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Regulating Contracting in Global Value Chains. Institutional Alternatives and their Implications for Transnational Contract Law

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Abstract: Global Value Chains (GVCs) are both instruments to organize production and vehicles to implement transnational standards, to improve sustainability and to ensure compliance with regulatory requirements. GVCs present a very high degree of interdependence among the enterprises. GVCs are not uniform universes. Part of the production process is organized through subsidiaries of the chain leader, partly with independent suppliers linked to the chain leader by long-term and stable contractual relationships, and partly with spot contracts. Hence, different modes of contracting are needed to ensure coordination and uniformity of principles along the chain. The differences within the chain suggest that a modular approach with adaptation to the various types of relationships is more effective than a uniform approach indifferently applied both to intrafirm (subsidiaries) and interfirm (relationships with independent suppliers) contracting.

While acknowledging the relevance of the institutional and legal framework, including the applicable law, this article focuses on the contractual structure of chain governance. We propose a modular architecture that integrates general principles of global trade in supply chains with local regulations. This approach will better combine the supplier codes, the framework agreements between parties, and the individual contracts that regulate specific exchanges.

Note: This article builds on some of the outcomes of research projects developed in the past decade in the field of supply chains, contractual governance and inter-firm networks. Authours are grateful to the many entrepreneurs and firms' representatives interviewed within past and pending research projects; more particularly, they wish to thank Giulio Fazio, Salvatore Bernabei, Carlo Mattina, Anna Petrizzelli, Vincenzo Tucci, Adele Necchia, Isabella Alessio. Authours retain full responsibility for mistakes and omissions.

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Résumé: Les CVG (chaînes de valeur globales) sont à la fois des outils pour organiser la production et des moyens de mettre en oeuvre des standards transnationaux et d'assurer la conformité aux exigences règlementaires.Elles induisent un fort degré d'interdépendance parmi les entreprises.Elles ne forment pas une catégorie homogène. Une partie du processus de production est organisée à travers des filiales du leader de la chaîne, en partie avec des fournisseurs indépendants liés au leader de la chaine par des relations stables et à long-terme, en partie avec des contrats à exécution instantanée (spot contracts). Ainsi, une diversité de modes de conclusion de contrats est requise afin d'assurer une coordination et une uniformité des principes tout au long de la chaîne. Les différences au sein de la chaîne suggèrent qu'une approche modulaire avec une adaptation aux différents types de relations est plus efficace qu'une approche uniforme appliquée de manière indifférente à la fois à l'interne (filiale) et 'externe (relations avec des fournisseurs indépendants) de la société. Tout en reconnaissant la pertinence d'un cadre légal et institutionnel, notamment concernant le droit applicable, cet article se concentre sur la structure contractuelle de la gestion de chaine. Nous proposons une structure modulaire qui intègre les principes généraux du commerce international dans les chaines d'approvisionnement aux régulations locales. Cette approche vise à favoriser l'intégration les codes des fournisseurs, les accords-cadres entre les parties et les contrats individuels qui régulent les échanges spécifiques.

Zusammenfassung: Globale Wertschöpfungsketten (global value chains – GVCs) sind sowohl eine Organisationsform heutiger Produktionsbeziehungen als auch ein Vehikel zur Durchsetzung transnationaler Nachhaltigkeitsstandards und zur Gewähr regulatorischer Anforderungen. GVCs setzen Unternehmen in ein enges Abhängigkeitsverhältnis. Sie verlaufen dabei keinesfalls gleichförmig: In manchen Segmenten des Produktionsprozesses werden Tochterunternehmen des jeweiligen Fokalunternehmens (lead firm) eingesetzt; in anderen unabhägige Zulieferer, die mit dem Fokalunternehmen durch langfristige und stabile, mitunter aber auch erstmalige Verträge verbunden sind. Folglich sind unterschiedliche Vertragsgestaltungen erforderlich, um Koordination und Anwendung gleicher Standards entlang der Kette zu gewährleisten. Die aufgezeigten rechtlichen Strukturunterschiede innerhalb derselben GVC sprechen dabei gegen eine Konzeption, die Beziehungen zu Tochterunternehmen (intrafirm) und vertraglichen Zulieferern (inter-firm) gleichbehandelt. Aussichtsreicher ist eine modulare Herangehensweise, die an die verschiedenen rechtlichen Gestaltungen von Unternehmensbeziehungen angepasst werden kann.

Ohne die Bedeutung institutioneller und rechtlicher Rahmenbedingungen, insbesondere des anwendbaren Rechts, in Abrede zu stellen, rückt dieser Artikel

die Vertragsstruktur entlang der Kette als Governancemechanismus ins Zentrum. Wir entwerfen einen modularen Ansatz, der allgemeine Prinzipien des globalen Handels und lokale regulatorische Standards zugleich miteinbezieht. Dieser Ansatz ist geeignet, Zuliefererkodizes, Rahmenabkommen zwischen Kettenakteuren und einzelne Verträge und ihre Regelung spezifischer Austauschbeziehungen zugleich zu erfassen.

I Global Value Chains: Governance and Regulation

Global value chains (GVCs) constitute the most important vehicles of global trade. Almost 80 % of global trade is channelled through GVCs.[1] Their rise has been steady until the financial crisis. After the crisis, and especially in recent years, the total volume of global trade has declined. As a consequence, the trade within GVCs has diminished.[2] This decline, in absolute terms, has not stopped the growth of GVCs in relation to other forms or production, such as markets and integrated firms.[3]

GVCs are currently subject to important transformations related to trade policies, technological changes, and to the recombining offshoring and reshoring.[4] Automation of production processes and digitalization of trade are redefinining both access to the chains and the internal division of labour across countries and between firms.[5] Technological innovation encourages countries to use less la-

1 See World Development Report 2020, 'Trading for Development in the Age of Global Value Chain' (World Bank: 2019) (hereinafter World Development Report 2020) 50, available at www.worldbank.org. See also Unctad, 'Global value chain and development, Investment and value added trade in the global economy' (2013), available at www.unctad.org.

2 See World Development Report 2020, n 1 above, 4: 'Since the Great Recession, the growth of trade has slowed sharply, and the expansion of GVCs has moderated.' See also C. Altomonte, F. di Mauro, G.I.P. Ottaviano, A. Rungi and V. Vicard, *Global Value Chains During the Great Trade Collapse: A Bullwhip Effect?* (1 December 2011), Paolo Baffi Centre Research Paper No 2011–108, available at SSRN: https://ssrn.com/abstract=1937513 or http://dx.doi.org/10.2139/ssrn.1937513, showing that intra-group trade has both declined and recovered more rapidly than arm's length trade.

3 Both terms, 'enterprise' and 'firm', will be used interchangeably and referred to an entrepreuneurial unit in economic terms, therefore including different models and legal types, size-wise and structure-wise, including corporate groups.

4 See World Development Report 2020, n 1 above, 5.

5 See S. Ponte, G. Gereffi and G. Raj-Reichert (eds), *Handbook on Global Value Chains* (Cheltenham: E. Elgar, 2019).

bour-intensive methods, thereby transforming some developing economies from sources of cheap labour to laboratories of technological innovation.[6]

Governance of GVCs has modified the shape and the relationships along the chain.[7] There is a trend towards reducing the number of participants and increasing the level of collaboration beyond first tier key suppliers.[8] GVCs require a high level of information flow and trust, and the stabilization for demand and supply. Information is unevenly distributed and the ability to access it through coordination and cooperation among multiple agents may be pivotal to enable economic growth and business development. Chain coordination is also triggered by the need to address uncertainty about the occurrence of risks and opportunities of the business projects. Both information and uncertainty influence the allocation of power and the choice of governance tools, including delegation, direct control and different combinations of the two.

Exchanges of goods and services, transfers of know-how and technologies occur within a web of functionally interdependent contractual relationships.[9] GVCs present a very high degree of interdependence, further stimulated by the increase of collaboration among enterprises within the chain and by the development of digitalization.[10] The sequence of transactions mirrors the production process from the raw material until the finished product ready for industrial use or for consumption.

GVCs redefine the boundaries of firms and their relationships.[11] Boundaries are defined not only by corporate law but also by contracts thanks to their ability

6 The examples of block chains and robots are illustrative. The impact of robots in the division of labor and the role of developing economies is uneven. See World Development Report 2020, n 1 above, 80.

7 See G. Gereffi (ed), *Global Value Chains and Development: Redefining the Contours of 21st Century Capitalism* (Cambridge: Cambridge University Press, 2018).

8 See World Development Report 2020, n 1 above, 325 (809).

9 Contracts are relevant albeit not the exclusive vehicles to transfer goods and service. The focus of this contribution is on contracting; it should be considered that multiple instruments, formal and informal, contribute to create interdependences among the nodes of the chain. Linkages among nodes features different forms of connection.

10 See WTO, OECD, WBG, Global Value Chain Development Report 2019, *Technological Innovation, Supply Chain Trade, and Workers an a Globalized World*, available at https://www.wto.org/english/res_e/booksp_e/gvc_dev_report_2019_e.pdf; UNCTAD, *Information Economy Report, Digitalization, Trade and Development*, 2017 available at https://unctad.org/en/PublicationsLibrary/ier2017_en.pdf.

11 See O. Hart, 'An economist's perspective on the theory of the firm' 89 *Columbia Law Review* (1989) vol 89, no 7, Contractual Freedom in Corporate Law (November 1989) 1757–1774; The boundaries of the firm reviseted, B. Holmstrom and J. Roberts, 'The boundary of the firm revisited' 12 *Journal of Economic Perspectives* (1998) 73–94.

to govern interdependences without creating new legal entities. Contracts, however, are not the only vehicles to connect nodes along the chains. Relationships include forms of information and know-how sharing that use proprietary or non-proprietary schemes outside of the contractual domain. This article focuses on contractual regulation whilst acknowledging that chain regulation goes well beyond regulating contracts.

Supplier codes and general terms and conditions (GTCs) represent the main tools to govern chain's relationships; they are combined with international private and public standards incorporated by reference in the codes and/or in the GTCs. When imposed by buyers, they focus on the upstream part of the chain. Similar instruments are used to regulate the relationships with the buyers downstream.[12]

The focus of this article is on contracting along GVCs and on the variables that determine the emergence of new modes of contractual governance.[13] The aim is not only descriptive but also normative. It offers suggestions designed to transform contracting and contract law in order to provide the necessary flexibility for improving contractual governance of GVCs, increasing both its effectiveness and fairness.[14]

The current toolbox is inadequate; more needs to be done to adapt international commercial contracts and contract law to govern production and distribution processes across multiple jurisdictions.[15] Legal reforms should include applicable national laws to global chains, tort liability of the chain leader for harm caused by suppliers and subcontractors to third parties, and transnational principles concerning contractual governance, in particular distribution of regulatory power among the relevant actors. We propose a modular regulatory architecture that integrates general principles of contracts in supply chains with local regulations.[16] This approach will better combine the suppliers' codes, the frame-

12 See for example Amazon Enterprise Agreement, art 4, available at https://aws.amazon.com/en/agreement/, or ENI, Terms and Conditions of sale, available at https://www.eni.com/en_DE/business-activities/gtc.page.

13 On the correlation between organizational models and modes of contracting see F. Cafaggi and P. Iamiceli, 'Private regulation and industrial organization: Contractual governance and the network approach', and W. Gerber, 'Private regulation and networks in transnantional supply chains', both in S. Grundmann, F. Möslein and K. Riesenhuber (eds), *Contract Governance: Dimensions in Law and Interdisciplinary Research* (Oxford: Oxford University Press, 2015) 343 *et seq* and 377 *et seq*.

14 This contribution focuses on contractual linkages but acknowledges that non contractual relationships matter to govern the chain.

15 See World Development Report 2020, n 1 above, 93.

16 On the role of modularity in contracts see C.Y. Baldwin and K.B. Clark, *Design Rules: The Power of Modularity* (Cambridge: MIT Press, 2000) 63; H. Smith, 'Modularity in Contracts: Boilerplate and

work agreements between parties, and the individual contracts that regulate specific exchanges, distinguishing between inter-firm and intra-firm contracting.[17]

The article is organized as follows. Section II describes the specificity of supply chain contracting, the instruments' choice, and the factors affecting the chain leader's choice between intragroup and interfirm contracting. Section III examines the delegation of regulatory power concerning content, monitoring, and enforcement of contracting. Section IV analyses the choice between mandatory and default rules and the consequences of using default rules on regulatory power allocation. Section V compares delegation and default as instruments to distribute power. Section VI concludes.

II Regulating Contracts in Global Value Chains: Intra- versus Inter-Firm Contracting

Regulation of contracting is a relevant dimension of a chain's governance.[18] It is necessary to coordinate production and distribution, to prevent or reduce externalities and promote sustainability, and to increase trust and to foster innovation. This article focuses on the *how* question and investigates the various instruments available to regulate contracting. Challenges are daunting. Within the same chain the degree of cooperation and competition among suppliers can vary dramatically.[19] The supplier codes and the general terms and conditions (GTCs) have to

Information Flow' 104 *Michigan Law Review* (2005) 1175; M.J. Radin, *Boilerplate. The Fine Print, Vanishing Rights, and the Rule of Law* (Princeton: Princeton University Press, 2014); M. Jennejohn, 'The Architecture of Contract Innovation' 59 *Boston College Law Review* (2018) 71, 93 *et seq*.

17 By inter-firm relationships, we intend relationships between distinct entrepreuneurial units, typically those between customers and suppliers, when the latter do not belong to the same corporate group of the former. By contrast, intra-group relationships occur within the same corporate group. We shall use intra-firm and intra-group interchangeably, so referring to concepts sometimes described as 'intratrade' in the economic literature.

18 See F. Cafaggi, 'Sales in global supply chains: a new architecture of the international sales law', in D. Saidov (ed), *Research Handbook on International and Comparative Sale of Goods Law* (Cheltenham: E. Elgar, 2019) 334 *et seq*. S. Choi and M. Gulati, 'Contract as statute', in O. Ben Shahar (ed), *Boilerplate. The foundations of market contracts*, (Cambridge: Cambridge University Press, 2007) 145 *et seq*.

19 See F. Cafaggi, 'Regulation through contracts: Supply-chain contracting and sustainability standards' (2016) *European Review of Contract Law* 218.

balance the need to promote cooperation and to govern competition between suppliers, both horizontally and vertically.[20]

Trading in GVCs is continuous; contracts are repeated and highly interdependent. There are frequent and multiple interconnected transactions to govern the production process.[21] Contracts within the chain require flexibility since adaptation of prices and volumes is needed to respond effectively and swiftly to demand (and supply) uncertainty. Interdependences in GVCs increase to face exogenous factors, like a shortage of raw material or a rise of customs' duties or changes in transport costs, that may hamper or make more difficult the delivery of conforming products in supply chains. Furthermore, higher interdependence occurs when co-design replaces specifications or standard sale contracts. Several parties may engage in innovative production processes that call for regulatory and governance responses different from those in standard bilateral contracting.[22]

Interdependence varies depending on whether a star (spider) or sequential model (snake) is chosen.[23] In the former (the spider) performances are rendered to the same buyer by several suppliers (assembler). Even if they do not perform at exactly the same time, there is no functional dependence among the performances, eg the possibility to perform by supplier B does not usually depend on the correct performance by supplier A. In the latter (the snake), contracting follows the sequence of production steps and it is organised through bilateral sequential contracting.[24] There is a functional dependence so that supplier B cannot perform unless supplier A has correctly performed. Whereas in both cases there is

20 Competition concerns access to market opportunities and access to critical resources of the chain.

21 There is a clear difference between standardized repeat transactions and customized repeat transactions. The latter, a typical feature of relational contracts, may involve multiple parties and are trust generating factors. The former do not require a particular level of trust and feature low or no specific incentives. On the relationship between repeat dealings and trust see L. Bernstein, 'Beyond Relational Contracts: Social Capital and Network Governance in Procurement Contracts' 7 *Journal of Legal Analysis* (2015) 7, 2, 561, 594–595.

22 See R.J. Gilson, C.F. Sabel and R.E. Scott, 'Contract and Innovation: The Limited Role of Generalist Courts in the Evolution of Novel Contractual Forms' (2009) *Columbia Law Review* 170. However, as Bernstein pointed out, when innovation takes place in supply chains exogenous sources of trust and incentives to cooperate become more important than endogenous factors concerning the individual transactions. See Bernstein, n 21 above, 590, fn 96.

23 On the difference between star and sequential model as alternative ways to organize production processes and define contractual interdependences see F. Cafaggi, Contractual Networks and the Small Business Act: Towards European Principles?, European review of contract law, 4/2008, 493–539.

24 See P. Antràs, *Global Production Firms, Contracts, and Trade Structure* (Princeton: Princeton University Press, 2016) 120, 125.

interdependence and the necessity to coordinate, the functional dependence between performances is stronger in the snake than in the spider model.

Contracting along supply chains follows very different patterns from contracting in markets. Within supply chains, intrafirm/group contracting also presents peculiar elements. In markets, spot contracts, usually based upon standard contract forms, represent the primary mode, influenced by the distribution of market power and the level of transaction costs along the chain.[25] In intragroup contexts, contracting is the result of a complex process of standard setting to which the holding and the subsidiaries can contribute to a different extent, depending on the different distribution of decision-making power within the pyramidal group. It is usually more insulated from external shocks and shows very low incentives to renege on the deals.

Within supply chains, intra-group and inter-firm contracting may represent alternative options or co-exist.[26] They can co-exist not only when some tasks are performed by subsidiaries and others by independent contractors, but also when the chain leader decides to source both internally and externally according to the market conditions, the nature of specific investments, and the availability of cheaper outside options.[27] Risk bearing may influence sourcing decisions and the integration between inter firm and intra-group contracting.

More generally, incentives to cooperate are usually higher in intra-group contracting than in inter-firm contracting.[28] The relevance of outside options is stronger in inter-firm than in intrafirm contracting. As a result, modes of contractual control of opportunistic behaviour differ in intra-group and inter-firm contracting. Variations in contracting may also depend on the difference between intra and inter-organizational trust.[29]

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25 See Ben Shahar, n 18 above.

26 R. Macchiavello and J.M. Florensa, 'Vertical Integration and Inter-Firm Relationships in the Costa Rica Coffee Chain', available at https://drive.google.com/file/d/10NnjB56f4R1ru45dI6Qzdt-I5OcNw3Oz/view, 24.

27 C. Sabel and G. Herrigel, 'Collaborative Innovation in the Norwegian Oil and Gas Industry: Surprise or Sign of a new economy-wide paradigm?', in T. Thune, O.A. Engen and O. Wicken (eds), *Petroleum Industry Transformations Lessons from Norway and Beyond* (London: Imprint Routledge, 2018) available at http://www2.law.columbia.edu/sabel/papers/NorwayOilCollaborativeInnovation.pdf, 7.

28 However, in some areas collaborative contracting has developed as an effective alternative to vertical integration. See Gilson, Sabel and Scott, n 22 above, 170; M.C. Jennejohn, 'The Private Order of Innovation Networks' (2016) 68 *Stanford Law Review* 281.

29 On the distinction between intra and inter-organizational trust see C. Lane and R. Bachmann (eds), *Trust within and between organizations* (Oxford: Oxford University Press, 2000) and particularly M. Sako, 'Does trust improve business performance?', *ibidem* 88 *et seq*.

Fiduciary duties play a paramount role in intragroup contracting, but are much less or none in interfirm contracting where other instruments are deployed. The use of uniform or coordinated standards terms is differently ensured in intragroup contracting from inter-firm relationships, where the chain leader may lack the power to impose an entire set of contractual terms throughout the whole chain. Contract renegotiation might be a necessary challenge to address hardships in inter-firm contracting, while in intra-group relationships alternative instruments, eg internal financing, might be more easily used to deal with supervening circumstances without affecting contracts. Clearly entry to and exit from the chain, upgrading and downgrading work occurs differently within the group and between the group and the independent suppliers. So, for example, contract termination is often strictly regulated in inter-firm contracts, where contractor's breach is the main ground for early termination, whereas intra-group contracts tend to distribute termination power more equally between the parties. The main ground for contract termination is the exit from the corporate group rather than the breach of contractual duties.[30] Privity of contract and third-party benefits/charges are more critical in inter-firm contracts than in intragroup contracting, where side effects of contracts (eg, information duties for the benefit of third parties within the group) may be internalised through 'extracontractual' practices and hierarchal control (eg, through parent company's instructions). Even more than in inter-firm contracting, mediation and arbitration are common dispute resolution mechanisms in intra-group contracting.[31]

The choice to perform or to breach and the selection of remedies for non-performance varies significantly between inter-firm and intra-group contracting. Failure to perform within the group is a human resource (HR) matter. Failure to perform by independent contractors is a procurement matter. They deploy different instruments to react to breach and remedy its consequences. For example, termination is not used in intra-group contracting, where major breaches lead to internal decisions concerning the allocation of human resources, the firm organisation or corporate governance rather than causing the end of commercial relationships.

Differences between intra-group and inter-firm contracting also concern availability and access to outside options, that constitute at the same time a risk and an opportunity. So, for example, side selling is an issue in inter-firm contract-

30 Eg, an intercompany agreement stipulated by a multinational in the energy sector provides for contract termination without notice if either contract party ceases to be affiliated to the corporate group.

31 Cf Bernstein, n 21 above, 574, observing that in this regard inter-firm contracts recreate or approximate the core management techniques associated with intra-firm hierarchy.

ing but may be not in intra-group contracting, when subsidiaries (almost) exclusively contract with the mother or the sister companies.[32] Lack of pressure from outside options may decrease efficiency of intra-group exchanges. The gains from stabilizing demand and reduced uncertainty may be outweighted by the efficiency losses. Moreover, intra-group contracting may be influenced by pricing transfer strategies, which are aimed at increasing efficiency of resource allocation in multidivisional firms.[33]

The analysis below will mainly focus on the choice of instruments for contractual governance. *Intra-group and inter-firm contracting are regulated by different instruments*. The contractual instruments deployed sensibly differ and so do their applications. In both cases bargaining may occur in the shadow of hierarchy but hierarchy in intra-group contracting presents different features from hierarchy in inter firm contracting.

Supplier codes and GTCs usually only apply to independent suppliers,[34] *whereas other instruments, often less detailed or restrictive, regulate intra-group contracting*. As a result, regulation of interfirm contracting is more extensive and formalised than intra-group contracting.

This diversification does not exclude the possibility that some regulatory instruments, such as ethical codes or social responsibility policies, may apply to both intra-group and inter-firm relationships.[35] Even if the application includes both intra group entities and suppliers, the implementation and enforcement may still differ. Remedies and sanctions in particular differ depending on whether the violation is within the group or it is committed by a contractor. Moreover, as mentioned, supplier codes regulate the relationships with upstream segments of the chain, whereas other instruments are deployed to regulate the relationships with the final buyers. For example, in the field of energy and gas, chain leaders issue supplier codes concerning the upstream part of the chain and general terms related to the end-customers (companies that buy energy). The combination between intra-group and inter-firm contracting depends upon the chain (in)stability, the recurrence of external shocks, the distribution of risks, the impact of innovation.

32 Macchiavello and Florensa, n 26 above.

33 W. Schön, 'Transfer Pricing, Business Incentives, International Taxation and Corporate Law', in W. Schön and A.K. Kai (eds), *Fundamentals of International Transfer Pricing in Law and Economics* (Munich: Springer, 2012) 47 *et seq*.

34 See, eg, GE Integrity Guide for Suppliers, Contractors and Consultants; Volkswagen Code of Conduct for Business Partners; Walmart GTCs, art 16 on Independent Contractors.

35 See, eg, Enel Ethical Code; General Motors Code of Conduct; FCA Code of Conduct.

We address the who (who regulates contracting) and the how (what is the instruments' menu) questions, and their correlation.

1 Who regulates? The Architects

Who defines contract rules concerning enterprises operating within global chains? Public and private 'regulators', both transnational and domestic, contribute to provide framework rules. State legislations and international commercial law focus on bilateral contracting.

Contracting in global value chains is mainly regulated by private actors through a combination of instruments: supplier codes and GTCs. These are general regulatory instruments to be implemented through various types of contracts: (1) framework agreements and master supply agreements between the chain leader and key suppliers and (2) local contracts between key suppliers and subcontractors.[36] Framework agreements and master supply agreements (MSA) can be further complemented by service level agreements (SLA) and statements of work.[37] Hence, there is a 'chain' of contractual instruments to regulate inter-firm contracting going from principles to detailed rules, whereas much less formalization characterizes the relationships between chain leaders and subsidiaries and among the latter.[38]

The regulatory power is distributed among the chain leader, the key suppliers and the intermediaries, such as private standard setters, certifiers, suppliers' networks, trade associations, etc. Global chains can be governed by a single chain leader or by multiple leaders along the chain.[39] Chain leaders make the initial

36 In practice the latter may be concluded by chainleader's subsidiaries in the framework of GTCs and framework agreements defined by the mother company. See eg Enel's contractual scheme available at https://globalprocurement.enel.com/en/documents.html and https://globalprocurement.enel.com/en/documents/a201811-global-framework-agreement.html.

37 See Bernstein, n 21 above, 561–621. See Jennejohn, n 16 or 28 above, 281, and before G. Geis, 'The Space between Markets and Hierarchies' 95 *Vanderbilt Law Review* (2009) 99.

38 Legal systems differ on both the direct enforceability of codes and master agreements and their coordination with purchase orders that implement those agreements. In some instances, master agreements are directly enforceable, in other ones they become enforceable only if and when the executive order to supply is issued. It is beyond the scope of this paper to provide a detailed comparative analysis but these differences represent a problem and can be partially solved by explicit terms. Enforceability however is generally considered a matter for the law and not for the parties, hence these terms have only limited scope within national legal systems.

39 See Cafaggi, n 19 above, 218; S. Ponte, T.J. Sturgeon and M.P. Dallas, 'Governance and power in global value chains', in Ponte, Gereffi and Raj-Reichert (eds), n 5 above, 120; G. Raj-Reichert,

relevant choices about the distribution of regulatory power. Legal units within the organization draft instruments, but the compliance and procurements units are those that apply them daily. The logics of the three units are not always identical. Texts and practices may therefore differ.

What drives the choices about power distribution? Asymmetric information and uncertainty play a significant role in defining modes of distributing regulatory power. One reason to delegate regulatory power by the chain leader is the lack of information concerning the segments of the chains most remote from center and the potential high costs to acquire it. Other instruments to acquire information, in addition to delegation, are penalty default rules and monitoring devices like vendor rating and scorecards. But, even when information is obtained, uncertainty may justify some delegation by the chain leader. Regulatory and operational cooperation between chain leader and key suppliers varies depending on the degree of uncertainty concerning the production process. Cooperation increases when uncertainty is significant. When uncertainty about investments' outcomes increases and innovative solutions are searched for, a stronger involvement of key suppliers in the decision making is needed.[40] Chain leaders design multiple mechanisms to induce cooperation to prevent and mitigate risks when they materialize.[41] Suppliers are asked to identify cost-reducing products, processes, or materials innovations, and strategies to mitigate the risks and engage into joint problem solving. These tasks require some autonomy to prevent and react to events that might be remote or unknown to the chain leader. High uncertainty may prompt delegation of regulatory power to suppliers. Delegation requires coordination to ensure that interdependencies are efficiently governed.

Supplier codes and GTCs provide a general framework but internal regulations related to procurement may specify the requirements to access and to remain in the chain and the corresponding contractual terms. This is generally performed by the chain leader's procurement unit. Once enterprises have been included in the list of the chain leader's suppliers, the procedures concerning their selection and the content of the contracts are partly regulated directly by the chain leaders and partly delegated to other actors, key suppliers and intermediaries. In some cases, chain leaders retain the right to approve, review, reject contractors' personnel, including employees and subcontactors.[42]

'The role of transnational first-tier suppliers in GVC governance', in Ponte, Gereffi and Raj-Reichert (eds), n 5 above, 354, 357.

40 See, eg, Lavazza Supplier Code, 20. Sabel and Herrigel, n 27 above.

41 See Bernstein, n 21 above, 574 *et seq*.

42 In some case GTCs show high degree of buyer's interference in supplier's recruitment of subcontractors. See, eg, General Electric GTCs, art 31.2.

Intermediaries participate in the contractual regulation of the chain. Commodity Exchanges like trading institutions and trade associations also contribute to contract regulation. Such contribution is for example particularly relevant in agriculture, where contractual forms are issued by various associations depending on the stage of the process (producers, processors, traders, retailers).[43]

2 What is regulated?

Regulation of contracting in global chains includes several areas featuring different instruments. Some features are crucial for the governance of the chain and are usually not the subject of delegation and default rules. These areas concern entry and exit from the chain, aggregation, upgrading and downgrading within the chain.[44]

Entry regulation concerns rules about basic requirements to access the chain and rules related to resources and technologies accessibility. Different qualities of participation in the chain exist depending on the content of the performance and the added value to the final product. For example, participants in the chain have different weight which does not necessarily translate into different regulatory power.

Both for economic and legal reasons chain leaders promote contractual aggregation of subcontractors by key suppliers. They promote the creation of networks and business associations that aggregate various key suppliers or subcontractors. Aggregation of key suppliers takes the form of horizontal networks, whereas aggregation between key suppliers and subcontractors takes the form of vertical networks.[45]

Once the enterprise has entered the chain its position may change over time through upgrading and downgrading.[46] Regulation of contracting influences upgrading and downgrading along the chain on the basis of evaluation made through vendor ratings and equivalent instruments. For this purpose, GTCs and supplier codes may include provisions concerning vendor rating and the conse-

43 In agriculture for example there are commodity specific standard contract forms (cereals, coffee, etc), exchange based standards (Chicago, Buenos Aires) or phase based contract forms (Gafta standard contract forms).

44 See Cafaggi, n 18 above, 334 *et seq*.

45 Cafaggi and Iamiceli, n 13 above, 343.

46 See G. Gereffi, 'The Global Economy: Organization, Governance, and Development', in Gereffi (ed), n 7 above, 137 *et seq*; G. Gereffi, 'Economic Upgrading in Global Value Chains', in Ponte, Gereffi and Raj-Reichert (eds), n 5 above.

quences associated to the changes of position in the chain. Vendor rating may aim at assessing and constantly monitoring the performances of contractors, having regard, eg, to the level of quality offered, compliance with the lead times, conformity with the environmental and safety laws in force, the upholding of the principles of social responsibility.[47]

3 Instruments' Choice. The Toolkit

Conventionally, contracts within the chain are treated as independent and separate units and the expression of private autonomy. We contend that they should be seen as an integrated web, regulated by the chain leader(s) with limited contribution by the chain's participants and third parties. Private autonomy is a constraint to the exercise of unilateral regulatory power and influences both the intensity and the instruments to share regulatory power about contracting. It plays a more significant role in inter-firm than in intra group contracting.

The chain leader(s) regulate contracting through general terms and conditions and supplier codes that parties have to abide by or are recommended to use.[48] These are forms of non-legally mandatory transnational private regulation.[49] *De jure* parties have the choice to subscribe to these instruments. *De facto* it is a precondition to access the chain and therefore it becomes quasi mandatory.

General Terms and Conditions (GTCs) provide standard terms applicable to the relationships of the chain leader with clients and/or suppliers. They may or may not be combined with suppliers' codes. In practice, many transnational corporations combine them, whereas others combine GTCs with codes of conduct or codes of ethics applicable to both intra-firm and interfirm relationships.[50] In the latter case, different implications derive from the application of common principles to intra-firm or to inter-firm relationships. In addition, or as an alternative to supplier codes, GTCs often include provisions concerning bribery, social, and environmental protection.[51]

47 See, eg, Enel GTCs, art 24.

48 See Cafaggi, n 18 above, 334.

49 See F. Cafaggi, 'The regulatory functions of transnational commercial contracts' *Fordham International Law Journal* 36 (2013) 1557.

50 Among the former, eg: Unilever, FCA, GE, Volkswagen, Walmart, Apple. Among the latter: Enel, General Motors, Johnson and Johnson.

51 See, eg, ENEL GTCs, art 28 (Global Compact), art 29 (Code of Ethics); Unilever GTCs, art 6 (Responsible Sourcing Policy and Anti-Bribery Compliance); BMW GTCs, art 20 (Environment) and 21 (Social Responsibility).

When GTCs are adopted by the chain leader, coordination of interdependences and reduction of transaction costs are the primary objectives together with the exploitation of standard setter's advantages in terms of risk, power and value allocation within a given contractual relation.[52] Clear examples of clauses governing risk, power and value allocation are provided by liability, termination or penalty clauses imposed by the chain leader in its GTCs.[53]

As a general rule, at least in theory, the use of GTCs would not exclude that, at the time of contract conclusion or during the contractual relation, parties agree on changes, adaptations or additions of clauses to meet specific needs of either party; formal requirements may be imposed to agree on changes.[54] In practice, GTCs are often adopted without changes in the individual contracts linking enterprises along the chain. Alternatively, GTCs may either prohibit changes,[55] or unilateral modifications may be contractually allowed.[56] The former are mandatory rules, the latter are default. No consent of the other party is necessary when the modification is a waiver, making the waiving party worse off.[57] Recurrent changes by GTCs' users may lead to adjustment of the standard or to the definition of substandards.

The governing function of GTCs may well expand beyond the bilateral relationships between the chain leader and its direct counterparties. Indeed, they may include terms imposing the use of (some) contract clauses in linked transactions along the chain between first and second tier or second and third tier suppliers. For example, GTCs may oblige the seller to ensure that its subcontractors are contractually bound by specific terms,[58] or that they comply with certain quality standards,[59] sustainability principles,[60] human rights protection,[61] or other legal requirements.[62] Sometimes these terms may request written confirmation of

52 See M. Klausner, 'Governance mechanisms in long term contracts', in Grundmann, Möslein and Riesenhuber (eds), n 13 above, 218 *et seq*.

53 See for example Unilever GTCs, art 10 on termination; or GE GTCs, 4 on LIMITATION OF LIABILITY.

54 See, eg, Enel GTCs, 1.5. See UNILEVER GTCs for the purchase of goods and services, 11.4.

55 This is often the case in online platforms. See, eg, Walmart GTCs (Marketplace Retailer Agreement) 1.

56 See, eg, GE GTCs, 26; Volkswagen GTCs, art 10.

57 See, eg, Enel GTCs, 5.5.

58 See, eg, BMW GTCs, 20.

59 See, eg, General Motors GTCs (2014) 12.

60 See, eg, FCA GTCs, 24 (Required Compliance).

61 See, eg, Enel GTCs, 28.1.

62 In relation to bribery, see eg Unilever GTCs, 2018 edition, 6.

such compliance[63] or vest the buyer with the power to audit contractors' and subcontractor's premises.[64] Quite often, GTCs make suppliers liable for subcontractors' non compliance, thereby triggering internal monitoring along the supply chain.[65] In other cases, specific adaptation of subcontract terms are requested so that full compliance may be attained through chain cooperation.[66] The direct or indirect extension of supply contract duties to subcontractors is growing to warrant ever more the regulatory function of contracts as means of supply chain governance.[67]

Supplier codes usually play a complementary function to GTCs. Like the latter, they regulate inter-firm rather than intra-group relationships. They normally aim at ensuring suppliers' compliance with standards of fairness, transparency, sustainability, protection of labour and human rights, anti-corruption policies along the chain and with third parties. Different instruments, such as codes of ethics, may impose these policies within the corporate group.

Moreover, unlike GTCs, normally aimed at regulating direct relations between the term setter and its counterparties and only selectively and explicitly extended to relations between suppliers and subcontractors, supplier codes are often applied along the whole chain.[68] Supplier codes are usually incorporated by reference in the contracts between key suppliers and subcontractors.[69] In principle, subscription to the code is voluntary for each supplier; in practice, it is imposed as a condition for the active participation in the chain and for the contract assignment.[70]

Monitoring over contractual content and implementation is carried by the chain leader along the whole chain, directly or through intermediaries.[71] Reporting duties may be placed upon key suppliers and, in case of non-compliance, supplier codes define how to remedy the violations and eliminate the negative consequences.[72]

Supplier codes normally provide general principles rather than specific rules, often making references to international standards, such as those adopted by

63 See, eg, FCA GTCs, 24.

64 See, eg, FCA GTCs, 29. See also Volkswagen GTCs, 16.

65 See, eg, Johnson & J GTCs, 10. See also Cafaggi and Iamiceli, n 13 above, 343 *et seq*.

66 See, eg, Volkswagen GTCs, 8 (Inspection; non-conforming goods/services; audit).

67 See Cafaggi, n 49 above, 1557.

68 See KPMG Supplier Code, 3; Volkswagen's Code of Conduct for Business Partners; GE Integrity Guide for Suppliers, Contractors and Consultants; Johnson & J's Code of Business Conduct; Unilever Responsible Sourcing Policy; General Motors' Code of conduct; FCA Code of conduct.

69 See, eg, Apple's GTCs, 24.1. Johnson & J's Code of Business Conduct.

70 See Walmart's Standards for Suppliers and other GTCs and codes mentioned in n 68 above.

71 Walmart's Standards for Suppliers; Asahi Europe Supplier Code (Birra Peroni Group) 2.

72 Unilever's Responsible Sourcing Policy (RSP) 11.

OECD, ILO and ISO.[73] The principle-based nature of many codes may generate a modular structure, in which principles are mandatory, whereas rules can be either default or recommendations.[74] Mutual recognition of equivalent codes is also a gap filler.[75] Yet, in many cases, the need to ensure full compliance with 'zero tolerance' along the whole chain may reduce the space for derogations to those imposed by mandatory applicable law.[76] In some instances, the Code is conceived as a floor, so that changes are admitted only for higher levels of protection; the same logic may apply to solve possible conflicts between the code and applicable law.[77] However, unlike most of them, some codes admit a general possibility to contractually derogate from it within a specific relationship.[78]

The chain leader faces numerous regulatory options about choice of instruments. The first is between standardization and customization. The more effective solution is a compromise between standardization, aimed at achieving uniformity or at least harmonization of contracting, and customization, that permits adaptation to the specific segments of the chain and local specificities when production occurs in different locations featuring different local public regimes.[79] The solution is mass customization through a modular architecture with common global principles and different local rules.[80]

Other regulatory options concern delegation to key suppliers or intermediaries and the use of default rules; indeed, both represent techniques to allocate regulatory power about contracting along the chain. They are not mutually exclusive. We shall first examine delegation and then the combination between mandatory and default rules.

73 See D. Saidov, 'Standards and Conformity of Goods in Sales Law' (2017) *Lloyd's Maritime and Commercial Law Quarterly* 65–94.

74 The latter is the case of Unilever's Responsible Sourcing Policy (RSP), encompassing 12 fundamental principles, a set of mandatory requirements associated with each principle, and then a list of continuous improvement guidelines and tips. Depending on the matter and the relevant context, supplier codes may indeed include recommendations or guidelines in addition to binding rules See, eg, Lavazza Supplier Code, 20.

75 See Basf Supplier Code, 1.

76 See Lavazza Supplier Code, 8.

77 See Asahi Europe Supplier Code (Birra Peroni Group) 2.

78 See, eg, Volkswagen's Code of Conduct for Business Partners.

79 See Cafaggi, n 18 above, 334 *et seq*.

80 See Jennejohn, n 16 above, 71. See eg Enel's GTCs providing for Annex by country; or Unilever's Country Specific Clauses Exhibit. See Cafaggi, n 18 above, 334 *et seq*.

III Delegation of Regulatory Power about Contracting in Global Chains

Private autonomy does not constitute the only limit to unilateral regulatory power with a high degree of concentration. Effective chain governance requires some degree of power delegation and/or sharing. Delegation occurs primarily in relation to inter-firm contracting.

The complexity of supply chains makes it impossible to concentrate the entire regulatory power in the hands of a single chain leader. Asymmetry of information and contract incompleteness makes delegation distribution of regulatory power a necessity. Delegation establishes an agency relationship between the principal (the chain leader) and the agents (the key suppliers and the intermediaries). The challenge is to align the incentives and to avoid or minimize regulatory divergences.

Indeed, GVCs are characterised by bounded rationality, uncertainty, and incomplete contracts.[81] Planning in advance for all possible events that may affect performance of thousands linked contracts is impossible. The definition of contractual content and the completion of individual contracts is a process that has to be governed over time and partly decentralized. Delegation contributes to customization of rules by making it possible to adjust to local rules, standards and customs.[82] Customization is performed by key suppliers and/or intermediaries.[83]

Delegation involves multiple key suppliers and intermediaries across the globe. The multiplicity of key suppliers, operating in different jurisdictions, may generate divergent regulatory options that require coordination. It is a multi-agent system to be coordinated by one or several principals.[84] Hence, delegation is usually combined with coordination mechanisms ensuring interoperability between the different sets of relationships regulated by potentially different rules.

How does delegation of regulatory power operate in global chains? Is the regulatory power distributed symmetrically among key suppliers or is there an asym-

81 See O. Hart, 'Incomplete contracts and the theory of the firm' 4 *Journal of Law, Economics, & Organization* (1988) 119, 139; P. Aghion and P. Holden, 'Incomplete contracts. What have we learned in the past 25 years?' 25 *Journal of Economic Perspectives* (2011) 2, 181–197.

82 See eg ENEL's country specific GTCs available at https://globalprocurement.enel.com/en/documents/a201902-general-contract-conditions—7th-edition.html.

83 On mass customization see Jennejohn, n 16 above, 82. On the role of transnational first-tier suppliers, Raj-Reichert, n 39 above, 354.

84 See on multi agent/multiprincipal models in global value chains: M.M. Wilhelm *et al*, 'Sustainability in multi-tier supply chains: Understanding the double agency role of the first-tier supplier' (2016) 41(1) *Journal of Operations Management* 42–60.

metry? In the latter case why is there asymmetry and which forms of sub-delegation take place within the chain with first or second tier suppliers?

Supply chains reflect various degrees of delegation to key suppliers. Delegation may be full when parties can write their own rules, or partial when they have to translate general principles defined by the chain leader into specific rules. An example of full delegation is when key suppliers can define their own contractual terms without being bound by GTCs enacted by the chain leader. An example of partial delegation is a combination between principles and rules. It can be found in some supplier codes:[85] key suppliers have to respect the principles stated in the codes but can choose their own contractual terms and implement them according to their own custom.[86] Both types of delegation represent a form of shared regulatory power with different distribution between the chain participants.

Between key suppliers and subcontractors an implicit hierarchy exists, and the degree of power delegation is directly correlated to that of hierarchy. The higher the position in the chain, the broader the delegation. Key first tier suppliers exercise part of the regulatory power delegated by the chain leader directly, whilst sub-delegate the remaining share to second tier which, in turn, exercise part of that power and sub-delegate a fraction to the third tier. Hence, delegated regulatory power is distributed unevenly among key suppliers with a chain of control that follows the hierarchy within the chain.[87]

Control by the chain leader can also be achieved by making the key suppliers responsible for the activities performed by the subcontractors.[88] Chain leaders impose the definition of an agency relationship to control directly the relationships among key suppliers or that between key suppliers and subcontractors.

What can be delegated? Delegation may refer to regulatory powers, monitoring powers or both. The developments that have occurred in the last decade show that the level of full delegation concerning contract regulation has decreased, and direct monitoring by the chain leader has increased.[89] In the past, often chain leaders did not even know what was happening upstream, inside their chain. The costs of information and, even more, that of control of individual transactions was

85 See for example in the case of Unilever the responsible sourcing policy (RSP) concerning bribery. The RSP defines the general principle. The GTCs define the actions and responsibilities of key suppliers and subcontractors. See Unilever GTCs, 6, n 74 above.

86 Absence of delegation usually results in forcing the key supplier to mirror the content of the contract with the chain leader in the relationships with subcontractors.

87 Cf Raj-Reichert, n 39 above, 354, 359.

88 See for example Unilever GTCs, 11.6: 'The Supplier is and remains responsible for its employees, subcontractors, agents and representatives. The Supplier is not relieved of liability for and no obligations in relation to these persons pass to the Buyer or any UGC as a result of the Agreement'.

89 See Cafaggi, n 18 above, 334.

much higher than the benefits of direct control. Nowadays chain leaders, using direct but more often indirect control via third parties, hold more information and preserve more regulatory power than in the past. Reduced delegation does not necessarily translate into direct control. It often results in various forms of power sharing.

Many reasons justify the reduction of the level of delegation. The need for ensuring compliance with quality, safety and sustainability standards throughout the chain has increased interdependence among chain participants, leading to higher coordination in standard setting and implementation. The cost of monitoring contractual content and implementation has become much lower thanks to technological evolution. Symmetrically, the costs of not controlling has become much higher, especially when chain leaders have to protect a brand and the related reputation. Hence, both the lower costs of control and the higher harms for not controlling have increased the incentives to monitor directly the production process and, to some extent, to directly regulate contracts along the chain. Even within this trend the delegation of regulatory and monitoring power within the chain is still significant.

Since the chain leader's regulatory power is grounded on an economic rather than a legal basis, usually 'delegation' occurs without any explicit legal mandate. In some cases, as shown above, first-tier suppliers are explicitly obliged to adopt specific terms in the relationships with their subscontractors (regulatory duties based on explicit mandate); in others, the former remain free to specify rules, standards or other contractual duties that will enable subcontractors to ensure full compliance along the chain (co-regulatory powers based on implicit delegation).

For instance, GTCs may provide that 'Supplier undertakes that it will take *reasonable measures* to prevent its subcontractors from engaging in any conduct that would contravene (a), (b) or (c) above [*anti-bribery compliance*]' (emphasis added);[90] or that 'Seller will also use *commercially reasonable efforts* to ensure that its suppliers and subcontractors comply the obligations specified in Clause 16 and 29 of these GTCs' (emphasis added).[91] In both cases, the reference to *reasonableness* opens up a menu of options available for the seller within the limitations provided by the open-ended concept.[92] The key supplier may specify and 'complete' the content of the contract with the subs.

90 See Unilever RSP, 6.2(c).

91 FCA GTCs, 37. Compare this part of the term with a previous one stating: 'Sellers will *ensure that* its suppliers and subcontractors (…) comply with the obligations (…) specified in Clauses 17, 24, and 28 (…)' (emphasis added).

92 This type of rule would be qualified as a default rule, namely a 'tailored default', by I. Ayres and R. Gertner, 'Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules' 99 Yale

The delegation of regulatory power is broader for the commercial aspects (items' volume, price, modes of delivery, etc) and narrower for the 'regulatory' domains (environment, labour, corruption, competition, product and process safety). Hence, implicit delegation for commercial aspects like quality and the modes of contractual performance, usually dealt with in GTCs, is broader than delegation for fundamental rights and anticorruption contractual terms, where codes apply to the entire chain or GCTs explicitly impose the duty to adopt specific contractual measures vis à vis subsuppliers. This difference can be at least partly explained by the consequences for violations of human rights and those concerning the quality of the product. The impact of the former and the potential liability of the chain leader or violations along the chain is usually stronger for regulatory provisions.[93] The expansion of tort law, with special regard to parent company's liability for human rights or environmental infringements by subsidiaries, is illustrative of such impact.[94] In this regard, due to the privity principle, more limited remains the role of contract law, most often related to breaches of quality requirements and commercial obligations (eg prices). Stronger liability is usually inversely correlated to delegation. Hence, delegation is used also as an instrument to reduce the scope of chain's leader liability. As a complementary explanation, the incentives for compliance of commercial obligations by key suppliers may differ from those related to corruption, environmental and labor protection.

Empirical knowledge about what and how regulatory power is delegated is still very limited. In fact, on the basis of a random examination of supplier codes,

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Law Journal 87 (1989), since either the parties will be able to contract around the standard, adapting it to their best, or the court will do so taking specific circumstances into account. A separate issue is whether and when ex post bargaining or court determination is more efficient than ex ante rule setting (Ayres and Gertner, n 100).

93 The relation between chain governance and liability is widely explored in current literature. See, among others, C. van Dam, 'Tort Law and Human Rights: Brothers in Arms' (2011) *Journal of European Tort Law* 248; V. Ulfbeck and A. Ehlers, 'Tort Law, Corporate Groups and Supply Chain Liability for Workers' Injuries: The Concept of Vicarious Liability' (2016) 13 *European Company Law* 5, 167–174. V. Ulfbeck in this issue.

94 See *Lungowe* v *Vedanta Resources* [2019] UKSC 20, concerning a UK parent company's liability for personal injury, damage to property and loss of income, amenity and enjoyment of land suffered by Zambian citizens as a result of alleged pollution and environmental damage caused by discharges of harmful substances from a copper mine run by the local subsidiary. The matter is gaining attention among legislators both at EU and national levels beyond the domain of inter-firm relations expanding due diligence along the whole supply chain; see the French 'Loi no 2017–399 du 27 Mars 2017 relative au devoir de vigilance des sociétés mères et des entreprises donneuses d'ordre'; EU Regulation (EU) 2017/821 of the European Parliament and of the Council of 17 May 2017 laying down supply chain due diligence obligations for Union importers of tin, tantalum and tungsten, their ores, and gold originating from conflict-affected and high-risk areas.

explicit delegation is almost non existent; what regulatory power is delegated to whom in the chain can only be inferred *a contrario* by what is expressly regulated in Codes and GTCs.

A first preliminary conclusion is that regulatory power is distributed along the chain mainly via implicit delegation.[95] A second conclusion is that the degree of delegation in GTCs is higher than that for the principles and rules of the supplier codes. Codes may define general principles and allow key suppliers to integrate them with rules and, to a limited extent, additional principles. They represent the floor.[96]

The distribution of regulatory power between different tiers is subject to a continuous evolution, which partly reflects that of the production process and the sources of innovation. However, there is not necessarily a full correlation between the distribution of market power and that of regulatory power concerning contracts. Differences concern the types of input. Suppliers of software, clouds and know-how should be considered separately from suppliers of other production factors. Given the size of suppliers and their relative market power, regulation of contracting in relation to these inputs usually follows its own rules.

IV The Combination between Mandatory and Default Rules in Supply Chain Contracting

Delegation of regulatory power is not the only instrument deployed to distribute tasks related to contracting along the chain. Two other possible instruments can be deployed to ensure flexibility of contracting along the chain: a menu of regulatory options or a set of default rules that key suppliers can modify.[97] We here examine the latter instrument.

It is within the chain leader's power to define a hierarchy and to confer binding or voluntary nature to the rules in Codes and GTCs. Here, the focus is on the relationship between key suppliers and subcontractors.[98] Default rules permit key

95 See, eg, BASF Supplier Code, 1.

96 See Unilever Responsible sourcing principles.

97 Cf S. Grundmann and P. Hacker, 'Digital Technology as a Challenge to European Contract Law' (2017) *European Review of Contract Law* 255, 274, defining online platforms as a sort of 'lawmakers' providing default terms for users.

98 It is assumed that the key supplier will use GTCs of the chain leader when engaging into contractual relationships with subcontractors for the production of goods and services directed at that specific chain leader. A different issue, beyond the scope of this paper, is the negotiation between a

suppliers to choose between the rules designed by the chain leaders and alternative rules they can define by replacing those of the chain leader when negotiating with subcontractors.[99]

The allocation of power depends on the choice and the combination between mandatory and default rules. Mandatory rules reflect concentration of regulatory power, default rules reflect power sharing between chain leader, key suppliers, and intermediaries. The use of defaults by chain leaders may either show their informative advantage *vis à vis* key suppliers or be aimed at inducing disclosure and information sharing by the latter, eg when key suppliers have more information about the local context than the chain leader.[100]

Unlike delegation, where key suppliers can only specify the content of the principles included in the code, in case of default rules, key suppliers can modify them. For example, the supplier code can impose that sustainability standards should inform procurement policies within the chain; then, the code can either delegate the specification of rules about suppliers' selection in compliance with the principle of sustainability or define indicators that the procurement unit has to meet with a default rule that can be altered or adapted by the key suppliers in relation to sustainability.

The majority of Supplier Codes does not usually explicitly make a difference between the types of rules but may mention the possibility to adapt the effects of the code according to local rules, customs, usages[101] or may combine mandatory requirements with mere recommendations.[102] When there are regional or country specific rules combined with uniform transnational rules, it is more likely that a conflict rule related to the hierarchy is stated.

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chain leader and a key supplier that also issues its own GTCs. In this case the parties negotiate the specific contract in light of their GTCs and have to decide which GTCs incorporate when they happen to be conflicting. These decisions are usually made on a case by case basis.

99 See I. Ayres, 'Regulating Opt-Out: An Economic Theory of Altering Rules' (2012) *Yale Law Journal* 2032. On the role of default rules in contract law and, more particularly, in European contract law, see M.W. Hesselink, 'Non-Mandatory Rules in European Contract Law' (2005) *European Review of Contract Law* 44.

100 On the role of default rules as information-forcing, see Ayres and Gertner, n 92 above; A. Schwartz, 'The Default Rules Paradigm and the Limits of Contract Law' 3 *Southern California Interdisciplinary Law Journal* 389 (1994).

101 See, eg, Enel Code of Ethics. See Lavazza Supplier Code, n 76 above.

102 See Unilever responsible sourcing policies where section 1 is labelled mandatory requirements to do business with Unilever whereas the following sections provide recommendations, tips and guidelines for continuous improvement along the supply chain. The structure of the mandatory part includes the definition of the principles and the mandatory requirements necessary to implement it.

The supplier code might impose a certification standard and leave to key suppliers the power to choose which one they apply; then they can have a mutual recognition regime within the chain to coordinate the various selected standards. In agrifood industries, where the chain leader produces several commodities, different private standards related to certification may be chosen by intermediate suppliers depending on the geographical location of the agricultural product.[103] For the same commodity, eg coffee, one private standard may be dominant in Latin America but may be non existent in Asia or Africa, where other standards apply. Similarly, dimensions related to quality may be differently regulated according to the market of final destination.

A lower degree of flexibility (and a reduced possibility to use default terms) may emerge as to safety or human rights standards different from quality requirements. In many cases, especially when supplier codes aim at protecting general interests or those of third parties (children, local communities, workers, etc), general principles are considered mandatory. At least in these cases, the risk of externalities rather than paternalism may justify the use of mandatory terms.[104] The supplier code may, for example, impose on all chain participants the rule that '[s]uppliers shall only employ workers legally authorized to work in the country where their facilities are located'.[105] If a supply contract along the chain allows the supplier to employ not legally authorized workers, provided that the latter agree this practice may be deemed contrary to the code and trigger corrective measures. Their mandatory nature does not exclude that different applications may be required along the chain, partly driven by different local regulation and practices.

Different structures of hierarchy between various regulatory sources can be designed depending on the distribution of regulatory power between center and peripheries of the chain, eg between the chain leader and key suppliers. For example, when GTCs are provided both at the global and at the local levels, priority may be assigned to the latter in order to better take the contextual elements into account; in these cases, global GTCs may be considered as default. Being standard terms, GTCs may in fact be changed in the specific transaction; however, GTCs may also provide that any proposed change shall be approved by the chain leader.[106] Given their particular focus and objectives, derogations from principles of Supplier Codes are not usually admitted, whereas adaptations or substitute

103 See the contributions in T. Havinga and P. Verbruggen (eds), *Hybrization of Food Governance. Trends, Types and Results* (Cheltenham: E. Elgar, 2017).

104 These are the two main justifications for mandatory rules in legislation according to Ayres and Gertner, n 92 above, 88 *et seq*.

105 See Moncler's Supplier Code, 4.

106 See art 10.1, Enel GCTs.

application of equivalent principles may be allowed if compliance is ensured.[107] A different hierarchy may be established with regard to mandatory rules provided by applicable law or other sources offering higher levels of protection.[108] Yet, there are examples of supplier codes conceived as source of default rules which individual contracts may diverge from.[109]

V Comparing Delegation and the Use of Default Rules as Instruments to distribute Regulatory Power

How does delegation differ from default rules as an instrument for distributing regulatory power between the chain leader and the key suppliers and the intermediaries?

Delegation can be implicit or expressed, total or partial.

Most of the time delegation is implicit. (Implicit) delegation defines a regulatory space where key suppliers or intermediaries determine general terms and conditions for the relationships with subcontractors. It is a space of choice used by key suppliers to fill gaps of unregulated aspects or specify matters regulated only in principle.

Delegation can be either complete or partial. Partial delegation can permit the alteration of rules but not of principles. The delegated party (key supplier) has to regulate contracts in conformity with the general principles defined in the GTCs. Key suppliers, when exercising regulatory power, act as agents of the chain leader, the principal. When, as it is often the case, there are many first tier key suppliers the delegation results in a multi agent scheme. In such a scheme, agents interact among themselves and with the principal. Not only the principal monitors the definition of contractual terms but it also ensures coordination among the key suppliers (agents) in the exercise of regulatory power.[110] Agents can coordinate the exercise of their regulatory power in order to produce consistent regulatory products.

Default rules do not feature an agency relationship. They, instead, confer parties the power to choose whether and how modifying the regime designed by the

107 See Lavazza and Asahi Supplier Code, n 76 and 77 above.

108 See Asahi Supplier Code, n 77 above.

109 See Volkswagen Code of Conduct for Business Partners, n 68 above.

110 Problems of observability arise not so much in relation to the written rules but to their concrete applications.

chain leader. They partition regulatory choice domains between the chain leader and the key suppliers. Such power to change or alter however is not unconstrained or arbitrary. If parties modify the default rules, they face constraints represented by the interests of the chain and the chain leader.

The premises and justifications to choose delegation versus default rules differ. *Default rules presuppose a higher degree of information by the chain leader than delegation.* This is not to say that the choice of default rules should be based upon complete and accurate information. It is possible that one rationale for using default is the uncertainty about the accuracy of information held by the chain leader about the business context within which chain participants operate. If parties along the chain alter the default in the GTCs, it might be a signal that the informational premises on which default were based were inaccurate or wrong.[111] However, the initial informational asset necessary to define a default rule or a menu is wider than that to deploy delegation.[112] Hence, when using delegation, chain leaders rely on suppliers' higher information to a larger extent than they do when using default rules.

In addition to differences related to the quality and quantity of information, a second difference is represented by the intended allocation of regulatory power. In principle delegation confers delegated entities more power than default rules, namely the power to set rules rather than that to alter them.

Thirdly, delegation identifies a few key actors to which power is delegated, whereas default rules usually decenter choices among individual contracting parties.[113] Hence, the distribution of regulatory power differs depending on which technique is deployed.

Delegation is a form of regulatory decentralization stronger than default, since it normally defines a regulatory space where the key supplier can enjoy broader discretion within the agency relationship (eg, when key suppliers are requested to establish an adequate quality assurance mechanism with no further specification). The main challenge is to ensure that the agent acts in the chain leader's interests, within the conferred discretionary space.

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111 See Ayres and Gertner, n 92 above, 91.

112 For example, a default standard term may provide that 'The Contractor shall secure the performance of all contractual obligations and the payment of damages caused by the breach of Contract for an amount equal to a percentage of 10 % of Contract Price, unless a different percentage is provided in the Agreement' (Enel GTCs, 19.1). Or, it may simply require that adequate guarantee is secured in the Agreement, leaving up to the parties (and to the key supplier as 'first mover') to negotiate about it (delegation). The first approach requires more *ex ante* information about the appropriate guarantee than the latter.

113 In theory it could be possible to confer the power to modify only to key suppliers and to individual subcontractors in order to preserve uniformity.

Both instruments pose a problem of coordination if various key suppliers exercise their regulatory power in different ways. The modular architecture to regulate contracting within the chain requires a strong form of coordination not only *ex ante*, with the definition of common principles, but also *ex post*, when different rules are in place and they may hamper effective production or distribution.

We suggest in both cases the creation of a governance infrastructure including the key suppliers and the intermediaries that can coordinate divergences in regulation that may result in breaches and harm the reputation of the chain.

VI Concluding Remarks: A Modular Approach for Regulating Contracting in Global Value Chains

GVCs are both instruments to organize production/distribution and vehicles to (1) implement transnational standards, (2) improve sustainability, and (3) ensure compliance with regulatory requirements.

Trade of goods and services, transfers of know-how and technologies occur in GVCs within a web of contractual relationships that are functionally interdependent. Bilateral contracts in global chains are only linkages of a complex architecture. They operate in a broader framework that is neither the market nor the conventional hierarchy. They cannot be drafted and interpreted in isolation but have to be embedded in the web of relationships taking place within the chain. However, the current legal framework both at national and international level, tends to break down the linkages. It ignores interdependencies focusing, instead, on bilateral contracts tied to 'impersonal' market actors.

Contracting within GVCs differs from contracting in 'open' markets. GVCs, however, are not uniform universes. Part of the production process is organized through subsidiaries of the chain leader, partly with independent suppliers, linked to the chain leader by long term and stable contractual relationships, partly with spot contracts. Hence general shared principles along the chain are needed to harmonize the different transactional technologies.[114]

Regulation of contracts along supply chain is a key dimension of its governance. Chain leaders act as private regulators and impose harmonised rules with some degree of variation, justified by local specificities including compliance

114 This is not a unanimous view. Some economists claim that intra and interfirm contracts are more alike. Others highlight the differences and underline the necessity to distinguish. See F. Lafontaine and M.E. Slade, 'Interfirm contracts', in R. Gibbons and J. Roberts (eds), *Handbook of organizational economics* (Princeton: Princeton University Press, 2012) 961 *et seq*.

with different public local regulatory regimes. The chain leader however is not an absolute sovereign! Regulatory power is distributed between the chain leader(s), the subsidiaries, the key suppliers, and the intermediaries.

Regulation of contracting within the chain depends on the combination between intra-group and inter-firm contracting. The analysis shows that intragroup contracting follows different routes and is regulated by instruments different from inter-firm contracting.[115] Regulation of contracting within the group is hardly formalized and usually based on internal practices. Occasionally codes of ethics apply throughout the chain to both subsidiaries and suppliers. The allocation of regulatory power within the group and between the chain leader and the suppliers is grounded on different rationales. Yet, the governance of a complex chain, where sourcing is both internal and external, requires an integrated approach. The differences within the chain suggests that a modular approach, that permits adaptation to the various types of contractual relationships, is more effective than a uniform approach, that applies indifferently to intra-firm (subsidiaries) and inter-firm (relationships with independent suppliers) contracting.

Regulation of contracting along GVCs is primarily based on transnational private regulation. The chain leader can issue a supplier code and, most often, GTCs that suppliers have to comply with or adapt, sometimes also in relations with sub-suppliers. They usually co-exist but their application differs. Often codes apply to the contractual relationships all along the chain, whereas GTCs are generally limited to the relationships between the leader firm and the key suppliers; only in specific instances GTCs impose duties and confer rights to sub-suppliers.[116]

Delegation and default rules represent two possible techniques to distribute power to regulate contracting along the chain.[117] The analysis has identified the different rationales to choose one, the other or both.[118] Asymmetric information between chain leaders and suppliers and uncertainty over the production process influence both degree and the instruments choices. Delegation generates the *power to set a term*; the use of defaults creates the *power to alter* established terms. Decentralizing regulatory power requires coordination among the delegated entities in order to ensure effective governance of the interdependences.

115 See above text and fn, par. II.

116 See supra text and fn, par. II.3.

117 We refer to the negotiations between key suppliers and subcontractors. In relation to the contracts between chain leader and key suppliers the negotiation may depend on whether the key supplier has its own GTCs and which ones are applied. It might happen that the contract between chain leader and suppliers is a compromise between the two GTCs.

118 See supra text and fn, par. V.

Modularity of contracting ensures that even in a context of high decentralization contracts organized in modules are effectively connected.[119]

Power sharing about contracting, resulting in co-regulation, concerns not only standard setting but also monitoring and enforcement. Though sometimes reserving the right to audit subsuppliers' premises, the chain leader does not normally have direct policing power and delegates to key suppliers and intemediaries the tasks of implementing and adapting global terms to local needs; however, in practice not always this adaptation takes place and private regulation fails to induce effective upgrading in suppliers' capacities. A very important role can be played by intermediaries, who, on the basis of contracts concluded with chain participants, monitor the application of the rules and act to remedy defaults when non compliance is detected.[120] When disputes arise, they are usually solved by internal mechanisms (committees, dispute resolution mechanisms) or by arbitrators. The use of the judiciary to fill gaps and solve disputes is very limited in global GVCs. When it occurs it concerns inter-firm contracting.

A modular approach to regulate supply chain contracting has been recommeded. In principle, modularity may develop depending on the matters addressed (parties' duties and liabilities, production standards, risk allocation, sustainability, labour and human rights, etc), the subjective scope of application (including subsidiaries, independent suppliers, subsuppliers or some of them only), the territorial scope of application, etc. Different degrees of flexibility may ensure coordination among regulatory modules, so that only some rules are conceived as mandatory along the whole chain, whereas others, the default, may depart from those of the code and the GTCs and be adapted to specific contexts. Strict hard rules may coexist with recommendations so that in fact regulatory power, though coordinated by one or more leaders, is eventually shared with key suppliers, intermediaries and other chain participants. Although empirical research is still limited and more evidence should be sought for, modularity could be developed to much a larger extent than it is currently used. A modular approach to supply chain governance and specifically contracting, can also be suggested by international organizations like the World Bank, the WTO, the OECD engaged in making global value chains to work more effectively. The increasing importance of contracting in GVCs also suggests that Unidroit, Uncitral and The Hague Conference consider focusing on a specific project for international commercial contracts.

Transnational contract law should promote a new architecture of contracting:

119 See H. Smith, 'Modularity in contracts: boilerplate and information flow', in Ben Shahar (ed), n 18 above, 163 *et seq*. More generally on modularity Baldwin and Clark, n 16 above, 63.

120 F. Cafaggi and P. Iamiceli, 'Contracting in global supply chains and cooperative remedies' (2015) 20 *Uniform Law Review* 135; Cafaggi, n 19 above, 218.

- distinguishing and coordinating between inter-firm and intra-group international commercial contracts;
- regulating the hierarchy between different sources of contractual obligations beyond the parties' agreement, including GTCs, supplier codes, codes of ethics or wider forms of private regulation;
- defining the different modes of their incorporation into the contracts along the lines of modular schemes;
- acknowledging that the use of standard terms or supplier codes does not necessarily imply concentration of power depending on the choice of regulatory instruments and particularly between delegation and default rules;
- relaxing the notion of privity of contract and recognizing more broadly third party effects;
- broadening the concept of contractual performance so as to capture the regulatory and the monitoring dimension of contract execution; for example, revisiting the notion of conformity of product;
- revisiting the notion of breach when its consequences involve multiple parties along the chain;
- defining liability thereof, ensuring that delegation is not used as a means for shifting liability upon those that in fact may not exercise any regulatory or monitoring power;
- defining modes of collective renegotiation when hardship(s) arise, imposing an obligation on both parties to redefine performances and prices;
- redefining remedies by modifying the alternative between damages and specific performance and ensuring the priority of corrective measures.[121]

These issues are regulated differently in intra-group and inter-firm contracting generating high transaction costs in a world where internalization and externalization of activities change rather frequently. Instability of chains call for general principles, applicable to both intra-group and inter-firm contracting. International cooperation to reduce trade barriers should include a deep reform of international commercial contracts to align economic and legal processes and to ensure that transnational standards protecting environment, social rights and local communities are fully implemented through effective monitoring by GVCs. Legal reform should involve both legislation and transnational private regulation of contracting along GVCs.

121 On some of these proposals and in particular the last one, see Cafaggi, n 18 above, 334 *et seq*.