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SMF FORESIGHT

TRADING EMISSIONS

Full Global Potential

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SUMMARY

In this essay, the author begins by stating that the global problem of climate change can only be solved on a global, international level, and asserts that carbon trading is the most effective method to do this. He discusses the benefits of cap-and-trade over other forms of regulation, and outlines the legal framework which would ensure that the business community participates whole-heartedly in expanded schemes. He also emphasises the need to have a scheme which encompasses all emissions, regardless of industry sector, and outlines how a truly global emissions trading scheme may be brought about.

INTRODUCTION

This pamphlet outlines the development of a social market – one in which we all pay for the burden we place on society and the environment through our emission of greenhouse gases.

Because greenhouse gas emissions are a truly global phenomenon, this document puts forward the idea that the only solution can be through a world market. This paper attempts to describe:

- Why a market is the best solution for this impending crisis: it is more effective than tax and a mechanism with which regulation should be a collaborator (but subordinate to);
- That such a market has to operate as such: there should be no distortion through the free allocations of allowances and with the permissions to emit auctioned sensibly by those who sanction them (i.e. governments) into the market;
- That such a market has to be established on a world basis coordinated by an international institution with a constitution to match;
- That, perhaps, it might be regarded to as having wider benefits than merely "saving the planet" – perhaps it might be the basis for a new world order, one that is not based on trade and/or conflict resolution – and, even
- Perhaps one can see a way to achieve this goal, through leadership, vision and some marginal and manageable renunciation of national sovereignty, how the world might just get there.

The repercussions of addressing climate change may extend well beyond that single but critical issue.

1. CONTEXT

The premise of this paper is that the broad scientific consensus of a looming and significant problem of which man-made greenhouse gases (GHGs) is directly responsible, is correct.[1] This paper concurs with Nicolas Stern's substantiated assertion that this "crisis", primarily caused by Carbon Dioxide (CO2) emissions, requires that we should act now – or in Stern's words, that the issue "demands an urgent global response."[2]

This short paper follows on from these scientific and economic debates to address "delivery", in essence looking ahead to how to solve the issue and what its solution might mean to the world beyond mere emissions.

Before we even try to begin with formulating a global response to these issues, it is critical to identify and address some unique features that characterise the difficulty in reducing CO2 emissions.

The first of these lies in what we shall call "the nature of the right." Humans are culturally accustomed to the "right" to own something (a car, gold, etc.). However, we are less familiar with the "right" to dispose of something (note the use of landfill permits etc.). With CO2 emissions there is nothing tangible that you can call your own, merely commitments made by your government, under the Kyoto Protocol in many cases, to limit your nation's emissions. This has effectively created a legal "right" – the "right" to emit up to those limits.

In the same vein, the effects of CO2 emissions are by their nature international in scope. Unlike other emissions such as litter, sulphur oxides and nitrous oxides whose effects can be felt at a local level, the consequence of CO2 emissions will only be felt locally when global contributions lead to climate pattern shifts and climate events (drought, flood etc.). The repercussion of this is that Governmental control in dealing with the issue has to be shared internationally.

Moreover, CO2 production has become implicit in virtually everything we do, be it heating or cooling our houses, travelling to and from work or producing goods. Spewing out CO2 has become engrained into our way of life.

These features point to the conclusion that there is no easy or simple solution to solving the issue at hand. There is no low sulphur coal equivalent and no viable alternatives readily available for commercial use (viz for CFCs to "save" the ozone layer).[3] This paper agrees with Al Gore's contention that there will be a multitude of little solutions which will add up, we must hope, to a different outcome.

This is a global problem requiring a global solution. It will be governments who play the central role in harnessing the multitude of innovations developed by the private sector ("us", in other words) and applying them on global levels to combat this enormous challenge.

2. TRADING CONFIRMED

A debate has raged around how best to control emissions. Here are the three most commonly cited mechanisms:

Regulation: legally enforceable conditions set by a branch of government (DEFRA in the UK, Environmental Protection Agency in the USA) in order to alter the behaviour of CO2-producing activities. In the recent past these have included housing standards, industrial filters and EU regulations for cars to reduce emissions to, on average, 120g/km of CO2 by 2012.[4]

Taxation or Subsidy: fiscal levies on polluting activities and subsidies for the promotion of either cuts in CO2 production or the development of "green" technologies. Taxes include larger license fees for more polluting vehicles and increases in duties for petrol or flying. The burgeoning of subsidies has seen the development of renewable obligation certificates (ROCs) in the UK and EU and UN carbon credit schemes.

Cap-and-Trading: a market mechanism whereby governments can join to limit overall emissions of CO2 or other GHG's produced by the private sector. It functions by placing emission restrictions on nations and industries and then allowing a "carbon price" to emerge as over-polluters are legally obliged to offset their excess emissions by purchasing "carbon credits" from those firms who have not used their allocated quota.

Policymakers have been reluctant to mix trade and tax (which should be considered as a pre-cursor to inclusion in a trading scheme). Meanwhile the possibility of over-zealous regulation undermining trading schemes by creating negligible marginal costs of emission (i.e. if you are regulated to cut emissions by more than the emission cap implies, then the right to emit CO2 has no value) has ruled it out as a large scale solution.

Of the three solutions we should welcome the fact that trading seems to have emerged as the dominant methodology for controlling emissions: but why is this a good thing?

The creation of a market through the cap-and-trade system as described above facilitates the private sector in taking the lead to combat Climate Change. Precedent suggests that this is usually better than a centrally-driven solution as it links individual firms' behaviour with the social and environmental cost they incur. Likewise the cap-and-trade system avoids both the ineffective "deadweight" loss incurred and the political difficulty heralded by taxation.[5]

It is this environmental trading mechanism which must be refined and expanded to create a global solution to a global problem. This is because, in addition to the innate inefficiencies in the two approaches explained above, both tax and regulation are inherently levied at a local level. Our global response to this global problem must operate on a global basis.

This last point lies at the heart of this short essay. In the following section we will show the required role of Governments in relation to the market, in relation to each other and in relation to their wider sovereign purpose.

3. ROLE OF GOVERNMENTS

3.1 Collectively

The priority is for governments to establish collectively the legal framework for emissions allowances. For these allowances to be traded internationally differing legal frameworks must be brought together – this has already taken place within the European Union (EU) through its EU-ETS (Emissions Trading System), although a mechanism for coordinating the legislation of different nation states already existed in this case.[6]

Governments must establish this legislative system on a "Triple L" programme – "Long, Loud and Legal":

- Long: it is going to be around for a long time;
- Loud: it will be the dominant mechanism for sponsoring changes in behaviour and we are going to make this perfectly clear to the world's people; and
- Legal: we will enforce it through law.

Once this is in place, Governments also have to decide how to allocate allowances across the member nations and within industrial sectors across those participant countries. Again, this is best done collectively and, if trading is to bring out its true benefits, it has to be indiscriminate of sectors – the idea of one sub-sector system trading aviation emissions at a different price from that at which electricity generation emissions are traded makes no sense and cannot be economically sustainable.

If, as recent trends suggest, auctioning is to be used to allocate emission allowances between participants there remain only two further points to decide; the level of the overall cap and how the proceeds of the auction need to be allocated amongst member nations. The latter should depend on the methodology used when auctioning the allowances;

- If auctioning is centrally coordinated by participating members, then members need to haggle over how the proceeds should be divided; and
- If each member state sells its allowances separately, then the debate concentrates on the allocation of the allowances amongst member states.

Finally, participants in the system need to agree amongst themselves the basis on which this trading initiative can be extended to future members – the EU-ETS has such a mechanism. Clearly the basis of expansion of any scheme depends on a number of features but particularly the quality of the legal protection with which the new member is prepared to protect the scheme (including sanctions for non-compliance); the quality of verification systems (verification for allowances is not challenging); and the level of caps to which it is prepared to commit. Likewise members have to agree the extension and method of inclusion of different industries, and similarly for different gases.

An essential feature of this system is that all these decisions and actions have to be taken collectively between participating nation states. This is crucial for international trading to work and deliver superior decision-making and GHG reduction across the board. In particular, it is essential that governments collectively instil a sense of direction and purpose.

3.2 Individually

Presuming that auctioning allowances is the way forward for allocating the emissions cap, governments will have the option to spend the proceeds of theses auctions. It is this commentator's belief that all aspects of the auctions need to be administered collectively, with the one exception of how the money should be spent. This decision should be taken nationally.

It is important to note that a government should not undermine or contradict the system by subsidising those industries which would at that point be incurring the brunt of the new charges. Governments should use the windfall to offer encouragement in different ways:

- To promote new technologies under schemes in the mould of "launch aid" (subsidy to Airbus for developing "cleaner" aeroplanes);
- To help consumers make necessary changes to their behaviour; and
- To develop alternative facilities (the launch of new public transport schemes).

Alternatively the government can use the money raised to alleviate other taxes, as long as this does not undermine the principle of reducing CO2 emissions by, for example, subsidising the consumption of the very goods/ services to which the trading system is meant to ascribe a cost.

A commonly quoted criticism of the described system has been that old age pensioners in Western Europe might end up shivering in their homes during winter because the price of CO2 goes up due to larger demand for allowances caused by increases in, say, air travel by those who are earning. If this is the case, the solution should be to pay all pensioners a special winter supplement whether or not they have a large draughty house. Do not reduce their cost of gas, remembering too, that the same pensioner will be afforded some protection since the cost of living (Retail Pricing Index) should pick up the new emissions and be reflected back, at the margin, in an increased pension.

It is the principle of not undermining the system through contradictory subsidies that must be adhered to when national governments spend the money in their yearly budgets.

3.3 Subordinating sovereignty

Implicit in all the above is that nations have to be prepared to subordinate, to a certain extent, some element of their sovereignty to this world initiative. In particular, under this broader trading environment, Governments will not be able to say "we will cut emissions by x per cent by such and such a date". Rather such statements have to morph to: "we will make our contribution to a scheme which cuts, across certain industries and gases, emissions by y per cent by this date". They can add the statement "our contribution [as measured by our share of the allowances distributed] will be to contribute a cutting of emissions by x per cent by such and such date". Direct commitments are more difficult to give. Language has to change.

The political costs of such loss of sovereignty are lengthy. Loss of competitiveness (massively overstated in the activities in which energy is used – especially since trade will be more difficult, if, at the margin, transport is made more costly), loss of power and loss of direct control over economic levers are potentially the most significant and give the most cause for concern. But these actions are necessary if we are to answer the accusation that "it doesn't matter what we do when China is expanding its energy usage at its current rate" – we have to bring China and India in and they are not going to enter a scheme where they do not have a "say". When countries are already foregoing the right of direct control over monetary policy through the creation of independent central banks, this could appear a relatively small price to pay for such inclusion.

The EU member states have recognised their need to subordinate sovereignty to the EU; in time, if this is to work, the EU itself will need to yield sovereignty to a bigger world body on carbon trading.

4. A WORLD BODY – ATTRACTIVE AND EFFECTIVE

4.1 What

There are three major tasks that must be implemented by a world body;

- Capping: the authority needs to have the jurisdiction and regulatory framework to set an emissions cap across the countries, industries and gases over which it operates. Consensus on a cap seems to be established by reference to a target temperature: "to limit global warming to a maximum of 2˚C."[7] However within this long-term target there needs to be a detailed programme of reduction on a staged basis for individual GHG emissions as well as an understanding of the economic assumptions that underlay these targets. Moreover, until there is one scheme covering all GHG's, there has to be a presumption as to the relative commitment the various industries and participating countries should be making to that cap;

- Allocating: after the cap is decided under the trading scheme, then the allocation of that cap (or, alternatively, the proceeds from centrally auctioning its allowances) needs to be agreed.[8] This debate is very similar to that raised above on how to decide the contribution of a partial world scheme. Reducing emissions is all about setting clear and deliverable doctrines for adapting behaviour and technologies. There can be no single step approach but there has to be a march towards world sharing. Accordingly it seems obvious that the allocation of the emissions cap needs to start by recognising current levels of emissions but trend towards recognising world populations – in other words that each country should be allowed to emit the proportion of the world's emissions which relate to its population. This should be based on today's national populations thereby encouraging all countries to cut emissions as much as they can – based on the one common denominator of man-made emissions, population. In this, of course, China is well ahead of us all.

If such a profile were adopted, it would become apparent to nations such as India and China that they would have much to gain from joining such a scheme. Clearly those countries (i.e. the more developed) that would end up "subsidising" this restraint would have to consider the cost that this might entail. Nonetheless set against current budgets for world policing and aid that wealthier nations responsibly and reliably already spend on supporting those countries less fortunate, the trade-off would be positive. Within the countries so subsidised, it might be hoped that such monies raised from restraint might go directly to assist the poor who are so disadvantaged, but that, as specified in 3.2 above, has to be a decision for each country to consider individually.

- Expanding: as discussed above, the EU scheme needs to evolve. It is unlikely to be the case that it suddenly applies immediately across the world. The Kyoto Protocol bears witness to the fact that different nations work at different speeds and it may be wrong to include a nation until it is truly ready.

  Accordingly, the "world body" is unlikely to start off as such, but it needs to have a constitution that allows it to expand (covering nations, industries and gases) and amend its own workings. This constitution which could be based on a combination between the concept of partnership (one member one vote) and the concept of UK corporates (major decisions affecting the constitution must be approved by three quarters, by population size, of those present and voting). The barriers for securing agreement need to be reasonably high; this is an effort in which true belief is as important as merely signing a treaty.

The Foreign Secretary, David Miliband, has recently launched the concept of a European Carbon Bank.[9] This is to be welcomed, especially if it could be constituted by Europe with the capability of "maturing" into an international equivalent.

4.2 Whom

The body needs to represent a new step forward. It may start from the EU but should not be, as is the UN, based on the security of nations. Moreover, it should not be dominated by any one nation or group of nations, as the Security Council dominates the UN.

Above all, this body should boast a very focussed function. Part of the benefits of privatisation has been the separation of industries from governments which are burdened with overlapping and conflicting objectives (financial, political, and social). These businesses then benefit from focus and a clear remit. So too should it be for the "World Environment Agency" (WEA) that I am proposing in this article.

4.3 Where

The location of this body should depend on finding a country and city which combines the necessary skills, the political stability and the leadership and commitment that are necessary to secure its faculty in terms of offering facilities and support (attractive tax base etc); a world city with world skills and world facilities.

The commitment of a single focus, clear, well-constituted world body is essential to the success of this initiative. If fudge or compromise is adopted to resolve difficulties the lack of clarity will overlay the operation of the scheme for years to come; that would be unforgivable.

5. AND IN A BROADER CONTEXT

The focus of this paper and this endeavour has to be about saving the world from the adverse impacts of its dominant species, man. Moreover, it is entirely possible that such an initiative and the creation of the WEA might produce externalities not obvious at first sight and not constrained by the primary objective of this venture (i.e. reducing global GHG emissions).

As emissions trading expands so will its message. It could be envisaged that, across the world, each individual will come to know, when the bill comes in, exactly what the cost of turning on the gas or a light was to the environment. Perhaps individuals will gain a new appreciation of their burden on the broader world.

As mentioned in 4.1, this system whose size of allocations are based on population could act as a serious restraint on population growth, although a "release valve" might be required to allow targets to be adjusted to take account of population migration. More significant however, is the prospect that these allowances become the reserve currency of the world, taking over that role held for most of the 20th century by gold.

So emissions trading could establish a new world order for a sustainable planet.

6. HOW TO GET THERE?

There is the old joke that a traveller in a foreign land asks a local how to get to his destination; the answer comes back "Well, I wouldn't start from here".

In a similar vein, the world has a long way to go to achieve the objectives set out in this paper. It is difficult but not impossible and there are many routes that might be followed; what follows is an outline of one such path:

With its expanding boundaries, economics strength and a trading system (however imperfect) already in place, the EU is a natural candidate to lead the process of a global GHG trading scheme. To achieve this, the EU must in first instance remould its trading scheme (the EU-ETS) so that it can become the basis through which a future world scheme can emerge. This must include a clear blueprint for auctioning allowances (ideally centrally controlled) and covering the entire range of gases and industries with economically viable targets. These targets should be increasingly allocated on a population basis.

By asking its members to renounce sovereignty over the allocation of their emissions so must the EU accept that when the time is right it must be prepared to relinquish its sovereignty. It would be hoped that by that time the ground work would have been carried out for the constitution that a world scheme would require.

Overtures towards emerging nations (China and India most prominent among them) should begin now on the basis that over time the scheme would trend towards an allocation of allowances that does not favour any nation on consumption but rather today's population.

It must be recognised that the US will today shy away from the project, but experience suggests they will join when it suits them – less so when the world expects them, as a world leader, to do so. However it must be made clear to them that by joining now they can join the planning of the scheme.

Above all, this plan requires "sponsors" – a country prepared to host it and a senior politician prepared to lead this new initiative.

If such a route map could be found, then perhaps we might be at the beginning of a new world constitution and a new world order.

7. A NATURAL ROLE FOR LONDON

As itemised above, the new World Environment Agency needs access to sponsorship of a country that combines the skills, political stability, leadership and essential commitment with the necessary support facilities. One might like to think of the UK putting London forward for such a role:

- Environmental commitment: there can be little doubt that the UK is a leader in its desire to press reductions across the land – for example it has set environmental targets of 20-30% reductions by 2020 which have now been adopted, in a different and in a slightly varied form by the EU for Europe as a whole;
- Leadership: the UK has led with the UK-ETS a necessary demonstrator to the EU-ETS; Tony Blair placed the environment at centre stage of the political debate as president of Europe and in the 2006 G8 summit;
- Political stability: the UK boasts one of the longest serving political democracies in the world; the political debate in the UK is such that there is no fundamental difference between the main parties – the UK's democracy has developed to a stage of boring interdependency in which the environment is centre stage. There can be little doubt of the consensual stability surrounding this issue; and
- Skills: London currently trades around 60% of European Emission Allowances; it trades more dollars than the US and more euros than the whole of Euroland. London is a world financial centre (possibly "the" world financial centre).

Furthermore, London has the essential support facilities: its language is the world's lingua franca, its geographical position puts it at the mid-point of the world's day and it is one of the most international cities in the world in which delegates to a world Agency would feel comfortably "at home".

With a politician of character and vigour to espouse the principles of emissions trading and to a suitable site – the old County Hall might be the obvious one – London would make a compelling case to house the World Environmental Agency.

But is this Government ready to promote and offer London, the natural home for a "World Environment Agency", to take that natural and yet international role?

If we cannot work together to deliver the changes necessary then all the scientists and economists who tell us we should do something and do it now will have wasted their collective breath; it may be their last.

ABOUT THE AUTHOR

Simon Linnett is an Executive Vice Chairman of Rothschild. He has enjoyed 25 years of privatisation and PPP experience with the Bank, leading that effort for the majority of that time. For the last ten years, Simon has been in dialogue with both UK and, more recently, EU administrations about the future evolution of emissions trading of which he has long been a proponent. This paper represents his personal views only.

ENDNOTES

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2 Nicolas Stern, *The Stern Review Report on the Economics of Climate Change* (HMSO, 2006); Summary of conclusions, p. vi.

3 CFCs are Chlorofluorocarbons. Deborah M B Adams, Katarina Rousaki, Irene M. Smith, Jan L. Vernon, *Greenhouse gases – emissions and control* (IEA Clean Coal Centre, 2003); p. 28.

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5 Frank Convery, 'Issues in Emissions Trading – An Introduction', (Environmental Institute, University College Dublin, 2003); p. 8.

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7. Intergovernmental Panel on Climate Change, 2007.

8 Frank Convery, *Issues in Emissions Trading – An Introduction*.

9 David Miliband, speech to the College of Europe, Bruges, 15 November 2007; available at http://www.fco.gov.uk.

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