CLIMATE CHANGE POLICY AND ECONOMIC RECESSION

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The economic difficulties following from the global financial crisis raise important and challenging questions about the strategies necessary to deal with the problem of climate change. Does the recession undermine the case for an emissions trading system? If so, what could be done instead to reduce environmentally hazardous emissions? Can the problems of recession and climate change be simultaneously redressed?

First, it is pertinent to point to a paradox – that the recession is good for the environment. Indeed, over the past year the failures of global capitalism have achieved goals that even optimistic environmentalists previously thought unreachable. The close correlation between economic growth and carbon emissions has meant that, as production has fallen, so too have emissions. However, the short term gains have come at significant cost, and there is little reason to expect that these gains are sustainable.

The Stern Report in the UK acknowledged a strong correlation between economic growth and increased carbon emissions (Stern 2007, xi). There is approximately a 0.9 per cent increase in emissions for every 1 per cent increase in growth (Adam 2009). The recession reverses this logic. Indeed, economic contraction has been particularly pronounced in emissions intensive industries, with industrial production in the United States down by almost 13 percent in the year to March 2009, and with declines concentrated in manufacturing and construction (US Federal Reserve 2009). In Japan exports fell over 40 per cent in the year to April 2009 (Ministry of Finance 2009). Globally, 2009 may be the first year in which global carbon emissions actually decline. However, the decline in

emissions has been accompanied by growing unemployment, poverty and homelessness. What is more, the expenditure stimulus policies that many governments have introduced in the attempt to offset recession threaten to undermine the fall in emissions.

Recession is clearly not the answer to the challenges posed by climate change, yet its impacts suggest that economic and political strategies may need to be adjusted to a new context. The currently dominant policy approach seeks to increase the costs of carbon emissions, and thus use the price mechanism to reduce carbon intensive production. It is an approach that was set out by the Garnaut report in Australia (2008, esp. Chapter 11) as well as by the Stern report in the U.K. (2007, esp. chapters 9 and 10) and is reflected in government policy around the developed world. There are a number of different policy instruments consistent with this approach, ranging from taxes on carbon emissions through to systems of tradable emissions permits. In each case the logic of the policy is to increase the cost of production processes that create emissions, leading eventually to a shift in economic structure toward more sustainable forms of production and consumption. Depending on the magnitude of the changes in costs and prices, a significant shakeout of resources from carbon-intensive industries may occur. However, the recession highlights some old dynamics of capitalist economies – such economies require constant economic growth to avoid crisis, and when capitalism is in recession there is no automatic mechanism to redeploy unused resources from industries that have started to decline.

This article considers how to mitigate against environmental damage while also trying to avoid deepening economic crisis. It focuses on the case for an emissions trading scheme (ETS), as this type of pricing policy has been most actively advocated and embraced both in Australia and overseas. We argue that, while there may have been strategic reasons for supporting an ETS in the context of the long boom, such an approach is likely to be of little economic value now, while its political cost has increased sharply. This is a common feature of market-based schemes *per se*, not dependent on the detail of any one scheme, and therefore the discussion is not focused on the particular model proposed by the current Australian Government (Commonwealth 2009). That model has been subject to trenchant criticism elsewhere (*e.g.* Denniss 2009; Evatt

Foundation 2009); while Beder (2006) provides a more general critique of market-based approaches to environmental problems. Our concern here is to show why and how the changed economic circumstances make it yet more necessary to consider a significantly different approach.

The Case for Emissions Trading

Over the past several years, momentum has grown for the introduction of an emissions trading system. This follows on from the Kyoto Protocol and from the European ETS. Even in its earliest incarnation the problematic relationship between emissions trading and recession has become apparent. The sudden economic decline in the countries of the former Soviet Union – following transition from central planning to market economics – led to an equally dramatic decline in emissions and thus large surpluses of trading permits (Victor *et.al*. 1998). These countries also have inefficient and polluting industrial sectors, making it easier to achieve rapid emissions reductions. It is now estimated that by 2012 Russia and the Ukraine will hold 80 *per cent* of all permits in the current UN- sanctioned trading system (Szabo 2008).

Despite these and other early problems in the current European trading scheme, support for this type of approach in Australia has been extensive. While the environment movement has advocated a range of different measures to address climate change, some of the larger environmental organizations have accepted the case for some form of cost-based mechanism to be introduced, including an ETS (ACF 2008; CANA 2005). Acceptance has been even greater amongst economists, governments and policy makers, as evidenced in the Garnaut and Stern Reports.

Three core reasons for supporting emissions trading prior to the current recession may be identified. First, an ETS fits neatly into a neoliberal approach to tackling environmental problems. It directly addresses the most important environmental concern – cutting total emissions – by having a cap on the total number of permits set centrally by government. The permits can then be traded, allowing market forces to determine what changes to production actually take place. According to

neoclassical economic theory, this ensures that reductions in emissions come at the lowest possible cost, as the price mechanism ensures that the least cost-effective uses of carbon are eliminated first. It was on this basis that Stern and Garnaut concluded that reducing carbon emissions would have relatively little economic cost – and, indeed, would have net economic benefits when the costs of climate change were considered. In a political context dominated by neoliberal thinking, such an approach would more likely to be positively received by policy makers – indeed, this was noted by some environment organizations in developing their supportive positions (for example TEC 2007).

Second, during an economic boom, the underlying assumption of this neoclassical approach – that resources becoming unemployed in one sector would rapidly be employed elsewhere – may have been relatively plausible. An ETS focuses on reducing certain forms of economic activity by increasing the costs of these activities through requiring the purchase of permits. As the total pool of permits falls in line with desired reductions in emissions, so the cost of permits is likely to rise, making some formerly profitable activities unviable. The result is that some economic activity would either be abandoned or has to be reorganised to be less carbon intensive but more expensive. The underlying assumption is that those resources left unemployed (people, capital and land) will be reasonably quickly redeployed in other industries. There are always limitations to this process, as even neoclassical economists sometimes acknowledge,[1] but in the context of recession such an assumption seems particularly unrealistic.

Finally, an ETS could be seen to lower the *political* costs of making the necessary changes. Rather than directly targeting particular high emissions industries, as do proposals for phasing out the mining and burning of coal (for example, Pearson 2006), trading schemes target emissions in the abstract. While any actual move to lower emissions requires specific changes in specific industries – that is, particular industries must change particular behaviours - using an ETS shifts the decision over which industries and which behaviours to the impersonal market mechanism. Governments do not need to nominate the particular

1 Particularly those associated with the transaction cost approach developed by Ronald Coase, Oliver Williamson and others.

industries in need of change. Instead they can simply target emissions in the aggregate (by setting the 'cap') and then allow the interplay of supply and demand to determine the particularity of the change. The same politically 'hands-off' position would apply to a carbon tax. These indirect market approaches evidently appeal to governments because they are less likely to provoke fierce resistance from individual producers than would be the case with policies to directly phase out coal mining or coal fired power stations, for example, and would thus lower the political costs of achieving change.[2] Indeed, the experience of market deregulation in the 1980s and 1990s could be seen as some evidence of this type of logic – achieving a rapid economic transformation that may have been politically impossible had the government sought to directly shut down particular industries.

The New Context of Recession

The shift from boom to recession[3] has changed the political economic calculus. Recession substantially increases the political cost of a carbon pricing strategy while significantly lowering the likely economic and ecological benefits. As a result, mechanisms like the ETS that rely on increasing the market price of products made by environmentally damaging industries and processes are unlikely to deliver the rapid economic changes required to avoid the worst effects of climate change.

Recession has also significantly changed the political context in which policy is developed. Since the onset of the global financial crisis, political leaders around the world have openly questioned the efficacy of markets. British Prime Minister Gordon Brown ended the G20 leaders summit in May 2009 by declaring that the Washington Consensus, often held to be the manifestation of neoliberal ascendency, was over (Winnett

2 It should be noted that, in the currently proposed Carbon Pollution Reduction Scheme, the Australian government proposes to lower the political cost further by giving free permits to the biggest greenhouse polluters.

3 In the first quarter of 2009 a 'technical' recession was avoided in Australia, but deteriorating labour market conditions – as well as the hammering that capital markets have taken over the 2008-9 period – indicates significantly changed economic conditions.

2009). In France, conservative leader Nicholas Sarkozy earlier made similar statements (Erlanger 2008). In Australia, Kevin Rudd has denounced neoliberalism for fostering an unacceptably 'extreme capitalism' (Rudd 2009). Such rhetorical challenges to 'free market' orthodoxy do not necessarily mean a change in policy direction. However, they do signal a new context in which alternative approaches may be more likely to get a hearing. There is also some evidence of policy changes coming through inclusion of environmental measures in economic stimulus packages. To the extent that stimulus packages are based on Keynesian economics, they indicate a shift towards economic principles that are more conducive to direct government expenditure, including spending on environmental policies. Our argument, then, is not that the recession marks the death of neoliberalism, but rather that it has opened up alternative policy options that previously seemed unobtainable.

In the Australian context, the other possible strategic advantage of an explicitly market-based policy instrument – that it targeted emissions in the abstract and thus had the potential to reduce political resistance to change – has also failed to materialise. As Guy Pearse (2007; 2009) and Clive Hamilton (2007) have demonstrated, high emissions industries have mobilised effectively to undermine attempts to introduce any comprehensive carbon pollution reduction scheme, and then acted equally effectively to undermine the operation of the proposed ETS through securing generous compensation arrangements.

The arguments presented for using market instruments have often appeared to take for granted that the actual market introduced would approximate the perfect markets promoted in neoclassical theory. The reality is very different. As numerous institutional economists have shown (for example Block 1994), markets come in many different shapes and sizes, and themselves represent forms of regulation. They are therefore subject to similar political influences as other government policies, and powerful interests are able to shape their operation.

Providing support for market-based forms of regulation may have weakened the hand of environmentalists. Partly because of their abstract nature, market mechanisms are often difficult to clearly explain to non-technical audiences among the general public. The main political

resource of those advocating urgent redress of climate change – mass political support – is therefore harder to mobilise over the detail of a trading scheme than it might be for a more direct policy instrument such as regulation or prohibition of environmentally degrading activities. Ending coal mining is a much simpler message to sell to a mass audience than advocating a particular ETS model with complex arrangements for regulating the issue of permits and compensating industries. Of course, all policies involve complexity – phasing out coal, for example, would likely require a detailed structural adjustment package. Nonetheless, the complexity of market–based arrangements makes them less amenable to influence by the environmental movement than to industry lobbying.

Perhaps more significantly, the recession has increased the political and economic costs of price–based approaches to reducing carbon emissions, while rendering the main benefits of such approaches less relevant. As discussed above, price–based approaches seek to reduce emissions by increasing the cost of activities generating high emissions, effectively reducing production in those industries. The recession, however, achieves much of this result while dramatically increasing the political and economic costs of pricing policies that seek to further reduce production.

The most obvious evidence of this is the effect of recession on energy prices. Between July 2008 and April 2009 the price of crude oil fell roughly 60 per cent, from over US$130 per barrel to about US$50 (Energy Information Administration 2009). The cost of production of crude is unlikely to have changed significantly, thus the main effect has been to reduce the profitability of production. To achieve a similar effect through a pricing mechanism outside of recession would have required a price well above anything currently being considered. In other words, by reducing demand the recession has had at least a similar impact as the effect of an ETS on increasing price.

Of course, this has come at a substantial social cost. Recession is clearly not a desirable or sustainable way to achieve a reduction in emissions. The recession also substantially raises the political cost of any policy that seeks to reduce production further. Falling consumer demand means that policies that add to costs are likely to further reduce total employment – an outcome that is likely to be politically untenable.

The result is that economic events have led to a significant change in political circumstances. While the recession decreases carbon emissions in the short term, it undermines efforts to put in place the structural changes required to ensure that emissions do not return with renewed growth. Policies that would increase the cost of emissions, because these are seen as likely to exacerbate economic downturn, meet predictable political resistance. However, the recession has also raised the possibility of seriously considering other alternatives that previously appeared politically less tenable.

The political responses to recession include more popular support for government intervention and attempts by incumbent governments to distance themselves from overtly pro-market policies. New policy approaches that see governments actively promoting certain forms of production are now more likely to get on the political agenda. Governments have also proven willing to increase their spending, opening up the possibility of policy options that directly fund new alternatives, rather than approaches that increase the costs of undesirable present practices.

This emphasis on a more directly 'interventionist' policy response has begun elsewhere. Over 80 per cent of South Korea's stimulus package will go to 'green job' creation projects (Watts 2009). Gordon Brown in the UK has announced similar plans to renew industry policy to promote 'green jobs' – jobs that reduce adverse ecological impacts because they are based on renewable energy and more sustainable technologies (Grice 2009). By decreasing consumption the recession has temporarily achieved the purpose of price-based policies and opened up a new political space to pursue policies that actively seek to create the sort of industrial structure and consumption patterns that would avoid emissions rising (or at least rising rapidly) when economic growth returns.

Any such alternative approach requires a more specific set of policies than does a cost-based approach like ETS. Rather than targeting emissions in the abstract through market signals, it needs to promote targeted forms of economic activity. Parts of the environment movement have been pushing for this proactive aspect of policy for years – particularly direct investment in the promotion of technologies using solar power, wind power and other renewable energy sources. The

current economic circumstances now make it imperative, linking the main thrust of climate change policy directly to job-creation. A parallel may be drawn with the process whereby a nation puts itself on a war footing – quickly mobilising and redeploying its resources when faced with external threat.

Making the Transition

To engineer the transition to a more sustainable economy requires consideration of technical, instrumental and political issues. Technical issues are important because they concern the knowledge base underpinning policy development. Instrumental issues are important because each of the possible policy instruments that could drive change has distinctive advantages and disadvantages, requiring careful choices to be made. And political issues are important because they bear strongly on how to achieve those policy changes and effective practical outcomes.

Technical Aspects: Analysis of Feasible Change

An obvious priority is identification of sectors in which there is potential for investment in more sustainable industries and production processes that create less ecological stresses. The *Green Gold Rush* report jointly prepared by the Australian Council of Trade Unions and the Australian Conservation Foundation provides a significant start (ACTU/ACF 2008). It identifies an array of industries in which there is scope for economic restructuring to enhance the sustainability of the economy. These include renewable energy and energy efficiency, sustainable water systems, bio materials, green buildings and waste recycling. An additional half a million jobs by 2030 is projected as a possible outcome if government policies were to facilitate and boost the development of these industries. Policies to develop infrastructure and services for public transport can be a further focus, especially if linked to strategies for encouraging less reliance on personal and commercial road transport where public transport alternatives exist or can be readily provided.

Beyond identifying industry sectors likely to rate more highly by environmental criteria, the next step is to assess the economic impacts of potential growth in those industries. Modelling alternative scenarios is the technical aspect of this process. This requires sectoral analysis, such as input-output analysis, to show how expansion (or contraction) of any one industry will impact on output and employment in other industries. The CSIRO has been actively engaged in fostering exploratory research of this kind (CSIRO 2005; Dodds *et al* 2008).

Analysis of prospective policy-driven changes in patterns of production and consumption is also useful in planning the labour training requirements for a more sustainable economy. A sectoral database helps institutions like TAFE to identify and provide the necessary education and skills development. 'Green jobs' do not appear as if by immaculate conception: they need planning, nurturing and skilling. State governments are key players in this context: the NSW Government, for example, has begun analysing the training implications of a shift to 'green jobs' (NSW Department of Education and Training 2008). Identifying and planning to overcome the labour deficits and bottlenecks is a key aspect of the policy process.

Analysis at the regional level is also an important adjunct to macroeconomic analysis. The study of the Hunter Region by the team at the Centre for Full Employment and Equity at the University of Newcastle sets out methodology for studying the scope for regional economic restructuring in response to environmental concerns (Bill *et al* 2008). Also in NSW, the Illawarra region is shaping up as an exemple of what can be achieved in practice by a 'green jobs' project. Cooperation between the South Coast Labour Council and supportive academics from the University of Wollongong has attracted funding from the NSW state government (Rorris 2009). The Illawarra region makes an excellent case study because of its strong concentration of heavy manufacturing industry, facing significant job loss in traditional sectors but also with potential for leadership in industries such as wind turbine production.

Instrumental Aspects: Specific Policy Drivers

Analysing the possibilities for more sustainable economic arrangements and the technological and skills requirements for growth of 'green jobs' needs to be supplemented by consideration of what policy instruments are most suitable for achieving those ends.

Perhaps the most direct ways of driving change is by direct public expenditure on in the development of sustainable industries. Capital investment and job creation are the twin policy instruments. The latter aspect could link with the 'job guarantee' proposal by Bill Mitchell and his colleagues at the University of Newcastle – emphasising the provision of public employment whenever needed to achieve the social goal of full employment. This is sometimes called a 'buffer stock' employment policy, requiring government to act as 'employer of last resort' (Mitchell and Muyksen 2008). At a time when problems of recession and climate change both loom large it can marry job creation with restructuring for ecological sustainability.

A complementary policy, focussing more on private enterprise, is the provision of subsidies to businesses willing to take on this role of driving change towards more 'green' industry and employment structures. The aim is both to encourage renewed investment and to change its patterns so that the jobs generated are indeed 'green jobs' (as defined by Pearce and Stilwell 2008). This is an indirect approach to the twin challenges of recession and climate change that depends upon the responsiveness of private business interests to the incentives offered by government. Therein lies more uncertainly of outcome than is the case with direct government investment and expenditures on job creation.

Regulation and prohibition are further options. Neoliberal economists are typically averse to such measures because they see them as insensitive to market conditions. A recent report by the Australian Governments Productivity Commission, for example, states that "In general, market-based approaches are preferable to prescriptive legislation, which can be costly, inflexible and subject to industry capture' (Productivity Commission 2009: 3). However, setting minimum product performance standards is a policy that has a distinctive rationale

from an energy-efficiency perspective. In the white goods industry we are already accustomed to the 'star rating' system as a means of identifying the efficiency of energy use by refrigerators and other appliances. A minimum star rating enforced as a general condition for any sale is a principle that could also be extended to motor vehicles and an array of other products. Similarly, building construction, which is always subject to forms of regulation, can be made subject to more explicit and stringent environmental criteria as a condition for approval.

While not directly creating investment opportunities, such policies give clear guidelines about the forms of investment that are needed in the 'new', more sustainable economy. Enforceable mandatory renewable energy targets (MRETs) also directly signal the direction and scale of necessary restructuring.

There is evidently no shortage of policy instruments for driving change. How to choose between them is the key issue. The Rudd government seems to have made the proposed ETS the centrepiece of its strategy because of its apparently non-discriminatory character, obviating the need to 'pick winners and losers'. However, as we have seen, discriminatory elements enter into an ETS anyway because of the power of big business interests to influence and re-shape the rules of the game in their own favour. Some elements of selectivity are necessarily part of the policy process.

A combination of policies is appropriate for addressing the current economic and environmental conditions. Direct public investment to create 'green jobs' and drive economic restructuring, together with regulation to set acceptable standards for private investment, are the base-line requirements.

Incentives for the private sector to re-orient investment towards technologies based on renewable energy sources are an appropriate complement. These policies more directly confront what needs to be done in restructuring the economy than do the more indirect policies such as emissions trading. They embody the principle of planning – mobilising resources (labour, land and capital) to meet pressing economic and social needs. Price changes follow, but are not the sole drivers.

Political aspects: Generating Policy Change

The politics of change is always contentious. Some green activists argue explicitly against 'pragmatic and incrementalist' approaches to reform (Speth 2009), but the state – for all its limitations – cannot sensibly be set aside. Recent history has demonstrated that partisanship does matter in environmental economic regulation, as in other areas. Research on the development of Australian welfare state institutions has highlighted how the orientation of the party in government effects what is politically possible (Castles 1985). While changes within the Labor Party have seen a gradual shift to the political centre (Botsman 2004; Scott 1991; Scalmer 2006), the dynamics of the last Coalition Government, of the last election and the current debate all indicate that considerable differences remain.

The strategic importance of the Greens in the Senate has already resulted in numerous changes to proposed legislation that push policy in the direction advocated by this article. This influence is likely to increase in the future as the current configuration of Senators makes a Labor-Green Senate majority likely after the next federal election. Beyond purely parliamentary politics, the Greens also play an important role, along with other non-parliamentary environmental organizations, in giving voice and legitimacy to non-market alternatives that could supplement, or even replace, an ETS.

Union participation is central to any political program to restructure economic activity. This is already evident in with the work of the ACTU/ACF and the NSW South Coast Labour Councils, mentioned above. Yet there remains considerable caution, if not resistance, in some sections of the union moment to embracing a comprehensive 'green jobs' agenda. It is illustrated by the contrast between the positive position developed by the AMWU and the more defensive strategy of the AWU – which covers workers in the aluminium industry whose livelihood currently depends on a heavily polluting and unsustainable form of production (Lipsig-Mummé 2008).

Incorporating environmental and labour movement concerns is integral to mobilising the political resources needed for change. Explicit corporatist tactics that bring unions, business, environmentalists and

governments together have more prospect of success because a sense of participation in decision-making and 'ownership' of policy outcomes is thereby fostered. A new 'accord', linking economic with environmental concerns, is one possible vehicle. The previous Accord experience in the 1980s had many critics, of course, but it is an institutional model that is familiar to the main players. The case for a 'green new deal' is starting to gain significant currency (Green New Deal Group 2008; Henderson and Sethi 2009).

Even so, the necessary restructuring of production and consumption may not be attainable. The shift to an alternative economic strategy that is both job-generating and environmentally responsible would severely stretch the capacity of existing economic and political institutions. Indeed, some critics regard an ecologically sustainable capitalism as an oxymoron, given the character of corporations as 'externalising machines' (Foster, Clark and York 2008: 4). The nexus between corporate interests and government also bodes ill for the prospect of policies that go against the short-run interests of capital. On that reasoning, a comprehensive solution to economic and ecological crises will ultimately require socialist transformation (Li, 2008). But 'how to get from here to there' remains the conundrum. The practical politics of change involves starting from the current context, and developing the institutional processes for generating 'green jobs', while building the political coalitions required to maintain support within a liberal democracy. The onset of recession and the waning support for the government's ETS initiative help to widen the political space in which radical alternatives can be seriously considered.

Conclusion

Contrary to the view of some business interests, the current economic situation does not require that environmental concerns be set aside pending recovery from recession. Targeting the twin crises of economy and ecology is both necessary and possible. At present the Australian government is treating each with largely separate policies – expenditure on household handouts and infrastructure to stave-off the recession and a

poorly-constructed ETS to ameliorate the nation's contribution to climate change.

As this article has argued, the ETS proposals – already deeply flawed – have been rendered yet more inappropriate by the onset of economic recession. A shift to more comprehensive and pro-active policies to drive economic restructuring and the growth of 'green jobs' would directly link employment creation with sustainability.

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