

## State planning and the sustainable development convention: an introduction

*Planejamento estatal e convenções de desenvolvimento para a transição verde sustentável*

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RESUMO: A crise climática é uma crise humanitária. Eventos climáticos extremos abalam o mundo e as políticas de adaptação e mitigação climáticas devem fazer parte do planejamento de Estados Nacionais. O não cumprimento da meta definida pelo acordo de Paris (aumento de temperatura em até 2°C, tentando limitar a 1,5°C em relação ao nível pré-industrial, até 2050) ameaça a manutenção do padrão e das condições de vida que conhecemos hoje. Nesse contexto, o Estado precisa retomar seu protagonismo enquanto promotor de políticas públicas dado que é o agente econômico capaz de trazer estabilidade, reduzir a desigualdade e traçar regras para planejamentos visando o crescimento de longo prazo com sustentabilidade ambiental – ou seja, o crescimento com desenvolvimento econômico no contexto de transição climática. O processo de transição verde sustentável necessita de coordenação entre os agentes econômicos em uma nova configuração das relações de produção – ou seja, uma nova Convenção para o Desenvolvimento Sustentável. Esse processo deverá contar com a participação ativa do Estado, do mercado e da sociedade civil. Nesse sentido, a retomada das práticas de planejamento estatal será essencial para coordenar a alocação dos fatores, direcionando as economias para a transição verde sustentável. A promoção de uma mudança na convenção econômica, focada na transição verde sustentável, é essencial para enfrentar o desafio que se impõe. É nesse sentido que o planejamento econômico é parte da estratégia para conduzir à transição verde sustentável. Este artigo defende a necessidade de uma Convenção para o Desenvolvimento Sustentável que resgate o Estado desenvolvimentista em contraponto ao Estado neoliberal, em grande medida subordinado aos interesses rentistas do sistema financeiro.

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ABSTRACT: The climate crisis is a humanitarian crisis. Extreme weather events disrupt the world, and adaptation and mitigation policies should be part of the National States' planning. Failing to meet the target set by the Paris Agreement, which aims to limit the temperature rise to 1.5°C or a maximum of 2°C by 2050 compared to pre-industrial levels, threatens living standards and conditions. In this context, the State needs to resume its role as a promoter of public policies capable of bringing stability, reducing inequality and establishing rules for planning aimed at long-term growth with environmental sustainability – i.e., growth with economic development in the context of the climate crisis. The sustainable green transition process requires coordination among economic agents in a new configuration of production relations – a new Sustainable Development Convention. This process should involve the active participation of the State, the market and civil society. Therefore, the resumption of State planning practices will be essential to coordinate the allocation of resources and direct economies toward a sustainable green transition. Promoting a change in the economic convention focused on the sustainable green transition is essential to face the challenge ahead. Hence, economic planning is part of the sustainable green transition strategy. This article argues for the need for a Sustainable Development Convention that rescues the developmental State in counterpoint to the neoliberal State, primarily subordinated to the rentier interests of the financial system.

KEYWORDS: Sustainable development convention; state planning; sustainable green transition.

JEL Classification: E60; H11; O2; P11.

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## INTRODUCTION

The climate crisis is a humanitarian catastrophe that affects all aspects of society. Its consequences are increasingly noticeable – growing food insecurity, limited water access, housing conditions, and rising migrations. In addition, extreme weather events daze the world, and climate adaptation and mitigation policies are starting to be part of national economic policies to promote climate transition. Extreme weather events will be exacerbated if the world does not reach the goal of keeping global warming temperature increase at 2°C, aiming to limit it to 1.5°C, compared to pre-industrial levels, by 2050. Failing to meet the Paris Agreement's target jeopardises maintaining current living standards and conditions.

The defining aspects of the climate crisis are increasingly evident. According to the latest report from the Intergovernmental Panel on Climate Change (IPCC, 2022), the observed increases in Greenhouse Gas (GHG) concentrations are unequivocally attributed to human activities. This statement represents a significant shift from previous reports, reinforcing the gravest concerns regarding a global climate emergency. The extent and magnitude of the crisis surpass previous assessments, as extreme events such as heatwaves, heavy rainfall, droughts, and tropical cyclones are becoming increasingly frequent. Global temperatures are projected to

continue rising until at least the mid-century under all emissions scenarios considered. The global warming threshold of 2°C, regarded as a critical limit by the Paris Agreement, will be surpassed during the 21st century unless profound GHG emissions reductions occur by the end of the 2020s. In other words, the temporal window to implement necessary changes is narrowing fast.

We argue in this paper that the State needs to rescue its role as an active promoter of public policies, given that it is the only economic agent capable of running the risks embodied in a climate transition national project and mobilising all other economic agents towards a common goal. The State, coordinating wise economic policies, can simultaneously encompass the responsibility of maintaining price stability, promoting growth, reducing inequality, and establishing rules for long-term growth planning with environmental sustainability – that is, growth with structural change in the context of the climate crisis. Therefore, a more interventionist State should provide essential public goods and services in a non-commodified manner, development plan, make investments in strategic sectors (such as physical and social infrastructure, innovation, science, and technology), transfer income to those lacking basic living conditions, and promote full employment.

The process of sustainable green transition requires coordination among economic agents in a new configuration of production relations – in other words, a new Sustainable Development Convention. This process should involve active participation from the State, the market, and civil society. In this sense, the revival of State planning practices will be essential to coordinate the allocation of factors, directing economies towards sustainable green transition.

Shifting the development convention, focusing it on sustainable green transition, is essential to address the challenge the climate crisis brings. Economic planning is crucial in guiding the shift towards a sustainable green transition in this context. The main argument in favour of planning for sustainable green transition stems from the high degree of uncertainty associated with the process, coupled with the urgency imposed by the climate crisis. Moreover, only the State, through its capacity to mobilise economic resources, can play a fundamental role in promoting structural change, that is, it should be the coordinating agent in the transition process from high GHG emission economies to low-intensity ones.

This article aims to argue that climate transition depends on stimulating the strengthening economic planning in market economies and the urgency of consistent measures to address the climate crisis. Furthermore, it will support the need for a Sustainable Development Convention that rescues the developmental State in contrast to the neoliberal State, which is mainly subordinate to the rent-seeking interests of the financial system.

The article is divided into two sections, in addition to this introduction and the concluding remarks. Firstly, the idea of conventions will be presented, focusing on the developmental convention and demonstrating why it is essential for the structural change process to tackle the climate crisis. Then, it analyses the necessity of economic planning to confront this crisis, presenting the argument in three parts – why planning, the purpose of planning, and how to finance the type of

planning required. At this point, Keynesian ideas are introduced as an inspirational strategy to address the current crisis, understanding that economic planning is essential and that finding mechanisms to enable such planning is crucial for its realisation. Finally, the concluding remarks outline the main points discussed throughout the article.

## SUSTAINABLE DEVELOPMENT CONVENTION

Economic development is defined as a shift in the productive structure to enhance productivity and improve the standard of living for the population over time. (Bresser-Pereira, 2006). The concept assumes growth, which can occur through different combinations of capital accumulation patterns, income distribution, and international integration, requiring a process of structural change. In the midst of the climate, economic, social, and humanitarian crisis deepened by the financialised neoliberal economic model,<sup>1</sup> it is essential to enforce a development pattern that transforms the mode of production. Underneath the framework of neoliberalism, which can be understood as a specific form, phase, or contemporary stage of capitalism, the underlying mode of production inherently exploits both humanity and the natural environment, rendering it fundamentally incompatible with achieving climate stability. The inherent logic of capital accumulation under neoliberalism, driven by short-term financial gains, has resulted in a significant surge in greenhouse gas emissions, extensive environmental degradation, the alarming extinction of numerous species, and the irreparable disruption of essential natural cycles (Saad-Filho, 2021; Saad-Filho & Feil, 2023).

Thus, mitigating the effects of the climate crisis requires establishing a new form of societal relations, namely, a new Sustainable Development Convention. This ambitious plan necessitates rapid societal change. The green-sustainable transition is synergistic and demands a diversified and sustainable industrial sector. According to Chenet et al. (2017), achieving this green transition requires financing, fiscal benefits for selected activities, accessible credit, and subsidies. The commitments involved entail transforming production processes and behaviours, as well as developing new technologies and infrastructure to replace existing ones (Chenet, 2019). In addition, a massive redistribution of capital is necessary to limit global warming effectively. Capital flows must shift from greenhouse gas-intensive to low-intensity assets to achieve a green sustainable transition.

In this context, it is the responsibility of the State to initiate investment redirection, generating positive expectations in order to transform the productive structure for future recovery and [re]launch the historical process of the developmental State.

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<sup>1</sup> In general terms, the neoliberal economic model can be understood as one where market choices are sovereign. It assumes that the price system and free resource allocation guarantee welfare maximization in the long run. State intervention should be minimal to correct market failures.

The primary focus should be on sustainable development and a green transition with social inclusion, thereby promoting a Sustainable Development Convention.

The concept of a development convention is based on the notion of a “growth convention,” originally coined by Antonio Barros de Castro to describe the period of the Brazilian industrialisation process (Castro, 1993). This argument suggests that the government’s commitment to growth and industrialisation in Brazil created a state of expectation among economic agents, which, in turn, stimulated productive investment. Consequently, development became a self-fulfilling prophecy. Fabio Erber expanded on this concept by introducing the idea of a “development convention,” arguing that a collective pro-development perception provides policymakers, economic agents, and society with a sense of certainty in a non-ergodic world (Erber, 2012).<sup>2</sup>

A Sustainable Development Convention represents a shift in the mission and actions of a State through the coordination of its policies, institutions, and tools towards a green sustainable, and just transition. It also signals to the private market and society that policies will ensure sustainable development, despite the risks associated with the green sustainable transition.

The transformation of institutions, both formal and informal, provides the foundation for society to reduce uncertainty. According to North (1990), institutions shape how societies evolve by defining the limits and actions of agents. Although institutions are not synonymous with conventions, they influence how agents select, organise, and interpret information. Institutions provide society with a means to address issues of uncertainty and coordination. Thus, according to Erber (2011, 2012), a convention is a social representation, a socially produced and shared form of knowledge that establishes a collective reality.

Since the green transition is a highly uncertain process, coordinating expectations that guide decision-making becomes more challenging. In this regard, a Sustainable Development Convention provides a set of rules focused on the green sustainable transition, considering its financial, institutional, economic, social, environmental, and technological aspects. The greater the acceptance of such a convention among economic agents, the higher the convergence of expectations.<sup>3</sup>

Within various definitions of development conventions, the role of government

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<sup>2</sup> David Dequech presents a critique of Fabio Erber’s definition of “conventions,” as he argues that the discussions surrounding conventions and development conventions are problematic. Among other aspects, the author mentions the lack of specification regarding the context and compliance mechanism, which would demonstrate the applicability of the convention concept to development discussions. Additionally, Dequech argues that the concept of behavioral convention derived from game theory does not align with the situation examined by Erber. For further details, refer to (Dequech, 2017).

<sup>3</sup> Carvalho (2014) observes that, according to Keynes, the conventional behavior of economic agents is defensive, and the preference for liquidity serves as an indicator of the degree of confidence in expectations. Keynes argues that the convergence of expectations is stronger in the short-term period, where learning is possible. Thus, the importance of conventions in guiding decisions is greater when the time horizon involved is long, and disappointments in expectations can lead to losses, resulting in recessive processes.

and State institutions, economic policies, and the set of rules guiding economic decisions are all present. The articulation among these factors establishes the relationships among economic agents, ensuring political power, income and wealth distribution, and the accumulation pattern over a given period.

Erber (2011) formalises the definition of a convention as follows: we have a convention if, given a population  $P$ , we observe a behaviour  $C$  that has the following characteristics:

- (i)  $C$  is shared by all members of  $P$ ;
- (ii) each member of  $P$  believes that all others will follow  $C$ ; and
- (iii) this belief provides members of  $P$  with sufficient reasons to adopt  $C$ .

The author concludes by demonstrating that accepting the convention, or the “rules of the game,” entails that each member of  $P$  anticipates the reactions of others to current stimuli and outlines how these stimuli will be transformed into a course of action.<sup>4</sup>

The developmental convention is based on Keynesian principles. According to the principle of insufficiency of effective demand and the non-neutrality of money, the decision-making process of private agents under uncertainty is guided by defensive behaviours, which leads to recurring financial crises. Departing from this theoretical perspective, it is the role of economic policy to compensate for demand deficiencies, with public investment being the primary instrument. Full employment should operate as a stabiliser of income, thereby ensuring financial stability. Coordinating fiscal, monetary, and exchange rate policies is part of the developmental convention package, meaning a convention of economic policy for maintaining full employment. While this economic policy orientation was dominant for the early industrialised economies, a developmental convention is also identified in developing economies. For the latter, the developmental convention was prevalent from the post-World War II period until the 1970s, characterised by a focus on transforming the productive structure of economies through industrialisation. Although there was no consensus on the development strategy to be pursued, this period was marked by state intervention to bring about structural change (Erber, 2012).<sup>5</sup>

In the Keynesian theoretical perspective and the context of climate transition,

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<sup>4</sup> Oreiro (2000) discusses the Keynesian concept of convention, based on uncertainty, the formation of expectations and Shackle’s concept of potential surprise. The author concludes that (p. 136): “The necessary condition for a given theory of the world to emerge as a dominant convention among economic agents is the existence of network externalities associated with adopting theories or models of the world. These externalities, in turn, can result from a series of factors, such as, for example, uncertainty regarding the information available to other agents, reputation effects, self-fulfilling prophecies, and defensive strategies in the face of uncertainty. If these effects are strong enough, then economic agents will be induced to adopt the same world theory in forming expectations.”

<sup>5</sup> When it comes to state intervention for development, this was not the first documented experience. Chang (2001) describes several experiences, including that of Britain, where the state played a crucial role in initiating manufacturing development and promoting the manufacturing industry. Mazzucato (2014) demonstrates that the United States’s experience of industrial and technological development also relied on an active and interventionist state.

the development convention should induce the transfer of resources from financial circulation to sustainable, productive circulation in coordination with macroeconomic policies. In this sense, it is relevant to consider that the concept of a convention is associated with that of a macroeconomic regime.

Blyth and Matthijs (2017) define the macroeconomic regime as policy goals incorporated into complex institutions that are both generators and dependents of achieving these goals. Thus, according to the authors, the adopted macroeconomic regime significantly influences the economic performance of countries, which is reflected in observed outcomes over a certain period of time. The “golden age” of capitalism, from the post-World War II era until the 1970s, was characterised by high economic growth, low unemployment, increased aggregate income, improved living conditions, and reduced inequality. The macroeconomic regime during this period, inspired by Keynesianism, prioritised the pursuit of full employment. Among the outcomes of the set of macroeconomic policies adopted, a tendency towards low inflation, reduced inequality, controlled influence of the financial sector (greater financial regulation), and increased labour union representation for workers’ rights were observed.

The post-Bretton Woods period is notably different in terms of the adopted macroeconomic regime and the outcomes achieved. In contrast to the previous period, the adopted macroeconomic regime primarily pursues price stability as its main objective. The orientation of economic policies follows a liberal bias, characterised by a focus on inflation control, weakening of labour unions, central bank independence, globalisation of markets and dominance of the financial sector, weakening legislatures, and wage stagnation or reduction (Blyth & Matthijs, 2017). Since then, capitalist economies have been marked by low growth. The pursuit of full employment and the improvement of income distribution have been replaced by increased inequality and concentration of wealth.

Thus, the adopted macroeconomic regime must be consistent with a developmental convention, particularly a Sustainable Development Convention. A developmental convention to effect the necessary transformations to address the climate crisis is incompatible with the current and dominant macroeconomic regime. The current regime has a short-term bias, focusing on market forces and financial sector dominance. It is also inconsistent with an economic planning agenda, which presupposes a proactive State that shapes markets, directs investments, and provides the necessary funding to bring about structural change. Pursuing price stability as the ultimate objective of economic policies does not guarantee the promotion of structural change towards more sustainable forms of production, and price mechanisms cannot ensure that GHG-intensive production will be discouraged. The assumption is that the price system does not contain all the relevant information to guide private agents in climate transition decisions mainly because the relevant and necessary information does not exist, as it is created as long as choices of resource allocation are made. It should be mentioned that Shackle (1961) has shown long ago that long-term investment decisions are “crucial experiments” in the sense that once implemented, they destroy and simultaneously create a new economic environment.

The author believes crucial decisions are based on “figments of imagination”. This is a strong argument in favour of the need for economic planning anchored in a Sustainable Development Convention.<sup>6</sup>

Regarding the macroeconomic regime, the Sustainable Development Convention implies rescuing the autonomy of monetary policy to reduce the preference for liquidity and direct long-term sustainable green investment. In the current macroeconomic regime, the focus of monetary policy on inflation control limits the planning capacity of the State, as it is based on manipulating interest rates, which often is the primary (sometimes the only) tool used for inflation control.<sup>7</sup> This is a significant issue, especially for developing countries without convertible currency, which use interest rate differentials to attract external capital. On the one hand, maintaining interest rates at excessively high levels discourages investment, and on the other hand, it still affects public debt, increasing its cost and consequently reducing the fiscal space of the economy.

Fiscal policy, on the other hand, should aim to expand the fiscal space of the economy to carry out public investments in strategic areas with a view to the climate transition. The exclusive focus of fiscal policy on budgetary control and the continuous intertemporal fiscal balance is counterproductive to structural change, as it reduces the State’s capacity to make investments and act countercyclically instead of serving as a tool for economic planning. Under the developmental consensus, the universality of social policy is an important point, aiming to encompass the entire society without discrimination or conditionalities, to ensure equity and democratic access for all members of society to goods and services considered social rights, provided in a non-market manner by the state.

The Sustainable Development Convention presupposes a macroeconomic regime that maintains full employment to sustain aggregate demand. This is to ensure that income generation is sufficient to maintain the balance sheet equilibrium of economic agents. Thus, the developmental convention demands a macroeconomic

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<sup>6</sup> Shackle’s significant theoretical contribution to the decision-making process under uncertainty is worth mentioning. Earl (2018) presents an insightful discussion of Shackle contributions, highlighting his theory of focusing. In Earl’s explanation (p. 21).”If decision-makers acknowledge that, because of modeling uncertainties, a particular strategy might not be enough to stop run-away human-induced warming, decision-makers may nonetheless opt for it because they would not be very surprised to see it containing warming within what are assumed to be critical bounds. In terms of their risk tolerance, the focus loss may not seem alarming enough to make them reject the strategy, even though, at the outside, they had initially not ruled out possibilities whose eventuation would indeed be alarming. In short, we may end up taking dangerous decisions because the loss that looms largest in our assessment is significantly less bad than the worst outcome we deem possible.

[...] Policies that aim to remove barriers to making larger returns or that are designed to prevent poor outcomes may fail to change behavior if they do not change focus gains or losses. It is thus important for policy makers to find out which outcome prospects generate the most excitement or fear for rival schemes of action.”

<sup>7</sup> It is worth mentioning that for Keynes (1997, chapter 15) the level of the short-term interest rate fixed by the monetary authority is highly ‘conventional’.

regime that provides autonomy for strong economic planning under the leadership of public state institutions to realise changes in production processes and consumption patterns.

Funding is essential for economic planning and financing the structural change for a sustainable transition. Investments are long-term and high-risk, creating a mismatch between the maturity of sustainable projects and the period in which private investors expect project profits. This raises doubts about the private financial sector's capacity to finance the necessary investments to promote change in the productive structure of economies (Carney, 2015). Considering the current mode of capital accumulation, marked by the deepening of the neoliberal financialisation process, the private financial sector tends to prioritise investments with shorter terms and higher returns, which are incompatible with the type of investment needed to promote sustainability in the mode of production. From the Sustainable Development Convention perspective, leaving climate transition financing in the hands of the private financial sector alone is dysfunctional and threatens the possibilities of effectively and cohesively implementing structural change to address climate change since the high risks associated with such investment projects make them unattractive to private investors.

The high-risk scenario that the climate crisis imposes may also affect financial stability. Carney (2015, 2018) classifies the risks generated by the climate crisis into three types: there is the (i) physical risk, which would be more immediate impacts on liabilities and the value of financial assets as a result of weather and climate-related events, such as floods and storms that damage property and/or disrupt commerce; the (ii) liability risk, which refers to potential impacts that may arise at a later stage if parties that have suffered losses or damages due to the effects of climate change seek compensation from those they hold responsible for their losses; and the (iii) transition risk, i.e., the financial risks that may arise during the adjustment process towards a low-carbon economy. These risks are significant, uncertain – since there is no way to know or predict their timing and magnitude – and non-linear. In addition to the direct risks and costs of the transition, there is still an upward trend in losses that arise indirectly through second-order events (Carney, 2015). All these risks will be minimised the earlier the transition starts and if the transition occurs following a predictable path. One alternative to making a predictable path and a favourable expectations environment to guide agents' decisions is through a convention for sustainable development guided by the state. Therefore, the issue of financing must be at the core of the Sustainable Development Convention for a green sustainable transition. In this sense, we argue that development banks are essential tools as they are capable of promoting public funding and thus act as the policy arms of a Sustainable Development Convention by providing financial stability to the climate transition process. In acting in this direction, development banks decisively influence economic expectations about long-term returns on investment in green transition projects. Therefore, besides providing funding to finance long-term projects, they induce further changes in economic choices on capital allocation. In this sense, in a Sustainable Development Convention, develop-

ment banks must be strengthened and leveraged to undertake and support the process of structural change within the sustainability aspect. It is clear that under this perspective, the State must act intentionally, directing the market, assuming risks, and imposing new forms of economic behaviour compatible with the climate transition. As a condition for this, removing the pillars of the neoliberal order in general and financialisation, in particular, is necessary. In summary, the Sustainable Development Convention establishes shared beliefs about the necessity and urgency of transforming the productive system. In this regard, the State's economic planning should be the primary instrument to change the structure and functioning of markets and redirect investments from the private sector.

## STATE PLANNING

### Why?

Beyond the distributive conflicts that mark the history of capitalism, capitalist economies are unable to reach their potential output naturally. The inadequate volume of private investment expenditure due to inherent uncertainty about the future is a fundamental issue for market economies to reach their potential output (Davis, 1992; Keynes, 1997). In this sense, to maintain high output levels, investment has to be encouraged to the point where capital scarcity disappears (Carvalho, 2008). Thus, in order for market economies to achieve full employment and consistent macroeconomic stability, it is crucial to stabilise the economy's aggregate investment at high levels. Expanding aggregate demand can promote cyclical recoveries or prevent cyclical slowdowns, but it is insufficient to achieve full employment. Recognising that this process is not a natural path for monetary economies alone already highlights the need for economic planning, investment planning, and an active role of the State.

The climate crisis brings new challenges to economic planning as it demands a profound and immediate transformation in how we relate as a society – from reshaping production and consumption patterns to adopting public policies to addressing the problem. This makes long-term State planning<sup>8</sup> even more essential. Moreover, economic planning for climate transition implies transformations in the structure of production and consumption for several future generations. Thus, economic planning requires a complete reordering of society's modes of production and consumption, involving envisioning a different way of organising society than today.

Furthermore, building alternative growth models, diversifying national economies and coordinating global actions, and improving the distribution of income,

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<sup>8</sup> The coordination effort will be more effective to the extent that it also involves nation-states. It is worth noting that climate impacts do not respect borders. Coordination needs to be global, inclusive, and encompass changes in all sectors of the economy.

wealth, and power through green policies aligned with macroeconomic policies within the necessary timeframe, require a new Sustainable Development Convention, a new shared belief – new “rules of the game.” Therefore, the State must act guided by the mission of promoting a sustainable green transition, playing intentionally, directing the market, assuming risks, and generating a new convention. In sum, the sustainable green transition requires a market transformation, both on the supply and demand sides.

### **What for?**

Under the token of the climate crisis, structural change projects should not be planned solely with a view to economic development based on current energy patterns and GHG emissions but rather to mitigate the impacts of the climate crisis. As a key agent leading the process of structural change, the State is expected to adopt the necessary policies and drive the necessary structural transformation.

The required policies and actions should be accepted according to the development convention. This is so because the need to carry out transformations as profound as those required to minimise the effects of the climate crisis will impact wealth and income distribution, exacerbating social conflict. On the one hand, sustaining growth through economic planning helps diminish social tensions, and on the other, it builds confidence in the direction of choices made towards structural transformation. As mentioned, in scenarios of high uncertainty, the private sector tends to act conservatively, which leads to a less dynamic economy. From the perspective of the Sustainable Development Convention, economic planning is the alternative to guide economies towards full employment while also moving towards structural change to enable the investments needed for climate transition and promoting better income and wealth distribution.

As Mazzucato (2014) proposed, the planning State is proactive and adopts pro-growth policies, leading and coordinating such expansion to achieve longer-term objectives. Amidst the scenario of the climate crisis and its effects, State planning can also consist of a strategy to transform the productive and social structure and facilitate the energy transition, guiding developed and developing economies towards a more sustainable mode of production.

In sum, drawing on the insights of Chang (2001) and Mazzucato (2014), if the State is an essential agent in promoting the necessary structural change for a country's development, the Sustainable Development Convention should answer the question what type of structural change to pursue, with the core purpose of responding to the limitations imposed by climate change.

### **How to finance economic transformation?**

Transforming the productive structure demands massive long-term investments. In this regard, a strategy of socialisation of the investment can serve as a mechanism to realise and coordinate the necessary investments besides sustaining economic

growth. Keynes' proposal for the socialisation of investment (in simplified terms) involved State guidance over investment in supporting total investment (public and private) and promoting economic stability. This strategy could stabilise periods of low private investment through targeted public investment plans in specific areas. Also, it would enable the maintenance of aggregate investment at high levels, supported by public investment that would, in turn, stimulate private investments, leading the economy to operate at full employment of production factors along the time (Carvalho et al., 2019; Carvalho, 2019; Keynes, 1997).

However, considering the strategy in response to the climate crisis, a more active role is needed to direct investments, determine priority areas and regions, and regulate their composition. Nevertheless, the concept of socialisation of investment remains inspiring when contemplating alternatives for planning economic growth and the necessary structural change to address the climate crisis. The socialisation of investment entails permanently establishing a public investment council to monitor and control investments. To govern the process of investment socialisation, Keynes proposed creating a capital budget<sup>9</sup> directed towards investments, an idea that is also functional to respond to the climate crisis, as it brings a clear direction to the State in the execution of long-term investment plans. The proposal would make it possible to carry out a long-term, stable investment program capable of offsetting unforeseen short-term fluctuations as well as guarantee continuity on structural transformation according to the climate transition. To this end, it would be necessary to carry out regular surveys and analyses of the financing and execution of investments, as well as to make forecasts, with permanent evaluations of the results obtained and expected (Sicsú, 2021). Thus, the State would have control of a large part of the investments (public and private), a measure that is desirable to execute and coordinate the necessary investments in this sustainable green transition.

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<sup>9</sup> Keynes's proposal consists of splitting the budget into two components: the capital budget and the current (or ordinary) budget, with the aim of enabling greater autonomy in the State's investment policy. In brief, differentiating between the two budgets, the first is specifically designated to support total investment (public and private) with the objective of achieving economic equilibrium – i.e., full employment. The capital budget may experience deficits depending on the volume of necessary expenditures to maintain full employment but should be balanced in the long run. On the other hand, the current budget corresponds to government consumption, which should always remain in balance. Deficits are only acceptable in extraordinary circumstances when expenses incurred through the capital budget are insufficient to maintain full employment. If the current budget generates a surplus, it should be transferred to the capital budget to finance investments. The expenses of the capital budget must be sufficient to offset potential demand imbalances that could lead to unemployment. The capital budget entails a significant portion of total investment being monitored by the government, which should regularly conduct surveys and analyses of the relationship between savings sources and different types of investment, as well as assess available public resources. Additionally, a balance sheet should demonstrate how the two variables (savings and investment) equated in the previous year, and investments for the following year should be planned accordingly. While the current budget should maintain constant equilibrium, the capital budget should fluctuate with the demand for jobs, compensating for cyclical fluctuations in the economy (Sicsú, 2021).

The financing structure of climate transition investments is a decisive aspect of defining the Sustainable Development Convention. To execute and coordinate such a volume of investments, public banks (notably development banks) have an even more crucial role in financing new industries, sectors, and technologies. Given that private financial institutions are profit-oriented, they may not necessarily operate with long-term economic objectives in mind and tend to create bottlenecks in funding high-risk investment sectors with longer maturity periods – such as the investments needed to address the climate crisis, shift productive structures, and transition to clean energy.

Therefore, the existence of public institutions whose operational logic aligns with the desired type of development is essential (Feil, 2021). Public financial institutions, especially development banks, should be capable of financing long-term investments, ensuring that productive investment is not solely dependent on the private financial sector during periods of high risk. Development banks can act as an arm of pro-growth public policy with structural change and direct financing towards sustainable sectors and industries while promoting investment in innovation. Thus, development banks serve as functional institutions for implementing structural change and are valuable instruments for economic planning. Moreover, they are functional to the investment socialisation strategy, particularly considering these institutions' expertise in executing and coordinating large long-term investment projects.

It is also important to note that autonomy in conducting economic policies and fiscal space is essential for the socialisation of investment strategy to be feasible and for the State to act as a planner and implement an economic planning project. A high degree of autonomy in economic policies allows a country to arrange policies and utilise the necessary mechanisms to transform the economy's productive structure and energy matrix. Considering that aggregate investment is a key variable in this transition process, monetary policy should promote sufficient liquidity to maintain nominal and real interest rates at low levels to stimulate the exchange of liquid assets held in financial circulation for illiquid assets produced in industrial circulation, i.e., promoting productive investment (Feil & Feijó, 2022). Furthermore, a low-interest-rate policy convention reduces the cost of public debt (and, therefore, also public investment), expanding the fiscal space of the economy. This becomes even more relevant when considering that manipulating interest rates through monetary policy alone may not be sufficient to stimulate investment, making fiscal policy and public investments necessary instruments (Davis, 1992). This is especially crucial in the context of the climate crisis, which requires substantial long-term investments and involves a high degree of uncertainty. A convention of high-interest rates and excessively restrictive fiscal rules impedes any form of investment socialisation, limits possibilities for structural change, does not contribute to economic growth or macroeconomic stability, and further restricts alternatives for addressing the climate crisis.

## CONCLUDING REMARKS

The climate crisis is undoubtedly the greatest challenge of this century. The world is already facing a succession of increasingly intense and even more frequent environmental catastrophes, and the window of opportunity to act is closing. As has been warned by several international institutions devoted to climate transition issues, unless drastic and immediate mitigating changes are made, limiting global warming will be unattainable. The efforts required to limit the crisis's effects demand new political and economic planning instruments.

Notwithstanding the unparalleled gravity of the crisis, there has been scant progress over the past four decades regarding production patterns and public policies, which have remained fixated on the macroeconomic framework of price stability. Under the guidance of orthodox economics, the neoliberal convention lacks the requisite solutions and tools to address this challenge effectively. The market, driven by private enterprise, is ill-equipped to stimulate investments and furnish the essential financial resources needed for climate transition, as historical evidence from developed nations' experiences with structural transformations has demonstrated.

Restructuring the productive system requires simultaneous economic, political, and social actions. In other words, a new convention for development that encompasses tackling the climate crisis, seeking to offer economic policy instruments to bring about transformations towards sustainable production. A new macroeconomic regime with a developmental bias, in which the State plays a proactive role and macroeconomic policies are conducted to enable economic planning and increase the State's scope of action to undertake the transformations for climate transition is needed. Future research can further delve into the debate presented here in an introductory manner, reflecting on how a planning agenda can be implemented and how macroeconomic policies can be conducted towards this end.

To achieve a sustainable transition, it is the State's responsibility to act intentionally, changing the structure and functioning of markets through comprehensive planning that incorporates sustainability into all government programs. In this article, we argue that a new Sustainable Development Convention is necessary to bring about structural change and maintain a policy of full employment, as well as the need for economic planning to undertake the transformations required to address the climate crisis. In this sense, throughout the text, we discussed a) the rationale for economic planning – to address the uncertainties of high-risk, long-term investments; b) the purpose of planning – to implement a Sustainable Development Convention that guides private decisions towards the type of structural change needed for climate transition; and c) how to finance the climate transition project – by creating fiscal space through a capital budget and utilising public financial institutions, especially development banks.

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