



Climate Change

Solutions to Climate Change Embodied in the Cultures of Markets

By JANELLE KNOX-HAYES

The scope of climate change and the dire consequences of policy failure make understanding the cultures of markets absolutely crucial if coordinated global action to tackle climate change is to be taken in time.

Climate change. Perhaps no greater challenge has ever confronted humanity. From the agriculture that depends on stable temperatures and rainfall to the sea-side cities housing much of the global population that rely on consistent sea levels to the energy infrastructure that underpins the entirety of the modern political economy, climate change challenges every aspect – social, political, cultural, and economic – of modern human civilisation. Climate change, like the emissions of climate altering gases (primarily carbon dioxide though many gases, such as hydrofluorocarbons, contribute to climate change) that drive it, respects no national border, exclusive economic zone, or trade relationship. Local manufacturers and transnational corporations alike must come to terms with their contributions to and the consequences of climate change.

Given the transnational nature of climate change and the emissions that drive it, it is understandable that the international community has sought to develop a global framework for responding to the problem. The 1992 United Nations Framework

Convention on Climate Change established the foundations for a global response. It was the 1997 Kyoto Protocol (entering into force in 2005) that truly institutionalised the Global response as primarily economically oriented. Through the emissions trading, the Carbon Development Mechanism, and Joint Implementation (the so-called Flexible Mechanisms of the Kyoto Protocol), the international community established climate change as primarily an economic problem to be addressed through market-based mechanisms. Primarily, states in the international system would set caps on carbon emissions and allow firms to buy and sell emissions credits on an open market, thus rewarding efficiency and technological innovation by some firms and allowing less progressive firms time to clean up their acts by buying offsets to cover the difference between their emissions and the carbon emission cap. Over time, the cap would decrease, decreasing the number of credits and emissions in the system and forcing national political economies to evolve into a low carbon future.

To many American ears, where cap and trade was developed in the early

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1990s as a solution to the sulfur oxide and nitrous oxide emissions that cause acid rain, the market-based mechanisms of the Kyoto Protocol sound like the obvious and natural solution to the problem. But the market-based mechanisms of the Kyoto Protocol are not the value neutral devices they appear to be; rather, they cloak a whole range of Anglo-American political, social and economic values in culturally indistinct techno-economic language. The result is that policymakers, corporate leaders, and publics in the West fail to see that the existing global approach to climate change is not truly universal, but rather the universalisation of policy derived from a very specific political economic context.

For example, cap and trade is built on a foundation of financialisation that is particularly appealing to Americans. Specifically, it is impossible to actually trade carbon emissions. Firms do not capture their carbon emissions in barrels and trade them, as is the case with oil, wheat, or a whole range of other commodities where abstraction through financialisation facilitates material transfers. Instead, initially emissions credits are based on estimates of how many emissions a firm would have produced were there no climate policy in place. Then, cap and trade systems allow firms to monetise the difference between the counterfactual (what would have happened without policy) and actual carbon production.

Analysis

But to implement such a system, detailed accounting and complex systems to track emissions credits are required. Emissions credits represent the *absence* of emissions rather than a physically existing commodity. Such a system aligns well with American, and to a lesser extent, European capitalism because it manifests the underlying culture of those political economies.

Why does this matter? While financialisation and cap and trade may work well in the Euro-Atlantic context, it is far from clear that the appeal is universal. Alternatives like taxes and command and control regulation (e.g. policy that reduces emissions through direct regulation) may find greater traction in other political economic cultural contexts. Even where markets are accepted and implemented, they will be altered to fit the character of the local political economic culture. These market permutations, much less

the greater deviations represented by tax and command and control policies, pose a substantial problem for financialisation and cap and trade at the global level.

The core of the problem is the homogenisation required by financialisation. Take for example a bushel of wheat. For a given bushel of wheat, a whole range of attributes attach to it: where it was grown, how much rain fell on it, the average temperature during the growing season, whether there were major temperature deviations, the mineral content of the soil, the air quality in which it was grown, and so on. All these attributes inform the unique characteristics of the wheat, and they are also an impediment to financialisation. This is because financialisation seeks to link a commodity to a market generated price signal. The more characteristics attached to the commodity, the

more difficult it is to generate a price signal. Thus, while a bushel of wheat grown in Iowa may differ substantially from that grown in France, from the standpoint of linking these two bushels into the global wheat market, the unique attributes must be stripped away to allow the wheat to become interchangeable or commensurate.

These same dynamics take place in carbon markets. To function, the carbon market must treat carbon emissions from a cement plant as no different from those generated in beef production. But the financialisation product of carbon emissions, the carbon credit, is no ordinary commodity. While financialisation of products such as wheat requires a substantial degree of abstraction, there is in the end always the physical product. With respect to carbon emissions, the commodity represents the absence of a physical product. As a consequence, the financialisation that underpins cap and trade entails an extraordinary degree of abstraction – in essence, carbon trading entails the exchange of commodities whose only physical embodiment lies in an entry in a database. This level of abstraction in turn requires a high degree of harmonisation in order to function. Across cap and trade markets, standards of emission reduction, units of reduction, databases of emissions credits, and registers of purchased and used credits (credits might be purchased but not used, and thus eligible to be sold again) must all be harmonised in order for the international exchange of carbon emissions credits to take place. Even small differences in how markets operationalise and exchange emissions credits hold the potential to place a drag on the international market or, if the differences are large enough, halt it entirely.



Japan's carbon dioxide emissions were the highest on record in the 12 months to March 2014. Photo courtesy: Bloomberg News

There should be little doubt that substantial differences between market economies, rooted in differing cultural values, do exist. Japan provides an instructive example of how a market economy can deviate substantially from the underlying cultural assumptions that inform financialisation and cap and trade. While Japan acceded to the Kyoto Protocol, the heavy emphasis on financialisation does not set well with how many in Japanese society and industry conceive of a market economy. In Japan, much of the focus for the political economy remains focused on material outcomes. Finance obviously plays an important role, but only as facilitator of material economic production – technological development or manufacturing for example. Financialisation, either for its own sake or as a primary economic mechanism divorced from material outcomes, is for many in the Japanese economy a “money game”: illegitimate economic practice. Thus, Japan has never fully participated in a global carbon market regime, preferring to reduce carbon emissions through direct technology transfers to developing countries. This approach puts material outcomes front and center, a clear manifestation of Japan’s particular market culture.

If markets are cultural manifestations, then the common conception of them as somehow separate from the social and political spheres of human life cannot stand. The economic is political and the political is economic, and both are expressions of cultural values. In Australia, the politics of climate change highlights these relationships well. Australia has run the full gamut of climate policies, from the aspirational rhetoric of Kevin Rudd in the mid-2000s to the hybrid tax-market climate policy of his successor Julia Gillard to the repeal of that policy by her eventual successor Tony Abbott, Australia has supported and abandoned the Kyoto Protocol and the global effort to address climate change. Underlying this political economic turmoil, however, are consistent cultural values. Notable in the Australian case is a desire by Australians to do “their fair share”. When global climate policy appeared to be gaining strength in the mid-2000s as the Kyoto Protocol entered into force, Australians supported climate policy. As the global effort faltered, Australians began to feel more was being asked of them than of other countries like China, and turned against climate policy. Gillard’s climate policy also failed to resonate with Australian market culture. While Gillard’s policy of a cap and trade market with a three year fixed price represented an effort to learn from the problems experienced by the European Emissions Trading Scheme, her political opponents were able to label the policy a tax rather than a market mechanism. This

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approach was at odds with the underlying cultural valuation of markets and financialisation in Australia (much at odds with that in Japan), and eventually played a substantial role in her political downfall.

The global effort to address climate change through market mechanisms highlights the limits of such an approach. First, the carbon markets enshrined in treaties like the Kyoto Protocol are not value-neutral technocratic vehicles but rather embody a particular market culture that does not resonate with political economic cultures around the globe. Second, that climate change is not a purely economic problem to be resolved by technocratic means, but rather an issue profoundly in dialogue with political, economic, and social values. While crucial for policymakers seeking to address climate change, these observations are not unique to it. No economic practice is divorced from the cultures of the markets in which it is embedded. No public policy challenge can be understood from the interplay of social, political, and economic values. But the scope of climate change and the dire consequences of policy failure make understanding the cultures of markets absolutely crucial if coordinated global action is to be taken in time. Fortunately, there is evidence in the recent Paris Accords that policymakers have reconsidered the singular, market-mechanism model in favour of a looser coordination that will allow states to field policies that fit with their cultural contexts. This approach faces challenges as well, notably holding states to account for real carbon emissions reductions. But it represents an approach that holds the promise of truly global coordinated action based on the expression of a wide variety of cultures of markets, and thus charts a hopeful path forward. 

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