WHAT IS CLIMATE CHANGE POLICY NOW TRYING TO ACHIEVE?

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Abstract
Almost all advocates of international climate change policy hope and expect that the Climate Change Conference to be held in Paris in November–December 2015 will reach an agreement to reduce global anthropomorphic greenhouse gas emissions. Yet more than 25 years of international climate change policy has failed to reach such an agreement; emissions, far from having been reduced, have greatly increased. In the author's view, no such agreement will be reached in Paris. Anticipating this, Lord Stern, a highly influential figure in international climate change policy, has restated the case for continuing with this policy while relinquishing the objective of reaching such an agreement, though it had previously been claimed that this was essential to 'save the world'. Advocating the continuation of climate change policy while disavowing a formerly acknowledged condition of its success seems to represent a further stage in the abandonment of rationality in climate change policy formulation.

JEL codes: Q54, Q58.

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1. Introduction

Combining academic achievement in economics with distinction in academic leadership and in domestic and international policymaking, Nicholas Stern, now Baron Stern of Brentford, the author of *The Economics of Climate Change*, widely known by its subtitle *The Stern Review* (Stern 2007), has played a major role in giving international climate change policy its basic shape. He has persuasively argued for the enormous effort that has been made to reduce anthropomorphic greenhouse gas (GHG) emissions (UN 1997, Annex A) in order to 'mitigate' 'dangerous anthropogenic interference' (UN 1992, art. 2) with the global climate. Though, as we shall see, Lord Stern's confidence about shaping future policy is but little diminished by this, the mitigation policy has been a failure. The global cost of its pursuit so far may well already be in excess of a trillion dollars. At the end of the 'First Commitment Period' (FCP) under the Kyoto Protocol in December 2012, global GHG emissions, far from having been reduced, had reached at least 150 per cent of their level in 1990, the year generally used as an emissions baseline in climate change policy. But this should be unsurprising as a quarter-century of international climate change negotiations had yielded no agreement to reduce those emissions.

The publication in May 2015 of *Why Are Waiting?*[1] is Lord Stern's principal intellectual effort to influence the international Climate Change Conference to be held in Paris in November and December 2015, at which, so it is almost universally maintained by those who support the mitigation policy, the missing emissions reduction agreement is to be reached. One of the reasons why *The Stern Review* has been so influential is that it initially appeared as a

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government report, commissioned by Gordon Brown when Chancellor of the Exchequer, which Sir Nicholas Stern (as he then was) produced while a senior Treasury official. Mr Brown had acted partially in response to a House of Lords Economic Affairs Committee recommendation that the Treasury should make its own assessment of the economics of climate change policy (House of Lords Select Committee on Economic Affairs 2005, para. 105). The Foreword to *Why Are We Waiting?* is provided by Lord Layard, a member of that Committee, who describes *The Stern Review* as 'the world's most authoritative statement on the subject' (Stern 2015, p. ix). Lord Layard, writing in July 2014, told us that 'In 2010 the nations agreed to limit the rise in world temperature to 2°C, and more recently they have agreed how to do it. December 2015 is the date when they will reach this agreement' (Stern 2015, p. ix). As we shall see, Lord Layard's two claims about what has happened are quite wrong, and his prediction is, it is submitted, also wrong, for paradoxically Stern's book is written on the basis of a belief, which should be made very clear, that no such agreement will be reached in Paris.

However, this article discusses, not the pending failure in Paris, but the nature of the international climate change policy formulation process in the light of the realisation that Lord Stern himself no longer maintains the position authoritatively stated by Lord Layard. In his own Preface to *Why Are We Waiting?* Lord Stern tells us that his 'experience of international collaboration' has led to 'my own thoughts [having] changed over the last five or six years on this set of issues', and that he now 'can see that looking for formal international sanctions within an agreement that have [*sic*] real "bite" may be a mistake' (Stern 2015, p. xviii). I have no doubt this statement would be a very considerable surprise to Lord Layard, as it has been to every advocate of the mitigation policy to whom I have made it known.[2] In light of this statement the question urgently arises of what international climate change policy, as Lord Stern sees it, is now trying to achieve.

I suggest that the Paris conference will be a failure for the same reason that all previous international climate change negotiations have been failures. Far from reaching or leading to a global emissions-reduction agreement, those negotiations have been based on agreeing that the major industrialising countries (MICs), of which the People's Republic of China (PRC) is the most important and on which I shall, for reasons of brevity, heavily focus (though India is a duplicate case), cannot be required to reduce their emissions. As the emissions trajectory of the PRC alone was and is more than enough to make it impossible to reduce emissions below 1990 levels, this means that the mitigation policy was bound to fail from the outset, has failed, and I argue will always fail. But I (with colleagues) have made this argument on a number of previous occasions (Campbell 2013, 2015; Campbell, Klaes and Bignell 2010), a summary statement of it already having appeared in the pages of this journal (Campbell and Klaes 2011). I intend to recap this argument only insofar as is necessary to ask what the Paris conference can possibly do in these circumstances.[3]

For the great interest of *Why Are We Waiting?* is that in it Lord Stern anticipates failure to reach agreement in Paris and seeks to redefine the criteria of the conference's success so that international climate change policy can be continued without such agreement. This remarkable volte-face by Lord Stern, who formerly insisted that an agreement of this sort was necessary to 'save the world', seems to signify a further stage in the abandonment of rationality in the formulation and assessment of climate change policy. Rather than avoiding global warming, the perpetuation of international climate change policy appears to have become Lord Stern's goal in itself.

2. The foundation of international climate change policy

This paper will not discuss the UN's claim that 'dangerous anthropogenic interference' (DAI) is taking place but will assume the claim to be true in order to evaluate the mitigation policy as a regulatory response to the problem thus described. *The Stern Review* considered two general responses: mitigation and adaptation. These were not strictly speaking considered as alternatives (Stern 2007, p. 346) because, as it was concluded that actual prevention of DAI was 'no longer possible' (2007, p. 333), mitigation alone would obviously allow some unwelcome effects to which adaptation would be necessary. However, *The Stern Review* did discuss mitigation and adaptation as alternatives in the sense that, rather than wait and adapt in the light of unfolding circumstances, its principal conclusion was that, despite the immense cost and the forecasting difficulties involved, mitigation which anticipates and limits the effects of global warming is the most cost-effective policy. Mitigation is a matter of reducing greenhouse gas emissions sufficiently to 'stabilise' the concentration of GHG in the atmosphere, and thus limit the anthropogenic global warming or 'greenhouse' effect. In sum:

> Stabilising the stock of greenhouse gases . . . requires urgent, substantial action to reduce emissions, firstly to ensure that emissions peak in the next few decades and secondly, to make the rate of decline in emissions as [high] as possible. If insufficient action is taken now to reduce emissions, stabilisation will become more difficult in the longer term, in terms of the speed of the transition required and the consequent costs of mitigation . . . it is possible to identify technological options for stabilising greenhouse gas concentrations in the atmosphere that would cost around 1% of world global domestic product – moderate in comparison with the high cost of potential impacts . . . spending somewhere in the region of 1% of world gross domestic product on average forever could prevent the world from losing 5–20% of gross world product forever . . . This can be thought of as akin to an investment. (Stern 2007, pp. 236, 320)

The huge national and international bureaucracy, at the centre of which is the United Nations Framework Convention on Climate Change Secretariat (UNFCCCS) (UN 1992, art. 8; UNFCCC 1995, paras 89–122) that has been created to implement climate change policy is justified by the nature of the problem. Global warming is, precisely, global. Anthropomorphic emissions anywhere in the world contribute to the atmospheric concentration of GHGs. The response to such a problem has to be global, and climate change policy indeed constitutes a very important development in the theory and practice of regulation by being the first globally coordinated attempt to intervene in order to pursue the welfare economic correction of a perceived market failure imposing an environmental harm. I have previously called climate change policy 'global welfare economics' (Campbell, Klaes and Bignell 2010, pp. 164–7), but this feature of climate change policy has perhaps been better captured in the rather good pun on the environmental and global aspects of 'planetary economics' in the title of a book on the subject by a leading academic proponent of that policy (Grubb 2014).

With this in mind, formulating and implementing the mitigation policy requires the following:

(1) identification of the cost of the consequences of global emissions on a 'business as usual' basis, that is, without steps in mitigation being taken;

(2) identification of a target atmospheric GHG concentration which will limit those costs to an agreed cost-effective level;
(3) the compilation of a global inventory of emissions in which responsibility for those emissions is allocated to national authorities which have the capacity to make efforts in mitigation;[4]
(4) a binding commitment from those authorities to reduce global emissions so as to achieve (2); and
(5) implementation of that commitment by those authorities.

It is the failure to satisfy (4) that is of interest to us, and, save as it is necessary in order to put (4) into context, nothing will be said about the failures of (1), (2), (3) and (5).

Though official expressions of concern about and discussion of responses to GHG emissions can be traced to the 1970s, for the purposes of evaluating current climate change policy it is best if we identify its beginning with the creation of the Intergovernmental Panel on Climate Change (IPCC) in 1998 (UN General Assembly 1988, para. 5). This, however, obliges us to say that more than a quarter-century of attempts to formulate and implement that policy has failed to satisfy requirement (4). So far there has been no agreement to reduce global emissions, and the particular weight that has generally been placed on the Paris conference is the belief that a binding agreement to do so will be reached there.

The legal foundation of international climate change policy is the 1992 *United Nations Framework Convention on Climate Change* (UN 1992) and the 1997 Kyoto Protocol to that Convention (UN 1997). There are annual Climate Change Conferences of the Parties to the Framework Convention (COPs),[5] as well as many meetings of subsidiary bodies. COP1 was held in Berlin in 1995; the Paris conference will be COP21. Lord Stern reviews the results of the international climate change negotiations in *Why Are We Waiting?* What he says can conveniently be divided into three parts, which may be referred to by the name of the city associated with a stage in the climate change negotiations: Kyoto, Copenhagen and Paris.

3. Kyoto

When attempting to evaluate international climate change policy, one has to be realistic about how it might work, and it would be inappropriate to expect its formulation and implementation to be a matter of clear-cut calculation, agreement and execution. The Framework Convention did not even attempt (4) in our list of requirements for a successful mitigation policy. Its objective was set out in very general, indeed tautological, terms as the stabilisation of emissions at a level which would prevent DAI (UN 1992, art. 2), and no concrete emissions-reduction targets at all were set. The Kyoto Protocol did set such targets for, essentially, the developed countries, and these targets should have led to at least a 5 per cent average reduction of these countries' GHG emissions below 1990 base levels by the end of the FCP (UN 1997, art. 3, para. 1). But 5 per cent of 1990 levels was in a most important sense a random figure unrelated to any (2) target, of which no mention was made, and it is not unreasonable (though in my view wrong) to see the Framework Convention and its Protocol as defensible attempts to get the ball rolling (Stern 2007, p. 542). Viewed in this way they have been a great success, as the sums spent on climate change policy so far show. The Convention and its Protocol established what Stern (and others) call 'the Kyoto approach': 'the climate governance framework [of the Kyoto

Protocol] embodied . . . an attempt at centralised legalistic "control" at the international level over a predefined output of domestic GHG emissions from a limited group of countries over a long period of time' (Stern 2015, p. 215).

That there has since been not merely a failure to obtain any global reductions but a very large growth of 2012 emissions over 1990 levels followed from three main features of the Kyoto approach. First, the diplomacy establishing that approach broke down spectacularly when the United States (US), at that time the world's largest emitter and obviously essential to any effective global policy, refused to ratify the Protocol, with the result that the US has never had any emissions-reduction targets linked to international climate change policy. For the purposes of analysing the fundamental shortcomings of that policy, this diplomatic failure is, however, incidental. Secondly, there were all sorts of shortcomings in the design and operation of the 'flexible mechanisms' (UN 1997, arts 6, 12, 17) which the Protocol established to pursue reductions efforts. A very large library has been written about these shortcomings, particularly in criticism of developed countries' emissions-reduction efforts, to which Stern (2015, pp. 215–16) contributes. However, these shortcomings also are incidental to the analysis of the fundamental problems with the Kyoto approach.

For, thirdly, the Kyoto approach to the emissions of developing countries was, in my view, in itself a fundamental mistake which made global emissions reduction impossible from the outset. The basic strategy of climate change law has been to distinguish between developed and developing countries (UN 1992, Annex 1; 1997, Annex B), and to ask both to recognise their 'common but differentiated responsibilities' to reduce emissions (UN 1992, preamble). Responsibility, both for historical emissions and for making reductions now, has been, as a matter of 'climate justice', very much placed on the developed countries, which 'should take the lead in combating climate change' (UN 1992, art. 3(1)). We have seen that Kyoto commitments were entirely a matter for developed countries. But whatever the abstract merits of the climate justice argument, an exclusive focus on reductions by developed countries makes global reduction impossible.

For amongst the developing countries are the MICs, including the PRC, and these countries themselves make global reduction impossible. The PRC's immense economic growth since 1979, generally at 10 per cent per annum, has led to it becoming the world's largest emitter, now responsible for more than 30 per cent of global emissions. What is more, the PRC still has much to do. It has a population of over 1.3bn, a billion more people than the US. The benefits of the PRC's growth have been concentrated on the more than 250m now living in or around its major coastal cities. Its hinterland population is still very poor. There are approaching a billion people in the PRC living on less than US$5 a day and over 500m living on less than US$2.50. This is reflected in the PRC's per capita emissions still being a third of those of the US. If the PRC's policy of extending the benefits of its growth to its poverty-stricken hinterland continues to be successful, the growth of its emissions will itself continue to make global reduction impossible.

This has previously been a very difficult argument to make, but it is now generally accepted by the leading proponents of climate change policy, with Lord Stern (2015, p. 217) himself accepting it in *Why Are We Waiting?*;[6] and though he puts the point less strongly than it is put here, the difference of emphasis need not be addressed. His account of the reason for this debilitating failure is that:

> While it was envisaged by many that the obligations of developing countries would be 'differentiated' in kind and degree from those of developed countries, many developing countries, and the major emerging economies in particular, have nonetheless resisted calls for them to be 'legally bound' by a new international limit regime of emissions limits [arguing] that they should have the freedom to continue to emit greenhouse gases as they develop, and that the developed countries, having disproportionately caused the climate problem in the first place, ought to take the lead in reducing emissions. (Stern 2015, p. 217)

Lord Stern is being rather modest about his own very important role in placing climate justice at the heart of climate change policy. *The Stern Review* insisted that, although effective global action 'will require reductions to take place in both developed and developing countries', '[g]iven the ability to bear costs and historical responsibility for the stock of GHGs, equity requires that rich countries bear a greater share of the costs' (2007, p. 535).[7] In this way, Lord Stern placed climate justice just as much as mitigation at the heart of international climate policy. This in itself is of less importance than his failure properly to identify the legal implications of the common but differentiated responsibilities strategy and therefore of the problem which he now acknowledges in relation to the developing countries. For though it certainly is the case that no binding commitment to global reductions has been reached, a perfectly clear agreement about emissions has in fact been reached, but it is in reality an agreement to allow their unlimited growth.

Article 4(7) of the Framework Convention provides that:

> The extent to which developing country Parties will effectively implement their commitments under the Convention . . . will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties. (UN 1992, art. 4(7))

Affirmed at Kyoto and, as we shall see, repeated at Copenhagen (and indeed at all subsequent COPs), this actual treaty provision is *an effective permission to developing countries to emit as much as they find necessary for their economic growth*. It is inconceivable that the major industrialising countries would have agreed the Framework Convention without something of the nature of article 4(7) being included in that Convention. But while agreement of the Convention was reached only by its inclusion, including article 4(7) meant that the purpose of the Convention was defeated from the outset. The mitigation policy can work only if it bindingly and bitingly caps emissions. While the Kyoto caps on developed countries' emissions were unrelated to a global target for emissions reduction, under the common but differentiated responsibilities strategy no caps have ever been placed on developing countries, and article 4(7) effectively stipulates that no such caps are ever likely to be placed on those countries. The major industrialising countries have shown no sign of accepting binding and biting caps; indeed, they have vehemently insisted that they will not do so.

As recognition of the disastrous implications of (in particular) the PRC's position has emerged, the MICs have come under fire from those committed to the mitigation policy. In his Foreword to *Why Are We Waiting?*, Lord Layard presumably has them (and the US) in mind when he refers to 'many great nations [which] have shown a shocking unwillingness to co-operate for the common good' (Stern 2015, p. ix). But, as a legal matter, it is quite wrong to criticise the diplomacy of the MICs. They have merely insisted upon what was agreed in 1992,

which is that they have no concrete responsibility to reduce emissions. Their common responsibility is so differentiated that it doesn't exist.

Lord Stern has in my view never adequately appreciated this point, though he has, of course, perceived that the position of the MICs under the Kyoto approach was one which could not be allowed to continue. In the second part of his discussion of international climate change negotiations he turns to the attempt that was made to address this in Copenhagen.

4. Copenhagen

Though the full significance of article 4(7) has never been addressed in international climate change negotiations, some appreciation of the unacceptability of the position of the developing countries did lead to COP13, held in Bali in 2007, to reach what was widely reported in the UK, and is described by Lord Stern (2015, p. 217), as an agreement to commit to global absolute emissions reduction at COP15 to be held in Copenhagen in 2009 (UNFCCC 2008, Decision 1/CP.13). Arguably the results of COP13 should not be interpreted in this way, but the point is now hardly worth arguing over; far from implementing the 'Bali Action Plan' or 'Road Map', COP15 was a diplomatic failure which reached no agreement whatsoever.

Having noted a number of the shortcomings of COP15, Lord Stern goes on to say that:

> Despite these limitations, the meeting produced a document of value, the Copenhagen Accord. The Accord recognised . . . the need to limit global temperature increases to no more than 2°C . . . and led to the submission of emission plans for 2020 by major emitters. This was a very important step. Some countries, including China and the US, presented emissions reduction targets for the first time . . . countries promised to table emissions reductions by the end of January 2010, and on the whole they did so, with pledges coming from countries representing the vast majority of world emissions. (Stern 2015, p. 218)

This is, with respect, seriously misleading. By referring to 2°C, Lord Stern is referring to the now widely discussed goal of reducing emissions so that dangerous anthropogenic interference, which we have noted has long been acknowledged cannot be prevented, is limited to 2°C above pre-industrial temperatures. The meaning of 'recognised', which he adopts from the Accord, is ambiguous. If it is intended to convey that the COP15 adopted the 2°C target in any concrete or legally binding way, then this is quite wrong.[8] First, Lord Stern does not make it sufficiently clear that the COP15 was unable to agree anything at all through proper United Nations (UN) negotiating channels. COP15 was saved from utter embarrassment only by the action of a self-selecting group of five countries, Brazil, India, the PRC, South Africa and the US, which drafted the Copenhagen Accord, which, far from being a treaty commitment or the like, is an informal document of no legal status that appears in the Report of the COP proceedings as something of which the Parties merely 'took note' (UNFCCC 2010, Decision 2/CP/15). The most important thing about the Accord is that it marked the absence, not the presence, of agreement.

Secondly, it should be made clear that any sort of 'official' adoption of the 2°C target has been the work, not of the UN process, but of various institutions of the European Union (EU). This was precisely in response to the perceived failure of the UN negotiating process to satisfy requirement (2), identification of a target atmospheric GHG concentration which will limit those costs to an agreed cost-effective level, of our list of four requirements for a successful

mitigation policy. First put forward, to the best of my knowledge, at a meeting of the Council of the European Union in 1996 in order to push forward climate change negotiations which were even then giving 'concern' because they were 'not advancing as needed to achieve [their] intended objective' (Council of the European Union 1996, para. 1), EU promotion of the 2°C target was stepped up after 2009 in order to 'reinvigorate' a process manifestly damaged by COP15 (European Commission 2010). But the 2°C target has never been agreed even within the EU, if by 'agreed' is meant made legally binding, with a programme of emissions reductions put in place. The EU's own policy, now called the 2020 Climate and Energy Package, is basically a 20 per cent reduction in emissions below 1990 levels and an increase of the share of EU energy consumption produced from renewables to 20 per cent by 2020 (European Parliament and Council of the European Union 2009). This itself is merely arbitrary in that it is not and cannot be related to any target for global emissions reduction, much less the 2°C target. Even less has the 2°C ever been agreed in the UN negotiations, though diplomacy in which the EU and the UK have played leading parts has led to the 2°C target always appearing in reports of COP proceedings (even then only in preambulatory material or stated in such a way as to strictly divorce it from any concrete commitment).

While it is true that reference to the 2°C target is made in the Copenhagen Accord, this is always merely in the form of a vague objective rather than a commitment to concrete action of any sort. Para 1 of the Accord says that:

> To achieve the ultimate objective of the [Framework] Convention to stabilize greenhouse gas concentration in the atmosphere at a level that would prevent dangerous anthropological interference with the climate system, we shall, recognizing the scientific view that the increase in global temperature should be below 2°C, on the basis of equity and in the context of sustainable development, enhance our long-term co-operative action to combat climate change. (UNFCCC 2010, Decision 2/CP/15, para. 1)

If this is an agreement to do anything, it is an agreement, not of the 2°C target, but only to 'enhance . . . long-term co-operative action'. This is not one whit more concrete than the Framework Convention's aim to prevent DAI; arguably it is less concrete, and it certainly has no comparable legal status to article 4(7), an actual treaty provision of the Convention.

Thirdly, Lord Stern claims that reduction 'pledges' were made under the Copenhagen Accord. It is true that, in the end, almost all Parties to COP15 did indeed respond to an invitation to notify the UNFCCCS of any such action about their emissions as they might unilaterally and voluntarily undertake (UNFCCC 2010, Decision 2/CP/15, paras 4–5). But despite Lord Stern's following common climate change policy usage by calling them 'pledges', none of the notifications by significant emitters gave any undertaking to make absolute emission reductions, and indeed they strenuously rejected the possibility that they might do so. Lord Stern specifically mentions the notifications made by the PRC and the US. In the interests of brevity I discuss only the former, but the PRC's notification was entirely representative, not only of the tenor of the US notification, but of the tenor of all the notifications made by significant emitters.

The essential wording of the PRC's notification is that 'China will endeavour to lower its carbon dioxide emissions per unit of gross domestic product (GDP) by 40–45% by 2020 compared to the 2005 level', and immediately asks those reading this to:

> note that the above-mentioned autonomous domestic mitigation [action] would be voluntary in nature and will be implemented in accordance with the principles and provisions of the UNFCCC, in particular Article 4, paragraph 7. (Su 2010)

Nothing of the insistently voluntary quality of this notification, which is made explicitly subject to the article of Framework Convention that means that developing countries such as the PRC can never be required to cap their emissions, emerges from Lord Stern's description of it. But it must be said that, if one decouples a pledge from a sense of being bound, one is decoupling it from its legitimate meaning.

And, even more significantly, it must be noted that the PRC's 'endeavour' is to lower carbon intensity. Reduction in carbon intensity and reduction in absolute emissions must be sharply distinguished. Carbon intensity is a measure of the amount of GHG which must be emitted to obtain a certain increase in GDP. Such a reduction carries no implication that it will involve an absolute reduction of emissions. Lord Stern makes no mention of this, and so what he says would lead his readers to believe that what was being proposed would lead to an absolute reduction which in some way is linked to achievement of the 2°C target.

Broadly speaking, absolute emissions and economic growth are strongly correlated, but, with increasing sophistication of technology, the rate at which growth requires emissions, that is to say, carbon intensity, falls. The PRC's economic growth will involve a reduction of carbon intensity as new plant is installed and old plant is retired. But reduction in carbon intensity may be perfectly consistent with unbounded absolute growth in emissions, depending on how much economic growth there is; and such are the economic growth targets of the MICs that their reductions in carbon intensity will be made, not despite but because of a growth in absolute emissions. The PRC will not retire all existing generating capacity and replace it only with an equivalent or smaller capacity generated by lower-intensity plant. It will retire older capacity in the course of an immense expansion of overall capacity. In such circumstances, as new plant is installed and old plant is retired, carbon intensity falls, but the fall is obtained through absolute growth of emissions, and the faster the fall in intensity, the greater will be the rise in absolute emissions. The PRC's extremely ambitious and apparently positive intensity targets actually represent a statement that the absolute increase in its emissions will be vast.

In sum, though Lord Stern takes on board the failure of COP15 in *Why Are We Waiting?*, and we shall now turn to his response to that failure, the picture he paints of the Copenhagen Accord is over-optimistic. It is a picture of a sort of agreement when it is most important to recognise that there was no actual agreement. Furthermore, the PRC's notification under the Accord is, in form, as strong a diplomatic statement as it is possible to conceive of resistance to a global emissions-reduction agreement. In substance, it is a statement of intent vastly to increase absolute emissions. These points do not emerge from *Why Are We Waiting?* Proper examination of the other notifications under the Accord would show the PRC's notification to be quite typical of those by significant emitters.

4. Paris

In his evaluation of the Copenhagen Accord, Lord Stern makes a claim that is rather hard to reconcile with that aspect of his views which it is the main aim of this article to address. He tells us that 'The resiliency of the Accord has been greater than most expected. It laid a strong

basis for future COP meetings' (Stern 2015, p. 218) and gives a rather positive account of climate change negotiations since COP15 in anticipation of the forthcoming COP21 in Paris (2015, pp. 218–21). This positivity is misplaced, and those negotiations will very briefly be reviewed in order to describe what is generally hoped for from Paris. But it is not intended to dispute what Lord Stern himself says, for the interest of his current views is that overall he himself no longer shares the general optimism for Paris.

Shaken by Copenhagen, COP16 in 2010 in Cancún, though of course reciting a commitment to the mitigation policy, did not seek to do very much about global reduction; and the focus seemed to some extent to shift from mitigation to adaptation. But at COP17 in Durban in 2011, the 'Durban Platform for Enhanced Action' was launched as 'a process to develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties' by the end of 2015, that agreement to come into force in 2020 (UNFCCC 2012, Decision 1.CP.17). At subsequent COPs essentially the same position was maintained, and the significance of the Paris COP is generally taken to be that it will yield the missing legally binding global emissions-reduction agreement between all countries, both developed and developing. The EU has taken to referring to this as 'The Paris Protocol', invoking the last time any arguably productive agreement of such a sort was reached in Kyoto (European Commission 2015). In the UK, the Committee on Climate Change, the body charged with giving climate change advice to the government, and the Department for Energy and Climate Change have justified continuation with the UK's enormously costly decarbonisation policy by claiming that that an agreement will be reached in Paris (CCC 2013, ch. 2; Davey 2014).[9] In a most important sense, UK energy policy for the foreseeable future will be determined by the government's reaction when no such agreement is reached.

5. Discussion and conclusion: Lord Stern on Paris

Although Lord Stern's comments on what will happen at COP21 have not been entirely consistent, they have preponderantly not joined in the hope and expectation of an agreement in Paris. This is the most striking feature of *Why Are We Waiting?*. Lord Stern, like many others, had his fingers badly burned over Copenhagen. In statements to the press, research reports and the like, and in a book written to encourage the reaching of an agreement at COP15, he called Copenhagen 'the most important international gathering [i.e. of any sort] since the Second World War' (Stern 2009, p. 208) and 'warned that Copenhagen is the world's last chance to stop catastrophic climate change' (Gray 2009) and so 'save the world' (Stern 2009). The way the world was to be saved was that, despite acknowledgement of the 'major problem' of the MICs (Stern 2009, p. 157), COP15 would yield (4) in our list of requirements for a successful mitigation policy, a binding commitment to reduce global emissions: 'Copenhagen . . . should produce detailed language for an international agreement on emissions reduction targets and the supporting mechanisms and institutions to achieve those targets' (Stern 2015, p. 145).

Lord Stern now tells us that his 'own thoughts, and those of many others, have changed since . . . COP15 in Copenhagen in 2009. Experience has taught us that real progress can be made without a formal international agreement' (2015, p. 251). This is just as well because not merely does he now, as we have seen, maintain that 'looking for formal international sanctions within an agreement that have [*sic*] real "bite" may be a mistake' (2015, p. xviii), but he also tells us that 'trying to agree on a centralised and legalistic framework that "solves" climate

change by attempting to bind countries to ambitious emissions reductions once and for all . . . is neither feasible nor sensible' (2015, p. 220). On this basis, COP15 is not described as another last chance to save the world but merely as providing 'an important opportunity to make strong progress in tackling climate change' (2015, p. 270). The 'criteria for success in Paris' accordingly now are:

> recognition of the scale of the challenge . . . 'setting an appropriate shared goal . . . which relates to, recognises the consequences of, and confirms the 2°C target [which has been] agreed . . . recognition of the opportunities for growth, poverty reduction and beneficial structural change associated with strong action to reduce emissions [obtaining] Ambitious and credible contributions to emissions reductions by individual countries . . . Sector-specific collaborations and commitments in areas such as decarbonising electricity [and] a shared recognition of the importance of equity in underpinning the long-term mitigation effort . . . involving all countries making the transition to a decarbonised economy, with developed countries making earlier deep cuts and providing strong examples and strong assistance in finance, technology, innovation and knowledge to developing countries. (Stern 2015, pp. 270–1)

Between 1988 (the creation of the IPCC) and 2009 (Copenhagen), the world was to be saved by the adoption of the mitigation policy on the basis of a binding and biting international agreement for global emissions reduction. Between 2009 and 2012 (the end of the FCP), it became abundantly clear that the mitigation policy had so far failed as emissions, far from being reduced, had enormously increased and no such agreement had been reached. Since 2009, the belief has been formed that the necessary agreement is now to be reached in 2015 in Paris. Lord Stern has, however, rather more quickly than others, perceived that this will not happen. His response has been, not to abandon climate change policy because of a failure to establish the necessary condition of its success, but to abandon the condition as a way of continuing with the policy.

Lord Stern now bases the continuation of climate change policy on voluntary national commitments, when that policy has foundered because nations will not voluntarily commit to an international agreement. If they will voluntarily undertake the necessary reductions, what is the point of refusing to commit to them in a valuably mutually reinforcing way? It is surely highly significant that Lord Stern continues to praise the fact that the UK's decarbonisation policy is legally binding under section 1 of the Climate Change Act 2008, a position he has long endorsed (Stern 2009, p. 122) and which it is inconceivable he would not now defend, because this is an example of an 'institutional and legal [structure that] can reduce uncertainty' (Stern 2015, p. 107). Though *Why Are We Waiting?* contains a large number of claims that voluntary undertakings are being and will be made (2015, ch. 7), these arguments appear to be misleadingly optimistic in a similar way to his account of international climate change policy.

Without coordinated, reliable commitments to global emissions reduction, it is impossible rationally to form expectations which guide one's own policy, for unilateral investment in one's own reductions is irrational, as was recognised by treating global warming as a problem of global welfare economics in the first place. The current position of the UK, which in my view should now be abandoned, exemplifies the issue. The UK is responsible for 2 per cent of global emissions. Unless it can rely on the reductions by others, principally the PRC, persistence with its current decarbonisation policy is a hugely expensive and irrational act. Pursued unilaterally, the UK's domestic policy amounts to trying to empty a bath with a spoon while the PRC is filling it with a bucket (with India standing behind with another bucket).

I began the examination of climate change policy in 2007 as a case study in regulation. Early on I reached the conclusion that the mitigation policy was extremely unlikely to work. The scale and scope of what was being proposed was just too vast – a characteristic UN statement (UNDESA 2011, p. 1) is that 'A global green technological transformation, greater in scale and achievable within a much shorter time-frame than the first industrial revolution, is required'.[10] Close examination of the international legal foundation of climate change policy then showed that foundation was itself the major, if not indeed an insuperable, obstacle to global emissions reduction. For these reasons, I have previously described the mitigation policy, as exemplified by the *Stern Review*, as Coasean 'blackboard economics'. Policy is based on abstract economic arguments but wholly inadequate consideration is given to whether the legal and other institutions necessary for successful implementation of the policy can be established; and so the policy works only 'on the blackboard'. Some blackboard economic policies are so unrealistic that one strains meaning when one criticises them for impracticality while maintaining that they could in principle work. Nevertheless, what Lord Stern is proposing now is quite different. He is proposing the conscious decoupling of pursuit of a policy from a previously acknowledged and still essential condition of the policy's success.

What is being abandoned here seems to be what Weber called 'instrumental rationality' in the formulation of economic action. Instrumental rational action is 'determined by expectations as to the behaviour of objects in the environment and of other human beings; these expectations are used as "conditions" or "means" for the attainment of the actor's own rationally pursued and calculated ends' (Weber 1922, p. 24). As Lord Stern seems to have abandoned (4) in our list of requirements for a successful mitigation policy (a binding commitment to reduce global emissions), he has abandoned the possibility of rationally pursued and calculated ends. He is instead pursuing climate change policy as a goal in itself, which is irrational or perhaps, in Weber's terms, 'value-rational', value-rationality being 'determined by a . . . belief in the value for its own sake or some ethical, aesthetic, religious, or other form of behaviour, independently of its prospects of success' (Weber 1922, pp. 24–5).

It is essential to recognise that, though climate change policy has always been purely theoretical blackboard economics, the last thing that should be said about Lord Stern's views is that they are purely theoretical. Over his long and distinguished career he has not merely been a leading welfare and development economist but has been able to ensure that his views exert a significant influence on policy. That what he proposes now is irrational does not mean it could not have most important effects. Continued pursuit of climate change policy now decoupled from a rational goal and a rational calculation of means would make possible endless further fruitless expenditure. The answer to Lord Stern's question *Why Are We Waiting?* is that the policy he formerly would have us adopt seems impossible. This, of course, is a very unsatisfactory answer to those who view climate change policy in a value-rational manner and have to some extent have always believed that the desirability of the goal of climate change policy (as they see it) must mean that the policy can be made to work. Seen the other way around, this non sequitur is a decoupling of the policy's desirability from its possibility, and Lord Stern now seeks to turn this decoupling into a principle. If he is successful in doing so, he would make international climate change policy into an inherently ill-defined but inevitably extremely large drain on the resources of the developed countries including the UK. This will further remove this exercise in transnational governance from accountability to the national electorates who must in the end pay for it. Climate change policy as Lord Stern sees it is now

trying to formally achieve, not the avoidance of dangerous anthropogenic interference, but its own liberation from the constraint of rationality in, and so from the accountability of, policy formulation.

Notes

1. *Why Are We Waiting?* is a revised version of the Lionel Robbins Memorial Lectures given at the London School of Economics in February 2012.
2. See note 9.
3. In the interest of brevity, I do not argue again a number of important claims made in this paper, and the reader is referred to these publications, where argument and authority for those claims will be found. The principal sources of data subsequent to the papers of my colleagues and myself are: Global Carbon Project (2014), PBL Netherlands Environmental Assessment Agency (2014), UNEP (2014) and updatings by the World Bank of the information collected for World Bank (2010). As is shown in my later papers, that an unaltered PRC emissions trajectory makes the mitigation policy impossible is now acknowledged by the leading advocates of that policy.
4. The EU is itself, in addition to its member countries, a very important party to international climate change negotiations, having been a party (as the European Economic Community) to the Framework Convention and (as the European Community) to the Kyoto Protocol.
5. Since COP11 in Montreal in 2005, COPs have been held in conjunction with Meetings of the Parties to the Kyoto Protocol and so may be referred to as COP/MOPs or CMPs.
6. Since the publication of *Why Are We Waiting?* Lord Stern and a colleague have published a paper which has to be read as a claim that the PRC is now on an emissions path which will make necessary global emissions reduction possible (Green and Stern 2015). It is not necessary to discuss in any detail the arguments made in this paper, for the paper does not even seek to relate the claimed peaking of PRC emissions to achieving any of the targets, including the 2°C target, that have been posited as necessary to avoid DAI. It is merely a claim about 'peaking' which, at the level of vagueness it is made by Lord Stern and his colleague, is unexceptionable but uninteresting.
7. Of course, climate justice is such a concern only if we regard climate change action as a burden, the issue being justice in allocating that burden. But in *Why Are We Waiting?* Lord Stern develops what had been a significant but previously minor thread of his reasoning, that technological and other economic benefits which are intrinsic to decarbonisation (i.e. as distinct from the resultant benefit of mitigating the costs of global warming) actually mean that climate change policy should not be seen as a burden at all: the 'framing of international climate cooperation as being entirely about "burden-sharing" and a "zero-sum" and static game' has been 'misleading'; 'With a better understanding of the potential attractiveness of alternative, low-carbon paths for more durable and better-quality growth, development and poverty reduction, the cooperative challenge can be recast to focus on how to reduce emissions in ways that provide very widespread benefits to people over time' (Stern 2015, p. 298). 'When recast in this way', Lord Stern (2015, p. 298) tells us, 'the ethical issues are less vexing.' This is indeed so.
8. Lord Stern does elsewhere say that 'the 2°C target was *agreed* at COP16 in Cancún' (Stern 2015, p. 270; emphasis added), but this also is to misinterpret what was done there in essentially the way which is about to be described with regard to COP15.
9. I have criticised the reasoning of the Committee on Climate Change elsewhere (Campbell 2015).
10. The Robbins Lectures on which *Why Are We Waiting?* is based were themselves entitled 'Climate Change and the New Industrial Revolution'.

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