



Green Vanities in Europe

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Review essay of Henrekson, Magnus, Christian Sandström, and Mikael Stenkula, eds. 2026. *A Green Entrepreneurial State? Exploring the Pitfalls of Green Deals*. Springer Nature.

In one of the essential empirical contributions to this valuable collection, Magnus Henrekson (2026) remarks of the now abandoned Swedish green hydrogen fuelled steel plant scheme, HYBRIT, “Given the many obstacles and risks I have discussed, the obvious question is to ask how the project could ever leave the drawing board” (196). This could be said, indeed, of the overall European attempt to decarbonise through the adoption of renewable energy. A superficial examination of the economics alone, never mind the physics or the engineering, should have been sufficient to induce extreme caution in decision makers as they envisioned almost unrestrained coercion of consumer choice and investment patterns in the interest of emissions reduction through wind and solar. But as we all know, and as this book documents in some detail, that is precisely what was undertaken. Europe attempted to drive coal, gas, and petroleum out of the markets and renewable energy into a dominant position. It is a fascinating story, and seen from a distance, perhaps from the moon or Beijing, it might even have a certain comic charm: “What fools these mortals be.” But for those of us living with the consequences, collapsing energy and particularly electricity consumption, and with all the deindustrialisation and geopolitical weakness that this brings, it is a grim subject with few, if any, redeeming features.

An attempt at reversal is in progress in the United States, though the outcome is still uncertain, but green industrial policy is far from over in Europe. There is

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no excuse for this stubborn persistence. In their introduction the editors remark that a predecessor to the present volume was downloaded over 400,000 times, and of course, there were many other critical voices. It is not as if the Commission in Brussels, the Federal Government in Berlin, His Majesty's Government in Westminster, and in all likelihood the individual bureaucracies of every state in Europe, were not warned. They were warned and in uncompromisingly stern terms. Anyone who has read the criticisms of the German Bundesrechnungshof can only be astonished that the whole endeavour in that country did not instantly collapse in ignominy. But it didn't, and overall European policy continued on its way regardless. So we return to Professor Henrekson's question: how can it possibly have got this far? In a sense, far from discreditable to the studies collected here, nearly all the points made are blinding flashes of the obvious, and the authors resemble nothing so much as Kipling's "Gods of the Copybook Headings," patiently explaining once more to a boundlessly naïve humanity that water is wet and fire burns.

Yet even for those up to their necks in this miserable history there is much information and comment here, dispiriting as it may sometimes be. Overall, the volume argues that "Green Deals"—the convergence of environmental and industrial policy exemplified by the EU Green Deal and US Inflation Reduction Act—often either fail to deliver their promised outcomes despite massive public investment, or deliver them in part, a huge build-out of wind say, but with terrible unintended consequences, such as interminable subsidies and dramatic increases in consumer costs. Seven recurring mechanisms are identified: rent-seeking, mission capture, optimism bias, distorted incentives, ignored opportunity costs, information deficits, and behavioural biases. One is tempted to add an eighth: sheer self-serving obstinacy, a point to which we shall return.

For the avoidance of doubt, the book's normative position is not anti-climate action in itself, but deeply sceptical of "mission-oriented innovation policy" as a means of delivery. Furthermore, the evidence presented here leaves at least this reader with the unmistakable impression that those most committed to the mission seem never to have asked themselves whether the public would have been more truly supportive if the authoritarian requirements of the policies, and the enormous costs, had been openly disclosed at the outset. Growing contemporary public resistance, a large part of which results from the perception of mis-selling, is not surprising and should have been anticipated. Climate change is not a trivial concern and deserved better.

The book is divided into three parts: "Theoretical Perspectives," "Empirical Evidence," and "Alternative Paths," containing four, eight, and three essays respectively. The arrangement is reasonable, though most of the pieces have theoretical points to make, and few if any are without data and observations of interest.

In the first article, "Green Deals Around the World," Mikael Stenkula notes

that the EU approach to climate spending involves fragmented, case-specific funding across multiple instruments (Recovery and Resilience Facility, InvestEU, Innovation Fund, EIB lending, state aid frameworks), all combined with nationally specific subsidy mechanisms. By contrast, the US Inflation Reduction Act, now being unwound by the Trump administration, is more rules-based, relying mainly on tax credits made possible by the Federal government's seemingly unlimited ability to borrow.

In "The Incoherence of Modest Industrial Policy" Bryan Cheang catches Dani Rodrik and Mariana Mazzucato in a deft logical trap, showing that "modest" industrial policy is a contradiction in terms, convicting his subjects of intellectual incoherence since both claim that transformational objectives can be achieved with means that are more or less modest, Rodrik being toward the humble end of this spectrum. As Cheang observes, the examples sometimes invoked as precedents are in fact contradictions of the case:

East Asian development states did not achieve such transformation through modest means but through powerful and often authoritarian tools of social engineering. If one recognizes the challenge of complexity in social systems, then modesty becomes an epistemic necessity. Conversely, if one believes structural transformation is necessary, one must acknowledge the expansive and intrusive state action this requires. Industrial policy advocates cannot have it both ways. (20)

Tactfully, Cheang does not accuse this class of advocates, or the specific instances under consideration, of harbouring authoritarian ambitions or a will to power, but suggests that they are the dupes of their own rhetoric. A serious industrial policy must of necessity be authoritarian, with all the problems, political and epistemic, that come with it. An industrial policy that is not authoritarian fails to be a serious industrial policy. There is a choice to be made; in putting that choice before the public candour is required, as opposed to the self-deceiving equivocations of Rodrik and Mazzucato.

With "Raiders of the Entrepreneurial State" by Jeffrey Muldoon and Derek Yonai we come somewhat closer to the nuts, bolts and loose screws of everyday green industrial life. The authors apply the "Bootleggers and Baptists" framework and show that opportunistic actors exploit the moral legitimacy of idealistic advocates to capture rents, giving examples including LED lightbulb mandates (manufacturers captured margins while energy savings were minimal), fossil fuel industry funding of anti-nuclear environmental groups, and Paris Agreement positioning by multinationals. The authors note that apologists for the entrepreneurial state are aware of this argument but have dismissed it as theoretical. However, as the authors indicate, and as much of the rest of the book shows, this is simply incorrect. We have large volumes of empirical data indicating the failure of state policies, both on their own terms and more commonly because of unforeseen consequences, for

example the collusion of strange bedfellows discussed with humour in this section.

Jan Schnellenbach offers a conceptual chapter discussing “Behavioral Political Economy and Environmental Policy” and aims to explain why evidently irrational policies persist, a puzzle that runs through the book like jam through a Swiss Roll. The essay proposes three mechanisms: rational irrationality (holding wrong beliefs is costless to individuals), expressive voting (signalling identity rather than pursuing outcomes), and availability cascades (repeated claims feel truer), and applies these points to Germany’s nuclear exit and degrowth movements.

Part II of the volume begins with Rickard Björnemalm & Christian Sandström’s account of the “Ethanol Cars in Sweden 2003–2015”, a story the precise details of which will be new even to many specialising in this area. Lobbying by the Swedish agricultural interest as well as car manufacturers meant that despite “technology-neutral” rhetoric, electricity was excluded from the filling station mandate. This resulted in benefits that flowed entirely to the ethanol producing sector resulting in an unsustainable bubble: “At its peak in 2008, roughly 20 percent of all cars sold in the country used ethanol as a fuel. A few years later, very few ethanol cars were sold, and the vehicles gradually left the fleet” (116). This is a clean, well-documented case study of mission capture. Such things are not uncommon, but, as the editors themselves note, they are rarely reported, particularly in the literature on state industrial policy:

Kärnä et al. (2023) search for the occurrence and frequency of terms associated with various aspects of policy failure, including rent seeking, pork barrel, median voter, special interest groups, regulatory capture, lobbying, budget maximizing, political failure and political economy. A mere 11% of the papers studied contained any mention of the terms related to failure and out of these 11%, less than half did so at any length beyond merely mentioning a term, e.g., rent seeking. (4)

Perhaps 5 percent of all papers had anything like an extended discussion of failure. Since the modern academy functions as the epistemological wing of the state, this must count as a dereliction of duty, a tendency to what I shall call policy-co-ordination (and others might term sycophancy) that is in part simply timid and in part cynically self-serving. Björnemalm and Sandström’s chapter, and others in this collection, go a good way to remedying the deficiency.

The two chapters that follow, Michel Deshaies, “The German Energiewende” and Per Fahlén, Magnus Henrekson and Mats Nilsson’s “In Pursuit of Green Transition—Electricity at Any Cost?,” a study of the system integration costs for high levels of uncontrollable generation, cover better known ground, but the points are well made, even if familiar. Germany’s renewable transition required three conditions for variable renewables—massive overcapacity, grid expansion, and storage—yet policy focused mainly on deployment at a scale and pace that was plainly reckless.

The chapter notes the crucial fact that Germany chose to load the subsidy costs onto households, sparing German industry, with the result that domestic electricity prices doubled in the years 2001–2013, reaching €0.458/kWh by 2023 (the highest in Europe). In essence, a deal was offered to the German people in which it was admitted that, yes, your electricity bills at home will be high, but Uncle Volkswagen will give you a job. Of course, the policy only deferred the impact of climate costs on industry, and as those costs have been fed through in demands for higher wages and other costs, German industry has migrated to Asia. Uncle Volkswagen apparently forgot his German nieces and nephews and instead pursued an “In China, for China” strategy. This broke the deal and is arguably contributing to the current political turbulence in that country.

Fahlén et al.’s chapter concentrates on EU and UK electrification strategy. The system integration costs for intermittent renewables rise at accelerated rates with higher shares, undermining the case for wind and solar at scale. The point is well-supported, and it is not hard to find further detailed evidence in its favour. For example, the UK’s Balancing Services and Use of System Costs (BSUoS) came to some £400m a year in 2002 before wind and solar, but now amount to several billion a year, recently peaking at £4.6 billion (nominal prices) in 2022. Similarly, Transmission Network Use of System (TNUoS) charges were about £900m a year in 2002, but now add £4.4 billion a year to consumer bills. Not all of this can be attributed to wind and solar, but nearly all of it can. The authors do not offer an explanation for such integration costs, but a moment’s reflection on the physics of the situation makes it clear. A high entropy, disorganised energy source such as wind requires a low entropy infeed to correct the defect and produce a low entropy flow of electricity to consumers. Part of that is in the wind turbines themselves, but much takes place after the point of generation in a greatly expanded grid network to permit bulk transmission and greatly increased remedial actions by the system operator, for example, to preserve power quality and to curtail excess wind at times when local demand cannot absorb it and the network is insufficient to allow export. In addition to these costs, the authors offer some useful discussions of additional consequences: space requirements, noise, microparticle pollution, materials intensity, and property value reduction in Sweden.

A more narrowly focused chapter, “Green Industrial Megaprojects” by Per-Olov Johansson and Bengt Kriström, applies cost-benefit analysis to the Stegra hydrogen-based steel plant in Boden, formerly known as H2 Green Steel. The authors find that net present value was substantially negative across all scenarios (–€15.2 to –€24.3 billion), even with zero electricity production cost. This methodologically scrupulous paper also notes that the EU ETS already internalises emissions, weakening the climate rationale for subsidies. This point is, I have found, very poorly understood by policy makers. The ETS not only guarantees savings

but caps them. Additional subsidies do not add further emissions reductions, only additional cost, the justification for which is highly debatable.

Magnus Henrekson's "HYBRIT Hydrogen Steel Project," an account of the Swedish steel firm LKAB's plan to convert all iron ore to hydrogen-reduced sponge iron, is distinguished in the volume not only by its detail and quality but because it is the only case study with a happy ending. The project got much too far along the line, as observed earlier, but sanity prevailed at the eleventh hour and the project was quietly but definitely cancelled. It is true, of course, that the project's need for 70 TWh electricity annually to produce hydrogen—equivalent to more than 50 percent of Sweden's total consumption—shows that it should have been laughed out of court at its first appearance, but late is better than never. And no one should think this is a case of Sweden failing through weakness to grasp a splendid opportunity; the chapter notes that similar projects by ArcelorMittal and ThyssenKrupp have also been "paused" or cancelled. While the chapter is devastating on the gap between political gesture and technological reality, it does restore a little faith in political institutions. Patient criticism did eventually prevent this ludicrous venture from proceeding, a small but real tribute to Swedish civil discourse.

Unfortunately, that cannot be said of the story of Northvolt's bankruptcy, told in painful and unrelenting terms by Christian Sandström. Europe's flagship battery factory became Sweden's largest bankruptcy since the 1930s. Sandström identifies several failure factors: He finds that public support distorted incentives, that capability-building takes time but political and financial logic pushed rapid expansion, and that cognitive biases were amplified by a poorly informed societal consensus. Of particular significance was a complete failure to recognise that Chinese competitors (CATL with a 38 percent global share, and BYD with 17 percent) had established dominance before Northvolt scaled, and that they formed an insurmountable barrier to entry. Senior battery scholars had warned against competing with China on lithium-ion batteries, but shareholders included former ministers, and extensive positive media coverage ensured that the project staggered on before eventually collapsing into an ignominious bankruptcy with losses amounting to around \$6 billion. The company also had 6,000 employees.

This section closes with the chapters "The Planetary Diet" by Stefan Hellstrand and Johan Gärdebo, and "Italy's Superbonus" by Luciano Capone and Carlo Stagnaro. The first discusses the Swedish Food Agency's 2025 dietary guidelines advocating 65–82 percent reductions in red meat and 54–70 percent reductions in dairy, and argues that the guidelines rest on weak scientific foundations and would compromise food security. The chapter is somewhat polemical but raises legitimate concerns about policy capture by NGOs and research institutes.

Capone and Stagnaro discuss Italy's 110 percent tax credit, in place from 2020 to 2023, for energy efficiency and other home improvements such as resilience to

seismic events. This perhaps well-meaning scheme resulted in costs of approximately €220 billion (about 10 percent of annual GDP), widespread fraud, and limited benefits, all contributing to the largest budget deficit in Europe since WWII. The authors trace this to a small network of economists inspired by Modern Monetary Theory who gained influence as a result of the suspension of EU fiscal rules during the pandemic. This is a relatively short and pungent paper that perhaps deserved greater length.

The third and final section, “Alternative Paths,” is a laudable attempt to offer some positive suggestions as a counterweight to the damning diagnostics of the preceding chapters. In “A Silent Transition,” Jonas Grafström observes that the Western economies have historically combined environmental improvement with economic growth through incremental change, noting that EU CO₂ emissions fell 28 percent (1990–2021) while the group’s total economy expanded by over 50 percent. This was driven by nothing more than the incentive of securing higher returns to capital, technological development, and consumer demand. This is unlikely to come remotely close to satisfying those calling for Net Zero by 2050, but it does remind us that the environmental baseline from which the additionality of interventionist policy is to be judged is not static. For all the efforts and expenses involved, the actual achievements of policy might be very small: *Parturiunt montes, nascetur ridiculus mus.*

Ernest Mund’s “Nuclear Technology Transition” examines with cautious optimism the next-generation reactor designs (SMRs, Generation-IV) that may mitigate traditional concerns about cost and risk.

And in the final piece, Jacob Hjortsberg suggests that “Singapore’s Entrepreneurial State” offers an alternative institutional model for state-market relations that avoids the failures documented elsewhere, a “model in which the state does not ‘pick winners,’ but creates an environment that attracts them” (285). Hjortsberg acknowledges that the case is “deeply context-specific and normatively contentious,” but believes that “it offers broader insights into how traditional domains of governance—housing, law, and public administration—can be reconceived through an entrepreneurial lens” (Ibid.). Readers curious about this suggestion will want to read it carefully alongside Cheang’s earlier piece.

For all its many different angles of approach, the book is haunted by the presences of Dani Rodrik and Mariana Mazzucato, with over a hundred and fifty references between them. While citation even in refutation is a mark of success in contemporary research, it does provoke a reflection on the responsibilities of academics. Suppose the authors in this volume are demonstrably right, which I think is broadly the case, and that Mazzucato and Rodrik’s views have misdirected policy in ways that are not only damaging to human wellbeing but counterproductive to their own stated aims. The sense of guilt would be altogether too much to

bear, and they would surely take refuge in denial. But should they still be troubled from time to time in those unavoidable dark nights of the soul, consolation can be offered in the fact that neither Rodrik nor Mazzucato have been truly influential. They may have delivered the weather forecast, but they did not bring the storm, and were instead complicit and convenient apologists and screens for action that the illiberal Western bureaucracies were in any case all but certain to take.

That the Allied victory in WWII involved almost total planning is well understood, but it is also true that winning the Cold War involved considerable economic coercion; military expenditures of that order do not occur spontaneously and have real opportunity costs. Having become habituated to societal project management over half a century, without the pain of defeat to disenchant them, the governmental machineries of the West have had a strong tendency to drift in that direction unless compelled to do otherwise. And when tempted, they act decisively. The two greatest public policy interventions in recent decades are on the one hand those, beginning in the 1990s, intended to reduce emissions and mitigate the effects of climate change; and, on the other, measures intended to control the coronavirus pandemic from 2020 to 2021.

One might quite reasonably expect that in applying these policy agendas, state bureaucracies would take a similar approach to discounting in pursuit of the general good. But remarkably, this is not the case. Climate change policy applies a de facto zero discount rate and thus sacrifices the interests of the older parts of the population in order to protect the lives of the young and as-yet unborn, far into the future. Coronavirus policy could not have been more different. The interests of the younger generations were sacrificed in order to protect the very old. I am not aware that any particular discount rate was ever published in relation to this matter, but the severity of the measures would seem to imply that the future could have had little or no value in those calculations.

This is, surely, quite remarkable. But perhaps our surprise suggests that we are seeking consistency in the wrong place. Could it be that some variable other than *general* human welfare is being maximised in these instances? Is it possible that the maximised variable is state and bureaucratic intervention in the lives of the public? The articles collected in this book tend to support the view that this is the case. If the West's bureaucracies had been authentically committed to emissions reduction, then they would have been more sensitive to theoretical criticism of the instruments chosen and rapidly responsive to discouraging results. In fact, they were neither. It would seem that, confronted with a range of policy tracks, bureaucracies will tend to prefer those that maximise intervention, even if the nature of those interventions puts the objectives in jeopardy.

References

Henrekson, Magnus, Christian Sandström, and Mikael Stenkula, eds. 2026. *A Green Entrepreneurial State? Exploring the Pitfalls of Green Deals*. Springer Nature. [Link](#)

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