



Can capitalism survive climate change?

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review of:

Peter Newell and Matthew Paterson (2010) *Climate capitalism: Global warming and the transformation of the global economy*. Cambridge: Cambridge University Press (PB, pp. 205, £ 19.99, ISBN 9780521127288).

Can capitalism effectively respond to climate change? This is the timely and critically important question posed by Peter Newell and Matthew Paterson at the beginning of their book, *Climate Capitalism*. It is the same question that motivated me to focus my own research on the topic of business and climate change nearly fifteen years ago.

Unlike other environmental issues, such as ozone depletion or acid rain, climate change represents a far more systemic challenge to the contemporary path of capitalist development, which is premised on ever increasing production, consumption, use of natural resources, and disposal of waste. The development of modern industrial societies has relied on fossil fuels as cheap sources of energy for their transportation, manufacturing, and energy systems, and a host of important economic sectors from agriculture to chemicals and construction are also heavily dependent on these fuels. In the last decade, rapid growth in China, India, Brazil, and elsewhere has brought a carbon-intense lifestyle within reach of several billion of the world's population, who aspire to own cars and electronic appliances, live in spacious homes with heating and cooling, and fly on vacations.

Climate Capitalism examines whether capitalism can survive the challenge of addressing global warming induced by emissions of greenhouse gases (GHGs). Can the market and private capital develop new governance mechanisms, such as carbon trading, and deliver new low-carbon technologies that will decarbonize the economy while ensuring growth and full employment? As the authors note, these are complex, ambitious questions. Given the scale of the economy-wide transformations required and the absence of a simple 'silver bullet' solution, major institutional innovations are necessary. But capitalism is not going to quietly disappear. Indeed, the system has historically demonstrated remarkable resilience, flexibility, and pragmatism in responding to past challenges, from wars to the Great Depression. The impacts and responses to climate change will have differential impacts across economic sectors,

countries, and labour markets, so the issue raises ‘questions of strategy, politics, and power’ (p. ix).

Posing these questions leads the authors to adopt a political economy approach that locates climate change as a problem rooted in the way our production is organized, our economy is structured, our patterns of growth and consumption. Overall, the result is an excellent review of the shifting business response to climate change and the emergence of market-based efforts to address GHG emissions. It does so in a style that is lucid, informative, and relatively free of jargon, though with enough detail (and comprehensive glossary) of the multitude of organizations and initiatives that it can serve as a guide to ‘speaking carbon’. Colourful vignettes, such as the climate awakening of parcel delivery company TNT’s CEO Peter Bakker, help make the book more accessible and lively, breaking up the sometimes dense description of market instruments. Though there is little new here for those already steeped in the topic, it is a valuable contribution to the sparse literature on the political economy of climate change and would be very appropriate for undergraduate or graduate university classes. In fact, I will assign it for my upcoming MBA course on Business and Climate Change.

The process of contesting the reality, meaning, and appropriate response to climate change has sharpened the ideological distinctions among political camps, who have sought to mobilize the issue (or deny it) to further their agendas. Some environmentalists see climate change as the embodiment of an inherent contradiction between capitalism and environmental sustainability, and hence as a crisis that can catalyze a profound reorientation of our economy toward more egalitarian, participative, and local processes. If capitalism succeeds in confronting climate change, it would not to be celebrated from this perspective, but rather be viewed as a waste of a crisis. In a parallel manner, carbon-intense sectors such as coal and oil have tended, at least until the early 2000s, to view climate change as a mortal threat, and thus resorted to denial.

For neoliberals, climate change presents a welcome, if extreme, test of the efficacy of markets and private capital in addressing a seemingly intractable environmental problem, one that has defied conventional state-led efforts to develop a binding international treaty. An increasing number of people from business and finance are expressing confidence that a price on carbon can send appropriate signals across the economy, guiding consumers toward low-carbon choices and manufacturers toward carbon management systems that reduce costs and risks. Venture capitalists and entrepreneurs are expected to redirect their resources and creativity toward low-carbon innovation. Politicians at every level find this market-based approach attractive, as it promises to attract investment, create ‘green jobs’, and improve regional competitiveness without the political or financial costs of major regulation or subsidies.

For supporters of a European-style mixed economy, or liberals in the American context, climate change highlights the negative externalities of GHG emissions and the failure of markets to plan for the longer-term and invest in the major structural economic changes needed. The issue therefore creates an opportunity to pursue ‘climate Keynesianism’, a new era of government activism and intervention to regulate emissions and stimulate investment and innovation, in addition to stronger oversight over carbon markets. Climate Keynesians also recognize the importance of overcoming collective action

problems and building stronger institutions of governance at multiple levels, from cities to the international arena.

Newell and Paterson do not adopt an explicit stance in the book, but overall, they demonstrate a grudging embrace of carbon markets, despite acknowledging their many flaws, with a good dose of climate Keynesianism to ensure their effectiveness. The authors bring a realpolitik sensitivity to climate change; if we are to address climate change in a meaningful way within the necessary timescale, carbon capitalism is the only game in town that can galvanize a powerful network of actors with the potential to take serious action. They stress that carbon capitalism offers the opportunity to successfully mobilize the resources, energy, and political support of key sectors of business and finance, as well as policymakers. Carbon markets offer strategic flexibility for manufacturers, new market opportunities for traders and financial firms, and a source of capital for developing countries. Capitalism can be bent and shaped to this task, but fundamentally we are relying on existing systems of financial and corporate governance. Nevertheless, success is far from assured.

The book's discussion of the political economy of the emerging carbon governance system highlights that it is far from a unified rational structure designed by a benevolent planner. Rather, the actual carbon system is a messy, fragmented outcome of a contested, dynamic political process. For example, carbon markets have been shaped by the protests against them, so that accounting standards and verification of carbon reductions have been tightened up in response to criticism. Competition among suppliers of carbon credits has also led to the strengthening of certification standards. Establishing the rules and conventions of carbon markets entails negotiations among states, business, and NGOs, but there are considerable differences in interests, goals, and ideologies between the European Union and the United States, between rich northern countries and the poorer countries of the south, and across industrial sectors and NGOs.

The most functional elements of the carbon system arise out of the convergence of powerful interests: the book describes, for example, how the Clean Development Mechanism suits the US desire for flexibility and markets, and the desperation of poorer countries for foreign investment. Yet, the authors caution that even the CDM is not necessarily delivering much in the way of carbon reduction nor development. One reason is the uneven playing field in the establishment of these programs, in which environmentalists have been relatively weak partners compared with business and finance.

The story of the dramatic transition in the business stance toward climate change in the latter 1990s, from denial and conflict over the science and economics to a more accommodating and engaged position, is by now well known. Newell and Paterson provide a solid overview, and emphasize that this was not just a matter of industry waking up to climate as a real problem and figuring out the right thing to do. Indeed, there was no major breakthrough in the science during this period. Rather, the perceived balance of costs and benefits, of risks and rewards, shifted as many companies began to see the inevitability of carbon regulation, the threats of higher fuel costs, reputational loss, and technological obsolescence. Simultaneously, the rise of new business groups

such as the US Climate Action Partnership highlighted the opportunities in new product markets and from energy savings, and created competitive and normative pressures for companies to follow suite. Most firms were not ready to radically change their core strategies, but were willing to hedge their bets and make some modest investments in measuring their carbon footprint and exploring low carbon technologies.

Yet, the extent and permanence of this revolution is somewhat overstated. The authors observe (p. 36) that 'it may seem hard to believe today, but there was once a time that business denied there was such a thing as climate change'. It is true that during mid-to late 2000s, it appeared that business had called a ceasefire in the carbon wars and was willing to accept a weak carbon regime as part of a grand 'Carbon Compromise'. Like a monster that refuses to die, however, climate denial keeps coming back from the dead. Climategate and a couple of unusually cold winters in Europe and the eastern US have helped fuel the climate backlash, leading to a dramatic rise in climate scepticism in public surveys. The ground had been well prepared, however, by business groups. In 2009, Energy Citizens, a US-based group set up and financed primarily by the American Petroleum Institute (API) with support from the National Association of Manufacturers, staged about 20 large rallies against carbon regulation. This was complemented by a massive increase in lobbying efforts by the fossil fuel industry. Private foundations, such as those controlled by the billionaire Koch brothers, have also poured many millions of dollars into organizations engaged in climate denial and lobbying against regulation.

The core of book discusses the awakening of financial actors to climate change and the development of financial markets and instruments, from catastrophe bonds to the European Trading System. This is climate capitalism at work, and the authors cover the complex ground admirably. Insurance companies, pension funds, and banks began paying attention in the early 2000s to climate risks, including physical damage from hurricanes and flooding, the business risks facing carbon-intense firms from higher fuel prices or from technological obsolescence, and reputational and legal risks. The rise of information governance systems such as the Carbon Disclosure Project (CDP) are traced to the UNEP Finance Initiative and usefully placed in the context of heightened investor activism in the wake of corporate governance scandals at Enron and elsewhere.

A few key players, such as Cantor Fitzgerald and Deutsche Bank, were central figures in forging the carbon markets, and not surprisingly, they shaped the rules and processes to suit their capabilities and interests. The strategic agency of these actors highlights a core theme, that carbon markets are political and institutional constructs, relying on a vast legal and accounting infrastructure to commoditize carbon; to establish property rights, count and certify tradable units, and to enable exchange across different jurisdictions and gases. Yet, the agency of environmental NGOs in leveraging investors is perhaps underplayed. The CDP is described as a consortium of investors, but like the Global Reporting Initiative, it functions (and is perceived) more like an NGO trying to shift corporate behaviour by enlisting investors to demonstrate their concern for climate change and the value of information disclosure. Moreover, investors increasingly appear rather dubious about the value of carbon disclosure in assessing risks and asset values.

Overall, Newell and Paterson provide a mixed and cautious assessment of this brave new world of carbon capitalism. While they recognize the power of galvanizing the financial sector, they describe free market advocates as naïve and irresponsible for failing to recognize that markets can fail due to fraud, speculative bubbles, and lack of information and oversight. They pay less attention to other problems of carbon capitalism. Despite the rapid growth of venture capital and entrepreneurs pursuing opportunities in the clean tech sector, the scale of private investment in research and development is puny and faltering. Unlike the IT industry, scaling up projects to demonstrate commercial viability faces a gaping ‘valley of death’, as risk-averse investors shy away from the large-scale investments required. More fundamentally, a price on carbon is a weak tool with which to overcome the inertia of ‘carbon lock-in’, the intertwined economic, technological, cultural and political systems that constitute our carbon-intense economy and lifestyles.

The climate change field is so fast moving that even a 2010 book like this can quickly seem dated. Where climate regulation and a carbon price were once seen as inevitable, there is now uncertainty and confusion. Where denial was passé, it has now revived. Characterizing the current prospects for climate capitalism is not easy. Since the collapse of international negotiations in Copenhagen in December 2009, two large oil companies, BP and ConocoPhillips, along with Caterpillar, manufacturer of heavy industrial machinery, have pulled out of the US Climate Action Partnership, the leading business organization in the US promoting cap-and-trade legislation. There is little chance of the US instituting any kind of carbon market at the national level in the near future; indeed, the EPA and US states are instead turning to more traditional command and control style regulatory approaches.

The book concludes with a number of provocative scenarios. In the neoliberal utopia of carbon capitalism, carbon markets and venture capitalists facilitate a smooth transition to a low carbon-economy. Yet, if this vision of ecological modernization is to be realized, economic growth must be delinked from carbon, as growth itself is sacrosanct. The challenge requires further scrutiny, because of the enormous hurdles regarding population growth, dematerialization of output, energy efficiency and renewables. Stagnation is a more pessimistic, though increasingly likely, scenario. The authors sketch out a world in which the failure of international negotiations combined with limited and poorly functioning carbon markets leads to cynicism and fatalism, with rich countries engaging in large scale adaptation and the poor left to fend for themselves. A third scenario is decarbonized dystopia, in which geo-engineering, biofuels, nuclear power, and carbon sequestration provide technological fixes but with high risks to our health, food supply, or unexpected side effects. Climate Keynesianism is the fourth scenario, entailing stronger governmental supervision of markets and systemic investments in transportation and energy infrastructure.

Missing here is the dystopia of stagnation and delay followed by more urgent, authoritarian and intrusive responses by states. Governments faced with the need for urgent adaptation and rapid emission cuts could well resort to wartime measures such as rationing and direct control of investment and production in key sectors. Economic dislocation could generate widespread unrest, and the security implications of climate change, from refugees to water and food shortages, are just beginning to be appreciated.

The outcome, however, could well disappoint those who expected the climate crisis to usher a new era of a flourishing civil society and egalitarian harmony. Capitalism may yet survive, but in a form that is barely recognizable.

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