Routledge
Taylor & Francis Group

Review of International Political Economy

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/rrip20

Entangled chains of global value and wealth

Jennifer Bair, Stefano Ponte, Leonard Seabrooke & Duncan Wigan

To cite this article: Jennifer Bair, Stefano Ponte, Leonard Seabrooke & Duncan Wigan (2023) Entangled chains of global value and wealth, Review of International Political Economy, 30:6, 2423-2439, DOI: 10.1080/09692290.2023.2220268

To link to this article: https://doi.org/10.1080/09692290.2023.2220268

Published online: 08 Jun 2023.

REVIEW OF INTERNATIONAL POLITICAL ECONOMY
2023, VOL. 30, NO. 6, 2423–2439
https://doi.org/10.1080/09692290.2023.2220268

Entangled chains of global value and wealth

Jennifer Bair[a], Stefano Ponte[b,c], Leonard Seabrooke[b,d] and Duncan Wigan[b]

[a]University of Virginia, Charlottesville, Virginia, USA; [b]Copenhagen Business School, Frederiksberg, Denmark; [c]University of Johannesburg, Johannesburg, South Africa; [d]Norwegian Institute of International Affairs, Oslo, Norway

ABSTRACT

In recent decades multinational enterprises have developed ways to reorganize production and trade through Global Value Chains (GVCs), and to manage assets and liabilities through Global Wealth Chains (GWCs). This co-evolution has permitted the hyper-extraction of labor and natural resources through financial and legal technologies, entangling value creation and wealth accumulation. While scholars have separately acknowledged the role that GVCs and GWCs play in generating distributional outcomes, entanglements of production, trade, finance, and law are now so extensive that we need a sharper analytical lens to understand their inter-relations. In pursuit of such a lens, we propose a research agenda focused on chain entanglements. We argue that GVCs and GWCs are not governed by firms as separate or even sequenced processes, but rather that value creation and wealth accumulation strategies are imbricated in ways that merit careful study. We develop a framework for analyzing entangled chains based on two dimensions: 1) the relative importance of intangible versus tangible assets; and 2) the orientation of firm strategy towards value creation or wealth accumulation activities. Drawing on sector-level examples, we see a general trend in GVC-GWC entanglements towards activities that leverage intangible value and assets for wealth accumulation. We also note how labor and civic activism can highlight the failures of extant regulatory and fiscal systems and intervene on distributional struggles along entangled chains.

KEYWORDS

Global value chains; global wealth chains; production; finance; intangibles; taxation; labor

Introduction

The Global Value Chain (GVC) framework was developed to make sense of a fundamental transformation in how and where things are made. This transformation was apparent by the late 1970s, as Fordism gave way to a more flexible and spatially dispersed mode of manufacturing based on slicing-up production processes into specific tasks, and moving some tasks outside the boundary of the firm through external contracting (Feenstra, 1998). Organizational restructuring was

CONTACT Leonard Seabrooke lse.ioa@cbs.dk Department of Organization, Copenhagen Business School, Kilevej 14A, 2000 Frederiksberg, Denmark.

accompanied by new geographies of production, as advances in information and communication technology facilitated the global outsourcing and offshoring of manufacturing activities. In a truly 'global' value chain, the steps involved in the conception, production and distribution of a good or service are distributed among many firms in different places around the world. Yet the core insight of the GVC framework is that inter-linked production processes, even when fragmented and dispersed, are rarely coordinated spontaneously through market exchange. Instead, they are governed centrally by specific actors, usually large multinationals, referred to as 'lead firms' (Gereffi et al., 2005; Gibbon et al., 2008). Over the first two decades of the GVC literature, much of the scholarship in this field focused on detailing the nature of lead firm governance, and examining its implications for producers, workers, and regions, especially in the global South (Bair, 2009; Barrientos, 2019; Ponte, 2019; Whittaker et al., 2020). GVC research details both the inter-firm relationships that enable value creation within GVCs (Kano, 2018; Kano et al., 2020), and the disparities that exist between parties contributing to value creation and those engaged in value capture (Nachum & Uramoto, 2021).

While GVC scholars analyzed the globalization of production, the financialization of the world economy proceeded apace in ways that implicated chain governance (Epstein, 2005; Krippner, 2005). Lead firms sought to outsource and offshore their operations *via* GVCs to minimize productive capital investment and inventory, but also to focus on value capture to deliver greater 'shareholder value' (Froud et al., 2006; Baglioni et al., 2020). Opportunities for asset management and liability reduction strongly informed the internationalization of corporate structures (Morgan, 2014). This has meant more focus on the short-term reorganization of a firm's finances as compared with long-term investment in productive activities (Lazonick & Shin, 2019; Milberg, 2008; Palpacuer, 2008), as well as the 'optimization' of fair value, tax liabilities and wealth distributions. Lead firms not only dispersed production activities around the globe; they also disaggregated themselves legally and financially to place value, profit and (intangible) assets in jurisdictions offering them lower taxes or greater secrecy (Bryan et al., 2017; Haberly & Wójcik, 2015; Leaver & Martin, 2016).

These trends were accompanied by an ever-increasing volume of financial assets, with global financial depth—the ratio of financial assets to aggregate gross domestic product—rising from 120% in 1980 to 600% in 2020 (McKinsey & Co., 2008; McKinsey Global Institute, 2021, p. 5). The universe of what can be 'assetized' has also expanded considerably in the past two decades (Langley, 2021). New asset forms offer myriad and tailored means to borrow and invest, while destabilizing conceptions of finance as servant to a real economy (Bryan & Rafferty, 2006; Wigan, 2009). In fifteen of the last twenty years, real asset valuation gains—excluding China—have been higher than operating returns (MGI, 2021, p. 15).

As has been widely noted, financialization has increased wealth inequality. Saez and Zucman note that for individuals 'during the 1980–2020 period, wealth as a whole has been growing almost twice as fast as income' (Saez & Zucman, 2020, p. 11; see also Huber et al., 2022).[1] The use of more sophisticated financial vehicles by both individuals and corporations has accelerated, including the ever-increasing use of offshore jurisdictions, which allow multinational corporations to avoid an estimated $200 billion a year in taxes (Christensen & Hearson, 2019). That capital increasingly took financial and intangible forms expanded these opportunities. While it is logistically difficult and costly to relocate a factory, moving financial and intangible assets is easily achieved via amendments to contracts, changes in financial accounts, or the execution of a financial trade. As finance and intangible assets came to dominate the world economy and corporate valuations, the question of whether they were best conceived as addenda to global economic activity or core became an open one.

It is in this context that the Global Wealth Chain (GWC) analytic (Seabrooke & Wigan, 2017, 2022) arose to bring together scholarship on the role of law, taxation, and accounting in a financialized global economy. The GWC framework deliberately mirrored that for GVCs to provide a complementary perspective on the changing organizational and spatial contours of economic activity that had been so carefully charted by value chain scholars. Increased reliance on international outsourcing via GVCs was one manifestation of the 'disintegration of [vertical] production' (Feenstra, 1998), but the GWC approach highlighted other dynamics critical for understanding the disaggregation of the corporate form, including the way in which firms opportunistically distributed financial activities, financial assets and legal entities across jurisdictions.

In GWCs, governance entails primarily the financial and legal management of stocks, much of which is not apparent when focusing simply on the flow of value-adding production processes along the value chain. Lead firms in GVCs may place a holding company in one jurisdiction representing its financial home, allocate sales receipts and in-house credit to hubs representing homes to treasury operations, and utilize jurisdictions as legal homes for the protection of assets, such as intellectual property, and others as tax advantaged homes for the income accrued to those assets (Bryan et al., 2017). Law provides the means to manipulate both flows of value and stocks of wealth (Pistor, 2019; Quentin 2022). Legal affordances influence the articulation of chains, including where firms accrue, protect, and channel wealth according to what is permitted by law (Grasten et al., 2021). From this perspective, lead firm strategies to capture value include not only the well-documented price squeeze on workers and suppliers (Anner, 2020), but also the legal maneuvers that are integrated into decision-making logics across GVCs and GWCs (Durand & Milberg, 2020; Baglioni et al., 2020).

In sum, as contemporary capitalism extends its global reach and hyper-extracts physical resources and labor through organizational and financial technologies, understanding the relationship between GVCs and GWCs is an ever more urgent task for scholars of international political economy. Here we propose the concept of entanglements to analyze the relationship between GVCs and GWCs. Specifically, we develop a framework for analyzing entangled chains based on two dimensions: 1) the relative importance of intangible versus tangible assets in entangled chains; and, 2) the primary orientation of firm strategy towards value creation or wealth accumulation activities.[2] In so doing, we aim to highlight distributional struggles along entangled chains, as well as the failures of extant regulatory and fiscal systems to identify and redistribute the accumulated value that is managed via wealth chains. First, though, we recap how governance has been theorized in GVCs and GWCs.

Theorizing governance in global value chains and global wealth chains

Gary Gereffi (1994) introduced governance as a key focus in the study of GVCs, coining the term buyer-driven governance to describe the process by which apparel brands procured the products sold in their stores or under their labels. Global outsourcing was the dominant mode of organization in buyer-driven chains, which Gereffi contrasted with a model of vertically integrated production still prevailing in industries such as motor vehicles, where lead firms owned and operated key manufacturing facilities. Gereffi's typology centered the kind of lead firm—retailer or manufacturer—that controlled the functional division of labor, and critically, the distribution of costs and rewards along the chain. In their review of the GVC governance literature, Gibbon, Bair and Ponte (2008) explain that Gereffi's original conceptualization of 'governance as driving' highlights the economic power of lead firms to define the terms of supply chain membership.

This approach then evolved into the well-known Gereffi et al. (2005) theory of GVC governance, which proposed that the nature of inter-firm linkages in GVCs could be explained by three variables: The complexity of information that needs to be exchanged between firms; the codifiability of that information; and the capabilities resident in the supply base relative to the requirements of the transaction. This model yielded five forms of governance, depending on the value of these variables and their particular combinations: *Market*, *Modular*, *Relational*, *Captive*, and *Hierarchy*. Here, the interest turned from describing the composite dynamic of a chain, as in the 'governance as driving' approach, to explaining dyadic exchange between two firms as a function of the characteristics of a discrete transaction (Bair, 2005; Gibbon et al., 2008). In this latter model, the power of the 'lead firm' is variable, increasing as one moves along the typology of governance types.

Gereffi, Humphrey, and Sturgeon's (2005) theory of governance has provided the touchstone for much theoretical innovation and critique within the GVC tradition. Critics observed that the reformulated governance categories downplayed power dynamics relative to the earlier buyer- and producer-driven ones (Werner et al., 2014; Neilson, 2014). This was particularly relevant given the embrace by international organizations of the GVC framework as a kind of applied development paradigm, even as a growing body of work documented the diverse outcomes associated with GVC participation beyond upgrading, including downgrading and immiserating growth (Gibbon & Ponte, 2005; Kaplinsky, 2005).

Others took issue with the narrowness of the governance as coordination conceptualization. Dallas et al. (2019, p. 667) observed that studies of GVC governance had been mainly concerned with *bargaining* power between lead firms and suppliers. They proposed a broader definition of 'GVC governance as the actions, institutions and norms that shape the conditions for inclusion, exclusion and mode of participation in a value chain, which in turn determine the terms and location of value addition, distribution and capture'. Central to this understanding of governance is the claim that there are different forms of power operating along a chain (shaping different aspects of inequality; Lang et al., 2022), depending on the arena of actors in a position to influence the terms of the exchange, and the way in which that influence is exercised.

While GVC scholars debated how best to conceptualize governance, a separate literature began to shift the focus from value to wealth, from flows to stocks. Inspired by the Gereffi et al. theory of governance, Seabrooke and Wigan (2017) asked how the same paradigm might be adapted to explain the way in which GWCs operate to create and protect wealth. They suggest that the same variables identified in GVC governance theory—complexity, codifiability, and capabilities—are also relevant for GWCs, but given that wealth accumulation processes are often deliberately opaque, codifying transactions is not paramount. What is important is the *regulatory liability* implied from the transfer of information and knowledge between the client and supplier (Seabrooke & Wigan, 2017; Christensen et al., 2022). This regulatory liability then leads to a focus on the external sources of governance and what is permissible within the law or bounds of legitimate corporate activity. Combinations of this adapted set of variables yield GWC governance types analogous to those identified by Gereffi et al. (2005). In this way, the work on GWCs follows the case-building logic of GVC scholarship and seeks discussion across cases to reveal governance dynamics.

GWC research highlights the use of transnational legal and financial management to delink wealth accumulation from value-adding productive processes. In this regard, GWC scholarship points to how lead firms and professionals use legal structures to maximize their control over wealth, often at some distance from assumed value chain strategies and also from regulatory control. The stress is on the corporate balance sheet rather than the income statement tracking productive processes occurring along a value chain (Leaver and Martin, 2021). Elite tactics and change in corporate structures are a focus in GWC research. Examples of the former include the use of particular forms of contracts and financial vehicles to hide wealth in jurisdictions with high levels of secrecy (Sharman, 2017; Robertson, 2021; Santos, 2021), and the use of 'freeports' and metropole property investments to shield the assets of the wealthy (McKenzie & Atkinson, 2020; Helgadóttir, 2022). Much of this activity is opaque, and regulatory efforts from intergovernmental bodies to oversee GWCs, especially the OECD, are mainly concerned with trying to impose more stringent transparency requirements (see Hearson, 2018; Christensen & Hearson, 2019; Hakelberg & Rixen, 2021).

The burgeoning work on GWCs includes studies of public utilities (Haslam et al., 2022), mining companies (Finér & Ylönen, 2017; Stausholm, 2022), and basic food commodities (Grondona & Burgos, 2022). A strand of research that already started to blend GVC and GWC analysis has looked at distinguishing what is a value chain and what is a wealth chain within a corporate structure, with case studies on beer and pharmaceutical production (Dahl, 2022), as well as strategies of wealth protection and exit from value production by private equity firms (Morgan, 2022). An important theme in the emerging GWC literature is the theorization of assets as claims that provide opportunities, rights and entitlements to the asset holder. The valuation of assets depends on a shared understanding or agreement among an interpretative community—such as lawyers, judges, traders, economists, accountants and entrepreneurs—on what such claims mean and how they support the allocation or (re)distribution of wealth (Seabrooke & Wigan, 2022; see also Cutler and Lark, 2022; Ajdacic et al., 2021). The concept of 'legal affordance' has been proposed as a key analytical lens to study governance processes in GWC, with legal *arbitrage, ambiguities,* and *absences* being used by lead firms and suppliers (Grasten et al., 2021).

The focus on the relationship between value and wealth is a clear point of intersection between work on GWCs and GVCs. Scholars of GVCs have long recognized that the production of what they call 'intangibles' generate higher profits than tangible production because the former are characterized by barriers to entry that minimize competition (Kaplinsky, 2005; Durand & Milberg, 2020). These barriers are not only technical or material constraints, such as economies of scale, that can be overcome to secure higher returns, but also the legal affordances that the GWC literature theorizes (IGLP, 2018; Schwartz, 2022). To date, the GVC literature has used the language of value creation to describe this phenomenon. The emphasis here has been on value creation and value capture (or appropriation), including what relationships and networks are needed to sustain value chains (Kano, 2018; Kano et al., 2020). Many studies of GVCs focus on income flows, with value creation commonly seen as net value added at points in the chain, and value capture as the total value generated in a chain (total income minus total costs). A point of contention here is that 'value created is only realized as value captured, and the latter is the ultimate indicator of the former' (Nachum & Uramoto, 2021, p. 15).

A critical stream within the GVC literature highlights the need to theorize more carefully the power dynamics at play over who controls value capture rather than who contributes to value creation. Campling and Quentin, for example, take issue with the uncritical use of the value-added concept by GVC analysts because it fails 'to take into account the distributional effects of the partition of value added into wages for workers and profit for asset owners' (2021, p. 37). A number of scholars have observed that the ways in which value is captured by lead firms often has detrimental or exclusionary impacts on subordinated chain participants (Durand & Milberg, 2020; Coveri & Zanfei, 2022). Such studies suggest that the value capture strategies being articulated by lead firms in advanced economies may impede economic and social upgrading in developing economies (Baglioni et al., 2020).

The important contributions of this work notwithstanding, our view is that focusing on value-added within the chain does not allow us to adequately diagnose the full range of processes that generate distributional outcomes of interest to critical GVC scholars. These include the efforts of lead firms to use GWCs both to secure legal affordances that valorize intangible assets and to manage the resulting stocks of accumulated wealth in ways that minimize tax liability and preserve their power over other firms in the GVC. We need ways to study the legal treatment of assets and liabilities and explore how legal affordances are implicated in contests over where income accrues among participants in production. Processes that occur within GWCs pre-figure and configure the wealth distributions that ultimately rely on GVCs.

Understanding value and wealth chain entanglements

Our conception of entanglement is a simple one: the articulation of GVCs or GWCs involves both considerations of value creation (a flow) and wealth accumulation (a stock). It is unlikely that we can find 'pure' GVCs or 'pure' GWCs. Importantly, our concept of entanglements is intended to disrupt not only the linearity of the GVC construct, but also the implied temporality of seeing the GWC as a parallel but separate structure of wealth that necessarily *follows* value creation. The GWC literature shows that tax efficient supply chain management and stock valuation strategies based on specific business models are sources of wealth that are entangled with processes of value creation (Hearson, 2022; Stausholm, 2022). We need an analytic that recognizes this imbrication of value creation and wealth accumulation instead of paradigms that posit them as separate, identifying the GVC as the source of value and the GWC as a separate structure through which this value is subsequently appropriated (Quentin & Campling, 2018).

Although we recognize that entangled chains resist easy classification or neat typologies, we want to develop a way to make sense of the variation we observe in real world entanglements. Thus, while acknowledging that most lead firm strategies implicate both GVCs and GWCs, we observe that most multinational enterprises lean towards a *primary* focus on either value or wealth in their operations even as they rely on a mix of both tangible and intangible processes (in relation to value creation) and assets (in relation to wealth accumulation). This orientation towards value or wealth is inferred from multinational enterprises' observed behavior, which we can trace through the building of case studies in the GVC and GWC tradition, as well as through financial reporting. Our method for analyzing entanglements, then, focuses on two dimensions, as shown schematically in Figure 1: the orientation towards value creation versus wealth accumulation activities (the *x* axis), as well as the emphasis on tangible or intangible assets in the GVC (the *y* axis). Our aim here is to think through known cases and to suggest how entanglements are leading to changes, expressed by the arrows, in key sectors.[33] Our examples—ridesharing platforms, consumer electronics, housing, and food and beverages—were chosen because they have been studied in either the GVC or GWC literatures, and because, in our view, the concept of entanglements advances our conventional understanding of what underpins activity in these sectors.

Example 1: ridesharing platforms

Uber and Lyft do not own the cars that their clients ride in, nor do they employ the drivers that transport them. They have eschewed profit to compete on potential for market saturation and corporate asset valuations, with the latter including the recognition of tax 'loss carry forwards' set against future taxes on profits. The business model leans heavily on legal ambiguity, as when Uber asserts it is not a transportation

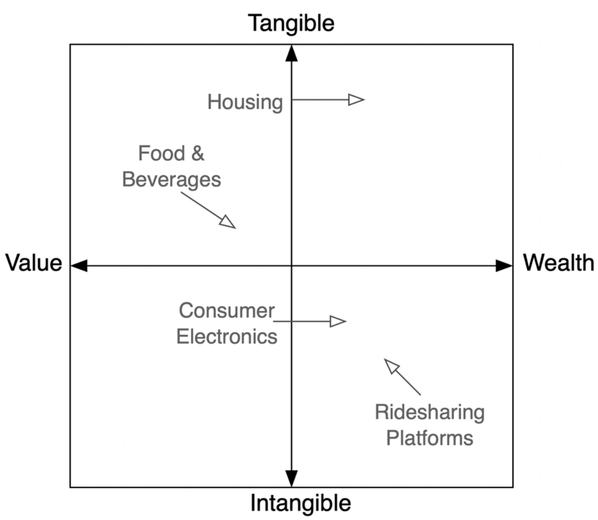

Figure 1. Examples of global value and wealth chain entanglements and direction of change.

business with employees, cars, and associated obligations, but an information technology company (Grasten et al., 2021). Uber uses legal arbitrage to run its financial arrangements through jurisdictions that offer it lower taxes and other advantages (Wigan, 2021). We locate ridesharing platform firms in the bottom right quadrant, noting that they have a clear wealth-based intent in their firm strategy as well as a simultaneous emphasis on intangible assets—the proprietary app used by both drivers and riders—and disassociation from the physical assets and human labor needed to actually move customers from pick up to destination. However, the arrow pointing back to the middle of the figure denotes that there are limits to this model, as Uber faces legal challenges and pressure from social activists attempting to anchor Uber's activities in the 'real' economy (Moore & Joyce, 2020).

Example 2: consumer electronics

The exemplar here is Apple, which has been noted for the speed of innovation within its value chain (Yeung, 2014) and its capacity to avoid taxes via its wealth chain (Bryan et al., 2017). Apple's primary product is intellectual property. It ranks eleventh in the world in terms of research and development spending (World Intellectual Property Organization, 2017) and first in brand valuation. Apple focuses on product design and marketing; it sources technology and components from high-capacity suppliers who, despite their capabilities, capture relatively little of the value that arises from their value chain activities; Dedrick and Kraemer (2017) report that of the $842 sales price for an iPhone 7, Apple's value capture was 42% or $339. Apple's wealth management strategy has come under considerable public and regulatory scrutiny (Kneafsey & Regan, 2022), most notably with the EU's Competition Commissioner ordering the Irish government to collect €13bn in back taxes on the grounds that Ireland had granted illegal tax benefits to the firm. Ultimately, the Commission was unsuccessful, and Apple subsequently restructured its GWC in 2015, booking its contract manufacturing profits in Ireland and using capital allowances accruing to the purchase of intellectual property from elsewhere within its corporate structure to maintain its low tax position. In the same year, the Irish government increased the amount of tax assets that could be set against profits annually (Coffey, 2018). Apple's position in consumer electronics is in part a function of its capacity to manage and deploy its intangible assets to minimize tax payments. This trend has been emulated by Apple's peers, such as Huawei (Yang & Ning, 2021), which we note with an arrow pointing in the direction of increased strategic orientation towards wealth.

Example 3: housing

A third example can be seen in the role of houses in the international political economy. Real estate now contributes 68% of global real assets, with asset price inflation and the tripling of housing prices in core OECD countries (MGI, 2021, pp. 10–16). While housing development was very much a tangible value production activity for firms, rooted in national path dependencies (Blackwell & Kohl, 2018), and reflecting different concepts of social rights linked to the welfare state, the shift in OECD countries and urban centers in the global South has led to the treatment of housing as a means of wealth accumulation. This has deepened social and economic inequalities, including both a return to patrimonialism in some OECD countries (Bohle & Seabrooke, 2020), as well as the development of strong co-dependencies between labor market protections and household indebtedness (Johnston et al., 2021). Firms and investors have increased their use of 'offshore' investment vehicles to acquire property in large metropolitan centers, seeking to conceal their wealth from national tax agencies while benefitting from higher asset valuations (McKenzie & Atkinson, 2020). Given low yields in many other sectors in the international political economy, the rise of passive investors and their reliance on real estate asset valuation increases has compounded the role of houses as a means of wealth accumulation (Fichtner & Heemskerk, 2020; Petry et al., 2021). We locate housing as a predominantly tangible activity in the GVC but with lead firms and their clients moving towards wealth accumulation in their management of housing assets. This is clearly seen in secular expansion of the rental sector (Fuller, 2021; Hochstenbach, 2022).

Example 4: food and beverages

Even in sectors that were historically focused on tangible products and production technologies, such as food and beverages, we have witnessed major changes in the entanglement of value and wealth chains in the past few decades. The agricultural inputs market is now essentially in the hands of four large conglomerates (Bayer-Monsanto, Dow-Dupont, ChemChina-Syngenta and BASF), which leverage their intellectual property rights on seeds, crop protection and monitoring technologies (Howard, 2015; Clapp, 2018). Even the core tangible asset at the base of production, farmland, has become a financial instrument to be leveraged (Ouma, 2020). In coffee, intellectual property and branding have become dominant sources of value creation (Samper et al., 2017; see also Purcell, 2018, on cocoa-chocolate). Furthermore, traditional coffee roasters are being bought up by private equity firms. JAB Holding, for example, has gone into an acquisition spree over the past decade and now financially controls roasters that account for over 20% of the global coffee market (Grabs & Ponte, 2019; Ponte, 2019). In the fight for market dominance, coffee roasters owned by private equity have started to unilaterally extend their net financing terms with traders—the time permissible to pay for their product—from an industry standard of 30 days to up to 120 or even 360 days (Grabs & Ponte, 2019; see also Baud & Durand, 2012). This move has increased traders' required capital stocks and forced them to extend their credit lines, in effect serving as cheap sources of finance for roasters and as a siphon for extracting value from the coffee industry for other purposes. We locate food and beverages in the top left quadrant of Figure 1 because the entanglement of value and wealth chains is still rooted in tangible assets and tangible production for value creation, but the arrow indicating movement towards the center reflects a shift in the direction of leveraging intangible value for wealth accumulation.

Conclusion

Unpacking the entanglements of global value and wealth chains is essential to better understand the dynamics of contemporary capitalism. GVCs have become a key organizational instrument of the global economy in tandem with the growing importance of financial markets and assets, and related wealth management industries. The brief examples examined suggest a composite trend towards GVC-GWC entanglements based on leveraging intangible value and assets with the intent of accumulating wealth.

This has numerous implications, including heightened inequality, more labor precarity, and lower investment. We know that high profit US firms that are heavily centered on Intellectual Property Rights (IPRs) invest less than other firms, and their spending produces lower multiplier effects and heightens income inequality. Such US IPR firms are also a fiscal drain on the US state and undermine innovation (Weiss & Thurbon, 2018). These observations are not limited to 'new' or explicitly technology-intensive sectors. As we have seen above, they are also apparent in industries that were historically focused on tangible products, production processes and assets. Schwartz, for example, describes a US-led shift from a Fordist 'dual industrial structure' where highly integrated manufacturing firms invested heavily and shared their profits with labor, to a new *franchise* tripartite structure of intangible-focused high-profit IPR firms, tangible capital-intensive firms, and low-profit labor-intensive firms (Schwartz, 2022).

However, the trends we have highlighted here, and the GVC-GWC entanglements they are based upon, are not set in stone. Uber, for instance, faces an existential threat from successive legal judgements—for instance at the European Court of Justice or UK-based employment tribunals—that it is a transport company that employs its drivers. Of course, these threats may not be realized: Proposition 22—which pursued the same end in California—was ultimately defeated. At the same time, such challenges are not confined to courts of law. They also play out in the court of public opinion, as well-understood by the legions of civil society organizations that seek to hold corporate actors accountable for labor and environmental violations that occur along their GVCs (Palpacuer, 2019). Activists have developed sophisticated strategies for tracing value chains and targeting lead firms, and while the entanglement of GVCs and GWCs may make contestation more difficult, it remains possible.

One example is the successful use of the OECD Guidelines for Multinational Enterprises' due diligence process by a US union that represents hospitality workers. The California hotel at the center of the labor dispute, Westin Long Beach, was owned by a public employee pension fund in Utah, which contracted with an asset management company to oversee the property. The asset management company in question is the US subsidiary of a French company, Natixis Global Asset Management, and when none of the US-based parties responded to efforts to negotiate, the union sought to engage the French parent company. Though Natixis was initially non-responsive, the US union reached out to the French National Contact Point (NCP), asking it to carry out effective due diligence measures by getting involved in the resolution of the dispute between the union and its US subsidiary. Ultimately, the union was successful, and its efforts to mobilize the French NCP were supported by the Network of Trustees for Responsible Investment (or RAIR, for its French-language acronym), a group of French pension funds (Blasi & Sonti, 2021).

In the case of the Westin Long Beach labor dispute, entanglements between the hospitality GVC and GWC created an opening that civil society activists could leverage, especially given the existence of a regulatory framework like the OECD Principles (Baker, 2012). Another example can be found in new EU regulations requiring multinational enterprises to report on a country-by-country basis, which are providing more detail on corporate tax strategy, as well as allowing activists to delve into how emissions created in GVCs may be masked in what could be termed green GWCs (Galaz et al., 2018; Green, 2021). Increased scrutiny has prompted those who advise companies on how to optimize GVCs and GWC entanglements while also avoiding potential disruptions and liability as they operate in a changing regulatory environment. This includes 'scanning work' from the Big Four global accounting firms—Deloitte, Ernst & Young, KPMG, and PwC—over what activity breaks the threshold of legitimate tax planning for multinational enterprises (Christensen & Seabrooke, 2022), and the expansion of the Big Four's purview into GVC processes, such as supplying best practices for labor governance (Fransen & LeBaron, 2019).

Supply chain shocks during the Covid-19 pandemic and the war in Ukraine are acute examples of how changes in GVC governance may require quick adjustments in GWCs, with some firms so highly leveraged financially that they could not withstand delays in supply chains and collapsed (Baker et al., 2020). Established mantras, such as just-in-time stock management, outsourcing and the minimization of inventory to improve returns over investment ratios are being reconsidered, at least as long as supply strictures persist. Just-in-case stock management, differentiation of suppliers (to minimize the risk of delivery failure), several forms of re- and near-shoring, and vertical integration (especially in view of securing supplies of key minerals and materials, for example, for the production of batteries) are being considered and in some cases implemented. Reinvestment in tangible assets rather than distribution of dividends is no longer taboo.

These changing discourses (if not practices) may well have implications for how GVCs and GWCs are entangled. It might be that the reshoring of GVCs occurs along with greater state insistence that the wealth arising from those chains accumulates to their jurisdictions rather than 'offshore'. The interpretive communities that support GWCs are also increasingly under pressure from supranational institutions like the EU and the OECD—which are requiring more disclosure of tax planning (Christensen et al., 2022). In a way, we may be witnessing a partial adjustment and maybe even an initial reversal of the secular trend away from value and towards wealth that characterized capitalism in the past few decades. Yet, it is not yet clear to what extent these dynamics are indicating a generalized change of course rather than a crisis-oriented short-term adjustment. Continued attention and further research on the entanglements of value and wealth chains may help us better understand the trajectory of contemporary capitalism and guide appropriate policy and activist interventions to reverse the current wave of inequality, precarious work, and underinvestment.

Notes

1. In the United States, the top 1% have increased their share of wealth from 25-30% in the 1980s to 40% in 2016. Estimates for Europe and China suggest that the top 1% have increased their wealth share from 28% in 1980 to 33% in 2019 (Zucman, 2019).
2. As the GVC and GWC literatures focus heavily on building case studies rather than mapping system-level complexity—which is more the domain of Global Production Network and Global Financial Network scholars (Coe, Lai & Wójcik, 2014; Haberly & Wójcik, 2022)—we stress the importance of entanglements in case-building and the use of typological comparison to reveal power dynamics.

3. Entanglements may arise from strategy or by happenstance. Where wealth strategies dominate, this may lead to change in how lead firms bargain with suppliers and place financial pressures on employees (Palpacuer, 2008). In extreme cases firms may 'hollow out' value-producing activities to draw forward future income and shore-up financial stocks (Baker et al., 2020). Where value strategies take the upper hand, we may expect the wealth chain to then alter. For example, the reshoring phenomena associated with bringing manufacturing 'back' to core OECD countries heightens scrutiny of 'offshore' wealth chains and increases calls for domestic financial and taxation incentives (Veglio & Romanello, 2022).

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

Leonard Seabrooke and Duncan Wigan acknowledge support from the Independent Research Fund Denmark project 'TIME MIRROR: Accounting for the Green Transition' (#0217-00380B). Stefano Ponte acknowledges support from the Independent Research Fund Denmark project 'Power and Inequality in Global Production Systems' (#0133-00046B).

Notes on contributors

Jennifer Bair is Professor of Sociology at the University of Virginia. She works at the intersection of global political economy and development studies, and her current research focuses on efforts to secure labor standards and workers' rights in international subcontracting chains.

Stefano Ponte is Professor of International Political Economy, Copenhagen Business School, and Distinguished Visiting Professor at the University of Johannesburg. His main current research interests revolve around the role of sustainability in shaping governance and power dynamics in global value chains.

Leonard Seabrooke is Professor of International Political Economy and Economic Sociology in the Department of Organization at the Copenhagen Business School, and Research Professor at the Norwegian Institute of International Affairs. His research currently focuses on transnational professionals, international organizations, activist movements, and consultancy communities on a range of politico-economic issues.

Duncan Wigan is a Professor MSO in International Political Economy in the Department of Organization at the Copenhagen Business School. He research currently focuses on global wealth chains, platform companies, international financial markets, and international shipping.

ORCID

Jennifer Bair http://orcid.org/0000-0002-5083-1385
Stefano Ponte http://orcid.org/0000-0001-6788-8700
Leonard Seabrooke http://orcid.org/0000-0001-5581-3293
Duncan Wigan http://orcid.org/0000-0001-9805-7408

References

Ajdacic, L., Heemskerk, E. M., & Garcia-Bernardo, J. (2021). The wealth defense industry: A large-scale study on accountancy firms as profit shifting facilitators. *New Political Economy*, *26*(4), 690–706. https://doi.org/10.1080/13563467.2020.1816947

Anner, M. (2020). Squeezing workers' rights in global supply chains: Purchasing practices in the Bangladesh garment export sector in comparative perspective. *Review of International Political Economy*, *27*(2), 320–347. https://doi.org/10.1080/09692290.2019.1625426

Baglioni, E., Campling, L., & Hanlon, G. (2020). Global value chains as entrepreneurial capture: Insights from management theory. *Review of International Political Economy*, *27*(4), 903–925. https://doi.org/10.1080/09692290.2019.1657479

Bair, J. (2005). Global capitalism and commodity chains: Looking back, going forward. *Competition & Change*, *9*(2), 153–180. https://doi.org/10.1179/102452905X45382

Bair, J. (2009). *Frontiers of commodity chain research*. Stanford University Press.

Baker, A. (2012). The 'public interest' agency of international organizations? The case of the OECD Principles of Corporate Governance. *Review of International Political Economy*, *19*(3), 389–414. https://doi.org/10.1080/09692290.2011.552789

Baker, A., Haslam, C., Leaver, A., Murphy, R., Seabrooke, L., Stausholm, S., & Wigan, D. (2020). Against hollow firms: Repurposing the corporation for a more resilient economy. *Centre for Research on Accounting and Finance in Context (CRAFiC)*. University of Sheffield.

Barrientos, S. (2019). *Gender and work in global value chains: Capturing the gains?* Cambridge University Press.

Baud, C., & Durand, C. (2012). Financialization, globalization and the making of profits by leading retailers. *Socio-Economic Review*, *10*(2), 241–266. https://doi.org/10.1093/ser/mwr016

Blackwell, T., & Kohl, S. (2018). The origins of national housing finance systems: A comparative investigation into historical variations in mortgage finance regimes. *Review of International Political Economy*, *25*(1), 49–74. https://doi.org/10.1080/09692290.2017.1403358

Blasi, J., & Sonti, S. (2021). Private equity, human rights due diligence and global labor rights: The case of 'Hotel California'. *Global Labor Rights Reporter*. https://heinonline.org/HOL/P?h=hein.journals/glrr1&i=44

Bohle, D., & Seabrooke, L. (2020). From asset to patrimony: The re-emergence of the housing question. *West European Politics*, *43*(2), 412–434. https://doi.org/10.1080/01402382.2019.1663630

Bryan, D., & Rafferty, M. (2006). *Capitalism with derivatives: A political economy of financial derivatives, capital and class*. Palgrave Macmillan.

Bryan, D., Rafferty, R., & Wigan, D. (2017). Capital unchained: Finance, intangible assets and the double life of capital in the offshore world. *Review of International Political Economy*, *24*(1), 56–86. https://doi.org/10.1080/09692290.2016.1262446

Christensen, R. C., & Seabrooke, L. (2022). The Big 4 under pressure: Scanning work in transnational fields. *Contemporary Accounting Research*, *39*(4), 2941–2969. https://doi.org/10.1111/1911-3846.12815

Christensen, R. C., & Hearson, M. (2019). The new politics of global tax governance: Taking stock a decade after the financial crisis. *Review of International Political Economy*, *26*(5), 1068–1088. https://doi.org/10.1080/09692290.2019.1625802

Christensen, R. C., Seabrooke, L., & Wigan, D. (2022). Professional action in global wealth chains. *Regulation & Governance*, *16*(3), 705–721. https://doi.org/10.1111/rego.12370

Clapp, J. (2018). Mega-mergers on the menu: Corporate concentration and the politics of sustainability in the global food system. *Global Environmental Politics*, *18*(2), 12–33. https://doi.org/10.1162/glep_a_00454

Coe, M., Lai, K., & Wójcik, D. (2014). Integrating finance into global production networks. *Regional Studies*, *48*(5), 761–777. https://doi.org/10.1080/00343404.2014.886772

Coffey, S. (2018). What Apple did next. 24 January, http://economic-incentives.blogspot.com/2018/01/what-apple-did-next.html

Coveri, A., & Zanfei, A. (2022). Functional division of labour and value capture in global value chains: A new empirical assessment based on FDI data. *Review of International Political Economy*, 1–28. https://doi.org/10.1080/09692290.2022.2152074

Cutler, A. C., & Lark, D. (2022). The hidden costs of law in the governance of global supply chains: The turn to arbitration. *Review of International Political Economy*, *29*(3), 719–748. https://doi.org/10.1080/09692290.2020.1821748

Dahl, M. H. (2022). Beer & pharmaceuticals. In L. Seabrooke & D. Wigan (Eds.), *Global wealth chains: Asset strategies in the world economy* (pp. 133–154). Oxford University Press.

Dallas, M. P., Ponte, S., & Sturgeon, T. (2019). Power in global value chains. *Review of International Political Economy*, *26*(4), 666–694. https://doi.org/10.1080/09692290.2019.1608284

Dedrick, J., & Kraemer, K. L. (2017). *Intangible assets and value capture in global value chains: The smartphone industry. Economic Research Working Paper No. 41*. 1–53. World Intellectual Property Organization.

Durand, C., & Milberg, W. (2020). Intellectual monopoly in global value chains. *Review of International Political Economy*, *27*(2), 404–429. https://doi.org/10.1080/09692290.2019.1660703

Epstein, G. A. (2005). *Financialization and the world economy*. Edward Elgar.

Feenstra, R. (1998). Integration of trade and disintegration of production in the global economy. *Journal of Economic Perspectives*, *12*(4), 31–50. https://doi.org/10.1257/jep.12.4.31

Fichtner, J., & Heemskerk, E. M. (2020). The new permanent universal owners: Index funds, patient capital, and the distinction between feeble and forceful stewardship. *Economy and Society*, *49*(4), 493–515. https://doi.org/10.1080/03085147.2020.1781417

Finér, L., & Ylönen, M. (2017). Tax-driven wealth chains: A multiple case study of tax avoidance in the Finnish mining sector. *Critical Perspectives on Accounting*, *48*, 53–81. https://doi.org/10.1016/j.cpa.2017.01.002

Fransen, L., & LeBaron, G. (2019). Big audit firms as regulatory intermediaries in transnational labor governance. *Regulation & Governance*, *13*(2), 260–279. https://doi.org/10.1111/rego.12224

Froud, J., Johal, S., Leaver, A., & Williams, K. (2006). *Financialization and strategy: Narrative and numbers*. Routledge.

Fuller, G. W. (2021). The financialization of rented homes: Continuity and change in housing financialization. *Review of Evolutionary Political Economy*, *2*(3), 551–570. https://doi.org/10.1007/s43253-021-00050-7

Galaz, V., Crona, B., Dauriach, A., Jouffray, J. B., Österblom, H., & Fichtner, J. (2018). Tax havens and global environmental degradation. *Nature Ecology & Evolution*, *2*(9), 1352–1357. https://doi.org/10.1038/s41559-018-0497-3

Gereffi, G. (1994). The organization of buyer-driven global commodity chains: How US retailers shape overseas production networks. In G. Gereffi and M. Korzeniewicz (Eds.), *Commodity chains and global capitalism* (pp. 95–122). Praeger.

Gereffi, G., Humphrey, J., & Sturgeon, T. (2005). The governance of global value chains. *Review of International Political Economy*, *12*(1), 78–104. https://doi.org/10.1080/09692290500049805

Gibbon, P., & Ponte, S. (2005). *Trading down: Africa, value chains and the global economy*. Temple University Press.

Gibbon, P., Bair, J., & Ponte, S. (2008). Governing global value chains: An introduction. *Economy and Society*, *37*(3), 315–338. https://doi.org/10.1080/03085140802172656

Grabs, J., & Ponte, S. (2019). The evolution of power in the global coffee value chain and production network. *Journal of Economic Geography*, *19*(4), 803–828. https://doi.org/10.1093/jeg/lbz008

Grasten, M., Seabrooke, L., & Wigan, D. (2021). Legal affordances in global wealth chains: How platform firms use legal and spatial scaling. *Environment and Planning A: Economy and Space*, 0308518X2110571. https://doi.org/10.1177/0308518X211057131

Green, J. F. (2021). Beyond carbon pricing: Tax reform is climate policy. *Global Policy*, *12*(3), 372–379. https://doi.org/10.1111/1758-5899.12920

Grondona, V., & Burgos, M. (2022). Food. In L. Seabrooke and D. Wigan (Eds.), *Global wealth chains* (pp. 155–181). Oxford University Press.

Haberly, D., & Wójcik, D. (2015). Regional blocks and imperial legacies: Mapping the global offshore FDI network. *Economic Geography*, *91*(3), 251–280. https://doi.org/10.1111/ecge.12078

Haberly, D., & Wójcik, D. (2022). *Sticky power: Global financial networks in the world economy*. Oxford University Press.

Hakelberg, L., & Rixen, T. (2021). Is neoliberalism still spreading? The impact of international cooperation on capital taxation. *Review of International Political Economy*, *28*(5), 1142–1168. https://doi.org/10.1080/09692290.2020.1752769

Haslam, C., Leaver, A., & Tsitsianis, N. (2022). Public utilities. In L. Seabrooke and D. Wigan (Eds.), *Global wealth chains* (pp. 30–44). Oxford University Press.

Hearson, M. (2018). Transnational expertise and the expansion of the international tax regime: Imposing 'acceptable' standards. *Review of International Political Economy*, *25*(5), 647–671. https://doi.org/10.1080/09692290.2018.1486726

Hearson, M. (2022). Tax treaties. In L. Seabrooke & D. Wigan (Eds.), *Global wealth chains* (pp. 49–67). Oxford University Press.

Helgadóttir, O. (2022). Art. In L. Seabrooke & D. Wigan (Eds.), *Global wealth chains* (pp. 182–200). Oxford University Press.

Hochstenbach, C. (2022). Landlord elites on the Dutch housing market: Private landlordism, class, and social inequality. *Economic Geography*, *98*(4), 327–354. https://doi.org/10.1080/00130095.2022.2030703

Howard, P. H. (2015). Intellectual property and consolidation in the seed industry. *Crop Science*, *55*(6), 2489–2495. https://doi.org/10.2135/cropsci2014.09.0669

Huber, E., Petrova, B., & Stephens, J. D. (2022). Financialization, labor market institutions and inequality. *Review of International Political Economy*, *29*(2), 425–452. https://doi.org/10.1080/09692290.2020.1808046

Johnston, A., Fuller, G. W., & Regan, A. (2021). It takes two to tango: Mortgage markets, labor markets and rising household debt in Europe. *Review of International Political Economy*, *28*(4), 843–873. https://doi.org/10.1080/09692290.2020.1745868

Kano, L. (2018). Global value chain governance: A relational perspective. *Journal of International Business Studies*, *49*(6), 684–705. https://doi.org/10.1057/s41267-017-0086-8

Kano, L., Tsang, E. W., & Yeung, H. W. C. (2020). Global value chains: A review of the multi-disciplinary literature. *Journal of International Business Studies*, *51*(4), 577–622. https://doi.org/10.1057/s41267-020-00304-2

Kaplinsky, R. (2005). *Globalization, poverty and inequality: Between a rock and a hard place*. Polity Press.

Kneafsey, L., & Regan, A. (2022). The role of the media in shaping attitudes toward corporate tax avoidance in Europe: Experimental evidence from Ireland. *Review of International Political Economy*, *29*(1), 281–306. https://doi.org/10.1080/09692290.2020.1796753

Krippner, G. R. (2005). The financialization of the American economy. *Socio-Economic Review*, *3*(2), 173–208. https://doi.org/10.1093/SER/mwi008

Lang, J., Ponte, S., & Vilakazi, T. (2022). Linking power and inequality in global value chains. *Global Networks*, https://doi.org/10.1111/glob.12411

Langley, P. (2021). Assets and assetization in financialized capitalism. *Review of International Political Economy*, *28*(2), 382–393. https://doi.org/10.1080/09692290.2020.1830828

Lazonick, W., & Shin, J. S. (2019). *Predatory value extraction: How the looting of the business corporation became the US norm and how sustainable prosperity can be restored*. Oxford University Press.

Leaver, A., & Martin, K. (2016). Creating and dissolving social groups from New Guinea to New York: On the overheating of bounded corporate entities in contemporary global capitalism. *History and Anthropology*, *27*(5), 585–601. https://doi.org/10.1080/02757206.2016.1222523

Leaver, A., & Martin, K. (2021). Dams and flows': Boundary formation and dislocation in the financialised firm. *Review of Evolutionary Political Economy*, *2*(3), 403–429. https://doi.org/10.1007/s43253-021-00057-0

McKenzie, R., & Atkinson, R. (2020). Anchoring capital in place: The grounded impact of international wealth chains on housing markets in London. *Urban Studies*, *57*(1), 21–38. https://doi.org/10.1177/0042098019839875

McKinsey & Company. (2008). Mapping global capital markets: Fifth annual report. McKinsey & Company.

McKinsey Global Institute. (2021). The rise and rise of the global balance sheet: How productively are we using our wealth? McKinsey & Company.

Milberg, W. (2008). Shifting sources and uses of profits: Sustaining US financialization with global value chains. *Economy and Society*, *37*(3), 420–451. https://doi.org/10.1080/03085140802172706

Moore, P. V., & Joyce, S. (2020). Black box or hidden abode? The expansion and exposure of platform work managerialism. *Review of International Political Economy*, *27*(4), 926–948. https://doi.org/10.1080/09692290.2019.1627569

Morgan, G. (2014). Financialization and the multinational corporation. *Transfer: European Review of Labour and Research*, *20*(2), 183–197. https://doi.org/10.1177/1024258914525561

Morgan, J. (2022). Private equity. In L. Seabrooke & D. Wigan (Eds.), *Global wealth chains* (pp. 114–131). Oxford University Press.

Nachum, L., & Uramoto, Y. (2021). *The contest for value in global value chains: Correcting for distorted distribution in the global apparel industry*. Edward Elgar.

Neilson, J. (2014). Value chains, neoliberalism and development practice: The Indonesian experience. *Review of International Political Economy*, *21*(1), 38–69. https://doi.org/10.1080/09692290.2013.809782

Organisation for Economic Co-operation and Development. (2021). *Ending the shell game: Cracking down on the professionals who enable tax and white-collar crimes*. OECD Publishing.

Ouma, S. (2020). *Farming as financial asset: Global finance and the making of institutional landscapes*. Agenda Publishing.

Palpacuer, F. (2008). Bringing the social context back in: Governance and wealth distribution in global commodity chains. *Economy and Society*, *37*(3), 393–419. https://doi.org/10.1080/03085140802172698

Palpacuer, F. (2019). Contestation and activism in global value chains. In S. Ponte, G. Gereffi, & G. Raj-Reichert (Eds.), *Handbook on global value chains* (pp. 199–213). Edward Elgar.

Petry, J., Fichtner, J., & Heemskerk, E. (2021). Steering capital: The growing private authority of index providers in the age of passive asset management. *Review of International Political Economy*, *28*(1), 152–176. https://doi.org/10.1080/09692290.2019.1699147

Pistor, K. (2019). *The code of capital: How the law created wealth and inequality*. Princeton University Press.

Ponte, S. (2019). *Business, power and sustainability in a world of global value chains*. Zed Books.

Ponte, S., Gereffi, G., & Raj-Reichert, G. (Eds.). (2019). *Handbook on global value chains*. Edward Elgar.

Purcell, T. F. (2018). 'Hot chocolate': Financialized global value chains and cocoa production in Ecuador. *The Journal of Peasant Studies*, *45*(5-6), 904–926. https://doi.org/10.1080/03066150.2018.1446000

Quentin, D. (2022). Legal opinion. In L. Seabrooke & D. Wigan (Eds.), *Global wealth chains* (pp. 262–278). Oxford University Press.

Quentin, D., & Campling, L. (2018). Global inequality chains: Integrating mechanisms of value distribution into analyses of global production. *Global Networks*, *18*(1), 33–56. https://doi.org/10.1111/glob.12172

Robertson, J. (2021). Global financial networks confront headwinds: China's shifting offshore relationship with the British Virgin Islands. *The Pacific Review*, *34*(2), 177–205. https://doi.org/10.1080/09512748.2019.1671893

Saez, E., & Zucman, G. (2020). The rise of income and wealth inequality in America: Evidence from distributional macroeconomic accounts. *Journal of Economic Perspectives*, *34*(4), 3–26. https://doi.org/10.1257/jep.34.4.3

Samper, L., Giovannucci, D., & Marques-Vieira, L. (2017). The powerful role of intangibles in the coffee value chain. WIPO Economic Research Working Paper No. 39. WIPO.

Santos, M. (2021). High net-worth attachments: Emotional labour, relational work, and financial subjectivities in private wealth management. *Journal of Cultural Economy*, *14*(6), 750–764. https://doi.org/10.1080/17530350.2021.1952097

Schwartz, H. M. (2022). Global secular stagnation and the rise of intellectual property monopoly. *Review of International Political Economy*, *29*(5), 1448–1476. https://doi.org/10.1080/09692290.2021.1918745

Seabrooke, L., & Wigan, D. (2017). The governance of global wealth chains. *Review of International Political Economy*, *24*(1), 1–29. https://doi.org/10.1080/09692290.2016.1268189

Seabrooke, L., & Wigan, D. (2022). Asset strategies in global wealth chains. In L. Seabrooke & D. Wigan (Eds.), *Global wealth chains* (pp. 1–29). Oxford University Press.

Sharman, J. C. (2017). Illicit global wealth chains after the financial crisis: Micro-states and an unusual suspect. *Review of International Political Economy*, *24*(1), 30–55. https://doi.org/10.1080/09692290.2015.1130736

Stausholm, S. N. (2022). Mining. In L. Seabrooke & D. Wigan (Eds.), *Global wealth chains* (pp. 242–261). Oxford University Press.

Veglio, V., & Romanello, R. (2022). The COVID-19 crisis and Italian firms: Digitalization, internationalization, and global value chain reconfiguration. In H. Etemad (Ed.), *Small and medium sized enterprises and the COVID-19 response* (pp. 198–221). Edward Elgar Publishing.

Weiss, L., & Thurbon, E. (2018). Power paradox: How the extension of US infrastructural power abroad diminishes state capacity at home. *Review of International Political Economy*, *25*(6), 779–810. https://doi.org/10.1080/09692290.2018.1486875

Werner, M., Bair, J., & Ramiro Fernandez, V. (2014). Linking up to development: Global value chains and the making of a post-Washington Consensus. *Development and Change*, *45*(6), 1219–1247. e4. https://doi.org/10.1111/dech.12132

Whittaker, D. H., Sturgeon, T., Okita, T., & Zhu, T. (2020). *Compressed development: Time and Timing in economic and social development*. Oxford University Press.

Wigan, D. (2009). Financialisation and derivatives: Constructing an artifice of indifference. *Competition & Change*, *13*(2), 157–172. https://doi.org/10.1179/102452909X417033

Wigan, D. (2021). Uber global wealth chains. In B. Unger, L. Rossel, & J. Ferwerda (Eds.), *Combating fiscal fraud and empowering regulators* (pp. 194–214). Oxford University Press.

World Intellectual Property Organization. (2017). *Intangible capital in global value chains*. WIPO.

Yang, H., & Ning, Z. (2021). *Corporate income tax planning methods and research of high-tech enterprises* [Paper presentation].3rd International Conference on Economic Management and Cultural Industry, (ICEMCI), In. Atlantis Press, 161–167.

Yeung, H. W. C. (2014). Governing the market in a globalizing era: Developmental states, global production networks and inter-firm dynamics in East Asia. *Review of International Political Economy*, *21*(1), 70–101. https://doi.org/10.1080/09692290.2012.756415

Zucman, E. (2019). Global wealth inequality. National Bureau of Economic Research, NBERR Working Paper 25462, http://www.nber.org/papers/w25462