WELFARE STATES AND ENVIRONMENTAL STATES

A framework for comparative analysis

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Abstract[1]

This paper investigates the commonalities and contrasts between the earlier development of welfare states and the recent emergence of 'environmental states', focusing on their climate mitigation activities. Five drivers of welfare state development are identified: the 'five I's' of Industrialisation, Interests, Institutions, Ideas/Ideologies, and International Influences, summarised in the first part. These factors are then applied to the recent expansion of the environmental interventions of states, and available comparative research is trawled to assess their respective importance. The provisional conclusion at this stage is that the drivers of both state functions have been similar, and that coordinated market economies and social democratic welfare states have pioneered such climate mitigation policies as presently exist. The third section of the paper compares these two policy domains and speculates on their future interactions. It sets out some of the important drivers likely to influence the future development of states' social and environmental functions and then sketches two potential configurations of the two. A scenario of integrated social and environmental investment is adumbrated and some preconditions for this to emerge are discussed. The paper calls for more collaborative work between students of welfare and environmental policies.

1 I would like to acknowledge the support provided by the UK ESRC (grant reference number RES-000-22-3683). For incisive and helpful comments on an earlier draft I am grateful to Anna Coote and James Meadowcroft, and to all the participants at the ECPR workshop "Green Leviathan, Ecological Insurance Agency, or Capitalism's Agent? Revisiting the Ecological State in the Anthropocene", in Mainz, Germany, March 2013.

INTRODUCTION

This paper presents a framework for thinking about state intervention in developed capitalist economies in two domains: social policy and environmental policy (and within that climate change policy). It takes up Meadowcroft's (2005) suggestion that the growth of welfare states provides interesting parallels and lessons for the more recent emergence of the 'environmental states' or the 'eco-state'. He argues that both welfare states and ecological states are faced with the task of mitigating negative market externalities. Just as the welfare state took on gradually increasing responsibilities for mitigating the social and human costs of the market economy, we have for about four decades been witnessing a similar development within the environmental realm.

Since the welfare state predates the environmental state by at least one generation, and on some measures by a century, what if any lessons can students of environmental policy-making learn from welfare state scholarship? This scholarship has mushroomed in the last three decades. It comprises both historical and comparative, cross-national research with a rich variety of methodologies. Broadly speaking it addresses both common historical trends and drivers of the epochal shift in public responsibilities for the welfare of national populations, and the immense variety we see in welfare systems across the developed capitalist world (on which this paper focuses). This cumulative scholarship is well summarised in *The Oxford Handbook of the Welfare State*, on which I draw (Castles et al 2010).[2]

The paper is organised in three sections plus a short conclusion. The first section summarises this welfare state scholarship using an heuristic framework which posits five drivers of welfare state development, the 'five I's' of Industrialisation, Interests, Institutions, Ideas/Ideologies, and International Influences (see Gough 2008 for more details). In the second section the paper then asks what such a framework can contribute to understanding the rise and differential patterns of environmental governance and intervention across advanced capitalist states. Comparative-historical approaches to the environmental state are expanding (see Duit ECPR 2013 for references), but to my knowledge, applying such a comprehensive theoretical framework has not been attempted before.[3]

2 In particular, the next section draws on: the editors' Introduction, 'Intellectual roots' by Pierson and Leimgruber, 'The emergence of the welfare state' by Kuhnle and Sander, 'Post-war welfare state development' by Nullmeier and Kaufmann, 'Social expenditure and revenues' by Obinger and Wagschal, 'The social rights of citizenship' by Stephens, 'Welfare retrenchment' by Levy, 'Models of the welfare state' by Arts and Gelissen, and 'The global future of welfare states' by Therborn and myself.

3 However, it is important at the outset to recognise critical differences between state social and environmental policy. First, state welfare responsibilities have been driven from the start mainly by domestic challenges and forces; whilst this is true of many state environmental responsibilities, it is not true of global threats, such as climate change, which are more evidently the product of global drivers and discourses and multilateral policy processes (Meadowcroft 2005). Second, state welfare interventions began with public regulations of water quality, hours of work and so forth but gradually developed in the direction of public financing and provisioning on a massive scale. At present environmental interventions rely on the regulatory state and, though moves towards trading, fiscal and economic innovations can now be seen, they remain relatively marginal compared with the welfare state (Feindt, ECPR 2013). Third, several environmental challenges, notably climate change, are policy domains of great uncertainty and complexity compared with our understanding of threats to human welfare. Fourth, science and scientists play a role in defining, measuring, modelling and mitigating climate change in a way without parallel in the social policy arena. These contrasts caution against too facile a comparison; they are returned to at the end of this paper.

The third section is more speculative. It sets out and compares some of the common drivers likely to influence the development of states' social and environmental functions in the near future. It then sketches potential configurations of the two, identifying conditions where the two may become integrated rather than 'layered'. The final section concludes by advocating closer scholarly collaboration between researchers into welfare states and environmental states.

EXPLAINING WELFARE STATES: the 5 I's

Early theories of welfare states emphasised the rise of industrial capitalism, urbanisation and population growth. The novel conditions and problems these created fostered collective organisation initially on class interest lines. These pressures and counter-movements encountered different political contexts and state legacies which founded divergent institutional patterns of public welfare regulation and provision. They also encountered distinct traditions and ideologies which shaped public debates and actors. Over the past century these factors have intermeshed and reacted with international and global shifts, notably in the post-Second World War period from predominantly closed to predominantly open economies, which have reshaped welfare systems since around 1980.

The 5 I's framework embraces the major theoretical currents in comparative welfare state research, but it is important to recognise the complexity. Baldwin (1990; 36-37) notes that hardly a variable has been neglected in explaining the emergence and diversity of modern welfare states: 'industrialisation, free trade, capitalism, modernisation, socialism, the working class, civil servants, corporatism, reformers, Catholicism, war' are some of these. Castles (1998a:4) also warns about the difficulties in using comparative research to help distinguish the salience of all these factors: 'complex policy processes are rarely likely to have singular determinants; there is no guarantee that the factors influencing policy will be invariant over time; there is no reason to suppose that different kinds of policy outputs will have the same determinants; different policy outputs impact on different welfare outcomes in complex ways'. These qualifications must be borne in mind throughout the paper.

Drivers of welfare states up to 1980

Industrial capitalism. Industrial capitalism in the 19th century produced both new social challenges and new resources to meet them. It tore apart the social patterns of minimal protection of the subsistence family, the village, and the guilds, and it brought together large numbers of men and women outside traditional tutelage, in factories and new cities, creating and incessantly increasing the challenges of social disintegration and of social protest. At the same time, industrial economic growth, and the new medical and scientific knowledge associated with it in European modernity, provided novel resources to deal with poverty, disease, and premature death. Thus the common findings of comparative research which emphasise the importance of industrialisation (and concomitant 'de-ruralisation'), economic growth and the demographic transition in initiating state social responsibilities in the 19th century and in driving their expansion in the 20th century.

Interests. In the new societies of industrial capitalism two powerful, opposite *interests* converged in generating public social policies. There was the interest of the industrial proletariat in at least some minimally adequate housing and social amenities in the new industrial cities, and in acquiring some kind of security in cases of injury, sickness, unemployment, old age. That interest was soon organized, in trade unions, mutual aid societies and labour-based parties. On the other side of the fence, there was the interest of political elites in social order and the quality of the population, more often out of concern with soldier material than for productivity. The French revolutions of 1789, 1830, 1848, and 1870-71 meant that elite interest in making efforts to prevent disorder and rebellion was quite rational.

In the post-WW2 period of democratic consolidation this model of class-based interests could explain both welfare expansion and cross-national variations. The 'power resources theory' postulated that the distribution of economic and political resources across the main social classes, and notably between business and labour, would determine the extent, range and redistributive effects of economic and social policies (Korpi 1983). It could begin to explain, for example, the contrasts between the Scandinavian and American welfare states.

Institutions. Institutions turned challenges, resources, and interests into consolidated, self-reproducing realities. The welfare state is part of a longer-term process by which power is accumulated in nation states by building state capacities, collecting taxes and constructing citizenship. The European welfare state emerged out of the coalescence of the bureaucratic *Rechtsstaat* (state of public law) and insurance, prompted by the fear of workers´ rebellion and with a view to nation-state strengthening and development. This happened in Bismarck's Germany, setting an example for the rest Europe. But in other countries statism and social rights (France), corporatism (Italy) and social liberalism (Great Britain) provided the initial impetus. In the period after WW2 different national origins and institutions consolidated into the 'three worlds of welfare capitalism' conceived by Esping-Andersen (1990). His theory brought together socio-economic development, interests and institutions into three distinct patterns of relationships each evincing considerable path dependency – the worlds of liberalism, social democracy, and a third world variously labelled conservatism, corporatism or Christian democracy.

Ideas. In addition ideas influence public policies as human practices (putting to one side whether they are considered major autonomous forces or as derivable from large social processes and the interests generated by these). Formative ideas behind the emergence and development of European welfare states included the European rights tradition, the civic republican tradition modernised into two major branches - British social liberalism and French post-revolutionary republicanism, plus social democracy and social Catholicism (Gough and Therborn 2010). These too contributed to the variety of welfare regimes within Western Europe. Later inputs have come from Keynesian economics and post-Keynesian economic theories of "human capital" and "productive social policy", and more recently still from neo-liberal and Hayekian schools of thought.

International influences. Finally, the international environment must be considered. The early period was one of war, never far from the horizon, between national mass conscript armies. No serious big power politician in Europe could afford to be indifferent to the lives and loyalties of his future soldiers. The outcome of World War II popularized the 'welfare state' idea, of British wartime coinage, and the Beveridge report became for a short while a new European model. In different ways the European social contract had been set. For fear of Communism, US leaders refrained from trying to impose their own model of capitalism on Western Europe; rather they were supportive of attempts at European integration and at sustaining Western European institutions. Post-war welfare states flourished in a supportive international environment of a West-dominated capitalism, with little low-wage competition and nationally governed currencies and capital flows.

What clinched the rise of especially the European welfare state to its present size was the postwar boom. Welfare systems expanded remarkably as a share of GDP and much more in absolute terms: by 1980 public social expenditure reached on average 17.5% of GDP in the OECD, highest in 'continental' and Nordic Europe (22-23%) and lowest in Southern Europe (13.5%) and the English speaking world (15%) (Obinger and Wagschal 2010). Much research confirmed the independent significance of the first three factors in explaining these and other trends and differences across welfare states in the *'trente glorieuses'*: industrial and concomitant economic and demographic shifts, the mobilisation and power of different interests, and the institutional structures of nations (eg Huber et al 1993). (Comparative analysis of ideational and international factors had hardly taken off by then). By the 1970s the welfare state had become an established feature of the polity, economy and society of the developed world.

Drivers of welfare states 1980-2008

But the 1970s generated increasing strains within capitalist economies. Though these were theorised in very different ways, there was background agreement that rising real wages and rising welfare provision (the 'social wage') was reducing the share and rate of profit and thus the dynamism and growth rates of Western capitalism. Social policy was argued by the new right to be increasingly misaligned with the economy. The two oil crises of the 1970s further impaired growth and thus tax revenues. The 'fiscal crisis of the welfare state' was discussed, and was met by decisive counter-movement, notably in the US and UK under Reagan and Thatcher. Keynesian capitalism was succeeded by neo-liberal capitalism. Again we can consider the roles of the five factors in bringing this about and their implications for social policy.

Post-industrialism and other socio-economic shifts. Industrialisation peaked in the late 1970s in the OECD world, as measured by the share of manufacturing in national output, the scale of the industrial workforce and trade union membership. Subsequently the 'service economy' grew and grew and growth rates fell. With lower productivity growth this led to new distributional trade-offs between three core policy objectives - wage equality, expansion of employment and budgetary restraint. The 'trilemma' of the service economy argues that, while it is possible to pursue two of these goals, it has so far proved impossible simultaneously to achieve all three (Iversen and Wren 1998). At the same time profound social changes altered the nature of families and fostered new demands on public services. To population ageing was added a sharp decline in fertility rates in many countries which further raised the share of the 'dependent' population. Thus economic resources grew more slowly while demands on the welfare state escalated. At the same time, inequality trended steeply upwards during this period exerting new pressures on the post-war social settlement.

International influences: 'globalisation'. At the international level economies were being opened up with globalisation, following the collapse of the Bretton Woods system of international monetary management. Capital became more mobile and constraints on this mobility were rapidly removed, initially by the Reagan and Thatcher administrations, and capital flows as a share of GDP escalated after 1983. This was augmented by the growing influence of the IMF and World Bank in setting international economic policy. Finally the collapse of communism and the Soviet Bloc in 1989-90 signalled not only the triumph of capitalism over state socialism, but also the triumph of deregulated capitalism over any substantial public economic steering.

Interests. At the same time the balance of class interests reversed: the power of capital increased and that of the trade unions and some professions decreased. Globalisation enhanced Lindblom's (1977) privileged position of business, the power of 'exit' rather than voice. The *structural* power of capital increased: the ability of business and finance to influence government policy, including social policy, without having to apply direct pressure on governments through its agents (Gough 2000, ch 4). The spate of deregulation augmented this power. In turn this has boosted the 'agency power' of corporate and finance capital and its ability to set important limits on state intervention.

Institutions. At the institutional level, the features of 'organised capitalism' were weakening, such as neo-corporatist forms of wage bargaining and societal bargaining. Starting in the Anglosphere, 'disorganised capitalism' gained ground (Lash and Urry 1987). Business, and notably the financial sectors, began to exert more influence over economic and social policy making, heralding the rise of what Hacker and Pierson (2010) label 'winner takes all politics'. The balance between voters and corporate interest groups titled in favour of the latter.

Ideas. Neo-liberal ideas became more dominant within economic and social policy-making, initially within the Anglosphere, but increasingly influential across Europe. Two decades of unrelenting intellectual attack on the idea of public welfare challenged the faith in big government. The state was to be rolled back; instead markets were insistently advocated or, where these were not possible, 'quasi-markets'. Though welfare states continued to be publicly financed, growing areas of social policy provision were contracted out to private providers, with ambiguous results in terms of cost control and service quality.

The summary picture of these three decades is of 'semi-sovereign' welfare states operating in a world of 'permanent austerity'. True, welfare spending continued to rise across the OECD, though much more slowly. Total social spending in the OECD increased by five percentage points of GDP in the quarter century after 1980, but much of this was driven by big expansions in southern European countries (Spain, Portugal and Greece) that were catching up after democratisation in the 1970s. The rate of growth in the Anglophone countries was around three percentage points. This indicates substantial retrenchment in some countries, when slower economic growth, ageing populations, new social needs, and slower productivity growth in services is taken into account. In no country did the share of social expenditure in GDP decline, but this was the period in which Flora's (1986) prediction of 'growth to limits' was broadly confirmed: the welfare state up to 2008 was consolidated but constrained.

But this was also the period in which different path-dependent 'welfare regimes' were theorised and mapped. The research consistently showed that if anything the welfare regimes in different country groups have diverged from one another (Hay and Wincott 2012). Goodin et al (1999) have demonstrated in great detail that the social democratic forms of capitalism, typified in their study by the Netherlands, have outperformed the USA with Germany achieving a respectable second place. This pattern has occurred across all major socio-economic outcomes – poverty, inequality and social integration. Their more recent work shows that the same pattern holds when looking at a healthy work-life balance, a balance which serves both social and environmental prevention goals (Goodin et al 2008). There is no evidence that generous Nordic welfare states have been disadvantaged in international competition; rather the contrary. 'Cameron's law' (Cameron 1978) was confirmed showing that more open economies almost always have *more* extensive welfare states (Scharpf and Schmidt 2000). Thus this was also the time when ideas of 'productive welfare states' and 'social investment' gained ground, led by the example of the Nordic countries, in particular Sweden (Hemerijk 2012).

The respective weights of these factors in explaining welfare state developments after 1980 has been the subject of a growing body of research, of which Swank (2002) is a good example. He demonstrates that the rise in international capital mobility has not contributed in a systematic way to the retrenchment of developed welfare states or the tax state. Domestic institutional features have been important in mediating these global factors. Pro-welfare interests are favoured by: inclusive electoral systems, social corporatist interest representation, centralised political authority and universal and social insurance-based programmes. On the other hand, rollbacks in social protection are more likely in countries with majoritarian electoral systems, pluralist interest representation and policy making, decentralised policy-making authority and liberal, targeted social programmes. Institutional features of the polity and welfare state determine the extent to which the economic and political pressures associated with globalisation are translated into cost containment, re-commodification or recalibration of social protection and the welfare state (Pierson 2001).

EXPLAINING ENVIRONMENTAL STATES

Can the above framework throw light on the much more recent emergence of the 'environmental state'? I will go through the five factors again to test this idea.

Industrial capitalism. The role of industrial capitalism in creating escalating environmental problems and later crises is evident. The pursuit of profit coupled with industrial technology pushes the global economy towards and in some cases beyond environmental limits. These pressures weigh on, first, ecosystem services (climate, nutrient recycling, fresh water provision, forest cover, biodiversity and the sink capacities of the atmosphere and hydrosphere), and second, the consumption of non-renewable resources, such as fossil fuels and other minerals. To date the entire global expansion of capitalist economic throughput has rested on cheap energy in the form of first coal and then oil (and now gas): industrial capitalism has been 'carboniferous capitalism'. Though the productivity of natural resources can be enhanced using technology, there are limits to the substitutability of natural and man-made capital. At many points, a relentless accumulation machine runs up against these natural limits. A consensus is emerging that biodiversity, the nitrogen cycle and climate change are already beyond or at the point of non-sustainability (Rockström et al 2009).

At a crude level therefore GDP per head and level of socio-economic development will be relevant. There is much discussion and debate on the 'environmental Kuznets curve', and some evidence to support the argument that higher levels of economic development result in lower levels of, for example, air and water pollution. However, there is general agreement that it does not apply to resource use including energy and to CO2 and GHG emissions, which tend to rise monotonically with GDP. *Demographic* factors also can shape environmental as well as welfare pressures, though mainly via the growth of population rather than its age structure as in the case of pressures on social spending. Within the developed world there are some differences here, notably the negative population growth in several European countries which, *ceteris paribus*, reduces emission pressures.

Two more structural features which are relevant to climate change pressures are the reliance of a country on *fossil* fuels and its *vulnerability* to climate change. Rationalists might predict that states reliant on fossil fuels and thus facing higher mitigation costs would be climate 'laggards'. Meadowcroft (pers.comm.) argues that the crucial factor here is the availability of substantial untapped fossil fuel reserves, which generate large economic rents and powerful constituencies wanting to defer climate action as long as possible. On the other hand, countries highly vulnerable to damaging impacts from climate change in the near future might be expected to lead international negotiations on mitigation, if not necessarily domestic policy innovation.

Interests. Mounting climate change problems would be expected to foster new *interests* to pressure for collective, and increasingly governmental, responses. On the one hand, there has been an 'efflorescence of non-state activism': protest groups, counter-cultural movements, green parties etc spring up to fight against the exploitation of the earth. These new environmental social movements impact on the role of civil society and the nature of governmentality (Lipschutz and Mckendry 2011). At the same time some sectors of business see profitable opportunities in green products and processes. 'Brown capitalist' interests are now opposed by a growing force advocating green growth and 'green capitalism' (Falkner 2008). Yet carboniferous energy producers and high emission industries, such as aluminium, cement and steel, remain well organised to block climate change targets, policies and programmes which would undermine their business opportunities and profitability. The balance between these two business factions is important in shaping climate change policies.

It also depends on the ability of political elites to take a longer-term view of the environmental costs of unplanned growth and the benefits of mitigation. The Stern Review (Stern 2007) was particularly important here in demonstrating that the present economic cost of avoiding climate change was factors lower than the costs of preventing it. These reformist elites will conflict with representatives of carboniferous capitalism and libertarian politicians, so the balance will partly reflect national institutions (see below). The paradigm of 'green growth' may act to bridge these conflicts.

Institutions. The institutional emergence of the environmental state according to Meadowcroft (2012) developed in two phases: the first advanced an independent realm of law, policies, administration and regulation to clean up the environment. The second strengthened linkages between this apparatus and broader state concerns with the economy, security and welfare, often under the banner of promoting 'sustainable development'. The underlying rationale is shifting from a predominantly defensive one to, at the extreme, the promotion of radical transformation in social and economic systems. As a result the environmental domain of government has expanded, deepened, become more central, and emerged as a permanent area of political contention.

But this process might be expected to vary across the West according to a wide range of further institutional factors. Scruggs (2003) hypothesises that most important would be the organisation of economic interests and formal political institutions, including the formal rules of representative democracy. These might include: the organisation of business interests between those with specific interests in fossil fuels and more general business interests in profitability and innovation; the representation of interests at a national level and their incorporation in state agencies; the related contrast between pluralist modes of interest representation and negotiated forms of coordination; and the division or centralisation of state powers between presidential and parliamentary, and between federal and unitary systems.

Ideas. The ethics of environmentalism sat uneasily alongside the dominant ideology of neo-liberalism during this period. It has been argued by Inglehart (1995) that affluence fosters 'post-material' values, and by others that it promotes social learning and greater concern for the environment. Yet Bernstein (2001) identified the 'compromise of liberal environmentalism', whereby environmental governance since the 1970s has been progressively predicated on the promotion and maintenance of a liberal economic order. Green and climate change agendas have risen in the era of dominant neo-liberal ideas, a denigration of state capacities and hostility to public initiatives. This is one reason why the predominant method of raising carbon costs in the EU has been cap-and-trade rather than carbon taxation (Helm 2008). In the case of climate change, there is also an empirical link between extreme neoliberal beliefs and denial of the science (Painter and Ashe 2012).[4]

A critical division emerging today may be between 'green growth' as an accumulation strategy that unifies business and popular interests, versus reliance on carboniferous growth and 'business as usual'. This relates to the 'issue framing' of climate change concerns. In some nations, such as the US and Australia, it has become a crucial 'ideological marker' generating strongly polarised positions; whereas in countries like Germany 'ecological modernisation' provides a crucial bridging discourse. These discourses can affect the balance of interests discussed above, but are in turn significantly produced by them (Christoff and Eckersley 2011).

International influences. Finally, the international dimension is integral to most environmental issues and is absolutely central to climate change. The place of different nations within the global economy and governance structures may influence the emergence and development of national climate change policies. The extent that countries are net importers of manufactured goods and thus 'exporters' of emissions varies widely: the UK 'outsources' one quarter of its emissions, which provides an important leeway in meeting its Kyoto targets, whereas Germany and Japan are in balance (Gough 2013). However, this paper cannot trace the ways that global structures, institutions and networks have shaped national state policies.

There is some emerging research on the respective importance of these five factors in explaining the uneven emergence of environmental states. I mention just three here. First, Scruggs (2003) compares the 'environmental performance' of industrial democracies in the first wave of environmentalism from 1970 to 1995, using measures of control over six pollutants (but *not* including CO2 or GHGs). Using regression analysis he identifies national GDP per head (a structural marker) as significantly related to environmental performance but finds little evidence of an effect from values, attitudes and environmental mobilisation. The most significant factor was 'the organisation of economic interests and the relationship between such interests and the government'. Second, a recent cross-national analysis of environmental governance regimes identifies six 'thick eco-states' combining high levels of government involvement with high scores for civic involvement: Denmark, Norway, Sweden,

4 This has been stated most pithily by Martin Wolf in the *Financial Times* 13 May 2013: 'To admit that a free economy generates a vast global external cost is to admit that the large-scale government regulation so often proposed by hated environmentalists is justified. For many libertarians or classical liberals, the very idea is unsupportable. It is far easier to deny the relevance of the science'.

Finland, Germany and Austria (Duit 2008). The first four are social democratic welfare states and the latter two are paradigm coordinated market economies.

Third, Christoff and Eckersley (2011) construct measures of past, present, and aspirations for future performance in reducing carbon emissions across the largest 20 emitting countries, including large developing countries. This shows that in the OECD world, climate mitigation 'leaders' include Germany and the UK (the Netherlands and the Nordic countries are too small to be included in their analysis, but would surely figure here); the clear 'laggards' are the US, Canada and Australia. They provide a summary of research findings and do not undertake regression analysis, but come to some conclusions which pertain to the role of my five explanatory factors.

Of the *structural* factors, vulnerability to climate change appears to be a poor predictor: Australia is vulnerable on many fronts but is a laggard country. Domestic reliance on fossil fuels would appear to play a role in the laggard countries (though Germany's prior reliance on coal-fired power stations provides a counter-example). This would support Meadowcroft's argument that substantial fossil fuel reserves are the critical factor here. *Ideas* can be potent mobilising or demobilising forces according to the dominance of special business interests and polarising discourse. *Institutional* patterns of *interest* representation favour countries with corporatist rather than pluralist political systems and with proportional representation rather than first-past-the post electoral systems. Together these enable leading EU countries - and the EU itself - to advance an alternative strategy of accumulation, based on aggressive carbon constraints, green technology and green growth (see Bassi et al 2014).

The one obvious exception to this pattern is the UK which exhibits no predisposing factors but which currently figures as a climate change 'leader'. I would hypothesise that this is due to three interrelated structural factors. First, its advanced de-industrialisation, which means there are few business or trade union interests very strongly opposed to carbon mitigation; second, the huge accumulated trade deficits which 'offshores' a quarter of UK emissions; and third, the opportunities open to the City of London in carbon trading and other climate-related financial activities.

To summarise: comparative research suggests that the drivers of welfare states and eco-states have been rather similar. Both can be broadly explained in terms of institutional structures, both economic (long-term v short term financial structures, corporatist v liberalised corporate and labour market institutions) and political (proportional representation with substantial green parties v first-past-the-post electoral systems etc). This bears out the earlier conclusions of Dryzek and Meadowcroft: that coordinated market economies with social democratic welfare states tend to see economic and ecological values as mutually reinforcing (Dryzek et al 2003, Meadowcroft 2005, Gough et al 2008). They are best placed to integrate environmental concerns alongside economic and social policy making. Liberal market economies with less developed welfare states tend to oppose environmental and economic values and will face greater difficulties.

THE FUTURE OF WELFARE AND ENVIRONMENTAL STATES: LINKAGE OR LAYERING?

The following section, first, uses the above 5 I's framework to order some recent research on the drivers of both the social and environmental functions of OECD states. It begins with two sets of structural factors – external and internal –and then turns to interests, institutions and ideas. This is followed by a comparison of two scenarios with different configurations of economic, environmental and social policies. The first, business-as-usual envisages weak social and climate change policies 'layered' on top of a continuation of market-oriented economic strategy. The second envisages strong climate mitigation efforts coupled with a social investment strategy. The emphasis here on eco-social investment provides a framework for closer integration of environmental and social state functions centred on the twin goals of equity and sustainability.

Future drivers of welfare and environmental interventions

The 2008 financial crisis. I begin with an overriding structural factor with implications for both welfare and environmental states – the impact of the 2008 financial crisis. As Marx and Schumpeter recognised, capitalism proceeds via sporadic but spectacular crises. The stock market crash and great depression in the inter-war period posed dramatic new challenges for social welfare, met in quite different ways in Roosevelt's US, Hansson's Sweden and Hitler's Germany. By any standards the 2008 crisis and its ensuing waves of contagion constituted an epochal global economic crisis. Rapid state bailouts of banks and the financial sector avoided the worst case scenario, but drove up public debt and triggered a major fiscal crisis, notably in the UK and Eurozone. This was followed immediately by a major and prolonged recession in much of the Western capitalist world (not all parts of it, and certainly not all parts of the rest of the world).

The crisis was essentially exogenous to both welfare states and environmental states, caused by the unleashing of unregulated global financial markets centred in London and New York. In the 1970s the 'welfare state' was widely perceived as a cause of the crisis; this has not been the case in the current crisis - though welfare cuts have played a major role in policy responses (Gough 2011). On the other hand, several scholars have noted the indirect role played by environmental pressures. The remarkable threefold rise in oil prices and the surge in other commodity prices after the turn of the millennium triggered a quadrupling of Fed interest rates between 2004 and 2006, which undermined debt-fuelled consumption, notably sub-prime mortgages in the US. This contributed to the mortgage debt crisis in the Anglophone nations (and Spain).[5]

More important, the early years of the 21st century signalled an historic turnaround in commodity prices after a century-long fall. That entire fall has now been erased and food and oil prices continue to plateau despite the post-crisis recession, essentially because of continuing runaway growth in the BRICS and notably China. Jacobs (2012:15) goes so far as to conclude that 'the environmental crisis must now – finally – be regarded … as a crisis of capitalism, in the sense that the dynamics of capitalist growth are now undermining themselves'.

Slower growth. The future is radically uncertain, but one likely implication is that secular growth rates in Western countries will not return to pre-crisis levels, for several reasons. First, rising resource prices will likely slow growth and raise inflation, as they did in the 1970s. Second, the shift to low-productivity services will continue though at a reduced rate. Third, in all countries, ageing populations and falling fertility rates will *ceteris paribus* slow down or even decrease the labour force and require higher fiscal expenditures - of almost five percentage points of GDP across the EU until

5 Thus a link with social, specifically housing, policies in liberal welfare regimes *can* be discerned: according to Castles (1998a), investment in home ownership plays a functionally equivalent role to social protection in Anglophone countries. The resulting over-development of owner-occupied housing was imbricated in the financialisation of capitalism and thus in the financial crisis (Hay and Wincott 2012, ch7)

2060 (Glennerster 2010). Finally, the enormous personal debt overhang across the OECD world will restrain consumer spending. It would thus seem prudent to plan now for a future of slower growth rates than over the previous three decades, which in turn exhibited lower growth rates than the decades after World War Two (Cecchetti et al. 2010; Demailly et al. 2013). At the same time, all recovery paths would seem to require an increase in the share of investment in GDP, which *ceteris paribus* further reduces the future growth rate of consumption. And sharing out this smaller total between private and public consumption becomes politically more fraught.

This combination of crisis aftermath, continuing global expansion and slow-down in the West will not apply equally across countries and is likely to push further divergences within the rich world (Hay and Wincott 2012). Countries rich in resources and raw material, notably Australia, Canada and the US, will continue to benefit from some of these trends, while the EU will be a notable loser (Demailly et al. 2013). If the future is one of slower growth, then the implications for welfare states, built on growth, are worrisome. Rich country emissions would benefit from the slower growth rates, but this may undermine future-oriented mitigation efforts and thus the scope of environmental states

Ideas. The crisis of deregulated financial capitalism might have been expected to deal a fatal blow to the dominant economic paradigm of the previous three decades, and at the least to have brought about a critical realignment of producer groups (Gourevitch 1986). This has not (yet) happened; the reality is, in Crouch's (2011) words, 'the strange non-death of neo-liberalism'. The brief period of successful state activism to bail out the financial system brought about a surge in state debt and a fiscal crisis for public sectors in the West, for which the hegemonic prescription was 'austerity'. This partly reflects the absence of any alternative economic strategy, Keynesian or otherwise, to fully address the post-crisis state of the economy. The cross-national contagion of problems has led to a contagion of solutions!

Two major discourses relevant to this article continue to contest this hegemony. In social policy the social investment approach continues to be pursued in Europe, for example the EU Social Investment Package of 2013 (Esping-Andersen et al 2002; Hemerijck 2012). In environmental policy the ecological modernisation discourse remains important, again in Europe (Würzel 2012). The prospects for either to challenge neo-liberalism is discussed below.

Interests. Neoliberalism serves the interests of powerful capitalist agents, and in turn strengthens their power. Crouch argues that it serves the interests of giant corporations, which are 'more potent than states or markets'. This power is based on both structure (their ability to engage in 'regime shopping' in a globalizing world economy) and agency (their capacity and willingness to spend vast amounts on lobbying and political funding). For other scholars it is the financial sector which drives neoliberal policies and benefits most from them (Glyn, 2006; Duménil and Lévy, 2011). As industry declines and is outsourced from the West, most notably in the UK, capitalism becomes financialised with numerous consequences. On either account, the end result is the 'capture' of governments by corporations, a process begun in the United States. Yet the crisis perversely strengthens financial capital: state dependence on borrowing and debt management increases, hence its structural position became more critical to national economic survival (Woll 2014).

Institutions. Thus governments, starting with the American and British, become more beholden to these private and sectional interests and ideas. Indeed, governments and capital become more entwined, and the ability of democracy to temper this is eroded as 'winner-takes-all' politics takes over.[6] Within European states and the EU the institutional configuration of finance and business ministries will play an important role in fostering or blocking alternative social/green investment programmes.

Current policy responses

The legacy of the past three decades as well as the impact of the crisis means that welfare states are operating in contexts of macro-economic instability, fiscal restraint and growing inequality (Hildingsson and Khan, ECPR 2013). Moreover, the accumulation of policy legacies undermines the capacities of welfare states to address new issues (Streeck and Mertens 2011). In the Eurozone, banking and fiscal crises have forced incremental policy-making aside in favour of radical, fast, macro-economic decision-making (Kvist 2013).

In these circumstances one policy option is now dominant– austerity. In order to get borrowing and debt down, government spending has been cut and taxes raised – though the ratio is heavily biased towards cuts (in the UK now by 5:1). This has exacerbated the existing drop in real incomes and consumption spending to worsen the economic downturn and, in many countries, deficit levels and public debt. In the Eurozone, a new Fiscal Compact, incorporated into the 2013 Treaty on Stability, Coordination and Governance commits governments to a cap of 0.5% on the 'structural deficit' with enforcement by the European Court of Justice. Outside the Eurozone the reaction of the UK government stands out. The Coalition government has chosen to use the opportunity to impose large cutbacks in social spending which are targeted to bring down the share of public spending to US levels by 2016. Here the crisis has been used to refashion the post-war welfare settlement and bring it closer to 'Team America' (Taylor-Gooby and Stoker 2011, Taylor-Gooby 2013).

As regards *climate change* policy there is evidence that the current recession is downgrading government commitments to climate mitigation policy. Industries reliant on fossil fuels and high energy use are facing rising costs and slower growth as mitigation policies begin to bite. They are fighting back. Their success depends on the strength and mobilisation of green business interests and associated trade unions and social movements – but also on the success of neo-liberal ideological currents opposed to a strengthened environmental state and even to the whole idea of global warming (Jacobs 2013). This suggests that the impact of the recession on the remit and powers of the environmental state, and of climate mitigation in particular, will vary according to similar cross-national patterns as reviewed above.

The future of welfare and environmental states

Looking further ahead, a variety of policy responses by nation states can be envisaged as the constraints of both rising commodity prices and climate change impinge. There will be no single path, or one-size-fits-all policy response, leading to a lower-carbon world. The above analysis of slower growth suggests a more constrained world, against which the sole weapon is rapid, indeed revolutionary technological change. The extent to which a 'fifth industrial revolution' (Stern 2012) can bring very rapid decarbonisation and a halt to the release of GHGs is much disputed, and is beyond the scope of this article. Instead I consider two scenarios for the OECD world – business as

6 Streeck (2011) goes so far as to argue that economic elites have become so globalised and wealthy that their interests become divorced from those of the survival of the system.

usual and radical decarbonisation - and their associated patterns of linkage between environmental and social policies.

The *first*, BAU scenario may suit countries shielded by external and internal resources from excessive climate challenges in the medium term, such as Australia and Canada. In this benign scenario policy pressures could continue to be developed incrementally in both the environmental and social domains. Given the earlier weight and preponderance of social policies, environmental policies would be 'layered' on top of these, a process where new policies are created without the elimination of old ones.[7] Limited price mechanisms would be the favoured measure to direct energy development but these will create losers, notably low income families and people with low educational skills and labour market networks. If there is any pressure to rectify this it will take the classic liberal form of compensating losers (Gough 2013). This 'climate safety-net' approach entails a market liberal view of both climate mitigation and social policy.

An *alternative* scenario is one where quite stringent emissions reduction programme are pursued and these are more and more integrated with radical social policies. Recent modelling of such a scenario shows more immediate losses to growth rates over the next two decades, as carbon pricing drives up production costs and slows down increases in purchasing power, but subsequently higher growth rates in the following decades due to the move to an energy pathway less constrained by peak oil. Furthermore, lifestyles and behaviours gradually shift in a low carbon direction due to complementary investment in transport and urban forms and accompanying regulatory standards. This is predicted to more effectively limit 'rebound effects' in private consumption, entailing a complementary role for social and environmental policy.

This is closer to the idea of an integrated 'eco-welfare state', though one still committed to economic growth. Alongside the rapid decarbonisation of energy, this strategy would require a coherent national investment framework (Helm 2011) embracing, first, renewal and innovation in electricity, gas, transport, urban and electronic infrastructure; second, further social investment in education, labour market access, communities, and health including preventive strategies; third, where there are important natural resources, such as North Sea oil, an investment fund to cover the amortisation of reserves; fourth, investment in adaptation to climate change; fifth, widespread long-term investment in various forms of conservation and eco-maintenance (Jackson 2009). This would require a comprehensive accounting of public assets and debt and their forward management, rather than a concern only with debt as in existing public financial accounting. The investment functions of social policy would be enlarged and more closely integrated with environmental investment.

The strategy entails 'redrawing the economic borders of the state' and placing sustainability at its heart. Just as the post-World War II social settlement added distributive and social issues to the economic and security functions of the state, so now must sustainability functions be added and addressed. Such a 'new social settlement' will require radical change and would challenge two vital features of the current social settlement through the West: consumption and work.

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7 Feindt and Flynn (2009) demonstrate this process in UK food policy as successive waves of new ideational goals have arisen since the post-war concern with adequate supply: environment, food safety, obesity, health, and climate change. As each of these are taken on board, 'policy stretching' and 'institutional layering' takes place, but the old institutions, and the interests which support them, do not go away. The result is incremental policy change with no discernable policy integration.

An eco-social consumption policy would need to prioritise collective investment and consumption over private commodities, foster local, community-based consumption, identify high-carbon luxury consumption, improve diets to benefit both health and the environment, and move welfare interventions 'upstream' to prevent rather than ameliorate social problems. An eco-social work policy would gradually reduce paid work time, foster alternative employment contracts, develop 'co-production' in service delivery and encourage low carbon leisure activities. Together, the now very unequal distribution of personal consumption would need to be addressed, via socialised consumption, taxation, public transfers and 'pre-distribution' measures such as minimum wages, maximum rewards and trade union rights. These are radical shifts which would challenge dominant interests and ideas, for example 'consumer sovereignty' and economic growth. They would need to be accomplished in the face of accumulated policy legacies of existing welfare and environmental states.[8] A necessary precondition would be extensive consensual policy-making involving key constituencies of interest to set the frameworks for markets (Würzel 2012).

These two models of the future relation of welfare states and environmental states cannot straightforwardly be identified with any country or cluster of countries in the OECD world. Yet there is no question that the division between the 'Anglosphere' and Europe is strongly represented here; that these futures build on the existing models of varieties of capitalism and welfare regimes. All one can say is that it remains most likely that integrated eco-welfare states will be fostered in Europe. But against this is the narrative-changing effect of the 2008 crisis. If the Eurozone fails and the EU weakens dramatically, the best hope for an integrated eco-welfare state will disappear. In Streeck's (2010) view, the financialisation of global capitalism has already eroded significant contrasts between national capitalisms, and its aftermath is already placing a great strain on the European model. In East Asia, state-led green capitalism oriented to sustainability may well thrive, but it is unlikely to incorporate the extensive welfare functions of Western states.

CONCLUSION

This paper has compared studies of the development of welfare states in the OECD world with the more recent emergence of states' environmental functions, concentrating in the main on the single issue/challenge of climate change. The first two sections find that there is a significant overlap between more generous welfare states, more extensive carbon mitigation programmes and more coordinated forms of capitalism. Moreover, similar institutional, interest-based and ideational drivers can explain this convergence.

This leads on in the third part to speculations about the longer-term linkages between welfare and environmental states. So far, given the earlier emergence of social policy functions, environmental functions have been layered on top of them. But the parallels noted earlier suggest that policy integration has a promising future - that there are potential synergies between radical social, environmental and climate mitigation policies. A model of integrated social and environmental investment is adumbrated. But such a model would require both more extensive and more

8 For some of these ideas see Victor 2008, Jackson 2009, Gough and Meadowcroft 2011, Coote 2012, 2013, Gough 2013.

consensual policy-making, which theory and history suggests is only realisable in more coordinated forms of capitalism. However, the absence of any coherent alternative social and economic strategy across the West since the profound crisis of 2008 places a question mark on this more varied and optimistic conclusion. If the persistence of neo-liberalism and austerity betokens the end of 'varieties of capitalism', the scope for an 'eco-welfare state' is narrowed, at least in the West.

Finally, the paper demonstrates the benefits of cross-national analysis of state interventions in different domains and the need for more collaborative work between students of welfare and environmental policies. It shows that the accumulated scholarship on welfare states offers lessons for environmental researchers, but there are lessons to be learned in both directions. It amounts to a call for less silo-bound and more integrated research into modern state policy-making.

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