INDUSTRY POLICY

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Following nearly half a century as the 'policy that must not be named' (Cherif and Hasanov 2019), industrial policy has returned to broader public debates, no longer relegated to the political wilderness by neoliberal approaches to economic development. There is compelling evidence that strong government coordination and intervention into industrial development has been used successfully around the world (Juhász et al. 2023), in diverse economies from South Korea (Chang 1993; Lane 2021), Israel (Breznitz 2006; Hartmann *et al*. 2021), Norway (Capasso *et al.* 2019; Sogner 2023) and the United States (Mazzucato 2011). However, Australian attempts to develop local industrial policies have been denigrated as governments inefficiently 'picking winners' (Crowe 2007; Power 1990; Robertson 1991).

For Australian policymakers – and the Albanese Government in particular – a fulsome embrace of the productive potential of industry policy would require action on many fronts. However, to understand modern industry policy, our political economy must challenge the long held ideological belief that market failures are both created, and perpetuated, by state intervention into the otherwise perfect symmetry of a free and unfettered market (Graeber 2021; Rozier 2019). Crucially, for modern industry policy to be successful locally, it would also require a significant redevelopment of Australia's institutional capacity.

This article explores relevant international experience, particularly recent developments under the Biden Administration in the US, from which valuable lessons can be learned. It exposes fallacious beliefs in the primacy of market-led growth which characterises the state as being incapable of correcting market failures (*The Economist* 1993, 2022, 2023*).* Instead, it

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posits that the inherently crisis-prone nature of late capitalism offers recurrent moments for reflexive policymaking in global economies; and, to develop the policy rationale, draws on Mariana Mazzucato's public-facing work (Mazzucato 2011, 2017, 2021) which has been widely cited, including by the Albanese Government in Australia (Chalmers 2023, 2017; *National Reconstruction Fund Corporation Bill 2022: Explanatory Memorandum* 2022).

The *Inflation Reduction Act*: Aims and scope

Nowhere has industry policy's recent rise been more apparent than in the USA, with the Biden Administration's victory in passing its *Inflation Reduction Act* (*IRA*) through Congress in 2022 *(Inflation Reduction Act* 2022). As its title suggests, the *IRA* has targeted the cost-of-living crisis currently being felt across the US economy. While primarily a vehicle to deliver an initial US$400 billion in new public expenditure and tax concessions, the scope of the *IRA* extends far beyond the provision of affordable pharmaceutical products for Americans. Crucially, it pairs policies targeting the cost-of-living crisis with significant investment in the renewable energy industry, providing generous tax credits while simultaneously increasing tax revenue from the considerable growth being experienced by private sector clean energy markets.

This targeted intervention has been designed to simultaneously slow inflation and reorient the US energy and manufacturing sectors towards the post-carbon economy. In essence, the *IRA* is an industrial policy strategy that seems fit-for-purpose in tackling the new normal of 'polycrisis' conditions (Tooze 2022).

Recent public analysis describes the *IRA* as catalysing new investment in the productive capabilities of US domestic manufacturing, including a significant overhaul of the way that research and development (R&D) is targeted towards the commercialisation of viable, cutting-edge technologies (Badlam *et al.* 2022). The *Act* contains numerous articles that encourage the procurement of critical supplies both from domestic and (crucially for Australia) from America's free trade partners, further reorienting US economic and foreign policy against China. Somewhat ironically, the *IRA* both allocates funding to environmental justice priorities and provides support for carbon capture and storage (CCS) technology, a spurious response to climate change preferred by fossil

capital which is widely criticised as being more likely to prolong the contribution of fossil fuels to climate change than reduce them (Baxter 2017; Climate Council 2023). Regardless of this antithetical concession to fossil capital, approximately US$393 billion will be invested in upgrading, repurposing, or replacing energy infrastructure across myriad sectors of the US economy, from energy and manufacturing to agriculture and water.

Interestingly, most of the *IRA's* funding (US$216 billion) is in the form of tax credits to corporations, a reform designed to stimulate private investment in energy infrastructure, innovative clean energy projects, advanced renewable technology, and vehicle manufacturing. There are some significant complications created by the interaction of these conflicted clauses. For example, firms can technically claim the full amount of tax incentives regardless of whether their liability is less than the credit provided, suggesting that many clean energy companies will be able to raise considerable profits from the *IRA's* provisions.

On the other hand, manufacturing facilities, producing everything from electric vehicles and solar panels to heat pumps and energy efficient home appliances, will only be eligible for the full tax incentive if they meet numerous requirements. Depending on which state they are operating in, manufacturers could have to meet certain wage conditions, apprenticeship ratios or requirements; or comply with location-specific environmental, waste and/or procurement targets (Hughes *et al.* 2022).

The significant price tag attached to this Democratic, or nominally 'left of centre', industry policy has drawn ire from its detractors, especially those from the opposing Republican Party. Whereas the initial legislation announced US$393 billion on tax and incentive provisions related to energy and climate projects, recent analysis by investment firm Goldman Sachs (2023) has since suggested that this figure could rise to US$1.2 trillion. However, the same analysis calculates the potential total private capital investment spend on renewable technologies and manufacturing to reach an estimated US$3 trillion. This cost has been reported by many media outlets and conservative politicians as a major cost to taxpayers (Kaufman 2023; Winegarden 2022; WSJ Editorial Team 2023). However, the estimated capital investment by private firms suggests that it will create more than twice the return in economic activity. Crucially, while the overall cost of the spend is immaterial if the outcome is a clean climate, the cost becomes unbearable if the spend is more likely to drive profits rather than to reduce the carbon emissions of fossil capital.

A 'New' Washington Consensus?

Collectively, these characteristics reveal the economic, domestic, and foreign policy implications of the *IRA*. Arguably, its new industrial strategy represents a critical break with the neoliberal orthodoxy that has long governed both US and global economic relations. This pre-existing 'Washington Consensus' (Stiglitz 2002; Williamson 2004) comprised of a prescriptive set of market-fundamentalist policy reforms first employed in Latin America (Williamson 1990), but swiftly evolving into a normative global path dependency throughout all countries in receipt of assistance from the World Bank and IMF. The recent capitalist crises have challenged the dominance of this prescription, giving way to a period of 'New Washington Consensus' or 'after-Washington Consensus'.

Arguably, this evolution has been between two distinct but related 'varieties of capitalism' rather than substantially changing the capitalist economic relations underpinning the system. But it has been a significant shift, shaped by domestic industrial (re)development on one hand and 'friend-shoring' on the other. At its core, friend-shoring is the practice of 'sourcing or accessing resources from trusted or like-minded partners, often with an underlying emphasis on political alignment' (Vivoda and Matthews 2023: 4), and represents a significant 'spatial reordering of supply chains under the criterion of political convergence' (Vivoda 2023: 2). Additionally, this investment into the economies of strategic allies has been complemented by encouraging an expansion of the productive capacity and industrial capabilities within their domestic markets (The White House 2023). This is accomplished through generous public subsidies combined with requirements for fair labour and environmental practices, which speak to the growing social and environmental responsibilities of states within contemporary political economic relations. For example, the recent signing of an agreement between the US and Australia to cooperate on the development of Australia's critical minerals refining and processing industries is not just aimed at accelerating the growth of a clean energy supply chain between the two nations, but also seeks as an objective of the compact, fair environmental and labour standards in this supply chain.

Recently, in an address to the Brookings Institute, US National Security Advisor Jake Sullivan (2023) was explicit in naming this break from the previous orthodoxy of globalisation, describing the *IRA* as a response to several features of the polycrisis:

> This moment demands that we forge a new consensus […] a modern industrial and innovation strategy – both at home and with partners around the world. One that invests in the sources of our own economic and technological strength, that promotes diversified and resilient global supply chains, that sets high standards for everything from labor and the environment to trusted technology and good governance, and that deploys capital to deliver on public goods like climate and health.

The US, with its mature, extensive markets and complex industrial supply chains provides a critical 'baseline' for this new orthodoxy. In one light, the implications for the global economy are significant, as the structural power that the US wields will now extend to diffusing industrial policy as an acceptable norm within domestic economies, particularly when it is used to coordinate private markets towards socially and environmentally sustainable goals. However, this narrative is not universally accepted.

The European Union (EU) response to the IRA differs substantially from the American narrative (Scheinert 2023), as it depends less on tax subsidisation for corporations and instead on the more interventionist framework of its *Green Deal Industrial Plan*. Primarily, the EU has taken issue with the macro-goals of the *IRA*: to incentivise *domestic* production of renewable energy technologies and the development of global value chains for critical inputs that all lead to America. The IRA aims to re-shore American industry and reduce domestic dependence on the Chinese economy, while onshoring additional, critical capabilities needed to expand into new areas of renewable technology. The EU understands this well, fearing its own highly innovative renewables and manufacturing industries will relocate to one of the 50 states in pursuit of significant opportunities for the US Treasury to underwrite their industrial futures.

Could the same risks exist for Australian industry? Currently, the Albanese government has not offered a direct response to the *IRA* and appears to have less appetite for investment of this sort. Although its National Reconstruction Fund (NRF) has been funded with $15.2 billion, the government has yet to act on a subsequent motion carried at the ALP National Conference in August 2023 that pushed for a substantial increase in the size of the NRF. The Albanese government has all the imprimatur it needs to follow the New Washington Consensus and develop a socially and environmentally responsible renewable industrial strategy that will define Australia's economy for generations to come.

Industrial policy and Institutional Political Economy

In order to better understand the opportunities (and challenges) that the *IRA* presents to global economic relations in general, and the Australian political economy in particular, we utilise an Institutional Political Economy (IPE) approach to industrial policy that draws on the work of Chang (2002, 2011), Rodrik (2008, 2009), Polanyi (1957), Evans (1995), and Mazzucato (2011, 2017, 2021). Crucially, an IPE approach rejects the narrowly defined 'market economy' approach of neoclassical economics (NCE) and instead takes a broader view of capitalism as a system 'made up of a range of institutions, including the markets as institutions of exchange, the firms as institutions of production, and the state as the creator and regulator of the institutions governing their relationships (while itself being a political institution), as well as other informal institutions such as social convention (Chang 2002: 546). This institutional turn is one that acknowledges that as many economic interactions occur *within* organisations as between them through market exchange (Simon 1991), and that classical conceptions of 'market failure' could include many instances of 'organisational success' (Lazonick 1994: 228–62).

In other words, an IPE approach argues that NCE encourages a myopic view of the *market-as-economy* which excludes a large amount of economic activity and behaviour, and as such is insufficient to explain diverse problems and is incapable of offering pragmatic solutions. This narrow focus on the study of the market subordinates the needs of humans to the cause of economic growth, narrowly defined (Polanyi 1957: 36). Arguably, the lack of plurality and narrow focus of NCE has led a generation of economists to develop 'proficiency in utilizing their training in the static methodology of mainstream economic theory [through an] unquestioning acceptance of the ideology that views the perfection of market coordination as an economic ideal' (Lazonick 1994: 8). Such a perspective limits not only NCE scholars' academic analyses but also restricts the capacity of real-world actors, particularly industry policy bureaucrats, to respond adequately to situations that fall short of the ideal.

Instead, IPE invites us to consider the impacts of intervention beyond the state-market dichotomy. Through an analysis of the myriad institutions that comprise a modern economy within the capitalist mode of production, an IPE approach allows us to see multiple levels of success and failure within the economy and encourages targeted interventions *at the level*

where failure exists. As Chang (2002: 548-9) argues, the problem with the 'market primacy assumption' of NCE is that:

> the assumption deeply affects the very way in which we understand the nature and the development of the market, as well as its relationship with the state and other institutions. Unless we abandon this assumption and develop a theory that deals with the market, the state and other institutions on a more equal footing, our understanding of the role of the state will remain severely incomplete and biased.

When considering the current challenge of developing an industrial policy within Australia, the institutional frameworks developed by Rodrik (2008, 2009) and Mazzucato (2011, 2017, 2021) offer key insights that are readily applicable to the contemporary challenges of the polycrisis and the opportunities presented by the New Washington Consensus.

Institutional design features

In a series of papers published during the GFC, Rodrik (2008: 25-30; 2009: 21-3) outlines a framework for the design of institutions which can best facilitate industrial policy development. Crucially, while the framework contains 'general principles', the unique capabilities, capacities and circumstances of domestic actors are the foundations on which policy should be designed, a task that this paper considers in a latter section.

First, industry policy must contain a level of *embeddedness*. Drawing on the contributions of Polanyi (1957) and Evans (1995), the concept of embeddedness views institutions as being formed within the social, cultural and historical space: as such, they are imbued with the normative values and ideas of the structures in which they are contained. Where NCE utilises the assumptions of classical equilibrium theory, where all actors within a market behave rationally with access to perfect information (McKenzie 2002), an IPE approach assumes that informational asymmetry exists. Therefore, institutional design would start from this principle, recognising that the state lacks omniscience, and operates 'as a system of discovery about all those sources of uncertainty. It requires mechanisms for eliciting information about the constraints markets face' (Rodrik 2008: 26). Thus, rather than assuming that the choice is between total autonomy of the state and firms in the market or regulatory capture, an institutional approach in industry policy design would build on *strategic collaboration and coordination* between the actors, where the institutions are designed

to uncover 'where the most significant bottlenecks are, designing the most effective interventions, periodically evaluating the outcomes, and learning from the mistakes being made in the process' (Rodrik 2009: 20). Fundamentally, institutions embedded with the logics of both the expected challenges and desired outcomes have the greatest chance of policy optimisation. By building tripartite institutions that bring together the state, firms and unions, the institutions are embedded with the informational asymmetry that exists within imperfect markets, and allows for collaboration, cooperation and coordination.

Second, the familiar concepts of incentives and costs feature here in the effective design of the institutional infrastructure of industry policy as *carrot* and the *stick* elements to encourage investments in non-traditional areas (the carrot) but also weed out projects and investments that fail (the stick)' (Rodrik 2008: 28). Economic policymaking during the Washington Consensus era operated with a deliberately 'hands-off' approach to market intervention and relied heavily on incentives rather than compliance costs: tax incentives, debt-free investment, and strategic 'no-strings-attached' funding were common for investment in infrastructure, service provision or industrial processing. The much less common element was *conditional*ity, reflecting the tacit assumptions of NCE that governments are not only incapable of avoiding market failures (*The Economist* 1993, 2022, 2023), but tend to be their active cause (Graeber 2021; Rozier 2019). But conditionality is how the state can maximise the return on its investment. By creating significant compliance costs associated with failure to meet the social, cultural and environmental conditions required, the state can 'increase employment, upgrade wages, invest in training, engage in greening their production processes, address gender imbalances […] [and promote] behavioral responses […] which the firms may normally consider as an additional cost (Mazzucato and Rodrik 2023: 6).

While nominal review periods, monitoring and evaluation are regular aspects of procurement contracts, the compliance costs are vastly outweighed by the benefit of successfully winning a government contract. In Australia, despite 'cost blowouts' being front page news on major infrastructure projects worth tens of billions in public investment, a discussion of increasing compliance costs is often absent. Even in public reports detailing the substantial growth in over-run cost of major projects conducted by the influential centrist think tank, the Grattan Institute (Terrill *et al.* 2020), the solutions listed were greater information sharing, tightening monitoring periods and reviewing scoping requirements. While

these are consistent with the theoretical dominance of NCE during the Washington Consensus, they are out of step with modern industrial policy design. Targeted supports need to be paired with substantial compliance costs; and benchmarking that serves the social, political and cultural needs of diverse stakeholders in industrial strategy (including workers, community members, First Peoples and the natural environment), not just the material wants of private shareholders.

Third, modern industrial policy design needs clear *accountability* to be effective. Where the state is absent, markets routinely fail to deliver on social aims and the public is disadvantaged. However, when public accountability is inherent in policy design, there is more transparency in how decisions are made and 'why certain activities or firms are favoured – especially since industrial policy may often seem to privilege large and politically connected firms rather than SMEs or poorer parts of the economy' (Rodrik 2009: 23). By designing institutions that are tasked with accountability, industrial policy can remain focused on the challenges it seeks to overcome, and (when combined with adequate compliance costs) reduce the likelihood of market failure. Models already exist for this level of accountability, even where they are imperfect. For example, while central banks operate with a clear remit to target inflation using specific monetary policy mechanisms, there are also clear expectations for reporting, review, and public accountability for their failures. Similarly, where a semi-autonomous 'developmental bank' model is utilised for industrial policymaking, the state can set 'quantitative targets for a range of venture-fund type activities' (Rodrik 2008: 30), require the institution to provide regular reports on its activities and send its representatives to regular governmental hearings to discuss those reports.

While these three design principles, when combined, have the potential to ensure integrity, efficiency and transparency, the bricks and mortar of industrial policy require practical depth and functional expansion; in short, they need a fourth feature: *mission orientation*. This requires several steps for ambitious governments (Mazzucato 2021: 121-37). The chosen mission must be one that is bold and encourages buy-in from the general population; and it must be socially relevant. For example, the reduction of carbon emissions, creating decent work opportunities, or increasing the material security of communities are all socially relevant missions. Moreover, missions also need solutions that are grounded in observable outcomes, either by improving people's day to day lives or appealing to their imagination.

In the above examples, outcomes are observed through cleaner, cheaper electricity, increased wages or attitudinal reports of wellbeing. Additionally, while any mission-oriented strategy must be ambitious, it needs also to be built on *realistic*, *measurable* and *time bound* interventions that are linked clearly to a political direction. These measures can either be binary (for example, in the space race: a country either lands someone on the moon, or they do not), or they can be quantifiable and progressive targets that are linked to concrete actions (*i.e.*, an interim emissions target of 65% reduction on 2005 emissions levels).

Milestones like these allow not only for review and reflection on progress but encourage a diversity of tactics to help achieve different goals during the implementation phase. Any goal should be focused on attracting research and innovation investment, from public and private sources, and seek to *crowd in* funding around shared goals. Contrary to conventional logic which presupposes that government investment in research and technology crowds out private investors, this early investment by government often does the opposite. It 'stimulates private investment that would otherwise not have happened [...] [expanding] the overall pie of national output, which has benefits for both public and private investors' (Mazzucato 2013: 9).

Finally, missions must 'encourage multiple solutions instead of focusing on a single development path or technology (Mazzucato 2021: 124). Put another way, while there must be a singular purpose to the industrial agenda that targets a specific problem, the goal should be one that is so broad as to encourage multiple projects working towards its solution. This criterion should encourage smart government investment into a range of strategies, approaches and 'angles' that confront the various challenges that the targeted problem creates.

Building Australia's industrial policy response to the *IRA*

How, in practice, could Australian industrial policy be developed to reduce inflation, grow the economy and reduce carbon emissions? While the partisan politics of the federal parliament is not conducive to a broad commitment to action, there is growing extra-parliamentary pressure. A coalition of diverse stakeholders has recently launched a campaign for a A$100 billion *Australian Renewables Industry Package* as a 'significant response from the Australian Government to the US Inflation Reduction

Act' (Smart Energy Council 2023). This coalition includes many powerful stakeholders within Australia's polity, including the Australian Conservation Foundation (ACF), Australian Council of Trade Unions (ACTU), Clean Energy Council (CEC), Climate Action Network Australia (CANA), Climate Energy Finance (CEF), First Nations Clean Energy Network, New Energy Nexus, Rewiring Australia and the Smart Energy Council (Australian Conservation Foundation 2023; New Energy Nexus 2023), who have collectively endorsed a call for A$100 billion in targeted investment and government intervention (Buckley and Palese 2023). The coalition aims to pressure the Albanese Government to substantially increase its commitment to funding Australia's clean energy reindustrialisation, which has proved prescient in pre-empting the necessary institutional embeddedness required of an Australian response to the *IRA*. It represents the kind of strategic and coordinated assemblage of institutional power necessary to understand industrial policy from multiple perspectives, including at the critical intersection of economic and environmental justice. As the stakeholders are responsible for areas of primary production, supply chain management and technological development, as well as innovation, research and commercialisation camps, there is significant scope for this bloc to work proactively with the government to build an institutionally robust industrial policy.

This response to the *IRA* could not be timelier. The Climate Council has declared that the state 'must act fast' to develop a response to the *IRA* if Australia is to successfully transition to a post-carbon economy and avoid remaining fixed in its position as a mere quarry for critical minerals, which are essential to powering the global renewables transformation (Bradshaw *et al*. 2023). The A$15.2 billion currently allocated to funding Australia's NRF does not provide the scale needed to ensure an effective and just transition. It is imperative therefore that the Albanese government increase its fiscal commitment. Economists at the Centre for Future Work contend it would be necessary to commit A$83 to $138 billion 'over 10 years in fiscal supports and incentives to match US benchmarks for domestic renewable industry (Joyce and Stanford 2023: 5). This estimate represents at least a five-fold increase in the Australian context to deliver for the nation what the *IRA* is aiming to do for the US economy.

Over and above the need for extra fiscal backing, it is in considerations of conditionalities and accountabilities, as previously discussed, that there is major scope for Australia to take a different path to the US. The *IRA* is arguably all sticks, no carrots. Crucially, it does not address the issue of

public ownership, offer clear measurables for any tax credits, or ensure a return on public investment in private capital. In this way, the *IRA* contrasts with the *CHIPS Act*, passed in parallel, which disciplines private capital into national security priorities for the development of larger sovereign manufacturing capabilities in the semiconductor industry. The strategic geopolitical and national security implications of the *CHIPS Act* are very clear. Yet the same 'mission' approach to climate change is not present in the *IRA*. Outside of electricity grid generation infrastructure, the *IRA* lacks any broader and long-term vision for developing the necessary industrial framework to ensure renewable energy sources proliferate and to help meet energy needs within and beyond the US through existing networks. It is implicit that the private market will deliver this infrastructure, which would do little to ensure a long-term public share of the profits without conditionalities attached to private enterprise in renewable energy markets.

Australia's development of a coordinated industrial strategy in response to the *IRA* should therefore consider, alongside any tax incentives and subsidies, conditionalities like public equity and other mechanisms that discipline the inevitable influx of private capital. Where Australia has major opportunities to compete with the *IRA* on areas like biomass, electricity generation and transmission, electric vehicle componentry (including batteries) and hydrogen, this competition must be built on a foundation of decent work, positive environmental outcomes and justice for Australia's First Peoples.

With these aims, the design of an Australian industrial policy response can create conditionalities for access to the country's natural resource base, from the vast wealth of mineral reserves to the bountiful solar, wind and wave power, in ways that returns benefits to all Australian stakeholders, not just private shareholders. The government can send clear signals to private enterprise that failure to meet social, environmental and governance obligations will be met with severe penalties associated with failing to deliver on the primary mission-oriented objective; namely, a green industrial strategy which grows clean energy systems, diversifies the industrial base and ensures secure, decent work for all who want it.

At the time of writing, there are still only weak indications of the Albanese government's understanding that strict conditionalities are needed to ensure a sustainable industrial future in Australia; one in which the nation busies itself with the manufacture of complex, value-added products for

export, and delivers the associated high-skill, high-wage jobs. In an opinion piece by the Prime Minister in *The West Australian*, coinciding with his visit to Washington DC in part to develop the US-Australia critical minerals compact, he restated his commitment to building 'end-to-end sustainable, reliable and transparent critical minerals supply chains globally' (Albanese 2023) but was silent about the impact the agreement could have on workers, First Nations people, or the environment.

Additionally, it remains unclear how the current *Critical Minerals Facility* is the appropriate mechanism to deliver these stated supply chain objectives. The Facility is designed to assess projects based only on export feasibility and global market considerations, with no remit for domestic downstream manufacturing opportunities. Taken together with the *IRA*, the detail of the US-Australia compact allows for Australian resources to be considered as part of Australia's free trade agreement with the US where they are critical inputs to defence, critical minerals and clean energy (Morgan 2023). Hence, the kind of 'crowding in' that Australia can expect to see will only go as far as incentivising a further expansion of foreign mining interests in Australia's resources industries. There is little, if any, evidence that the current agreements will deliver on downstream processing or value-adding transformation of Australia's industrial capabilities for products like lithium-ion batteries, wind turbine and solar panel components. This all seems to suggest that Australia's position in the emerging global supply chain will only shift marginally as its commodities are earmarked as raw inputs to IRA-funded manufacturing in the US.

This is unless the Albanese Government can provide the Australian public with the mission-orientation so desperately needed to avoid falling short of the nation's industrial potential. There is little doubt within the scientific community that, as the climate changes, Australia will continue to grow hotter and drier, and will pose an exponentially greater threat to communities and ecosystems over the medium- and long-term. However, in the short-term, Australia is also experiencing a cost-of-living crisis, which threatens economic stagnation. Despite recurrent rhetoric from Australian governments over the past decade about the nation's high standing as an economically complex and prosperous nation, its underdeveloped industrial structure means Australia is more comparable to some of the poorer nations. In the *Atlas of Economic Complexity*, which measures the diversification and development of the industrial base in domestic economies, Australia ranked 9th in the world for GDP per capita

but only ranked 93rd for economic complexity (Harvard University 2021). Moreover, Australia has been falling in those economic complexity rankings: since the turn of the century, its ranking has dropped by 31 positions. Unless this trend is reversed, the Australian economy will be less able to provide for its citizens and its resource dependence will leave it vulnerable to future polycrises and other external shocks.

Continuing on the current well-trodden path risks Australia's economic and social future being handcuffed to further, catastrophic fossil fuel extraction. As Aronoff (2023) notes, with possibly trillions of dollars yet to be made from coal, oil and gas reserves, these must be made worthless, but '[o]nly the state can keep a company from doing what is profitable'.

Industry policy for the polycrisis

How might the Federal government's ostensible mission orientation shift from propping up US domestic and foreign policy, and towards the institutional structure required to form Australia's own strategy to rebuild the nation differently? Australia's response to the *IRA* requires a far greater grounding in the principle of accountability, which we are yet to fully see from the Albanese Government. The current trajectory risks repeating, perilously, the unlearned lessons of the Australian 'Resource Curse' and Australia's institutional 'Quarry Vision', locking the emerging policy framework (Pearse 2005) – or, at least, the governance element of its tripartism – into a sclerotic embeddedness unfit for meeting the challenges of a polycrisis world. Taking the opportunities presented by global green industrial transformations requires development of an industry policy response for driving structural change in Australia's economy and an institutional policy framework that is reflexive, responsive, accountable and sustainable in social, environmental and governance terms.

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