

Digital Platforms as Second-Order Lead Firms: Beyond the Industrial/Digital Divide in Regulating Value Chains

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Abstract: *Major parts of global trade in commodities and services are shifting to digital platforms. Yet, current regulatory debates surrounding global value chains (GVCs) and digital platforms are mostly siloed from each other. They share however the challenge of adjusting regulation to a novel mode of economic organization that breaks with our established cognitive frames in both law and economics. By consequence, we contend that both debates should be read in an interlinked manner – overcoming the industrial/digital divide. Digital platform operators should be understood as a ‘second-order lead firm’. To illustrate this, we assess the compatibility of the platform economy with the reigning model of GVC capitalism and its regulatory underpinnings.*

The imaginary of the platform as an intermediary separate from its users is pervasive in economic and legal thought. As a result, platforms are not explicitly targeted by GVC regulation focused on sustainability or security of supply. Neither do regulatory proposals focused on the interface between users and platforms, such as the EU’s Digital Markets Act (DMA) and the Digital Services Act (DSA), address the radical effects of platforms on deeper tiers of production. To counter the legal arbitrage offered by digital platforms, we draw on recent GVC regulation and private law doctrine and contend that platform operators should conduct due diligence vis-à-vis the value chains intersecting on their platforms. Foundations exist to broaden conceptualizations of ‘lead firm’ and ‘value chain’ to cover ‘second-order lead firms’ and the value chains of their users, even if extra-territorial platforms pose a unique problem.

Résumé: *Une grande partie du commerce mondial des produits de base et des services se déplace vers les plateformes numériques. Pourtant, les débats actuels sur la réglementation des chaînes de valeur mondiales (CVM) et des plateformes numériques sont pour la plupart cloisonnés les uns par rapport aux autres. Ils partagent cependant le défi d’adapter la réglementation à un nouveau mode d’organisation économique quirompt avec les conceptualizations établies, tant en droit qu’en économie. Par conséquent,*

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nous soutenons que les deux débats devraient être lus de manière interconnectée – en surmontant le fossé industriel/numérique. Les opérateurs de plateformes numériques devraient être compris comme un ‘second-order lead firm’. Pour illustrer cela, nous évaluons la compatibilité de l’économie de plateforme avec le modèle dominant du capitalisme GVC et ses fondements réglementaires.

L’imaginaire de la plateforme en tant qu’intermédiaire distinct de ses utilisateurs est omniprésent dans la pensée économique et juridique. Par conséquent, les plateformes ne sont pas explicitement visées par la réglementation des GVC axée sur la durabilité ou la sécurité de l’approvisionnement. Les propositions réglementaires axées sur l’interface entre les utilisateurs et les plateformes, telles que la Législation sur les marchés numériques et la Législation sur les services numériques de l’UE, ne traitent pas non plus des effets radicaux des plateformes sur les niveaux de production plus profonds. Pour contrer l’arbitrage juridique offert par les plateformes numériques, nous nous inspirons de la réglementation récente sur les GVC et de la doctrine du droit privé et soutenons que les opérateurs de plateformes doivent faire preuve de diligence raisonnable vis-à-vis des chaînes de valeur qui se croisent sur leurs plateformes. Il existe des fondements pour élargir les conceptualisations d’‘entreprise leader’ et de ‘chaîne de valeur’ afin de couvrir les ‘entreprises leaders de second rang’ et les chaînes de valeur de leurs utilisateurs, même si les plateformes extraterritoriales posent un problème unique.

Zusammenfassung: *Große Teile des globalen Handels mit Waren und Dienstleistungen verlagern sich auf digitale Plattformen. Die gegenwärtigen Debatten über die Regulierung (industrieller) globaler Wertschöpfungsketten (GVCs) einerseits und digitaler Plattformen andererseits verlaufen jedoch größtenteils voneinander isoliert. Beide Diskussionen verbindet die Herausforderung, Regulierungsmuster an eine neuartige Form der wirtschaftlichen Organisation anzupassen, die mit etablierten rechtlichen und wirtschaftlichen Konzepten bricht. Vor diesem Hintergrund argumentieren wir in diesem Beitrag, dass beide Debatten stärker miteinander verknüpft werden sollten und die Trennung zwischen industriellen und digitalen Wertschöpfungsprozessen aufzugeben ist. Betreiber digitaler Plattformen lassen sich hierzu als ‘second-order lead firms’ verstehen. Um dies zu veranschaulichen, untersuchen wir die Struktur der Plattformökonomie aus der Perspektive der Governance und Regulierung globaler Wertschöpfungsketten.*

In rechtlichen und wirtschaftlichen Konzeptionen werden digitale Plattformen oft als bloße Mittler verstanden, die gegenüber ihren Nutzern organisatorisch eigenständig bleiben. Sie liegen daher nicht im Anwendungsbereich der nationalen und europäischen Regelungen globaler Wertschöpfungsketten, die mittels lieferkettenspezifischer Sorgfalts- und Transparenzpflichten die Nachhaltigkeit und Versorgungssicherheit von Wertschöpfungsketten gewährleisten wollen. Zugleich betreffen die aktuellen europäischen Regulierungsvorschläge für digitale Plattformen, das Gesetz über digitale Dienste (DSA) und das Gesetz über digitale Dienste (DMA) vorrangig die Schnittstelle zwischen Plattformen und ihren unmittelbaren Nutzern, nicht aber die tieferen Ebenen der betroffenen Wertschöpfungsketten. Um das daraus resultierende Regulierungsvakuum zu füllen, zieht der Beitrag Parallelen zur Regulierung globaler Wertschöpfungsketten und entwickelt daraus Ansätze einer gestuften Sorgfaltspflicht der Plattformbetreiber gegenüber den Wertschöpfungsketten der auf der Plattform gehandelten Waren und Dienstleistungen. Die Begriffe der ‘lead firm’ und ‘supply chain’ lassen sich erweitern, um Regulierungsimpulse für Plattformen als ‘second-order lead firms’ zu entwickeln.

1. Introduction

1. Digital platforms, like all modes of economic organizing, are facilitated by and anchored in law.¹ A specific legal infrastructure composed of both private and public law building blocks forms the backbone of digital platforms' ability to rewrite the playbook of economic value-creation. The private law dimension of a platform's legal infrastructure has come under scrutiny as platforms are increasingly recognized not as an unequivocal economic success story but as powerful actors that impose heavy externalities on various sectors of society.² Indeed, digital platforms have proliferated to have on-the-ground impacts on everyone from consumers to workers, businesses and states.

2. The regulatory debate, slow and belated at first, has gained considerable intensity over the last few years, with platforms' monopolistic market concentration, capability to amass user data and power to shape social realities, public discourse and individual integrity being broadly problematized. Alongside high-impact cases and proposals coming from antitrust perspectives,³ regulators have moved to formulate rules of conduct for platform operations. Within the EU, the Digital Markets Act (DMA)⁴ and the Digital Services Act (DSA),⁵ entering into force in November 2022, establish a new regulatory framework for digital platforms, complementing earlier rules on the relation between platforms and businesses.⁶ In the surrounding debates, platforms are however often understood as essentially a digital phenomenon, disconnected from the underlying value chains of products, services, labour and other assets exchanged via Amazon, Alibaba,

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- 1 A. KAPCZYNSKI, 'The Law of Informational Capitalism', 129. *Yale Law Journal* 2020, p (1460) at 1496-1513.
 - 2 A. GAWER & N. SRNICEK, *Online platforms: Economic and societal effects: Report for the European Parliament* (Brussels: Directorate General for Parliamentary Research Services (EPRS) 2021).
 - 3 For a recent overview, see I. LIANOS & M. JACOBIDES, 'Ecosystems and competition law in theory and practice', 30. *Industrial and Corporate Change* 2021, p 1199; N. PETIT, *Big Tech and the Digital Economy: The Molligopoly Scenario* (Oxford: Oxford University Press 2020); on EU policy options J. CRÉMER, Y.-A. de MONTJOYE & H. SCHWEITZER, *Competition policy for the digital era: Final report* (Brussels: European Commission, Directorate-General for Competition 2019); path-breaking in the US L. KHAN, 'Amazon's antitrust paradox', 126. *Yale Law Journal* 2017, pp 710-805.
 - 4 Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 Sep. 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act).
 - 5 Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 Oct. 2022 on a Single Market for Digital Services and amending Directive 2000/31/EC (Digital Services Act); on the DMA and DSA, see M. EIFERT, A. METZGER, H. SCHWEITZER & G. WAGNER, 'Taming the Giants: The DMA/DSA Package', 58. *CMLR (Common Market Law Review)* 2021, p 987.
 - 6 Regulation (EU) 2019/1150 of the European Parliament and of the Council of 20 Jun. 2019 on promoting fairness and transparency for business users of online intermediation services; C. BUSCH, H. SCHULTE-Nölke, A. WIEWIÓROWSKA-DOMAGALSKA & F. ZOLL, 'The Rise of the Platform Economy: A New Challenge for EU Consumer Law?', 5. *EuCML* 2016, p 3.

Uber, Airbnb and the like. Key concerns relate to possible anti-competitive effects of dominant platforms' gatekeeping position, not the possibly unsustainable trickle-down effects of platform governance on deeper tiers of production and services.

3. In research on industrial value chains, a growing literature documents the ways that lead firms seek to escape regulation through off-shoring and out-sourcing.⁷ Such studies have inspired the latest regulatory attempts to counter these strategies, such as novel sustainability due diligence regulations adopted in different jurisdictions.⁸ While the initiatives may incorporate tools for reigning in Global North lead firms, digital platforms do not fit neatly into the framework of these initiatives. In contrast to traditional value chain lead firms, platforms employ novel strategies of cutting through local and transnational regulatory spaces and thus appear constitutively distinct from global value chains (GVCs).⁹ The ambivalence of platform governance - de facto setting the terms of interaction that radiate deep into platform suppliers' underlying structures of production while de jure attempting to take no responsibility for such local and global value chains - poses a challenge not only to existing theorizations of value chains but also to efforts of regulating value chain sustainability.¹⁰

4. So far, the disruptive effects of online platforms for the underlying processes of value creation have not been sufficiently captured. The regulatory landscape is in fact bifurcated and reflects the perception - imported from economic thought - of platforms as (mere) matchmaking 'intermediaries' that can be addressed in isolation from the respective markets and value chains. This imaginary also echoes a

7 For example, K. SOBEL-READ, 'Reimagining the Unimaginable: Law and the Ongoing Transformation of Global Value Chains into Integrated Legal Entities', 16. *ERCL (European Review of Contract Law)* 2020, p 160; using the example of tax regulation D. QUENTIN & L. CAMPLING, 'Global inequality chains: Integrating mechanisms of value distribution into analyses of global production', 18. *Global Networks* 2018, p 33; on the different strategies of 'dissociation' from wrongs along the chain see J. BAIR, 'Dialectics of dissociation', 9. *Dialogues in Human Geography* 2019, p 68.

8 Compare EU COM, Proposal for a Directive of the European Parliament and of the Council on Corporate Sustainability Due Diligence and amending Directive (EU) 2019/1937, COM(2022) 71 final; for some national laws cf. the French 'Loi sur le devoir de vigilance' (2017), the German 'Lieferkettensorgfaltspflichtengesetz' (2021) or the Dutch 'Wet Zorgplicht Kinderarbeid' (2019). N. BUENO & C. BRIGHT, 'Implementing Human Rights Due Diligence through Corporate Civil Liability', 69. *ICLQ (International and Comparative Law Quarterly)* 2020, p 789; J. SALMINEN & M. RAJAVUORI, 'Transnational Sustainability Laws and the Regulation of Global Value Chains: Comparison and a Framework for Analysis', 26. *MJECL (Maastricht Journal of European and Comparative Law)* 2019, p 602.

9 M. GRASTEN, L. SEABROOKE & D. WIGAN, *Legal affordances in global wealth chains: How platform firms use legal and spatial scaling*, Environment and Planning A (2021), p 1.

10 F. BUTOLLO, M. KRZYWDZINSKI, G. GEREFFI & C. YANG, *Digital transformation and value chains: Introduction*, Global Networks (2022), p 1.

largely anachronistic digital/industrial divide in market regulation. One set of rules, like the DSA/DMA package, seeks to horizontally regulate the platform as a digital marketplace with barriers to abuse of dominance and self-preferencing. A second set of rules, such as value chain reporting and due diligence, is addressed at lead firms that act as platform suppliers (e.g., sellers on Amazon) and puts in place vertical regulation of deeper tiers of the value chain. What falls through the cracks here is, first, the fact that many business users of platforms remain below the size, turnover or other requirements set by value chain regulations, and second, that the centrality and size of a platform can distort or pressurize lead firm sustainability policies.

5. Digital platforms operate in a competitive environment that can be very distinct from the animating logic of the industry they seek to disrupt: their data-driven business model becomes superimposed on the business model of the respective industries. One could say that they act as ‘meta-lead firms’, operating above but recoupling several existing value chains. However, platforms do not track any existing lead firm types but form a novel type of lead firm. To illustrate this, we suggest speaking of these new, atypical lead firms as ‘second-order lead firms’. In short, this designation is meant to express that platforms do not merely occupy a place above and beyond existing value chains, but that they *generate* and *set the terms for* a novel mode of economic organization that intersects existing value chains with the scaling effects of platforms. Vis-à-vis underlying value chains of production and services, platforms draw on means of governance that differ from those employed by industrial lead firms. They exert a ‘control of control’,¹¹ categorically separate from ‘first-order governance’ as practiced by traditional lead firms.

6. Presently, the debate around platform governance focuses mostly on the various dyadic relationships between platforms, the actors they enrol to generate end-user value (platform suppliers) and end-users. Platform-specific regulatory approaches, such as the EU’s DMA and DSA, follow suit. Nascent transnational sustainability laws that seek to capture traditional producer- or buyer-type lead firms will usually not be directly applicable to platform operators. Thus, the broader implications of the platformization on underlying value chains have gone uncaptured. Instead, they are left to piecemeal mitigations, by municipalities (e.g., Airbnb regarding the rental market), national courts and legislators (e.g., Uber regarding labour conditions) or supranational regulation (e.g., Alibaba regarding product safety). Central to our effort is tracing the constellations of responsibility of digital platforms for the value chains *beyond* end-users and end-suppliers on platforms and to remap the role of platforms in the regulation of local and global production.

11 H. VON FOERSTER, *Cybernetics of Cybernetics, the Control of Control and the Communication of Communication* (Heidelberg: Carl Auer 1995).

7. To do this, we undertake a governance-based approach to theorizing digital platforms. In section 2 we chart and systematize the key characteristics of platforms and how these characteristics allow new forms of regulatory arbitrage in global production. In section 3 we highlight how platforms relate to but also differ from the governance analytic underlying GVC theory and focus on the levers of governance that platforms, or second-order lead firms, deploy. In section 4 we look at some legal implications of platforms as second-order lead firms by focusing on apparent blind spots of current platform and sustainability regulations. A short conclusion ends the article.

2. Beyond ‘Platforms as Intermediaries’: Platforms as Regulatory Arbiters of Local and Global Value Chains

2.1. *Unpacking Platform Business Models: Second Order Lead Firms and the Transition from Industrial Global Production to Algorithmic ‘Metaproduction’*

8. Platforms can be defined as ‘infrastructure facilities that connect individuals and/or businesses so that they can engage in value-creating interaction’.¹² In this sense, they may seem indistinguishable from many traditional intermediaries, from agents to brokers to supermarkets to newspapers. Platforms can deal in goods, services, labour, information, or any combination of these, or all of these, with varying sectoral, geographical, or other focuses.¹³ In short, platforms can be almost anything, but at their core lies the notion that they are positioned in-between and connect different kinds of actors to each other.

9. Importantly, despite existing in the in-between space and serving as connectors, platforms are not traditional intermediaries. Even if e-commerce platforms for goods often claim themselves to be intermediaries who merely connect buyers and sellers, they are more akin to department stores or supermarkets. The same applies to information exchanges, freelance and gig job platforms, transportation platforms or even B2B service platforms. These are not mere replacements for newspapers or cable news channels, labour hire firms or unemployment offices, or business contacts and networks. Platforms do much more than just intermediate: they provide the core structure and scaffolding for value generation by engaging in intense structuring and control of the productive interactions they facilitate. Platforms control the digital presentation of

12 M. EIFERT, A. METZGER, H. SCHWEITZER & G. WAGNER, 58. *CMLR* 2021, p 987.

13 S. RAHMAN & K. THELEN, ‘The Rise of the Platform Business Model and the Transformation of Twenty-First-Century Capitalism’, 47. *Politics and Society* 2019, p 177; T. FLEW, F. MARTIN & N. SUZOR, ‘Internet Regulation as Media Policy: Rethinking the Question of Digital Communication Platform Governance’, 10. *Journal of Digital Media & Policy* 2019, p 33.

products and services, collect massive information on transactions and set rules on what kinds of transactions are allowed in the first place.

10. This reconfiguration of value generation dynamics is driven by multiple factors. The data-driven algorithmic modes of operation that platforms enact are central to this reconfiguration. Data-driven algorithmic operations allow platforms to extend their scope in space and time, reach a global market and accelerate their operations. Due to their online nature, platforms hold the promise of being ubiquitous, omnipresent, available anywhere in the world at any time, at superhuman time scales. As a result, the platform may become a sine qua non value generator while the traditional key role that goods producers and services providers played in generating value diminishes drastically. On platforms, end-suppliers, in short, lose much of their relevance as key linchpins in the organization of production.

11. The infrastructural potential for ubiquity, omnipresence and immediacy may, if the platform is successful, allow platforms to compete for global audiences of users and have huge user bases, while at the same time aggregating countless value chains with a much leaner infrastructural framework than traditional aggregators such as supermarkets or department stores. Data, in turn, is amassed to nourish advanced algorithms and analytics towards a competitive advantage. While many platforms fail, the successful ones may grow to be ubiquitous in their operation, use their size to attract an ever-increasing user base and utilize algorithms to make sense of the massive user data they collect to improve performance. This generates a winner-takes-all logic and allows successful platforms to establish ecosystems that break down barriers between traditional ‘market segments’ or industries and reap unprecedented economies of scale, further entrenching the winner-takes-all dynamics of operational accumulation. Thus, while platforms could be seen as somewhat akin to certification bodies in that they set standards of interaction on platforms, they may also significantly exceed the role of certification bodies through their power to control transactions for their own purposes. The business of platforms is not standard-setting, but the use of standards to create and steer their private markets.

12. However, the economies of scale also entrench the reconfiguration of the value creation dynamics. Value is increasingly generated by the ‘service’ the platform performs. Production would not exist without the platform and its platform service. This leads to a fundamental transformation that shifts the centre of gravity in value creation from production to the metaproduction that the platform engages in, ‘increasingly displac[ing] the traditional linear value chains’.¹⁴ For example, while in principle a buyer and a seller could meet without an agent (as argued by

14 M. EIFERT, A. METZGER, H. SCHWEITZER & G. WAGNER, 58. *CMLR* 2021, p 988; also A. GAWER, ‘Digital platforms and ecosystems: Remarks on the dominant organizational form of the digital age’, 24. *Innovation: Organization & Management* 2021, p 110.

the European Court of Justice (ECJ) and the UK Supreme Court (UKSC) in relation to Airbnb, discussed in ss 3 and 4), the objective of the platform project is for the platform to become the actor on whom end-users and end-suppliers rely to get what they want, while engaging in metaproduction by bringing together the brand, governance structures and digital infrastructure in order to take a cut of the value, even as they keep the operational mess off of the platform's balance sheet.

13. The accumulation of metaproduction by platforms opens up the possibility for creating digital ecosystems as 'second-order' value chains. Like traditional value chains, they consist of highly dynamic types of 'entangled alliances' between companies that depend on each other's activities.¹⁵ The platform can expand its boundaries from single end-products to complementary modules that exist in the same metaproduction complex as the production. Instead of offering a mere 'product' or a service, platforms offer entire 'experiences'. Take the example of Airbnb which today intersects different markets, such as home sharing, rental agencies, hotel services, hostels, as well as full-service booking agencies.¹⁶ Its ecosystem comprises web developers, host service suppliers, travel amenities and facility services, to name just a few. To advance to an ecosystem orchestrator is the key business trajectory for a digital platform operator.

14. To conceptualize platforms through the lens of governance, we need to seek out a new liminal space that recombines existing perspectives. With 'second-order lead firm' we thus mean, essentially, a *combination of perspectives*. From a traditional, *industrial* perspective, a lead firm organizes its production network towards producing a good or a service. Regulations focusing on, e.g., value-chain-wide sustainability and security of supply then ask lead firms to govern these lead-firm-specific value chains. Current debates on *digital platform regulation*, then, generally focus on users and their rights on platforms, i.e., the bilateral relationships between users and platform operators. The deeper tiers of value chains embedded into these users go to a large extent unnoticed. We use the term second-order lead firm to highlight that both aspects, the traditional, individual value-chain-focused approach, and the more modern platform/user interface, are intimately intertwined to the extent that they cannot be separated if we aim towards effective regulation of production. A platform operator's stated focus of merely facilitating relationships between users necessarily implicates the underlying value chains of users as the platform operator has the power to define the content and appearance of all relationships on its platform.

15 M. JACOBIDES, C. CENNAME & A. GAWER, 'Towards a theory of ecosystems', 39. *Strategic Management Journal* 2019, p 2255.

16 V. MAK, 'Regulating online platforms: The case of Airbnb', in S. GRUNDMANN (ed.), *European contract law in the digital age* (Cambridge: Intersentia 2018), pp 87-102.

15. This dual nature of platforms is to an extent captured by the concept of ecosystems.¹⁷ However, in order to maintain the relevance of current value chain regulation, there is a need to update our understanding of the role of lead firms and value chains in the platform economy. We thus use the term second-order lead firm to anchor a comparatively complex understanding of platforms, guided by ecosystems approaches, with existing, nascent approaches to value chain regulation, building on the governance frame of GVC theory. The rest of this article will focus on elaborating the concept of second-order lead firm by looking at the platform economy generally and platforms in particular from a governance perspective.

2.2. *New Patterns of Regulatory Arbitrage in the Platform Economy*

16. Modes of organizing production change over time, and law both enables and regulates these new forms of production.¹⁸ In this historical progression, platforms are yet another development that disrupts existing regulatory frameworks, making interventions targeting earlier modes of production unstable. For example, industrialization tended to create substantial centralized production entities that operated extensive or even global distribution chains.¹⁹ This form of production was dependent on transportation technologies that enabled the massive separation of production and consumption. Centralization of production into an enormous entities controlled through equity ownership was important for bureaucratic efficiency, while the organization of other aspects related to production, such as consumption, the labour market and supply, was organized by horizontal contractual relationships. The paradigm had a distinct externality footprint. While supply chains related to, for example, raw material production could extend globally, the direct social and environmental externalities arising out of industrial installations were primarily local and, eventually, regulated as such.

17. This approach to production, characterized by a focus on regulating local entities, has since been replaced by the GVC economy which became the dominant form of capitalist production towards the end of the 20th century.²⁰ Central to GVCs is specialization and the ensuing fragmentation of production, enabled by

17 For example, I. LIANOS & M. JACOBIDES, 30. *Industrial and Corporate Change* 2021, p 1199.

18 Generally, e.g., J. SALMINEN & M. RAJAVUORI, 'Law, Agency and Sustainability: The Role of Law in Creating Sustainability Agency', in S. TEERIKANGAS et al. (eds), *Research Handbook of Sustainability Agency* (Cheltenham: Edward Elgar 2021), Ch. 21.

19 A. CHANDLER, *Scale and Scope: The Dynamics of Industrial Capitalism* (Cambridge/MA: The Belknap Press 1990). R. BALDWIN, *The Globotics Upheaval: Globalization, Robotics, and the Future of Work* (Oxford: Oxford University Press 2019).

20 G. GEREFFI, 'A Global Value Chain Perspective on Industrial Policy and Development in Emerging Markets', 24. *Duke Journal of Comparative and International Law* 2014, p (433) at 435-440. R. BALDWIN, *The Globotics Upheaval*.

advanced communication technologies that allow lead firms to effectively control geographically and organizationally fragmented entities. The driving idea behind global fragmentation is that of value: lead firms focus on higher value-producing aspects of production, such as the creation of intellectual property, marketing and research and development, while outsourcing less value-producing aspects of production, such as manufacturing, component design and back-office functions. At the same time, this process also outsources and offshores the social and environmental externalities of production.

18. As a result, the first paradigm of governing production externalities disintegrated. The move to GVCs disrupted the local, nation-state mediated regulation of externalities as firms began to use contracts to dislocate and distance production from the entity governing production to other actors outside the reach of regulations targeting the lead firm. This raises pertinent questions of regulating value chains that are hotly discussed in relation to themes such as modern slavery, climate change and fair allocation of taxation. While effective responses are still in the making, a new focus is slowly emerging on regulating *value chains* by requiring adequate value chain governance from *lead firms*.²¹

19. The platform economy, however, disrupts the emerging regulatory landscape of GVCs by twisting upon existing global modes of production and value creation in several ways.²² Two are particularly central for the regulation of governance. First, platforms perform a governance manoeuvre that disrupts the organizational level of GVC regulation. Remember that platforms de facto control production by engaging in metaproduction. However, they attempt to hide their involvement through a smokescreen of denials. While the transition to platform production entails a shift from the dyadic relationships between buyers and sellers to a triadic relationship that the platforms control, platforms try to keep up the appearance of dyadic relationships by asserting that the platform is passive within the tripartite relationship. They frame all actors on the platform as ‘users’ and deploy all conceivably available legal tools to entrench their alleged distance from actual production. These manoeuvres have seen some success. Platforms have been able to partly disrupt the nascent approaches to regulating externalities that latch on to effective control by lead firms over production outcomes and production processes in their value chains.

20. For example, when platforms claim to be merely agents connecting users, they simultaneously claim that they are not in a position to control their users’ value chains. Following this, any production-relevant relationship is framed as taking place in the dyad between the users without involvement by the platform. Paradoxically, even if the users have never interacted outside the platform and their

21 J. SALMINEN & M. RAJAVUORI, 26. *MJECL* 2019, p 602.

22 R. BALDWIN, *The Globotics Upheaval*.

interaction is strictly regulated by the platform, platforms argue themselves to be outside the production relationship, denying any legal role in the value-creation of the goods or services traded. Put differently, platforms take responsibility solely for the matchmaking stage of the process of value-creation, but absolve themselves of any liability for deeper tiers, such as vetting the value chains of users regarding concerns on sustainability or security of supply.

21. Second, platforms transnationalize production and its externalities in a novel way. Under industrialization, externalities caused by local entities such as industrial installations were primarily regulated locally. Under GVC capitalism, the locus of regulation has shifted to states regulating transnational production structures via the lead firms within their jurisdiction to mitigate regulatory arbitrage and the effects of global outsourcing of sustainability externalities. The crux of the issue is that under the current Global North regulatory approach to GVCs lead firms are generally Global North businesses within a Global North regulator's, such as the European Union's, jurisdiction. Platforms such as Ali Baba, however, may well be located outside such a presumptive regulator's jurisdiction due to their online ubiquity. Neither of the earlier modes of regulation, local or transnational via locally embedded lead firms, is applicable to extraterritorial platform operators.²³ Both production outcomes and externalities escape regulatory competence. Similarly to GVCs that disembed externalities from earlier local regulation,²⁴ platforms have the power to remove externalities from the reach of regulation enforcing the sustainability of GVCs. And importantly, platforms thus reopen a channel which regulators thought they had plugged.

22. For example, suppose that consumers buy certain goods from a locally embedded lead firm. The local and global externalities arising out of the production of the goods may be countered by regulating the lead firm and how it governs its value chain. But if consumers turn to buying the same goods from a platform located outside the regulator's jurisdiction this approach loses some of its traction. Regulation would have to focus on something else, namely either - as a *product-based approach* - tracing the commodity and formulating obligations for its entry into the domestic market, or - as a *transaction-based approach* - blocking digital access to non-compliant platforms or otherwise targeting users who are transacting on extraterritorial platforms. On another level, GVC regulations focused on ensuring security of supply in relation to critical goods may lose traction altogether if, for example, the manufacture of crucial medicines takes place on proprietary extraterritorial platforms.²⁵

23 Compare J. COHEN, 'Law for the Platform Economy', 51. *U.C. Davis Law Review* 2017, p 133.

24 P. ZUMBANSEN, 'Lochner Disembedded: The Anxieties of Law in a Global Context', 20. *Indiana Journal of Global Legal Studies* 2013, p 29.

25 C. GRIMPE, T. MINSSEN, N. PRICE II & A. Stern, 'Will mRNA Technology Companies Spawn Innovation Ecosystems?'. *Harv. Bus. Rev.* 18 Apr. 2022.

23. In sum, the novel organizational and transnational characteristics of digital platforms enable new forms of regulatory arbitrage. These characteristics, coupled with the steady move of production to platforms, merit an exploration into ways to update existing lead-firm focused regulations, ranging from classic topics such as product safety to the broader social, environmental, cultural and economic sustainability of platformized production and, increasingly, questions of security of supply of critical goods in times of global crises.

3. Understanding Platform Governance in Light of GVC Theory

3.1. *The Governance Analytic of GVC Theory and Its Legal Impact*

24. The GVC governance analytic is founded on an analysis of power relationships in transnational production structures or ‘global value chains’. Detailing the scope and strength of these power relationships, the GVC governance analytic allows tracing the most significant governance decisions in the chain to a specific party, the lead firm. In other words, the title of ‘lead firm’ is not a mere descriptor but rather imprints important data on structural position. In particular, a more focused understanding of the structural positioning of the lead firm provides insight for locating what Kaplinsky calls the ‘policy levers that might influence the behaviour of key stakeholders in the value chain’.²⁶ From a legal perspective, it is this actual or potential governance that justifies regulating value chains and the doctrinal attribution of liability on lead firms for value chain-related externalities.

25. Central to GVC theory is thus the notion that lead firms can govern their value chains through diverse means. In their seminal piece on GVC theory, Gereffi, Humphrey and Sturgeon identify four types of lead firm governance of contractual value chains: *market*, *modular*, *relational* and *captive governance*.²⁷ Instead of trying to see all GVCs as similar, indivisible black boxes, the typology and its abstractions enable us to discuss and treat value chains differently depending on the extent to which a lead firm engages with its value chain. This, we argue, has greatly enhanced our understanding of and readiness to deal with GVCs also in law.

26. In the context of value chains, *market governance* is essentially a form of *non-governance* of the value chain. Lead firms transact in a manner in which they do not care about factors outside the basic elements of a dyadic market-price transaction:

26 R. KAPLINSKY, ‘Spreading the Gains from Globalization: What Can be Learned from Value-Chain Analysis?’, 47. *Problems of Economic Transition* 2004, p (74), at 107.

27 G. GEREFFI, J. HUMPHREY & T. STURGEON, ‘The Governance of Global Value Chains’, 12. *Review of International Political Economy* 2005, p 78. For one reading coupled with work by Ian Macneil, Oliver Williamson and Richard Locke, see J. SALMINEN, ‘Towards a Genealogy and Typology of Governance Through Contract Beyond Privty’, 16. *ERCL* 2020, p 25.

the price, quantity and physical qualities of a good or a service. As long as an actor has market access and offers to buy or sell an on-par product or service, anyone can transact without further ado. The market, as a confluence of willing buyers and sellers, governs transactions. This is not to say that markets are unregulated – each market is constructed by its own regulatory parameters, but within these boundaries, transactional focus is on the market-price. At the same time, the value chain operates in line with existing markets, i.e., it does not generate what could be called an ‘internal market’ specific to the value chain. Market governance flows from lead firms beyond their direct contractual partners only indirectly by affecting how these contractual partners in turn can transact based on e.g., the price they have received and the requirements the lead firm sets for the goods or services it buys.

27. *Modular governance*, then, acknowledges that there is a need to affect also other transactional parameters than those provided by the basic market infrastructure. This may imply either a plurality of market parameters, such as when dealing with multiple jurisdictions, or a lack of relevant regulation, such as when a market does not provide regulatory guidance for a particular transaction. The lead firm sets additional parameters that it expects all other actors to fulfil and may also monitor the fulfilment of these parameters by e.g., auditing. Ethical codes of conduct and specialized (i.e., non-standard) product requirements provide examples. The value chain thus creates an ‘internal market’ where market access depends on committing to shared standards. Modular governance explicitly extends beyond the direct contractual partners of a lead firm: it facilitates the flow of lead firm directives throughout the value chain and creates structures for monitoring such compliance.

28. *Relational governance* entails a tighter interaction throughout the value chain. In some cases, such as product development or cost-management arrangements, the transaction cannot be fully documented and thus relies on open-ended mechanisms that facilitate coordination, adaptation and learning.²⁸ In other cases, actors do not have the skills to adhere to required standards without help from lead firms in the form of capability building.²⁹ In both cases, both transparency and ensuing hands-on governance to reach stated objectives is necessary between the lead firm and other value chain actors. Access to the ‘internal market’ of the GVC here requires integration between lead firms and their value chains. Governance efforts must ensure that the value chain as a collective communicates and

28 P. KAJÜTER & H. KULMALA, ‘Open-Book Accounting in Networks: Potential Achievements and Reasons for Failures’, 16. *Management Accounting Research* 2005, p 179.

29 R. LOCKE, *The Promise and Limits of Private Power: Promoting Labor Standards in a Global Economy* (Cambridge: Cambridge University Press 2013). For a practical example of relational governance, see J. SALMINEN, ‘The Accord on Fire and Building Safety in Bangladesh – A New Paradigm for Limiting Buyers’ Liability in Global Supply Chains?’, 66. *American Journal of Comparative Law* 2018, p 411.

coordinates its actions effectively, can adapt to changed circumstances and maintains adequate competences.

29. Finally, the explanatory purchase of *captive governance* seems more limited. Instead of being a form of governance on its own, it rather highlights the potential for power asymmetries between GVC actors. Analytically, it dissolves into a separate axis to be used in analysing real-life governance structures because, arguably, any form of value chain governance is prone to abuse of power.³⁰ Similarly, unlike market, modular and relational governance, captive governance does not seem to have a direct point of comparison in other typologies focused on contractually organized production.³¹

30. Establishing this basic typology has an impact on theorizing the legal infrastructure supporting and motivating GVC governance. For one, the typology enables discussions around different approaches to regulating GVCs via the lever of requiring lead firms to adequately govern their value chains.³² Following the typology, we can observe that current approaches to GVC regulation can be classified according to three different modes and techniques of lead firm governance which they draw upon. Following *market governance*, lead firms might, in some cases, be held responsible for local sustainability externalities even if these can be traced to parts of their value chains in other jurisdictions. The European Union's product liability directive³³ and REACH regulation³⁴ could be read as examples. Both instruments impose on lead firms (an admittedly limited) liability for damage caused by their products. Following *modular governance*, lead firms can be required to explicitly direct their gaze on their transnational value chain by way of sustainability reporting standards. The EU Non-Financial Reporting Directive³⁵ and the Modern Slavery Act provide some examples.³⁶ Finally, following *relational governance*, lead firms can be required to explicitly act upon their transnational value chains by putting in place due diligence mechanisms that ensure transparent

30 M. DALLAS, S. PONTE & T. STURGEON, 'Power in Global Value Chains', 26. *Review of International Political Economy* 2019, p 666.

31 J. SALMINEN, 16. *ERCL* 2020, p 25.

32 J. SALMINEN, M. RAJAVUORI & K. ELLER, Global Value Chains as Regulatory Proxy: Transnationalising the Internal Market through EU Law, in A. BECKERS, H. MICKLITZ & R. VALLEJO (eds), *The Foundations of Transnational European Private Law* (Oxford: Hart Publishing 2023, forthcoming).

33 Council Directive 85/374/EEC of 25 Jul. 1985 on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products.

34 Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 Dec. 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.

35 Directive 2014/95/EU of the European Parliament and of the Council of 22 Oct. 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups.

36 (UK) Modern Slavery Act 2015 c. 30.

information exchange and capability building. The French *loi de vigilance*³⁷ and the EU's proposal for a Sustainability Due Diligence Directive provide some examples.³⁸

31. These instruments also point towards the emergence of increasingly comprehensive liability for lead firms for damage caused to third parties due to inadequate value chain governance. This liability for inadequate governance may still seem an extraordinary exception in today's economy. This is because entrenched legal structures have evolved to allow businesses to compartmentalize production into liability-remote silos. While political struggles over this legalized production regime are taking place, the commonly established exceptions, such as product liability, do little to unravel the privileged legal structures that, as a normative default, position value chains as successions of decision-independent black boxes over which the other actors in the chain have no influence.

32. The typology of GVC governance helps disrupt the entrenched value chain imaginary as it reveals the levers lead firms pull to govern their value chains. The boxes are, in fact, not independent. Even under market governance, for example, the levers exist. Lead firms can choose with whom they deal. This lever may be utilized to construct liability for inadequate governance if the lead firm chooses a clearly incapable or wrecklessly acting contractual partner. Cases such as *Trafigura* (settled)³⁹ and *Begum v. Maran*⁴⁰ provide example scenarios. Under modular governance, the governance initiatives of lead firms, such as group-wide policies, might serve as a foundation to liability. Following the reasoning of the English courts in *Lungowe v. Vedanta*⁴¹ and *Okpabi v. Shell*,⁴² liability might ensue if a lead firm publicly claims to implement governance initiatives but in fact fails to do so. And finally, relational governance, or the direct interference by lead firms in the actions of value chain actors, can lead to liability even if i.a. burdens of proof make cases in practice challenging. The *Chandler v. Cape*⁴³ case is an excellent example.

33. This typology of governance and the related regulatory and doctrinal developments, thus, provide three windows on how GVCs as organizationally and jurisdictionally fragmented entities can be conceptualized as lead-firm driven collectives for whom the lead firm must take responsibility even in the face of the

37 La loi du 27 mars 2017 relative au devoir de vigilance des sociétés mères et des entreprises donneuses d'ordre.

38 Proposal for a Directive of the European Parliament and of the Council on Corporate Sustainability Due Diligence and amending Directive (EU) 2019/1937 (COM/2022/71 final).

39 L. ENNEKING, *Foreign Direct Liability and Beyond* (Hague: Eleven International Publishing 2012), p 102.

40 EWCA 10 Mar. 2021, *Hamida Begum (on behalf of MD Khalil Mollah) v. Maran (UK) Limited* .

41 UKSC 10 Apr. 2019, *Vedanta Resources PLC and another v. Lungowe and others*.

42 UKSC 12 Feb. 2021, *Okpabi and others v. Royal Dutch Shell Plc and another*.

43 EWCA 25 Apr. 2012, *Chandler v. Cape PLC*.

entrenched liability-compartmentalizing structures. This conceptualization is relevant both for understanding the practical operation of collective entities and also for their legal operationalization. It seems that both regulation and private law are responding to our growing awareness of the crucial position of lead firms as organizational nodes in global production practices. The question then becomes how platforms should be perceived in relation to value chains.

3.2. *Fitting Platforms into GVC Theory: A Heuristics of Platforms*

34. As with GVCs, deciding on a suitable regulatory framework for digital platforms requires an assessment of their role, position and interest in the process of value generation. One distinction between platforms and traditional linear value chains is that platforms claim to be intermediaries or agents in a tripartite structure rather than serving as a central node of production.

35. The question at the heart of this section is whether the governance model outlined by GVC theory adequately describes and informs the characteristics of digital platforms and can be mobilized for the discussion on how to regulate platforms. To recap, the core idea of the GVC governance model is that lead firms make key decisions on how products and services are produced, starting with whether or not aspects of production are outsourced in the first place and under what terms and conditions. In the following, we will use well-known platforms as empirical fodder to explore how platforms would map onto the GVC theory governance heuristics. The exploration also uses the distinction between ‘buyer-type’ and ‘producer-type’ lead firms that precedes GVC theory.⁴⁴ While the distinction has partly faded from view in GVC literature, it builds on distinguishing lead firms based on what their core competence is. Producer-type lead firms coordinate the manufacturing process of their offering, while buyer-type lead firms adopt a more hands-off approach to the production of their offering.

36. The buyer/producer categorization of lead firms maintains some relevance for describing platforms. On the one hand, some platforms can be roughly characterized as ‘producer-type’ lead firms that are actively engaged in the production of a particular good or service. From the perspective of a user looking for mobility services, for example, Uber is essentially a producer (or provider) of a service even when Uber aggregates multiple producer value chains, anything from professional transport service providers to individual ‘gig workers’, to help in this task. On the other hand, some platforms can be roughly characterized as more ‘buyer-type’ lead firms, such as Ebay, that are focused on digitally packaging the products or services

44 G. GEREFFI, ‘The organization of buyer-driven global commodity chains: How US retailers shape overseas production networks’, in G. GEREFFI & M. Korzeniewicz, *Commodity Chains and Global Capitalism* (Westport, CT: Praeger 1994), pp 95–122.

of multiple value chains on their platform in a more or less uniform way, roughly similar to supermarkets or brand stores.

37. Resemblances to the governance analytic of GVC theory are also striking. In the vein of the most invasive producer-type lead firms, Uber exercises minute control over its value chain. It sets pricing terms for its offerings, allocates resources by operating a digital infrastructure to match free production assets with demand, sets strict production standards by establishing service quality standards, disciplines its ‘value creation partners’ for infractions of the standards it has imposed and enforces and imposes its brand on its partners.⁴⁵ Uber, thus, simultaneously utilizes market, modular and relational governance. A buyer-type platform is more relaxed, but still governs, or chooses not to govern, its value chain. Ebay, for example, gets to pick whose products end up on its platform, could block sellers who prove unreliable, governs them indirectly through a variety of algorithmic and user-interface tools, such as customer satisfaction scores, and even arbitrates disputes between its value creation partners and end-users.⁴⁶ Again, the entire palette of governance is in use. As conceptualized above, platforms engage in metaproduction that makes production possible through platforms.

38. This leads to a need for a twofold approach to conceptualizing the power of platform lead firms. On the one hand, the traditional GVC lead firm typology retains some relevance. On the other hand, the potential depth, ubiquity, invasiveness and centrality of platform governance must be highlighted.

39. The picture, however, gets more complicated. In fact, platforms operate as lead firms, or aggregators, of *two (or more) intersecting value chains*, namely the digital platform narrowly speaking and the underlying value chains for the traded goods and services, on which the platform operator can also have a direct impact. This entails intersecting regimes of regulation and governance, both of which can affect the deeper tiers of value creation more broadly, e.g., regarding the production parameters of goods and services traded on the platform. This means that platforms have the power to profoundly transform the operative structure of GVCs that would exist in some form even *without* the platform. Of course, this is what lead firms have always done. However, the scale differs. The big platforms, as gatekeepers to huge trading volumes, can through their sheer size become standard setters whose reach few actors can escape. Opting out from a major platform may not be an option.

45 For example, F. EYERT, F. IRCMAIER & L. ULBRICHT, ‘Extending the framework of algorithmic regulation. The Uber case’, 16. *Regulation & Governance* 2022, p 23.

46 For example O. RABINOVICH-EINY & E. KATSH, ‘Technology and the Future of Dispute Systems Design’, 17. *Harvard Negotiation Law Review* 2012, p 151.

40. The central role of platforms is strengthened by their usurpation of a range of legal functions otherwise held by the relevant state jurisdiction. These functions can be seen in the areas of employment law (e.g., employee-versus-contractor rules relating to Uber drivers), zoning law (e.g., in relation to short-term accommodation through Airbnb) and dispute resolution rules (e.g., in regard to customer disputes on Ebay), among others. Because these legal functions are embedded in the platforms' contract relationships, the local state, as the ultimate arbiter of contract enforcement, does retain some authority. But this authority arises only in a secondary - and therefore significantly weakened - position, subject to the primary legal management role of the platform.

3.3. *Levering governance to justify regulation*

41. Against this preliminary framework, the way platforms govern becomes visible and opens them to regulation. Here, a possible bifurcation of types of governance appears.

42. On the one hand platforms often exert direct control over their value chains using modular and relational governance. These direct governance efforts are relatively easy to identify and can be used as justifications for regulation. In fact, legislation, such as the EU P2B Regulation, and related soft-law provisions, such as the 'Draft Model Rules on Online Platforms' published by the European Law Institute,⁴⁷ and even some case law, all build on the recognition of this direct governance.

43. For example, the European Court of Justice has differentiated platforms on the basis of the degree of control that platform operators exert on suppliers in the Airbnb⁴⁸ and Uber⁴⁹ cases, with the UK Supreme Court following similar reasoning in its Uber ruling.⁵⁰ The courts spelled out that Uber exerts significant control over the service provided by its 'contractors' by establishing standards and utilizing customer rating controls to allocate work to contractors while also dictating service pricing and creating and sustaining contractor competencies.⁵¹ The governance

47 Article 21 of the European Law Institute's proposed *Model Rules on Online Platforms* (2019), https://www.europeanlawinstitute.eu/fileadmin/user_upload/p_eli/Publications/ELI_Model_Rules_on_Online_Platforms.pdf; F. MAULTZSCH, 'Contractual Liability of Online Platform Operators: European Proposals and Established Principles', 14. *ERCL* 2018, p 209; S. MILLER, 'First Principles for Regulating the Sharing Economy', 53. *Harvard Journal on Legislation* 2016, p 147.

48 ECJ 19 Dec. 2019, C-390/18 *Airbnb Ireland*.

49 ECJ 20 Dec. 2017, C-434/15, *Asociación Profesional Elite Taxi v. Uber Systems Spain, SL*.

50 UKSC 19 Feb. 2021, *Uber BV v. Aslam* [2021] UKSC 5.

51 Arguably, Uber also creates multi-tiered structures of sub-contracting among taxi businesses that end up being informal and subject to sub-standard pay - potential for controlling these is not at the heart of the ECJ case.

model, thus, combines elements from GVC modular and relational governance toolboxes with a relative power distribution reminiscent of captive governance. Airbnb, to the contrary, performs a somewhat more traditional intermediary role, although it provides important value-adding marketing services to its partners and also enforces its conduct standards.

44. The Uber case in particular and despite its legislative backdrop opens up one normative path to conceptualizing how platform regulation could proceed. Once the extent of influence that platforms exert on their value chains is identified and governance conceptualized, it becomes possible to operationalize the idea that platforms that have more control over their value chains should be subject to more wide-ranging duties in relation to the actors they control. This approach is reminiscent of the existing divides in both civil and common law systems that draw a line between active control and relative passivity as reflected in the contrast between special relationships and other relationships in tort law and privity contexts as well as in regard to concepts like piercing the corporate veil.

45. Conversely, the more indirect governance that platforms implement has been missed by the ECJ and the UKSC. Not focusing on this more indirect governance entrenches the position that other platforms that exert less direct control over users, such as Airbnb, should see less interventions and be treated more akin to traditional agents. At the far end of the spectrum, we might find the most basic online platforms, such as Craigslist, with even fewer obligations.

46. However, adopting such a stance might be suboptimal. From the perspective of end-users, each platform operator constitutes a brand with an advertised and recognized set of characteristics; end-users in turn seek those characteristics. Further, end-users need not consider installing their own governance in the same way as they would for purposes of transacting outside a platform. The expectation is that the platform operator has at least to some extent vetted other users (or enabled their vetting by the collective) and thus there is comparatively little need, or even factual possibility, for a user to govern them.

47. These metaproduction actions, then, attract an end-user base, which in turn attracts the value-creation partners whom the platforms govern. The governance is, however, insidious and invisible. The operators hold the power to choose which users can join the platform, how they are portrayed, on which terms they can transact with one another and when they can be ousted from the platforms.⁵² Governance is effectuated through the threat of exclusion, by essentially creating and enforcing a private closed market with set terms and conditions for entry.

52 D. EVANS, 'Governing Bad Behaviour by Users of Multi-Sided Platforms', 27. *BTLJ (Berkeley Technology Law Journal)* 2012, p 1206.

48. Here we come to the crux of the matter and perhaps the most compelling reason why also platform operators engaging in indirect governance merit a characterization as ‘lead firms’: by controlling the very access to platforms, including the terms of the users’ relationships with one another and by instigating in end-users a reliance on this governance, platform operators possess a fundamental power not only over individual transactions but also to oust an actor from *all* the subsequent sets of transactions that transpire through the platform-market, i.e., the power to not allow a user access to the platform. This control goes well beyond typical market governance and suggests that any platform operator holding such power deserves to be subject to correspondingly higher regulation in its relations to its users.⁵³

49. For instance, in theory, platform operators could reach an outcome similar to Uber’s control over its drivers through less direct governance, i.e. stricter platform entry and retention conditions. Whether this technique of governance would be as effective in practice is beyond the point – it highlights the bottom-line of control that platform operators have in relation to users and the brand perspective that platforms are associated with.

50. Recognizing both the direct and indirect governance that platforms engage with is crucial for pursuing regulatory agenda. For example in relation to sustainability, platform operators can either make all the end-user sustainability efforts and aspirations null by not recognizing sustainability impacts in the platform’s information flows between users, or give them centre stage by highlighting them prominently in the same information flows. At the same time, due to the inherent control they can exert, platforms have great potential for the promotion of regulatory interests, such as sustainability and security of supply, and have at their disposal effective tools to enforce such interests. This could be done either as a prerequisite for platform access or developed through active governance after entry to the platform, for example in the case of platforms marketing themselves as particularly conscientious. Most importantly, however, any considerations of sustainability or security of supply governance undertaken within a traditional value chain are to a great extent dependent on how platforms treat information on such governance. For example, if platforms do not act on sustainability markers or otherwise require sustainability, value chain governance outside platforms will miss a key mediating factor.

51. This by itself should make platforms a central focus of GVC regulation – whether or not coupled with the more traditional mechanisms of value

53 J. WINN, ‘The Secession of the Successful: The Rise of Amazon as Private Global Consumer Protection Regulator’, 58. *Arizona Law Review* 2016, p (193) at 199 (‘A successful platform operator is not merely the manager of activity taking place on the platform, but also one of the regulators governing that activity’.).

chain regulation such as requiring platform operators to partake in sustainability reporting or due diligence. If a platform reports on the sustainability or security of supply impacts of its own operations but not on those of its users, and users' reports are not integrated into the platform and its information flows, then there will be a clear mismatch between reporting practices in different parts of the value chain. To this can be added the potential of major platforms to enforce uniform reporting, and even due diligence, at the intersection of a broad range of different value chains.

52. In summary, from the governance perspective platforms may not at first sight seem radically different from traditional value chains. Existing governance typologies can be applied to platform operators if they are seen as conventional 'producers' or 'buyers'. In this way, the magnitude of governance deployed by a platform operator could be mapped to relevant regulation, as with traditional GVCs. Following this model, the more governance a platform exerts on users, the more it would find itself bound by regulation and oversight.

53. However, by building on the information gatekeeper approach and moving beyond individual value chains into the realm of overseers of ecosystems of multiple value chains, platforms clearly require a different kind of an approach to governance than what the traditional GVC model has to date produced. In particular, even the most basic forms of user governance by platforms would seem to entail not the traditional kind of comparatively passive market governance proposed by GVC theory but, rather, the construction and oversight of potentially massive privatized markets with their own sets of rules. This basic difference in starting point merits, in our opinion, discussion and regulatory treatment of platforms as 'second-order lead firms'.

4. The Way Ahead: Overcoming the Organizational and Jurisdictional Fragmentation of the Platform Economy Through Private Law

4.1. Local Platforms and Organizational Fragmentation

54. As outlined above, the tripartite structural organization of platforms is a major difference between platforms and earlier, linear modes of organizing production. Under traditional models of agency this tripartite structure means that the platform operator, as an agent bringing together users on its platform, is typically legally conceptualized as being outside the transactions between platform users. For platforms, this legal structure is a central facilitative factor. The question that arises is whether this structure should be allowed to perpetuate platform business models in the face of the fact that platforms engage in metaproduction and often, in fact, dominate the entire production arrangement.

55. A two-pronged challenge emerges. On the one hand, entrenched doctrines allow platforms to claim they have no say in transactions between their ‘users’. On the other hand, even perfunctory analyses reveal that platforms have deployed a legal sleight of hand, in fact sitting in the middle of production and controlling and facilitating it on a metalevel. As economic activity increasingly flows through platforms, it is imperative to ensure that any approach to regulating societal interests related to production covers platforms as well as traditional lead firms.

56. Take the example of the growing number of planned and implemented transnational sustainability laws requiring lead firms to report on or put in place sustainability-related value chain due diligence,⁵⁴ or the planned efforts to regulate security of supply.⁵⁵ While locally embedded platforms might fall under the applicability thresholds of such laws, these laws seem to require lead firms to focus on their *own* value chains rather than those of their users.

57. The UK Modern Slavery Act requires a company to report on measures it has taken to prevent slavery and trafficking in any part of *its* own business or *its* supply chains.⁵⁶ Duties under the French *loi de vigilance* cover, in addition to the parent company and subsidiaries, contractors and suppliers with which the lead firm or subsidiaries that it controls has an ‘established commercial relationship’.⁵⁷ The EU Commission’s proposal for a Sustainability Due Diligence Directive has followed the French model by referring to companies’ own and their subsidiaries’ operations and ‘value chain operations carried out by entities with whom the company has an established business relationship’, but this may yet change as the political process surrounding the directive continues.

58. These kinds of formulations do not seem to require platform operators to extend required reporting or due diligence measures to users’ value chains. It seems doubtful that users’ value chains would be classified as platform operators’ value chains under the wording of the Modern Slavery Act, and it seems questionable whether the relationship between platform operators and users would be classified as an established business relationship.

59. For a practical example take Amazon’s *Modern Slavery Statement*:⁵⁸

54 J. SALMINEN & M. RAJAVUORI, 26. *MJECL* 2019, p 602.

55 For example, Proposal for a directive of the European Parliament and of the Council on the resilience of critical entities, COM/2020/829 final, and Proposal for a regulation of the European Parliament and of the Council establishing a Single Market emergency instrument and repealing Council Regulation No (EC) 2679/98, COM(2022)459.

56 On this and other related acts, see J. SALMINEN & M. RAJAVUORI, 26. *MJECL* 2019, p 602.

57 J. SALMINEN & M. RAJAVUORI, 26. *MJECL* 2019, p 602.

58 Amazon’s Modern Slavery Statement (1 Jan. through 31 Dec. 2020), <https://sustainability.aboutamazon.com/modern-slavery-statement-2020.pdf>.

We include our Supply Chain Standards as part of our business relationship with Selling Partners. Selling partners are third party sellers (sellers) and retail vendors (vendors) who offer products for sale in Amazon's stores. Our Supply Chain Standards apply to every product sold in our stores, and we expect Selling Partners to do their own due diligence, ensuring every product is produced in safe, healthy and inclusive work environments. (...) We evaluate credible allegations or reports of Selling Partner violations of our Supply Chain Standards.

Amazon differentiates between its own supply chains and those of its 'selling partners'. While the same supply chain standards apply to both, the differentiation clearly implies a stronger focus on Amazon's traditionally construed value chains. At the same time, Amazon nonetheless claims to exert some control also vis-à-vis the supply chains of platform users. This raises the question of to what extent the treatment of these two groups of actors, Amazon's suppliers and Amazon's platform users, differs now and whether this differentiation should persist in the future.

60. To reflect the practical power of platform operators as aggregates and overseers of multiple value chains, it would seem reasonable to explicitly require platform operators to extend due diligence into their users' value chains in the same way as transnational sustainability and security of supply laws require traditional buyer- and producer-type lead firms to do so. At the same time, nuances in the amount of control exerted by a platform and whether, for example, a platform is seen as providing a specific service instead of acting as an intermediary for multiple service providers, as under the ECJ's Uber/Airbnb differentiation, could be crucial. Uber's business model, which entails major control over the compliance of its drivers in order to provide a unified transport service, might more easily fall under a regulatory approach stressing established commercial relationships, while a platform such as Amazon might more easily be exempted.

61. As an alternative to trying to fit platforms in existing GVC regulatory frameworks, it could be argued that the role of platforms as information gatekeepers to metaprocesses of value creation that exist on top of traditional GVCs would merit specialized regulation, similar to for example financing. The impact of finance in steering GVCs is increasingly recognized and reflected for example in the EU's proposed environmental and social taxonomies.⁵⁹ As noted above, platforms further maximize these metaprocesses of value creation by usurping to their benefit a range of traditional state legal functions, such as market creation and dispute resolution.

59 EU taxonomy for sustainable activities, https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en.

62. In relation to platforms, the focus of specialized regulation has remained on the platform-user relationship, as under the EU DSA, or the effects of platforms in one market, such as under the EU DMA.⁶⁰ The effects of platforms on global production remain blurred in current regulatory focuses, but requiring platform operators to provide sustainability information to end-users and undertake similar due diligence as financiers would be one possibility for developing the sustainability of the platform economy as a whole. An example is provided by Article 20(5) of the Commission's proposal for a revised General Product Liability Directive,⁶¹ which requires platform operators to display relevant product safety information or otherwise make such information easily accessible on product listings. Similar requirements could no doubt be enforced in relation to e.g., sustainability.

63. Developing a specialized sustainability regime for platforms, however, would risk an even more fragmented regulatory field and thus including platforms in current regulatory approaches would seem a better option. Such an approach, i.e., treating platforms from a regulatory perspective equally to conventional lead firms, would probably require a tweaking of the wording in current transnational sustainability laws. At the same time, this approach could be supported by private law doctrinal developments. Several legal theories allow the shifting of the locus of the transaction towards the agent. For example, residual 'special relationships' may connect the agent to the parties of the transaction in the eyes of the law through concepts such as the liability of brokers, auditors, or the like.⁶² In relation to chain-like GVCs, this has led to developments matching different types of governance with liability for externalities. Such approaches are proposed also in the platform context.⁶³

64. This could result in a need to analyse the level of control that a platform operator exerts, or claims to exert, on its platform suppliers, as in the ECJ and UKSC cases revolving around Uber and Airbnb. In both cases, Uber referred to a textual interpretation of its user agreements according to which Uber was merely an agent connecting transport service providers to users of such services.⁶⁴ Both courts engaged in an analysis of the relationship between users and Uber and

60 Towards this, and the idea of a private law of platforms vis-à-vis users, e.g., P. IAMICELI, 'Online Platforms and the Digital Turn in EU Contract Law: Unfair Practices, Transparency and the (Pierced) Veil of Digital Immunity', 15. *ERCL* 2019, p 392.

61 Proposal for a Regulation of the European Parliament and of the Council on general product safety, COM(2021) 346 final.

62 For example, P. KREBS, *Sonderverbindung und außerdeliktische Schutzpflichten* (München: CH Beck'sche Verlagsbuchhandlung 2000).

63 For example, Art. 21 of the European Law Institute's Model Rules on Online Platforms (2019), focusing on 'predominant influence'.

64 Generally, though prior to the UKSC ruling, see I. DOMURATH, 'Platforms as Contract Partners: Uber and Beyond', 25. *MJECL* 2018, p 565.

concluded that the amount of control exercised by Uber over drivers operating on the platform was such that Uber could be categorized as either the employer of the drivers (in the UKSC case) or as a dedicated transport service provider (under the ECJ case) instead of as a mere intermediary or agent. Both cases highlight that control exerted by a platform operator over users may force a reclassification of the underlying legal structure. As already seen above, this approach can be criticized.

65. Fundamentally, in both the ECJ and UKSC cases Uber was contrasted to Airbnb. Both courts, the ECJ explicitly in a separate case and the UKSC *obiter* in the Uber case, differentiated between Uber and Airbnb in that while the first controlled users to the extent that it no longer was defensible to call it an intermediary, the latter was seen to keep such distance to users that it was justifiable to maintain its classification as intermediary. From the perspective of the central role of the information gatekeeper function of platforms it might be asked whether Airbnb and other similar platforms, despite their lower amount of direct control over users, should nonetheless be seen as lead firms bearing the burden of GVC governance. After all, it is the platform operator that decides who gets to participate on the platform and under what terms.⁶⁵ For example, it is up to platform operators to what extent sustainability indicators are used on the platforms and to what extent users are vetted or aided in their use.

66. Finally, several legal benefits are attributed to legal form. For example, the actor claiming derogation from legal form generally bears the burden of proof. In cases revolving around parent–subsidiary relationships this may be extremely difficult as it entails shining a light on the internal workings of private corporations. Burdens of proof can be relaxed by focusing on for example public materials disseminated by an actor, such as in the *Lungowe v. Vedanta* judgment discussed above, instead of requiring proof of actual acts or documents of control. Similar trends might arise in relation to platforms. In the extreme, in the Danish *GoLeif* case a Danish court of appeals concluded in relation to a booking platform that even if booking platforms often act only as agents to airlines this is not a fact generally known to consumers who feel that they are transacting directly with the platform. In the case at hand, even when the online booking flow and related terms and conditions of the platform in question stated that the platform was an agent and not a direct transactional counterpart to consumers, this was not enough to overturn the presumption on the part of consumers.⁶⁶ Similar lines of argument might see platforms more generally as lead firms responsible for the governance of users’ value chains as central parts of their own business models.

65 For example, D. EVANS, 27. *BTLJ* 2012, p 1206.

66 Østre landsret [High Court of Eastern Denmark], 18 Nov. 2015, 18. afd. nr. B-2019-14 (Danish reporter: U.2016.1062Ø). More generally on travel intermediaries see I. DOMURATH, 5. *MJECL* 2018 p (565) at 577–578.

4.2. *Transnational Platforms and Jurisdictional Fragmentation*

67. In addition to new kinds of organizational fragmentation, platforms enable a novel means of jurisdictional fragmentation. Here, the ubiquitous online nature of platforms enables even stronger regulatory lift-off transnationally, i.e., through platforms located outside the regulating jurisdiction.⁶⁷ In relation to GVCs, transnational regulation is generally premised on the lead firm's presence in the regulating jurisdiction. In relation to transnational platforms, the only relevant actors within a regulating jurisdiction may be local users.⁶⁸ This results in a need for novel approaches to the transnational regulation of second-order lead firms.⁶⁹

68. One approach would be through international law, either by multilateral conventions, such as the draft treaty on business and human rights,⁷⁰ or more limited or even bilateral treaties, such as investment or tax treaties. The first approach is challenging politically while the second may be so from a practical perspective, and both are thus left outside the scope of this article – suffice to say, as outlined above, any approach at such regulation would need to account for the specificities of platforms and not just focus on traditional lead firms.

69. Our main focus, however, is on what local regulators can achieve. Soft law instruments provide one possibility. An example is provided by the EU's product safety pledges with key platforms, such as Chinese Alibaba, to ensure that they are aware of and aim to abide by EU product safety standards.⁷¹ Such instruments allow for regulatory creativity but lack hard enforcement mechanisms, and thus, finally, we turn to local hard laws, following a trend similar to GVC regulation where the transnational onus has shifted from international and soft instruments to local hard regulations.⁷²

70. The EU's product safety regime provides a model also in relation to hard law.⁷³ A proposed update to the EU's General Product Safety Directive includes an

67 H. BLOCH-WEHBA, 'Global Platform Governance: Private Power in the Shadow of the State', 72. *SMU Law Review* 2019, p (27) at 66.

68 Naturally, also other parts of value chains engaged on transnational platforms may fall within the regulating jurisdiction. However, our focus here is on the lead firm, and the approach of previous sustainability regulations to focus specifically on lead firms.

69 M. CHERRY, 'Regulatory Options for Conflicts of Law and Jurisdictional Issues in the On-Demand Economy', 106. *ILO Conditions of Work and Employment Series* 2019.

70 See OEIGWG CHAIRMANSHIP, *Legally Binding Instrument to Regulate, in International Human Rights Law, the Activities of Transnational Corporations and Other Business Enterprises*, Third Revised Draft (17 Aug. 2021).

71 EU Product Safety Pledge, https://ec.europa.eu/info/business-economy-euro/product-safety-and-requirements/product-safety/product-safety-pledge_en.

72 J. SALMINEN & M. RAJAVUORI, 26. *MJECL* 2019, p 602.

73 Generally, C. ULLRICH, 'New Approach meets new economy: Enforcing EU product safety in e-commerce', 26. *MJECL* 2019, p 558.

explicit focus on online platforms.⁷⁴ However, many platforms are located outside the EU and thus outside the direct jurisdictional ambit of both EU and Member State regulators. In these cases, section 5.1.3 of the Commission Notice on the market surveillance of products sold online (C/2017/5200) lists alternatives for impacting extraterritorial platforms.⁷⁵ The starting point is making transnational platforms outside the EU aware that products offered to EU customers must comply with EU product safety requirements and that they must remedy any non-compliance. Cooperation with authorities in third countries is encouraged, with specific reference to the RAPEX-China system, established between the Services of the European Commission and the Chinese General Administration of Quality Supervision, Inspection and Quarantine, as an example.

71. As a form of more direct action, the Notice provides that ‘Member States can block webpages offering dangerous or non-compliant products, if necessary’, based on Article 8(1)d and e of the General Product Safety Directive. Similarly, market surveillance authorities can take necessary measures to withdraw, prohibit or restrict products from being made available on the market under Article 16(2) of Regulation (EC) No 765/2008. This should not be too problematic technically, as actors such as Google already enforce different rules for different markets. However, in many jurisdictions it is difficult to use such measures to impact extraterritorial platforms en masse, not least because of the implications on fundamental rights.⁷⁶

72. In particular in relation to physical goods entering the EU, border enforcement provides another alternative.⁷⁷ The Notice refers to cooperation between market surveillance authorities and customs ‘to control and stop shipments of products at the border’. A similar approach may be gleaned in the EU’s new value-added tax scheme, where earlier exemptions for the import of small consignments have been removed and,⁷⁸ at least in Member States such as Sweden and Denmark, this removal has been simultaneously coupled with not insignificant

74 Proposal for a Regulation of the European Parliament and of the Council on general product safety, amending Regulation (EU) No 1025/2012 of the European Parliament and of the Council, and repealing Council Directive 87/357/EEC and Directive 2001/95/EC of the European Parliament and of the Council (COM/2021/346 final).

75 Commission Notice on the market surveillance of products sold online, C/2017/5200, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.C_.2017.250.01.0001.01.ENG.

76 Typically the mass use of such measures is associated with less free regimes. For example, Y. WANG, *In China, the ‘Great Firewall’ Is Changing a Generation*, Politico (1 Sep. 2020), <https://www.politico.com/news/magazine/2020/09/01/china-great-firewall-generation-405385>.

77 C. ULLRICH, 26. *MJECL* 2019, p 558.

78 European Commission, *Explanatory Notes on VAT e-commerce rules* (Sep. 2020), https://vat-one-stop-shop.ec.europa.eu/guides_en.

administrative fees. Such fees make many small consignments ordered through platforms outside the EU uneconomical. The general approach, i.e., border controls, could no doubt be expanded to cover product sustainability more broadly.

73. In sum, it is difficult to exert the kind of regulatory control over transnational platforms that current transnational sustainability laws focused on GVCs propose. Both ‘hard’ approaches, blocking noncompliant webpages or border enforcement in relation to physical goods, have their challenges. Neither can directly affect transnational production practices in the same way as transnational sustainability laws focused on GVC lead firms proclaim to do. Instead, they focus on blocking market access from deviating actors, which is a non-optimal, ‘second-best’ solution. While from a European perspective, such an approach may give EU standards of product safety and sustainability some transnational traction (the ‘Brussels Effect’⁷⁹) and contribute to a level-playing-field, it also raises vexing questions about the relationship and role of jurisdictional, physical and digital borders.

5. Conclusion

74. A major part of world trade, from the exchange of goods and services to facilitating transactions such as organizing shipping and transport, has shifted and is shifting to digital platforms. At the same time, characteristics of digital platforms such as their ubiquity and intersection of multiple value chains set them apart from earlier legal and economic approaches to conceptualizing production. In particular, current approaches to regulation based on GVCs governed by lead firms engaged in linear, dyadic relationships with their customers must be updated to maintain their validity under the platform economy. Otherwise, platforms enable new forms of local and transnational regulatory arbitrage that allows them to avoid regulations and contribute to growing social, environmental, cultural and economic unsustainability, to say nothing about upending reigning paradigms of security of supply in times of crises.

75. In this article we have evaluated the nature of digital platforms from a GVC governance perspective. We have proposed defining platform operators as ‘second-order lead firms’ operating at the intersection of multiple value chains with considerable power over not only platform users but also, and crucially, over their users’ value chains. This applies even when platform operators do not aim to explicitly micromanage users after they have entered the platform. Due to the proprietary nature of platforms and the platform operators’ power in defining access to the platform and conditions for transactions, such as the prevalence or

79 A. BRADFORD, *The Brussels Effect: How the European Union Rules the World* (Oxford: Oxford University Press 2020); J. SCOTT, ‘Extraterritoriality and Territorial Extension in EU Law’, 62. *CMLR* 2014, p 87.

lack of sustainability indicators, even platforms that do not directly govern users after platform entry have major leeway over which users can interact with the value chains aggregated on the platform and how. This inherent power wielded by platform operators is dependent on regulatory arbitrage allowed by the platform model.

76. The governance approach underscores the legal implications of the platform economy. Towards this, we have proposed alternative developmental trajectories for treating platform operators as second-order lead firms. Legal structure must be updated to account for the conceptual developments caused by the platform economy in order to guarantee that current approaches to regulating interests such as sustainability and security of supply maintain their validity. This entails two distinct approaches, both of which require further study. On the one hand, local regulations and legal doctrines must adjust to the tripartite governance models entailed by platforms, ensuring that the wording deployed by e.g. transnational sustainability laws captures not only traditional value chain lead firms but also platform operators. In relation to platform operators this must be done in a manner that requires them to utilize their clout over users to help ensure the compliance of not only users but also the users' value chains. On the other hand, new means may be needed for reaching extraterritorially located platforms. Focussing on locally embedded platform users, shipments arriving at the regulating jurisdiction or digital boundaries blocking noncompliant platforms all provide potentially feasible options.

