Meta Governance of Path Dependencies: Regulation, Welfare, and Markets

By
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Regulation, welfare, and markets grow interdependently, shaping, reinforcing, and supporting each other: markets allow for the expansion of welfare states, and welfare states create demand for regulatory state services that help to solve perceived welfare problems. Crises can drive this path dependency because they create opportunities for growth in markets, regulation, and welfare institutions. The momentum toward interdependent risk of ecological crises, economic crises, and security crises is formidable, but regulatory-welfare-market path dependencies might be mustered to counter it. This article proposes a meta governance of path dependence, emphasizing multiple interactions in the regulation-welfare-market system and suggesting that meta governance can steer path-dependent regulation, welfare, and markets in the governance of crises. I discuss whether patterns of path dependence explain why regulation, welfare, and markets interdependently persist and grow.

Keywords: regulatory capitalism; welfare; markets; COVID-19

Regulation-welfare-market interdependence is a path-dependent governance ensemble. Crises often drive that path dependence. Path dependencies of co-expansion from one institutional arena reach into opportunities opened up by path dependence for expansion in other institutional arenas. Markets allow the expansion of welfare states. Welfare states create demand for regulatory state services that help to

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NOTE: Thanks to Gale Burford, Valerie Braithwaite, Yan Zhang, the editors, referees, and all conference participants for helpful comments on this work.

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DOI: 10.1177/0002716220949193

repair disintegration of welfare state institutions. New crises create opportunities for new path dependencies for growth of market, regulatory, and welfare institutions. Then, mutually reinforcing tendencies of one institutional arena to seize opportunities for expansion in other arenas engender a capitalism of expanding markets, expanding welfare, and expanding regulation in the *longue durée*. The particular character of crises that challenge capitalist institutions creates demand for expansion of the welfare state. Crises grow problem-solving innovation in markets (e.g., carbon markets) and expand regulation in response to path-dependent momentum toward interdependent crisis risks. Perhaps only path dependence can muster the momentum to govern path dependence? Meta governance can steer path-dependent regulation, welfare, and markets for the governance of path-dependent crises. In such a world, perhaps strategic policy-makers do not directly pull levers as much as harness path dependencies. More and less successful responses to the COVID-19 pandemic illustrate these policy dynamics.

Levi-Faur on Markets-Welfare-Regulation

My starting point is David Levi-Faur's (2013, 2014) interpretation of capitalism that argues that it emerges, institutionalizes, and develops polymorphically. The specific polymorphy of interest to Levi-Faur is the rise of mutually reinforcing institutions of the market, welfare, and regulation. These are three important morphs, or structural facets, of what I call *regulatory welfare capitalism*. The objective of this article is to attempt to provide a little extra insight into Levi-Faur's polymorphous capitalism by challenging it with the idea of meta governance of path dependence. Unlike other accounts of the path dependence of capitalism, I emphasize multiple interactions in the regulation-welfare-market interdependence of path dependencies. I discuss whether patterns of path dependence explain why regulation, welfare, and markets interdependently persist and grow. These patterns are conceived as partly driven by the emergence and invention of crises. Market, welfare, and regulatory institutions intermittently strengthen in response to crises. When states, businesses, charities, and other institutions respond effectively to crises, this can bolster their legitimacy. We consider this with the way some states and civil societies responded early and well to the COVID-19 virus by strengthening welfare and regulation, even to the point of one regime winning an election to implement a "Korean New Deal" during the pandemic. This included regulation to help markets bounce back post-crisis. Lost legitimacy for weak crisis management in the past has induced regime change. It will be intriguing to observe which regimes lose or build legitimacy after COVID-19.

This article uses the terms *regulatory state* and *welfare state*. While these are statist terms, their appeal here is as elements of regulatory welfare capitalism. Regulatory welfare capitalism exists in societies where institutions of the market, welfare, and regulation are resilient and grow stronger. I find Levi-Faur and Jordana (2005) and Braithwaite (2000, 2008) more attractive when they theorize regulatory capitalism than when they analyze the regulatory state, which risks a myopically statist discourse to describe dynamics that reach beyond the state. Regulatory welfare capitalism sometimes expands in ways that are as much or more about markets and civil society than about the state. For example, this article argues that the sharpest growth of the "regulatory state" in the decade after September 11, 2001, was in homeland security. Much of that was in private security contracts to private airport corporations around the world, for instance to scan bags, bodies, and filter access by digital checks on facial features. The sharpest regulatory state expansion of the next decade (up to 2020) was cyber security; yet most of this regulatory work was and is done by IT employees in private corporations who prevent, detect, diagnose, and disable cyberattacks.

Libertarians tend to perceive a hydraulics where the rise of regulatory institutions drives down market institutions. Leftists are inclined to believe that neoliberal markets drive down regulation and welfare. I argue that none of these kinds of hydraulics have happened at the macro level in the longue durée of capitalism, even though they frequently occur at the micro level in short-run see sawing of policy dynamics. My theoretical contribution is to suggest that this is so because the rise of regulation creates new path dependencies for growth that sit beside pre-existing path dependencies of markets and welfare. Path dependence is the dependence of outcomes on the paths of previous routines, processes, and outcomes. In the next section, I explain the logic of path dependence toward growth when one institutional arena of path-dependent growth discovering opportunities to reinforce that growth inside old path dependencies of other institutions. I find much mutual reinforcement of path dependencies in Levi-Faur's polymorphous market-welfare-regulatory capitalism. This is assisted by citizen demand and market demand to solve perceived and real crises.

The next section also explains more fully Levi-Faur's view of the emergence of polymorphous capitalism. It considers five hypotheses on the role of path dependence and crises. In the section that follows, I identify regulatory and welfare trajectories of the longue durée that make these crisis and path-dependence hypotheses plausible. The fourth section argues that a fundamental weakness of governance scholarship in the Asian Century is that it still focuses most scholarly attention on Western states. I use the COVID-19 pandemic to illustrate the importance of crises and the power of regulatory-welfare-market path dependencies in the fifth section. Legitimacy threats from this crisis wrenched the gaze of Western policy-makers away from the West and toward East Asia, where the most instructive governance action took place. The conclusion is that crises and path dependencies ultimately channel Western and Eastern governance to the regulatory and welfare conditions for problem-solving capitalism to flourish. Strategic meta governance of path dependencies is central to this project.

Polymorphous Capitalism

David Levi-Faur (2013, 2014) argues that the rise of the regulatory state does not necessarily imply welfare state decline. The welfare state became a regulatory welfare state as it became more polymorphous. His earlier work on the idea of regulatory capitalism contends that stronger regulation has not produced weaker markets (Levi-Faur 2005). Regulation is actually and potentially widely deployed to strengthen markets and strengthen welfare provision on old as well as new concerns and social needs (Levi-Faur 2014). We see this in contingent ways in a contemporary crisis like COVID-19. States dispense "corporate welfare" to airlines and their employees with an eye on ensuring that in a postcrisis airline industry, it is not only the strongest that survive and then monopolize markets. States want second competitors to survive in domestic aviation markets to sustain future price competition. In an infrastructural sense, competition law and contract law are forms of legal regulation that constitute and nurture the very existence of markets. Here Levi-Faur is inspired by Polanyi and other institutionalist thinkers about capitalism.

This special issue suggests that regulation for welfare purposes is increasing. Regulatory capitalism is conceived as one morph of a polymorphous capitalism that helps to constitute other morphs such as the welfare state. Levi-Faur critiques Majone's (1994, 1997) sequencing as monomorphic because Majone argues for a period of history of the liberal Nightwatchman state where market institutions were dominant, followed by another Keynesian period when the institutions of the welfare state become dominant, followed by a third era of the regulatory state that has been in place since 1980.

In this thinking about historical sequences in the character of capitalism, regulatory scholars (this one included [Braithwaite 2000]) think too hydraulically: perceiving something new, we assumed it pushed down something old. This lent drama to the character of global changes depicted in our models. The rise of regulatory institutions did not shut down the path dependencies along which market institutions and welfare institutions continued to expand. Commonly, the logic of new institutions is to create new path dependencies that sustain their own future growth paths, with this bearing no strong connection to shutting down old path dependencies.

To clarify the concept of path dependence, consider research on drugs to treat cancer. Sometimes the regulatory state seeks to steer state research and development (R&D) investment away from certain drugs for a particular cancer onto higher priority cancers or nondrug therapies. Such attempts to suppress the welfare state by the regulatory state might not deliver great change. Universities have powerful professors who dedicate their lives to a particular cancer and their approach to treating it. They recruit new scholars to work on it; they use their power in science decision-making to support grants for their established research network. Pharmaceutical companies build on their extant marketing networks for the drugs produced by the research of those professors. Indeed they "disease monger" to widen claims for their drugs. They lobby to expand the welfare state and the regulatory state by lengthening the duration of patents. They continue to capture physicians with conferences at resorts and baubles to continue prescribing their product (Braithwaite 1984; Dukes, Braithwaite, and Moloney 2014). They capture politicians to sustain welfare funding for their cures.

These examples illustrate that many expansions of the welfare state and the regulatory state are regressive rather than progressive, serving corporate interests rather than sick people. Some regulatory and welfare expansions are disciplinary and oppressive, and others are emancipatory. One example of how marketing to expand the welfare state can be oppressive is big pharma pitches to aged care homes to multiply chemical restraint of the frail elderly that crushes their freedom. Likewise, crises can have disastrous impacts on societies, even on extinction of species, or can be opportunities for emancipatory transformation. Because meta governance of institutional path dependencies and crises can be a dangerous game, players must be careful and mindful of the normative theory that informs their moves. That topic receives no systematic attention in this article, but it has elsewhere (Braithwaite 2008).

Meanwhile, institutions of the regulatory state are stretched to the limit in evaluating the safety and efficacy of new drugs, leaving limited resources for reassessing old evaluations of the benefit-cost of established drugs. Most societies have many pharmaceuticals that were approved for marketing in the 1930s or earlier that are still used, even though 1930s regulation was perfunctory for testing safety and efficacy. Not only do regulatory institutions fail to steer the welfare state downward in this respect; the systematic bias is high barriers for the new but low barriers to keeping the old. Grandfathered state funding of drugs tested inadequately under older, weaker regulatory regimes is an example of a path dependency to welfare accumulation. These various examples illustrate how regulatory institutions and market institutions tend to reinforce path dependencies of welfare spending. The regulatory-market influences used here to illustrate dynamics of welfare growth included grandfathering, disease mongering, capture of regulation by professors with a vested interest in a program of research, corruption of physicians and health ministers by big pharma, and global lobbying to blow out the health budget by lengthening patent monopolies.

All these path dependencies persist during crises as grave as COVID-19 concern over crumbling welfare and markets and deficit blowouts. Efforts of the World Health Organization to push for open source biotechnology so that all scientists can share their breakthroughs have widely failed, as they did with the SARS and HIV-AIDS crises (Drahos 2010); corporate champions were backed by their states to defend patent walls around their innovations, making therapies unaffordable to poor people in poor countries. Even tests for the presence of the COVID-19 virus were unaffordable in poor countries as demand peaked. As always, regulatory enforcement was needed against widely distributed fraudulent test kits that did not work and/or kits that were counterfeits of tests that did work (U.S. Food and Drug Administration 2020). This is a problem when the pandemic might spread among the planet's poor to return to afflict the West in future waves. Bribery and capture by corporate power are implicated in these dynamics (Braithwaite 1984; Dukes, Braithwaite, and Moloney 2014). Disease mongering persists as major corporations that lose in the tournament for the life saving breakthrough opt for the second-best strategy of disease mongering. That means their public relations machines push the idea that COVID-19 can be treated by one of its products patented to cure a completely different disease. Sometimes this disease mongering will be right; perhaps an antimalarial drug might have an antiviral impact on COVID-19. At the same time, we know that commercial interests that drive disease mongering systematically produce fraudulent effectiveness claims (Dukes, Braithwaite, and Moloney 2014). The point here is not about adjudicating when disease mongering saves lives and when it kills. It is the simpler point that there is path dependence toward disease mongering, as with all the pharmaceutical paths discussed.

Consider another dynamic in the growth of polymorphous capitalism. University researchers invent a new technology for managing a rare variation of a welfare state problem such as cancer or a new drug, device, or treatment; or a powerful research group at a university promotes disease mongering because it believes that the drug they work on can become more important. R&D is not profitable because the market is small for rare variants of diseases. If my mother is about to die from that rare cancer, however, I might find 40 other families in the same situation. Big pharma funds me to organize them because I argue for subsidies from the welfare budget to make their unprofitable drug profitable. With support from the company's public relations machine, I argue that if 40 passengers disappear on a flight or 40 are trapped underground, we spare no resources. This is not a story of a new mini crisis that arises for the welfare state. These 40 savable lives were always there; saving them was simply not recognized as a policy option. The new technological possibility created by medical markets creates a mini crisis of a need for new welfare funding that is actually a crisis of neglect across all previous history.

Genuinely new crises are the more important generators of new path dependencies for regulatory, market, and welfare institutions. The 9/11 Al Qaeda attack on the United States was a spike in such an emergent crisis. A result was that the biggest expansion of regulatory states in the first decade of this century was homeland security (Braithwaite 2008). Markets in private security also grew; for example, corporations that manufactured better scanning technologies at airports, other corporations that staffed those machines, firms that manufactured drones, and security cameras and artificial intelligence to diagnose risk from billions of images. The military-industrial complex was renewed by resultant wars in Afghanistan, Iraq, Pakistan, the Philippines, Syria, Libya, and across Africa. This was more than just growth in the state and in markets for weapon systems; there was growth in private military corporations like Blackwater, service providers to militaries like Halliburton, and mercenary armies such as Russia's Wagner Group. The 9/11 crisis fueled further welfare state growth. War spikes demand for trauma services. Nearly twenty years after the initial crisis, not all of these have closed because crises cascaded to other crises, cascading new demands upon the welfare state. In the case of 9/11, the cascade to new foreign wars drove demand for counseling services. Cases of veteran suicide spiked. Recent Australian research shows that the more important welfare effects of war are on the families of war veterans, especially daughters of veterans, in terms of suicide attempts, alcohol and drug abuse, smoking, post-traumatic stress disorder symptoms, and even rape victimization (O'Toole et al. 2018). Welfare demand from daughters of veterans are larger, longer-lasting welfare drivers than those from veterans themselves. Hence intergenerational trauma spikes from deadly violence spur new welfare demands that states have no choice but to meet, even if only from hospital admissions associated with them.

As illustrated in Özel and Parado (2020) and Lee and Braithwaite (2020), the invention of cybermarkets created new opportunities for markets to penetrate the welfare state. Likewise, markets infiltrate national security states in destabilizing ways, creating new risks of accidental nuclear war, for example (Ellsberg 2017; Beebe 2019). Penetration of cybermarkets into welfare path dependencies and national security path dependencies puts new demands on regulatory institutions. Cybermarkets are regulated by novel forms of choke point regulation (Tusikov 2017). This is overwhelmingly private policing by firms like Facebook, Google, and TikTok. The cybersecurity sector is estimated to have created 6 million new regulatory jobs, with chief information security officers (CISOs) ubiquitous in the private and public sectors alike (Button 2020). New hotlines or regulatory assurances are needed when a cyberattack intended to harm a commercial competitor is accidentally perceived as an attempt to compromise missile defense systems (Beebe 2019). Cybermarkets were always going to give rise to cyber welfare, cyber crime, and cyber warfare.

Braithwaite (2019) has argued that economic crises tend to cascade into security crises and ecological crises and vice versa, so that these three kinds of crises tend to be mutually reinforcing. Pandemics reveal a somewhat different pattern. COVID-19 certainly has cascaded into an economic crisis and a crisis-ridden welfare safety net with gaping holes that demands historic hikes in welfare spending. In this case, however, the economic shutdown was so extreme as to make some contribution to reducing pollution. For example, the virus reduced emissions by shutting down factories, air traffic routes, and diminishing car travel. At the time of writing, civil unrest has been modest from COVID-19, but growing.

To summarize this reinterpretation of Levi-Faur's take on polymorphous capitalism:

1. Institutions of the market, welfare, and regulation ebb and flow, but in patterned path dependencies toward expansion.
2. These path dependencies are mutually reinforcing. Path dependencies of growth in one institutional arena reach into opportunities opened up by path dependencies for growth in other institutional arenas. For example, the welfare state creates demand for regulatory state services that help to solve perceived welfare problems.
3. New crises, real and manufactured, create new path dependencies for growth of market, regulatory, and welfare institutions. Then, mutually reinforcing tendencies see one institutional arena rush into opportunities for growth in others.
4. Path dependencies of the regulatory state therefore drive into new markets, and they drive into new welfare initiatives. Likewise marketization path dependencies drive into renewed regulatory institutions. Carbon trading is an example of marketization driving into regulation. Hence we might see the regulatory welfare state as regulatory path dependencies driving into

the welfare state and welfare state path dependencies driving into regulatory institutions.

5. The particular character of macro crises that cascade into one another creates demand for expansion of the welfare state to expand problem-solving innovation in markets (e.g., carbon markets) and to expand regulation.

Nothing I have discussed denies the growth of neoliberal ideologies alongside burgeoning markets within polymorphous capitalism (Braithwaite 2000, 2008). My analysis does not deny that neoliberal ideologies have delivered some potent retrenchments of the welfare state and the regulatory state. I argue that welfare and regulatory path dependencies also have power and crises have power in explaining the shape of polymorphous capitalism. The next section identifies an empirical background of regulatory and welfare trajectories of the longue durée that make these five hypotheses plausible. I do not test the theory in any systematic way. This is a theoretical contribution where empirics are employed only to illustrate the sense and plausibility of abstractions.

Valerie Braithwaite's critical comment on this article is that path dependence is intrinsic to institutions as enduring ensembles of norms and structures that reproduce themselves. Should we therefore reframe the second point above: institutionalization in one arena reaches into opportunities opened up by institutionalization in other arenas? That would have the virtue of parsimony. On the other hand, it might make an already abstract theory overly abstract. I see merit in the specificity of path dependence and crises as mechanisms that insinuate resilience *and change* into institutions, thereby constituting polymorphous capitalism.

The Longue Durée of Welfare and Regulation

The golden decades of welfare state expansion had passed by the final decades of the twentieth century. An era of expanded influence of markets had arrived. Every state has a different history of incursions of neoliberal ideologies that trimmed welfare and regulatory states and risked disintegration. Despite these histories, considerable empirical research emphasizes longer-run tendencies for regulatory state growth (Vogel 1996; Levi-Faur 2005; Braithwaite 2008) and welfare state growth (Aspalter 2017) compared to the early capitalism that emerged from the eighteenth to the mid-twentieth century, and limited evidence for medium-term shrinkage since 1980 (Castles 2004), especially if account is taken of growth in state health spending, homeland security regulation, cybersecurity, and regulatory and welfare state growth for the majority of the world's population in Asia. On the other hand, some forms of welfare contraction, such as in public housing, have been widespread in Western societies, and the welfare state has come under pressure everywhere from regressive reduction in income and corporate taxation of the wealthy since 1980. Diverse micro welfare and regulatory state contractions occurred in the medium term, but macro expansion of regulation and welfare is evident in the longue durée of capitalism. I conclude this is insufficient expansion, however, to respond adequately to crises associated with the financialization of capitalism, the climate crisis, markets in weapon systems, and the globalization of disease. Hence, further expansion across these institutional arenas is more than possible.

Even for the least likely case (the most "neoliberal" case), for an association between long-run welfare state growth that is real and that drives GDP growth, the United States, this association exists (Garfinkel and Smeeding 2015). Empirically, the growth of regulatory capitalism, market capabilities, and steering capabilities that grow in harness have also existed across U.S. history since the New Deal (Braithwaite 2008). The logic of market institutions and of welfare growth as imperative for keeping markets ticking is buttressed by evidence that societies that hold down levels of poverty secure higher levels of growth (Breunig and Majeed 2019). These empirical associations are background empirics for the plausibility of the five hypotheses.

One general factor that has driven long-run welfare state and regulatory state expansion since the nineteenth century is conservative political leaders joining arms with social democrats to promote this growth when their regime stared down risks of being outflanked from the Left. We see this at least from Bismarck's late–nineteenth century promotion of the German welfare state for fear of rising Communism. The same was true of liberals like Lloyd George who promoted these trends as part of their resistance to a pink Labour Party and a red communist party. One might retort that social democratic parties are no longer pink and reds are no longer under the beds of Western states. Yet Bismarck still resonated with Donald Trump who feared that his authoritarian populism could be outflanked by Left populism of a competitor in the Bernie Sanders mold. Hence Trump has selectively appropriated pro-regulatory Left causes such as opposition to the North American Free Trade Agreement and the Trans-Pacific Partnership. Trump's moments of support for the welfare state have been more exceptional, with the COVID-19 crisis one big exception. Yet Trump has been the most aggressive recent presidential advocate of the infrastructure state. The reds that Trump fears are in charge of the state that is a more expansive infrastructure state than the United States. More of the world's Right populisms are regulatory welfare populisms than meet the eye of analysts who misspecify Right populism as neoliberalism.

Small authoritarian capitalist states like Singapore, Qatar, and the UAE; medium-sized ones like Vietnam and Cambodia; and large ones like China, Bangladesh, and Indonesia have outperformed the growth of liberal capitalist economies by a wide margin since the 2007 global financial crisis. This is a different pattern of growth from that observed during the twentieth century when liberal Western economies became progressively more dominant as the gap widened between their wealth and that of authoritarian societies. Among the reasons for this growth have been the superior regulatory capabilities of many of these authoritarian states for containing two crises that the West was episodically incapable of managing in the late twentieth and twenty-first centuries: first, sustaining adequate demand and savings to avert economic crises in an era of the financialization of capitalism (Braithwaite 2019),[1] and second, containing ecological crisis. Managing a pandemic is emerging as a third example of this. Lower-growth twenty-first-century Western economies have so far proved incapable of steering a safe course between these crises. What paralyzed them was fear that if they went too far in responding to the climate crisis, they would become less competitive in what they misperceived as the "neoliberal" global economy. The paradox is that this analysis paralysis handed the game to China. China very recently emerged as the leader in renewable energy technologies like solar panels (Fialka 2016), electric cars, and much more. On the other hand, this conjuncture has left Chinese banks and party leaders overconfident and under-transparent, especially in relation to heavy indebtedness through off-balance-sheet investment vehicles. China is, therefore, overdue for the financial crashes it avoided in 2007 and 1998. COVID-19 revealed how important China's transparency weaknesses can be. It is fascinating that one-party-state Vietnam discerned lack of transparency as China's weakness in COVID-19 management, and a strength of Singapore's one-party-state. So Vietnam's brilliantly effective community-led pandemic management was highly transparent (Nguyen 2020).

Welfare and Regulation in the Asian Century

The empirical work that informed the rise of the regulatory welfare state was mostly North Atlantic, with significant Latin American data contributions. Yet China is where the power of markets has risen most dramatically since 1980 in harness with formidable lifts in state regulatory capabilities, and this in a society that had been impoverished and chaotic during the Cultural Revolution. The last decade saw a massive shift from consumption of consumer durables to services consumption, including welfare services. Evidence of this is discussed in an earlier iteration of this article (available from the author; Braithwaite 2019). It also discussed how Japan's recent investment in innovation to confront climate change rivals Europe's combined contribution. While ideologues such as President Trump play to their base with promises to cut "green tape," the reality of recent decades has been increased environmental regulatory stringency across the Organisation for Economic Co-operation and Development (which excludes China, the state with the highest regulatory growth and industrial growth); and that stronger national investment in "green tape" increases long-run economic growth (Feng et al. 2019; Yang 2020).

Here I concentrate only on the Chinese regulatory state's contribution to slow the climate crisis. China has far more electric cars on its roads than any country (Pressman 2017), increasing its proportion of the world's electric car sales from zero in 2012, to a sixth in 2014, and more than half by 2017 (Busch 2018; Niu 2018). Its domination in electric buses and electric two-wheel vehicles is now 99 percent of the world's production (DiChristopher 2018). While it grew its economy faster, China worked out how to produce the most successful renewable energy alternative (solar panels) at a fifth of the cost managed in the West. China became the largest generator of solar power; the largest manufacturer of solar panels; the top producer of wind energy (OECD 2019); leader in batteries and smart grids; and the largest domestic and outbound investor across all forms of renewable energy (Jaeger, Joffe, and Song 2017). By 2017 China accounted for 45 percent of global renewable energy investment, which was delivering a steeply increasing proportion of renewable energy patents (29 percent by 2016). Other countries will eventually narrow the green technological gap with China. They might find that some fast pathways follow aspects of the tracks of China's regulatory welfare capitalism. Despite this, no nation contributes anywhere near as much carbon to the climate crisis as China. China is still building coal fired power plants where demand peaks; plants grew five-fold between 2000 and 2018 (Carbon Brief 2019). Yet China is also closing the worst plants, and its pipeline of new and planned plants has shrunk by 70 percent since 2016 (Carbon Brief 2019).

For all that, Peter Drahos (forthcoming) could be right that China is the best hope for leadership to avert catastrophe by combining its regulatory welfare capitalism bargain with pulling strong state levers to decarbonize through new energy paradigms, just as it is in this moment the best hope for supplying personal protective equipment (PPE), ventilators, and personnel to help societies overwhelmed by COVID-19. China's environmental accomplishments are enabled by experimental cities designed from scratch that include hydrogen cities, circular cities, and smart cities that connect information technologies and artificial intelligence to the green challenge; forest cities of buildings that suck carbon dioxide with horizontal trees and vertical gardens; and sponge cities (that are designed to capture all run-off water and recycle). If too many fail, of course, they can threaten the Chinese economy. That is one possible tragic end to this story. The scale of China's green experimentalist construction of completely new cities is unprecedented. They amount to the largest suite of technological experiments at scale in human history. There are 285 new ecocities planned (Shepard 2017). If only half are built, they could come to house populations approaching the current population of the EU or the United States. Some former ghost cities that until recently were standard fare for derision of Chinese state planning by Western journalists became decarbonizing boomtowns.

Drahos might also be right that Western thinking places too much emphasis on putting a higher price on carbon because at times of immediately impending crisis the price mechanism delivers change too slowly compared to state research and development investment in energy paradigm shifts or perhaps state-funded greenfield ecocities as fulcrums of transformation. Best, Bourke, and Jotzo's (2020) comparison of 142 countries with and without carbon pricing finds that carbon pricing works, but only reduces the growth rate in CO_2 emissions by two percentage points. Drahos seems right that this crisis has cascaded to the point where earth systems are shifting to new equilibria at a pace that overwhelms the top speed at which market equilibria can shift. Markets can be particularly slow when media empires and commercial interests that fund democratic political parties are ossified around extant paradigms and sunk investment in them (while green start-ups are short of funds to buy politicians). On the other hand, China is mostly a prudent state investor in steering strategies that hedge its bets by also steeply increasing the price of carbon through lifting taxes on petroleum and elevating various other environmental taxes on industry and experimenting with regional environmental trading that is evolving into a national emissions trading scheme.

China has moved in the direction of regulatory welfare capitalism (Li and Yang 2020). One reason China could become more hegemonic, in short, is that it is grasping a more-welfare-more-regulation reconfiguration of its market economy. The West is more timid about grasping this option than is China because of its fear of a neoliberal chimera created in the backward-looking political imaginations of Westerners. That timid analysis prioritizes an imperative to cut welfare and regulation to be competitive in the face of what Westerners see as the unassailability of neoliberal policy settings. In their attitudes to welfare and regulation, these neoliberal and neoconservative analysts may not be the realists. The realists may be authoritarian regimes that thrive through their sovereign wealth funds and their state-owned and private bank investments in Western economies. Western economies have subsidized authoritarianism by shifting wealth from Western workers to the profit share of national incomes. That profit share is then appropriated by the national income of their authoritarian competitor societies through purchase of shares by banks and sovereign funds from authoritarian states. Then these realist authoritarian states use that Western wealth to buy off their own populations with expanded welfare benefits and by steering state and private investment into infrastructure (a visible example being the superior airports of thriving authoritarian states compared to U.S. airports). China also uses that Western wealth to subsidize technologies it can sell to the West to ameliorate the climate crisis. Of course it also sells surveillance technologies to authoritarian national security states. In his new book, Drahos (forthcoming) develops in a brilliant way the applicability of this analysis to China.

The era when the West could easily hold off the threat from China by superior information technology has begun to pass, a shift signaled by Western trade barriers against Huawei's technological superiority over Western firms. One way the West clings to geopolitical dominance is by stepping up taxpayer investment in their national security states to sell new military technologies to each other, as well as to allies in the Middle East and Global South. This is a rather partial solution because China, while it accomplishes only a sixth of the arms exports of the United States (SIPRI 2018), has been dramatically, secretly, growing its share.

Schulze-Cleven (2020) shows that the character of regulatory welfare capitalism for universities is "competition-sustaining and market-making reregulation." A state that runs up debt by investing in expanded higher education and R&D systems is akin to an investor who borrows to buy real estate that returns a higher capital gain than interest on the debt. States for decades have been able to borrow at interest rates less than one-third of the return to GDP of increased investment in secondary or higher education (Psacharopoulos and Patrinos 2018). So why do many states not do that? They fail to when they are captured by neoliberal fundamentalism about the evils of state debt. China is massively scaling up investment in higher education; this drives an expanding number of Chinese institutions up university rankings (O'Malley 2017). Put another way, China sees that it needs to exercise its regulatory capabilities through state intervention to increase the size and excellence of its university system. It prioritizes accelerated welfare state spending needed to support educational opportunities, especially for talented students from poor families. In the end game, this will strengthen the Chinese economy in R&D markets; it increasingly sells enrollments in its universities to international students who are attracted to their excellence, especially in engineering, accounting, biotechnology, robotics, and artificial intelligence. This will increase Chinese soft power, just as the eras of British domination of university excellence, then German university leadership, then U.S. domination, increased their soft power in the nineteenth and twentieth centuries.

East Asian Path Dependencies and COVID-19

It is too early to evaluate which states and cities steered more and less effective responses to COVID-19. Ultimately, there will be decades of analysis of a stupendous database. Which cities introduced which regulatory and welfare responses at which times, with what effects on control of COVID-19 infections and deaths? This research will not only be a resource for epidemiology; it will also inform regulation and governance scholarship. One plausible set of hypotheses will go to the regulatory capitalism literature. It will assess a paradox of COVID-19 management: states that mobilized early with large regulatory infrastructures may do better at keeping their markets strong. They might do better at averting excesses of long and repeated lockdowns that devastate markets, and shutdowns of education and of face-to-face civil society. New York, London, Milan, and Madrid may come to be seen as experiencing less decisive early regulatory escalation than East Asia, but also more total and widespread deprivation of freedom of movement and other liberties such as access to education than East Asia. East Asia has experienced no countrywide full lockdowns (Pardo et al 2020). Where the infrastructure of regulation and welfare were strong, perhaps the data will come to show that markets and freedom remained stronger in the medium term. While that seems plausible for first waves of the pandemic, it remains to be seen what happens in second and third waves. Will societies that survived their first wave well fare more poorly in second and third waves because they have created little immunity in their population? Will a vaccine take years during which treatment improves to the point where the health costs of mass unemployment begin to exceed the health benefits of disease containment? Will the latter be even more true in societies like India, where national lockdowns caused mass migrations and mass hunger for the precariat? Only a decade of patient data collection will provide answers.

East Asian societies, even though they were much more densely connected to the original site of the outbreak (Wuhan) than the West, and include the two most transited ports in the world (Hong Kong and Singapore), may be seen to have suppressed COVID-19 more successfully. This seems to have been the case, even though Wuhan authorities disgracefully covered up for three weeks as they started quarantine and contact tracing. At least Wuhan's population of 11 million was quickly sealed off from the rest of China in a way that at the time of writing has prevented major epidemics in any other Chinese metropolis. Infection and death rates outside of Hubei Province are far below the Western average at the time of writing. London and New York were not quickly sealed off in this way and catastrophic epidemics did spread to other major cities like Manchester, New Orleans, and Miami.

It has not been just one-party East Asian states that have performed better than the West; it is *all* East Asian states so far. Taiwan is an example of a Wuhan near neighbor with an effective first wave response. Taiwan has many direct flights to Wuhan, strong business interconnections, 850,000 citizens living and 400,000 working in China, and more mainland China visitors per capita than other countries (Wang, Chun, and Brook 2020). Internally, Shanghai is even more densely connected to Wuhan as the great financial hub connected to the industrial hub of Wuhan. Shanghai and Taipei have a larger combined population than New York and London; yet while New York City has had 23,000 reported deaths and London 6,000, Shanghai and Taipei have each reported 7.[2] While all four cities had problems with under-counting, the general magnitude of the difference is massive, visible to independent observers and uncontestable. Xi Lin (2020) has contrasted the infrastructural power of the Chinese state for delivering autonomy and safety from the virus in Shanghai compared to the British state in London. Japan has also had a much lower death rate than the West even though it indulged in early politics of denial as it sought to persuade other countries to commit to the 2020 Tokyo Olympics, and like South Korea, it suffered a severe early infection shock upon its large aged demographic. Other nearby East Asian societies that kept the death rate and economic disruption even lower so far have included Vietnam (Nguyen 2020), Singapore, Thailand, South Korea, and Hong Kong. Shenzhen, just across the water from Hong Kong, may prove more impressive than Hong Kong when all postcrisis mortality data are tabulated (with only 3 deaths in a population of 13 million by July 14, 2020). One of the most spectacular welfare state enhancements came early in Wuhan with the building of two massive hospitals for COVID-19 quarantine from the ground up in days rather than weeks, an infrastructural capability for rapid scaling up that has been less visible in Western states since World War II.

East Asian authoritarianism and paternalistic Confucian deference to the state were popular tropes in Western media chatter to explain this. Regional social scientists see no evidence to support a Confucian cultural interpretation "as implausible as the argument that Europe's and the United States' failures stem from their Christian roots" (Pardo et al 2020). A month into their COVID-19 crisis, Australian policy-makers asked if they were mistaken in their normal pattern of following North Atlantic leads for diffusion of policy ideas. Australia, with its huge population of Chinese citizens and visitors, decided that North Atlantic societies were squandering their advantage in lead time to prepare for the pandemic. Australia moved to the idea that short, sharp, early East Asian regulation was the way to defend both welfare and markets in the long term. Early Australian nodes of infection in Sydney and Melbourne where most international travelers enter were sealed from other states and territories. As of July, 14, 2020, Australia has suffered only 108 deaths by following the lead of their East Asian neighbors, though in this it has not done as well as New Zealand, with 22 deaths and 73 days without any community transmission at the time of writing.

Doubtless, much more was involved than willingness to shift early to short regulatory state escalations. The United States actually shut schools more quickly and for much longer than East Asian societies that fared better, at least with the initial wave of the crisis. During that protracted period when Singaporean and Taiwanese schools were open and U.S schools were closed, every child arriving at those East Asian schools was having their temperature checked and hands sanitized on arrival. School days were punctuated with 20 second disciplined handwashing and education about why this was important. In Australian schools when mandated handwashing did finally commence, social distancing was farcical initially as children jostled and splashed one another during perfunctory hand washing, and soap ran out in unprepared schools.

Most regional scholars think East Asian preparation and planfulness about how schools should respond to the crisis were more important than Confucian authoritarianism. Why might this be so? East Asia had learned particularly from the SARS epidemic, but also the swine flu and MERS epidemics, that next time their education system, their welfare state, and their state and civil society regulatory institutions would be ready for rapid escalation, but situated rather than universal escalation. Market responsiveness was readied to scale up PPE and personnel. This preparedness was crystallized in East Asian regulatory institutions whose task was rapid coordination of all institutions of the society for epidemic response from January 2020. It was not totally state institutions, but hybrids; professional institutions from civil society and community volunteerism were prominent. Chinese responses were locally highly variegated in response to local urban geography interpreted by party members who led highly localized residents' committees. Taiwan was prepared with an action plan of 124 discrete measures overseen by its National Health Command Centre (established as a SARS lesson learned) and by local preparedness teams (Wang, Chun, and Brook 2020). We might conceive these through a Foucauldian lens as 124 oppressive capillaries of power. Regulatory scholars are more likely to see them as a long list of situated and responsive micro regulatory measures that previous experience with epidemics had proven helpful. For the regulatory theorist, the lesson of greater interest might be that no grand theory of how to regulate worked (like Boris Johnstone's early infatuation with herd immunity as a solution). Rather, outcomes may flow from as large a number of capillaries of regulation as 124. The people of Australia were pleasantly surprised when its government followed evidence-based lessons from East Asia rather than the early politics of denial that prevailed in the West. They were surprised to learn that at least two of Australia's prime ministers of the past decade had attended a one-day pandemic crisis response scenario training.

Regulatory theorists are interested in the infrastructure of meta-regulatory mobilization that could deliver as many capillaries as 124. East Asia faced the bigger, more immediate surprise than the West, but they were better prepared with plans to minimize disruption to markets, to maximize welfare mobilization (especially in the health and education sectors), and for bigger, faster escalations of contextually attuned regulation. The intercontinental divergence was not just about preparedness. China and East Asia generally were more evidence-based than Europe and the Americas. An example was mask wearing, especially with aged-care work where preventable Western deaths were massive and undercounted. Western hemisphere regulatory policy-makers sentenced thousands of their citizens to death through this policy failure on masks in a way that was reminiscent of their protracted resistance to mandating the wearing of seat belts, then air bags, in cars. East Asia was also more attentive than the West to learning lessons from how a small number of impoverished African societies did such a brilliant job of extinguishing the more deadly Ebola virus. These were lessons about contact tracing, sealing off, and welfare support for geographical nodes of infection. China coordinated its vast society for surge capacity to apply these African lessons to hot spots that hit the peak of the infection curve earlier, a capability late in arriving to Western societies.

Regulatory studies might therefore learn from East Asia (and Africa) about rapid capabilities for scaling up regulatory infrastructure, strategic redundancy of multiple capillaries of regulation, selection strategies for adding new capillaries as new learning comes in, and learning about coordination to shift regulatory and treatment capabilities from one part of the state to another, as well as one part of the planet to another (with coordination from WHO, civil society mobilization by organizations like Médecins Sans Frontières, to sequentially surge medical capabilities into global pandemic hot spots). This means a global gift economy where gifts are given to pandemic peak economies by pre-peak and post-peak economies, gifts of knowledge from open source research architectures, and gifts of medical equipment and personnel. Meta regulation of states by the WHO, of national macroeconomic policies by the G-20, of education systems and private firms by states, strategic dedication to finding ways to regulate the problem without shutting down markets might be guided by centralized and decentralized learning from other places about options for selecting and sequencing regulation. All these are commended topics for regulation and governance research.

Perhaps when all the data are in, my suggestions will prove totally wrong. Perhaps these incipient patterns of path dependencies for capillaries of preparedness will prove exaggerated. All I have shown is that regulatory welfare capitalism supplies evocative, not totally implausible, hypotheses to guide future evaluations of pandemic responses. A key hypothesis is that the paths East Asia learned to take in response to the SARS epidemic created a virtuous path dependency of regulatory preparedness, welfare preparedness, and market preparedness for epidemic responsiveness. More than that, this path dependency was institutionalized through nodes of evidence-based governance like Taiwan's National Health Command Centre. The COVID-19 crisis shows that all societies, West and East, were forced by a crisis to think in radically new ways about strengthening regulation, expanding welfare, and strengthening measures to preserve jobs and markets. President Moon won an April 2020 election with a pandemic-induced "Korean New Deal" for a fairer regulatory welfare state (Kim 2020). In the moment of crisis, those who thought they were neoliberals or communists found themselves to be practitioners of regulatory welfare capitalism.

Against all of this, it must be said that some exaggerated analyses flourish about how fundamental the changes ushered in by the COVID-19 crisis might be. An example is COVID-19 causing a transformational rupture to globalization. This will not be totally wrong. Yet we might consider that just as new path dependencies laid down from SARS to COVID-19 might have explanatory power, extant institutions of the market, regulation, and welfare have their own path dependencies. These are independent of epidemics and doubtless more powerful than epidemic path dependencies. Yes, new path dependencies are created by crises. But they generally do not shut down path dependencies that resume their growth logics once subsided crises allow them to grow again.

Conclusion: Meta Governance of Path Dependencies

COVID-19 is just a dramatic current illustration of how a crisis can demand a larger welfare state and a more formidably regulatory form of capitalism. It highlights imperatives to get better at putting markets, regulation, and welfare more strategically in harness for crisis management. Consider the more profound new risks of accidental nuclear war posed by cyber warfare and cyber crime capabilities that can disconcert satellites that control doomsday machines (Ellsberg 2017; Beebe 2019). These risks demand stronger investments in nuclear nonproliferation regimes and regulation of cyber crime. Descriptively, the most massive growth in regulation during the past decade has been regulation of cyber threats. This is mostly private sector regulation by IT personnel, though state regulation is also burgeoning.

It is hard to imagine an economy that averts a climate catastrophe without shifting the shape of the economy (Denniss 2017) to one with fewer factory jobs, reduced consumption of consumer durables, and increased consumption of services, including welfare services and regulatory services (Burford, Braithwaite, and Braithwaite 2019). If this is right, we might think of regulatory welfare capitalism as not only a descriptively accurate tendency in the trajectory of capitalism, but normatively as one that societies must accelerate in directions that are helpful to surviving existential threats.

Sadly, the path dependencies that sustain markets in carbon and markets in destabilizing new weapons systems that threaten mass destruction (Ellsberg 2017) have their own resilient path dependencies. Hence, for regulation and governance scholars, the steering of path dependencies toward more and better regulation and more and better welfare might be the most central of meta-regulatory topics.

Neoliberal ideologies have certainly shifted the shape of welfare states. Yet I hypothesize that crises and path dependencies mean that, at the macro level, welfare states have resisted these ideological pressures with expansion effects that probably exceed contraction effects. Many of these, such as aged care crises associated with population aging, are beyond the scope of this article. Likewise with welfare states, responses to COVID-19 illustrate why regulatory welfare capitalism might not disappear any time soon.

Our responsibility is to understand the dynamics of regulatory welfare states and how to diagnose their meta governance (Sørensen and Torfing 2016; Parker 2002). Societies might then learn to steer interdependent threats that include the globalization of disease, economic crises, ecosystem collapse, proliferation of weapons of mass destruction, and other existentially dangerous path dependencies. It may be that these path dependencies are cascading so relentlessly toward catastrophe that confronting them with creative meta regulation of the power of regulatory-welfare-market path dependencies is as good a hope as we have.

Maybe not: crises ultimately move all species from path dependencies of survival to extinction paths. In the era of COVID-19, the new equilibrium we hope we are heading for is an unfolding mystery. It can make sense to grapple for meta governance strategies that might "flatten the curve" for somewhat improved conditions of catastrophe when no cure is yet in sight. War and financial crises are well studied examples of catastrophes that are hard to predict, hard to end, and that tend to cascade into each other. United Nations peacekeeping repeatedly fails to end wars. Yet the evidence is strong that when peacekeeping is multidimensional in helping to nurse many different kinds of institutions back to health, it can flatten the curve of cascades of killing, and this in turn helps economies to resume growth path dependencies (Braithwaite and D'Costa 2018, 494–97). The World Health Organization and the United Nations Department of Political and Peacebuilding Affairs are nodes of meta governance that matter when they partner with local nodes of meta governance to steer path dependencies of epidemics of disease or violence. This meta governance is a messy business. Path dependencies recurrently slip out of any policy-maker's control. That does not make the meta governance of cascading path dependencies less worthy of policy learning.

Note

1. Hilferding's definition of financialization is the increasing political and economic power of banks and the rentier class (rentiers are those who live off income from investments in property or securities rather than from producing anything). Financial profits as a share of total profits have increased steeply since the 1950s. Financialization is a particularly strong trend in command economies. In the Forbes 2000 list of the most powerful corporations in the world for 2018, first, second, fifth, ninth, and tenth places are occupied by Communist Chinese banks that are mostly state-owned (Braithwaite 2019).

2. All these data are up to the date of final revisions of this article, July, 14, 2020.

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