



FORUM

Constructions, cleavages, and complementarities: Macro- and micro-approaches in the study of green finance

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Abstract

The complexities and contradictions of ‘green’ finance demand multidimensional perspectives in critical socioeconomic research. Current studies often remain fragmented, focusing either on global financial structures or micro-level practices without fully integrating both. This essay advocates for a more integrated analytical approach, employing three components: constructions, cleavages, and complementarities. At the micro-level, green finance is constructed by diverse actors, influencing macro-level financial governance and capital flows. Conversely, macro-structural shifts, driven by geopolitical and institutional dynamics, shape micro-level activities forging new alliances and oppositions – cleavages. Since the responses of actors and their institutional context to green finance are diverse, new institutional and agentic complementarities emerge. How green finance alters the relationship between financial markets and political-economic institutions, and how this unfolds across national economies, shapes our understanding of capitalist varieties and the emergence of new actors and networks. The essay contends that linking these dimensions and integrating micro- and macro-approaches enables scholarship to pursue a shared understanding of green finance and its (in)capacities to confront socioecological crises under financial capitalism.

Keywords: financialization; green finance; macro-structures; micro-foundations; nature and climate

Introduction

Green finance presents a new research problem to those studying finance and the financial system from a heterodox and critical perspective. Allegedly addressing the triple planetary crisis of climate change, pollution, and biodiversity loss, green finance directly interferes with the collapse of the functional and conceptual fault lines between the natural and human systems that undergird planetary life – and with it, the conditions of political economies.

While environmental degradation makes many places uninhabitable, climate-related risks introduce further instabilities for the ‘business-as-usual’ operation of the financial system and the economy at large. Simultaneously, political action is called out for being

‘too little, too late’, while the assignment of enhanced influence over environmental matters to private finance raises pressing questions regarding representational policy-making, climate and distributional justice, and the (in)compatibility of environmental action with the profit motive. These questions arise especially from emergent understandings of green finance as a *new governance regime*, which has institutionalized the claim to cope with the planetary crisis and climate-society relations through finance across social, economic, political, and material scales – a prerogative suggesting *green* finance as a phenomenon and research object in its own right (see Kob, Taeger, and Dittrich in the Introduction to this Forum, cf. Mertens and van der Zwan, 2025). If this understanding of green finance is correct, then studying its nature, conditions, and consequences necessitates a truly multi-dimensional perspective.

Thus far, social scientific analysis of the phenomenon of green finance has rarely taken such a multi-dimensional perspective, and where it has, this has tended to remain implicit. Instead, research has developed along the lines of an academic division of labor, such as studying either the microfoundations of contemporary capitalism or macro-structures like institutions and systems. The former can be merited with having shown, for instance, how environment-linked assessments and measurements have been captured by market and financial practices and affordances, especially around carbon markets and footprinting (Callon, 2009; Langley et al., 2021; Liu, 2017; MacKenzie, 2009), and how ‘green’ financial products reflect questionable or even detached relations to biophysical reality (Bracking et al., 2023; Chiapello and Engels, 2021). The latter, more macro-oriented branch of investigation, in contrast, has pointed out the ‘blindspots’ of comparative and international political economy scholarship in addressing climate change (Green, 2023; Paterson, 2021) and has challenged rather instrumental understandings of green finance by stressing its embeddedness ‘in a diffuse landscape of regulation, politics and power relations’ (Sharma and Babic, 2025: 3). In other words, these contributions have been critical in developing the field of engagement with green finance but have found little opportunity to cross-fertilize and engage with each other.

This poses an important problem for research on green finance. Macro accounts usefully capture the ‘big picture’ and thereby usually highlight the stability and resilience of ‘business-as-usual’. However, they offer insufficient attention to the constant changes at the micro level that give rise to green finance while continuously reproducing such environmentally, socially, and politically problematic established configurations. This micro-macro discrepancy of perceived stability and change (also reflected on from a different angle by Dittrich, Gross, Hakala, and McDonnell in this Forum) poses challenges for acquiring a holistic understanding of the nature of green finance and its implications for the functioning and governance of capitalist societies in the climate crisis.

We posit that macro and micro approaches to green finance can, if acknowledged in their own right, complement each other. This, we contend, can help researchers to scrutinize where green finance is simply another reiteration of the workings of global finance, and where it involves actual change – in ideas, institutions, or practices. We build this argument by addressing questions of how micro relations feed into macro mechanisms and, vice versa, how macro-institutional phenomena translate into micro-foundational changes. Our argument builds on insights that macro-patterns always build on micro-foundations (Collins, 1981), without disregarding the reciprocal effects of such patterns on how micro-interactions form and play out (Fine, 1991; Rueschemeyer, 2009). Political economy, in particular, is said to ‘benefit from a more explicit micro-foundation in a sociological theory of action’ while the latter could learn ‘from more systematic consideration of politics and the state’ (Beckert and Streeck, 2008: 3). Therefore, this essay proposes a more holistic approach to green finance that acknowledges the importance of both levels in its interdependent and co-constitutive nature.

Approaching the multi-faceted phenomenon of green finance, we underscore the value of integrating both macro- and micro-perspectives for capturing the mechanisms by which green finance emerges and evolves. Inspired by political economy's prominent 'three Is' – institutions, interests and ideas – to study societal phenomena (Hall, 1997), we introduce the 'three Cs' – *constructions*, *cleavages*, and *complementarities* – to conceptually integrate different levels of analysis and evaluate how micro-foundations and macro-structures operate in concert. At the micro-level, green finance is *constructed* through interactions among diverse actors, contributing to macro-level transformations in financial governance and capital flows. Conversely, macro-structural shifts, influenced by geopolitical dynamics and institutional configurations, filter down to shape micro-foundational activities, creating new alliances as well as new oppositions – *cleavages*. Since the responses of actors and their institutional context to green finance are diverse, new institutional and agentic *complementarities* emerge. The way in which green finance may change how financial markets relate to political-economic institutions and how this unfolds across national economies impacts the way in which we understand capitalist varieties. This also translates into micro-foundational changes in actor constellations and the emergence of new actors complementing existing networks. In sum, we hope to show the value in exploring the interdependent processes of constructions, cleavages, and complementarities on both micro- and macro-levels of analysis.

While we do not seek to propose a comprehensive framework for studying macro-micro relations, we do carve out possibilities to reach a shared understanding of the phenomenon of how green finance appears and acts in the reactions to the problem of existential socio-ecological breakdown and renewal. Through such shared work on the micro-macro connections that constitute green finance, we hope to move closer to capture how green finance 'is made a reality' (Beckert in Fourcade et al., 2023), and what this allows us to say about such realities as part of a reproduction of capitalism in times of socio-ecological degradation and emergency. We hope to foster opportunities for prospective research to take both the micro and the macro level of analysis seriously and thereby provide a more holistic account of the nature, impact, and consequences – or lack thereof – of the rise of green finance.

Constructions

A core debate concerning green finance revolves around the question of what constitutes finance that is 'truly green' and what poses as 'green' but is decidedly not so – in other words, greenwashing. Such concerns are not only part of scholarly debates (e.g. Bracking et al., 2023; Fichtner, Jaspert, and Petry, 2024; Parfitt, 2024) but also inform regulatory efforts in this domain (e.g. the EU Sustainable Finance Action Plan, the UK's Green Claims Code, or the Taskforce on Climate-Related Financial Disclosures' reporting guidelines). However, the existence of a 'false green finance' simultaneously implies that 'true green finance' exists. Yet, an analytical approach focusing on the intersecting points between the macro and the micro arguably involves investigating the enactment of 'green' finance beyond true-or-false characterizations (see also Golka, 2024). Instead, it asks how it manifests in observable social and material interactions, identifying those sites where constructions of 'false' and 'true' green finance occur and take on meaning.

Constructions are a core issue in more micro-foundational approaches to socio-economic research. Concerned with the coming together of different types of actors, settings, and interests, such approaches tend to focus on what is actively construed in empirical interaction. A focus on interaction can be helpful to steer attention toward how exactly empirical phenomena are enabled, maintained, and ultimately co-created on the micro level. Although ideas, norms, values, concerns, discourses, etc. are of high importance in

such analyses, they need to be performed and shaped, even created in interaction, which is also where they clash, coincide, complement, or suppress others. This points to the particularly productive character of constructions investigated in such ways.

How constructions come about on the microlevel and feed into the macro level is well illustrated by the interlinkages between micro and macro levels in the construction of green finance when honing in on the production of the EU Taxonomy for Sustainable Activities. Formally an effort to produce a knowledge-based classification of what constitutes a sustainable economic activity, the Taxonomy's history reveals how meanings are constructed in reality through contestation and the exercise of power. Political and economic interests successfully prevented the development of a 'red' taxonomy of harmful economic activities and, notoriously, managed to include natural gas and nuclear energy in the taxonomy – leading to the exit of environmental groups from the EU's Sustainable Finance Platform (Fontan, 2025). The result is an influential green finance governance framework that is constructed in numerous interactions on the micro-level, pervaded by power plays and forged due to specific institutional rules.

Like the EU taxonomy example, the inscription of existing and emerging ideas around the environmental character of assets, be it 'green', 'brown', or 'dirty', or otherwise illustrate similar constructions. These categories are not only abstract concepts of risk and financial stability in relation to climate and sustainability, but they forge socio-environmental realities and futures. For example, the articulation of 'climate targets' and 'transition plans' are not just 'symbolic' activities to appease expectations and regulations (Clift and Kuzemko, 2024). Instead, they produce concrete realities through practical assessment processes and devices that inform investment decisions and justify largely unchanged capital flows that may reinforce existing industrial positions. This hardwires such positions on a micro-foundational level into technoscientific climate regimes with the help of 'green' finance (Field, 2022). Similar things could be said about the qualification of assets as carriers of impact attributes or assets as 'stranded' or as 'kept afloat.'

Therefore, ideas such as 'green' or 'brown' assets are not only conceptual constructions, they also need to be performed and manifested in interaction in micro-foundations, which create and co-produce macro-structural phenomena. The way in which actors come to understand climate and transition risks associated with asset valuation as well as what kind of assets are 'green' or 'sustainable' and how they act on that understanding thus has important implications for macro-level outcomes, such as global patterns of capital flows and potentially (financial) institutional change.

Cleavages

Cleavages are widely understood as deep and potentially enduring divisions in society (Lipset and Rokkan, 1967). The 'constructivist challenge' to more structural and agentic approaches to political economy has been to destabilize the fixed assumptions about the nature of interests and institutions, which poses a challenge to traditional political economy. Interests are commonly assumed to be based on actors' positions within the economy. Even when divided into two simplified broad groups – the short-term profit-oriented capital of the market-based world and the patient capital of the bank-based world – finance appears as a resource-heavy sector with a structurally privileged position in the political economy shaping various macro-outcomes (Dafe et al., 2022). Yet, who constitutes a financial actor, and which interests they hold is not always predictable and may potentially represent new divisions in society.

Case in point is the critical response from some of the world's largest investors and investor groups to the EU Commission's intended omnibus legislation to amend its sustainable finance regulations. Although investors have often lamented the costs

associated with the regulatory burden posed by EU rules, the signatories are calling for ‘long-term policy stability’ and warn against a ‘significant’ weakening of the rules (Eurosif, PRI, and IIGC, 2025). By the same token, green finance has also opened a window for non-financial actors to transform into financial sector players: both the United Nations Environmental Programme and the World Wildlife Fund are examples of prominent organizations that have successfully reoriented themselves toward the financial sector (Anyango-Van Zwieten, Lamers, and Van der Duim, 2019; Park, 2012) – in some cases co-shaping the ‘unlikely coalitions’ that help institutionalize green finance as a governance regime (Tischer and Ferrando, 2024).

But also from a micro-foundational perspective, interests are complex and hard to capture due to their interdependent nature. They, too, need to be manifested and interactionally asserted to become meaningful and effective. It is, therefore, crucial to seek out micro-foundational alliances, struggles, inclusions and exclusions of concerns of actors, and the ways and means by which they are enabled or disabled. This includes social as well as technical entities that take part in interactions, enshrined in and at the same time performing and shaping macro-structural phenomena. Returning to our previous example of the EU Taxonomy, for instance, Seabrooke and Stenström (2023) have interrogated how implicit yet shared understandings on who counts as a credible expert, and who does not, shaped the inner workings of the EU’s High-Level Expert Group. They show how those well-versed in the financial language of risk and return enjoyed a more privileged position within the expert group – and thus engaging constructions of green finance in particular ways – than members employing more environmental discourses. Importantly, these were not always financial sector representatives: here too, the fluidity of financial expertise meant that those crossing sectoral boundaries between finance, civil society, and the public sector were better positioned to successfully navigate the contested deliberations around the Taxonomy.

As the examples above illustrate, green finance gives pause to reconsider who the main actor groups within the financial system are, what constitutes their interests, and how green finance is shaped by the emergence of new cleavages. In the study of global finance, an oft-mentioned cleavage is one between debtors and creditors, where uneven power relations shape macro-structures and micro-processes alike (Vargha and Pellandini-Simányi, 2021). This cleavage, in the context of the framing and defining of green finance characteristics exemplified in the above examples, translates into asset ownership of climate-vulnerable assets and climate-forcing assets (Colgan, Green, and Hale, 2021). As the climate crisis accelerates, scholars assume that new conflicts will emerge between ownership of assets endowed in fossil fuel industries, for instance, versus those exemplified by coastal property (Colgan et al., 2021; Taylor, 2020). In pursuing their interests, owners of climate-vulnerable assets are assumed to support climate policy, while owners of climate-forcing assets are assumed to obstruct climate politics. This links to the different *constructions* of what is understood as ‘climate vulnerable’ versus ‘climate forcing’. Depending on these constructions, potentially new interest alignments are formed, which may lead to yet new cleavages (Ausserladscheider, 2024).

A productive case for illustrating the interdependence of macro- and micro-dynamics is the Network for Greening the Financial System (NGFS) and the processes of what Helleiner, DiLeo, and van ’t Klooster (2024) have called ‘competitive regime creation’. Having become a critical transnational actor in shaping green finance, the NGFS’s emergence can be traced back to new coalitional dynamics that responded to geopolitical reordering and the retreat of the United States from international organizations. On a micro level, the emergence of the NGFS led to a ‘conversion’ of central bankers in order to ‘forge’ a new climate consensus, such as in the case of the European Central Bank (Deyris, 2023). As the ‘competitive regime’ is created, the US – once at the forefront of financial globalization – enacts its domestic crusade against ‘woke capitalism’, which in turn affects the global

regulatory politics around green finance. In contrast, the EU and China have already put their weight into green finance standard setting that differs from the old politics of US-led financialization (Larsen, 2023). This research shows how the shape and role of the NGFS, as well as rulemaking for green finance more generally, reflects the agency, meaning-making, and identity-building of specific financial technocrats at the finance-environment nexus. In this sense, the micro-level interactions of financial technocrats translate geopolitical cleavages into new structures of transnational financial governance.

In short, financial interests are fluid and complex, and therefore cannot be predicted based on actors' positions or institutional contexts. With the rise of green finance, this brings about new cleavages that play out on both levels. Complex micro-level negotiations, such as those around expertise and asset ownership, underscore how shifting coalitions and geopolitical dynamics are reshaping the global financial landscape.

Complementarities

The last concept through which we propose to bridge the micro and the macro is inspired by institutionalist political economy, most importantly the Varieties of Capitalism (VoC) framework (Hall and Soskice, 2001). Accounts on financialization and growth models, for instance, have provided insightful critiques of the VoC's static focus on institutional complementarities, arguing that it underemphasized dynamic changes in economic models driven by shifting demand patterns, global financial flows, and the increasing dominance of financial markets in shaping economic behavior and policy trajectories (Ban and Helgadóttir, 2022). This, we believe, carries important implications for the study of green finance. Most importantly, green finance might produce new variations and differentiating lines across jurisdictions. Recent studies suggest that capital market development and financial modes of governance might be changing with the rise of green finance (Gabor and Braun, 2025). This begs the question of whether and to what extent new capitalist variation along 'green-brown' lines exists – a fruitful ground for prospective research (Finnegan, 2020).

Complementarities, or the idea that institutional domains within a political economy work together to co-create a particular outcome, can serve here as a joint node of analysis. After all, green finance is ultimately – and ideally – about providing the capital for (however construction-defined) green activities by non-financial firms, households and municipalities, or cooperatives. In other words, a return to a very old-fashioned situation whereby finance serves other domains in the economy and not just itself: production systems, corporate governance, labor markets, training systems, or modes of consumption and investment. The intersection between these domains, where the complementarities either fail or succeed, provides a useful starting point to connect the macro to the micro. Recent studies have shown, for instance, that traditions of non-market coordination in coordinated market economies (CMEs) have been extended beyond the realms of the labor market and corporate governance toward 'sustainable' and 'green' finance (Četković and Buzogány, 2017; Nahm 2024; Smoleńska, 2025). Private governance initiatives such as the Netherlands' Climate Commitment for the financial sector beg the question of whether some political economies produce more sustainability-oriented finance than others (Wiß, Anderson, and Van der Zwan, 2024).

Beyond institutional complementarity, the nature of such intersections empirically manifest in micro-foundational interactions too. Micro-level complementarities can be understood as negotiated on a practical level, where (inherent) financialized maxims of 'self-serving finance' navigate such 'green' affordances now bestowed on them e.g., via screening, capital allocation, disclosure, etc. A fairly unarticulated feature of climate-related reporting regimes, for instance, is what we might call its intended or unintended

‘political economy of attention’ or ‘hermeneutic effect’ around forming understandings of environmental dimensions of financial objects (c.f. Archer, 2024; Folkers, 2024). Whether these objects are assets, portfolios, or loans, finance has to articulate, or construct, the environmental aspects of the objects they own or manage (Golka, 2024). Financial actors do this only partly on their own terms, being embedded in a broader system of incentives, information signals, and relations of appropriateness. By looking at how things such as ‘carbon’ attributes are constructed in practice on the ground, it becomes clearer how agency and power are distributed between private and public financial institutions, as well as, for example, analytics providers and their own practices and structural situatedness (Dimmelmeier, 2023; Kob and Dittrich, 2024). Business models and technical infrastructures enclose information, which layer different interests of competitive information markets onto those of incumbent financial interests on the macro level. Such different interests, in this case in the processes of portfolio carbon footprinting, align by means of sociotechnical interdependencies, here to express and account for ‘financial emissions’ (Kob and Dittrich, 2024). This shows how these diverse actors, their expertise, roles, and interests often act *complementarily* in the context of green finance, adding central actors and new sites previously under the radar to the palette of the political economy of ‘green’ finance.

A micro-foundational approach in this regard can highlight how green finance is defined and negotiated in multiplicity in the field and how this spectrum unfolds and shapes transition efforts at the aggregate level in different ways. In this context, institutional interests, positions, and power are not as clear-cut as, for example, in VoC concepts. These dynamics require placing more nuanced and micro-foundational lenses on dynamics of social and material struggles and how they feed into macro-level structures. More integrated micro-foundational and macro-structural perspectives can then shine light not only on cleavages but also on complementarities for increasingly complicating constellations, such as NGOs and environmental think tanks in green finance as mentioned above. These are not just political lobbyists strictly opposing financial interests and institutions; often they are entangled within the financial industry and also the state. This could be via positions on advisory boards of industry initiatives and standard setters, co-designers of climate alignment assessment methodologies and tools, or in the form of revolving doors for staff between third and financial sectors. In this way, the dominant idea of ‘green growth’ is being shaped, strategically and out of actual conviction, in various contingent and changing ways – thus contradicting one supposedly coherent version of it. Therefore, such dynamics on the micro-foundational level are complementary to the institutional arrangements characterizing the macro level.

In short, green finance is reshaping economies by creating new institutional complementarities in the interdependencies of macro-level structures of political economy and in micro-level interactions of actors.

Conclusion

Our exploration of green finance through the lens of the ‘three Cs’ – constructions, cleavages, and complementarities – as shown in Table 1 below, emphasizes the importance of integrating micro- and macro-level analyses to attempt grasping the full complexity of this evolving phenomenon. Green finance emerges not in isolation but through the constant negotiation between localized practices and broader systemic shifts such as geopolitical power struggles, escalating environmental crises, the reshuffling of financial power relations, etc. Micro-level actor constellations and their interactions both reflect, reshape, and ultimately *construct* macro-structural conditions, while macro-level transformations, in turn, enable and constrain agentic behavior. This reciprocal relationship

Table 1. Constructions, cleavages, and complementarities in green finance.

	Constructions	Cleavages	Complementarities
Dominant accounts	Concerned with actors, settings, and interests producing/enacting green finance.	Concerned with enduring divisions in society (Lipset and Rokkan, 1967), finance as resource-heavy sector with structurally privileged positions in political economy shaping macro-outcomes.	Concerned with institutional complementarities in economic models and policies, with green finance potentially creating new cross-jurisdictional variations.
Micro-macro overlap	Ideas associated with green finance (e.g., 'green' or 'brown' assets) not only conceptual constructions, but performed in interaction in micro-foundations while feeding into macro level outcomes.	Complex interests at the micro level vary by actor type and shaped through interaction. Green finance introduces new players (e.g., EU expert groups), challenging assumptions of unified financial interests and predictable cleavages in finance.	Micro-level complementarities as negotiated on a practical level across diverse actors, expertise, roles, and interests, e.g., through 'hermeneutic effects' around environmental dimensions of financial objects.
Empirical examples	EU taxonomy and climate targets emerge from micro-level, knowledge-based assessments, shaping green finance as governance and serving as calculation devices that justify continued capital flows in investment decisions.	Non-financial 'credible' experts involved in the creation of EU taxonomy; 'competitive regime creation' in the Network for Greening the Financial System (NGFS).	Construction of environmental aspect of assets, portfolios, or loans, which may involve public as well as private actors, e.g., in portfolio carbon footprinting.

gives rise to new forms of institutional and strategic *complementarities* as well as new fault lines and *cleavages*. By situating green finance within this analytical perspective, we not only illuminate how financial and political-economic systems co-evolve but also contribute to a more nuanced understanding of how the capitalist order diversifies and adapts in response to ecological imperatives.

This endeavor also speaks to a number of recent contributions in *Finance and Society*. For instance, Fichtner et al. (2025) have developed a 'channels of influence' framework that 'seeks to clarify how to shift financial flows toward sustainable productive investment'. While such channels operate in specific domains through a set of private actors, the mechanisms broadly rest on assumptions about the (rational) micro-foundations of financing, litigation, and divestment, among others, and their potential to drive change on the macro-level. The equally enlightening study by Tischer and Ferrando (2024) on the emerging elite and governance networks in sustainable finance policymaking provides an additional entry point for our analytical proposal. While network composition is interesting in itself, the inferences drawn are prone to hark back to 'fixed assumptions about the nature of interests and institutions' if not linked to the constructions and cleavages that connect micro-interactions and macro-outcomes. As such, we believe that our perspective provides a starting point to add to these discussions, while recognizing constructions, cleavages, and complementarities on both micro-foundations as well as macro-structures.

What, then, are the real-world implications of an approach that centers the integrational treatment of micro- and macro-analysis? One obvious outcome of such an endeavor is a move beyond the depiction of green finance either as a *sine qua non* for the realization of climate goals (e.g. those associated with the Paris Agreement) or as finance-as-usual in disguise. Instead of considering the ‘green’ in green finance as something substantive or all ‘talk’, an analytical approach connecting the macro and the micro offers an alternative and analytically richer reality of green finance as ‘all work’: the outcome of different types of agency that together construct, contest, and institutionalize – in other words, (re)produce – financialized capitalism in times of socio-ecological degradation and emergency.

Author contributions. The order of author names is alphabetical; all authors contributed equally to this publication.

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