
Innovation-driven inclusive and sustainable growth: challenges and opportunities for Brazil

by Mariana Mazzucato

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INNOVATION-DRIVEN INCLUSIVE AND SUSTAINABLE GROWTH: CHALLENGES AND OPPORTUNITIES FOR BRAZIL

December 2023

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1. Challenge-oriented growth

The Government of Brazil has set itself a bold vision for an economic transformation that reconciles tackling climate change, protecting the Amazon area and prioritising equity and inclusion with robust economic growth. This agenda has the potential to put Brazil on a path of renewal and to provide a globally relevant demonstration of the policy choices that are needed to shape a sustainable and inclusive economy that is driven by purpose-oriented investments and innovation.

Underlying this vision is **a new framing of the role of the state in directing growth and shaping markets that work for people and planet**. This contrasts with the more established view of economic policy as, at best, fixing market failures. This established view has led to patchy policies, with government departments working in a siloed way and treating investments in one area as coming at the expense of investments in another, and to policies aimed at filling ‘finance gaps’ rather than shaping the economy and finance to deliver on social and environmental goals. By putting the ecological transition at the heart of economic policy, the Government of Brazil is setting a different course – one that could **turn social and environmental challenges into opportunities for cross-sectoral investment, innovation, collaboration and growth** (Mazzucato, 2021).

However, bringing economic, social and environmental goals into alignment will require a coordinated approach that engages all ministries and all sectors of the economy, as well as investments in the state’s capacity to actively and confidently shape markets and direct growth.

Summary of Recommendations:

- Identify bold, clear, centrally governed missions that require cross-sectoral investment and innovation and will engage and help to coordinate all ministries. These missions should be oriented around tackling social and environmental challenges.
- Treat macroeconomic indicators like debt and GDP as outcomes rather than ex-ante targets of economic policy; the debt-to-GDP ratio will be kept in check by focussing on long-run drivers of investment-led growth (the denominator).
- Design critical tools like procurement policy to enable the Government’s market shaping agenda.

- Reorient key institutions, including state-owned enterprises, to become mission-aligned.
- Invest in public sector capabilities, including those needed to support a digital transformation that can enable all missions.

2. Challenges and Opportunities in Brazil

Brazil is facing significant social, environmental and economic challenges. While important gains have been made recently, Brazil remains among the most unequal countries globally, with nearly half of its household wealth held by one per cent of the population and nearly half of all children living in poverty. Poverty is concentrated in certain regions – notably in the north of the country – and among certain demographic groups, including households headed by women, Afro-Brazilians, and Indigenous people (World Bank, 2023a). The COVID-19 pandemic exacerbated existing economic inequalities, with poverty reaching a high of 28.4 per cent in 2021. This period was also characterised by significant increases in chronic hunger as well as increased rates of school dropouts and informal work (PENSSAN, 2023; World Bank, 2023a). In 2022, approximately 36 million people were digitally isolated, without access to the Internet (Cetic, 2022).

Deforestation in the Amazon escalated significantly from 2014, with deforested areas converted into pasture for livestock and other agricultural activities; this has contributed significantly to carbon emissions and poses a huge threat to biodiversity (Nobre et al., 2023). In Brazil, deforestation and agriculture account for 52 per cent and 24 per cent of the country’s carbon emissions, respectively (World Bank, 2023a). Environmental protection policies instated in 2023 have already had a notable effect, with deforestation dropping to a five-year low as of November 2023, but Brazil’s environmental challenges remain stark (Andreoni, 2023). The consequences of climate change for Brazil are expected to be severe, with water resource reductions likely to impact crop yields and seven Brazilian cities at risk due to rising sea levels (Strauss et al., 2021). Climate-related extreme weather events are disproportionately impacting rural areas, people living in poverty, and the agricultural and energy sectors. Notably, they are causing average annual losses equal to one per cent of agricultural GDP in the agriculture sector (World Bank, 2023a).

Another challenge for Brazil is its premature deindustrialisation. Over the last 30 years, the country has faced a decline in its industrial sector, with an average 0.4 per cent yearly drop in productivity between 1995 and 2022; this has resulted in the loss of one million jobs and has reduced the manufacturing contribution to GDP to its lowest level since the 1940s (IBGE, 2022; FGV IBRE, 2023). While Brazil's GDP rebounded post-pandemic, and real GDP growth is expected to reach as high as three per cent in 2023, driven in part by the agricultural sector, structural challenges persist and productivity in manufacturing and many service sectors is stagnant. While industrial production has improved, it is still 1.8 per cent below its pre-pandemic level (OECD, 2023a; World Bank, 2023a).

Relatedly, Brazil's innovation ecosystem faces challenges with respect to investment in research and development (R&D), which sits at 1.14 per cent of GDP – falling significantly short of the OECD average of 2.14 per cent (FGV and MBC 2023). Notably, business R&D investment makes up just 0.5 per cent of GDP (Ministério da Ciência, Tecnologia e Inovação, 2022). As a result, the potential to leverage the country's wealth of natural resources and its human capital to generate innovative products is under-realised, with negative repercussions for productivity and growth.

Disparities across regions and company types are also a challenge. Investment in R&D and technology adoption, as well as in infrastructure and education, is markedly lower in some regions compared to others (Zuniga et al., 2016). While micro and small enterprises make up a significant percentage of total GDP (27 per cent in 2020) and account for 98.5 per cent of companies in Brazil, they struggle to adopt digital tools or to contribute meaningfully to exports (accounting for 5.8 per cent of exports in 2016) (OECD, 2022; Mazzucato, forthcoming).

These challenges underline the need for new forms of investment, innovation, public-private collaboration, and public policy design.

3. Current Government Priorities

The Government of Brazil is responding to these challenges and advancing its economic transformation agenda through several initiatives, which are dispersed across ministries (as depicted in Figure 1). Among these initiatives, an important one is the **Ecological Transformation Plan. This plan is housed in the Ministry of Finance, sending an important signal of its centrality in the Government's overarching vision.** The plan aims to reshape markets to prioritise sustainable infrastructure and agriculture, reforestation, a circular economy, and deployment of green technologies in climate adaptation and productive processes. It includes measures related to a cap-and-trade programme, a carbon tax, sovereign sustainable bonds, a taxonomy for sustainable finance, investments in “fuels of the future” such as green hydrogen and offshore wind and restructuring of the Brazilian Climate Fund housed at the Brazilian development bank, BNDES (Haddad, 2023).

The National Council for Industrial Development (CNDI), chaired by the Ministry of Industry, Trade, and Business (MDIC) and including 20 ministers as well as the president of BNDES and 21 civil society representatives (from industry and labour organisations), has developed a set of **six missions that will function as focal points for the country's industrial strategy** (set out in in Box 2), informed by the “mission-oriented” approach (Mazzucato, 2018; 2021). Depending on how they are deployed, these missions could help to foster public-private, cross-sectoral and cross-ministerial coordination and collaboration aligned with the Ecological Transformation Plan and overarching agenda for sustainable and inclusive growth.

The New Growth Acceleration Program (Novo PAC) launched by President Lula and coordinated by Casa Civil, is a BRL 1.7 trillion investment plan, with nine investment axes aimed at supporting the ecological transition and “neo-industrialisation” agenda, and at promoting sustainable and inclusive growth. These include infrastructure investments in digital inclusion and connectivity, health, education, social and inclusive infrastructure, sustainable and resilient cities, and water for all. The Novo PAC also articulates a set of institutional measures related, for example, to regulatory, public-private partnership, and procurement policy changes, intended to help stimulate public-private co-investment (Ministry of Foreign Affairs, 2023). While its investment axes are not the same as CNDI's missions, there is significant cross-over.

Each of these strategies is reflected in the Multiannual Plan (Plano Plurianual – PPA) 2024–2027, led by the Ministry of Planning and informed by an extensive consultation process. The PPA sets out the government’s priorities for 2024–2027 and the budgetary resources required to implement them, identifying 35 strategic objectives connected to 88 programmes led by different ministries all oriented around the president’s vision of **a democratic, fair, developed and environmentally sustainable country, where all people experience quality of life, dignity and respect for diversity**. In addition to the strategies identified in the preceding paragraphs, programmes highlighted in the PPA range from a modernised and consolidated science, technology and innovation strategy to policies aimed at biodiversity preservation, sustainable management of water resources, food security and sustainable agriculture, to investments in social security, health and education programmes, and initiatives aimed at protecting human rights, as well as policies focused on democracy and state transformation (Ministério do Planejamento e Orçamento, 2023).

Each of these strategies and programmes represents an ambitious piece of a larger puzzle that aims to generate inclusive and sustainable growth. It will be vital to join them up such that the whole is greater than the sum of the parts.

4. Policy Coherence and Alignment

While the vision is critical, the practical implementation of this vision is equally so. The *how* matters as much as the *what*. This requires coordination across ministries to deliver on a national agenda.

President Lula’s vision set out in the PPA offers a compelling direction for change. **Clear missions that sit above all ministries would foster alignment around a set of shared goals required to achieve this vision, rather than allowing these goals to be reinvented within each ministry in a siloed way.** These missions would, in turn, be operationalised through key investments and policy initiatives advanced by all ministries, as outlined in Figure 1, including, for example, Novo PAC infrastructure investments, fiscal measures enacted as part of the Ecological Transformation Plan, measures aimed at encouraging innovation, industrial strategy investments, including through initiatives such as the Health Economic-Industrial Complex

(HEIC), measures to combat illegal deforestation, preserve biodiversity, and encourage sustainable practices in agriculture and other sectors, investments in Bolsa Família, and policies aimed at tackling food insecurity, among others. **Importantly, MGI’s civil service reform agenda will help to ensure that the civil service has the capacity to institutionalise this vision.**

The Government of Brazil has recognised the need for cross-ministerial collaboration to address complex challenges like climate change, and important crosswalks are being built between key initiatives and ministries. In practice, however, ministerial silos are challenging to overcome. Missions can help to address this challenge, but to do so, they must be governed by a central government body with a mandate for cross-ministerial coordination (Mazzucato, 2021). Casa Civil would be a natural home for mission governance, given its mandate for whole of government coordination and monitoring.

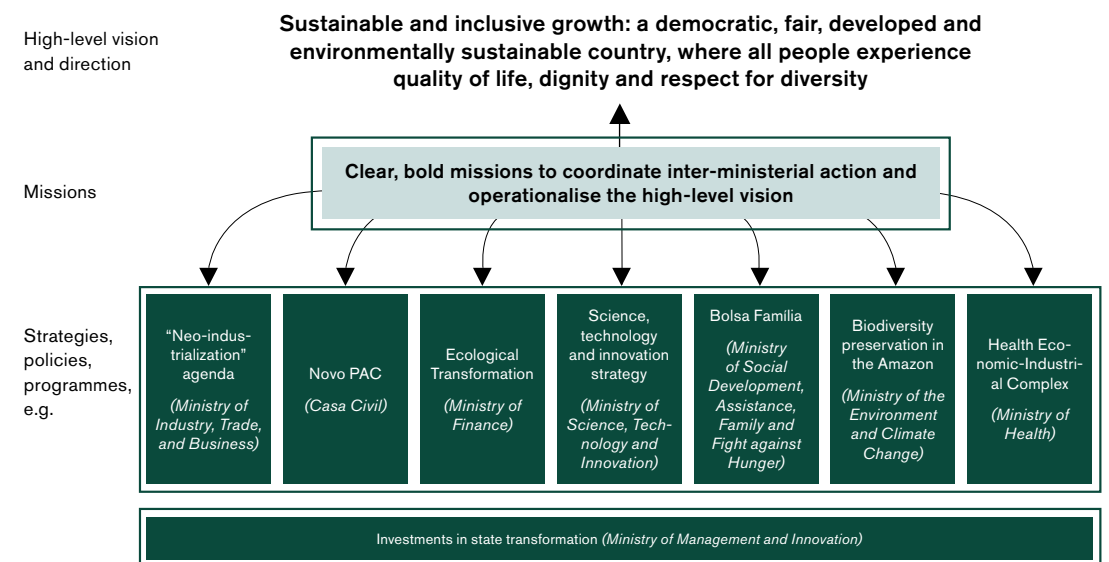


Figure 1 - Missions can help coordinate different ministerial strategies around a shared vision and direction.

Missions can operationalise a bold vision by coordinating all ministries, as well as different levels of government, around shared objectives that mobilise an all-of-government approach, and by galvanising investment and innovation across sectors. However, they will only do this if they are crafted with this deliberate intent. Each mission should set a clear, inspirational, measurable, ambitious and challenge-oriented goal that requires the engagement of multiple ministries and multiple sectors, as described in Box 1 (Mazzucato, 2019; 2021).

Box 1: Missions

Five criteria for missions:

- **Bold, inspirational and resonant with citizens**
- **Clear in setting a direction with a measurable goal**
- **Ambitious but realistic**
- **Cross-sectoral, inter-disciplinary and cross-ministerial**
- **Conducive to driving multiple bottom-up solutions**

Grand challenges are difficult but important, systemic, and society-wide problems that do not have obvious solutions. The SDGs, to which all 191 United Nations member states signed on, set out the 17 most urgent global grand challenges.

Missions can help transform the SDGs and their 169 targets into clear investment pathways. Missions are concrete goals that, if achieved, will help to tackle a grand challenge. They set a clear direction for the different actors and sectors whose investment, innovation, and effort is required to develop solutions. To mobilise as much cross-sectoral collaboration as possible, missions should focus less on economic outcomes and more on societal and environmental outcomes.

Sectors are the economic sectors that need to be involved in developing solutions to specific missions, generally in collaboration with one another.

Projects are clearly articulated activities or programmes that address part of the broader mission; for example, an R&D programme focused on developing a new product, service, or process that could contribute to mission success.

This section draws on Mazzucato 2019, 2022 and 2023a and has been adapted and reproduced with permission.

Figure 2:
An example of a climate change mission for Latin America

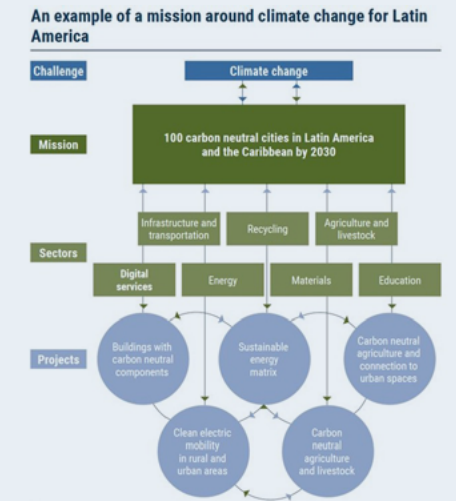


Figure 3:
An example of a climate change mission from Barbados

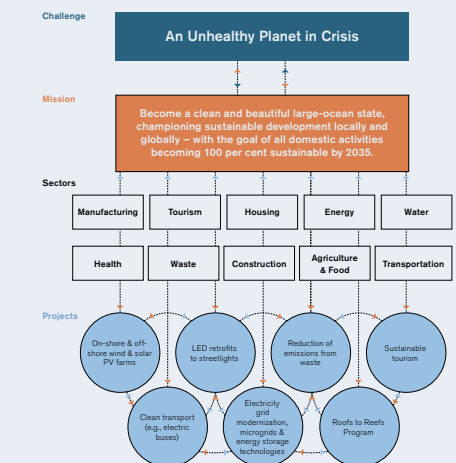
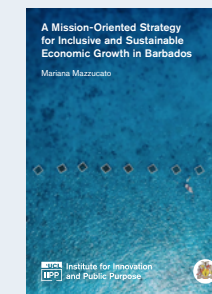
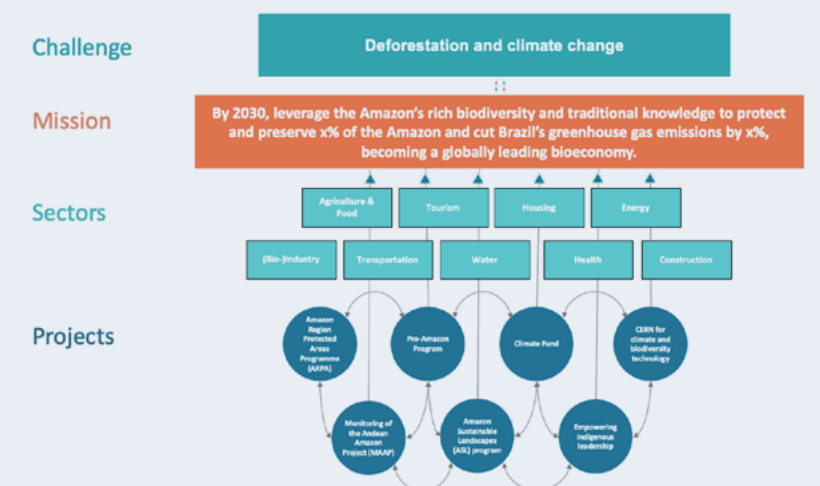


Figure 4:
Prototype of a mission focused on the Amazon



4.1 Growth as an outcome of a mission-oriented approach

Through a mission-oriented approach, the Government can turn challenges – such as those related to biodiversity, deforestation, food insecurity, the digital divide, climate change and health crises – into business opportunities and investment pathways. Missions can lead to a multiplier effect – with an initial public investment generating an amplified impact on GDP by crowding in private investment and innovation, and generating spillovers (Deleidi et al., 2019). In other words, **growth should not be treated as the ex-ante target of economic policy, but rather as an outcome of well-structured missions that galvanize investment and innovation, which in turn can generate enhanced productivity, jobs and growth.**

Brazil is currently highly dependent on agriculture and natural resource extraction; however, ambitious **missions could help to transform these sectors and move production up the value chain** to seize domestic and global market opportunities that are relevant for directed growth. For example, a mission focused on reducing carbon emissions could benefit from localised electric vehicle and battery production, which could mean building the capacity to manufacture these high-value products in Brazil, potentially with regional partners. This could catalyse a shift up the value chain from extracting minerals (like copper, nickel and lithium) for export to incorporating these minerals into locally manufactured products, like batteries (Mazzucato, 2022; forthcoming). Brazil's biodiversity resources from the Amazon could also become a strategic asset, for example with investments in sustainable forest management and biotechnology innovation enabling the production of high-value health products aligned with the country's health goals.

A mission-oriented approach does not displace sector-specific support.

Some sectors – and some types of businesses, such as small and medium enterprises (SMEs) – may need different forms of support to effectively contribute to the missions set by the state. The Government's decision to invest in increased credits for agribusiness conditional on carbon reductions is an example of sector-specific support that is mission-oriented.

Importantly, missions foster cross-sectoral collaboration, innovation and investment that is focused around solving problems; these are areas where the state has the levers to shape significant market opportunities that are good for business as well as for people and planet (Mazzucato, 2021).

4.2 CNDI's missions

CNDI is advancing a mission-oriented approach to industrial strategy and has identified six promising missions (set out in Box 2). These missions reflect CNDI's focus on strengthening industrial capacity, with important sustainability and inclusion principles shaping how this is pursued.

Box 2: Missions spearheaded by the National Council for Industrial Development (CNDI)

Mission areas:

- 1 Sustainable and digital agro-industrial chains for food, nutritional and energy security.
- 2 Resilient health industrial economic complex to reduce SUS vulnerabilities and expand access to health.
- 3 Sustainable infrastructure, sanitation, housing and mobility for productive integration and well-being in cities.
- 4 Digital transformation of the industry to increase productivity.
- 5 Bioeconomy, decarbonisation, and energy transition and security to ensure resources for future generations.
- 6 Technologies of interest to national sovereignty and defence.

Articulated in CNDI Resolution No. 01, of 06/07/23

Specific targets or goals are now in the process of being developed for each mission:

Specific goals (draft):

- Increase the added value of the agro-industrial sector in agricultural GDP to 50 per cent and achieve 70 per cent mechanization of family farming establishments, supplying at least 95 per cent of the market with nationally produced machinery and equipment, ensuring environmental sustainability.
- Within Brazil, produce 70 per cent of the country's needs for medicines,

vaccines, medical equipment and devices, materials and other inputs and health technologies.

- Reduce travel time from home to work by 20 per cent. Increase production density in the sustainable public transport chain by 25 percentage points.
- Digitally transform 90 per cent of Brazilian industrial companies, ensuring that the share of national production triples in the new technology segments.
- Promote green industry, reducing CO2 emissions per industry added value by 50 per cent, increasing the share of biofuels in the transport energy matrix by 50 per cent and increasing the technological and sustainable use of biodiversity by industry by one per cent per year.
- Obtain autonomy in the production of 50 per cent per cent of critical defence technologies (MDIC, 2023a;b).

As an inter-ministerial body, CNDI could potentially play the role of mission governance, in place of or with Casa Civil. However, to do so effectively, it would need to define its six missions with a slightly wider lens, to speak more clearly to all ministries and sectors. To effectively engage ministries in realising the government's agenda of sustainable and inclusive growth (with industrial policy as a key lever for achieving this), missions would need to be designed to engage innovation policy, infrastructure development, financial tools, and other cross-cutting enablers, as well as each ministry's portfolio of policy strategies and programmes. The way in which the missions are described could also be adapted to use non-technocratic, inspiring language that speaks more directly to the needs of people.

For example, the first mission area – “Sustainable and digital agro-industrial chains for food, nutritional and energy security” – or the associated mission goal could be reframed as: “Every Brazilian will have access to three meals a day that are healthy and sustainable”, in line with commitments made by President Lula. Achieving this mission would require investment and innovation across sectors, including agri-food, transportation, energy, information and communications technology, and manufacturing. This reframed mission would require changes to supply chains and farming practices, as well as strategic use of key government policy levers such as procurement of school meals.

Another example is the third mission area – “Sustainable infrastructure, sanitation, housing and mobility for productive integration and well-being in cities”. This mission area or its associated mission goal could be reframed as: “Sustainable, accessible, affordable housing for all, that meets peoples' needs for well-being, mobility and access to services.” The proposed reframe would create a clearer ambition to ensure that all people in Brazil are adequately housed, with adequacy defined according to the characteristics of the right to housing (Mazzucato and Farha, 2023) – a goal that would require investment and innovation across sectors, including construction, materials, transportation, energy, information and communications technology, manufacturing, among others, as well as new approaches to procurement, financing, public-private partnerships, municipal land use planning and regulation of housing markets. This reframed mission might lead to targets such as increasing the stock of affordable, carbon neutral housing in all major cities by a certain percentage and by a specific date, leading to innovations in building design, materials and construction processes and timelines, and an array of policy measures aimed at increasing stock and affordability. Part of how this is achieved could be a requirement that a certain percentage of materials be manufactured nationally, through conditions on access to public financing and procurement.

The framing of some of CNDI's missions does not fully capture the potential of missions to turn societal challenges into opportunities for cross-sectoral investment and innovation. For example, the digital transformation mission speaks to a cross-cutting enabler: digital transformation will be required in order to achieve all missions. It is a means to an end, not the goal in and of itself. Meanwhile, the last mission – “Technologies of interest to national sovereignty and defence” – reflects a more traditional approach to industrial strategy that relies on picking sectors or technologies, rather than identifying goals that will require innovation and investment across sectors and deployment of a range of technologies.

CNDI's missions are a strong indication of the government's commitment to bring economic, social and environmental policy goals into alignment, to set bold goals, and to work in new ways across ministries. However, this potential could be more fully realised if the Government – through CNDI, Casa Civil or another central body – set missions that more clearly resonate with all ministries and sectors, helping to coordinate the Government's broader agenda of sustainable and inclusive growth.

5. A dynamic public administration

Successful execution of a mission-oriented agenda will rely not only on coordination between ministries, but also on investment and reform within the civil service. Brazil's commitment to a sustainable and inclusive economic transformation must be undergirded by a new understanding of the role of the state in driving broad-scale economic transformation, and by investments in the dynamic capabilities required to implement this transformation (Kattel and Mazzucato, 2018; Mazzucato and Kattel, 2020). The Government of Brazil recognises this and created the Ministry of Management and Innovation (MGI) in March 2023 with a mandate for state transformation and coordination (MGI, 2023a)

MGI can play a key role in unlocking the potential of all ministries to shape markets, direct growth and advance policies that promote an economy that works for people and the planet. To do so, it will need to implement outcome-oriented tools, institutions and capabilities (as shown in Figure 5). Key among these in the Brazilian context are procurement policy, state-owned enterprises, and the capabilities needed for a digital transformation. The following sections summarise the nature of the opportunity in each of these areas, which will be explored in greater depth in a subsequent report in 2024.

Tools	Mission oriented industrial strategy	Outcome-oriented procurement	Dynamic evaluation
Institutions	Public investment banks	State-owned enterprise	Public innovation labs
Dynamic Capabilities	Leadership and risk-taking attitude	Operating with a cross-departmental perspective	Adapting and learning

Figure 5: Conditions for success in implementing a mission-oriented agenda (Mazzucato, 2022)

5.1 Strategic procurement

Brazil is no stranger to the potential of government purchasing power to create domestic markets for innovative products and services that are needed to solve its biggest challenges, while at the same time creating opportunities for businesses and building domestic productive capacity. This approach has been a central feature of the Health Economic-Industrial Complex (described in Box 6).

Public procurement can be used as a demand-side lever to stimulate innovation and investment, complementing supply-side levers such as R&D funding and enhancing the public funds available to catalyse innovation by using existing budgets more strategically (Mazzucato, 2020; UCL IIPP, 2023). Public procurement in Brazil represents an estimated 12–15 per cent of national GDP (MGI, 2023b). Importantly, it is also a lever for directing innovation and investment towards solving problems that correspond with public policy priorities, such as providing timely and universal access to vaccines or ensuring that all children have access to healthy and sustainable school meals through the National School Feeding Program (Mazzucato, 2020). Procurement can create opportunities for SMEs to scale up and incentives for incumbents to invest in purposeful innovation.

Brazil has taken a strategic approach to state purchasing power for some time, with sustainable development embedded as a principle of procurement from the early 2010s, the New Bidding and Contracting Law approved in 2021 prioritising the best purchase or hiring rather than the lowest cost, and conditions related to sustainability, inclusion of marginalised people, and purchasing of domestic products (MGI, 2023b). While Brazil has aligned procurement with policy goals, including through HEIC and the National School Feeding Program, achieving the Government's intended economic transformation will require this approach to be dramatically scaled up and more deliberately coordinated. The Novo PAC, neo-industrialisation agenda and Ecological Transformation Plan have all made explicit the intent to use procurement strategically to realise their ambitions. The next iteration of the New Bidding and Contracts Law, set to be implemented in 2024, is one vehicle for strengthening existing policy frameworks for strategic procurement, as is the new Inter-ministerial Commission for Innovation and Acquisitions of the Novo PAC, which will consider how best to align procurement policy with industrial strategy.

Box 3: Strategic procurement and an example from the London Borough of Camden

Globally, public procurement amounts to approximately US\$13 trillion per year, or approximately 15 per cent of global GDP (World Bank, 2023b), and represents 20–40 per cent of central government spending in almost all OECD countries (OECD, 2023b). Despite significant potential to leverage these budgets strategically, procurement policy has, over the past 40 years, tended to be constrained by a paradigm focused on minimising risk, maximising efficiency and seeking the lowest cost options, in line with the theory of New Public Management (NPM). Procurement policy often resides within teams responsible for legal issues or finance, rather than strategy, and is treated as a technocratic hurdle rather than a strategic lever of change.

Other approaches to public procurement have been gaining traction; however, they remain limited. For example, the innovation paradigm allows for commissioning on the basis of function or outcomes, rather than specifying an exact product, recognising that procurement can create lead markets for new products and thereby help smaller suppliers invest in innovation and achieve scale. This approach is not new but has most often been used in procurement associated with military goals. For example, the first Moon landing was made possible in part because procurement was designed to encourage innovation, shifting from a cost-plus model to a model of fixed price with incentives for innovation and quality improvement (Mazzucato, 2021).

The social value paradigm allows for consideration of social, environmental and economic benefits alongside price, based on a broader view of what constitutes value for money. For example, this paradigm can allow community organisations that might otherwise struggle to compete on price but that bring a wide array of positive externalities to access procurement opportunities. However, this approach has tended to see social value as an add-on, rather than core to the good or service being procured. Price is still the main consideration. Commitments tend to be structured in an ad hoc rather than a strategic way (for example, adding a requirement to have an apprentice on a project), and tend not to be treated as seriously.

On the other hand, a mission-oriented approach to procurement recognises the critical strategic role that procurement can play in achieving a government's policy goals. This approach takes a dynamic view of public value, which is broader than social value, looking not just at the additional social or environmental benefits that a supplier might provide

today (for example, the number of apprenticeships) but at how a procurement contract can best support mission goals dynamically, over time, and contribute to the common good, including by taking into account a wider array of benefits, multiplier effects, and the processes and relationships involved in *how* the goods or services are produced (Mazzucato, 2023b). Mission-orientation in procurement policy means tracking mission targets with a view to fostering learning and adaptation (not necessarily to manage performance, which can create perverse incentives). It also means taking steps to foster a diverse ecosystem of suppliers, including SMEs, that are willing to contribute to achieving the missions. This approach not only requires changes in policies, but also changes in culture and mindset. These include recognising that procurement is not a neutral, transactional process with risk mitigation as a primary objective; rather, to leverage procurement strategically, it should reflect a specific direction and values, embrace a higher degree of uncertainty and allow for the development of collaborative relationships.

This approach can be adopted by every level of government: national, regional and local. Recently, IIPP worked closely with Camden Council, a UK Local Authority, to design and test a new approach to procurement that aligns procurement activity with four missions. These missions, informed by a commission that was co-chaired by Professor Mazzucato and Councillor Georgia Gould, are:

- **Estates:** By 2030, Camden's estates and their neighbourhoods are healthy and sustainable.
- **Food:** By 2030, everyone eats well every day with nutritious, affordable, sustainable food.
- **Diversity:** By 2030, those holding positions of power in Camden are as diverse as our community - and the next generation is ready to follow.
- **Opportunity for young people:** By 2025, every young person has access to economic opportunity that enables them to be safe and secure.

Camden recognises procurement policy as a critical, strategic lever for achieving these missions, and is making a series of changes that reflect this. These include moving its procurement service team from its Legal & Finance division into its Economy, Development & Regeneration division. In the context of Camden, mission-oriented procurement is understood to mean a focus on market shaping, including fostering more suppliers that are mission- and principles-aligned; place-based commissioning to engage residents in the

commissioning and procurement cycle, understand interactions between different commissioned services, and identify and value social capital created through contracts; and alignment of outcomes with missions. The focus of the test case workshopped by IIPP and Camden was on homecare services. This work, which brought together the homecare service, procurement and missions teams, was based on the “Estates” mission and its three target outcomes, as well as on a set of principles described in Figure 6. It is informing concrete changes to procurement policy in line with a new mission-oriented procurement paradigm.

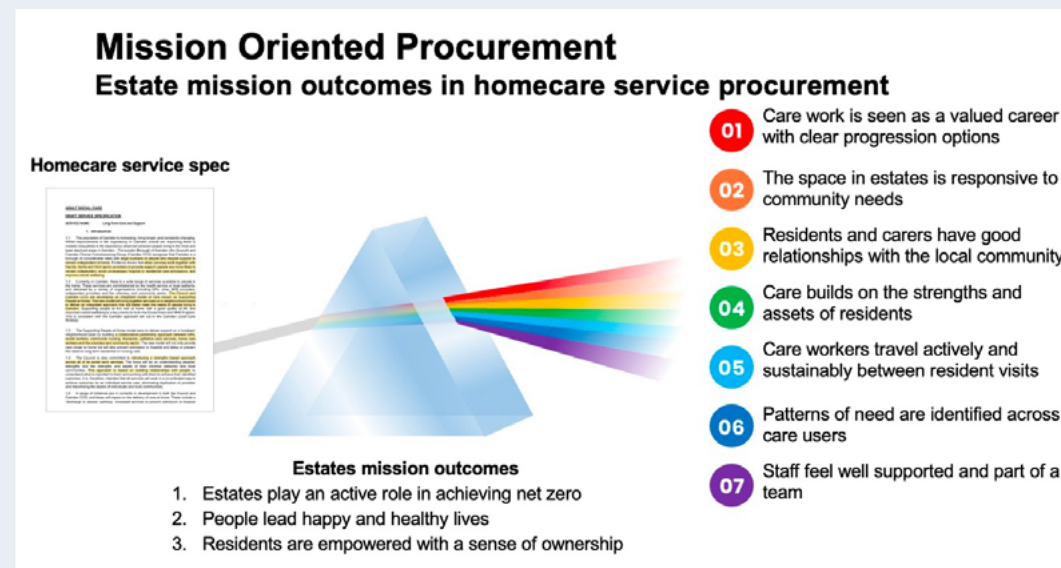


Figure 6: Mission-oriented procurement for homecare in Camden

Adapted from Mazzucato and Wainwright, forthcoming, reproduced with permission.

5.2 State-Owned Enterprises

State-owned enterprises (SOEs) are distinct public organisations that can have a direct policy impact in the economy, through their production of goods and provision of services, and through their commercial relations with domestic suppliers (Mazzucato and Gasperin, 2023). There are 125 SOEs in Brazil, at the federal level, which collectively employ over 400,000 people, and several are significant economic actors. Notably, three number among the largest 500 companies globally, based on annual revenue (OECD, 2000 and MGI, 2023c). Accordingly, SOEs can be important strategic actors in Brazil’s economic transformation agenda.

Box 4: The state holding company: rationale and international examples

A state holding company is a state-owned entity to which the state delegates certain responsibilities for the governance and policy coordination of national SOEs (Kumar, 1993). Its intermediate position between the government and individual SOEs creates an extra decision-making layer that can better insulate them from political capture while also helping to align the mandates of SOEs with national economic strategy goals. A state holding company can develop into a dynamic and entrepreneurial organisation, attracting talented and purpose-driven personnel (Mazzucato et al., 2021).

This model can bring certain economic advantages. First, a state holding company can retain financial surpluses generated by profitable SOEs and reinvest them internally to support the restructuring or expansion of other SOEs in need of extra financing support. Second, it can play a coordinating role aimed at establishing commercial and technological synergies among SOEs and at facilitating the internal circulation of knowledge and capabilities. Third, a state holding company is well placed to coordinate SOE engagement with cross-cutting missions – and through them other economic actors, across different sectors.

State holding companies are not new in the history of modern capitalism. The Italian IRI (*Istituto per la Ricostruzione Industriale*) was the first and perhaps most notable example, playing a key role in driving Italy’s economic development in the post-war period. During the privatisation era of the 1980s

and 1990s, the state holding company model was progressively abandoned. More recently, however, a trend towards a centralised rationalisation of national SOE portfolios has emerged.

Two of the most interesting examples of this recent development are from China and France. Since 2003, China's 98 most important SOEs have been supervised and coordinated by a holding entity – the State-owned Assets Supervision and Administration Commission (SASAC) – which is directly tied to the governing State Council. SASAC is responsible for the main financial and governance oversight, but it also helps to ensure that the controlled SOEs align with the policy objectives of the State Council (SASAC, 2018). In France, the holding agency *Agence des participations de l'État* (APE), established in 2004, is in charge of controlling a portfolio of 83 state-owned assets, including the renowned companies EDF, Air France, Engie, Thales, Orange, Renault, Safran, SNCF and Airbus. The APE has incorporated a formal 'shareholding doctrine', which views SOEs not just as financial assets, but also as policy instruments to achieve national policy objectives in the energy, technology and military fields as well as to pursue public missions of general interest (Kumar, 1993; SASAC, 2018; Mazzucato et al., 2021; Agence des Participations de l'État, 2022).

Adapted from Mazzucato and Gasperin, 2023, reproduced with permission.

To realise the strategic potential of SOEs, the key question is how their structure and governance can be designed to support the implementation of key policy priorities (or missions) and what levers can be used to foster this alignment. Contrary to some views, privatisation of SOEs severely limits this potential for strategic alignment.

For example, the R&D support provided by the Empresa Brasileira de Pesquisa e Inovação Industrial (Embrapii), funding provided through Finep, and the investments of the Brazilian Development Bank (BNDES) could be better aligned with a set of national missions, such as healthy and sustainable food for all, health for all, housing for all, or carbon emissions reductions. Notably, SOEs like Butantan and Fiocruz have played a key role in achieving the goals of HEIC, as described in Box 6, becoming vital actors both in catalysing innovation and in directing innovation in line with policy goals.

5.3 Digital transformation

Digitalisation and the development of new digital governance capabilities are important parts of a wider public sector transformation (Mazzucato and Kattel, 2020). Importantly, digital transformation should not be understood as the goal in and of itself; rather, it is an important enabler that cuts across government ministries and can help the Government to achieve its public policy goals.

Brazil is recognised as a leader in digital government. To date, Brazil has focused on public services digitisation. Notably, its gov.br platform has contributed to digitalising 90 per cent of federal services (MGI, 2023d). After an initial focus on services, Brazil is now turning its focus to deeper levels of transformation, including in the area of digital public infrastructure (DPI), which is "essential to participation in society and markets as a citizen, entrepreneur, and consumer in a digital era" (UNDP, 2023; Eaves and Sandman, 2023). Brazil's PIX, a government-run payment system, is a successful DPI initiative. However, the country continues to face challenges related to inter-ministerial data sharing and interoperability. Brazil relies on a complex institutional arrangement composed of two large information technology (IT) companies at the federal level (DATAPREV and SERPRO), making it harder to create incentives for open-source architecture for data sharing. MGI is also seeking to implement a national digital identity by making subnational identities interoperable through digital protocols and the use of the individual's taxpayer registry (MGI, 2023d).

To advance a digital transformation that supports a sustainable and inclusive economic transformation, it will be critical for MGI to take a thoughtful approach to DPI's design and governance. Digital public infrastructure, like physical infrastructure, is not neutral. To truly work in the public interest and generate public value, DPI must be deliberately designed and governed with explicit public values and governance that follow "common good" principles (described in Box 5). PIX can serve as an inspiration for the application of common good principles to DPI (Mazzucato, 2023b; Eaves and Mazzucato, forthcoming). For example, the Brazilian Central Bank decided that, regardless of the technical architecture, PIX transactions must be free or have a significantly low cost for citizens and businesses. Embedding inclusion and reward-sharing in the design of PIX was not inherent to the infrastructure, but rather was an explicit policy choice (Eaves and Vasconcellos, forthcoming).

To successfully implement DPI and a broader digital transformation in its public administration, it will be important to develop the state's digital capabilities,

and not to rely only on procuring these capabilities from software companies (Pahlka, 2023). The outsourcing of key competencies deprives the state of an important source of knowledge that is critical for its ability to innovate and adapt to change (Collington and Mazzucato, 2022). The implementation of the National Strategy for Digital Government and training provided through the National School of Public Administration (ENAP) could be important vehicles for supporting the development of digital capabilities within Brazil's civil service.

6. A new social contract between capital, labour and government

A sustainable and inclusive economy requires a renewed social contract; in particular, one that is premised on the state approaching public-private collaboration with a view to maximising public value, undergirded by a new “economics of the common good” (see box 5). There is an opportunity in Brazil, in the context of the Government's agenda of economic transformation and civil service renewal, to build a new social contract between value-creating actors, leading to more dynamic, mutualistic relationships between the public and private sectors characterised by shared goals and co-investment in innovation, skills and infrastructure that shares risks and rewards. This can be achieved through a thoughtful approach to the conditions placed on access to public funds and other benefits, which can be embedded in contracts – including conditions related to access and affordability; alignment with policy priorities such as sustainability and worker protection; profit and intellectual property rights (IPR) sharing; and reinvestment in worker training, R&D and other productive activities (Mazzucato and Rodrik, 2023). This is about orienting the economy around the notion of “the common good” as a way of placing collective objectives at the heart of economic activity (Mazzucato, 2023a).

One example of a mutualistic relationship between government and business can be found in the HEIC (described in more detail in Box 6). HEIC's Productive Development Partnerships (PDPs) represent an innovative approach to government-business collaboration aimed at maximising public value by reducing the cost of strategic health inputs. HEIC was established in 2007 in response to Brazil's mounting health challenges and trade deficit

concerns. Key to its success was the implementation of PDPs, which are designed to target the pharmaceutical trade deficit and enhance access to important health products while bolstering the technological capabilities of Brazil's health-pharmaceutical sector. These partnerships have led to substantial cost reductions of up to 30 per cent for critical health products, resulting in significant savings for the Ministry of Health, and helped to counteract monopolistic practices. PDPs have contributed to Brazil's success in health-related industries as well as to public health outcomes (Gadelha, 2022; WHO Council on the Economics of Health for All, 2023).

Another example is the Government's decision, earlier this year, to increase credits for agribusiness, making these contingent on businesses adopting practices aimed at conservation and climate change mitigation and adaptation (OECD, 2023; Ministry of the Environment and Climate Change, 2023). Strong conditionality in government contracts is critical in order to engage the private sector in tackling the challenges facing Brazil.

Vitality, a new social contract must engage workers and unions. In particular, the Government can require that companies entering partnerships with the state invest in decent working conditions, training and fair pay. Conditions related to good-quality jobs and support for workers in transitioning industries can help to address challenges related to equity and poverty, particularly in certain regions.

Box 5: A new economics of the common good

Ultimately, to produce inclusive and sustainable outcomes, it is also necessary to rethink the underlying economics. A new economics of the “common good” is needed – one that places collective intelligence and mutual interest at the heart of economic activity. There are five principles (shown in Figure 7) that can help to shape an economics of the common good. The first, purpose and directionality, is about promoting outcomes-oriented policies that are in the common interest. The second, co-creation and participation, is about allowing citizens and stakeholders to participate in debate, discussion and consensus-building that bring different voices to the table. The third, collective learning and knowledge-sharing, can help design true purpose-oriented partnerships that drive collective intelligence and sharing of knowledge. The fourth, access for all and reward-sharing, speaks to the importance of sharing the benefits

of innovation and investment with all the risk takers in the economy, whether through equity schemes, royalties, pricing or collective funds. The fifth, transparency and accountability, can ensure public legitimacy and engagement by enforcing commitments amongst all actors and by aligning evaluation mechanisms. To implement these principles in practice, governments must invest in their capacity to engage effectively with businesses and civil society (Mazzucato, 2023b).

Figure 7: The Common Good Principles (Mazzucato, 2023b)



7. Citizen Engagement

Citizen engagement is also critical. Confidence in government in Brazil is low (CESOP UNICAMP, 2022). The trust and buy-in of citizens, notably of Indigenous communities and other marginalised groups who have previously suffered from economic policy choices, is a necessary condition for a transformative agenda. The Government of Brazil is taking steps in this direction, including through the adoption of a participatory process for developing its 2024–2027 Pluriannual Plan, which is the federal government's medium-term budget planning tool. The Pluriannual Plan incorporates suggestions surfaced through a citizen consultation that engaged over

34,000 people from all 27 regions of the Brazilian federation, with more than 1.4 million people contributing ideas through a dedicated digital platform called Brasil Participativo (Ministério do Planejamento e Orçamento, 2023). Another example is the process for defining the National Strategy on Digital Transformation, which included more than 800 participants through five regional workshops and an online consultation (MGI, 2023d). This inclusive approach to citizen engagement will be necessary to the development of a new social contract, as well as to the design and implementation of missions aimed at bringing about a more inclusive and sustainable economy

Box 6: The Health Economic-Industrial Complex (HEIC)

HEIC, established in 2007 and revived recently, is a good example of how to mobilise industrial investment and innovation around social goals (Gadelha, 2022; WHO Council on the Economics of Health for All, 2023). By turning health challenges into opportunities for investment, innovation and growth, HEIC has successfully delivered life-saving vaccines and built Brazil's productive capacity in vaccine development and manufacturing. SOEs like Butantan and Fiocruz have become central actors in the country's innovation landscape, spearheading research and production. Through Productive Development Partnerships (PDPs), HEIC has prioritised the design of public-private partnerships aimed at maximising public value, notably by making technology transfer agreements a condition for access to the domestic market, helping to boost the technological and productive capabilities of the health-pharmaceutical sector and leading to price reductions of up to 30 per cent for strategic health products. HEIC's success has required coordination across multiple ministries, which was built into its design via the Executive Group of the Health Economic Industrial Complex. HEIC is embedded within Brazil's universal health system (SUS) – the largest in the world – which contributes significantly to Brazil's GDP and scientific research efforts, creating millions of jobs. The mission-oriented, whole-of-government strategy demonstrated by HEIC can be applied to other challenges.

8. Conclusion

The Government of Brazil has set a potentially world-leading trajectory aimed at reshaping the country's economy to make it sustainable and inclusive by design, and pre-distributive ex ante instead of redistributive ex post. Brazil's upcoming G20 presidency in 2024 and COP30 presidency in 2025 are opportunities to demonstrate what it looks like to bring social and environmental goals into alignment with economic goals and to engage new voices in shaping the economy. To see this agenda through, however, a parallel agenda of state transformation is required.

Too often, even when governments have prioritised climate and inclusion agendas, they have pursued these at the periphery of growth strategies instead of bringing them to the centre. **The most significant obstacle today to achieving transformational change in Brazil is not the forces of free-market economics from the twentieth century – which are increasingly recognised as defunct – but rather the risk of moderation and restraint in the state's transformational capacity.**

The Government of Brazil has signalled a commitment to coordinating state actors and investing in state capacity. Realising this commitment will be critical to achieving its vision of economic and ecological transformation. A mission-oriented approach that engages all ministries and sectors, supported by mission-oriented investments in tools (including procurement), institutions (including SOEs), and capabilities (including digital capabilities), could position the Government to implement this vision at pace and without dilution. A confident and capable civil service is essential to transform the sentiment of hope and renewal in Brazil into tangible and lasting change.

Appendix 1:

UCL Institute for Innovation and Public Purpose (IIPP) and Ministry of Management and Innovation (MGI) Partnership

The UCL Institute for Innovation and Public Purpose (IIPP) is commencing a year-long collaboration with MGI focused on identifying opportunities for strategic coordination and for redesigning key tools, institutions and capabilities to better enable implementation of the Government of Brazil's transformative economic agenda – with a focus on procurement policy, SOEs and digital transformation. This partnership is being advanced with the support of Open Society Foundations.

This report is an initial output of this partnership. A series of workshops and a final report, informed by research to be undertaken over the next year by a team from IIPP, led by Professor Mariana Mazzucato, in collaboration with MGI, will follow in 2024.

To-date, this partnership has comprised:

- A visit to Brazil (July 25–28) by Professor Mariana Mazzucato and a team from IIPP, to meet with President Lula and with ministers and senior government officials from five ministries as well as BNDES.
- A memorandum of understanding between IIPP and the Ministry of Management and Innovation (MGI).
- A press conference announcing the IIPP–MGI partnership on 27 July, 2023.
- Advice on mission coordination shared with senior government representatives from multiple ministries.
- 27–29 September 2023: Visit to Brazil by Professor Mariana Mazzucato and Sarah Doyle, head of policy to Professor Mazzucato at IIPP, for meetings with several ministers and senior government officials.
- 28 September, 2023: Workshop and presentation by Professor Mazzucato on Coordinating Brazil's Strategy for Economic Transformation, convened by IIPP in partnership with MGI and attended by senior government representatives from multiple ministries – including the Ministry of Finance; Ministry of Development, Industry and Trade; Ministry of Science,

Technology and Innovation; Casa Civil; Ministry of Management and Innovation; Ministry of Health; and Ministry of Environment and Climate Change – to discuss opportunities to align key policy initiatives using a mission-oriented approach.

- Press conference to launch the Portuguese translation of the final report of the WHO Council on the Economics of Health for All, which was chaired by Professor Mazzucato. Professor Mazzucato spoke alongside Brazil's minister of health, Nísia Trindade Lima; minister of management and innovation in public services, Esther Dweck; Pan-American Health Organisation/World Health Organisation (PAHO/WHO) representative in Brazil, Dr Socorro Gross; secretary of science, technology and strategic products at the Brazilian Ministry of Health, Carlos Gadelha; and federal deputy in the National Congress of Brazil and president of the Special Commission on the Fight against Cancer in Brazil, Weliton Prado. The launch coincided with President Lula's launch of Brazil's National Strategy for the Development of the Health Economic-Industrial Complex (HEIC).

This partnership builds on Professor Mazzucato's collaboration with the Economic Commission for Latin America and the Caribbean (ECLAC), which resulted in the report Transformational change in Latin America and the Caribbean: A mission-oriented approach in October 2022.

References

- Agence des Participations de l'État. (2022). Rapport d'activité 2021-2022. Available at: <https://www.vie-publique.fr/rapport/286891-agence-des-participations-de-l-etat-2021-2022>
- Alckmin, G. and Da Silva, L. I. L. (2023, June 23). *Neoindustrialização para o Brasil que queremos*. GOV. BR. Available at: <https://www.gov.br/planalto/pt-br/vice-presidencia/central-de-conteudo/artigos/neoindustrializacao-para-o-brasil-que-queremos>
- Andreoni, M. (2023, Nov 9). Deforestation in the Brazilian Amazon Falls to a Five-Year Low. New York Times. Available at: <https://www.nytimes.com/2023/11/09/climate/amazon-deforestation.html>
- Banco Nacional de Desenvolvimento Econômico e Social. (2023, August 28). BNDES e MMA lançam Fundo Clima ampliado e com novas áreas de atuação. <https://www.bndes.gov.br/wps/portal/site/home/imprensa/noticias/conteudo/bndes-e-mma-relancam-fundo-clima-ampliado-e-com-novas-areas-de-atuacao>
- Centro de Estudos de Opinião Pública (CESOP) da UNICAMP. (2022). *Estudo Eleitoral Brasileiro - ESEB 2022*. Available at: https://www.cesop.unicamp.br/por/banco_de_dados/v/4680
- Confederação Nacional da Indústria (CNI). (2023). *Plano de Retomada da Indústria: Uma nova estratégia, focada em inovação, descarbonização, inclusão social e crescimento sustentável*. Available at: <https://www.portaldaindustria.com.br/publicacoes/2023/5/plano-de-retomada-da-industria-uma-nova-estrategia-focada-em-inovacao-descarbonizacao-inclusao-social-e-crescimento-sustentavel/>
- Deleidi, M., De Lipsis, V., Mazzucato, M., Ryan-Collins, J. and Agnolucci, P. (2019). The macroeconomic impact of government innovation policies: A quantitative assessment. UCL Institute for Innovation and Public Purpose, Policy Report (IIPP 2019-06). Available at: <https://www.ucl.ac.uk/bartlett/public-purpose/wp2019-06>
- Fundação Getúlio Vargas & Movimento Brasil Competitivo. (2023). *Agenda Brasil 2034: Visões do setor produtivo e da sociedade civil para o desenvolvimento sustentável do país*. Available at: <https://agendabrasil2034.com.br/>
- Mazzucato, M and Eaves, D. (forthcoming). Digital Public Infrastructure and Public Value: What is 'public' about DPI?
- Gadelha, C. et al. (2022). *Health is Development: The Health Economic-Industrial Complex as a National Strategic Option*. Rio de Janeiro: Fiocruz and Centro de Estudos Estratégicos da Fiocruz Antonio Ivo de Carvalho.
- Haddad, F. (2023, Sept 18). Brazil's plans to transform our green economy: Despite the challenges, we see our ecological transformation proposal as an opportunity for Brazilians. Financial Times. Available at: <https://www.ft.com/content/fda15a48-b6ab-44fe-9bc0-1127feedaa80>
- Instituto Brasileiro de Geografia e Estatística (IBGE). (2022, July 21). *Setor industrial perde 9,6 mil empresas e um milhão de empregos em dez anos*. Agência de Notícias IBGE. Available at: <https://agenciadenoticias.ibge.gov.br/agencia-noticias/2012-agencia-de-noticias/noticias/34432-setor-industrial-perde-9-6-mil-empresas-e-1-milhao-de-empregos-em-dez-anos>
- Instituto Brasileiro de Economia (IBRE) FGV. (2023). *Boletim Macro*. Available at: https://www18.fgv.br/mailling/2023/ibre/Boletim_Macro_Maio/
- Kattel, R. and Mazzucato, M. (2018). Mission-oriented innovation policy and dynamic capabilities in the public sector. *Industrial and Corporate Change*, 27 (5): 787–801.
- Kremer, G.; Ramos, L. and Radaelli, V. (2023, July 26). Seguridad alimentaria en la Amazonía: el imperativo de una política de ciencia, tecnología e innovación orientada por misión. Puntos Sobre La I. IBD. Available at: <https://blogs.iadb.org/innovacion/es/seguridad-alimentaria-en-la-amazonia-el-imperativo-de-una-politica-de-ciencia-tecnologia-e-innovacion-orientada-por-mision/>
- Kumar, A. (1993). *State holding companies and public enterprises in transition*. New York: St. Martin's Press.
- Mazzucato, M. (2019). *Governing Missions in the European Union*. European Commission, Directorate-General for Research and Innovation. Available at: https://ec.europa.eu/info/sites/info/files/research_and_innovation/contact/documents/ec_rtd_mazzucato-report-issue2_072019.pdf
- Mazzucato, M. (2020). Mission-oriented public procurement: lessons from international examples. UCL Institute for Innovation and Public Purpose, Policy Report, (IIPP 2020-20). Available at: <https://www.ucl.ac.uk/bartlett/public-purpose/pr2020-20>
- Mazzucato, M. (2021) *Mission Economy: a moonshot guide to changing capitalism*. London: Allen Lane.

- Mazzucato, M. (2022). *Transformational change in Latin America and the Caribbean: a mission-oriented approach* (LC/TS.2022/150), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC). Available at: <https://www.cepal.org/en/publications/48299-transformational-change-latin-america-and-caribbean-mission-oriented-approach>
- Mazzucato, M. (2023a). *A Mission-Oriented Strategy for Inclusive and Sustainable Economic Growth in Barbados*. UCL Institute for Innovation and Public Purpose, Policy Report 2023/05. Available at: <https://www.ucl.ac.uk/bartlett/public-purpose/pr2023-05>
- Mazzucato, M. (2023b). Governing the economics of the common good: from correcting market failures to shaping collective goals. UCL Institute for Innovation and Public Purpose, Working Paper Series (IIPP WP 2023-08). *Forthcoming in Journal of Economic Policy Reform*. Available at: <https://www.ucl.ac.uk/bartlett/public-purpose/wp2023-08>
- Mazzucato, M. (2024, forthcoming). Challenges and opportunities for inclusive and sustainable innovation-led growth in Brazil: a mission-oriented approach to public and private partnerships. Report for CNI Brazil presented at annual CNI conference 2023.
- Mazzucato, M. and Farha, L. (2023). The right to housing: A mission-oriented and human rights-based approach. Council on Urban Initiatives. (CUI WP 2023-01). UCL Institute for Innovation and Public Purpose, Working Paper Series. (IIPP WP 2023-07). Available at: <https://www.ucl.ac.uk/bartlett/public-purpose/publications/2023/may/right-housing-mission-oriented-and-human-rights-based-approach>
- Mazzucato, M. and Gasperin, S. (2023). Transforming the system of SOEs in South Africa: A proposal for a mission-oriented state holding company. UCL Institute for Innovation and Public Purpose, Policy Brief series (IIPP PB 27). Available at: <https://www.ucl.ac.uk/bartlett/public-purpose/pb-27>
- Mazzucato, M. and Kattel, R. (2020). COVID-19 and public-sector capacity. *Oxford Review of Economic Policy*, 36(1): 256–269.
- Mazzucato, M., Kattel, R., Quaggiotto, G. and Begovic, M. (2021). COVID-19 and the Need for Dynamic State Capabilities: An International Comparison. UCL Institute for Innovation and Public Purpose and United Nations Development Programme. Available at: <https://www.ucl.ac.uk/bartlett/public-purpose/publications/2021/apr/covid-19-and-need-dynamic-state-capabilities-international-comparison>
- Mazzucato, M. and Rodrik, D. (2023). Industrial Policy with Conditionalities: A Taxonomy and Sample Cases. UCL Institute for Innovation and Public Purpose, Working Paper Series (IIPP WP 2023-07). Available at: <https://www.ucl.ac.uk/bartlett/public-purpose/wp2023-07>
- Ministério da Ciência, Tecnologia e Inovação. (2022). *Recursos Aplicados - Indicadores Consolidados. 2.1.3 Brasil: Dispendio nacional em pesquisa e desenvolvimento (P&D) em relação ao total de P&D e ao produto interno bruto (PIB), por setor institucional, 2000–2020*. Available at: <https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/indicadores/paginas/recursos-aplicados/indicadores-consolidados/2-1-3-brasil-dispendio-nacional-em-ciencia-e-tecnologia-por-setor-institucional>
- Ministério do Desenvolvimento, Indústria, Comércio e Serviços (MDIC) (2023a). *A Nova Política de Desenvolvimento Industrial: Princípios, missões e metas aspiracionais* [PowerPoint presentation]. Brazil.
- Ministério do Desenvolvimento, Indústria, Comércio e Serviços (MDIC) (2023b). *Plano de ação 2024-2026 Minuta* [Draft report Versão de 12/12/2023]. Brazil.
- Ministry of the Environment and Climate Change. (2023, September 28). Meeting.
- Ministério da Fazenda. (2023, August 14). Haddad apresenta o Plano de Transformação Ecológica para acelerar crescimento econômico. GOV.BR. <https://www.gov.br/fazenda/pt-br/assuntos/noticias/2023/agosto/haddad-apresenta-o-plano-de-transformacao-ecologica-para-acelerar-crescimento-economico>
- Ministério da Gestão e da Inovação em Serviços Públicos (MGI). (2023a). Conheça a estrutura do Ministério da Gestão e da Inovação em Serviços Públicos. Accessed at: <https://www.gov.br/gestao/pt-br/assuntos/noticias/2023/janeiro/conheca-a-estrutura-do-ministerio-da-gestao-e-da-inovacao-em-servicos-publicos>
- Ministério da Gestão e da Inovação em Serviços Públicos (MGI). (2023b). Internal memo: Paving the way for a National Strategy for Public Procurement and Sustainable Development.
- Ministério da Gestão e da Inovação em Serviços Públicos (MGI). (2023c). State-Owned Enterprises in Brazil. [PowerPoint presentation]. Brazil.
- Ministério da Gestão e da Inovação em Serviços Públicos (MGI). (2023d) Digital Government. [PowerPoint presentation]. Brazil.
- Ministério do Planejamento e Orçamento. (2023). Plano plurianual 2024-2027: mensagem presidencial. Ministério do Planejamento e Orçamento, Secretaria Nacional de Planejamento.
- Ministry of Foreign Affairs. (2023, Sept 22). New Growth Acceleration Program. Available at: <https://www.gov.br/mre/pt-br/consulado-mumbai/news/new-growth-acceleration-program>
- Nobre, C. A. et al. (2023). *Nova Economia da Amazônia*. São Paulo: WRI Brasil. Available at: www.wribrasil.org.br/nova-economia-da-amazonia
- OECD. (2022). Brazil. *Financing SMEs and Entrepreneurs 2022: An OECD Scoreboard*. Available at: <https://www.oecd-ilibrary.org/sites/91ccd722-en/index.html?itemId=/content/component/91ccd722-en>
- OECD. (2023a). *OECD Economic Outlook, Volume 2023 Issue 2: Preliminary Version*. Paris: OECD Publishing. https://issuu.com/oecd.publishing/docs/brazil-oecd-economic-outlook-november-2023?fr=xKAE9_zU1NQ
- OECD. (2023b). *Government at a Glance 2023*. Paris: OECD Publishing.
- OECD. (2020). *OECD Review of the Corporate Governance of State-Owned Enterprises: Brazil*. <http://www.oecd.org/corproate/soe-review-brazil.htm>
- Pahlka, J. (2023). *Recoding America: why government is failing in the digital age and how we can do better* (First edition.). New York: Metropolitan Books.
- Perez, C. (2010). Technological revolutions and techno-economic paradigms. *Cambridge Journal of Economics*, 34(1): 185–202.
- Rede Brasileira de Pesquisa em Soberania e Segurança Alimentar (PENSSAN) (2023). Inquérito Nacional sobre Insegurança Alimentar no Contexto da Pandemia da Covid-19 no Brasil. Oxfam. Available at <https://www.oxfam.org.br/download/18545/>
- Regional Center for Studies on the Development of the Information Society (Cetic.br). (2021). ICT Households. Available at: <https://cetic.br/en/pesquisa/domicilios>
- State-owned Assets Supervision and Administration Commission of the State Council. (2018). What We Do. Available at: http://en.sasac.gov.cn/2018/07/17/c_9258.htm
- Strauss, B. H., Kulp, S. A., Rasmussen, D. J., and Levermann, A. (2021). Unprecedented threats to cities from multi-century sea level rise. *Environmental Research Letters*, 16(11): 114015.
- UCL Institute for Innovation and Public Purpose (IIPP) (2023). Mission-led procurement: Early insights from exploratory work in Camden. IIPP Policy Report No. 2023/01. Available at: <https://www.ucl.ac.uk/bartlett/public-purpose/2023-01>
- WHO Council on the Economics of Health for All (2023). Saude para todos: Transformando economias para fornecer o que importa. Geneva: World Health Organization. Available at: https://cdn.who.int/media/docs/default-source/council-on-the-economics-of-health-for-all/relatorio-oms_port-br.pdf?sfvrsn=a6505c22_6&download=true
- World Bank (2023a). The World Bank in Brazil. Available at: <https://www.worldbank.org/en/country/brazil/overview>
- World Bank. (2023b). Procurement for Projects and Programs at the World Bank. Available at: <https://www.worldbank.org/en/projects-operations/products-and-services/procurement-projects-programs#:~:text=Governments%20spend%20US%2413%20trillion,in%20achieving%20global%20sustainability%20goals>
- Zuniga, P., De Negri, F., Dutz, M. A., Pilat, D., Rauen, A. (2016). Conditions for innovation in Brazil: A review of key issues and policy challenges. Discussion Paper, No. 218, Institute for Applied Economic Research (ipea), Brasília.

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Mariana Mazzucato (PhD) is professor in the economics of innovation and public value at University College London (UCL), where she is founding director of the UCL Institute for Innovation & Public Purpose. She has won international prizes including the Grande Ufficiale Ordine al Merito della Repubblica Italiana in 2021, Italy's highest civilian honor, the 2020 John von Neumann Award, the 2019 All European Academies Madame de Staël Prize for Cultural Values, and 2018 Leontief Prize for Advancing the Frontiers of Economic Thought. Most recently, Pope Francis appointed her to the Pontifical Academy for Life for bringing 'more humanity' to the world.

Professor Mazzucato is the author of four highly-acclaimed books: *The Entrepreneurial State: debunking public vs. private sector myths* (2013), *The Value of Everything: Making and Taking in the Global Economy* (2018), *Mission Economy: A Moonshot Guide to Changing Capitalism* (2021), and most recently *The Big Con: How the Consulting Industry Weakens our Businesses, Infantilizes our Governments and Warps our Economies* (2023). She advises policymakers around the world on innovation-led, inclusive and sustainable growth. This has, for example, included: influencing the design of the €95.5B Horizon Europe program, which adopted a mission-oriented approach; informing the design of The Scottish National Investment Bank; working with several governments in Latin America and the Caribbean to implement recommendations from the report *Transformational change in Latin America and the Caribbean: A mission-oriented approach*, commissioned by the United Nations (UN) Economic Commission for Latin America and the Caribbean (ECLAC); advising the Government of British Columbia in Canada on the design of a mission-oriented economic strategy and public investment fund; working with the London Borough of Camden on the development of four citizen-informed missions and on their implementation through a new public wealth fund and procurement policy; and collaborating with the UN Department of Economic and Social Affairs to change the structure of global finance. Professor Mazzucato also sits on numerous advisory boards. Recent roles include being chair of the World Health Organization's Council on the Economics of Health for All, co-chair of the Global Commission on the Economics of Water, member of the South African President's Economic Advisory Council, and member of the United Nations High-Level Advisory Board on Economic and Social Affairs.

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About the Institute for Innovation and Public Purpose

The Institute for Innovation and Public Purpose (IIPP) at University College London (UCL) aims to develop a new framework for creating, nurturing and evaluating public value in order to achieve economic growth that is more innovation-led, inclusive and sustainable. This requires rethinking the underlying economics that has informed the education of global civil servants and the design of government policies. Our work feeds into innovation and industrial policy, financial reform, institutional change and sustainable development. A key pillar of IIPP's research is its understanding of markets as outcomes of the interactions between different actors. In this context, public policy should not be seen as simply fixing market failures, but also as actively shaping and co-creating markets. Re-focusing and designing public organisations around mission-led, public purpose aims will help tackle the grand challenges facing the 21st century. IIPP is a department within UCL – and part of The Bartlett, which consistently ranks in the top two faculties for architecture and the built environment in the world.

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