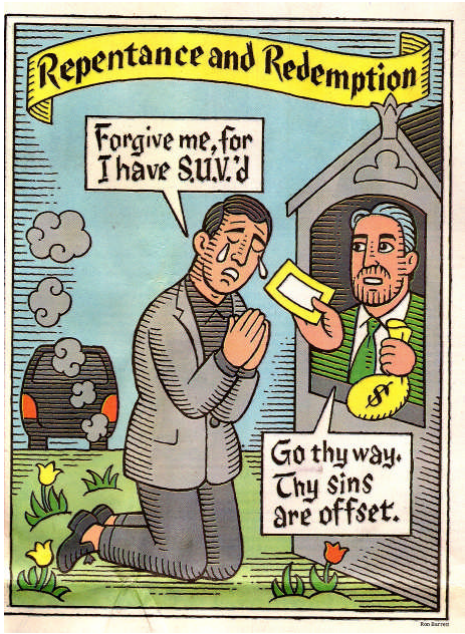
Climate governance and the legitimation of a finance-led regime of accumulation



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Abstract

This paper starts with the widespread critiques of climate governance, as with some other environmental regimes, focusing on its 'marketized' or 'privatized' character. Such critiques fundamentally attempt to de-legitimise dominant governance mechanisms such as emissions trading, the Clean Development Mechanism, Joint Implementation, and emerging private regimes such as the Carbon Disclosure Project. The paper argues that these critiques need to be supplemented with an understanding that many of these projects themselves have been developed precisely in order to overcome legitimacy crises inherent in capital accumulation, and specifically in the current context in relation to the dominance of finance within contemporary capitalism. It draws on regulation theory to outline the tension between accumulation and legitimation within capitalism. It develops this approach by emphasizing that one of the geniuses of Fordism was precisely the capacity to unite (if temporarily) these two elements – by shaping consumption practices (principally car driving) which enabled the means of accumulation and the means of legitimation to be pursued at the same time. It then argues that climate governance practices should be understood as a pursuit of this same coherence which might give rise to an "ecological regime of accumulation" thus forestalling more radical critiques arguing that capitalism and sustainability are inimical.

Introduction

As is obvious from the title of the conference as a whole, legitimacy has become a key theme in recent debates about global governance. In debates about environmental

governance, this is no less the case. Indeed a case can be made, as does for example Steven Bernstein (Bernstein 2005), that environmental debates have been highly important to the more general legitimacy crises of neoliberal global governance. It is certainly the case that environmental governance is a site of considerable innovation, and that the legitimacy of much of that innovative governance is highly contested. This paper discusses one such moment of contested legitimacy.

As Bernstein, and many others, suggests, 'the new legitimacy concerns need to be placed in the context of the ongoing debate over the reconfiguration of global authority' (Bernstein 2005: 142). This is in contrast to, or at least alongside, a more traditional debate where the question is about the legitimacy of interstate governance in an era where expanding authority of interstate institutions is occurring (as is for example the premise of Bodansky's (Bodansky 1999) discussion of international environmental law). Specifically, it is the emergence of privatized, partnership, and hybrid forms of governance that raises novel concerns about legitimacy. The traditional pillar of legitimacy, state consent to international treaties, defended pretty convincingly by Bodansky, no longer hold in the case of forms of governance not based on state consent, while other elements in commonplace accounts of legitimacy (including both those of Bodansky and Bernstein), such as democratic legitimation, procedural fairness or substantive effectiveness, operate in significantly different ways in this new context (Bernstein 2005).

Key to Bernstein's substantive argument is the notion that in the environmental context, 'the contemporary legitimacy challenge … stems in part from the very success of liberal environmentalism, if governing arrangements have gone too far towards elevating the normative status of markets, in effect subordinating environmental purposes to economic goals, even within ostensibly environmental institutions' (Bernstein 2005: 164).[1] The dominance of 'market mechanisms' in environmental debates has produced a reaction that attempts to limit the scope of such mechanisms. Bernstein sees this reaction in the larger context of a shift away from the 'neoliberal normative environment' (Bernstein 2005) from the late 1990s onwards. He then attempts to show this in the context of what he and Ben Cashore call 'non-state market-driven' governance processes – mostly consisting of NGOs attempting to use the globalisation of markets to achieve environmental goals. For him, this is a reaction against the perceived illegitimacy of privatised governance, attempting to govern the practices of market actors. Drawing attention to this phenomenon is extremely important; however I want in this paper to interpret the shift differently. One the one hand Bernstein focuses solely on NSMDs, missing the ongoing marketization of environmental governance by private market actors themselves, hardly a rupture with neoliberal environmental governance. On the other hand, at the heart of the process they themselves describe, it seems to me less that environmental purposes have been subordinated to economic goals in neoliberal

[1] The notion of 'liberal environmentalism' refers back to Bernstein's earlier book, *The compromise of liberal environmentalism* (Bernstein 2001). He uses it to describe the form of environmental politics organised around the dominance of free-market ideology from the late 1980s onwards, taking elements of sustainable development discourse as in the Brundtland Report but eliminating the elements (such as large scale north-south transfers, debt forgiveness, and so on) which didn't fit with neoliberal ideology.

governance, but more that environmental purposes have been reorganised discursively so that they may be pursued through market means. Interpreted this way, the NSMDs phenomenon is not a rupture, but a continuation of liberal environmentalism.

Nevertheless, what Bernstein draws attention to, is both that the questions of legitimacy in environmental governance (as elsewhere) are not so much simple questions of 'is this or that institution legitimate and how do we know?', but rather they concern an 'ongoing dynamic of legitimation and delegitimation as norms and institutions vie for legitimacy within the wider institutional contexts in which global politics and authority relations play out' (Bernstein 2005: 162). He also draws our attention to one of the central legitimacy dilemmas in environmental governance, that over the appropriate role of the market and market. Echoing one of Polanyi's central claims about the origins of a 'double movement' against the market's attempts to free itself from social and political constraints, it is precisely the attempt to deal with environmental problems by incorporating them into a market logic – to commodify them, in other words – which makes contemporary environmental governance so contested. The rest of the paper illustrates the contestations over one such piece of emerging climate governance, specifically the emergence of the 'carbon market', before returning to attempting to interpret the 'ongoing dynamic of legitimation and delegitimation' Bernstein draws our attention to. My argument however, will be that the case shows the limits of the essentially liberal framework within which Bernstein operates – that central to the dynamics are a set of tensions between accumulation and legitimation, for which political economy accounts are necessary.

Contesting the legitimacy of climate governance: 'climate fraud' and 'carbon colonialism'

Emerging as a central element in climate governance is what is now called the 'carbon market'. Originally termed to mean strictly the emissions trading systems developed in Kyoto as well as at national (and regional, in the case of the EU) levels, it is now used to refer to the ensemble of practices which attempt to manage carbon emissions in some way or another through market transactions. It thus includes not only the ETS in Kyoto, but also the Clean Development Mechanism and Joint Implementation elements of that treaty, as well as the emergence of a whole set of 'voluntary carbon markets' where firms and individuals can engage in varied forms of trading and investment to address their carbon emissions. These latter are mostly commonly known as 'carbon offsets', as most take the form of purchases (of trees, energy efficiency, renewable energy projects, etc) elsewhere to 'offset' the emissions from one's practices of flying, driving, and so on. A substantial industry has already developed around the various carbon markets, containing brokers, consultants, retailers, insurers, certifiers, suppliers of credits, and in the case of 'regulated' markets such as that of Kyoto, official bodies (such as the CDM executive board) that approve projects for credits under that scheme.

But the legitimacy of the carbon market has been widely called into account, reflecting precisely the 'ongoing dynamic of legitimation and delegitimation' that Bernstein draws

our attention to. A widespread critique of the practice has emerged, regarding the practice in particular of carbon offsetting as a modern form of 'selling indulgences' (Smith 2007).[2] In media, comments about this development include *The Good, The Bad, The Ugly* (Brainard 2007). It is common to point at carbon offsetting as a modern form of selling indulgences that do not induce changes in lifestyles (Monbiot 2006; Revkin 2007). Debates have also drawn attention to the dubious quality of the offered offsets and to the lack of common standards (Robbins 2006; Harvey 2007). Further on the critical side, Larry Lohmann gives in "Carbon Trading: A critical conversation on climate change, privatization and power" (Lohmann 2006) a comprehensive account of carbon offsetting as a new arena of conflict. In the same vein, the report "The Carbon Neutral Myth: Offset Indulgences for your Climate Sins" by Carbon Trade Watch (Smith 2007) includes case studies of the Carbon Neutral Company (formerly known as Future Forests) and of a few different offsetting projects. It also adds an analysis of how celebrity endorsements have helped to legitimize such projects. Marina Hyde, writing in the *Guardian Weekly*, gives countless examples of the problem of such celebrity endorsements, such as the various acts flying in to venues for the Live Earth concert, as the extreme logic of denial where celebrity hypocrisy effects a message that 'allows both them and their audience to reason their way out of changing their behaviour to any significant degree' (Hyde 2007).

Two central sorts of argument can be discerned in these critiques, neatly encapsulated by the title of Bachram's article on the carbon market, 'Climate Fraud and Carbon Colonialism' (Bachram 2004). In the first, there are a number of weaknesses of carbon markets oriented around offsets that mean that they cannot be regarded as serious contributors to emissions reduction. This criticism applies both to the 'voluntary carbon market' where businesses or individuals purchase offsets to deal with the emissions from their flights, car use, or total energy use, and to the regulated markets operating through offsets, such as in JI or the CDM.[3] The central problems here concern:

- questions about the ability of tree planting schemes to absorb carbon in the atmosphere as claimed by advocates of offsets (as of course by those promoting the use of sinks in Kyoto), either because of inadequate date about rates of carbon absorption or the lack of reliability over time of forestry projects, which undermine the claim of the equivalence of tree planting to emissions reductions

[2] A technical distinction is worth making here. Various types of distinctions can be made between different elements in the carbon markets. Perhaps the most important is that between 'allowance-based' and 'project-based' markets. In the former, participants in the market (states under Kyoto, firms under national schemes, member firms in the Chicago Climate Exchange) are allocated an amount of allowable emissions. If they exceed their allowed emissions, they have to buy allowances from other participants who manage to reduce their emissions more than required. In project-based markets (such as the CDM and JI in Kyoto, or the 'voluntary' markets), investments are made in 'normal' markets, for which carbon credits are given according to the amount of CO_2 the project is regarded to have kept out of the atmosphere. Note that it is on these latter type of markets that the 'climate fraud' critique makes most sense, since these markets depend on complex calculations of additionality and baselines, which are not needed in the allowance-based systems. Nevertheless, the critics attempt also to undermine the allowance-based markets, on the basis of 'carbon colonialism' arguments as well as general critiques of privatization.

[3] Note that the logic does not really apply to a simple emissions trading scheme which is based on allowances rather than projects. In such a scheme, only actual emissions are counted and then traded, and thus are not subject to the problems of calculating baselines or additionality.

- questions over the time-frame of offsets, with emissions (say from a flight) occurring immediately, while the offset may occur over a period of up to a century (see (Smith 2007)
- questions over the calculation of baselines for projects – of calculating what emissions from a particular project, community, etc., would have been absent the project. For critics, a technical solution to this calculation is impossible, and thus project proponents have inevitable interests in inflating baselines to maximise revenue.
- Questions over the calculation of 'additionality' – of proving that the project would not have gone ahead without the finance from carbon markets and thus that the project leads to 'real' reductions in emissions.

These arguments, which amount to claiming that what is going on is 'climate fraud', then support the claim that in effect the explosion of the 'voluntary carbon market' amounts to an ideological fabrication of markets, which are portrayed as solving 'the climate crisis' but which in fact merely allow rich consumers in the West to continue their current lifestyles while assuaging their guilt with investments abroad which are useless in reducing ghg emissions.

Evidence to support these two arguments, can be found not only in the practices of super-rich celebrities, but in the practices of those organizing such markets. The book by (Bayon 2007), *Voluntary Carbon Markets*, provides much evidence which is grist to the mill for critics of carbon markets, especially concerning the unregulated markets essentially for carbon offsets. The authors and many contributors are all closely associated with these markets, as brokers, investors, sellers of credits, or facilitators of the market, as in the case of the main authors who are all associated with Ecosystem Marketplace (see www.ecosystemmarketplace.com), 'the world's leading source of information on markets and payment schemes for ecosystem services' (Bayon 2007). Three examples suffice to illustrate the grist to the mill they provide for critics.

In their overview of the principal rationale for the development of the voluntary carbon market, for example, the authors acknowledge critics of carbon markets, specifically Larry Lohmann. They cite him saying 'Carbon offsets are based on fictitious carbon accounting, and can by themselves not make a company carbon neutral … the practice of offsetting is slowing down innovation at home and abroad and diverting attention away from the root causes of climate change' (Bayon 2007: 4; Wright 2006). But their reaction to the criticism is interesting. 'This debate notwithstanding, experimentation with environmental markets is now widespread' (ibid). This reasoning suggests that Lohmann's critique must be mistaken because otherwise the markets would not have expanded; they rather ignore the possibility that the markets are expanded precisely *because of* the 'fictitious accounting' Lohmann draws attention to.

Later (pp.12-13), they draw attention to two particular shortcomings of the voluntary carbon market (as opposed to what they call the 'compliance market', i.e. those instituted through Kyoto or other formal emissions trading systems). They accept these limits – the

'lack of uniformity, transparency and registration', and the fact that 'because it lacks a regulatory driver, demand for credits can be volatile and fickle' (p.12) – but suggest that:

> Despite the shortcomings … many feel it is a fast-evolving arena with some distinct and important advantages over the regulated carbon market. While the wide range of products emerging from the voluntary markets can be confusing to potential buyers, these products can also be highly innovative and flexible. Numerous suppliers say they benefit from this flexibility and the lower transaction costs associated with it. (Bayon 2007: 12)

Again, they miss the possibility, even the likelihood, that the voluntary market is a 'fast-evolving arena' precisely because of its 'shortcomings', not despite them. When they explain the 'lower transaction costs' of the voluntary market, these turn out to be compared to the costs of getting CDM executive approval for projects. 'The voluntary markets, on the other hand, don't have these sorts of transaction costs. They can avoid "bottlenecks" in the CDM methodology approval process and get carbon financing for methodologies that aren't currently "approved" for sale by the CDM process' (ibid: 13). The methodology they pick out here is 'avoided deforestation', i.e. agreeing not to cut down a forest you claim you were otherwise going to clear, one of the most obviously problematic possibilities in carbon offset projects, and widely criticized, as it effectively creates what economists would call clearly 'moral hazard', a perverse incentive to claim you would be cutting down forests, burning more coal, flaring gas, or whatever, when in fact you would not.[4]

Finally, in discussing the notion of 'additionality', that is the criterion for investment projects to be countable as carbon offsets, that suppliers of the credit demonstrate that the emissions reduced would not have happened without the investment organized through the carbon markets, Bayon et al illustrate the slipperiness of voluntary carbon markets. They discuss the tension between implementing the notion of additionality too laxly or too strictly, where the latter may 'place burdensome limitations on creating valid GHG emissions' (Bayon 2007: 25). 'Many practitioners argue that additionality is not a critical factor at this stage in the development of carbon markets and that the key goal should be to create financial incentives for reducing GHGs'. This misses the obvious point, that if investments do not meet a condition of additionality, they are not reducing GHGs, and thus give plenty of ammunition to critics of carbon markets, that for their boosters, the priority is opening up new markets in which to invest and make money.[5]

The second critique is that the project, while being useless in climate terms, are at the same time neo-colonial. The basic argument here is that given that many of the projects funded are in developing countries, and that the projects are designed essentially to avoid

[4] Larry Lohmann (Lohmann 2005: 220) provides a good example here, of a project by Plantar SA in Minas Gerais, Brazil. In this project, Plantar 'attempted to secure carbon finance for not switching its pig iron operations from eucalyptus fuel to … coal or coke'.

[5] It is worth noting that some others in the same volume, also players in carbon markets, are significantly stronger on the question of additionality. See in particular the contribution by Mark Trexler of Trexler Climate and Energy Services in Bayon et al (2007). Trexler is clear that currently voluntary carbon markets 'are not guided by additionality and other rules that ensure that the markets consist primarily of truly additional reductions' (p.84).

having to take emissions-reduction measures in the North, these impose extra costs on the South. But the argument is stronger than simply this negative one of offloading costs on the South. In particular in relation to forestry projects, a key concern is to guarantee that the carbon (allegedly) absorbed by the plantation stays out of the atmosphere for a long period of time (99 years is a standard claim, as for example by CarbonNeutral). This entails intensive management and monitoring of the forests on behalf of those who have bought the credits. As Ben Henneke of the International Small Group and Tree Planting Program (TIST) states in his contribution to Bayon et al's book, 'the TIST website lists the precise latitude and longitude of each farmer's grove and tracks the number of trees and seedlings that are planted, helping drive accountability to western investors' (Bayon 2007: 77). This 'accountability to western investors' is precisely what critics claim is a central element in the imperialism of offset projects. Moreover, such projects frequently entail, as do many conservation projects, displacement of and occasional violence against people who had previously used the land for subsistence farming, as in Smith's example (Smith 2007) of a project in the Mount Elgon National Park in Uganda, funded through an offset program organised by Dutch NGO FACE (Forests Absorbing Carbon-dioxide Emissions).

Within the climate debate, this argument about carbon colonialism is a new twist on an older debate. The eco-colonialism charge was famously made by Agarwal and Narain in their *Global Warming in an Unequal World: A case of environmental colonialism* (Agarwal 1991). There, the argument was that the way that figures about greenhouse gas emissions and sinks are made in many documents (in their analysis, specifically in the World Resources Institute's *World Resources 1990-1991*) suggested that developing countries, in particular large countries like India, China and Brazil, contributed as much to climate change as rich countries like the US or the EU. The colonial dimension to the argument concerned the way that these figures suggest that developing countries need to limit their emissions as much as industrialized countries. But if emissions were calculated on a per capita basis, the picture changes dramatically.[6] But the specific arguments about the colonial dimension of offset projects can also be traced back to resistance by developing countries to Joint Implementation in the period shortly after the signing of the UNFCCC in 1992. Article 4.2(b) of the convention states that countries may pursue their emissions reductions 'individually or jointly'. This was based on proposals originally by the Norwegians, which were designed to enable 'flexibility' in meeting commitments. It had a specific feature in the Convention, in enabling EU countries to pursue their commitments under an EU 'bubble'. But it was quickly used by several countries to propose that they could meet their domestic emissions commitments through investments abroad in GHG reductions. This principle became the basis for what becomes in Kyoto the JI system amongst Annex B (industrialized) countries and the Clean Development Mechanism between Annex B and non-Annex B countries. But during the run-up to the first COP in Berlin in 1995, and between then and the Kyoto COP3 in 1997, developing countries opposed the application of the 'individually or jointly' principle being expanded to include them. Partly this was because it would imply they had commitments

[6] Echoes of this presentation in the West continue, as with for example the recent announcements that China's ghg emissions have now overtaken the US's. This is only on a total basis; per capita emissions in China are still less than ¼ of those in the US.

to reduce their emissions, something they adamantly refused to accept, but partly it was because such measures would in effect mean industrialized countries could cherry-pick cheap investments in the South for emissions reductions, or reap the 'low-hanging fruit', thus making life more difficult for developing countries later in the process where they may have to limit their own emissions. This latter argument is exactly the same as the carbon colonialism critique advanced by Bachram, Smith, and Lohmann.

Finance-led capitalism and the search for legitimacy

Overall, the attempts to delegitimise the carbon market have their root in a critique of privatization, increasing global inequalities, and the commodification of the climate. The emergence of the carbon market is regarded as reflecting the interests and power of western financial actors, supported by the desire of affluent consumers to 'be absolved' of their 'climate sins'. As such, it is interesting to ask questions concerning the connection between the emergence of the carbon market and more general patterns in the global political economy.

It is not earth-shattering to suggest that the current global regime of accumulation is finance-led. Histories of capitalism from the late 1960s onwards usually have in common the re-emergence of finance as a dominant element in the global economy. This can be written variously in terms of the controls on capital flows central to the Bretton Woods regime, and the ways they were undermined first by the Eurodollar markets in the late 1960s, then with the abandonment of the fixed exchange rate system and the dollar-gold parity by Nixon in 1971, then the disbanding of capital controls started by Reagan and Thatcher, and the more widespread deregulation of financial markets in the 1980s and the associated explosion in the volume of trading in those markets.[7] Or it can be written in technologically determinist terms, through a focus on how new technologies enabled a global integration of financial markets which enabled financial actors to innovate in new financial instruments and enhance their power over both states and other economic sectors.[8] Or it can be written as a battle among different fractions of capital, with a number of elements, such as the rise of institutional investors, tipping the balance away from manufacturing and towards finance, with corresponding shifts in the dominant political forces of business and thus a shift towards neoliberalism which favoured financial interests over manufacturing ones.[9] But common amongst these narratives is the rise of finance, both in terms of the power of financial capital to discipline other economic sectors and social/political forces, but equally, a model of economic growth organised around financialisation. While growth in the Fordist-Keynesian era had been organised around the productivity gains of mass production and the growth-managing and redistributive functions of the welfare state which enabled the consumption of the goods produced, in the neoliberal era growth is centred on the financial industries themselves, as poles of growth, but also through the way that personal financial instruments (credit cards, mortgages, etc) enable expanded consumption to occur

[7] For classical accounts along these lines, see (Helleiner 1994; Leyshon 1997).
[8] As is common in the business globalisation literature (O'Brien 1992; Strange 1996).
[9] E.g. (van der Pijl 1998).

alongside widening economic inequalities and stagnating personal incomes for large sections of western populations.

But this finance-led regime has produced its own legitimacy crises. In the 1980s these were, at the level of individual western countries, focused around the dramatic rises in unemployment produced by neoliberal management. But at the international level – most notably in the debt crisis - they were provoked precisely by the aspect of neoliberalism designed to promote financial interests – the simultaneous liberalisation of capital movements and use of interest rates to attempt to control inflation (and in Reagan's case, to attract money into the US to finance the second cold war). But in the 1990s and beyond finance-led capital has provoked (at least) three systemic legitimacy crises. First it has been associated with the systematic destabilisation of national economies – the collapse of the ERM in the early 1990s, the 1994 Mexican crisis, the 1997-8 crises in South-east Asia and beyond, in particular. Second, it has produced a series of bubble economies, in particular in the 'new economy' high-tech markets and in the housing markets (especially in the US and UK which dominate global financial markets) which engender generalised economic insecurity. Finally, and in particular since the late 1990s, it has been plagued by a series of governance scandals, from the collapse of LTCM (the endgame of the 1997-8 crisis), to the crises at Enron, Worldcom, and the like. The upshot of these intertwined crises has been to left the legitimacy of finance as a dominant force in the global political economy in serious doubt.

My proposition here is thus to interpret private climate governance as (in part) as result of search by parts of finance to relegitimise its dominance and practices. So while the legitimacy of that private governance is contested by varied social actors, it is precisely a search for legitimacy that has prompted private sector actors to attempt to engage climate change as an issue.

One prominent element in 'privatized' climate governance (albeit not one which is the subject of heavy critique) is the set of schemes being developed by private investors to try to shape investment and the carbon intensity of other firms. Schemes such as the Global Reporting Initiative or the Carbon Disclosure Project, as well as some lobbying of public agencies, such as pressure by Merrill Lynch on the SEC, all aim to get companies to start reporting routinely their carbon intensity. (Such projects are loosely coordinated by UNEP's Financial Industry Initiative). The intention is that investors can then treat such information as part of their investment decisions, with the aim that they treat such intensity as a business risk – the higher the carbon intensity, the greater the risk that the firm will be penalised by state-led emissions reductions strategies, by supply disruptions, and so on. The investment switching or boardroom pressure would thus contribute to investments away from carbon-intensive activities. The CDP has been highly successful in bringing together investors, mostly institutional investors, to state their desire to see carbon intensity listed in company reports, and now claims investors with $23tn of assets.

The origins of these governance mechanisms are in the activism of a small number of insurance and reinsurance companies from the early 1990s onwards, fostered first by

Greenpeace and then by UNEP.[10] Insurers were particularly concerned by the rise in payouts to extreme weather events, and the possibility that such increases would increase and undermine the viability of their business. Amongst the firms involved in what became UNEP's Insurance Industry Initiative (later renamed the Financial Industry Initiative) were the world's two biggest reinsurers, particularly exposed as the insurers of low-probability, high payout risks like hurricanes, a number of fairly small firms with origins in ethical investment, and a small number of mainstream insurers. During the 1990s this group tried a number of strategies to expand the number of firms involved in the initiative, but without significant success. One of their strategies later on was precisely to develop what was called at the time 'CO_2 benchmarking', which would later become the disclosure model for the CDP. But the explosion of interest in this approach by investors, and in climate change more generally, occurs only from around 2001-2 onwards, precisely at the time that the Enron scandal begins to unfold. Paul Clements-Hunt, director of the UNEP-FI programme, was clearly of the view that many of the firms who became associated with the CDP in this period were clearly looking for new ways to legitimise themselves, fearing their reputation may be tainted by the whiff of Enron.[11]

The carbon offset market has similarly emerged out of legitimacy concerns. As Bayon et al (Bayon 2007) state regarding the (widely cited) first offset project, the investment by AES in an agro-forestry project in Guatemala in 1989, 'AES, like other companies since, hoped to reduce its "carbon footprint" for philanthropic and marketing reasons'. The discourse produced by HSBC about its high-profile decision to 'go carbon neutral' reveals an interesting mix of these 'philanthropic and marketing' motives. On the one hand HSBC officials did state that it arose from pressure from a variety of sources, even though non were from legislation: 'the pressure to reduce our emissions wasn't overt but it did exist, from peers, from shareholders, from the NGOs we work with and from our own staff' (Slade 2007: 96, quoting Jon Williams of HSBC). So legitimacy with a range of actors is clearly one concern in driving HSBC towards the carbon market. This drives the emphasis in their discourse also that their actions need both to reduce their own emissions as well as to ensure the credibility of their investments in the offset market. But clear also in Slade's account is that HSBC sought in effect to gain first mover advantage in the carbon market: 'they will gain a deeper insight into the emerging low carbon economy and be exceptionally well placed to understand the needs of an opportunities for their clients' (Slade 2007: 94, quoting Steve Howard). HSBC decided to build their own capacity in-house rather than rely on external brokers, in order to position themselves to profit from the carbon market, principally through providing consultancy services for its existing clients about how to operate in the carbon market. Other similar narratives, combining the legitimacy concern with either a strategy of market leadership (as in HSBC or the firms making the carbon market like CarbonNeutral) or in marketing more generally (as for example in many of the case studies highlighted on CarbonNeutral's website at: http://www.carbonneutral.com/pages/clientcasestudies.asp).

[10] For a more detailed account of the role of insurance companies, see (Paterson 2001).
[11] Interview, Paul Clements-Hunt, UNEP, Geneva, January 25 2007.

So for firms, the legitimacy concern and the opportunities for profitable investment intertwine in the emergence of the carbon offset market. Much of the opportunity for profits however arrives from an odd source of legitimacy concerns; the legitimation concerns of affluent consumers, who, as pointed out by critics such as Lohmann, feel the need to assuage their guilt about their carbon-intensive lifestyles. The opening statement by one firm providing services in the offset market captures the dynamic nicely: 'Not everyone is either willing or in the position to give up air travel - despite the awareness that this mode of travel contributes significantly to the greenhouse effect. Hence, for people who are concerned in regards to the environmental ramifications of their air travel, this service has now been created: "atmosfair"' (http://www.atmosfair.de/index.php?id=9&L=3, viewed 14 august 2007).

But this search for legitimacy is always in constant tension. The principal tension, and which produces the critiques by Lohmann and others, is that while the pursuit in general of climate governance is brought about by the search for legitimacy, the specific mechanisms developed as private climate governance strategies are informed primarily by the search for accumulation. The mechanisms – emissions trading, offset markets, reporting and disclosure initiatives – all entail either the creation of new commodities and sources of profit (while designed, at least in principle, to favour 'CarbonNeutral™' practices), or the risk management of existing investments, designed to weed out 'bad' investments based on their CO_2 intensity. These twin objectives – legitimation in the general, accumulation in the particular, are the source of the legitimacy tensions surrounding private climate governance. The legitimation strategy is based on notions of responsibility (in investment, markets, consumption, etc), but this remains in tension with notions based on limits to markets and commodification – a classic Polanyian double-movement if you like. Here, commodification itself becomes one of the main aspects of practice which is contested. Yet for business allying commodification/accumulation and legitimation is a central aim. For this, we need to go back to a more general analysis of the relationship between legitimacy and accumulation in capitalist societies.

The accumulation/legitimation tension

Central to the reproduction of capitalist societies is a tension between accumulation and legitimation. On the one hand accumulation depends on exploitative processes that extract surplus value from labour, and commodify all sorts of aspects of life (human and otherwise). On the other hand capitalism has tended to legitimise itself through essentially egalitarian notions of rights and utility. These latter forms attempt to suggest how the guarantee of basic rights (property and certain concepts of freedom, principally) and the pursuit of aggregate utility (GDP being the main measure, albeit contested) are universal goods, even while they are in practice more properly understood as private goods highly unevenly distributed. This is a classic understanding of hegemony as a project – the presentation of individual interests as of universal benefit. But the basis of the strategy of legitimising capitalism is thus based on (alleged) universals, and as such can be contested precisely because of its failure to realise benefits for all, or through the internal tensions in the universalising concepts themselves.

This is a standard theme in much literature in political economy derived from Marxism (e.g. (Habermas 1975; O'Connor 1973; Hay 1994). Crises in capitalism erupt principally because of a tension between the imperative of accumulation and the requirement for legitimation. These may produce varying types of specific crises (fiscal crises of the state, as analysed by O'Connor, crises of accumulation articulated as 'overload' as in Hay, classic crises of underconsumption producing Fordism, as in (Aglietta 1976)). But what they have in common is this tension between accumulation and legitimation.

One of the advantages of regulation theory in this context is precisely that it attempts to understand how at particular moments in time and space capital has pursued means of overcoming this tension. The notion of a regime of accumulation is designed to enable the analysis of the internal coherence of a particular model of growth at a particular place and time, while the notion of a mode of regulation concerns (among other things) the attempts to legitimise that model of growth. Aglietta's classic book (Aglietta 1976) can thus be read (there are of course other readings for other purposes) as an account of how US capital pursued strategies to simultaneously overcome underconsumption tendencies in 19th century capitalism, and to legitimise their domination in the face of rising union activism in the US, alongside the ideological threat posed by the Soviet revolution and the emergence of democratic socialism in particular in Western Europe. Fordism, with the twin elements of mass production and mass consumption, alongside political strategies of co-opting much of unionism, was key in neutralising union power both through co-optation and by luring workers with high wages and the promise of consumer utopianism.

Looking at a key element in Fordism makes this point even more effectively. Automobility[12] was key to Fordism in a number of ways. It was the key industrial sector innovating in production practices which increased productivity enormously (hence the origins of its name). It was also the key industrial sector (although here GM is the central firm rather than Ford) engaging in a number of strategies to spread mass consumption widely – new credit systems, advertising strategies, annual model changes, 'planned obsolescence', and so on. It was also however key to reshaping consumption itself. Apart from being the single most important consumption items after cars (as pointed out by (Aglietta 1976: 136)1*), standardised suburban housing and car use are the key consumption items in Fordism), it also enabled (or enforced) the consumption of a wide range of other goods and services previously unavailable, from medical services to golf, from fast food restaurants to insurance.

So automobility was central to the accumulation side of the equation. It continues to be central to the organisation of the global economy in many ways, despite the 'finance-led'

[12] I use automobility here rather than say 'the car' or 'the car industry' for precise reasons. It refers here to the whole socio-technical complex within which individual cars and their use must be situated. Rajan's pithy phrase 'automobile use and everything that makes it possible - roads, highways, parking structures, and traffic rules - in short, the very abstraction of urbanized distance' (Rajan 1996: 7) is a good way of encapsulating this. See also (Böhm 2006; Urry 2004). For a fuller version of the argument presented schematically here, see (Paterson 2007: chs 4-5).

character of contemporary growth and hype about the 'new economy'.[13] But it has also been central to the legitimation of capitalism during the 20th century.

If we look at some of the crises of the late 19th/early 20th century, they can be understood in narrow political-economy terms as crises of underconsumption, which prompted shifts which resulted over a period of time in what we know as Fordism. But the way they were also articulated as crises of legitimation is also interesting, especially in relation to automobility. Two aspects of these crises are worth mentioning here.

For much of the 19th century, the acceleration of movement central to the expansion of capitalism was effected through the technology of the train. Ideologically, movement had figured highly in claims prompting the French Revolution, but as Virilio shows well (Virilio 1986), there was a constant tension between 'freedom of movement' and 'the dictatorship of movement'. Mobility held out the hope of freedom from residual feudal constraints, enhanced opportunities, but also the possibility of being constantly forced to move for work or in the army. While trains held out the hope for many of increasing opportunities, they also contained the rigidities of timetables, and the dependence on the train engendered by the separation of home and work they enabled. The rail industry was also highly concentrated and increasingly resented for monopolistic practices. By the end of the 19th century, discourses abounded interpreting trains more as domination than liberation.

The second is illustrated well by AJP Taylor's famous quip that WWI was caused by train timetables (Taylor 1969) As Europe's states planned for way with each other, their mobilisation plans depended on the train to move troops and materiel quickly to the front line. But the logistics of rail meant that once a decision to mobilise had been taken, a country was committed to war since if they stopped mobilising halfway through, they would be unable to resume later effectively, giving decisive advantage to their enemy. WWI is famously dominated by rigid technologies which favour defenders (artillery, machine guns, in particular) but the impasse is overcome in particular by the tank precisely because the flexible form of (armoured) mobility it enables.

The 'genius' of automobility was thus in the way that that the means of accumulation and the means of legitimation became fused. It was central to the regime of accumulation which became known as Fordism, but which started with the developments in the early 20th century. But at the same time, it could be deployed ideologically to reframe movement (itself generically central to capitalist expansion) as liberation – liberation from timetables and monopolies, liberation from dirty city centres, etc – and at the same time to nationalist-militarist projects (as in the deployment of the 'volksmobile' by Hitler, the origins of motorways/autobahns/freeways in military planning). The 'freedom' image has been one of the most enduring ideological associations of the car, diffused in countless daily contexts as well as culturally through art, popular music, literature, advertising, and so on.

[13] Indeed, one interesting aspect of this financialisation is that many manufacturing firms have themselves become financialised. Car firms, especially the US 'big three', are classic cases here, where their credit arms have become the main sources of profitability for the firm as a whole, then driving corporate strategy.

Climate governance and the accumulation-legitimation tension

My argument here then is that the contemporary practices of climate governance discussed above are precisely attempts to create mechanisms whereby the means of legitimation and the means of accumulation are the same, as was achieved with automobility. With emissions trading, firms are seeking profitable investments while states are seeking to promote particular cycles of growth, which can be legitimised in relation to mitigating climate change. With offsets, firms are seeking more directly to make money out of the 'guilt' felt by individuals and other firms about their carbon emissions. With 'investor governance', large financial companies, mostly institutional investors, have sought to overcome the image problem created by Enron et al, while at the same time seeking to risk manage their investments by putting pressure on other companies to disclose their CO_2 emissions.

If we return to the discussion of Bernstein at the beginning, this does indeed reflect his point that what is apposite is to analyse the field of global environmental politics as a process of legitimation and delegitimation. But when we start from political economy rather than liberal lenses, this adds meat to the bones of his claim. For this twin process occurs precisely around the legitimacy of the ongoing commodification of life, on which capital depends for its economic reproduction, but whose limits are contested in relation to climate change as with many other aspects of environmental politics (most obviously, with the controversies over patenting of life-forms by the biotechnology industry). The ideal strategy for capital is to identify means of creating commodities which simultaneously are regarded as legitimate. The tension for critics is then precisely that to the extent that capital succeeds, to oppose climate governance becomes highly problematic – as for much of its history was to oppose automobility. One becomes quickly an enemy of progress, modernity. We can see this to an extent in the hegemonic status of 'Kyoto' – to oppose the Kyoto Protocol is to risk being a sceptic, a stooge of the Global Climate Coalition.

One key point however is that this closure is never 'achieved', but always a project with its own contradictions. Returning to automobility's relation to Fordism, one way to read the unravelling of Fordism is precisely in the tension between rigidity as the organising principle of mass production (you can have a car any colour as long as it is black), and freedom or flexibility as the organising principle of auto-mobile consumption (Paterson 2007: 112-114). As early as the late 1920s, with the saturation of the market for new cars in the US, Sloanism is in part a response to this demand for flexibility and freedom by consumers. Over time, this tension increases helping by the late 1960s to produce the crises of both the US car industry and Fordism as a whole (Rothschild 1973; Gartman 2004; Paterson 2007). This sort of tension or contradiction is likely to repeat itself in finance-led climate governance. At its most basic level, it could be simply the case that the growth promised by the carbon market isn't realised, or the link to the 'real' investment in renewable energy, energy efficiency and conservation, fuel cells, and so on, doesn't materialise, causing finance to lose interest and the economic side of the equation

to fall apart. It could be that critics succeed in resisting the expansion of market-based schemes in Kyoto, and persuade enough affluent consumers that offsets are 'climate fraud' for that market not to realise its potential.

Nevertheless, a key tension for all actors results from a basic feature of climate change politics which is the basis for the project of which this paper is a part. Dealing effectively with climate change requires a dramatic restructuring of the global economy (because of the complete dependence on that economy on fossil fuel energy), making it incomparable with other environmental challenges. This claim is not however simply a normative exhortation; many political actors realise the necessity of this restructuring, and this realisation is increasingly widespread. Given however that such a restructuring could endanger the growth on which capitalism is systemically dependent, the task actors face is to construct an 'ecological regime of accumulation', which can be viable economically and sustained politically in the face of opposition. Critics are faced with a difficult choice of opposing capitalism wholeheartedly or working out how to engage the emerging regime and attempting to shape it in ways which are both ecologically viable and as important for many such actors, socially just on a global basis. But they do so in a political context of the dominance of neoliberal forces, particularly global finance, for whom the regime would 'naturally' be based on the commodification of the climate. Just as with the Fordist compromise that produced the 'trente glorieuses' of growth in the post-WWII era, the character of this struggle of legitimation and delegitimation will determine not only whether we deal effectively with climate change but also the particular package put together to do so.

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