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Post-growth economics as a guide for systemic change: Theoretical and methodological foundations

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ABSTRACT

Addressing contemporary social-ecological crises requires systemic change. Post-Growth Economics (PGE) has emerged as a paradigm to address this challenge. To strengthen the theoretical and methodological foundations of PGE and overcome some of the cleavages between Marxist (and other) analyses and critiques of capitalism and De-/Post-Growth, this article develops a theoretical framework of 21st century capitalism and elaborates on the implications for De-/Post-Growth. For that purpose, it synthesises insights from within and outside PGE, drawing on heterodox schools of economic thought whose potential has so far not been fully harnessed by PGE scholars, most notably Marxist Political Economy. One central result is that the renunciation of economic growth and the reorientation of the economy towards sustainability and wellbeing necessitate a deeper transformation of the social relations of capitalism. Breaking the system's growth dependence requires the dissolution of the system's dependence on profit, wage labour, the private ownership and unequal distribution of essential resources, and money as universal equivalent. It means reconfiguring interhuman relations and relations to non-human nature. To offer transformative solutions at the current historical juncture, PGE would benefit from accounting more comprehensively for the distinct challenges arising from capitalism's contemporary forms, particularly financialisation and increasing rentierism.

1. Introduction

In view of aggravating climate change, biodiversity loss and rising inequalities, there is an increasing recognition that systemic change is necessary (IPCC, Intergovernmental Panel on Climate Change, 2022a; IPCC, Intergovernmental Panel on Climate Change, 2022b; UNEP, United Nations Environment Programme, 2022). Post-Growth Economics (PGE) has emerged as a paradigm offering both a vision and concrete steps for reorganising the economy to ensure universal need satisfaction within planetary boundaries and independent from economic growth (Kallis et al., 2018). PGE exposes the role of the economic growth as a driver of global heating and questions the possibility of sufficient and fast enough decoupling of economic growth and CO_2 emissions and resource use respectively, on which green growth strategies rely (Hickel and Kallis, 2019; Jackson, 2017). Due to past and present global inequities the focus of PGE is on the Global North (Hickel, 2019).

This article affirms the need to rethink both the economy and economics to tackle contemporary social-ecological crises and considers PGE a promising avenue forward. By the same token, it argues that to serve as a guide to systemic change, the whole field of PGE should adopt a holistic perspective on the foundational social relations, emerging tendencies and dependencies of the current economic system, capitalism (cf. Andreucci and Engel-Di Mauro, 2019; Cahen-Fourot and Monserand, 2023; Durand and Légé, 2013; Harribey, 2019; Harribey, 2022; Klitgaard and Krall, 2012; Schmelzer et al., 2022; Vergara-Camus, 2019). This is not to imply that PGE, or related contributions predating PGE in its current form, have not acknowledged capitalism's role in socialecological crises or the capitalist drive towards growth but to encourage systematic engagement within the field as a whole.

The primary goal of this article is therefore to provide a robust theoretical framework of contemporary capitalism ready for use by PGE scholars. To elaborate the framework, this article builds on scholarly work from within and outside PGE, drawing on schools of thought whose full potential has not yet been fully tapped within PGE, primarily but not limited to Marxist Political Economy (MPE) (Akbulut, 2021; Andreucci and Engel-Di Mauro, 2019; Klitgaard, 2013; Koch and Buch-Hansen, 2020; Lauer et al., 2025). By integrating Marxist, Eco-Feminist

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and other heterodox analyses and critiques of capitalism and De-/Post-Growth, this article also hopes to contribute to overcome some of the cleavages between lines of thought, which, if harnessed together, form a sound basis for envisioning systemic change at this decisive historical juncture (cf. Schmelzer et al., 2022).

The original contribution of this article consists less in the presentation of entirely new material, but the synthetic elaboration of material significant for PGE. The article unpacks in a systematic manner capitalism's foundational social relations, the tendencies and dependencies to which they give rise as well as some of the contemporary forms the system takes. Such analysis is key to unravelling the roots of contemporary crises and finding solutions that are radical in the truest sense of the word (Andreucci and Engel-Di Mauro, 2019; Blauwhof, 2012). For instance, it identifies the continuous pursuit of economic growth as an emergent feature of the specifically capitalist social relations and organisation of provisioning. This article focuses on the theoretical and methodological foundations of PGE. A subsequent article will elaborate on the political implications that ensue from this approach.

The remainder of the present article is structured as follows. Section 2 reviews the PGE literature with view to its analysis of the capitalist system. Section 3 formulates principles for a theoretical and methodological approach conducive to advancing PGE in that regard and applies them in the elaboration of the theoretical framework in Sections 4 and 5. Section 4 focuses on 'the capitalist core', i.e. the system's dominant logic and driving force, the social relations underlying it and systemic dependencies that result. Section 5 elaborates tendencies that emerge from 'the core' as well as contemporary forms of capitalism. Both sections continuously delineate the implications for PGE. Section 6 concludes and presents avenues forward.

2. Post-growth economics, capitalism and systemic change – taking stock

For decades, scholars have analysed and criticised capitalism's inherent drive towards economic growth as well as its social and ecological implications (cf. Amīn, 1974; Heilbroner, 1972, 1996; Mies, 1986; Schnaiberg, 1980; Shiva, 1991). Though not necessarily using the label of De- or Post-Growth, their work has inspired contemporary PGE.¹ While recognising the wealth of research that has critically examined capitalist growth outside of and prior to the development of PGE, the following review focuses on scholarly work that has explicitly sought to transform the economy in a social-ecological manner and end its perpetual pursuit of economic growth. It discusses four strands of PGE, namely 'Steady-State Economics (SSE)', 'Post-Growth Macroeconomics', 'Degrowth' and 'Post-Growth Political Economy' (PGPE)(cf. Kallis et al., 2012; Lange, 2018).² While the different strands share the ambition of deprioritising economic growth and focusing on sustainability and wellbeing, their theoretical and methodological approaches differ. These in turn inform their engagement with the capitalist economic system, their judgement of the need for and possibility of systemic change and consequentially necessary action (Büchs and Koch, 2017; Lange, 2018). The review that follows seeks to tease out the contributions of the different perspectives for guiding systemic change.

2.1. Steady-state economics

Based on thermodynamic analysis (Georgescu-Roegen, 1971) and inspired by Mill (1848), Daly (1974, 1991) developed the concept of a

steady-steady economy (SSE). SSE puts forward the aim for a 'sustainable scale' of the economy, the 'just distribution' of resource flows among today's and future populations, and the 'efficient allocation' of available resources to different uses (Daly, 1992). This would facilitate to rein in 'growthmania' which Daly identifies as the root of ecological overshoot. According to Daly (2014. 16), 'growthmania' arises due to assumptions of relative scarcity and absolute wants within mainstream economics. What is missing is a specification of the social relations and mechanisms that *cause* the continuous pursuit of economic growth (Lange, 2018).

Pirgmaier (2017) links this omission back to SSE's reliance on neoclassic theory which thwarts a systemic understanding of the economy. Rebuttal of this reading by SSE proponents does not dispel several inconsistencies within SSE. SSE criticises neoclassical economics on theoretical and methodological grounds (Daly, 1991, 2014; Farley and Washington, 2018) but deploys marginalist theory to determine when economic growth becomes 'uneconomic' (Daley and Farley, 2011; Daly, 2014). Moreover, while rejecting market and price mechanisms as means to achieve 'sustainable scale' and 'just distribution,' there is a continued reliance on 'relative prices determined by supply and demand in competitive markets' (Daly, 1992, 186) to attain the efficient allocation of depletion and birth rights. Beyond ethical concerns, this view misses that both the absolute size of the economy and mechanisms for just distribution would be continuously challenged if economies and firms were forced to pursue growth and profit to prevail in a competitive market (cf. Cahen-Fourot, 2022; Klitgaard and Krall, 2012). The preference of ex post redistribution via taxation over ex ante interventions such as changes to property titles is based on considerations of political feasibility (Farley and Washington, 2018). However, the private ownership and unequal distribution of essential resources is what constitutes the class division between capital and labour, which underlies the capitalist drive for economic growth (Van Griethuysen, 2012; Schmelzer et al., 2022). Scrutinising the compatibility of an SSE with capitalism, several authors come to a negative conclusion (Blauwhof, 2012; Li, 2007; Smith, 2010; Trainer, 2016). The durable elimination of the capitalist drive for expansion would require not only ex post corrections but structural transformations of capitalist social relations (Blauwhof, 2012). SSE's theoretical and political pragmatism curtail the deeper analysis of these social relations and thus, proposals that would transform the system at its roots (cf. Cahen-Fourot, 2022; Pirgmaier, 2017; Spash, 2020).

2.2. Post-growth macroeconomics

Victor's (2008, 2019) 'Managing without growth' and Jackson's (2009, 2017) 'Prosperity without growth' were foundational for 'Post-Growth Macroeconomics'. This strand focuses on macroeconomic stability in view of constant or decreasing growth rates. Various types of macroeconomic models explore such trajectories, including stock-flow-consistent system dynamics, physical and monetary input-output and agent-based models (Hardt and O'Neill, 2017). Several models show the possibility of aligning declining economic growth not only with lower CO₂ emissions but also a reduction in inequality and relatively stable levels of employment and debt (D'Alessandro et al., 2020; Jackson and Victor, 2011; Nieto et al., 2020).

The ability to show the feasibility of post-growth pathways is a distinct appeal of ecological macroeconomic modelling. This is essential not only for macroeconomic stability but also to garner support and acceptance for transformation. There are caveats, however. First, most models are based on contemporary macroeconomic variables. As Hardt and O'Neill (2017, 208) rightly point out, '[a]n important limitation is therefore the assumption that these parameters will be valid in the future. While this assumption applies to most models used in scientific research, it might be especially problematic in a post-growth context as the purpose of the model is to describe and test a very different system'. Second, the stable and equitable low, no or negative growth scenarios

¹ For an overview of the different forms of growth critiques that represent the sources of De-/Post-Growth, I refer the reader to Gregoratti and Raphael (2019) and Schmelzer et al. (2022).

² While useful to structure the analysis, no clear-cut lines exist between these strands. Compared to previous categorisations, 'Post-Growth Political Economy' has been added to account for the specificities of this branch of scholarly work.

often rely on assumptions such as no net investment, no accumulation of private wealth and a decrease in consumption (cf. Cahen-Fourot and Lavoie, 2016; D'Alessandro et al., 2020). These assumptions run counter to the general logic of capitalist economies. Although several authors appreciate the challenge that the capitalist organisation of the economy poses for bringing about the modelled trajectories (Cahen-Fourot and Lavoie, 2016; Jackson et al., 2016; Nieto et al., 2020), engagement with the theoretical, methodological and political implications of these insights, and a re-examination of the models in light of a more comprehensive analysis of capitalist structures and dynamics, are rare (Hardt and O'Neill, 2017; Lauer et al., 2025).³

The absence of PGE models that analyse the implementation of political interventions that aim at a deeper break with capitalist structures, e.g. the democratisation or socialisation of essential means of production, can be understood in that light (Lauer et al., 2025). Beyond the difficulty of modelling such qualitative systemic shifts, the theoretical dominance of Post-Keynesian and neoclassical theory and the absence of Marxist approaches in PGE modelling may explain why a more fundamental engagement with the foundational capitalist social relations has so far been limited (cf. Cahen-Fourot and Monserand, 2023; Lauer et al., 2025).

2.3. Degrowth

The third strand, Degrowth, draws on a variety of theoretical approaches, including Political Ecology, (Marxist) Political Economy and (Eco-)Feminist Economics. Much research in Degrowth is of conceptual nature but methods also include case studies and modelling (Weiss and Cattaneo, 2017). The word Degrowth (décroissance in French) can be traced back to Gorz who, in a public debate in 1972, raised the question of whether 'the earth's balance, for which no-growth - or even Degrowth - of material production is a necessary condition, [is] compatible with the survival of the capitalist system?' and came to a negative conclusion (cited in Kallis et al., 2015, 1). Gorz's (1977, 1993, 2007) analyses of the socially and ecologically degrading effects of the capitalist organisation of work, production and technology offer essential insights into the conditions for systemic change. Degrowth scholars after Gorz have engaged to varying degree with the structures of capitalism (cf. Saito, 2024). The renowned Degrowth thinker Latouche, for instance, states the incompatibility between capitalism and Degrowth, but focuses on growth rather than capitalism as the fundamental source of crisis. This is connected to his rejection of Marxist theory and methodology as necessary to conceptualise Degrowth (Latouche, 2009, 2012, 2022). According to (Andreucci and Engel-Di Mauro, 2019, 185-186), 'the refusal to see growth (based on endless capital accumulation and thereby the catastrophically self-destructive tendency of endless throughputs) as an outcome of specifically capitalist social relations has been a fatal flaw of degrowth discourse and politics so far' (see also Harribey, 2019; Harribey, 2022).

In recent years, there has been an increasing recognition within Degrowth scholarship of economic growth as an inherent feature of capitalism and the incompatibility of Degrowth with capitalism (Alexander, 2020; Buch-Hansen et al., 2024; Feola, 2019; Hickel, 2020a; Kallis, 2018; Klitgaard, 2013; Klitgaard and Krall, 2012; Parrique, 2022; Saito, 2024). Scholars in the (Eco)Feminist tradition expose capitalism's simultaneous reliance on and degradation of non-commodified and nonmonetised spheres (Bauhardt, 2014; Dengler and Lang, 2021; Dengler and Strunk, 2018; Gregoratti and Raphael, 2019). Van Griethuysen (2010, 2012) lays out how private property fosters the capitalist economic system and what this implies for transformation. Empirical analyses of historical and current patterns of global exploitation unveil interdependencies and inequalities that capitalism necessitates and perpetuates (Hickel, 2020a, 2020b, 2021; Schmelzer et al., 2022). What Degrowth has so far been missing is a theoretical framework that brings these insights together in a systematic manner. Buch-Hansen et al. (2024) and Saito (2024) make important contributions by outlining some of the contours of changes to capitalist social formations that Degrowth may require. Further elaboration and systematisation are necessary, e.g. concerning the specific ways in which contemporary forms of capitalism complicate a Degrowth transformation. This includes unintended repercussions of Degrowth in the Global North on countries in the Global South as well as obstacles to changes at the organisational and national level that arise from capitalism's global reach (Chiengkul, 2018).

2.4. Post-growth political economy

A fourth strand of PGE that also scrutinises the social relations and dynamics of capitalism which drive economic growth is Post-Growth Political Economy (PGPE) (cf. Barry, 2016; Büchs and Koch, 2017; Euler, 2019; Gough, 2017; Koch, 2012, 2015, 2018). On that basis, scholars put forward proposals that seek to weaken and replace capitalist institutions. De Angelis and Massimo (2017) and Euler (2019) discuss the crucial role of the commodity in capitalist economies and endorse the commons as a foundation for a sustainable and needs-oriented mode of production. Hinton (2020, 2021) and Hinton and Macluran (2017) analyse organisations' pursuit of profit as an obstacle for a post-growth transition and propose not-for-profit businesses as way forward. Several scholars scrutinise wage labour as the dominant form of work in capitalism and emphasise the need to not only reduce and democratise wage employment but also decouple access to essential goods and services from wage labour (Barry, 2021a; Mair et al., 2020). As with Degrowth, PGPE offers important analyses of aspects of contemporary capitalism, e.g. debtdriven consumerism (Barry, 2021b; Büchs and Koch, 2017). Yet, more research is required to spell out what these developments mean for achieving systemic change. The thorough integration of PGPE's analyses of key capitalist institutions and the consequent structural changes needed for systemic change would benefit the field of PGE as a whole. To facilitate this effort, this article proposes a systematic method geared towards the step-by-step development of a theoretical framework of capitalism ready to use by PGE scholars. The next section explicates the specific theoretical and methodological approach.

3. Comprehending the capitalist economic system. Theoretical and methodological foundations

A complication in developing a framework of the capitalist system consists in the equation of theory building with model development and a lack of guidance for theory-building in much of contemporary economics, especially regarding systemic change (cf. Fine and Dimakou, 2016). I approach this challenge by identifying five principles that any theoretical framework must fulfil to provide an adequate foundation for systemic analysis and change. These principles are based on the main theories I draw upon, particularly MPE, and form the basis for the development of the theoretical framework in Sections 4 and 5. The principles are,

- (1) Systemic understanding;
- (2) Adequate definition of 'the economy';
- (3) Historical specificity;
- (4) Spatial and geopolitical sensitivity;
- (5) The connection of abstract and concrete.

First, a *systemic* understanding of the economy is needed to unravel the interlocking nature of its central institutions and their connections to social-ecological crises (Klitgaard and Krall, 2012). A systems perspective also facilitates the identification of barriers for change as well as

³ Focused on the creation of new narrative, rather than modelling or systematic theorisation, Jackson (2021) has recently taken a more critical stance towards capitalism.

creative solutions for 'system redesign' (Meadows, 2009, 6–7). MPE offers a coherent and structured analysis of capitalism (Brown et al., 2012), enabling comprehension of the system PGE seeks to transform (Koch, 2015). (Eco-)Feminist Economics highlights the role of uncommodified human and non-human nature for the system's functioning (Bauhardt, 2014; Dengler and Strunk, 2018).

Second, there is the need for an *adequate definition of the economy*. 'The economy' is here approached in the heterodox tradition as the process of social provisioning, i.e. the way in which society organises production and distribution of goods and services required to meet its needs (Agenjo-Calderón and Gálvez-Muñoz, 2019; Jo and Todorova, 2018). This approach enables the identification of capitalism as a specific way of social provisioning via the 'generalised commodity production for profit' (Fine and Saad-Filho, 2010, 18). The social provisioning approach prevents a reductionism of economic activity to what is monetised and commodified because comprehending social provisioning in its entirety necessitates the appreciation of uncommodified and unmonetised goods and processes. The analysis of the eco nomic system in this article therefore includes those institutions and agents that determine social provisioning today, including corporations and states.

Third, historical specificity is necessary to elaborate the distinctness of capitalism from other systems of social provisioning and to make sense of its contemporary configuration, including the dominance of economic growth as a political objective (Barry, 2020; Brown, 2007; Schmelzer, 2015). This is a prerequisite to meaningfully assess the possibilities and obstacles to bring about a social-ecological transformation at the current historical juncture (Fine and Saad-Filho, 2017). Identifying capitalism as a historically specific system of social provisioning also makes it possible deconstruct the naturalisation of both capitalism and economic growth, which is a key barrier to thinking about systemic change (Barry, 2016; Koch, 2018). Fourth, there is need for spatial and geopolitical sensitivity. This implies the appreciation of capitalism as a global yet regionally variegated totality, which is essential to simultaneously grasp the system's global reach and the specificities and interdependencies of regional patterns of ecological degradation, inequality, and the distribution of political and economic power (Powell, 2018).

Fifth, the aim of developing a theoretical framework that facilitates an understanding of the economic 'system as a whole,' as well as the concrete implications for transforming it, demand the connection between abstract theory and concrete real-world phenomena. This final principle determines the specific methodological approach for the elaboration of the framework: systematic dialectics. Abstract concepts function as guiding lines in the investigation and facilitate the organisation and comprehension of data and observations in relation to the system as a whole. The specific social totality of interest, the capitalist economic system, governs the starting point of the analysis. Marx identified 'the commodity' as 'the most abstract and simple' concept definitive of the system (Brown et al., 2002, 780). From there, he systematically developed further categories by means of identifying which elements and relations are necessarily required for the system to function, e.g. the division between capital and labour being a prerequisite for the generalisation of commodity production for profit. The approach thus allows one to comprehend the distinct quality of capitalist social relations which give rise to dynamics of the economic system that drive socialecological crises. The analysis of contemporary patterns of globalised production and trade for instance, reveals the specific form that capitalist exploitation and expansion take today (Reuten, 2014). By the same token, it is not possible to derive real-world phenomena straight from abstract theory because 'outcomes are necessarily mediated', e.g. through class struggle and (geo-)political constellations (Fine et al., 1999). For example, workers can counteract capital's general drive for profit through political organisation against degrading corporate strategies (Huws, 2019a). The notion of tendencies captures directions in which the system tends to develop (Pirgmaier, 2022). Yet, there also exist counter-acting tendencies and contradictions within the system

that alter these dynamics and impede causal and teleological determinism (Harvey, 2015; Hofferberth, 2021).

Systematic dialectics is a methodological approach to systems analysis less common in economics, including PGE. Through its application, this article expands the theoretical and methodological toolbox of PGE. It systematically synthesises existing literature and research from within and outside PGE to establish a rigorous theoretical framework for comprehending the expansive and degrading tendencies within contemporary capitalism. Given that 'methods [...] are implied by and condition the substantive content of the economic theories put forward and, consequently the problems and solutions that can and cannot be proposed' (Fine and Dimakou, 2016, 18), the article contributes to strengthening the foundations for PGE to identify political proposals geared towards systemic change. The following two sections exemplify how this approach can be put in practice.

4. The capitalist core in the abstract: Motive force, underlying relations and key dependencies

Grounded on the above principles and theoretical approaches, the following two sections develop a framework of the capitalist system geared towards comprehending its functioning, the connections to current social-ecological crises and the implications for PGE. The framework raises no claim to completeness. Instead, it focuses on five dimensions of the capitalist system, depicted in Fig. 1.

Dimensions include (i) the system's dominant logic and driving force, and (ii) the specific social relations that underpin it. Taken together, these two dimensions form 'the capitalist core in the abstract'. This article argues that the field of PGE as a whole should engage more thoroughly with 'the core' because it underlies the system's drive for growth (cf. Cahen-Fourot, 2022; Pirgmaier and Steinberger, 2019). Dimension (iii) reconceptualizes 'the core' in terms of systemic dependencies to highlight the reliance of the system's functioning on these core relations. While PGE has scrutinised the system's growth dependency, it has paid less attention to the importance of the remaining four. (iv) represents a set of tendencies, i.e. processes set in motion by 'the core'. Contemporary forms (v) of capitalism are a final dimension. They reflect capitalism's configuration at a specific point in time and shape possibilities for a social-ecological transformation at that historical juncture (cf. Bonizzi et al., 2020; Fine and Saad-Filho, 2010). The analytical distinction between the different dimensions should not obscure their complex interdependencies, which Fig. 1 cannot capture. For instance, capitalists' pursuit of profit maximisation as a systemic imperative arises from the underlying social relations and reimposes itself upon them. As the indepth analysis of the multiple interdependencies goes beyond the scope of this article, I will give examples throughout the text.

4.1. The system's dominant logic and driving force: Capital accumulation and profit

Following the principles established in Section 3, I approach capitalism as a historically specific system of social provisioning, namely 'generalised commodity production for profit' (Fine and Saad-Filho, 2010, 18). As a system's 'purpose [,] is often the most crucial determinant of the system's behaviour' (Meadows, 2009, 16) the explication of capitalism's motive force sets the scene for comprehending both the system's functioning and the behaviour of individual agents within it. Marx's 'general formula of capital' remains a succinct depiction of the fundamental logic of capitalist economies: M-C-M' (Marx, 1867, 108). Money (M) is invested to acquire commodities (C) (human labour power and other necessary means of production such as machines or natural resources) that allow the production of a new set of commodities which can be sold at a profit (M'). The 'difference between M' and M is surplus value', or aggregate profit in its monetary form (Fine and Saad-Filho, 2010, 30, 32; Marx, 1867). The reinsertion of (at least a part of) this surplus into a new M-C-M'-cycle constitutes capital accumulation, and

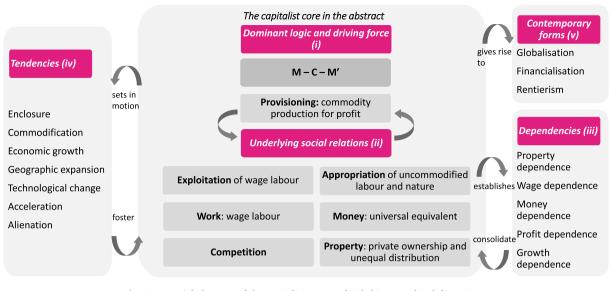


Fig. 1. Essential elements of the capitalist system, divided into 5 related dimensions.

underlies the system's continuous expansion (Marx, 1867).

Crucially, monetary surplus relies on the creation of a surplus product (Pirgmaier, 2021; Shaikh, 2016). When production falters, crisis ensues. The pursuit of economic growth reimposes itself upon agents in the economy, including corporations and governments. Economic growth serves capital accumulation and 'accumulation is the means whereby the capitalist class reproduces itself' (Harvey, 2006, 36: cf. Büchs and Koch, 2017). This is what constitutes capitalism's dependence on both profit and growth (Schmelzer and Passadakis, 2011). This insight is essential for PGE: While economic growth is most openly connected to environmental damage, it must be understood as an outcome of a system geared towards a goal distinct from growth, i.e. capital accumulation and profit (cf. Klitgaard, 2013; Pirgmaier and Steinberger, 2019). For PGE this means that a durable reduction of resource throughput driven by economic growth, and absent sufficient absolute decoupling, can only be achieved when removing the economy's imperative for accumulation and profit. This also applies to the broader aim of PGE to prioritise social-ecological considerations. The production of goods and services as a means to profit generation implies that need satisfaction and ecological sustainability come at best, second. The profit motive underpins the systemic predominance of exchange value over use value, which explains continued shortfalls in human need satisfaction and the transgression of planetary boundaries (Gough, 2017). Vital goods such as food, housing and (health)care may not be provided if they are not profitable, whereas socially and environmentally damaging goods will be produced if they are. A key implication for PGE is that sustainable need satisfaction requires essential goods and services to be taken out of the realm of profit-oriented provisioning (Steinberger et al., 2024).

4.2. Underlying social relations

Capital accumulation and profit as key drivers of the system and their contradiction to the social-ecological endeavour of PGE necessitate a closer scrutiny of their roots. In the following, I therefore establish stepby-step the specific social relations that underlie the system's primacy of accumulation and profit. Marx's analytical starting point, the commodity, still proves powerful because its defining characteristics reveal key aspects of the capitalist system as a whole (Murray and Schuler, 2017). Commodities are defined as 'use values produced by labour for exchange' (Fine and Saad-Filho, 2010, 16). A commodity's use value describes the fact that any commodity must meet human needs or wants. Otherwise, there would be no demand for it and little incentive to produce it in the first place. The exchange value of a commodity expresses its quantitative worth relative to other commodities (Pirgmaier, 2021; Shaikh, 2016). For the exchange of commodities to become generalised, any commodity must stand in an exchange relation to others. They must in some way be (or be rendered) commensurable (Marx, 1867; Pirgmaier, 2021). One 'fundamental property which all commodities share in common is that they are the products of labour. This property draws upon the fundamental insight that societies cannot live (and profits cannot arise) through exchange alone but, instead, that systematic exchange must be grounded within a specific mode of production in order to sustain itself (and society)' (Fine and Saad-Filho, 2010, 16). All human societies ensure their reproduction through a specific way of organising production and exchange of goods and services. Under capitalism, the production of use values for exchange on the market is the main mechanism to do so.⁴

While commodities' shared property - being products of labour constitutes the basis for generalised exchange of commodities, its practical functioning hinges upon the existence of a common denominator able to express the exchange value of uncountable heterogenous products. Money's role as this universal equivalent is a decisive feature of capitalist economies, simultaneously constituting the system's specific money dependence (cf. Lapavitsas, 2016).⁵ One crucial effect thereof is the concealment of the social relations underpinning production and consumption: all kinds of commodities appear commensurable, the specific conditions of their production become invisible, and relations between people appear as merely monetary ones, e.g. connections between employers and employees and between producers and the resources they employ. These various forms of concealment via money provide the ground for the degradation of human and non-human nature because destruction and suffering are obfuscated (Dant, 2000; Nelson, 2016).

Money's function as a universal equivalent also establishes the system's predominance of exchange over use value because it facilitates

⁴ Within and beyond MPE, there has been much debate over the 'labour theory of value'. It is not the purpose of this article to delve into this debate (on which see Fine and Saad-Filho, 2018; Laibman, 2002; Pirgmaier, 2021; Saad-Filho, 2019) but to highlight the predominance of exchange value over use value, enforced by the profit imperative, which characterises capitalist economies.

 $^{^{5}}$ See Marx (1867), Chapter 1 for a detailed account of the emergence of a universal equivalent.

access to specific use values without being tied to them (Exner, 2014). It also enables money to fulfil other functions that are vital for the capitalist system. As a unit of account, means of exchange and means of deferred payment, money facilitates the expansion and acceleration of production, consumption and trade. Money as means of deferred payment, for instance, forms the basis of the credit system that is essential to initiate and expand production (de Brunhoff and Foley, 2006; Lapavitsas, 2016). The circuit of capital, M-C-M', illustrates the systemic relevance of credit. Financial resources (M) must be available prior to any productive undertaking to purchase the necessary means of production (C). These insights on the specific role of money capitalist economies demand PGE to engage more critically with money at a very fundamental level (Nelson, 2022).

Having identified profit as the driving force of capitalist economies, and having located its origin in production, it remains to be explained how it is possible to generate surplus value in the production process and from where the systemic pressure for continued accumulation arises. MPE posits that profit generation is possible only because workers are made to 'work for longer than the time it takes to produce the goods that they can purchase with their wages' (Saad-Filho, 2019, 25). The seizure of the surplus produced by the workers through the capitalist class has been termed *exploitation*. For exploitation to be possible, capital must have the power to command labour (Marx, 1867). This power rests on people's lack of alternatives to wage labour for securing their livelihoods, which, in turn, is premised on the unequal ownership and control of the means of production and subsistence (Barry, 2021a). The dependence of both individuals (workers) and the system on wage labour characterises capitalist economies and is inextricably connected to the monopoly ownership of the means of production by the capitalist class (Gorz, 1993). This is what constitutes the system's property dependence: only when private property rights over essential resources are secured can specific segments of society be excluded from their ownership and use (Harvey, 2015; Pistor, 2019). Without access thereto, people are left with only their labour power to sell to acquire goods and services. What results is a unique and striking characteristic of capitalist economies, namely wage labour as the dominant form of human work, and human labour power itself as a commodity (Fine and Saad-Filho, 2010).⁶ It is important for PGE to fully appreciate this point as it represents a major force keeping people in wage employment, regardless of their will or the usefulness and environmental sustainability of their job (cf. Graeber, 2018; Mair et al., 2020; Soper, 2020). On the flipside, the specific valuation of wage labour invisibilises and devalues many activities that are vital for societal flourishing and cohesion but take place outside of the capitalist market (Barry, 2021a; Dengler and Strunk, 2018).

While the exploitation of wage labour allows the production of surplus value through the capitalist circuit, uncommodified and unpaid activities and resources underpin it (Bakker and Gill, 2003; Huws, 2019a).⁷ Activities such as care for children and sick in communities and households are essential for both society and capital, e.g. ensuring the reproduction of the labour force. All of these 'services' are obtained 'for free', i.e. without monetary compensation. This is what is understood as *appropriation*. A similar argument holds for uncommodified nature. There are uncountable use values that nature provides 'for free', be it natural resources or the atmosphere as carbon sinks (Bauhardt, 2014;

Moore, 2015).⁸ Uncommodified (reproductive) work and nature are essential preconditions for capitalist economic activity but also – crucially – for human and non-human life (Felli, 2014). Yet, the dominance of capitalist imperatives affects these uncommodified and non-monetised spheres which function according to different logics (Barca, 2019; Barry, 2021b; Mair et al., 2020). The profit-oriented expansive mode of capitalist production comes in contradiction to the kind and pace of both ecological and social reproduction, provoking a 'metabolic rift' (Foster et al., 2010b; Moore, 2017). The essential role of these uncommodified, non-monetised spheres must be fully acknowledged by PGE scholars.

Appropriation and exploitation are both mechanisms that allow capitalist production of surplus value. What can explain the systemic pressure to pursue surplus value creation and accumulation is competition. The need to compete against other capitals in a market shaped by uncertainty forces firms to adopt strategies to maximise profits to secure survival (Burkett, 2006; Shaikh, 2016). These encompass socially and environmentally degrading practices such as wage depression and the pursuit of output growth despite ecological overshoot (Douthwaite, 1999; Mair et al., 2020; Saito, 2022) The systemic pressure for individual capitalists to maximise profit arises 'from the imperative of capital in general to accumulate' (Fine and Saad-Filho, 2010, 71). By the same token, the creation of aggregate profit is decisive for the system's stability which hinges on the reproduction of the capitalist class (cf. Cahen-Fourot, 2022; Harvey, 2015). The simultaneity and interconnectedness of 'the relation between capital and labour and the competitive relations among many capitals' underlie the system's expansionary logic (Wood, 2012, 39).

Yet, competition acts as a compulsive force for all agents in the economy (Shaikh, 2016). Competition for jobs pits workers against workers, thwarting solidarity and collective organisation. Competition is decisive in enforcing compliance with the system, thereby impeding change at the level of an individual agent (Fine and Saad-Filho, 2010). Due to globalisation, the nature of competition is global and encompasses not only corporations and workers but also states. The systemic pressure to secure conditions conducive to growth and profit constitute a 'glass ceiling' for what kind of political interventions states can advance to bring about a social-ecological transformation (Hausknost, 2020; Hausknost and Hammond, 2020). This insight cautions against a reliance on contemporary capitalist states and policy-makers as drivers of post-growth trajectories, rather pointing to the necessity for capitalist states and institutions themselves to be transformed (D'Alisa and Kallis, 2020).

The discussion of 'the capitalist core in the abstract' crystalises several important insights for PGE. Maybe most important is the conclusion that the reorientation of the economy away from the pursuit of economic growth towards universal wellbeing within planetary boundaries necessitates the alteration of the social relations underlying the current system. The system's drive towards continued growth must be understood as emergent from the specific configuration of property, work and money as well as relations among and between human and non-human nature (cf. Barry, 2021b; Blauwhof, 2012; Cahen-Fourot, 2022; Frémaux, 2019). Breaking the system's growth dependence thus requires the simultaneous dissolution of its dependence on profit, wage labour, the private and unequal ownership of essential resources and money as universal equivalent (cf. Gorz, 1993, 2007; Gough, 2017; Spash, 2024; Vergara-Camus, 2019). This involves the reconfiguration of people's relations to each other and to nature away from exploitation, appropriation and competition (Adamczak, 2017; von Redecker, 2020). While these are taken for granted in much of contemporary economics,

⁶ Marx distinguishes between labour power, people's general capacity to work, and labour, its concrete execution (Fine and Saad-Filho, 2010). What workers sell and capitalists purchase is labour power.

 $^{^7}$ See Fine (1992) and Huws (2019a, 2019b) for a deeper discussion of the multiple ways in which non-wage labour relates to the production of surplus value.

⁸ Despite differences between non-commodified human and non-human nature I follow Ecofeminist Economists who highlight parallels of the ways in which capital relates to unpaid (female) labour and nature (Bauhardt, 2014; Dordoy and Mellor, 2000).

for PGE to guide systemic change it must vigorously and holistically scrutinise and challenge them.

5. Emerging tendencies and contemporary forms of the capitalist system

The fundamental logic and relations of the capitalist economic system discussed in the previous section constitute the basis for capitalism's dynamism and expansion. This section elaborates capitalism's dynamism along two dimensions: emerging tendencies (Section 5.1) and contemporary forms (Section 5.2). Both dimensions have high relevance for PGE. The tendencies discussed here are dynamics that arise out of the specific capitalist social relations and contribute to their consolidation. A sound understanding of capitalism's contemporary forms is a prerequisite to make adequate proposals for transformative interventions at the current historical juncture.

5.1. Tendencies

Without any claim of completeness, I discuss here seven tendencies that emerge from the system's core relations and contribute in specific ways to social-ecological crises. This section builds on and elaborates Pirgmaier (Pirgmaier, 2018, 2022). First, the system's dependence on privately owned and unequally distributed resources gives rise to the tendency for ever more common goods and resources to be brought into a regime of private ownership (cf. Khan and Clark, 2016). This process, *enclosure*, ensures the basis for the functioning of the system by securing private property rights over resources and assets, including the means of production. It thereby simultaneously safeguards the fundamental divide between capital and labour. The amount and kinds of processes and things that have been enclosed throughout the history of capitalism span the natural and social world, including essential means of (re-) production such as land and knowledge (Harvey, 2015).

Second, commodity production being a means to profit-making excites a tendency for *commodification* (Pirgmaier, 2022). Goods and services that were previously provided outside of the capitalist market are integrated into the realm of capitalist provisioning. The recent commodification of essential services such as 'housing, education, health care and public utilities [...] in many parts of the world' speak to this (Harvey, 2015, 24). The integration into the capitalist market changes the logic that governs the provision of goods and services: the pursuit of profit gains dominance over their provisioning for need satisfaction in line with planetary boundaries (cf. Aulenbacher et al., 2018; Gough, 2017). Commodification further consolidates the system by fostering people's wage dependence because newly commodified goods and services necessitate monetary payments for access (cf. Soper, 2020).

Third, the pursuit of profit drives the permanent increase of commodity production in quantitative terms, evoking the tendency for *economic growth* (Foster et al., 2010a; Gough, 2017). There exist different ways to increase output and market shares, e.g. by an expansion of productive capacity, including machinery and the number of employees, and a broadening of the range of products (Douthwaite, 1999; Pineault, 2019). As profits are only realised when products are actually sold, growth in production must be accompanied by a growth in consumption, thus instigating numerous mechanisms to stimulate demand, including advertisement, planned obsolescence, state and regulatory capture (Baran and Sweezy, 1966; Khan and Clark, 2016; Mattioli et al., 2020). The escalation of extraction and use of energy and material resources as well as greenhouse gas emissions are a corollary of the profit-driven and intertwined growth of production and consumption (Hickel and Kallis, 2019; Malm, 2016).

Fourth, profit-making opportunities tend to increase the more resources can be mobilised by capital, thus creating a tendency for *geographic expansion* (cf. Reuten, 2019). The establishment of capitalist relations in ever more places increases the amount of wage labourers, sites of extraction, production and outlet that capital can draw on. Concomitantly, there is an erasure of non-capitalist forms of social provisioning, an increase of people locked into wage dependence and environmental degradation at heightened scale (cf. Malm, 2016).

Fifth, permanent technological and organisational change springs from the pressure for capitals to remain competitive and profitable (Ghosh, 2012; Pirgmaier, 2018). In the pursuit of increasing profit, technological change under capitalism tends to take the form of rising labour productivity, e.g. via the innovation of production techniques and a more sophisticated division of labour (Douthwaite, 1999; Fine and Saad-Filho, 2010; Jackson, 2021). Rather than leading to a stabilization of output coupled with a reduction of working time, technological change in the pursuit of profits is used to continuously increase output, undermining hopes for sufficient decoupling (Foster et al., 2010a; Mair et al., 2020; Pirgmaier, 2018). Economic expansion as a means to counter technological unemployment, or the creation of a 'reserve army of labour', feeds this process (Fine and Saad-Filho, 2010; Jackson and Victor, 2011). Higher resource throughput is one outcome, fuelling expanded and accelerated environmental degradation (Mair et al., 2020). Another effect of the constant pursuit of labour productivity increases is the devaluation of sectors that are essential for need satisfaction but have low potential for productivity increases, care being a prime example (Walker et al., 2021; Jackson et al., 2023; cf. Baumol, 2012).

Sixth, *acceleration* of production, distribution and consumption is another tendency emerging due to the competitive pressure for profit (Passarella and Baron, 2015; Pirgmaier, 2018). The faster commodities are produced, distributed, and sold the faster capital can be reinvested. By the same token, the accelerated speed of the capitalist economy increasingly comes in conflict with the pace of natural processes. Heightened environmental impact of accelerated economic processes is one result (Kovel, 2007; Saito, 2022). Another is increasing conflict with human physical and psychosocial capacity, expressing itself in the rise of mental and psychological illnesses due to an accelerated pace of life (Rosa et al., 2016; Soper, 2020).

Seventh, *alienation* results from and drives these dynamics. Alienation relates to the estrangement of workers from the product they create and the production process in which they engage (Marx, 1932; cf. Mair et al., 2020). Workers not owning the means of production and being commanded by capital as well as automation create this rift (Clark and York, 2005; Gorz, 1993). The increasing geographical separation of people from the land and the distinct quality in which nature enters the production process leads to the alienation between humans and nonhuman nature. People losing connection to the foundations of their existence lays the foundation for its degradation (Foster and Burkett, 2016; Hudis, 2013; Pirgmaier, 2018).

The analysis of these tendencies bears several implications for the field of PGE. Given their contribution to the system's functioning, counteracting one or more tendencies may weaken capitalism's expansion and related environmental and distributive effects. Efforts of decommodification and de-alienation are therefore key for PGE (Brownhill et al., 2012; Gerber and Gerber, 2017). By the same token, the interconnectedness and mutual reinforcement of the different tendencies impede the change of only one parameter. Measures to rein in economic growth in the Global North, for instance, would clearly reduce the environmental pressure arising from expanded output. Yet, technological change and geographic expansion would continue to be deployed to increase output and profit. The lasting abrogation of these tendencies ultimately relies on the alteration of the social relations underlying them. PGE scholars should assess and design their proposals for transformation in that light.

5.2. Contemporary forms: globalisation, financialisation, rentierism

PGE's aim to offer guidance out of the current social-ecological crises necessitates an in-depth analysis of capitalism's contemporary configuration. While there exist analyses of some of these developments within PGE, more research is necessary to account for their implications for a post-growth transition (Klitgaard, 2013). The following section illustrates how it can be done. Tracing the development of different factions of capital is a fruitful way to comprehend the recent restructuring of the system as a whole (Bonizzi et al., 2020). Globalisation, financialisation and the rise of rentierism emerge as three key developments of capitalism in the last decades.

Globalisation can be understood as a part of 'capital's organisational and spatial transformations' (Starosta, 2010, 540) at a world stage. It includes the growth and internationalisation of production (industrial capital), an increase in cross-border trade (merchant's capital) and financial activities (interest-bearing capital) (cf. Bonizzi et al., 2020). Capital's global reach allows it to settle wherever most profitable conditions are to be found, giving rise to unequal, if variegated patterns in which globalisation plays out. Multinational corporations with headquarters in the Global North have been able to repatriate profits from production outsourced to countries in the Global South (Durand and Gueuder, 2018). The growth and restructuring of global trade has meant a 'growing spatial disconnect between resource use and emissions in production and consumption' (Plank et al., 2018, 4195). Consumption in high-income countries relies to a large extent on carbon-intensive production elsewhere (Chancel and Piketty, 2015; Hubacek et al., 2017; Liddle, 2018). This is connected to a transfer of material resources and labour from Global South to Global North (Hickel et al., 2022). These social, economic and environmental injustices foster global inequities and impede local economic development in the Global South. Despite recognising these global interconnections, PGE as a whole has yet to fully draw the implications for a post-growth transition. For instance, it should pre-empt potentially disrupting effects of changes in consumption patterns in the Global North on countries in the Global South that are implicated in their production. The focus on interventions in the Global North should be widened to the institutional structures shaping production and trade on a global scale and inhibiting selfdetermined economic and political trajectories in the Global South (cf. Chiengkul, 2018).

Financialisation, the quantitative and qualitative rise of interestbearing capital, is another development that warrants greater attention. It manifests in the tremendous increase of financial activity relative to productive investment and a strengthening of financial institutions and financial imperatives in social provisioning (Ashman and Fine, 2013; Fine et al., 2016). Financial capital has moved into spheres that have previously been under the auspices of the state, such as the provision of health care, housing or education, thus changing the provisioning logic accordingly (Bayliss and Fine, 2016; Walker et al., 2024; Khan and Clark, 2016). Moreover, policy-making itself has been financialised (Fastenrath et al., 2017; Gabor and Ban, 2016). Continued financial investment in dirty industries such as fossil fuels is another development that has not only driven environmental degradation but has created perverse financial stability risks related to the phase-out of respective industries due to related asset stranding (Durand, 2017; Semieniuk et al., 2021). Rising household debt reflects banks' search for financial profit through debt-based consumption (Barry, 2021a). The need to repay debt with interest ties households even more strongly into wage labour and is thus an additional force impeding economic actors to step out of the system (FESSUD, Financialisation, Economy Society and Development, 2017; Mellor, 2010). Financialisation has also been associated with an increase of inequality within many high-income countries and a weakening of labour around the world (Hein, 2017; Izurieta et al., 2018). Despite context-specific variegation, patterns of financialisation generally reflect countries' subordinated position in the global economic and monetary hierarchy (Bonizzi et al., 2020). PGE should account more strongly for the multiple facets of financialisation and the specific challenges they pose for post-growth trajectories. This includes, for example, the specification of ways to curb the power of financial actors and imperatives to shape provisioning, policy-making and 'solutions' to the social-ecological crises (cf. Dafermos et al.,

2021; Gabor, 2021).

A final, and maybe more contested development of capitalism is rentierisation. Analogising to rent appropriation by landlords, rentierisation can be understood as an increase in the share of aggregate profit appropriated on the basis of 'ownership, possession or control of assets that are scarce or artificially made scarce', not or hardly reproducible and substitutable, and to some extent essential for (re)production (Standing, 2017, 3; Christophers, 2021, Christophers, 2022; UNCTAD, United Nations Conference on Trade and Development, 2017, UNCTAD, United Nations Conference on Trade and Development, 2018). One area of putative rentiership is intellectual property (IP). The relevance of information, knowledge, data and technology in the economy coupled with the possibility to render them scarce by means of IP rights create the possibility to charge rents for access (ibid.). Recent examples 'for the expansion of IP protection to new areas include the rise of financial and business method patents [...], as well as patents on life forms and on developments in software (Lerner et al., 2015)' (UNCTAD, United Nations Conference on Trade and Development, 2017, 137). Five of the world's largest corporations being digital technology firms indicates a rise of 'digital rentiership' (Birch and Cochrane, 2021, 2). Despite this evidence, the extent to which IP is merely mobilised as a rent-bearing asset is hard to determine. Information (technology) has played a central role in the production and distribution of goods and services throughout the history of capitalism. Today, digital platforms allow for higher profits through the outsourcing of physical and managerial costs to workers (Montalban et al., 2019; Srnicek, 2017). The determination of the absolute and relative rise of rentierisation on a global scale warrants more research (Christophers, 2019). Notwithstanding these uncertainties, the various threats of 'rent extraction in a resource-constrained future' demand attention of PGE scholars (Stratford, 2020). This includes intensified efforts of enclosure of essential resources to extract rents, which implies the exclusion of people from access. In view of the current distribution of power this is likely to aggravate existing inequalities between low- and high-income countries and people. Rentierisation prefigures a fundamental transformation of social provisioning that PGE must address (Durand, 2020).

6. Conclusion

PGE has emerged as a new paradigm that seeks to guide the reorientation of the economy away from the primacy of growth towards universal need satisfaction within planetary boundaries. This article has argued that the more comprehensive and systematic appreciation of the constituent relations and dynamics of capitalism would strengthen the theoretical foundations of PGE, and thereby the field's ability to guide the urgently needed systemic change of the economy. This article has sought to contribute to this effort by developing a framework of 21st century capitalism ready for use by PGE scholars. Building on critical work from within and outside PGE, the specific contribution of this article lies in the step-by-step elaboration of a theoretical framework of capitalism that enables the comprehension of the system's role in socialecological crises, and the identification of possibilities and challenges for systemic change.

The most crucial insight for PGE may be the analysis of economic growth as the outcome of a system geared towards capital accumulation and profit. This insight implies that a reorientation of the economy away from growth and towards 'the good life for all within planetary boundaries' (O'Neill et al., 2018) warrants the transformation of the economic system as a whole. Achieving growth independence thus also necessitates the dissolution of the system's and agents' dependence on profit, money as universal equivalent, wage labour, and the private ownership and unequal distribution of essential resources. The system's reliance on the exploitation of workers and the appropriation of uncommodified work and nature forces PGE to the challenge of a fundamental reconfiguration of interhuman relations and relations to non-human nature. Money as a universal equivalent disguises these relations. Hence, PGE must scrutinise more fundamentally the quality and scope of money, including the question "How on Earth could we operate a society without money?" (Nelson, 2016, 56; see also Exner, 2014). In view of the key role of wage labour in capitalist economies, PGE should also engage more strongly 'with the centrality of work and class in the transition to a post-carbon and post-capitalist paradigm' (Barca, 2019, 207). More generally, there is the need for a theory of agency and power geared towards systemic change in the 21st century.⁹

The analysis of tendencies emerging from the capitalist core highlights mechanisms that contribute to the system's expansion and dynamism. Countering these tendencies, e.g. via decommodification or dealienation, represents a means to oppose the system's expansion (Brownhill et al., 2012; Gerber and Gerber, 2017; Van Griethuysen, 2012). However, the long-term transformation of the economy depends on the durable alteration of the underlying social relations. The same holds for capitalism's contemporary forms. While any attempt for transformation must account for the distinct challenges that arise from globalisation, financialisation and rentierisation, systemic change requires targeting the capitalist core.

From this theoretical analysis follow several essential avenues for PGE research and political action, which I will discuss in greater depth in a sequel to the present article. Most fundamental is the elaboration of mechanisms to dissolve the system's dominant social relations and dependencies in a social-ecological manner. This includes ways for people to satisfy their needs independently of wage labour, mechanisms to facilitate not-for-profit forms of economic organisation as well as alternatives to the current regime of private and concentrated ownership and control of essential resources (Barry, 2016; Gough, 2017; Mair et al., 2020). There exist proposals that address these issues, and that PGE should therefore emphasise more strongly both in research and political advocacy. Universal Basic Services is one. Direct sufficiency-oriented provisioning of essential goods and services free of charge would reduce people's wage dependence and reduce the realm of profitoriented commodity production more broadly (Coote, 2021; Coote and Percy, 2020). Economic democracy is another key area because it advances non-capitalist, democratic and common forms of ownership and governance of organisations, resources and the macroeconomy (Akbulut and Adaman, 2020; Barry, 2016, 2021b; Hausknost and Hammond, 2020; Johanisova and Wolf, 2012; Steinberger et al., 2024). Past and present debates around democratic planning, monetary-fiscal coordination and monetary reform can be sources of inspiration in this undertaking (cf. Aguila et al., 2024; Durand et al., 2024; Monnet, 2018; Olk et al., 2023).

Accounting in greater detail for the globalised and financialised nature of contemporary capitalism, scholars of PGE should dedicate more attention to proposals for altering the economic and financial system at a global level. This includes stronger engagement with the agents that dominate the global economy, including multinational corporations, big tech companies, bank and non-bank financial institutions. It also concerns international organisations like the World Bank and the International Monetary Funds which shape countries' space for political and economic manoeuvring, especially in the Global South (Dafermos et al., 2021; Gabor, 2021). The analysis of this article reveals the formidability of systemic change. Yet, it also seeks to show how the constructive integration of Marxist and Eco-Feminist analyses capitalism with De-/Post-Growth thinking could strengthen PGE's theoretical and methodological foundations to live up to the task of not only imagining but also preparing the end of capitalism so to prevent the end of the world.¹⁰

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Elena Hofferberth: Writing – review & editing, Writing – original draft, Visualization, Methodology, Investigation, Formal analysis, Conceptualization.

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⁹ As one reviewer suggested, 'a theory of agency' could be added as a sixth principle for developing a theoretical framework suited for systemic analysis and change.

¹⁰ Rephrasing the slogan 'that it is easier to imagine the end of the world than it is to imagine the end of capitalism' (Fisher, 2009, 2).

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