

Climate of Opinion

Stockholm Network's Energy and Environment Update
Issue 14 – Life after Copenhagen: September 2010

Contents

Commentary – Life after Copenhagen – Helen Disney and Meir Pugatch, p. 2

Government failure and the EU ETS: What prospects for phase 3? – Andres Jonathan Drew, p. 3

Linking trade and climate regimes – Mehdi Abbas, p. 7

Green Investing: what is green investing and how can it help combat climate change – Nick Green, p. 10

Microclimates – Top stories in energy and environment, p. 13

Commentary

Life after Copenhagen – Helen Disney and Meir Pugatch¹

Last year, in our preview of the Copenhagen conference, the Stockholm Network predicted that very little of concrete value would actually come out of the climate change jamboree. As our analysis of the key players suggested, the basic disagreements over policy and the political pressures – international as well as domestic – meant that reaching any type of binding agreement to cut global carbon emissions would be very difficult. The subsequent Copenhagen Accord confirmed this prediction. This legally non-binding document only reaffirmed that climate change is a serious global threat but did not specify how to deal with it. While the US government described the Accord as a “meaningful agreement” the document was actually not adopted by the full conference.

With COPI6 only months away some commentators are fretting that the Cancun conference will be a re-run of Copenhagen. Recent pre-COPI6 meetings in Bonn, Germany, have done more to highlight disagreement among the principal parties than showing a credible way forward. Equally, political developments do not bode well. Most prominently, the US Senate will not consider or vote on any climate change legislation until after this November’s midterm elections; with the House already having successfully voted on one in June of last year. If the polls and national current mood are anything to go by, it is looking increasingly likely that there will be a larger contingent of Republicans in both the House and Senate. Such a development would probably slow down the legislative process even more. And earlier this year, then Australian Prime Minister Kevin Rudd’s government postponed the launch of an Emissions Trading Scheme to 2013 at the earliest, sparking widespread criticism from both climate change activists and the business community. But most importantly, the global economic downturn has moved climate change off of the front pages. Indeed, while the picture is not entirely clear

some recent polls show that the public is becoming less concerned with climate change.

Yet, while of obvious importance any globally binding deal on carbon reduction would only form part of a growing range of policy initiatives and programmes that are already up and running. Emissions trading, carbon taxes and changing corporate and consumer behaviour are some of the biggest and boldest ideas in climate mitigation thought. They are also some of the ideas which have turned into active programmes and policy initiatives. In light of the failure at Copenhagen and difficulties in the run-up to Cancun, the Stockholm Network is maintaining a positive focus on some of the key initiatives already operating. In this issue we have asked a panel of experts to examine some of these wider programmes and policy initiatives and their impact on climate mitigation.

The issue

Given the perceived failure of the Copenhagen conference in December of last year, it is important to take stock of established policies and their long-term prospects for global climate mitigation. The aim of this newsletter is to provide our readers with a snapshot of where some of these programmes stand and what their prospects are for playing an increased role in climate change mitigation.

Providing an introduction to one of the most hailed ideas within climate mitigation thinking **Andrés Jonathan Drew** analyses the prospects of Phase 3 of the European Union’s Emissions Trading Scheme (ETS). **Dr. Mehdi Abbas**, of the University of Grenoble, looks at how carbon taxes affect international trade and economic interdependence. And finally, leading author and investment advisor **Nick Green** describes what green investment is and how it can be a real force in global climate mitigation efforts.

¹ Helen Disney is the founder and CEO of the Stockholm Network. Dr Meir Pugatch is the Director of Research at the Stockholm Network.

Government failure and the EU ETS: What prospects for phase 3? – Andrés Jonathan Drew¹

Introduction

Emissions trading, once the darling of economists who desire efficient, effective and equitable climate change policy, has been severely criticised for its exposure to rent-seeking. This susceptibility explains government failures such as permit over-allocation and windfall profits that resulted from rent-seeking in the legislative process creating the European Union's Emissions Trading Scheme (EU ETS). As a result, many optimists have become emissions trading sceptics because this exposure to rent-seeking may outweigh any policy benefits. Phase 3 of the EU ETS, however, provides a source of optimism because the allocation rules that contributed to these government failures have been modified and should reduce the risk of recurring failures. It is too early to tell whether EU ETS phase 3 will be an improvement on previous phases, particularly in light of rules that provide free EU allowance carbon credits (EUAs) to industries at risk of carbon leakage. Nevertheless, the EU ETS provides interesting lessons for how incremental improvement of policies can escape the static 'original sin' predictions of public choice scholars. Despite the early optimism, the Hayekian 'knowledge problem' does provide important insights into the downside risks of policy reform strategies and can help guide future reforms. This article describes how emissions trading and other market based instruments (MBIs) are better tools than command and control (C&C) mechanisms at managing global public goods like the earth's climate. This will be followed by consideration for the practical problems experienced with the EU ETS and an analysis of whether phase 3 allocation rules are an improvement on previous phases. To conclude it will explain how EU ETS policy reform was achieved and consider how Hayek's 'knowledge problem' can inform the perils of such approaches.

The Problem

Where property rights do not exist or are difficult to establish, the market does not always provide obvious solutions to social problems. This is particularly true of global public goods,

like climate change, that also suffer from challenges of non-excludability and free-riding which cause collective action problems. Nicholas Stern describes climate change as 'the greatest market failure of all time'. Following this logic, welfare economics prescribes government intervention to correct these market failures: i.e. promote collective action and internalize negative externalities. However, the form which this intervention takes is highly contentious.

Public choice and the Hayekian school of economics are both sceptical that politics can cure markets. Hayek argues that policymakers suffer from a 'knowledge problem' of insurmountable informational asymmetries. They can therefore never beat the price mechanism at discovering information to design optimal policies, like the level of a carbon tax or the best new abatement technology. Public choice scholars provide a conceptually different critique of government intervention. They believe the political process is a marketplace, where actors are self-interested and preferential legislation is 'sold' to the highest bidder. Legislation is tainted by this 'original sin' and is suboptimal because the political process is prone to rent-seeking by firms that lobby for protective legislation. The insights of information asymmetry and political markets both highlight the risk of capture where vested interests bias the incentives of regulators and governments to act in their interests rather than the broader public interest.

The theoretical market-based solution

Market-based instruments can reduce the risk of capture. Traditional command and control instruments rely heavily on information provided by regulatees in setting and enforcing rules. The case of greenhouse gas emissions (GHG) from industrial emitters is illustrative of the problem with using C&C instruments to address environmental problems where abatement costs are heterogeneous and the social costs of pollution are uniformly mixing (i.e. not localised). Regulatory design requires knowledge of the marginal abatement costs for each installation, so that efficient output levels can be set. The technical expertise for this analysis, which firms hold, provides incentives for them to reveal information strategically in order to benefit from less stringent rules or regulations that create

barriers to market-entry that reduce competition. Technical experts become invaluable to both firms and regulators. This promotes revolving-door career paths between the regulator and regulatees, which furthers the cosy-relationships that contribute to capture. However, not all MBIs reduce capture as effectively. Capture is more likely using quantity-based (emissions trading) rather than price-based (carbon taxes) MBIs, because setting and allocating quantities is more information intensive. Even between emissions trading regimes, a similar choice presents itself. A baseline-and-credit model requires knowledge of output levels. Permits are then grandfathered based on historical emissions with gradual abatement target reductions over time. Firms can use this informational advantage to game the allocation system. The alternative cap-and-trade model, if permits are completely auctioned, does not require knowledge of pollution abatement costs for each installation. This reduces the information asymmetry and rent-seeking potential. Harnessing markets provides other co-benefits.

MBIs promote allocative efficiency better than C&C regulation. This is because MBIs incentivise behaviour through market signals rather than explicit directives; the approach of C&C instruments (e.g. methods and levels of pollution control). MBIs harness market forces because pollution abatement is motivated by self-interest that in aggregate can also meet collective policy goals. For example, emissions trading provides incentives to exceed abatement targets because excess permits can be sold. In contrast, C&C instruments provide less flexibility and tend to force firms to take on similar pollution-control burdens regardless of costs.

MBIs are said to promote dynamic efficiency (technology) better than C&C instruments because it provides incentives for firms to find cheaper abatement methods and sell excess permits on the market. However, very little empirical evidence supports this theoretical claim. In fact a recent analysis by Driesen finds that MBIs promote expensive innovation less than C&C approaches. There are other serious drawbacks with MBIs.

Practical Problems with MBIs

In practice, the European Emissions Trading Scheme (EU ETS) has suffered serious problems that validate the Public Choice and Hayekian arguments outlined above. The allocation of emissions permits (EUAs) in phase 1 and 2 of EU ETS (2005-2012) was free and based on historical emissions (grandfathered) rather than auctioned. Member states determined the level of the cap and allocation methodologies; subject to EU approval. Public choice predictions that firms would lobby to minimize climate policy costs or gain additional rents is confirmed by the large windfall profits of generators who passed on the nominal cost of permits to consumers. Estimated windfall profits for UK generators in 2007 were €1.76 billion.

Hayekian predictions of insurmountable informational asymmetries contributed to another system flaw: the over-allocation of EUAs. This caused their price to crash after April 2006 for the rest of phase 1. It also contributed to the UK exceeding its phase 1 cap by 30 million tons of CO₂, because low EUA prices provided the wholesale electricity market with no incentive to continued burning of costly gas, reverting to coal instead (Euractiv.com 2009). Setting national EU ETS caps was challenged by significant informational asymmetry for gathering data on actual emissions of regulated installations. It also provided incentives for member states to protect national industries by over-allocating EUAs. Despite the multiple unintended consequences, phase 1 and 2 did lead to modest abatement. The government failures of these phases provided the impetus for changing allocation rules in phase 3 (2012-2020) and moving towards a cap-and-trade model with full auctioning.

Optimising MBI policies: Phase 3 EU ETS Improvements

In June 2009, the EU ETS phase 3 legislative process concluded and made significant changes that may improve future EU ETS performance. For example, new rules require 100% auctioning for electricity generators in most EU countries. This removes risks of windfall profits. In addition, total auctioning levels will be ~50% compared to a maximum of 5% and 10% in phase 1 and 2 respectively. Cap levels and EUA allocations will no longer be left to member states. Instead, they

will be centralized at the EU level. Also, industries that successfully lobbied for exclusion in phase 1 (aluminium and chemicals) will be included, as will aviation and other transportation sectors. However, phase 3 rules did not escape the influence of special interests. (Directive EC/2009/29; Directive EC/2008/101; Commission MEMO/08/796)

Energy intensive industries successfully lobbied for free permits and a formula that identifies industries at risk of carbon leakage. These industries are concerned that carbon-pricing regulation in the EU will encourage the displacement of energy intensive industries to countries with no similar regulation, and have no impact on global emissions. The new rules for these industries require strict benchmarking (best practices) for the initial free allocation. The threshold formula to qualify for free permits is also very onerous. Because these industries are exposed to global competition, they cannot in theory pass-on the nominal costs of EUAs to consumers as the electricity generators did in phase 1 and 2. Emissions trading will still provide incentives for these industries to beat abatement targets and not exceed free allocations because they can buy and sell EUAs on the secondary market. Nevertheless, the current validity of carbon leakage arguments suggests energy intensive industries exaggerated the need for free allocations.

A Second Round of Capture?

The debate on carbon leakage is very complex and briefly outlined below. Oxford Economics predicts that moving to 100% auctioning with a carbon price of €25/ton will cut EU GDP by 0.5% in the medium to long term. However, a more moderate analysis by the Carbon Trust concludes that only cement, steel and aluminium sectors are exposed. Others such as Barker, Junankar et al. and the IPCC believe that carbon leakage will only have minimal effects, similar to variations in exchange rates. Indeed Reinaud found no EU ETS impact on carbon leakage and a recent report by Climate Strategies warns of future regulatory failures with free allocations to energy intensive industries. Quantifying carbon leakage is challenging, particularly because member states will push for protecting domestic industry and evidence is only certain once displacement

occurs. This is confirmed by the preliminary list of exposed industries, which contains more than conservative prescriptions recommend. Therefore, the risk of windfall profits in phase 3 has not disappeared.

Lessons from Phase 3

Public choice presents a bleak picture of public policy prospects. If regulation is always a function of the 'original sin' what explains the movement towards potentially improved emissions trading policy from phase 1 to phase 3? Some of the answers to this question are found in a small body of literature that explains policy reform; and which matches the phenomenon witnessed in the EU ETS. Patashnick surveys this literature and outlines three conditions for policy reform to benefit a broad constituency at the expense of narrow special interests. Firstly, policy entrepreneurs must lower the information costs to mass publics by linking reform solutions to salient issues. In phase 1, the commission and member states pursued this strategy by linking emissions trading with GHG mitigation policy to institutionalise the EU ETS. It was also a strategy to empire build from Brussels and establish global European leadership on climate change. In phase 3, NGOs, energy intensive industries and the media acted as policy entrepreneurs when they explained the link between higher energy prices and windfall profits to a very receptive public. The second condition is: reform proponents must adopt procedural strategies to weaken the organisational advantages of narrow groups. In phase 1, energy generators held a Hayekian informational advantage, because some had experience with emissions trading and advised the commission on the EU ETS design. This provided them with an insider status vis-à-vis other regulated industries and helped them hide (or overlook) the risk of windfall profits. In phase 3, however, energy intensive industries dominated the agenda, by providing the commission with information about risks of carbon leakage and setting up the High Level Group on Competitiveness, Energy and the Environment which facilitated the dialogue between energy intensive industries and policymakers. They also dominated the European Climate Change Program meetings, which were the primary institution for stakeholder input; outnumbering energy generators by three to one

in phase 3. The last condition was also satisfied: reform advocates must use tactical concessions to neutralise political opposition. In phase 1, the commission secured the support of the largest emitting group (electricity generators) through permit allocations that gave them short-term windfall profits. In phase 3, it developed free EUA allocation formulas for energy intensive industries and included provisions to compensate them for higher energy costs. This secured the continued support of these industries for the EU ETS. Although this three pronged approach seems straightforward, it too is subject to the risks of government failure.

Hayekian lessons for policy reform

The Hayekian ‘knowledge problem’ is highly relevant to any government strategy for policy reform. The first condition (policy entrepreneurs lowering information costs to mass publics and linking policy reform to salient issues) is uncontroversial, particularly since governments hold no monopoly on policy entrepreneur activity. However, the second and third conditions (adopting procedural strategies and paying-off political opposition), resembles the failed strategy of picking winners in industrial policy caused by the Hayekian ‘knowledge problem’. It also—as EU ETS phase 1 and 2 demonstrates—can lead to government failures with significant unintended consequences. Procedural strategies should therefore weaken any one group’s grip on government policy, not empower one group over another. Paying-off political opposition faces another ‘knowledge problem’: identifying credible opponents that have the most to lose with new reforms—which justifies some compensation in the transition to a low carbon economy. The EU ETS demonstrates this conundrum. Energy generators in phase 1 were the largest emitters, securing their support

was crucial, but these industries can pass-on permit costs to consumers and can therefore manage carbon pricing regulation. Many energy intensive industries, on the other hand, cannot. These industries should have been ‘paid-off’ in phase 1, not the electricity generators.

Conclusion

Phase 3 EU ETS EUA allocation rules are cause for optimism because they demonstrate MBIs can be improved over time. Specifically, the level of rent seeking, to which emissions trading is so disposed can be incrementally reduced in the medium-term. This provides an example of where public choice fails to predict policy change. However, the evaluation of phase 3 performance requires attention to how these new rules will work in practice, particularly the policies for industries at risk of carbon leakage. Final judgment cannot be made until phase 3 evidence is gathered and analysed. This potential allocation rule improvement will strengthen arguments against returning to the failed industrial policies and top-down C&C approaches of the past. However, any approach to policy reform must pay careful attention to the Hayekian ‘knowledge problem’, because attempts at procedural reforms or payoffs to neutralise vested interests may do more harm than good and further discredit emissions trading policy.

To access a longer version of this article that includes references and a full bibliography please use the following web link: <http://tinyurl.com/3a7gep3>

¹ Andrés Jonathan Drew is a lawyer and economist based in London, U.K. He is currently a research associate for the Center for Aviation and the Environment at Manchester Metropolitan University.

Linking trade and climate regimes – Mehdi Abbas¹

Would the failure to apply the Kyoto Protocol lead to a competitive disadvantage detrimental to any region’s exports, especially European countries? Current conditions – especially since the failure of the Copenhagen conference – are

propitious for reflecting on effective post-Kyoto climate regulations. This could take place within the context of the UNFCCC, in a regional or plurilateral framework (OECD, APCE, EU, for example).

The idea that we wish to explore here is that of climate-compatible regulation of international trade, which places the focus on how trade policy can be put to the service of climate change mitigation. The aim would be to build on the existing climate and trade regimes to create fair, inclusive and effective regulatory mechanisms. The expression “climate-compatible regulation of international trade” highlights the central premise of our proposal: the need for cross-institutional cooperation on climate change, i.e. a system of multilateral governance linking the UN Framework Convention on Climate Change (UNFCCC) with the WTO Agreements.

By highlighting the issues of competitive disadvantage and carbon leakage, the climate change regulation raises questions about the conditions of trade and investments that place it on the margins of the field of competence of the WTO’s multilateral trade regime. This raises the question of the extent to which a border tax adjustment (BTA) measure would be compatible with the WTO Agreements.

The taxation route and the issue of compatibility with the WTO regime

There is no consensus on whether the WTO should adopt a position on climate change or even whether the latter has a place in the WTO regime. The preamble of the Agreement Establishing the World Trade Organization states that one of its aims is “the optimal use of the world’s resources in accordance with the objective of sustainable development” (GATT, 1995). However, the preamble is purely a declaration of members’ intentions and essentially has an interpretative value for the provisions that follow.

Tax refunds at the borders for exports

The chief obstacle facing a measure that aims to offset the lack of international competitiveness due to internal taxation is the possibility that it may be classified as a “prohibited subsidy” under the terms of the WTO’s Agreement on Subsidies and Countervailing Measures if, for instance, it leads to the exemption or remission, in respect of the production of exported products, of indirect taxes in excess of those levied in respect of the production and distribution of like products when sold for domestic consumption.

WTO rules are noncommittal on the question of subsidies, but do not prohibit this type of measure in principle. In practice, the problem must be addressed on a case-by-case basis within the scope of the WTO procedure for dispute settlement. Subsidies pose no problem as long as they are not specific to a sector, a company or a product. European countries would define their programme of subsidies in such a way that the refund would not exceed the amount of domestic indirect tax levied. But this does not guarantee the compatibility of such refunds with the WTO regime.

An import tax as a border adjustment mechanism

The feasibility of a border adjustment measure presupposes that it is compatible with the principles of trade multilateralism, in particular Article III of the GATT 1994 relating to national treatment. If the EU were to introduce such a measure it would need to be specific regarding the three following themes, though this would be no guarantee of compatibility.

The basis of the tax

The CO₂ tax could only be applied to basic high-emission products or those that are very sensitive to electricity prices. But a border tax adjustment is only permitted in the case of so-called taxes “on the product”, as in the case of VAT. It cannot be applied to so-called taxes “on production” or “on the producer”. The WTO regime is considered to address primarily regulations aimed at products rather than production. Thus, tax on the latter cannot normally be adjusted at the borders.

The effects of the measure

GATT/WTO jurisprudence has always concluded that the volume of trade has no bearing when it comes to adherence to the provisions of Article III of the GATT. The only factor to be considered is whether or not competition distortion occurs. Similarly, even the existence of a minimum tax differential is enough to establish discrimination between like products. The “Korea – Taxes on alcoholic beverages” panel concluded that the WTO regime does not tolerate a “minimum taxation amount” and that the requirements of Article III of GATT run counter to a measure that favours domestic products, even if trade is

not disrupted or the measure has not yet been implemented.

The similarity of products

The GATT/WTO texts lack criteria that would make it possible to decide whether or not two or more products are similar, or “like”.

Two doctrines come into conflict here. The first states that products obtained using different production processes cannot be considered as “like products”. The second doctrine considers that likeness depends on physical properties, nature and quality, on end-uses, on consumers’ tastes and habits, as well as on the tariff classification of products. In this case, the production process used to make these products does not come into consideration when assessing their likeness. GATT/WTO jurisprudence tends to favour the latter of the two doctrines.

However, this does not resolve the issue, since according to the Appellate Body, the notion of similarity must be examined on a case-by-case basis depending on the context and circumstances. This grants panels a discretionary margin when weighing up the criteria to be used and their respective importance.

A last challenge facing the BTA is the permit allocation system. Auctioning may be a prerequisite for a border tax adjustment. In fact, the EU ETS which until now is built upon the free allocation of permits might be associated to a subsidy. Therefore, if the European Union wants to introduce a BTA, it must review its permit allocation. The EU dilemma is evident. A low carbon price will have no effect as an incentive to a transition toward a low carbon production. A high carbon price raises the issue of competitiveness and carbon leakage.

The main conclusion one can draw is that only a dispute settlement on the question of using a carbon tax to fight against climate change is likely to resolve the issue of targeted trade measures favouring climate change mitigation. The trading regime and jurisprudence of the WTO would allow in theory for the creation of targeted trade measures favouring the fight against climate change. But there is no guarantee that it will

result in a definitive solution that is in line with the measure’s environmental aims.

Faced with developed countries’ initiatives, emerging economies, non-emerging DC’s and LDC’s will attempt to ensure that a prohibition on a carbon tax on imports be included in any future agreement. This is why policymakers need to think about other ways forward.

The option of trade liberalisation

The industrial countries within the WTO could draw up a trade offer for developing countries that would reflect their climate concerns and constraints. This option calls for a new balance to be established between trade rights and obligations. Two paths can be envisaged.

The first would be to allocate the net revenue generated by compensatory duty to the Kyoto Protocol’s adaptation fund. The “principle of common but differentiated responsibility” affords developing countries a special status that complicates the use of trade policy instruments when dealing with these nations. This is reinforced by the provisions of article XXXVII.1.c of GATT 1994, which prohibit “new fiscal measures” from being imposed upon them. What is more, compensatory measures underline the fact that the primary objective is not to discriminate against countries but to support the fight against climate change. The second path would involve setting up a “Generalised System of Preferences Plus” (GSP+), which would benefit those countries that ratified the Kyoto Protocol or agree to make additional efforts to combat CO₂.

As an active member of the Friends of EGS, the EU’s aim is to ratify a multilateral agreement on the liberalisation of trade in green products, services and technologies under a mandate defined by paragraph 31.3 of the Doha Declaration. As things stand, negotiations have come up against the problem of definitions and the classification of environmental good and services, the inclusion of production methods and processes in the scope of negotiations, the inclusion of non-tariff barriers, how liberalisation should be approached (list approach, project approach, integrated approach). Yet it is important not to lose sight of the fact that the

aim is to combat climate change and not to offer new opportunities for trade liberalisation. Furthermore, total liberalisation of trade in EGS would concern only a marginal volume of trade and goods that already have very low average tariffs.

The option of overhauling current agreements or negotiating new ones

The EU could take leadership on the issue of the international harmonisation of environmental and energy taxation. In this regard, the provisions of the Agreement on Subsidies and Countervailing Measures would be the first to require clarification or amendments so as to make them compatible with the aim of combating climate change, or so as to create a category of subsidies that are compatible with the fight against climate change.

The second component of this strategy relates to examination of the issue of energy standards and labels. Many countries have already drafted such standards and norms. At the WTO level, this issue falls within the scope of the Agreement on Technical Barriers to Trade. Overhauling this agreement would provide a lever for the implementation of Kyoto objectives through the establishment of environmental and energy standards for products and production processes. The ISO's Task Force on climate change could also be involved in this process.

The option of the European exemption from the multilateral trade rules

Exemption from the multilateral trade rules can be achieved in two ways. The first involves starting a procedure under the terms on Article IX.3 of the WTO Agreement. In fact, Article IX.3, "in exceptional circumstances" and in the framework of a Ministerial Conference, authorises a Member to request a waiver concerning its obligations under the WTO Agreements. It must prove that the climate change mitigation measures that it intends to implement fall into the category of "exceptional circumstances". Once this has been done, the member must embark upon a consensus building strategy in order to have the request accepted by the Members of the WTO, since the recognition of "exceptional circumstances" concerning a

measure taken by a Member is based on their appraisal.

The second is linked to Article XX of the GATT 1994. The purpose of Article XX is to control the conditions under which Members may pursue or seek to achieve non-trade objectives. Paragraphs (b) and (g) on measures to "protect human, animal or plant life and health" and measures relating to the "conservation of exhaustible natural resources" may be invoked in the context of climate change. The aim under paragraph (b) would be to demonstrate that a tax would be a necessary additional measure to ensure the effectiveness of the tradable emission permit system or, under paragraph (g), that it relates to the conservation of exhaustible natural resources which could be affected by climate change. Furthermore, plans to introduce a border adjustment measure would have to fulfil the two conditions under the "chapeau" of article XX. The measure: (a) must not constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail; and (b) must not constitute a disguised restriction on international trade.

Two observations can be made. First, it would seem more "rational" to head towards justification under the terms of article XX, which offers the means to set up border adjustment measures compatible with the WTO system, than to seek compatibility with Article III (i.e. non-discriminatory treatment). Once again, only the dispute settlement system is likely to be able to resolve the problem. But, the outcome of any action cannot be anticipated. Second, Article 3.5 of the Convention prohibits the use of trade measures in attaining its objectives. So, before any proposition it is necessary to establish a link between the WTO regime and that of the UNFCCC.

The option of a UNFCCC-WTO System of Governance

The policy option of cross-institutional cooperation aimed at climate-compatible regulation of international trade involves creating a joint WTO and UNFCCC working group. The objectives of this working group would be three-fold: i) to set forth a list of environmental measures that are compatible with the WTO

regime; ii) to clarify which of these two regimes takes precedence on questions of rights and obligations; iii) to remove any ambiguities that may cause conflicts relating to standards and jurisdiction (competence) between the Convention, the Kyoto Protocol or its successor, on the one hand, and the WTO Agreements, on the other. If this work were to result in clauses and rules that specify links to the WTO Agreements, clauses that do not form part of the WTO regime, these would not legally bind panels or the Appellate Body, but would serve as a point of reference for the decisions they may be required to make. Energy and carbon tax, mandatory and voluntary standards, labelling and certification schemes, the sale and transfer of emission permits within or between groups of countries – all these provide examples of measures that need to be addressed by this system of governance.

In order to avoid conflict of principles between the WTO trade regime and the future climate regime and to reduce the fragmentation of the global governance of climate change, the international community could create and consolidate this common UNFCCC-WTO governance structure.

Conclusion

The international framework for mitigating climate change will inevitably be a hybrid one or

will not transpire at all. Any future framework for global climate governance will need to combine credible commitments, stability, flexible obligations and the inclusion of countries.

In fact, the coming decades will experience a geographical shift in industrial production and by 2030 developing countries' share of global emissions will have risen to over 50%, with emerging economies contributing significantly to this increase. It is therefore strategically important to have options to include these countries in any future agreement. Linking the CBDR to the Special and Differential Treatment of the WTO Agreements would make it possible to start anew the negotiations for the Framework Agreement on Special and Differential Treatment of the Doha Agenda, with the aim of making it compatible with the CBDR.

Cross-institutional cooperation oriented towards a climate-change trade regulation would solve one of the commonly addressed criticisms of the Kyoto Protocol: the absence of enforcement mechanisms and an effective dispute resolution procedure. Indeed, a governance approach of this type would allow the use of the WTO's dispute settlement procedures.

¹ Dr Mehdi Abbas is an economist at the University of Grenoble, France.

Green Investing: what is green investing and how can it help combat climate change – Nick Green¹

The scale and complexity of the challenges involved in transforming the global economy to make it more sustainable will require the development of solutions spanning a multitude of technologies and processes. This will in turn create huge opportunities for investors in the energy and environmental sectors, as companies and countries all over the globe compete with each other in the transition to a low-carbon economy.

With climate change now largely accepted as a reality by governments and business, the world has switched remarkably rapidly in the space of

just a few years from a position where climate change was seen as an unbearable (and unmentionable) burden to one where countries are competing with each other to provide solutions. No one wants to be left behind in the race to win market share in the technologies of the future, whether this will be electric cars or smart appliances which reduce home energy usage. Companies which prioritise climate change will be the ones to profit in the long-term.

The global nature of this transformation to a low-carbon economy is presenting investment opportunities spanning almost every sector of society as innovation drives sustainable development forward.

Government support

The trends towards green business will be bolstered by support from government policies globally. Analysts at Bloomberg New Energy Finance estimate that 700 new pieces of legislation have recently been passed around the world promoting clean energy – partly thanks to the spotlight thrown on these issues by the Copenhagen process. Renewable energy policy targets now exist in 73 countries, with stiff renewable energy standards in place in 49 countries, according to the Paris-based Renewable Energy Policy Network for the 21st Century.

In Britain the Climate Change Act of 2008 created a legally-binding framework to achieve a mandatory 80% cut in the UK's carbon emissions by 2050 (compared to 1990 levels), with an intermediate target of at least 34% by 2020. Published in July 2009, the UK Low Carbon Transition Plan details the actions to be taken to arrive at these cuts. A Carbon Reduction Commitment for large business was also introduced, alongside other energy efficiency initiatives, and the British government is also supporting the growth of the low-carbon economy through the Energy Technologies Institute and the Carbon Trust. In April 2010 the UK introduced its first feed-in-tariff (FIT), a mechanism to stimulate the development of the domestic renewables sector which is already widely in use elsewhere in Europe.

In May 2010, Britain's new Con-Lib coalition government announced various green measures including promoting smart meters, a network of charging stations for electric cars, promoting energy from waste, the development of the underwater grid in the North Sea, and the creation of a green investment bank, along with as yet unspecified 'green financial products' to encourage investment in green infrastructure.

Elsewhere in the world, there is a similar story. The EU has set a target to cut at least 20% of greenhouse gas emissions from all primary energy sources by 2020 (compared to 1990 levels) and cuts of 50% by 2050. In the US, stimulus funding from the American Recovery and Reinvestment Act (ARRA) has already provided around \$100bn of investment into the cleantech sector, with more yet to come.

Major economies have pledged a total of \$177bn towards the development of clean energy technologies, and the developed world has also agreed to provide \$30bn over the next three years to help mitigate the cost of slowing emissions growth in the developing world. The International Energy Agency estimates that \$10.5 trillion needs to be spent on clean energy between 2010 and 2030 to prevent a catastrophic rise in temperatures.

Even if these ambitious targets are not met in full, attaining even a proportion of this growth represents a massive opportunity for environmental services and technologies. As evidence of the expanding investment opportunities, the number of funds targeting this sector has grown from around ten in 2004 to more than thirty in 2009, many of them managed by high street names such as Barclays, HSBC, and Deutsche Bank.

This huge inward investment into green funds provides support for companies working in these sectors at all levels, from the early-stage 'incubator' companies to large public corporations striving to move towards more sustainable policies.

Ethical Vs. Green Funds

Much confusion exists around the different kinds of funds in this sector, with considerable overlap between what are variously known as ethical, green, sustainable, cleantech or climate change funds.

Ethical investing started over a hundred years ago with the Quakers and Methodists 'screening out' companies involved in alcohol and gambling when they decided to put money in the stock market. This became known as socially responsible investing (SRI) and it grew steadily through the 20th century as more and more investors demanded that social and environmental criteria were taken into account. Today there are over a hundred green and ethical funds to choose from.

Traditional ethical funds are involved in a positive and negative selection process, where money is invested in companies that make a positive contribution to the world and withheld from

companies that do not. Ethical funds have also traditionally been classified into light green and dark green funds, depending on how strict they are at applying social and environmental criteria. However, although the green label is often applied to ethical funds, and the terms socially responsible, ethical, green and sustainable are often used interchangeably (particularly by financial advisers with a limited grasp of the realities), this is not always appropriate.

For instance, many ethical funds have holdings in mainstream stocks such as banks, telecoms providers, outsourcing companies, supermarkets or media conglomerates – and there's nothing intrinsically sustainable or green about these companies. They might have very large carbon footprints through their various operations, for instance.

Conversely, green thinking is also deeply embedded in ethical ideals so ethical funds have a tendency to be very forward-thinking and progressive – hence open to green investment trends. “Many investors who might loosely call themselves ethical investors are very concerned about trying to develop renewable energy and energy conservation,” explains Brigid Benson from ethical investment specialists The Gaia Partnership. “So many of the ethical funds were some of the pioneers of identifying environmental and environmentally progressive companies.”

The rise of the green fund

Whilst traditional ethical funds have continued to grow on the back of green concerns, a new phenomenon has been the arrival of a different breed of funds which are specifically geared towards profiting from the transition to the low-carbon economy. The first properly targeted green fund, the Jupiter Ecology Fund, was launched in 1988, but over the last few years many more have been launched.

The big year for green funds was 2007, when numbers were swelled by the addition of funds from Schroders, Calvert, Pictet, Bank Sarasin, HSBC and others.

Do green funds carry more risk than other funds?

Whilst socially-responsible investing used to be driven by morality, now it is now driven by the rising price of carbon – and this has given managers with an SRI background a head start on their mainstream counterparts.

However, some experts maintain that green funds are intrinsically more risky than their mainstream (non-green) counterparts for several reasons: firstly, they tend to invest in small and mid-cap firms and secondly they tend to be reliant on government policy to drive growth in green industries – and often this goes astray.

Other advisers maintain that the transition to a low-carbon economy is a massive structural change and that the drivers behind green funds are not going away; you need to be thinking in the medium to long term.

The consensus is that you should not look at green investments for short-term gains. “If you choose a good fund, or good companies, then be prepared to stick with them in the medium term at least”, says Brigid Benson of the Gaia Partnership. “Don't look for short-term results – it could be typically three years before that company is moving into positive territory. Evaluations may well dip in the early years as they invest more or ramp up production but if they really are responding to a need – for energy conservation or renewable energy, for instance – then hopefully that company will come right in the end”, she adds.

Overall, it is the companies that can provide solutions to environmental issues – not just climate change – that will add real value, and identifying these businesses now will give investors the possibility of handsome profits in the long term. The global nature of these markets means that there is huge potential for big rewards, which is why the world's largest economies are battling it out to gain market share.

“Climate change investments are not necessarily about being ethical – although that's a nice, warm feeling which you may get as a result of it – it's actually about making money”, says Mark Hoskins of Holden & Partners. “The people who get this

first will make the money, because the market will eventually get there.”

¹ Nick Hanna is the author of *The Green Investing Handbook* (Harriman House, July 2010). www.thegreeninvestmentguide.com

Microclimates – Top stories in energy and environment

LOWER CAP FOR THIRD EU EMISSIONS TRADING PHASE SET

The European Commission has announced the new emission cap for industrial companies covered by the EU emissions trading scheme. EU ETS is the largest multi-national, emissions trading scheme in the world and currently covers over 11,000 industrial installations and power plants, which are collectively responsible for close to half of the EU's emissions of CO₂ and 40 percent of its total greenhouse gas emissions.

The new cap, set at just under 1,927 billion EU allowance (EUA) carbon credits, is 2.4 percent lower than previously and will be in place for the start of the third trading phase in 2013. The cap will then be lowered annually by 1.74 percent leading to a calculated reduction of around 35 million EUA per year. But these targets are likely to be revised in September, in order to take into account the extension of the scheme post-2012. New sectors such as aviation, aluminium and gases like nitrous oxide are set to be included in the third phase. The cap could also be changed if the EU decides to implement its promised emissions reduction target of 30 percent below 1990 levels by 2020. The third phase runs until 2020, at which point it has been predicted that the price of EUAs through the EU ETS could reach between €40 and €50. Currently, EUAs are being traded on the carbon market at around €14 and €15.

EU STATES HELP ROMANIA DEAL WITH FLOOD DISASTER

Heavy rainfall causing flooding in Romania has killed more than 20 people and forced more than 16,000 to be evacuated. The flooding began on 22nd June and rain has continued to fall since, in particular affecting the county of Bacau in the north east of the country. In the East, the situation has been described as “critical”. Riot

police are continuing to erect flood defences, whilst families of flood victims will be given 5,000 RON (€1,173). However, Vasile Blaga, the Romanian interior minister, has warned that the disaster could have a serious effect on the Romanian economy. Romania is still in the midst of a recession that last year saw its economy shrink by 7%, and current projections show that this year it will be reduced further by around 1-2%.

In answering a call for help from Romania to the EU, Belgium has sent materials, including pumps, power generators and water purification units. The Belgian convey will also carry water pumps and power generators provided by Austria, with further offers for assistance by France and Estonia being examined by Romanian authorities.

Joseph Daul, chairman of the centre-right European People's Party (EPP), has said, “the European Union is there for Romania and I sincerely hope that the example of Belgium will be followed by other member states as the economic cost of this natural disaster will be substantial”.

NEW GAS CRISIS PLANS

European states are set to be required to ensure that a reserve of 30-days worth of gas is available in the event of disruptions. The measures are designed to help the EU deal with growing tensions between Russia and Belarus, which saw the Russian state-owned pipeline company Transneft stop pumping oil into the Druzhba pipeline in 2007. The gas reserves would be put aside for supplying households and major public facilities, such as hospitals, which will be given priority over industrial users. The directive, informally agreed by the Council of Ministers and the European Parliament, is now expected to come into force from 2014.

German MEP Herbert Reul, the chair of the Parliament's industry committee, stated that “the EU will be better armed in future. This will make

us less vulnerable to political blackmail”. The agreement requires EU member states to put together national plans that would be activated in the time of supply interruptions, with the Commission co-ordinating national plans in the case of disruptions affecting more than one country. Under the plans, gas companies would also be required to ensure that gas flows could be reversed, thereby allowing gas to be sent from western Europe to the east.

TOUGH MEASURES INTRODUCED FOR EU INDUSTRIAL PLANTS

A new EU agreement, reached this week, will impose stricter requirements on industrial plants which emit pollutants that cause acid rain, such as nitrogen oxides and sulphur dioxide. Under the agreement, industrial plants would be required to introduce “best available techniques” to reduce waste and hazardous substances. The deal was achieved after a division had emerged between national governments and the European Parliament. MEPs had argued for tightly-defined European standards, whilst environment ministers insisted on the need for flexibility.

In the end, a concession was reached that supported national authorities being allowed to give licences to plants that do not use best available techniques, in the event that there be “disproportionately higher costs” compared to the environmental benefits.

Most industrial plants will be expected to comply with the new rules by 2012 and large combustion plants will be given until July 2020, which is six months earlier than originally suggested but later than the 2016 deadline that the Commission had sought. However, some plants that are nearing the end of their useful life will also be allowed to continue operating until the end of 2023, but will be limited to 17,500 hours of active service. This loophole was described by an MEP as “a European tragedy”.

EU SEEK TO PROMOTE SUSTAINABILITY IN BIOFUEL PRODUCTION

The European Commission has introduced a certification scheme in an effort to guarantee that the production of biofuels will not harm forests. The voluntary scheme will involve a screening of

the entire production chain and will apply both to crops grown in the EU and those imported.

The scheme effectively re-states rules that are already a part of EU law, in an effort to allay fears that forests could be converted into palm oil plantations or other biofuel crops. One requirement is that biofuel cannot be produced on natural forests, protected areas, wetlands and peatlands. In 2008, the EU set a target that by 2020 6-9% of its transport fuel would come from “first-generation” biofuels, referring to crops grown to be converted into fuel.

Critics say this the new scheme does not go far enough to address the indirect impact of growing biofuel crops, such as destroying forests to create farmland which ultimately is used for biofuel crops. A study by the Directorate General of Trade suggests that these secondary effects could cancel out the benefits of biofuels and even lead to a net increase in greenhouse gas emissions.

The Commission plans to carry out a consultation in the next few months on indirect land-use change. Nonetheless, Gunther Oettinger, the commissioner for energy, has said that biofuels offer “a bigger opportunity than danger”.

EU STATES MORE THAN HALF WAY TO EMISSIONS TARGET

According to a new report, the EU has already reached more than half of its 2020 emissions target, which is to cut emissions by 20% from 1990 levels by 2020.

A report by the European Environment Agency indicates that emissions fell by 11.3% (99 million tonnes of CO2 equivalent) across the EU during 2008. However, it does add that the global economic downturn was likely a key factor in the reduction. The decline was most notable in international aviation and maritime transport, while household emissions actually rose. The recession is also expected to cause a further decline in emissions in 2009. The EU also saw Member States replacing coal with gas-powered electricity generation, which came at a time of high coal prices as well as a drop in natural gas prices.

The apparent improvement in emissions has led some parties to push for even more ambitious targets for the EU, such as the 30% drop in emissions by 2020 already proposed by the European Commission. Others are calling for the EU to move away from target-based policies, which they call “scientifically incoherent”, to carbon budget schemes.

EU ENERGY TAX UNVEILED AS TOOL FOR DEALING WITH DEBT CRISIS

A draft document has revealed that the EU is planning a major overhaul of Europe’s energy tax system in response to the sovereign debt crisis. The document shows plans for a pan-European energy tax system that would make the greenest fuels the cheapest.

According to the EU, “standard taxation rules discriminate against renewable energies”. Instead, its plans are for an energy tax based on the fuels’ energy content, rather than their volume. In addition, there would be a carbon tax in the range of €4-€30 per tonne of carbon dioxide. Denmark, Sweden and Ireland already have carbon taxes, whilst Britain, Germany and the Netherlands have various eco-taxes.

Ordinarily such a participation in taxation by the EU would seem impossible to agree on. Yet, some believe that the current debt crisis offers a “window of opportunity”, as the new system could help troubled governments to cut their deficits and reduce public debts without raising income tax.

As such, the document argued that the current economic situation should play an important role in “offering member states a basis to shift the tax burden away from labour or capital”. Emer Traynor, the European Commission’s tax spokeswoman, said that the EU objective was not to raise taxes but to “restructure them in a way that consumers can understand and manage”. She added that “consumers would be able to reduce the amount of tax they pay by changing their behaviour and being more energy efficient.”

The new rules would be phased in between 2013 and 2018, with minimum rates of taxation set for everything from coal, to heating oil and biodiesel. Diplomatic sources have suggested that whilst

France was expected to support the proposal, Germany would have some problems with it.