

Governing globalisation. The energy debate between nature and macroeconomic issues

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1. *Introduction*

Since the 80s, climate change has been central in the cultural and political debate, involving disciplines like natural science, economy and international relations.

This main result, the Kyoto protocol to the UNFCCC, was first signed in 1997, two years after the WTO came into being. There is not a simple closeness in time, both agreements are aimed at governing a globalised world and are therefore part of one strategy.

The WTO provides a frame of rules for an economic activity not limited in space. Kyoto introduces a general philosophy – clean, conservative – and outlines a prescriptive path to the industrial sector.

By imposing severe limitations on CO₂ emissions it establishes for the first time in history a control scheme basically extended to the whole planet (although it has not been globally enforced up to now). It makes a selection among fuels, types of industrial plants, and products, operating at all levels: planet, nation, region, company, and even individual (under a bill introduced to the English parliament).

A sort of planned economy is thus imposed, which is made up the same forces – cultural, economic and political – that opposed the centrally planned economies during the cold war. This is again motivated in the name of economic freedom, a contradiction that would deserve more attention by the academia.

As we all know, the energy sector is basic to all human activities and originates an uninterrupted chain of linkages crossing the entire economic system (Fig. 1). It is central to the notion of industrial revolution, so that we can divide human history in accordance with the kind of energy sustaining the society. In this view the Kyoto mechanism is revealing itself as a sophisticated tool that gives to its administrators the key to potentially control all aspects of our life.

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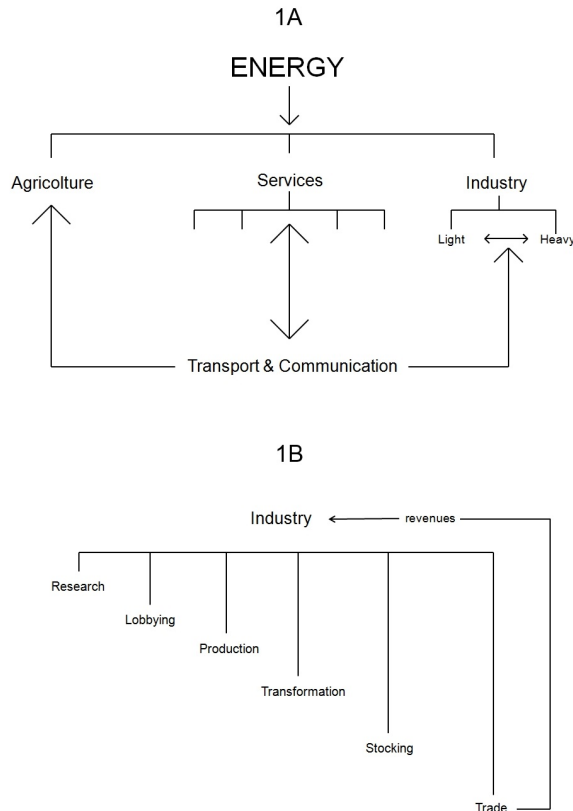


Fig. 1 – The Role of Energy in the Economy (A) and the Oil Industry (B).

Source: personal elaboration.

2. The epistemological question

We came to this point as a consequence of a paradigmatic change. At the origin there is a change in the perception of man-nature relationship. The determinists of the 19th century saw the cause of man's problems in the environment, a vision shared both by laymen of enlightened heritage and religious scholars, following the dogma of a nature not friendly to humans because of the original sin.

To come to a more harmonious view, that of the human landscape as a form of equilibrium between man and nature, we had to wait for Vidal de la Blache on the humanistic side and the progress of plant ecology on the biological one (Clements, Shelford, 1939).

In the second half of last century the pendulum shifted again, this time towards a complete opposite view, never experienced in history before. The Darwinian thought had placed man inside nature and no more above it. A hundred years later emerged the idea that man is just a component of the ecosystem that had gone out of control. As a consequence, what needs to be governed is man rather than nature.

Absolutising natural processes (but disregarding their time limits, because of their cyclical nature), the emphasis was placed on the preservation of existing equilibria. It was deliberately chosen not to invest in mitigating the effects of phenomena like global warming, to focus on the presumed causes, embracing the idea that human actions are prevailing over those of nature.

3. *The climate debate: an updating*

Much to their regret, at the turn of the millennium the prophets of global warming have been witnessing a tangible stopping in the dynamics of temperatures foreseen by mathematical models. Despite the continuous increase in atmospheric greenhouse gas (GHG) concentrations, this hiatus is prolonging, thus posing the question whether earth is getting warmer or cooling. In this situation one could expect from them a rethinking of their basic assumptions, as it is advocated by many critical voices (Lévy, 2008). Oddly this has not happen and the attitude has remained the same, the non-believers being simply qualified as “not scientific” (Lockwood, 2010)¹.

At a first glance, a tentative understanding would question self-esteem, preventing men of science from dropping their intellectual creations, yet there are other considerations. In the Anglo-Saxon countries plenty of scholars have launched a new branch of knowledge, the so-called “climate science”², whose present and future reliability is deeply linked to global warming and its current interpretation. Moreover, a revision of the cause-effect relationship assumed mainly at the bases of their work would evaporate the motivation of a global change in energy industry that is sponsored yearly at the UN conferences by several countries and a mess of NGOs.

The unpredicted climate behavior is therefore threatening two big clusters of interest that have been built on the assumed hypothesis. J. Lovelock, the 94 year-old chemist of atmosphere universally known for his “Gaia” hypothesis (1975), who reverted his assertions about man’s role in climate in 2012, denounced it clearly. “Take this climate matter everybody is thinking about it. They all talk, they pass laws, they do things, as if they knew what’s happening. They just guess. And a whole group of them meet together and encourage each other’s guesses”³.

¹ See Lovelock and Froehlich. This does not prevent the author to forecast cold winters, but only at regional scale (Lockwood, Harrison *et al.*, 2011; Lockwood, Owens *et al.*, 2012).

² To be true, it is a set of applied disciplines – climatology, meteorology, oceanography, astronomy, etc. – unified only through the common goal (just like the case of medicine). A comprehensive study of the matter would require the competence of others specialists, like archeologists, historians, plant biologists, and geographers.

³ Relating to his 2006 book *The Revenge of Gaia*, in an interview to the Guardian he affirms “I was ‘alarmist’ about climate change and so was Gore! The problem is we don’t know what the climate is doing. We thought we knew 20 years ago” (www.climatedepot.com/2014/04/23). The website contains plenty of statements, appeared outside scientific publications, released by distinguished scientists opposing the mainstream opinion.

Sure, Lovelock is an odd scholar, used to working alone better than in a group. “I’m an independent scientist. I’m not funded by some government or commercial body or anything like that. If I make a mistake I can go public with it. And you have to because it is only by making mistakes that you can move ahead” (Lovelock, 2007).

A different case is that of S. F. Singer, a pioneer of space research who took the leadership of the “negationists”, founding in 2004 the *Non Governmental International Panel on Climate Change*. Together with F. Seitz and W. A. Nierenberg (the first big physicist to challenge as early as 1983 the emerging consensus on global warming), he has been accused of spreading doubt and confusion about the truth on a series of key scientific issues, especially global warming. Particularly aggressive has been N. Oreskes, a geologist turned to science historian, who attacked the three scholars in a series of papers (2003, 2004, 2007, 2008), later expanded in a book (Oreskes, Conway, 2010). Not being a climatologist, Oreskes examines the behavior of the three from an historical side, discrediting them as a “small group of cold war ideologists” who misuse their scientific credentials and authority⁴.

As we have all been accustomed to, the question has been degenerating into a sort of religion war that both parties are fighting without moderation. Think at the so-called “climategate”, the email theft from a server of the University of East Anglia and disseminated worldwide in two rows, just a few weeks before the UN conferences in 2009 and 2011. The attitude towards the information directed to the media has been dividing scientists. Much sensation was produced by the case of Landsea C. dismissal from the IPCC in 2005, because of a serious manipulation of his scientific contribution concerning the relationship (not existing, according this scholar) between climate warming and hurricanes⁵.

In the US and UK academia the quarrel seems to have taken the character of a clash of generations. The “old lions”, relying on solid learning, intellectual brightness, long experience and linkages with traditional political élites, are opposing younger scholars willing to change the world thanks to their calculations. Indeed, among the preeminent “negationists” there are some retired scholars, often not very active in research (for Italy, see A. Zichichi). They are in the privileged position to be able to review scientific papers, and can afford to express their beliefs without considering the impact on career and research funding. Also, they have plenty of time to go on the media.

⁴ What is puzzling in these papers is the absolute trust in the truth conveyed by the IPCC scholars, in contradiction with the beliefs she expressed earlier in some methodological papers. “The validation of a model do not mean to imply that it is literally true... They simply mean that it is not evidently false” (Oreskes, 1998, p. 1456); and more: “scientists should eschew long-range detection previsions, which are likely to be erroneous and may damage the credibility of the communities that generate them” (Oreskes, 2003, p. 13). It is an evident case of “conversion” to the cause.

⁵ <http://cstpr.colorado.edu/prometeus/archives>.

In the fray entered journalists and even writers. In his bestseller *State of Fear*, J. Crichton suggests that environmental threats have been chosen by the ruling élites, who base their dominance on forced public consensus, as a new “enemy” to point to after the fall of Soviet Union. It is the same subject, or better its reversal, used by Oreskes, who claims from her side that cold war ideologists have found in the environmental movement a political substitute for the Red Army. So really around the climate question a sort of psychological warfare is being fought. Undoubtedly, the communication and the relationship with the media are playing a key role in the matter⁶, as is revealed in some dissertations directed by the author (Da Ros, 2011; Knez, 2009).

Statistical investigations reveal that those who dare to deny anthropogenic global warming is a tiny minority (Cook *et al.*, 2008)⁷, but now the verified hiatus in global warming reopens the debate (Bernardi, 2008; Ortolani, Pagliuca, 2009). Hence the need to reconcile anthropogenic climate change theory with the observed temperatures (Kaufman *et al.*, 2011), otherwise the claim of scientific superiority based on peer-review papers would prove an inadequate cover for an unsustainable theory. Now the tendency is to explain facts as trivial statistical anomalies that do not invalidate model predictions, the speed bump in rising temperatures being considered as simply reflecting the short-term natural fluctuations of climate (Cai *et al.*, 2014; Forster and Rahmstorf, 2011; Kaufman *et al.*, 2011; Kosaka and Xie, 2013; Lovelock *et al.*, 2011; Lovelock, 2006; Sang-Wook *et al.*, 2011; Schatten *et al.*, 2010; Trenberth *et al.*, 2002).

4. *The geographical range of Kyoto Agreements*

Whatever the origin and the dimension of climate change, the Kyoto protocol came into force in 2005, with a commitment period from 2008 to 2012. It was signed in 1997 by 191 countries, but only 83 confirmed this will in 2004, and of these, only 27 took binding engagements. The most surprising absence was that of USA, until then the main sponsor of the treaty. As for Russia, it ratified the protocol at the very last minute (November 2004) making so possible to reach the requested majority of emissions in order to have it enforced. This was the result of a bargain with the EU: the signature against the support to Russia entry in the WTO on favourable conditions, being classified a “developing country”.

Outside Europe, there were only Japan and the three white members of the Commonwealth (Canada, Australia and New Zealand), e. g. the closest

⁶ Given the activity of so many critical websites, in 2010 a Climate Science Rapid Response Team initiative was created, to link top climate scientists with the media (www.thinkprogress.org).

⁷ Indeed it is hard to accept that 72.9% of peer-reviewed scientists are endorsing AGW, after reading that this position is shared by 742 names out of a list of 29,118 authors. Instead of strengthening the assumption, at first stated by only 32.6%, the enquiry directed to single authors reveals that those who surely agree are a modest 8.7%.

allies of Great Britain. All in all, little more than 50% of world emissions were represented, as estimated at the year 1990.

It was however a statistical illusion. The reduction of emissions from the former Soviet bloc countries (the so-called “economies in transition”) – counting together for 27% at least (Russia’s share alone was 17,4%) – was the automatic consequence of scrapping its hypertrophic heavy industry.

Consider also that France and Japan rely mainly on nuclear plants. That is to say that the planned reductions would be applied to about 12,5% of the emissions, a figure soon to be reduced to a mere 9% because of the withdrawal of Canada in 2011. The defections began in reality in 2010, when Russia, Belarus and Ukraine announced their intention not to renew the pact after 2012. The same did later Australia and Japan.

At the end, the European Union alone in the world decided to go ahead, implementing a programme that had absolutely no chance to obtain the stated goal, that is to stop the supposed growth of the greenhouse effect. Not enough, the European Commission is now calling for a more ambitious carbon dioxide cut, by 30% by 2030.

At this point, the question that spontaneously arises is: why they decided this? Consider that we are speaking of a set of countries notoriously short of energy (Battisti, 2006), and therefore eager for low-cost sources⁸. Was this an unprecedented case of loss of contact with reality by the whole ruling class of the continent, or there were other motivations, not directly linked to the environmental issue?

5. *The economic side*

A careful analysis make us conclude that the global warming, or better the presumed man’s role in the increase of greenhouse effect, was a scientific hypothesis that has been choosed as an official cover for a set of strategies elaborated by the political and economic establishment.

As we all know, the energy industry is the core of economy. In Fig. 1 we may read (a) its pervasive role, interesting all sectors of activity, and (b) the organization of oil industry, the main world supplier nowadays. The advanced globalization process led to a financialisation of economy that is summarized in Fig. 2. Referring again to oil industry, in (a) we may read the traditional role of financial sector as a supplier of capital to manufacturing, and in (b) the transformation that has been linking all sub-sectors to finance, thus reducing them to a position of dependence.

⁸ The so-called “alternative energies” are heavily subsidized. As for Slovenia (2008), where the costs are perfectly like those in Italy, solar energy is subsidized by 86,9%, biomasses by 56,9% (Cencic’, 2008, p. 41).

Figure 2A - The Role of Finance

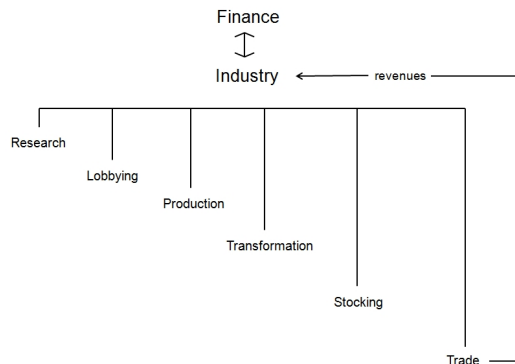


Figure 2B - The Circuit of Globalized Economy

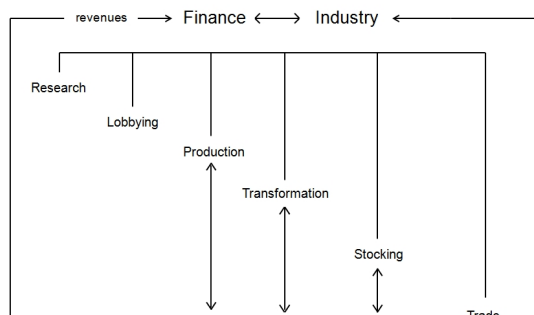


Fig. 2 – The Role of Finance (A) and the Circuit of Globalized Economy (B).

Source: personal elaboration.

To understand Kyoto one must reason in global terms: it is a tool organized around the concept of a sole system, be it the planet or a part of it. Therefore all benefits are intended to be shared among “global” actors, that is to say, in our case, at the Union’s level, while costs (38 billion euro are estimated for the new 2030 goal) are to be paid by national economies.

Speaking of the measures proposed to control the GHGs increase, Lomborg (2008, p. 10) defines them as “the biggest public investment in man’s history”⁹. We are far from this goal, yet the capital flows activated by clean energy projects in 2011/12 are estimated about \$359 billion, an amount equal to the gross internal product of Austria. Slightly more than half (\$182 billion) have been directed towards developing countries, with a North to South flow of \$39-62 billion. As for the origin of the funds, the private sector is playing the lion’s role, with 62% of the total, the rest is coming from the public one. A synthesis of the climate finance is readable in Tab. 1.

⁹ On this subject the biggest study is the report by the British economist N. Stern (2006). More than a scientific paper, it is a document full of technical errors, sponsoring the official policy of the Blair government (Lomborg, 2008, pp. 128-131).

Tab. 1 – Climate finance 2011/12: breakdown of finance services into mitigation and adaptation uses (averages in US\$ billion).

| SOURCES & INTERMEDIARIES | MITIGATION | ADAPTATION | TOTALS |
|----------------------------------|--------------|-------------|--------------|
| PRIVATE FLOWS | | | |
| Project developers | 102 | NE | 102 |
| Corporate actors | 66 | NE | 66 |
| Households | 33 | NE | 33 |
| Institutional investors | 0.4 | NE | 0.4 |
| Commercial financial investors | 21 | NE | 21 |
| VC, PE, Infrastructure funds | 1.2 | NE | 1.2 |
| PUBLIC FLOWS | | | |
| Government budgets | 9 | 3 | 12 |
| National development banks | 61 | 8 | 69 |
| Multilateral development banks | 31 | 7 | 38 |
| Bilateral financial institutions | 12 | 3 | 15 |
| Climate funds | 1 | 0.6 | 1.6 |
| TOTAL | 337.6 | 21.6 | 359.2 |

Note: NE: Not Estimated; VC: Venture Capital; PE: Private Equity.

Source: Climate Policy Initiative, 2013.

Project developers represent the first component among all actors, with 28% of the total, followed by corporations (19%), at the same level of national development banks. The preeminent position, one third of total, is held by public sector intermediaries, with national and multinational development banks (69% of the share). Apparently, there is a lack of interest from institutional investors (only \$400 million). Their role is concealed and is emerging only in the refinancing stage of payments and in general in the recycling of capitals, for an estimated maximum value of \$39 billion. A new category of players is made of climate funds (worth \$1,6 billion). They receive capitals from donor countries or domestic resources and channel them to low-carbon and climate-resilient interventions.

The overwhelming share (94%) is directed towards mitigation interventions, 74% to renewable energies (\$37 to solar, and \$85 to wind and

water projects). Renewable energy by privates are funded mostly in the EU (\$73 billion), China (68), the USA (27), Latin America (7), and India (5).

In Fig. 3 we have outlined the Clean Development Mechanism operating at the world scale under the Kyoto agreement. It is composed of four main circuits, allowing the release and marketing of *certified emission reductions*, each one representing 1 ton of carbon dioxide. Originated by certified projects of CO₂ reductions, they may be sold to companies in Japan, Australia, New Zealand and in the EU to compensate for excess emissions. They may be traded on specialised markets, like the Chicago Climate Exchange and the European Climate Exchange. These are linked together, Chicago owing 50% of the European one. At the top of the system there are major financial institutions (Goldman Sachs, Barclays, Citibank, etc.), who own consistent shares both of the markets and the project companies (like *Blue Source*, controlled by J. P. Morgan). On this basis, the United Nations are granting one third of all emission credits worldwide; by creating commercial paper, they partially assume the role of an international banker.

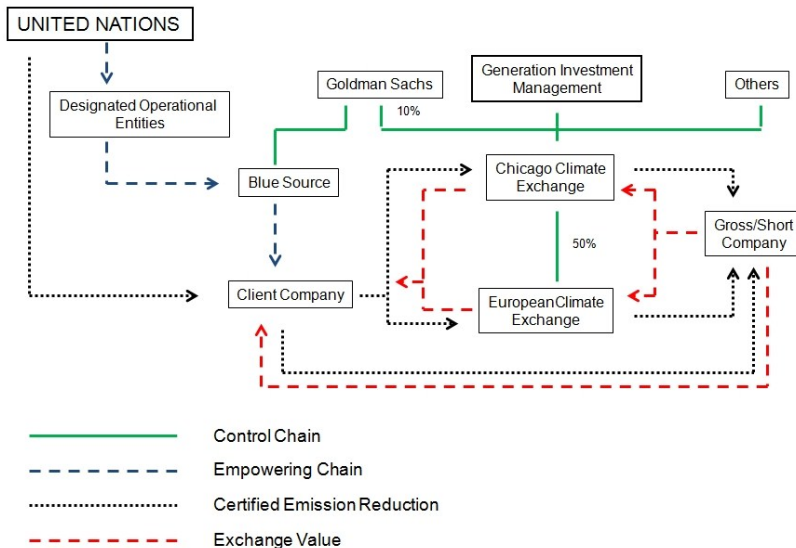


Fig. 3 – Clean Development Mechanism under Kyoto Agreement.

Source: *personal elaboration*.

6. Europe's interests

Indeed the European emission scheme is revealing itself extremely functional to the European building, the EU countries choosing to single out of the world and make the system run only in the old continent. To this end, the question concerning the characteristics and causes of climate warming is of no value and global change itself appears to be just the official motivation to enforce the scheme.

The advantages are to be identified in three areas: political-ideological,

economical, of economic policy. In all cases we must consider the effects both internal and external to the Union.

From the political-ideological side, outside the Union there is a gain in terms of image: Europe as the leader in the battle for the integrity of the world environment. In the international arena at the turn of the millennium the USA presented themselves as the promoters of GLBT culture, the old Europe for its part appears as the leader in the new clean technologies.

Inside the Union, the emission scheme represents a cohesive element, providing a unitarian goal and strategy for all partners, a modern parallel to the building of a high seas fleet for the German Empire fostered by the German Kaiser before the first world war. The time analogy is not out of place. From the point of view of economy, it develops a strategy to recolonize the third world. This would be achieved through different practices. First of all, mass offshoring of pollutant industries (which is part of the game) is possible only by controlling the international investments. This way a new kind of dependence is established, through the new international distribution of activities orchestrated by the multinationals. But the most important instrument for creating dependence is coming from the financial institutions involved, as we will see later.

Inside the Union, controlling the emissions means the creation of new markets, to begin with clean industrial plants and products, and secondly with new financial products (emission credits) that are sold on the collateral markets. A boost to the economy in a phase characterized by the industrialization of non-white countries. At the same time, the scheme is promoting the integration of European economies, through the changing of profitability terms for the various activities among the different countries. The change in the localization of activities is increasingly visible between Northern and Mediterranean Europe, and also between Western countries and the economies in transition (Chiaruttini, 2014).

Considering the European economic policy, the Kyoto argument seems to create a drive to self-sufficiency in the energy sector, mainly pursued by implementing the renewable energies. In our opinion, this is however a goal hard to be reached, considering that the oligopolistic control of the market is in the hand of US and British oil companies since the beginning of the 20th century.

What is more feasible, on the internal front, is to reduce the burden of the Common Agriculture Policy, to be achieved by transferring subsidies from food production to biofuel crops. In both cases the final result is the worsening of state budgets because of the cut of fiscal drag on imported energy, summed to the heavy burden created by subsidizing the use of uneconomic sources by private companies. A goal consistent with the strategy of globalising the rule of private capital while reducing the power and role of governments.

In the original programme there was also the attempt to reduce the advantage on part of the US industry as for the lower prices of energy, by

convincing them to invest huge sums to renovate their plants. No wonder that the Congress unanimously rejected to implement Kyoto. All this happened at the end of president Clinton's mandate, but the public opinion was instructed to believe that it was a decision made by his successor, G. Bush junior.

7. *Latest news on the climate debate*

The IEA Report 2014 discloses the energy scenarios 2011 to 2050, assuming an unstoppable growth of renewable energies. The picture is fascinating, but there is a problem of feasibility regarding all countries. For the USA, it is foreseen that investing \$44 trillion to decarbonise the energy system by 2050 would produce 115 trillion in fuel savings, resulting in a net saving of 71 trillion. On this basis the authors support the idea that economic growth can be decoupled from emissions, so that natural gas could lose its "low carbon" status by 2025 as renewables boom. The boustead savings obviously would result from the budgets of coal and oil and gas industries, cut down for corresponding amounts. To think that giant corporations like EXXON, Shell, BP or even Gazprom would accept to be wiped out of the business this way, or more simply, that someone could afford to invest so much money over a time span longer than 30 years without the consensus of the market's masters is a naivity that discredits the whole report.

Above all, the IEA mention of the uncertain status of natural gas sounds as an *ex post* acknowledgement of the basic instrumentality of energy sources' classification in Kyoto's regulations. Indeed, everyone knows that gaseous hydrocarbons appear in the list of GHGs. In conclusion, the report proves to be another piece of ordnance fired on the epochal battlefield where the control of global energy market is the stake.

Oil and gas industry, for its part, alternates the denial of environmental assertions and ostensible concessions to the ecological trend. Shell executives (Knig) first dismiss the carbon bubble concept as "alarmist", then claim that the best way to avoid climate change is to invest in carbon capture and storage. It would be another business that energy multinationals are ready to ride, for the simple reason it implies a substantial increase in energy consumption and demand.

8. *A glance at the future*

Now, the *coup de théâtre*. On June 2, 2014, a presidential decree issued on the basis of the Clean Air Act (1970, emended in 1977 and 1990) imposes to the electric companies the reduction of CO₂ emissions by 30% on 2005 level within 2030. The implementation is attributed to the state governments, which are free to choose among local cap-and-trade, emissions ceilings or other measures (promoting alternative energies, energy saving, etc.).

Five years ago, the attempt to establish a national emissions market was rejected by the Senate (Waxman-Markey Bill, 2009). Until now, the EPA limited itself to ban the opening of new electric power stations (at present

responsible for 38% of the emissions) and to enact more restrictive regulations for transport (32% of emissions). By using his presidential powers now Obama opted for bypassing the Congress. The results will be a severe cutback of the American coal industry, now worth 50 billion \$ and 224,000 workplaces. Presently, its quota on internal energy consumption is 18%, but locally it covers 80 to 90% in five states (Kentucky, West Virginia, Wyoming, Indiana, Missouri) and therefore it will produce serious consequences on their economies (Deneen, 2014).

Obama's decision pulls the USA closer to European environmental standards, as it was however already foreseen in the Waxman-Markey Bill. This is particularly meaningful prior to the next UN Conference, scheduled in Paris, 2015. It could be the last opportunity to negotiate a new global treaty, including this time the USA as well as the big emerging countries. On these premises the USA will be in the position to try to regain the world leadership as for environmental policy, a concern now shared by only 35% of Americans (Bitumi, 2014).

9. Conclusions

Besides the political image at the end of the last presidential mandate, this move sounds good in order to face the real main issue on the table, that is to revive the ailing economy of the Union. A huge program to substitute hundreds of ageing power plants now represents a new kind of keynesian policy, offering consistent side effects on technological advancement. All this is coherent with the wider US strategy to exert a prominent role as the main world energy supplier (Nunez, 2014). The context is fully evident in the present management of the Ukraine crisis as well as in the otherwise incomprehensible attitude held towards the Middle East events during the last years.

The Obama administration is clearly maneuvering in order to divert EU energy imports from their traditional suppliers (Russia and some Middle East countries) and redirect them towards US shale gas. Keep in mind that natural gas is the technical complement of renewable energy sources. Actually gas powered electric stations are absolutely needed owing to the dependence of solar and wind generators on the meteorological variability.

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*Governare la globalizzazione.**Il dibattito sull'energia tra natura e macroeconomia*

Dagli anni '70 il tema del cambiamento climatico si è imposto gradualmente al centro del dibattito culturale e politico, parallelamente all'emergere di una economia globalizzata. In questo contesto, il trattato di Kyoto può venire considerato, assieme al WTO, un sofisticato strumento di governo per la sempre crescente complessità del mondo economico. Nel presente lavoro viene analizzato l'ambito geografico degli accordi di Kyoto. Dal sostegno quasi unanime registrato fra i governi nel 1972, la volontà politica si è costantemente ridotta a causa del prezzo elevato da pagare in termini di sviluppo economico. Quando l'Unione Europea ha deciso nel 2005 di procedere da sola, era chiaro che qualsiasi riduzione delle emissioni di CO₂ effettuata dagli Stati membri non avrebbe avuto alcun effetto sulla dinamica attesa del riscaldamento globale. Inoltre, dopo il volgere del millennio i dati sperimentali hanno dimostrato che l'aumento continuo delle emissioni di anidride carbonica non è più collegato all'aumento delle temperature, quasi che il riscaldamento globale avesse terminato il suo corso. Un'analisi degli interessi economici in gioco consente di rivelare la logica della decisione europea. Tre aree di vantaggio vengono delineate: ideologica, economica, di politica economica, che si situano tutte sia all'interno che all'esterno dell'Unione. Di particolare importanza è la nascita di nuovi campi di attività, non limitati al settore industriale. Alla luce della progressiva riduzione dell'industria europea registrata nell'ultima decade e della crescente finanziarizzazione di tutte le economie del continente, è importante considerare l'emergere di un settore "climatico" della finanza, assai più ampio delle transazioni sui diritti di emissione. Viene inoltre considerata la strategia mondiale degli USA. Questi perseguono attualmente l'obiettivo di riguadagnare la leadership nella politica ambientale assieme a quello di ritornare ad essere il maggior esportatore mondiale di idrocarburi.

*Gérer la mondialisation.**Le débat énergétique entre nature et macroéconomie*

Depuis les années soixante-dix, le changement climatique est progressivement devenu central dans le débat culturel et politique, en parallèle à l'émergence d'une économie mondialisée. Dans ce cadre, le protocole de Kyoto peut être considéré comme un instrument sophistiqué visant à régir la complexité croissante d'un seul monde économique, parallèlement à l'OMC. Dans cet article, la portée géographique des accords de Kyoto est discutée. Du soutien initialement presque unanime des gouvernements en 1972, la volonté politique a régulièrement diminué, suite à la prise de conscience croissante du prix élevé à payer en termes de développement économique. Lorsque en 2005 l'UE décida d'aller de l'avant seule, il était clair que la réduction future des émissions de CO₂ opérée par les États membres aurait été sans effet sur la dynamique de prévision du réchauffement climatique. En outre, après le tournant du millénaire les données expérimentales ont montré que l'augmentation continue des émissions de dioxyde de carbone a été découplée de celle des températures mondiales, comme si le réchauffement global eût arrêté son cours. Une analyse des intérêts économiques en jeu nous permet de mettre au jour la logique de la décision européenne. Trois domaines d'avantage sont mis en exergue: l'idéologie, l'économie et la politique économique, tant à l'intérieur qu'à l'extérieur de l'Union. Un aspect particulièrement important est la naissance de nouveaux champs

d'activité, ne se limitent pas au secteur industriel. À la lumière de la réduction progressive de l'industrie européenne enregistrée dans la dernière décennie et la financiarisation croissante de toutes les économies européennes, il est intéressant de constater l'émergence d'un secteur de la finance climatique, beaucoup plus large que l'échange de quotas d'émission. La stratégie mondiale des États-Unis est également prise en compte. Actuellement, l'objectif de rétablir leur leadership en politique environnementale est poursuivi en même temps que celui de faire des États-Unis le premier pays exportateur d'hydrocarbures.