UNIVERSITY OF OREGON

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THE EU'S CLIMATE POLICY

Overview and Analysis

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1 Exordium

The EU was born more than 50 years ago, as the European Coal and Steel Community. Its main goal was to secure peace between France and Germany by placing production of coal and steel under a common High Authority. This brilliant and prudent idea worked out perfectly and has given countries within the Union more than 50 years of peace.

Everything apart from that in the European project might be considered less succesful, but has been, for sure, slower. Being considered a Economic Integration Organization it took more than 30 years to surpass all the existing obstacles (including obstruction by member states) and have the common free market fully operative. Common rights known as the "European citizenship" were not officially recognized until 1992. The political Union, the final goal of creating a European State, is far from being real, we all remember the failure of the European Constitution in 2005 after the French

said "no." However, this Union aspires to be a key participant in Climate gobernance, as it has competence in environmental matters.

What can we expect from a this kind of organization fighting against climate change? What is the EU doing inside its borders? What are the problems so far? What will the EU do in the incoming Copenhaghen summit?

2 Roadmap

To answer those questions I have divided my talk into 3 sections:
Firstly I'd like to talk about the different climate policies put in place by the EU
Next, I want to analyze the main problems and failures existing on those policies.
Thirdly, I'll go over the role the EU has to play in Copenhagen.
If you have any questions I'll be pleased to answer them at the end of my talk.

3 EU climate policies

First of all, I want to review some of the main climate policies the EU has adopted. On December 17th the European Parliament passed the so called "climate package." I will try to include the changes included in this fundamental piece of legislation during mi exposition.

3.1 EU ETS

3.1.1 Current EU ETS

The most famous instrument and "flagship" of the EU Climate action is the EU Emissions Trading Scheme. It is a cap-and-trade system, in fact, it is the first experience of a cap-and-trade system of such a big size. Most of you will probably know what cap and trade means, but I'd like to explain that for those of you that are not yet climate policy geeks. Such a system caps the overall level of emissions but, within that limit, allows participants in the system to buy and sell allowances as they require. These allowances are the common trading 'currency' at the heart of the system. One allowance gives the holder the right to emit one tone of CO2 or the equivalent amount of another greenhouse gas. The cap on the total number of allowances creates scarcity in the market.

But a cap and trade system allows very different design options, apart from how high or low is the cap set: How are allowances distributed: for free or auctioned? How long will each trading period be? Will "banking" the allowances from one period to another be possible? Who can participate in the market, buying and selling allowances? What flexibility mechanisms will be allowed in the system?

Lets go through the main features of the EU ETS:

1) The EU ETS was adopted after an extensive period of discussion and meetings with stakeholders. The ETS was created by Directive 2003/87/EC. Another Directive, the 2004/101/EC, linked the ETS with the Kyoto system, because the ETS was designed to exist on its own, even if Kyoto protocol had not came into force. A directive is a binding instrument of EU law that has to be implemented by the national legislation of the member states to gain applicability.[1] This is consistent with the subsidiarity principle that governs the EU. Different national rules govern the ETS, but some aspects of it, such as the registry system, have been addressed by a regulation, which are directly applicable to all States without any implementation.[2] All 27 Member States are part of the system, as well as other countries that are not part of the EU: Norway, Iceland and Liechtenstein.
2) What is the timing of the system? The first phase began before the Kyoto commitment period, from 2005 to 2008. The second phase of the program coincides with the Kyoto commitment period, from 2008 to 2012. The current third phase of the program, from 2013 to 2020, has been regulated by the latest reform to the ETS Directive on December. Allowances are issued annually, but are valid through the whole trading period. Allowances from the first trading period were not valid in the second trading period, which had some negative consequences that we will see later.

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[1] Treaty establishing the European Community. Art 249: (…) A directive shall be binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods.
[2] *Id*. Art 249: (…) A regulation shall have general application. It shall be binding in its entirety and directly applicable in all Member States.

3) Scope: The program focuses only on Co_2 from large emitters in the power and heat generation industry and in selected energy-intensive industrial sectors,[3] listed in Annex I. It currently covers over ten thousand installations in the energy and industrial sectors that are collectively responsible for close to half of EU´s emissions of CO2 and 40% of its total GHG emissions. An amendment agreed in July 2012 will bring aviation to the sector in 2012. However, participation in the carbon allowance market is not limited to regulated emitters. Article 19.2 of the ETS Directive clearly establishes: "any person may hold allowances." This means opening the market to a wide range of participants, not only brokers trying to make profit but also environmental groups buying allowances to take them out of the market.
4) How is the cap determined? In the first two trading periods the cap was determined by the National Allocation Plans. These plans, elaborated by each member states, decide the total amount of allowances that it intends to allocate for the period.[4] The NAP should be consistent with the Country's Kyoto target.[5] The countries targets under Kyoto where reassigned on the EU bubble. This means that instead of having one Cap for the whole EU, 27 different caps exist in one common allowance market.

   The NAPs in the first period are generally agreed to have given an excessive amount of allowances, giving rise to some of the problems that I will explain later in my talk. The Cap for the second trading period is 6% lower than the 2005-2007 emissions, according to the European Environment Agency. A number of Countries (including the Czech Republic, Estonia, Hungary, Latvia and Poland) challenged in Court the Commission's decisions on their caps, arguing that those Caps would damage their economy.

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[3] European Comission, «EU action against climate change. EU emissions trading: an open system promoting global innovation.,» *European Comission Webpage*, 2007, ec.europa.eu/environment/climat/pdf/emission_trading3_en.pdf (accessed 11/2/2008). Pg 7.
[4] *Id*. Art 9.1
[5] *Id*. Annex III. 1.

5) Distribution of the allowances from the government to emitters: Allowances are generally allocated free of charge (at least 95% in the 2005-2008 period, and at least 90% in the 2008-2013 period). The allowances are distributed by the NAPs, approved by the Member States. Auctioning allowances would mean that all the emitters under the "cap", should bid in the auction in order to purchase the necessary permits. We can imagine the great amount of money that could be raised through these auctions, and the very interesting potential uses of that money. No matter the advantages of auctioning, during the first period hardly any auctioning was carried, in most countries 100% of the allowances were allocated for free. As we can see in the figure only Denmark, chose to auction the maximum amount during the first trading period. Auctioning only represented 0.13% of the total EU ETS allowances. During the 2008-2012 period 3% of allowances are expected to be auctioned, while up to 10% was possible.
6) The enforcement authority is held by the member states. However, minimum penalties for non compliance are established: operators who don't hold enough allowances will have to pay 100 Euros per tone, which is an important amount, considering that the price of carbon is 10 Euros per tone,[6] their names will be published and will have to cover those emissions with allowances in the following calendar year.
7) Finally, the EU ETS adopts a "downstream approach", it regulates direct emitters. An "upstream approach" would focus on the points where carbon enters the economy.

3.1.2 Reforms to the EU ETS

On December 17th the European parliament adopted the amendments to the ETS for the post 2013 period.

These are the main changes:

[6] http://www.pointcarbon.com/

1) Firstly, there will be one common EU cap: The starting point will be the annual average of allowances in the 2008-2012 period. The cap will have a 1.74% linear reduction per year, to arrive to a 21% reduction in ETS sectors by 2020.
2) The distribution of allowances will also be different: Auctioning in the electricity sector will rise from 30% by 2013 to 100% in 2020. In the other sectors covered by the ETS 20% of the allowances will be auctioned in 2013, 70% by 2020, arriving at 100% by 2027. All auctions will be open to any potential buyers. Member States will determine the use of revenues generated from auctioning. They have already shown willingness to use half of that amount for mitigation and adaptation policies.[7]
3) Any free allocation will be governed by common European rules. In addition, the possibility of 100% free allocation for those sectors with risk of carbon leakage is established. Carbon leakage means the risk that carbon emitters that may go to a third country where no CO2 reductions would be necessary.
4) The scope of the ETS will be increased: In 2012, aviation will be included. In addition, new sectors and gases to be included after 2013 will make EU ETS cover around 40% of total EU emissions. On the other hand, member states will have the possibility to opt-out small installations, those with emissions lower than 25000 tones of CO2 equivalent, as long as reductions are obtained through other measures. The Commission's proposal calculated a saving in administrative costs of 4.2 Euros per tone excluded from small emitters.
5) As to the connection between the ETS and the international sphere: Credits from Joint Implementation and Clean Development Mechanism projects are limited to 50% of EU-wide reductions. If an international agreement is reached, only ratifying third countries would be eligible, with an exception for projects specifically approved by the Commission. The reformed ETS will allow links with other emission trading systems. Those links don't need to be with a whole country, they can be with an "administrative entity". This would mean that mutual

[7] Presidency conclusions. Energy and Climate Change. Brussels, 12 December 2008. Para 8.

recognition of allowances could include systems within US States, such as the Regional Green House Gas Initiative and the Western Climate Initiative.

3.2 Other EU policies

Having looked at the ETS, I'd like to focus briefly now on other EU climate policies.

3.2.1 Non EU ETS sectors

For sectors not included in the ETS, which amount for 60% of total EU emissions, the "climate package" includes a new mechanism called "effort sharing". This system will set binding national targets that will lead to a 10% emissions reduction below 2005 levels by 2020. For instance, while Germany will have to undertake 14% reductions, Bulgaria will be allowed an increase of 20%.

3.2.2 Renewable energies

The EU has a target of renewable sources producing 20% of EU's energy consumption by 2020. Directive *No .../2009/EC* of the European Parliament and of the Council on the promotion of the use of energy from renewable sources, as came out from the parliament, establishes the different targets for 2020: the lowest, 11%, imposed to Luxemburg, to the highest, 49%, for Sweden.

Renewable energies (biofuels, electricity and hydrogen produced from renewable sources) shall account for at least 10% of the EU's total fuel consumption in all forms of transport.

3.2.3 Energy efficiency

The EU has the goal of increasing energy efficiency a 20% by 2020. To this end, the Commission has adopted different technical requirements to equipment. One of the latest policies, in which I worked on its implementation by the bask government, has been to require developers to analyze energy efficiency of the buildings, so the buyer has that information in an easily-understandable format.

3.2.4 Reducing Co2 emissions from new cars

The EU adopted new performance standards for car passengers. Regulation *(EC) No ../2009* of the European Parliament and of the Council setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO2 emissions from light-duty vehicles. This Regulation establishes that the average new car fleet should achieve CO2 emissions of 120 g CO2/km, compared to 160gçkm nowadays. *From 2020 this Regulation sets a target, for the new car fleet, of average emissions of 95 g CO 2 /km, in accordance with Article 13(5)* .

Manufacturers will have to comply with 65% of their fleets in 2012, 75% in 2013, 80% in 2014 and 100% from 2015.

3.2.5 Less GHG emissions from fuels

In addition, the fuel quality directive has been revised. It will require fuel suppliers to reduce GHG emissions caused, not only by combustions, but also by extraction or cultivation, transport, distribution and processing, of transport fuels of up to 10% by 2020.

3.2.6 Carbon sequestration and storage

Lastly, as part of the climate package, a directive to promote Carbon Sequestration and Storage was passed. It sets the framework for possible future use of technology that would allow capture of CO2 and store it "permanently and safely underground," that is the term of art used I think. Twelve demonstration projects were ensured funding by allocation of 300 million ETS allowances.

3.3 Summing up policies

Well, I think that's all I want to say on climate policies adopted by the EU.

4 Problems and failures

Right, let me turn now to the analysis of the problems and failures of the policies. I will focus on the ETS, as is the first big example of a cap-and-trade system. Therefore it is a

very interesting precedent for setting up such a system elsewhere. President Obama included a cap-and-trade in the US as part of his climate policy, and regional cap-and-trade schemes have been established by groups of US states.

4.1 Criticism

The opinions about the results of the ETS can be separated into three groups: total success, partial success, complete failure.

1. Believers of the total success are leaded by the European Commission, which shows that a father will always be proud of his son. They pay little attention to the real reductions so far, and focus on the potential of the ETS and its reform. They also focus on the worldwide innovative nature of the ETS, which will make Europe "lead the way" (slide with the front page of "Europe leads the way") on global climate change mitigation.
2. Complete failure advocates focus on the, allegedly, small or no reductions during the first trading period (the only one we have results from so far). The NGO "Climate Action" defined the caps as a "major disappointment." Representative DeFazio has also joined this group in an article titled "The wrong road to reducing emissions". He wrote, focusing on the free access to the carbon market:

"Speculation has been ruinous in Europe where a cap-and-trade system was implemented in 2005. Unregulated entities are profiting at the expense of regulated businesses by buying up credits to pollute, hoarding them until the price increases, and then selling them for inflated returns. The result? Greenhouse gas emissions continue to rise despite $60 billion worth of credits being traded in the lucrative European market each year. The cost of business is rising and consumers are paying the premium."

Criticism also comes from the other political views. In an article titled "Lessons from Europe" three, kind of conservative, think-tank fellows wrote:

"The rhetoric from the EU may sound nice, but when it comes to translating words into action, Europe has shown that the job is harder than it looks. (…) The European Union

has had a cap-and-trade scheme for greenhouse gas emissions in place for several years now, but has failed to make much dent in emissions.

The scheme has been repeatedly gamed and manipulated by industry and governments so that emissions have actually increased faster than the those of the United States, with none of the big reductions promised materializing. Industries have enjoyed windfall profits from emission credit trading (…). For everyone else, however, results have not been so happy. European households have seen electricity bills rise. Europe has become more dependent on Russian gas."

3. Those with moderate excitement on the performance of the ETS recognize the small environmental benefits on the first phase. However, they argue that the goal of this first phase was to successfully implement the program, rather than achieving great emission reductions. The Design Recommendations for the Western Climate Initiative Regional cap-and-trade program (an initiative among western US States and Canadian provinces) agrees with this vision.
4. I identify myself with this last view. While the first phase had no big effect on emissions, I believe that with the second phase National Allocation Plans, and specially, with the post 2013 reforms, results will start to be achieved.

4.2 Problems

However, failure or success is, to some extent, a subjective determination. Lets turn now to the facts and analyze some of the problems observed on the system, which are very useful when thinking on new cap-and-trade initiatives.

First of all, I would like us to focus on the actual EU emissions, obtained from the 2008 GHG inventory report sent to the UNFCCC secretariat. EU countries agreed to reduce emissions 8% in the 2008-2012 period. Assuming a linear reduction pattern from the base year, 1990, the EU was way above the target path.

When we get to the individual country GHG emissions, we can observe that some of them are near its target in the EU "bubble": for instance, Germany with 18% reductions and a target of 21%. Other Countries are clearly failing on their target. That is the case of Spain, that was allowed an increase of 15% on GHG emissions, but its

emissions had already increased a 50% since 1990. Generally, ex-Soviet Union countries, which became members in 2005 and 2007, help to make the overall EU 27 targets look better.

However, according to the 2008 report from the European Environment Agency "projections from Member States for 2010 suggest that the (Kyoto) target will be met by a large margin through further implementation of existing and additional measures, use of carbon sinks and Kyoto mechanisms. Furthermore, the EU ETS will bring important further reductions, which are not yet fully accounted for by Member States in their projections."[8] So, maybe there is still some hope with the system.

Having looked at emissions facts, the problems with the ETS during the first phase can be summarized as follows;

1. Firstly, there are a number of problems related with the allocation procedure. The National Allocation Plans distributed allowances between emitters and set the caps. Having 27 different caps in the system has proven to be clearly environmentally ineffective. No State wanted to set a low cap, as that would represent a competitive disadvantage for emitters in its own territory. In addition this over-allocation of allowances also leaded to market failures, such as extremely low carbon prices as soon as precise emission data became available.
2. Secondly, the different criteria adopted in free allocation of allowances, determined unfair consequences for emitters in different states: some sectors would receive more allowances in one state, but less in other.
3. In addition, criteria on determining free allocation generally focused on historic emissions. That would mean that the one that polluted more in the past, will be receive more credits to pollute in the future.
4. Thirdly, free allocation also creates the so-called "windfall of profits". Electricity consumers notice an increase on their bills, while electric generators are receiving

[8] EEA 2008 report. Executive summary. Pgs 3-4.

allowances for free. Consumers believed that power generators were improperly adding the costs of freely allocated allowances to their electricity costs. Therefore, the system was causing unfair prejudice to consumers, while generators faced no major additional costs.

5. Finally, a problem related with effectiveness arises. The system regulates emitters; it adopts a so-called downstream approach. Denis Hayes, president of the Bullit Foundation, summarizes the possibility of adopting the opposite approach really well:

"In contrast to regulating a sea of smokestacks, the best course is to require carbon permits at the 2,000 sources where carbon enters the economy. It would be simple, straightforward, and impossible to 'game.' It is vastly more effective than trying to police carbon dioxide wherever carbon is burned. In setting the number of carbon permits issued — and thus determining how much coal, oil, and gas can enter the economy — the government would be setting an absolute, easily-enforced cap on emissions."[9]

The first problems have been addressed by the reform, establishing a common cap and increasing auctioning from 2013. The possibility of regulating those who enter carbon in the economy, remains so far, in scholarly articles and policy papers.

4.3 The reality equation

Another problem with the current climate policies is the so called: "reality equation":

We have the ambitious climate package, we add the worldwide economic crisis and as a result we have a big question sign. Another thing would be what should happen…

[9] Denis Hayes, «Climate Solutions: Charting a Bold Course,» *Yale Environment 360*, 6/10/2008, http://e360.yale.edu/content/feature.msp?id=2026 (11/3/2008).

5 EU role Copenhagen

Having looked at the EU climate policies and major problems with the ETS I'd like to focus briefly in EU position in Copenhagen. The Commission issued a declaration on January 28th called "Towards a comprehensive climate agreement in Copenhagen".

Firstly, regarding developed countries' reduction targets. The EU ha committed to a 30% reduction at 2020 in the context of an international agreement, the rest of the developed countries should do the same. This is consistent with reduction targets 25% - 40% by 2020 and 80% - 95% by 2050. Determination of individual country targets should be based on: GDP per capita, GHG emissions per unit of GDP, GHG trend 1990 – 2005 (recognizing domestic early action), Population trends 1990-2005 (to consider the link between population and emissions).

Binding emissions should be expanded to all countries in Annex I to the UNFCC, all OECD members and all present and future members of the EU (this could include Turkey, as it has the candidate country status).

Regarding commitments for developing countries, the Commission issued an opinion that will very likely be polemic in Copenhagen. In the Commission's view, developing countries emissions have to be limited its growth to 15% - 30% below business as usual by 2020. All developing countries should establish national low carbon development plans for 2011. Robust plans shall be a requirement to entry the international economic support for mitigation actions. A facilitative mechanism for mitigation will provide technical assessment and determine whether the plan is ambitious enough to achieve the emissions reductions of the group of developing countries. An international registry should list all the plans, their objectives. Objectives will be reported, monitored and verified. If combined mitigation efforts are insufficient, by 2016 the climate change conference should set national ambition levels.

To fund climate change mitigation and adaptation in developing countries, the EU will impose kind of carbon tax. The EU will sell emission allowances at a fixed price to Member States: from 1 euro per tone in 2012 to 3 euro per tone in 2020. Raising 13

billion in 2013 and 28 billion in 2020. However, this initiative alone however, falls short from the "incremental level of annual investment and financial flows of about US$ 50 billion needed for adaptation in 2030," according to a recent study commissioned by the UNFCCC secretariat.

This position will be faced with those from other developed countries and different views from developing countries, especially China. In my opinion, a joint leadership between USA and the EU is desirable, or even necessary, to conclude with a satisfactory agreement in Copenhagen.

6 Conclusion

To sum up the whole talk, I believe that the take-home message is the following:

- Cap-and-trade is *ridiculously* complicated
- Cap-and-trade *alone* does not solve the problem
- *However*, cap-and-trade help to change the paradigm and helps the adoption of other policies

I'd like to conclude making reference to what I said in the beginning of my presentation. The EU has been very efficient in managing and maintaining the peace. But it was the US intervention that took us to that situation more than 50 years ago. I believe that in the upcoming Copenhagen conference leadership from the US will be essential to achieve the difficult goals ahead. And the EU and US would have to include all developing nations in the plan, if we want to declare victory over the present crisis

I'd like to thank the EU that has provided some free stuff that can be picked in the table near the back door. But most importantly, thanks Professor Kravchenko for this inspiring opportunity, thank Land Air Water students for this incredible conference is really an honor to be part of it and thank you all for seating, listening, and somehow, caring for our earth's climate.

As the British philosopher Francis Bacon said, new problems require new solutions, because time, my friends, is the greater of the innovators. So, it is our duty to be innovative and passionate to be able to defeat Climate Change. Thank you all very much.