#### Rethinking Industrial Strategies and the State: A Global South Perspective

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**Abstract**. After decades of opposition and neglect in the context of a dominating neoliberal approach to markets and institutions, industrial policy has experienced a renaissance. In the wake of financial, climate, and health crises, setting a sound industrial strategy has emerged as an absolute policy priority. Yet contemporary industrial strategies remain bound by outdated frameworks and preconceptions. Those shaped by the Global North in particular fall short of addressing the unique challenges Global South countries face, including limited state capacity, dependence on volatile global markets, and colonial legacies. These factors necessitate a radical rethinking of industrial strategy. The article argues that to avoid reproducing the mainstream view of state intervention, industrial strategy should fundamentally rethink the role of the state—not as a market fixer, but as a capable and confident market shaper.

#### NEW INDUSTRIAL STRATEGY - WHAT IS STILL NOT NEW?

The debate on the revival of industrial strategy, which certainly has made significant progress since its dismissal as a misplaced and ideological matter, still sees much old wine in new bottles. It remains constrained by old limits and preconceptions. In particular, given the overwhelming focus on the Global North within this debate, little attention has been paid to the question of what industrial strategy means in a Global South context—in theory and in practice.

Late industrializers in the Global South face distinct challenges, including limited state capacity, dependence on volatile global markets, and colonial legacies. Transforming structural challenges into opportunities for Global South countries is thus not about returning to the tried and tested industrial policies of the past—policies set on strengthening import substitution or achieving price competitiveness—though there is, no doubt, value in retaining some important elements. It is about fundamentally rethinking the role of the state, not as a market fixer, but as a capable and confident market shaper. It is about designing the relationships between the state, business, labor, and citizenry with a view to achieving desired societal and environmental outcomes in a more purposeful way.

To do so successfully, governments must have the autonomy to take direct initiative, moving beyond simply incentivizing the behavior of citizens and firms. This means welcoming risks and uncertainty, but also failure—conceived as a conscious learning process. In many countries, corruption and misuse of public resources for private gain continue to be a cause for concern. In this sense, anti-corruption regulations and accountability systems have important functions to fulfill in shaping the activities of public administrators. Properly implemented, these can help curb abuses, foster citizen participation, facilitate organizational learning, and ultimately strengthen democracy. Indeed, democratic decision-making is essential for the legitimacy and effectiveness of public policies. At the same time, the institutionalization of accountability mechanisms must ensure adequate levels of autonomy and flexibility for public administrators, providing them with sufficient legal security so that they have the right to experiment with innovative solutions and occasionally to fail. Otherwise, excessive or dysfunctional accountability systems may help to reduce corruption while leading to paralysis of public administrators due to fears of sanctions (Mazzucato 2023c).

Against this background, we discuss the ways in which industrial strategy should be radically redesigned, proposing core "ingredients" for a purposeful mission-oriented approach that places stronger emphasis on the Global South and development. A pragmatic approach to industrial strategy must entail defined goals, a clear vision of actors in charge of implementation, the tools available, and instruments to assess and learn from successes and failures. Indeed, while industrial policies continue to pick sectors, the ability to pick objectives and help coordinate intersectoral responses across the economy is becoming increasingly important for modern challenge-oriented industrial strategies (Mazzucato 2022; Mazzucato and Rodrik 2023). Moreover, the need for greater legitimacy in policymaking highlights the importance of both greater citizen participation and more dynamic evaluation to hold governments accountable.

## PUSHING THE BOUNDARIES OF THE INDUSTRIAL POLICY DEBATE

The theoretical debate on industrial policy, key for the formulation of a comprehensive industrial strategy, has crossed different phases and incorporated some key controversies. We see in it three key limitations: (1) the wrong question being asked; (2) a false dichotomy; and (3) an insufficient orientation on outcomes.

## The Wrong Question

Despite a revival of industrial policy, the debate on new industrial strategies largely remains confined to the acceptance or rejection of industrial policy per se. In other words, discussions regarding industrial strategy remain limited to whether to employ industrial policy rather than how to get it right based on a serious reconsideration of tools, objectives, and outcomes.

Rooted in the modernization strategies of the first industrial powers (for example, the UK and the US) and then in state-led interventions to promote heavy industrialization (for example, the Soviet Union), the "policy that shall not be named" (Cherif and Hasanov 2019) was strongly opposed in the golden era of the Washington Consensus, but then saw a recent revival, especially following the success of East Asian economies and in the aftermath of global economic crises (Chang 1994; Naudé 2010; Oqubay et al. 2020; Williamson 2004). Indeed, after a few decades of opposition and neglect, in the light of a dominating neoliberal approach to markets and institutions, industrial policy has experienced a return and has been not only retrieved, but mainstreamed and somewhat normalized (see Rodrik 2007). According to Andrea Ferrannini and colleagues (2021), this comeback has been pushed by several factors, including a widespread recognition of the importance of industrialization for structural transformation, especially in late developers; the need for local industrial systems to seize opportunities and contain the risks associated with the globalization of production through value chains; and the evident limits of market fundamentalism that have powerfully emerged during global crises (both the 2008 financial crisis and the more recent COVID-19 pandemic).

Historically, industrial policy has been sidelined or brought back to center stage depending on political-economic circumstances or ideological trends, but the debate on industrial policy has more recently become "far less ideological and more productive" (Chang and Andreoni 2020, 325). This trend, which highlights clear gaps and limitations of the previous dichotomies, has certainly represented a positive step toward the normalization of state intervention in the

economy, but has often left industrial policy confined to a technical realm. Moreover, the now mainstreamed green industrialization and green growth ideas too often involve greenwashing, while remaining confined within old capitalist objectives of production and profit (Hauge 2023). Industrial strategy continues to be seen as a tool to promote efficiency and competitiveness, rather than an opportunity to strategically direct the whole economy toward progressive societal goals, which would fill it with a much deeper political meaning (Mazzucato 2022). In this regard, truly green new industrial strategies should go deeper, questioning the ultimate goals of the capitalist mode of production and its key stakeholders for the actual sustainability and future well-being of the planet and its inhabitants (see, for example, Ashman, Newman, and Tregenna 2020).

Despite the resurgence of interest in industrial policy, the discourse surrounding new industrial strategies continues to revolve around the binary decision of whether to embrace or reject industrial policy, rather than critically examining the optimal tools, objectives, and outcomes needed for effective implementation. Indeed, the point is not whether the state should intervene in setting a policy direction, but how it should do so.

## A False Dichotomy

While the state versus market dichotomy has been increasingly challenged, industrial strategy still rests upon the idea that the state is best positioned to fix market failures (Mazzucato 2016; Nelson 2022). This perspective has limited policymakers' understanding of the range of tools they have for catalyzing growth and creating value; it has also reduced their confidence, making the public sector more vulnerable to being captured by vested interests (Mazzucato 2018, 2022; Mazzucato and Collington 2023). By ignoring the entrepreneurial role of the state as lead investor and risk-taker and focusing only on the role of the public sector in setting the background (horizontal) conditions, orthodox economic theory has also ignored the way the socialization of risks should be accompanied by the socialization of rewards (Laplane and Mazzucato 2020; Mazzucato 2013).

Over time, the long-dominating neoclassical/neoliberal view has remained anchored to market fundamentalism and full trust in markets to reach an equilibrium without external interference—thus the linked policy recommendations that suggest liberalization, delicensing, and deregulation. Such a view has generally seen state intervention as generating failures and creating distortions, modifying the optimal allocation of resources and inducing rent-seeking behaviors. In this view, when market failures occur, their cost is always lower than the damage caused by government failures (Aghion 2011; Chang 1994, 2002; Lall 2003; Naudé 2010; Oqubay 2020). Neoliberal views have thus tended to deny the importance of protectionist measures adopted by both early and late developers in the first phases of their industrialization trajectory (Chang 1994, 2002) and have permeated conception of the state, reducing it to bare administrative and facilitatory functions (see Williamson 2004). Should the state enter the policy space, it could at best provide financial rewards and innovation incentives to firms that would still operate in a rational way (Oqubay 2020).

On the other side, by recognizing market failures, the lack of perfect competition, asymmetrical information, and the uneven development generated by unregulated markets, structuralist economists see industrial policy and government interventions as a necessary correction of spontaneous malfunctioning (Chang 1994; Lall 2003). This view accepts a certain degree of

state intervention to correct market failures (for example, in infrastructure, in human capital creation, or linked to asymmetric information), to provide short-term protection, as well as to pursue macroeconomic stability, but still assigns state and government a complementary rather than a strategic role (Oqubay 2020).

Further, according to neo-institutional economists, markets are only one possible institutional setting, and they exist only because they are created by the state. As with all other institutions, they can incur failures, transactions, and social costs that hamper their efficient operation. States, in this regard, can set property rights, legal frameworks, and the "rules of the game" to allow them to function smoothly (Chang 1994). In this sense, the state is "upgraded" to play a regulatory and coordinating role, and a sound industrial policy entailing both embeddedness and discipline can help overcome failures with regard to credit, labor, products, and knowledge (Rodrik 2007). In a context of late developers, the state can also provide crucial support in upgrading and catching up with technological changes (Szirmai, Naudé, and Alcorta 2013). Overall, as Ben Fine (2013) effectively argues, while overcoming the unrealistic state versus market dichotomy, these approaches offer a market plus state recipe without radically questioning the nature and goals of market forces or reconsidering the political and social role of state institutions in strategically setting a direction for growth and development (Mazzucato 2013).

Going beyond even progressive views of industrial policy, markets themselves should be viewed as outcomes of the interactions between both public and private actors and as embedded in social and political institutions (Evans 1995). We theorize the need for a much more active role of the state, which should be seen as able to take economic initiative, set the direction of growth, and strategically establish the goals of the development process. The state can promote structural transformation, inform production decisions, and take a leading role over the private sector, not only fixing market failures, but creating and shaping markets (Mazzucato 2013, 2016, 2021, 2022). In this sense, an entrepreneurial and risk-taking state can determine policy directions and establish ambitious developmental goals. Missions geared toward the common good exemplify such a proactive approach to policy (Mazzucato 2023b).

#### **Insufficient Orientation on Outcomes**

The debate on new industrial strategies is still not sufficiently outcomes oriented, failing to center goals around development, public purpose, and the common good that can guide the articulation and implementation of missions as tools for radical change. The contested definition of industrial policy corresponds to a limitation of its policy boundaries and leeway. While a narrow view would be linked to a Kaldorian understanding of manufacturing as a key engine of economic growth, aiming to influence the allocation of resources in favor of specific industries, subsectors, or firms (see Weiss 2013), a broader view incorporates a much wider spectrum of policy interventions meant to horizontally affect the direction of growth, stimulate competitiveness, and achieve ambitious outcomes. As such, a missionoriented industrial strategy can turn challenges into pathways for investment and market opportunities for businesses—in particular, in areas where the government holds procurement or regulatory levers for shaping markets (Mazzucato 2022; Mazzucato and Rodrik 2023; Mazzucato et al. 2024). It can shape the structure of the economy as a whole, rather than the simple performance of the manufacturing sector (Aiginger 2014).

By adopting an orientation on outcomes, while also acknowledging the heterogeneity of productive activities, the all-encompassing nature of grand challenges, and the multiplicity of institutional layers needed to address them, governments can catalyze cross-sectoral investment and innovation that goes beyond sectoral targeting (Hauge 2023; Mazzucato 2013, 2021, 2022; Oqubay 2020). In this way, mission-oriented industrial strategy has the potential to "crowd in" business investment by raising expectations about future growth opportunities (Mazzucato and Penna 2015). For example, US President Joe Biden's Inflation Reduction Act (IRA), CHIPS and Science Act, and Bipartisan Infrastructure Bill, while having significantly contributed to recent increases in public investment, have also stimulated private sector investment commitments estimated at \$866 billion (White House 2024).

Additionally, while important, economic growth in the abstract is not a coherent goal or mission around which governments should orient their policymaking. The desired inclusive, sustainable, and robust growth ultimately comes as a byproduct of pursuing other socially beneficial collective ends. To mobilize as much cross-sectoral collaboration as possible, mission-oriented industrial strategy should focus less on economic and more on societal and environmental outcomes. Indeed, governments have been most successful in catalyzing growth when they pursue other goals—not treating growth itself as the objective. NASA's mission to land a man on the moon yielded innovations in aerospace, materials, electronics, nutrition, and software that would later add significant economic and commercial value. But NASA didn't set out to create these technologies to that end, and it would probably never have developed them at all if its mission had been simply to boost output (Mazzucato 2021).

Further, while a modern industrial strategy should be clear on the expected outcome, the trajectory to reach the outcome should be based on a bottom-up approach of multiple solutions, some of which will inevitably fail or will need to be adjusted along the way. They should enable experimentation and learning, so that the innovation process itself is nurtured through dynamic feedback loops and serendipity (Rodrik 2004). Public innovation labs, for example, are institutions that can help provide a safe place to learn through "sandboxing," allowing for broader participation and peer learning, and building networks with other organizations.

## **RECONSIDERING INDUSTRIAL STRATEGY AND THE STATE: KEY INGREDIENTS**

Given the three shortcomings discussed above, industrial strategy should not simply reproduce the mainstream view of state intervention and institutional regulation of the industrial development process, but should be linked to four key actions: (1) radically reconceiving the state to proactively lead development policies and shape markets; (2) reforming public sector institutions by developing dynamic capabilities and state capacities to enact change; (3) redefining what is considered productive and reorienting finance toward developmental goals; and (4) reshaping corporate governance and building a new social contract between public and private.

#### Adopting a Market-Shaping Approach

Industrial strategy should be intended as a market-shaping—and not market-fixing—type of intervention (Mazzucato 2016). Early investments in some of the most important general-

purpose technologies, such as production and aerospace, as well as information and communications technology, can be traced back to public-sector investments (Block and Keller 2011; Ruttan 2006). Given the unsustainability of the current climate emergency and the compelling need to address the galloping environmental crisis, setting green and sustainable goals to reshape production and consumption patterns across the board has become an unconditional priority. In this regard, a radically new industrial strategy cannot be exempted from including sustainable development as an overarching mission guiding state action and policy objectives. Industrial strategy should not simply resort to market-based solutions or rewarding green entrepreneurship; state intervention should be centered on the creation of green jobs, the reduction of inequalities deriving from the climate crisis, the enhancement of renewable energies and public transport, and the promotion of sustainable local production, especially of food (Ashman et al. 2020). For a sustainable transition to a low-carbon economy, development should rest upon a holistic policy approach, entailing a parallel shift in consumption patterns, manufacturing, and innovation (Anzolin and Lebdioui 2021). At the same time, green-directed growth should avoid the risk of greenwashing, whereby instead of substantive change, firms only appear to comply using green labeling, breaking relations of trust between producers and consumers, and ultimately jeopardizing the credibility of state environmental regulations (de Freitas Netto et al. 2020).

In 2015 the Chilean agency for productive development, CORFO, designed a smartspecialization program to make the mining sector a stepping stone to future sustainable development (Mazzucato and Penna 2020). The program was motivated by the ambition to foster innovation along the mining value chain while promoting the adoption of green technologies. The initiative aimed to transform the mining sector toward achieving the following goals by 2035: (1) increase production to 8.5 million tons, (2) increase productivity (targeting an objective of 80 percent of production in the first quartiles of industry costs globally), (3) increase the number of national suppliers (250 world-class suppliers), and (4) increase exports (\$4 billion in goods and services). The program was designed in a bottom-up way, mobilizing different types of actors in the innovation system. Some of the most ambitious projects carried out under the initiative were the development of new methods to monitor and map existing tailings (mineral waste material), a dual hydrogen-diesel combustion system for mining extraction trucks, and other zero-waste and climate-smart mining technologies.

The most important lesson to be learned from this case is the outcome-oriented way CORFO designed the policy (Saporito et al. 2021). The organization identified an important societal challenge: to extract resources in a more sustainable and inclusive way. Clear targets were then chosen, which offered clear direction to stakeholders in the mining sector without restricting their ability to develop bottom-up innovations. However, despite the clear direction, the project was too narrow in scope, focusing primarily on the mining sector and not actively cooperating with other ministries or sectors. Additionally, the project was designed and carried out only at the agency level, lacking government and presidential commitment to scale up at the national level, which resulted in a lack of political buy-in and public finance to accomplish the missions. A mission-oriented approach demands coordination, commitment, and participation from multiple stakeholders (Mazzucato 2023c).

#### **Developing Dynamic Capabilities and State Capacity**

To be successful, industrial strategy requires strong state capacity and dynamic capabilities. Public-sector capacity is typically defined as the set of skills, capabilities, and resources necessary to perform policy functions, from the provision of public services to policy design and implementation. Seeing industrial strategy as a key tool to direct growth and achieve transformational change means rethinking government and public policy and identifying organizational forms that are dynamic, innovative, and explorative for designing missions and policy interventions. The idea that the state should not only fix markets but also cocreate and shape them entails a whole set of skills, including capabilities for leadership and engagement of multiple actors (public and private) from a bottom-up perspective, coordinating and evaluating policy interventions for transformational change, and managing a variety of sources of knowledge and expertise, guaranteeing organizational fluidity (Kattel and Mazzucato 2018). Rethinking state capacity must involve the redefinition of skills, capabilities, and resources necessary to perform policy functions, from the provision of public services to policy design and implementation (Wu, Ramesh, and Howlett 2018). In this view, the state must have the ability to establish the directionality of growth, showing both the private sector and society the economic and technological potential of given situations and indicating policy options to spur investment and innovation aimed at promoting the common good (Mazzucato 2023b; Mazzucato, Qobo, and Kattel 2022).

For example, for South Africa, an array of institutional weaknesses and governance failures at the municipal, provincial, and national levels undermined the ability of the state to deliver on its developmental mandate (Chipkin and Swilling 2018). The majority of municipalities are deemed noncompliant with legal and regulatory prescripts precisely due to a lack of managerial and technical capabilities, policy misalignment, and the encroachment of special partypolitical interests in state processes. Furthermore, South Africa contends with governance challenges in most of its state-owned entities, which have suffered from confusion over their precise mandates, lack of clarity between their commercial and development roles, and weak oversight and corporate governance (Mazzucato et al. 2022). Despite such institutional weaknesses, there are already important initiatives in place, such as Khawuleza, which means "act faster." This district development model, announced during the 2019 budget vote, aims to overcome historic underperformance, eliminate silos in government operations, and improve coherence. It fosters partnerships between national, provincial, and local governments, as well as communities, businesses, and labor, to synchronize economic plans in South Africa's 44 municipal districts and 8 metro areas. This approach addresses coordination challenges within government structures, but its success is hampered by systemic issues such as a weak sense of mission, conflation of party and state authority, lack of managerial and technical expertise, absence of an innovation framework, and insufficient integrated thinking. To truly tackle these deep-rooted problems, the scope of the district development model needs to be broadened and the state's capacity must be bolstered to engage effectively with nonstate actors. This requires not just bureaucratic capabilities but also strong leadership at all levels of government (Mazzucato et al. 2022).

#### **Redefining Productivity and Reorienting Finance**

A contemporary and effective industrial strategy should be putting global supply chains and productive networks at the center of the ecosystem, adapting to the global interconnectedness of production nodes and to the linkages between different sectors. In practice, this should not simply mean adopting a different unit of analysis, but reformulating objectives and tools.

Incorporating the needs of Global South participants would mean properly rethinking terms of trade in order to embrace an equitable view of global production and readdress the current imbalances of global value chains (GVCs). This would also imply countering new extractive patterns (for example, in battery production) and the pursuit of competitive advantages only deriving from lower costs and lack of regulations in the Global South. In terms of tools and strategies, this should entail not only the establishment of fair-trade agreements and the support of export diversification in the Global South, but also, importantly, the respect of transparency rules and the application of due diligence regulations along the entirety of GVCs (see Monaco and Simon 2023). In addition, industrial strategy must aim to strengthen the productive (versus unproductive) part of the economy and create a stronger link with finance, so finance does not just finance itself, leading to de-financialization or to speculative bubbles detached from the real economy and its actual developmental needs (Mazzucato 2023a; Palladino 2019; Palladino and Lazonick 2021).

For example, development processes in Latin America and the Caribbean have been highly dependent on natural resources, commodities, and commodity prices. Despite the diversification that has taken place in the region after the state-led industrialization of the 1950s and 1960s and the integration into global value chains after market reforms that started in the 1990s, commodity predominance was never fully replaced, and comparative advantages in natural resources sectors prevailed. Commodity exports continue to contribute a significant share of the region's export basket, and thus development processes and public finances rely heavily on the foreign exchange generated by these sectors (ECLAC 2018). The strong cyclical nature of commodity prices and the high reliance on commodity exports increase the macroeconomic vulnerability of the region, especially during crisis periods, and the volatility of investments in non-commodity tradable sectors. The current increase in energy and natural resource prices and the increasing dependence of the region on Chinese demand for commodities have a negative effect on the relative profitability of non-commodity tradable sectors. This might also lead to capability destruction in these sectors, the reprimarization-or reinforcing of primary commodities as the main source of export revenues—of the productive structure, and a step backward in the green transformation.

#### **Redefining Corporate Governance and Building a New Social Contract**

Industrial strategy, as a way of getting the business sector to invest and create, must entail a redefinition of corporate governance and a new social contract. This can be achieved through a new set of conditionalities, framing a new concept of reciprocity. Conditionalities are one powerful tool that governments can use to co-shape investment and cocreate markets with the private sector. When companies benefit from public investments in the form of subsidies, guarantees, loans, bailouts, or procurement contracts, conditions can be attached to help shape innovation and direct growth, so that it achieves the greatest public benefit. For example, procurement can be made conditional on greener supply chains, reinvestment of profits, and better working conditions (Mazzucato 2022; Mazzucato and Rodrik 2023). In practice, this entails not only reconsidering the role of public and private, but also defining the rules for the private sector to invest in the common good and to respect the creation of public value as an overarching development objective. In this regard, the state can provide benefits or incentives to firms in exchange for specific behavioral patterns linked to the achievement of public objectives. A comprehensive view of industrial strategy, bringing industrial production back in and reconsidering the vital role of manufacturing production, must also encompass

complementary policies on trade, education, labor, innovation, and the environment. Only a combined effort will allow real missions to be pursued.

With reference to productive strategies, the selection of goals for manufacturing output must go hand in hand with the definition of clear employment targets (employment creation) and the compliance with decent working conditions. Increasing manufacturing productivity, promoting firm competitiveness, or industrial upgrading cannot occur without strong labor conditionalities, including the expansion of employment opportunities, the creation of quality jobs, and the reduction of vulnerable, precarious ones (see Monaco et al. 2021).

In many developing economies, there are already public banks, such as the Development Bank of South Africa and the Brazilian Development Bank (BNDES). Indeed, in Brazil, BNDES has had a virtuous role in articulating public and private sectors around the support, financing, and scaling of start-ups. Since its creation in 1952, BNDES has played a key capital development role by financing the construction of significant infrastructure projects, expanding industry, and assisting with the mechanization of agriculture in Brazil-all of which have been crucial to Brazil's catch-up strategy. Initially, BNDES invested heavily in infrastructure, but beginning in the 1970s the bank expanded into a number of other areas. Notably, BNDES played a fundamental role in promoting a strategy of import substitution by encouraging Brazilian companies to compete with imported products on the domestic market and stimulating exports. In the 1980s, support expanded to energy sectors and agribusiness and to integrating social concerns with development policy. In recent decades, BNDES has begun to play an important venture capitalist role, creating specific targeted programs aimed at fostering new technological landscapes and innovative solutions that address key societal challenges (Mazzucato and Macfarlane 2023). Although some of BNDES's other activities can be viewed as mission oriented, it is the bank's venture capitalist role that has formed the key basis of its missionoriented role (Studart and Ramos 2018). In fact, analysis of BNDES's research and development support funds and other financial instruments for the period between 2003 and 2011 has shown that the bank successfully generated crowding-in effects in the private sector, increasing private investment in innovation (Carreras 2020).

# STATE CAPACITY AND GLOBAL PRODUCTION: INDUSTRIAL STRATEGY SEEN FROM THE GLOBAL SOUTH

A comprehensive understanding of transformative industrial strategy that may apply to the structural needs of industrializing countries in the Global South must relate to three main aspects: (1) how global production has evolved and, within it, the policy space available to developing countries; (2) challenges around dynamic capabilities and state capacity; and (3) core policy priorities in late industrializers in the Global South.

## The Evolving Policy Space in Developing Countries

It is crucial to examine how the policy space available to state actors has changed following the increasing globalization of production and evolving regulations by the World Trade Organization (WTO). Chang (2006, 2015) traces the trajectory that led to a shrinking policy space for late developers, from the colonial era to current times. During the colonial era, the policy space of developing countries was strongly limited by the lack of autonomy on export decisions and the

impossibility to freely adopt tariffs and protective measures. In non-colonized countries, state autonomy was equally reduced by the large number of unequal treaties imposed by strong colonial powers. The postcolonial era certainly represented an opening of the policy space available to developing countries in the Global South, and this corresponded to the widespread adoption of import-substituting strategies and significant state intervention. The temporarily wider state leeway was restrained again in the years of the Washington Consensus and of the structural adjustment plans, from the early 1980s onward (see Harvey 2005; Williamson 2004). In this case, the rules attached to loans provided by international financial institutions meant that trade liberalization, as well as financial and labor market deregulation, became a precondition for being granted financial assistance. In the late 1980s and the 1990s, economic conditionalities evolved into political conditionalities, with the "augmented Washington Consensus" (Rodrik 2006) introducing the good governance paradigm as a further criterion for debt relief. The neoliberal prescription to roll back the state and liberalize the economy has found a continuum in the WTO regulations, progressively reducing state autonomy and the economic policy space in developing countries. Late developers in the Global South have rarely benefited from proper reciprocity, with imposed liberalization often assuming a unilinear direction. In fact, the constraints to their policy space have multiplied and come from different levels: international financial institutions, multinational corporations, and nongovernmental donors.

Overall, developing countries' policy space has shrunk, and the possibility of replicating old developmental state models today is very limited, because of a combination of international competition, domination of the global production sphere by transnational corporations, and trade and investment rules inspired by neoclassical economics. Nevertheless, there remains room for maneuver, and industrial policy may still be an option (Wade 2015). First, there are still a few industrial policy tools that can be used despite WTO restrictions. Indeed, while public procurement, export subsidies, and intellectual property rights may be selectively employed, instruments like investment incentives, trade finance, and export taxes can generally be permitted. Second, states still have some leeway in terms of attracting certain sections of global value chains (see also Hauge 2023). Third, states today can still play a role in the product and technology space, intervening by sector, location, and ownership.

In this regard, while available industrial policy tools seem limited and national boundaries have become blurred, challenging traditional notions of sovereignty and power, states play a crucial role in preventing their countries from being confined to low value-added activities or from following export-oriented, extractive patterns that fail to generate domestic spillovers (Calcagno et al. 2015). Governments continue to play a vital role in negotiating and defending the participation of their firms in production networks, striving to maximize domestic value, generating local linkages, creating employment, and building local capabilities (Bhatia 2013).

At the global level, the industrial policy space has strongly been shaped by integration into GVCs. In this regard, Gary Gereffi and Timothy Sturgeon (2013) have paved the way for a rich body of work analyzing how GVC-oriented industrialization affects developing countries. This literature centers on the evolution of industrial strategy along three main lines. First, in terms of actors, it investigates how the global governance of value chains relies on a multilevel structure of players, with the corporate strategies of both lead firms and global suppliers significantly affecting the policy space of the state. Second, with regard to policy objectives, this literature addresses the shift from building fully vertically integrated domestic industries to securing higher value-added niches within GVCs. This has led to a strong emphasis on the issue of

upgrading, frequent analysis of global sourcing, and a changing conception of global competitiveness and specialization. Finally, in terms of policy tools, research on industrial policies in the context of global production networks mostly engages with the inadequacy of old industrialization models. It highlights the frequent shift from horizontal to time-limited, selective interventions1 compatible with WTO rules and underscores the importance of foreign direct investment inflows and global sourcing in securing competitiveness and building productive capabilities.

### **Challenges around Dynamic Capabilities and State Capacity**

Regarding dynamic capabilities and state capacity, Robert Wade (2015) highlights that a robust developmental function is primarily accessible to industrializing countries with large domestic markets. In contrast, smaller economies face greater challenges and must creatively select their industrial policy tools. Smaller economies generally face higher entry barriers within global production chains dominated by multinational corporations and have access to a more limited range of industrial policy tools due to neoclassical-inspired WTO trade and investment rules. In this context, the state needs to pick the "least constrained" policy tools (for example, public procurement and investment incentives) and aim at strategically attracting relevant portions of GVCs within its territory, whereby building domestic control of key industrial sectors (for example, heavy industry, chemicals, etc.) becomes harder and harder. On a global scale, middle-income countries can find themselves in a particularly difficult position, navigating between income and capability traps; unable to compete with lower-wage countries and likely to be less endowed with productive capabilities compared to technologically advanced economies, they can be particularly squeezed by giants like China.

In relation to GVCs, the role of the state and its evolving functions have not been sufficiently explored. The GVC literature still predominantly adopts a firm-centered perspective to explain GVC structures and governance dynamics. Only recently has a handful of authors engaged with the evolution of state power and functions within GVC-shaped production, discussing the different roles of the state (De Marchi and Alford 2022; Horner 2022; Horner and Alford 2019). They differentiate between facilitator, regulator, producer, and buyer in relation to a series of policy objectives like GVC participation, value capture, and social and environmental upgrading. While facilitatory and more proactive functions are exercised to achieve GVC participation and to capture value, regulatory roles prevail in relation to social and environmental goals (De Marchi and Alford 2022). Additionally, for effective state policies in a GVC space to materialize and for developmental objectives to be achieved, engagement with multiple levels of stakeholders has been identified as a critical component. With reference to the South African pharmaceutical industry and the large import dependency of the country, Rory Horner (2022) illustrates how it may not be enough for the state to adopt the facilitator role; the state may also have to take on the producer role (for example, through state companies) and the buyer role (via public procurement) to support domestic industry and to truly pursue real developmental goals. We argue that for the state to fulfill its entrepreneurial role, it should perform all these functions to proactively shape markets and achieve the common good (Mazzucato 2023b). This is especially crucial for late industrializers in the Global South.

#### Policy Challenges in the Global South

Broadly, industrializing countries in the Global South need to confront a series of external and internal obstacles that affect state capacity and the policy tools available to policymakers. Overall, late industrializers in the Global South face both challenges and constraints that impact their ability to integrate into the global economy, reduce gaps with advanced economies, and achieve structural economic transformation.

From a domestic perspective, weaknesses in state capacity, bureaucracy, and policy implementation undermine both economic and social change and the feasibility of just transitions (Singh 2023). Persistent pools of poverty, inequality, and unemployment have added to widespread informality and precarity in labor markets, making the creation of quality employment opportunities, the development of skills, and the formalization of vulnerable jobs essential priorities (Monaco et al. 2021).

From a structural perspective, the overdependence on agricultural exports and on what Ben Fine and Zavareh Rustomjee (1997) defined, with reference to South Africa, as the mineral energy complex (MEC), has trapped many developing countries into uneven terms of trade, even in the postcolonial era. The persisting MEC is now exposing mineral-rich countries in the Global South to new forms of predatory extractivism in the rush to secure minerals to employ in new power sources, such as batteries for electric vehicles. With regard to the possibility of structurally transforming, moving toward higher value-added economic activities, and accumulating sophisticated productive capabilities, many developing economies, and especially middle-income countries, find themselves facing important barriers to innovation and technology acquisition (for example, on South Africa see Andreoni et al. 2021).

In addition, developing countries seeking to industrialize and upgrade their economies today are confronted with massive global challenges, such as the triple challenge represented by digitalization, environmental crises, and industrialization within GVC-dominated global production (Bell et al. 2021). The application of digital technologies to manufacturing and labor processes represents a significant structural change. On the one hand, it certainly provides opportunities to accelerate production times, improve productivity, reduce flaws and wastes, and possibly enhance health and safety conditions. On the other, as sectoral studies conducted in South Africa show (for example, Habiyaremye and Monaco 2023; Monaco, Bell, and Nyamwena 2019; Monaco and Habiyaremye 2024), the access to such technologies and the actual benefits deriving from their implementation depend on multiple factors, including the type of technology, capital availability, size and structural position of the firm within the global and local supply chain, production volumes, and skills availability. Overall, the competition to acquire and adopt digital technologies equally embodies the risk of increasing divides and inequalities, at country, sectoral, and firm levels, and in terms of employment recomposition (Bell and Monaco 2021).

The environmental crisis opens potential opportunities to renew energy sources and for innovative experimentation and competition within emerging production niches (for example, green hydrogen). But it also poses immense threats to countries of the Global South, especially in terms of the impact of climate change on agriculture and food production, on top of the already high exposure to natural disasters in hot and coastal countries and tropical islands (Bell, Goga, and Robb 2021).

## CONCLUDING THOUGHTS: REORIENTING INDUSTRIAL STRATEGY FOR DEVELOPMENT AND PUBLIC PURPOSE

This essay stresses the need to intervene in the debate on industrial policy in order to formulate a radically new industrial strategy—one based on the state having a strong entrepreneurial role, and anchored to clear objectives of sustainable and inclusive development. We contend that not only is it crucial to go beyond old state versus market dichotomies, but it is also necessary to avoid state plus market views where the function of markets is merely complemented by the state. In this regard, the state must be given a primary role in creating and shaping markets.

The core tenets for a strategy properly targeting the common good and the creation of public value include adopting a market-shaping approach, rethinking the production space, and directing finance toward public goals, as well as building a new social contract.

At the global level, a transformative, sustainable, and development-oriented industrial strategy must truly incorporate the perspective and the needs of industrializing countries from the Global South. The definition of a new industrial strategy cannot be exempted from serious discussion about the role of the state within a changed structure of global production where actors, tools, and objectives are affected by the governance of value chains and a global division of labor. In order to formulate a new industrial strategy truly sensitive to the needs of the Global South, we must carefully assess the policy priorities and challenges faced by developing countries wishing to industrialize today. This should include consideration of their internal and external barriers and the concrete implications of global challenges.

### NOTE

1. Here Gereffi and Sturgeon (2013, 1) include "trade promotion, local content rules, taxes, tariffs and more indirect programs that drive local production."

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