Introduction to the *Research Handbook on Competition and Corporate Law*

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Edward Elgar's invitation to take on editing the *Research Handbook on Competition and Corporate Law* came to us as an honour. We received it as a recognition of our research contribution to issues at the edge of both branches of law. But it also came as a challenge to continue questioning their intersections and jointly look at the future. Fascinated by the inner complexities of corporate organisations, we have long been dedicated to advancing the understanding of issues of competition law, through the joint lens of the corporation and of the market.[1] Both competition law specialists in the first place, our research has never been confined to the outer boundaries of firms, where it traditionally operates.[2] We thus took on this task knowing it would be as complex as it is rewarding. Not even terminology is helpful: a business, a firm or a corporation are not entirely overlapping terms, they may not mean the same thing to a competition and a corporate law expert, their boundaries may not be understood or carved out by the same frame of reference. The inherent complexity notwithstanding, competition law can be both theoretically and practically enriched by opening the black box of the firm. The gained insights can in turn inform corporate law and governance research and policy. Markets may start where firms end, but one cannot exist without the other – their interaction is real, contemporaneous and ever-evolving. Modern challenges such as common ownership and interlocking directorates keep on reminding us of the deep links between the two fields. Such challenges set us on our academic path, inquiring the meeting points between competition and corporate law.[3] We now join forces to pursue this important mission.

[1] Professor Rock most eloquently explains the division of labour between the two fields. See Edward B. Rock, 'Corporate Law Through an Antitrust Lens' (1992) 92 Columbia Law Review 497, 498: "Antitrust is about markets; corporate law is about firms. Antitrust is about competition; corporate law is about cooperation. Antitrust regulates relations among firms; corporate law governs relations within firms."

[2] It all goes back to our doctoral projects at University College London, where we also first met. See Anna Tzanaki (2017) *The Regulation of Minority Shareholdings and Other Structural Links Between Competing Undertakings: A Law & Economics Analysis* (PhD, UCL); Florence Thépot (2014) *The Interaction between Competition Law and Corporate Governance: Opening the 'Black Box'* (PhD, UCL).

[3] Anna Tzanaki, 'Varieties and Mechanisms of Common Ownership: A Calibration Exercise for Competition Policy' (2022) 18 Journal of Competition Law & Economics 168; Bénédicte Brullebaut and others, 'Persistence in Corporate Networks through Boards of Directors? A Longitudinal Study of Interlocks in France, Germany, and the United Kingdom' (2022) 16 Review of Managerial Science 1743; Florence Thépot, 'Interlocking Directorates in Europe – An Enforcement Gap?' in Marco Corradi and Julian Nowag (eds), *Intersections between Corporate and Antitrust Law* (Cambridge University Press 2023).

Competition law, also called antitrust law in some jurisdictions, may refer to substantive rules and enforcement processes aimed at protecting competition in free market economies. Its subject is inter-firm relations. Corporate law, also called company law in some countries, governs how business organisations are formed and managed. In all its national variations, corporate law across jurisdictions commonly provides a set of legal attributes to business enterprises, such as legal personality and limited liability, that facilitate and encourage the conduct and organisation of business.[4] These characteristic legal features single out corporations from other business organisations. At first glance, competition law and corporate law seem to operate within very distinct conceptual arenas. While competition law typically operates outside the boundaries of the firm, corporate law is concerned with the internal organisation of corporations. Competition law treats firms as units and discourages cooperation between them for the benefits that competition in the market brings. Corporate law, on the other hand, is very much about encouraging cooperation among corporate constituents for the organisation to work seamlessly and maximise value. While competition law's core purpose may be consumer welfare or more generally the protection of the competitive process for the benefit of consumers (sometimes along with different goals),[5] corporate law may be regarded as traditionally centred on the protection of shareholders' interests.[6] Competition law may well be considered to have a public interest flavour, whereas corporate law is commonly structured to align and serve private interests. While competition law often has a strong federal or supra-national character, corporate law demonstrates notable national variance in corporate features and rules that rest on institutional particularities and path dependencies. US antitrust law and EU competition law have their own parallel yet unique historical trajectories: the former has been conceived as a force disciplining and liberalising state corporate laws, whereas the latter unifies EU Member States under a supreme mission of integrating the internal market through the protection of competition across the EU.[7]

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[4] John Armour and others, 'What Is Corporate Law?' in Reinier Kraakman and others (eds), *The Anatomy of Corporate Law: A Comparative and Functional Approach* (3rd edn, Oxford University Press 2017) 1–2.

[5] There is a long and ongoing debate on the goals and purpose of competition or antitrust law, with regional and country variations influencing academic views and policy choices. Contemporary discussions on digital antitrust cases best showcase this range of opinions. See for instance Konstantinos Stylianou and Marios Iacovides, 'The Goals of EU Competition Law: A Comprehensive Empirical Investigation' (2022) 42 Legal Studies 620; Ariel Ezrachi, 'The Goals and Scope of Competition and Antitrust Laws' in Ariel Ezrachi (ed), *Competition and Antitrust Law: A Very Short Introduction* (Oxford University Press 2021); Ioannis Lianos, 'Polycentric Competition Law' (2018) 71 Current Legal Problems 161; A. Douglas Melamed and Nicolas Petit, 'The Misguided Assault on the Consumer Welfare Standard in the Age of Platform Markets' (2019) 54 Review of Industrial Organization 741.

[6] Although the shareholder primacy vision has long been debated, ever since Berle's contribution on the Modern Corporation. See Joseph L. Weiner, 'The Berle-Dodd Dialogue on the Concept of the Corporation' (1964) 64(8) Columbia Law Review 1458. Stakeholderism as the countervision to shareholderism is nowadays on the rise again, with the environmental, social, and governance (ESG) movement taking a strong hold within corporate governance.

[7] Anna Tzanaki, 'Common Ownership and Minority Shareholding at the Intersection of Competition and Corporate Law Looking Through the Past to Return to the Future?' in Marco Corradi and Julian Nowag (eds) (n 3).

Beyond the surface, however, corporate law and competition law are closely intertwined fields. As special branches of business law, both centre around legal and economic variations of the conception of the 'firm'.[8] They look 'inside' or 'outside' of roughly the same thing: business entities. The understanding of the firm or the corporation and its contours is fundamental to both disciplines. This is where it all begins. But there is more. Historically, the existence of antitrust law in the US has its roots in state corporate law(s), and their inability (or unwillingness) to tame corporate power.[9] In merger control, the competitive impact of acquisitions can only be apprehended through an understanding of how corporate control may be gained and exerted, through legal or economic rights. Transformations in corporate finance and governance also bring numerous challenges to the application of competition policy. The financialisation of the economy, and the growing role of institutional investors, may cause concerns that concentration of common ownership – small, parallel equity holdings by overlapping institutional investors – within sectors may impact competition in product markets. The debate on the theoretical mechanisms and empirical evidence is far from settled. At the centre of this debate, the core question of the channels of influence of common investors on product market competition is one that demands corporate law expertise. Interlocking directorates are yet another example of a business practice that touches on both disciplines. Intriguingly, from the vantage point of each field, having common directors on the boards of multiple companies may lead to very different, largely contradictory implications and policy prescriptions. What may be seen as 'good' in the corporate eye may appear 'suspect' or 'evil' to the antitrust-minded specialist.

If we dig further, the list of issues at the juncture of competition and corporate law continues. The emergence of new business models in digital markets has not only has brought about organisational transformation but has also triggered some revolutions or recalibrations across competition law regimes. Hybrid modes of economic organisation equally challenge formalistic and siloed ways of approaching and regulating firms and markets. The environmental, social, and governance (ESG) movement and sustainability goals affect both corporate entities and their market activities: a 'purpose' reorientation of corporate and competition law beyond pure shareholderism or efficiency considerations may facilitate the attainment of such goals. This further raises the question of how corporate governance and competition can be made more 'green' and whether a coordinated recalibration of the two fields is apposite. The complex realities of corporate groups, and how competition law should apply to legally independent but affiliated entities has also been at the forefront of discussions. Unlike US antitrust law, which heavily borrows from corporate law and builds on notions of legal personhood and control to determine its applicability and questions of intra-group liability, EU competition law is idiosyncratic. Different kinds of corporate and economic links among affiliated

[8] For a discussion of the conception of the firm in competition and corporate law, see Florence Thépot, *The Interaction between Competition Law and Corporate Governance* (Cambridge University Press 2019).

[9] Herbert Hovenkamp, *Enterprise and American Law, 1836–1937* (Harvard University Press, 1991) 249; Naomi Lamoreaux and William Novak, 'Corporations and American Democracy: An Introduction' in Naomi Lamoreaux and William Novak (eds), *Corporations and American Democracy* (Harvard University Press 2017) 1–33; Anna Tzanaki (n 7); Michelle Meagher, 'Corporate Law, Antitrust, and the History of Democratic Control of the Balance of Power' in Marco Corradi and Julian Nowag (eds) (n 3).

companies may matter differently for different purposes such as attribution of intra-group liability and calculation of antitrust fines. Alas, the boundaries of the firm are not fixed or a 'one-size-fits-all' even within a single discipline. Finally, in the area of antitrust enforcement, to ensure effective corporate compliance and antitrust sanctions, one needs to start taking a firm look inside the corporation. Understanding its internal dynamics and the interplay among corporate actors may be a useful lens for sharpening antitrust's focus.

Thus, competition law and corporate law deserve a joint perspective on numerous issues. It is supply to this demand which the curation of this Research Handbook aims to provide. Our call has found hospitable reception within the academic and professional community. A unique combination of competition and corporate legal scholars as well as economists, from a diversity of backgrounds, countries, and career stages, is gathered in this Handbook. Their contributions have been greatly enriched by discussions at a research event organised in March 2023, in partnership with the Mannheim Centre for Competition and Innovation (MaCCI) under the leadership of Professor Jens-Uwe Franck, with the support of Lund University and the DRES research centre and the ITI MAKErS of the University of Strasbourg. We are grateful to all the authors for illuminating and expanding with us the research frontier at the intersection of competition law and corporate law and for their unique perspectives.

The Research Handbook on Competition and Corporate Law is organised into four parts:

- Purposes and paradigms in competition and corporate law;
- The firm and its boundaries;
- Corporate organisation and effects on competition;
- Corporate governance and antitrust compliance and enforcement.

I. PURPOSES AND PARADIGMS IN COMPETITION AND CORPORATE LAW

Operating in distinct conceptual orders, competition law and corporate law seem to pursue different objectives, respectively the protection of consumer welfare and the competitive process, and the maximisation of shareholders' value.[10] Yet, behind this apparent distinction, contributions in the first part of the Handbook show that competition and corporate law objectives have much in common. In addition, potential shifts in paradigm in competition and corporate law may not only call for revisiting first principles within each field but also put under scrutiny their mutual standing.

Francesco Ducci and *Alvaro Pereira*, in 'Shareholder Primacy and Consumer Welfare' inquire whether, and the extent to which, the debates on the purpose of competition policy and corporate governance coincide. Developing very insightful theoretical, legal and institutional

[10] At the turn of the century, US scholars had persuasively argued that we have reached the 'end of history' in both disciplines in that we have settled on the goals of corporate and competition law being shareholder primacy and the consumer welfare standard, respectively. Henry Hansmann and Reinier Kraakman, 'The End of History for Corporate Law' (2000) 89 Georgetown Law Journal 439; Herbert Hovenkamp, *The Antitrust Enterprise: Principle and Execution* (Harvard University Press 2005). Recent developments in and outside the US challenge this view and reactivate old debates.

parallelisms between challenges to the consumer welfare and shareholder primacy standards, they argue that the two can be seen as part of a unified normative phenomenon. They explain that the mainstream goals of competition and corporate law share a microeconomic foundation: both consumer welfare and shareholder primacy reflect a preference for economic, single-purpose objectives. This economic paradigm is subject to criticism in both competition law and corporate law however, with those in favour of pluralistic models advocating the need for embracing broader, non-economic goals such as the protection of small businesses or sustainability. An integrated discussion of calls to reconsider the foundations of each field, they suggest, may better reflect the overall social benefits and risks of expanding the purpose of corporate and competition law and how they tackle issues of market power and corporate governance. Next, in 'Market Power and Shareholder Control', *Saura Masconale* and *Simone M. Sepe* explore the impact of market-power shareholders on corporate governance. Starting from the theoretical thesis that effective shareholder control of public corporations can be achieved through competitive markets, they show that the current reality is somehow different. Shareholder empowerment has been achieved, but the newfound ability of 'empowered shareholders' to discipline management is not due to a robust market for corporate control; rather, it is a by-product of ownership reconcentration, and hence market power, due to the rise of index funds. They further demonstrate that the model of 'competitive shareholders' fails under conditions of market incompleteness, heterogenous shareholder preferences and misaligned incentives. On the other hand, they argue that the prevailing market-power model of shareholder control may address such efficiency concerns but only at the price of creating new economic and political challenges due to shareholders' support for a novel model of stakeholder capitalism. Thus, drawing definitive conclusions about the efficiency of one governance model over another is considered premature.

Picking up on this thread, in 'Varieties of Capitalism, Competition, and Prosocial Corporate Purposes', *Massimiliano Vatiero* reflects on what model of capitalism – 'armed' or 'disarmed' – is more prone to the pursuit of prosocial corporate purposes. Armed capitalism characterises public corporations in countries with high-powered corporate owners and workers, and high barriers to entry, as opposed to disarmed capitalism, which is associated with low power of such actors and low entry barriers. His analysis concludes there is no 'one-size-fits-all' answer. Where large public corporations compete in financial capital, labour and product markets, there is room for prosocial objectives to be pursued provided this is the preference of the different actors (investors, managers, etc.) with influence on outcomes. In turn, in 'Corporate Governance and Antitrust: Lessons from Japanese Occupation Policy', *J. Mark Ramseyer* invites us on a historical journey in the post-Second World War period in Japan, to show that corporate governance and competition objectives may sometimes be wrongly confused. Providing very informative contextual insights into family-owned enterprises, such as Mitsui, or specific corporate forms prevalent in Japan, including zaibatsu and keiretsu, he explains how the dissolution of diversified conglomerates and the banning of holding companies, for fear they exploited consumers, have had detrimental effects on corporate governance, and on the Japanese economy. A forceful illustration that although there are meaningful connections between corporate governance and competitive outcomes, rarely, it is argued, are those connections determinate.

Shifting to discussions on the ends of competition law, in 'Markets, Competition, and Fairness', *Eliana Garcés* and *Giuseppe Colangelo* explain that fairness is increasingly invoked as one of the goals of competition policy and is central in recent EU regulations in

the digital space. While it has so far been anchored in an economic perspective, fairness now has the potential to drive EU competition policy towards more vigorous protection of equal opportunities in the competitive process, and of fair outcomes, away from well-defined and economic-rooted forms of abuses. It remains to be seen from the future implementation of EU competition rules and digital regulations how far one may be willing to go to replace the market as the proper mechanism to allocate rents, even jointly created ones, or whether the 'fairness impetus' is a temporary and local phenomenon. To round off this part with another hot topic of current debate, in 'ESG: The Corporate and Antitrust Puzzle', *Marco Corradi* and *Julian Nowag* offer us a much-needed joint assessment of the incorporation of non-economic goals, more specifically ESG (environmental, social, and governance) considerations, into the realm of competition law and corporate law. Their chapter analyses how ESG concerns may impact each area of law separately, in particular the economic paradigms they lie on, and how changes in one area may affect the other. To preserve economic liberty and ensure policy effectiveness, they make the case for favouring softer and flexible regulatory approaches, and for the need of a coordinated approach to the integration of ESG policies into competition and corporate law.

II. THE FIRM AND ITS BOUNDARIES

The second part of the Handbook focuses on the entities subject to competition and corporate laws, that is, 'undertakings' under EU competition law and 'corporations' or companies in corporate law. The competition law definition of the firm and its boundaries, not only critically determines the scope of application of competition law rules, but it also has significant implications in terms of liability and fines within groups of economically affiliated but legally independent entities. Several contributors press the point that there is not one definition of the firm for all purposes; rather the boundaries of the firm may vary with the context. Although the single economic entity doctrine suggests that competition law is agnostic to the legal form of entities, it is further demonstrated that competition law is in many ways confronted with the legal formalism carried over by corporate law.

Stephen Daly and *Alison Jones*, in 'The Undertaking and Single Entity Doctrine in EU and UK Competition Law: Proposals for a Refined Approach', expound what an 'undertaking' is, its dissociation from legal personality, and the implications for the application of competition law, particularly to groups of companies. They explain that the 'single economic unit' approach to groups of legal or natural persons may create some difficulties and inconsistencies. The authors propose a refined approach that would entail, on the one hand, treating the economic unit and undertaking concepts as distinct and, on the other hand, embracing principles of UK company law. Although this would require a change of direction from that in recent EU case law, they note that such an approach could be followed more freely in the UK. Throwing further light on these issues, *Thomas K. Cheng* in 'The Single Economic Entity Doctrine' analyses how the single entity doctrine has expanded from being a shield, insulating intra-group activities from competition law scrutiny, to a sword, enabling the attribution of liability to other legal entities within a corporate group. The limitless and unprincipled expansion of the doctrine is said to be illustrated by certain of its applications to establish collective liability for members of a corporate group, including the *de facto* irrebuttable presumption of parental liability for competition law infringements of their wholly-owned subsidiaries and,

more contentiously, subsidiary liability for breaches of a parent or other sister companies. To counter this trend, it is argued that the application of the doctrine should be pinned to an explicit policy objective, with deterrence being the most fitting candidate. However, given the multiple purposes the doctrine serves, such as in the context of liability attribution and fine calculation, its differential and contextual application would be more appropriate in contrast to the EU Courts' current uniform approach.

Marcos Araujo Boyd, in turn, clarifies in 'Undertakings and Legal Entities as Addressees of Articles 101 and 102 TFEU' how legal formalism permeates the public and private enforcement of EU competition law. Despite the seeming centrality of economic units or 'undertakings' as the only subject of competition rules, the legal structure used by economic entities is legally relevant in several ways. For instance, statements of objections and decisions are addressed to entities with legal personality, not to undertakings. As a result, EU antitrust rules apply both to undertakings and legal entities. The author analyses possible tensions created by such 'dual attribution' model for public and private enforcement, and discusses the relevance of this duality in the field of public procurement. Next, in 'Enforcement of EU Competition Law Against Groups of Companies: The Calculation of Fines', *Carsten Koenig* reviews the role of the single economic unit doctrine in the calculation of antitrust fines, in the light of relevant decisions by the European Court of Justice. Although legal entities are addressees of prohibition decisions, the amount of the fine critically depends on whether the legal entity is part of an economic unit comprising other legal entities. Given the distinct function of the doctrine when calculating fines, as opposed to determining liability, different guiding principles are needed. The author then goes on to formulate such principles. A key takeaway is that to reflect the actual economic strength of the group and encourage specific deterrence, the European Commission should base the calculation of fines on the corporate group as it is at the time of the prohibition decision, whereas any structural changes in the group during or after the infringement should be disregarded.

Beyond structural and economic links between separate entities, competition law may draw the boundaries of the firm by reference to other kinds of ties. In 'Family Ties and the Boundaries of the Firm in Antitrust Law', *Mariana Pargendler*, *Maria Luiza Mesquita e Silva* and *Lucas Víspico* explore the extent to which non-economic ties, such as family links, have been used in antitrust enforcement against anticompetitive agreements and mergers. While such ties are typically used as a sword to expand merger review and facilitate proving collusion, there are also instances where they are used as a shield by invoking the single entity doctrine to exclude liability in bid-rigging offences. The authors point to the greater relevance of family ties in antitrust practice in the Global South, denoting a source of local variation in antitrust law enforcement, and bring to light a novel illustration of 'veil peeking' – or disregard of legal separateness – across natural persons mirroring its use in cases of legal persons linked by equity ties.

III. CORPORATE ORGANISATION AND EFFECTS ON COMPETITION

The third part of the Handbook discusses how recent evolutions in corporate organisation may give rise to new antitrust concerns or, vice versa, may require rethinking of old classifications. The increased role of institutional investors in corporate finance and governance has entered

the antitrust arena, with concerns that common ownership of competing firms by such investors may cause anticompetitive effects. Similarly, the practice of interlocking directorates, that is, companies sharing members of their board of directors, is now under the spotlight across jurisdictions. Finally, acquisition strategies within the tech and digital sector may have anticompetitive effects that fall short of competition law provisions. At the same time, novel and hybrid modes of economic organisation may deserve greater immunity from competition rules even when they do not fit the 'box' of legally privileged full integration.

In 'Common Ownership in Europe and the US: A Network Analysis Approach', *Nuria Boot*, *Albert Banal-Estañol* and *Jo Seldeslachts* offer useful empirical evidence on common ownership links among the largest firms in the two continents using measures based on individual and joint levels of ownership. Drawing on ownership patterns of the Top 50 firms in Europe's S&P 350 and the US's S&P 500 in 2004 and 2015, they analyse and compare the structure and characteristics of the common ownership networks among European and US firms separately, as well as links between European firms on the one hand and US firms on the other. A key finding is that the Top 50 European firms are generally less connected than the Top 50 US ones, through joint or individual ownership links at the 5% level, although the former have become more connected over time. The identity of common investors in European firms has also dramatically changed when one considers joint ownership links. More broadly, the evolution of the network structure critically depends on the level of ownership stake considered. In turn, this suggests that the effects of common ownership may hinge on the level of ownership and the potential individual or joint influence of common investors, and whether such links exist within or across sectors. Next, in 'Common Ownership: The Paradox in Japan's Corporate Governance', *Steven Van Uytsel* sheds light on the transformation of postwar corporate governance in Japan, and the transition from cross-shareholding between non-competing companies, characteristic of the keiretsu system, to a model based on the presence of institutional investors with common ownership of competing companies. What drove the dissolution of cross-shareholding was the objective of freeing Japanese managers from acting in the interests of cross-shareholders, which could mitigate their competitive orientation. Recent scholarship suggests, however, that the growing role of common ownership by institutional investors may produce an equivalent outcome. Ironically, law reforms that facilitated this change in Japan's shareholding structure could have substituted one problem with another. Verifying the existence of such a paradox demands further empirical study.

Turning to possible antitrust solutions, in 'Addressing Common Ownership Through Abuse of Collective Dominance', *Giorgio Monti* discusses under what circumstances the EU competition law concept of abuse of collective dominance may capture the anticompetitive effects of common ownership. When common shareholding gives rise to sufficient economic links among all firms in a concentrated industry and common shareholders have the ability to influence their decisions, a position of collective dominance may be established, he argues. However, identifying abuse of such a position, as well as an effective remedy, is more challenging. While certain actions by common investors seeking to influence the conduct of directors on the market may constitute abusive conduct, higher prices resulting from common ownership because the mere presence of common investors affects director incentives may not, in themselves, constitute an abuse. In conclusion, although ex ante merger control could be apt to tackle harmful effects resulting from such structural economic incentives, the application of Article 102 TFEU ex post is limited and cannot offer a systematic response to all forms of anticompetitive common shareholding.

The focus then shifts to another currently hot topic dividing corporate governance and antitrust experts. In 'Interlocking Directorates in the United States', *Yaron Nili* discusses the prevalence and policy implications of 'horizontal directors' – directors serving on multiple corporate boards within the same industry – in the US context. Long regulated under Section 8 of the Clayton Act, the issue has lately received increased attention from US antitrust authorities. In parallel to recent debates on common ownership, horizontal directors stand uniquely at the intersection of corporate governance and antitrust law: they can improve corporate governance and benefit shareholders but at the same time, they create competition risks and may harm consumers. The grey regulatory environment in which they operate underscores the tension between antitrust laws and corporate governance. This, in turn, calls for re-evaluation of the current regulatory framework governing horizontal directors with a view to maximise their benefits and minimise risks. Further on the same theme, in 'Interlocking Directorships: Evidence from a Natural Experiment by Israeli Competition Law', *Moran Ofir* and *Anat Alon-Beck* empirically examine the effect of law reforms targeting pyramid-structured corporations and specifically provisions regulating the composition of their board of directors on the level and intensity of interlocking directorates in Israel. Using data on large Israeli public corporations before and after the regulatory changes, the authors demonstrate that as a result of the reform, boards generally have fewer directors and each director holds fewer board seats on average. The level of connectivity of board interlocks within such corporations has also decreased. Overall, it is shown that firms in the market reacted in accordance with the legal requirements, reducing board interlock connectivity, although the intensity of the decline was lower than what would be expected under full compliance with the minimal standard set by the reform.

Other situations where competition law may have been under- or over-inclusive by focusing more on form over substance are explored next. In '"Killer Acquisitions" or "Killing Innovation": Antitrust Implications of the New Wave of Tech Acquisitions and the New European and Italian Regimes for Below-Threshold Mergers', *Valeria Falce* and *Nicola M. F. Faraone* discuss the suitability of merger control regimes in the EU and in Italy to tackle potential anticompetitive effects of acquisition strategies in innovative sectors, in particular start-up acquisitions by large incumbent firms that are also called 'killer acquisitions'. Such transactions typically escaped scrutiny under both regimes as they had been limited by turnover thresholds. Recent changes aimed at addressing this 'enforcement gap' empower EU and Italian competition authorities to review or call in below-threshold mergers, even when already completed, under certain circumstances. Contrary to previous policy and practice, these reforms show a reorientation towards flexibility and discretion over certainty and ex-ante review. Caution is advocated, however, in balancing intervention under these expanded merger control powers and protecting legitimate expansion and innovation strategies by digital players. In 'Antitrust in an Age of New Modes of Economic Organization', *Teodora Groza* challenges whether the antitrust conception of the firm, that determines the scope of the antitrust prohibition of coordinated action, is well-suited to innovative modes of organisation. Taking innovation networks and decentralised autonomous organisations ('DAOS') as examples, she argues that hybrid organisational forms can equally produce efficiency gains even if they do not fit antitrust's vision of the large, vertically integrated, managerially-directed firm. The suggestion then is to liberalise antitrust frameworks to accommodate collaboration under such hybrid organisational forms. Two approaches are put forward: either an 'unorthodox'

expansion of the antitrust concept of the firm, or recognising them as organisational alternatives to firms that could be permitted subject to ex-ante approval akin to merger control.

IV. CORPORATE GOVERNANCE AND ANTITRUST COMPLIANCE AND ENFORCEMENT

Drawing attention within the boundaries of the firm, the fourth part of the Handbook discusses some of the most pressing issues in competition law enforcement, through the lens of businesses and mechanisms internal to the corporation. The analysis delves into the internal drivers of compliance, or non-compliance with competition law, and discuss both challenges and opportunities for compliance induced by recent policy and technological evolutions. Antitrust compliance and sanctions are evaluated in conjunction with governance mechanisms available under corporate law. The interplay of external and internal sanctions may influence their effectiveness and affect the goals of competition law enforcement and corporate governance. Although across jurisdictions antitrust sanctions are typically imposed on business organisations, liability may be extended to or shifted among corporate actors within such organisations. In light of the deterrence objective of antitrust sanctions, it is debated the extent to which there may or should be greater liability of managers, through various mechanisms (derivative actions, individual sanctions, etc.), and more broadly, any liability shifting within corporations and corporate groups.

In 'When Bad Things Happen in Good Business: The Need for Compliance Focused Antitrust Enforcement', *Andreas Stephan* makes the case for competition agencies to take compliance seriously. Although businesses already do so, competition law, especially in the EU, insists on considering compliance an entirely internal matter: all law infringements are the product of failed compliance. As he explains, this view rests on false premises. Although corporate compliance programmes are potent tools to deter or detect competition law violations, and thus reduce antitrust risk, they cannot eliminate it completely. Despite 'good' compliance, businesses may find it difficult to effectively educate, control or discipline all employees. In addition, considerable uncertainty as to how competition rules will apply – especially in novel situations or in the context of effects-based rules – makes it difficult for businesses to distinguish legal from illegal behaviour. Against this backdrop, the author advocates for a more proportionate and 'compliance focused' approach to competition law enforcement that rewards good compliance, takes into account genuine uncertainty and reserves the heaviest fines for the most serious violations where the need for deterrence is strongest. In turn, in 'Antitrust and Regulatory Compliance in the 21st Century: New Challenges, New Opportunities and the Role of AI', *Rosa M. Abrantes-Metz* and *Albert D. Metz* present new opportunities for corporate compliance in light of recent technological advances. Increasing regulation and antitrust enforcement, especially in the tech industry, may create complexity for businesses but also add demand for cutting-edge compliance systems. Moreover, recent changes in US antitrust policy with the issuance of the sentencing guidelines may incentivise the internal adoption of compliance measures. New technologies and tools empowered by the use of artificial intelligence (AI) and based on data and automation may well cater to increasing regulatory demands and offer novel, targeted, more objective and more cost-effective mechanisms to firms both for detecting and deterring breaches of antitrust law. As an early sign of success, competition authorities around the world have started adopting these tools. Yet, for all the promise and

efficiencies AI-enhanced compliance programmes may bring, human input and expertise are critical to make the best of their use.

Empirical evidence is presented then to throw new light on the potential contribution of corporate governance to antitrust enforcement, and conversely, the impact of antitrust sanctions on corporate governance. In 'The Effect of Corporate Board Gender Diversity on Compliance with EU Competition Law', *Amber Scheepers* explores the relationship between board gender diversity and competition law compliance. Based on a sample composed of DAX30 companies in Germany and a natural experiment design, she finds that greater representation of women on corporate boards decreases the likelihood of being subject to competition law fines. As the first empirical study to provide evidence of such positive relationship, it has important implications. It suggests that greater diversity may improve the quality of corporate decision making and be a driver of compliance. As such, it provides incentives to businesses and a guide to policymakers on diversity targets. Next, in 'CEO Turnover and Shareholder Awareness in Cartel Cases', *Catarina Marvão* and *Giancarlo Spagnolo* examine the relationship between antitrust enforcement and corporate governance, finding corporate governance mechanisms that operate in the shadow of enforcement inadequate to prevent competition law infringements. Based on data on detected EU and US cartels and an analysis of career paths of colluding CEOs, they show that only rarely are CEOs involved in cartels fired (especially in the EU, less so in the US), and quite often they may remain in positions of authority within the organisation. Evidence on shareholders' awareness further suggests that internal mechanisms of detection and control typically fail to prevent managers from colluding. Overall, antitrust enforcement is found to be suboptimal, and expected sanctions, especially in the EU, may be too low to deter cartels by setting in motion changes in corporate governance. Therefore, the need arises for policy reforms to strengthen the deterrent effect of antitrust intervention.

Further on the interplay of corporate governance and antitrust sanctions, in 'Managerial Liability, Managerial Duties, And Liability Within Corporate Groups: Optimal Competition Law Sanctions by Rearranging the Deckchairs Within the Undertaking?', *Florian Wagner-von Papp* analyses the incentive effects of competition law sanctions targeting the infringing 'undertaking' when these may trigger internally (breach of) managerial duties or a shifting of liability within the undertaking, be it to its managers or to other corporate entities within a corporate group. His analysis focuses on managerial liability for antitrust violations of the undertaking, liability for failure of internal compliance schemes, intra-corporate group liability of an affiliated company for violations of another, and their desirability from the perspective of the public interest and optimal antitrust enforcement. Discussing several cases where undertakings seek to recoup corporate fines from managers, the author argues against such indemnification actions that enable the fine to be shifted to directors and officers (D&O) liability insurance, limiting its effectiveness. As the existence and operation of effective compliance schemes are predicated on balancing of the private interests of the company, they do not justify an additional ex post bonus when setting corporate fines. Rather, their benefit consists in endogenously reducing the expected value of the fine, and a strict liability approach to compliance failure is more suitable. In turn, within corporate groups, the extension of antitrust liability to parent companies and occasionally to subsidiaries based on the single economic entity doctrine is justified to restore the principle of responsibility, often constrained by corporate law's limited liability. Coming to a close, in 'Management Liability for Companies' Antitrust Fines', *Jens-Uwe Franck* and *Till Seyer* develop a contrasting view on attempts by undertakings and their shareholders to shift liability to managers for antitrust fines imposed

on the company. Taking as a starting point court cases from the Netherlands, the UK and Germany that for the most part have denied such recourse claims, taking the view that it would undermine the deterrence objective of antitrust fines, they analyse whether managerial recourse liability under national (company) law should be banned or limited to preserve the effectiveness of EU (antitrust) law. Although it is acknowledged that a shift in liability may reduce the deterrent effect of fines on companies and shareholders, especially given the availability and deficiencies of D&O insurance, it provides shareholders with an indispensable governance tool to effectively address agency problems within the company and ensure managers' antitrust compliance. Besides, recourse claims may add a complementary deterrence mechanism against managers that compensates for potential shareholder under-deterrence. Thus, the overall effect on deterring antitrust violations may be positive. On the other hand, the threat of recourse liability may create risks of over-deterrence of managers, but those too may be mitigated by counterbalancing forces. Taken altogether, it is concluded that antitrust fining policy cannot command a restriction on managerial liability.

A heartfelt thank you to all the amazing contributors and our readers! This mission is now complete, and it is time for sharing the joy together with the results. We hope you enjoy delving into the Handbook and the individual chapters as much as we do.