legally-biding on GHG emissions reduction were preferred cross parties and countries due to the preparation of the Kyoto COP in 1995 for the first time at the European level. Although the EU internal climate policy making has followed historical trace on environmental policies, or sociological path built on social learning and broad consultation in different levels, it is however, with the unique qualified majority voting on co-decision procedure rules, the Community institutes have abilities to bypass the national legislative procedures, and making institutionalised framework on climate change issues at the European level. The Commission, the Council and the Parliament as well as leading Member Sates have been acting entrepreneurs to enlist the climate policy into top political agendas in the sense of speeding up the legislative process. Additionally, the internal financial arrangement and differentiated target-sharing agreement guaranteed that of all of Member States are in favour of the legally-binding of GHG emissions reduction. Carried on the common position of emissions reduction target, the EU has been negotiating in the international climate tables since the Kyoto Protocol in 1997.

At the international level, the rationality of the EU is self-interested and self-help, but not necessarily be unitary. The EU's interest is based on the perception of an increasing threat caused by the global climate change and the belief in the IPCC' scientific report, the EU and its member States are in favour of establishing an international cooperation (UNFCCC) on the legally-binding regime (the Kyoto Protocol). The idea of the Kyoto Protocol is that the regime can reduce uncertainties caused by defection (unlimited emissions) and asymmetrical problem (monitoring and transparency), and converge the expectation (reduce GHG emissions). The game theoretical model portrayed that the EU's strategy choice on international climate change is more alike Stag Hunt, but not quietly since she is still in the game of Kyoto Protocol while the U.S' withdrawal in 2001. With the development of the EU ETS in recently years, the EU's strategy is more alike of

choosing Prisons' Dilemma, who is insisting on principle of 'polluter pays' principle rather than the Kyoto Protocol's principle of 'Common but Difference Responsibilities'. The EU-wide legally binding on GHG reductions has made the EU and its Member States are favoured to have compulsory emission reductions target for others under the UNFCCC' Kyoto Protocol based on different historical industrial developing stage. However, the implementation of the EU ETS has driven the EU to push a market-based instrument to combating the GHG emission reduction in the international organisation whoever it comes. These findings are positively reacted to my Hypothesis 6 and 7.

In Chapter Four, I argued that the EU's strategy chosen as a leader to ratify the Kyoto Protocol was a rational behaviour to reach a consensus without a hegemonic power at the international level. To have flexible mechanism and insisting on 'common but differentiated responsibilities' has shown that the EU chooses both Stag-hunting and persuasion strategy as a means to convincing its industrial counterparts in the Annex I and developing countries in the Non-Annex I. Besides, the commitment to develop financial aids and technological assistance has its strategic importance for its climate diplomacy and economic cooperation with developing countries in the future. However, following the implementation of the ETS, the EU is more likely to choose Prisons' Dilemma by employing the market-based instrument to including international aviation industry into its emission regulation regime, although it has caused an international political and economic disputes, mainly from the U.S and China.

5.2 Added-value of the research work

The significance of my research, as presented in Chapter One, is two-fold. Firstly, I applied rational choice institutionalism as the analytical model to test the interactive relationship between PREFERENCE, INSTITUTION and European climate change policy OUTCOMES for the first time. The added-value of my research has come from the method I examined. I hypothesized three sub-variables, namely the EU's unique decision-making procedure, the entrepreneurship and the EU's membership, to test the relations independent variable of INSTITUTION to dependable variable of POLICY OUTCOMES.

Secondly, I examined the relations of EU's internal policy-making and its external climate negotiations by applying two-level game approach. The Game theory stimulated the EU's stance at the UNFCCC's climate negotiation. My work argues that the approval of the EU ETS has fatally been affected by the U.S' withdrawal from the Kyoto Protocol negotiations, and as the turning point, to accelerate the EU climate policy into a market-base instrument direction. The pioneering findings of the entire research work is the EU ETS has its visible weights on influencing the pattern of the international climate negotiation by inclusion of the aviation industry into ETS in 2008. The inter-action of internal and external climate policy could never be better to be portrayed by the development EU ETS.

As the principle of "pay as pollute", the EU has been acting as a rational actor to perform its climate policy internally and externally.

5.3 Limits of the research work

5.3.1 Limits on theoretical approach applied

Since the rational choice has been applied in my thesis, the critics will be bound to either with the approach or the issued covered.

As Pollack (2006) explains, the rational choice approach should be satisfied three elements to apply, first, the methodological individualism; second, actor's utility-maximization; finally, strategically constrains on individuals choice. In the case of the EU politics, it is still controversial over if EU should be treated as a "political system". It not, then the individualism will fall into a blindness on rational choice approach.

Secondly, one might argue that the EU is not qualify to be a utility-maximization pursuer since EU' climate policies have stemmed from environmental one where were mostly reached by social norms and consensuses between national governments and industries, for example, the massive voluntary agreements existed in Germany. The 'logic of consequence' do not really reflect the nature of development EU's environmental policy as a whole, whereas the "logic of appropriateness has been followed to guide actors' behaviours on belief of ' the power of better argument than calculating of utility of alternative course of themselves' (Risse, 2000). In this sense, the actor's strategically choosing has lack of significance.

The most vital critique on rational choice approach is, as Christiansen et al (1999) conclude: due to the fixed preferences, the approach assumes that the actors only can be influenced by exogenous factors, and thus, neglect the nature of endogenous changes which have been taken quite common in the EU integration process. Retrospect to history of EU's climate policy development, the internal factors, as discussed in the Chapter Four, such as the economic down-turn in early 1990s in the EU, the electoral concerns in certain member states, awareness of higher environmental standards have also been crucial to affect EU climate policy outcomes.

5.3.2 Limits on scope of objectives

In this study, the relations between the EU's internal policy making and international negotiation on climate change have been mostly concentrated on the EU's internal policy making side. It is however, as same as important that the international negotiation, which are involving different international institutions and varied preferences of actors. Due to the complexity of the international climate regime and large number scale of

international actors involved, I merely put my efforts on analyzing the EU's strategic choice regarding to the results from the international negotiations, and the time series has only included, in this case, before and after Kyoto Protocol of the UNFCCC.

Additionally, the research has not further explored the nature of EU's external representation in the international organisation, for example, the UN, WTO etc. The unique structure of external representation for the EU has not only impacted on the EU bargaining power in the international climate negotiations, and but also affected its internal coordination on decision-making process. For instance, the internal climate policies have been driven by the Commission's conducts between its DGs, national governments, Community institutes and industrial groups. The Common Position at the international negotiation will be reached by the Council of Ministers or addressed by the President of the Council. Alongside the new Directorate-General for Climate Action ("DG CLIMA") established since 2010, it is worth to take research on how the current dilemma will be dealt with new institution.

Since the climate change has integrated into the pool of foreign policy in the EU, the "troika" format has been changed with the brand-new External Services under the Lisbon Treaty since 2010, it is also important to study on how the 'control and cooperation' mechanism will be likely to continue in the EU's internal policy making and external climate negotiation.

5.4 Future research

There are several areas deserve to be worked on in future regarding to the EU climate change policy in the nexus of internal and external dimension. Firstly, it is the role of the European Parliament. Through my research, it is clearly that the INSTITUTIONs do shape the policy outcomes in terms of EU's qualified majority voting with co-decision making procedure. With the support of the Council and the Parliament, the Commission has explored its opportunities to take entrepreneurship to convey varied actors reaching a preferable climate policy.

Internally, the European Parliament has been tangible evidenced on its "radical" image on pushing the EU into a higher ratio reduction target on GHG emissions, broader-sectors covered and fully operated market-based EU ETS. Externally, the Parliament has been more active than any other issues caught by MEPs to participate. However, there have been less empirical studies on how the European Parliament plays its role as a co-decision maker in assisting or objecting EU climate bills. The reason to further explore the Parliament's legislative power would be accumulate acknowledge to the EU's decision-making process.

Secondly, as mentioned before, it is worth to study on the cohesion and coordination of the newly established the DG Climate Action and EU External Services in exploring the

relations of internal climate policy-making and external negotiation. With the operation of the EU ETS in 2012, it is particularly true for the EU on how to take the two-blade sword to deal with others in the international climate negotiation since the aviation inclusion with the EUS has trigged disputes between the EU, its member states and the third countries.

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