Preface

The digital economy is gradually gaining traction. A broad variety of technological developments, including the introduction of Internet of Things, Artificial Intelligence and markets for data play a role. What makes the Digital Economy different from the Old Economy or, even, from other developments of the New Economy and what are the implications for the application of competition rules? How does competition law interact with other legal regimes, like data protection/privacy rules, unfair trading laws and sector-specific regulatory regimes? Approaching the subject from multiple angles and disciplines, the different chapters in this volume reflect systematically and critically on these questions, including issues like market power, artificial intelligence, competition by design, geoblocking, e-payment systems, the sharing economy, the increasing role of data (Big Data, Open Data, data mining etc.) and the like.

Part I, entitled ‘General Perspectives on Competition Policy and the Application of Traditional Tools for the Digital Economy’ focuses on the general frame for where competition will be played out in the Digital Economy. Chapter one by Björn Lundqvist addresses the general structure by discussing what role Competition Law should play in the Digital Economy. He dissects the platforms by following information, i.e. ‘the data’ from its sources, to users and re-users and ultimately to its consumers in reference to platforms and with special focus on when competition law may be useful for accessing data. The chapter concludes that general competition law may not be readily available for accessing generic (personal or non-personal) data, except for the situation where the data-set is unique to access an industry or a relevant market; while sector specific regulations seem to emerge as a tool for accessing data held by platforms and competitors. The author nonetheless purports that the main issue under general competition law for the Data Economy, at its current stage of development, is to create access and, hence, to facilitate the implementation of Internet of Things.

Subsequent chapters within Part I revolve around market power, artificial intelligence and competition by design. In chapter two, Hedwig Schmidt reviews the concept of ‘dominance’ as a legal concept under the current EU competition law rules regarding unilateral conduct in the digital world. She does so in relation to five key characteristics of the digital economy: 1) multi-sided markets, 2) network effects, 3) in and for market competition, 4) market shares, and 5) time scale to assess whether the current legal definition

of market power is sufficiently able to challenge and handle the effects that the Digital Economy is having on markets, and to ensure that the Digital Economy markets will remain competitive.

Robin C. Feldman and Nick Thieme discuss competition at the dawn of Artificial Intelligence in chapter three. At the heart of their chapter lies the question of how to manage forms of invention in which a computer participates, or even dominates, the inventive process. Along the continuum of protectable inventions, where does artificial intelligence lie, and what might be the optimal competitive policies? In chapter four, by Simonetta Vezzoso, follow-up by discussing ‘competition by design’ against the backdrop of increasingly algorithm-based markets. Vezzoso aims to explore the potential for effective competition policy of the notion of ‘competition by design’, as broadly derived from the related concept of ‘data protection by design’, which is enshrined in the EU General Data Protection Regulation.

Part II, entitled ‘Conduct that Violates Antitrust and the Interface between Data Protection Rules, other Sector Specific Rules, and Competition Law’ complements Part I in exploring the interface between competition law violations and sector specific rules, with two chapters dealing with how privacy should be taken into consideration under competition law. In essence, issues like, should abusive behaviour be judged differently in the Digital Economy? Will there be new forms of abusive behaviour, or should established doctrines (only) be applied differently? What should be the relationship between data protection rules, or other sector/industry specific rules, and competition law? Should general competition law be granted primacy in certain situations? Or, should there be correlations between general competition law and industry or sector specific regulations? In chapter five, Samson Y. Esayas starts to explore these issues by discussing an emerging approach, shared both by the European Commission (EC) and the US Federal Trade Commission (FTC), to factor in privacy-as-a-quality (non-price) competition parameter. This approach treats privacy as a quality component of the product or service offered to consumers and privacy harms as reductions in the quality of the product or service that needs to be accounted for in the competition analysis. According to the author, despite the emerging consensus on how to incorporate privacy into a competition analysis, there is much uncertainty and scepticism on what constitutes reduction in privacy, the incentive to reduce privacy and the ultimate anti-competitive effect of such a reduction. In chapter six, Elias Deutscher complements Esayas’ chapter and highlights that while competition authorities increasingly account for the role of personal data as a source of market power and entry barriers, privacy-related consumer harm still remains a blind spot at least in merger analysis. The author maps out three potential theories of privacy-related consumer harm: namely, privacy as an element of product quality, privacy as a feature of consumer choice, and privacy as non-monetary

price. He then proposes that willingness-to-pay studies in the form of conjoint analysis as a methodology that enables competition authorities to quantify privacy-related consumer harm in monetary terms could be an avenue to pursue.

Juha Vesala, in chapter seven successfully dissects part of the interface between sector specific regulation and competition law. As part of the EU Digital Single Market agenda, the European Commission has pursued legislation that seeks to promote cross-border supply of goods and services taking place online within the European Union. These include a regulation that prohibits discrimination against end-customers on location-based factors, i.e. geo-blocking, a regulation that ensures access to online content services during temporary residence in other EU countries and a regulation that would enable broadcasters to provide ancillary online services in other EU Member States without infringing copyright. These regulations cover practices by undertakings that are already addressed in EU competition rules. In particular, both these regulations and competition rules address territorial restraints and differentiation in distribution of products. However, the rules extend further than the competition rules, and thus complement EU competition law in regulating online distribution. For example, the proposed geo-blocking regulation would preclude refusals to deal as well as price discrimination and passive sales restraints in some situations where they are permitted under EU competition law. The author, however, concludes that the partly stricter sector-specific rules are seldom applicable, and a serious issue is whether they succeed in attaining their objective – namely to create competition on an integrated, EU-wide market for the online economy.

Steven Van Uytsel and Yoshiteru Uemura discuss, in chapter eight, the Japanese efforts to address selected issues of competition in the Digital Economy. The chapter argues that the few interventions by the Japanese Competition Authority, giving the *DeNA* case as an example, were conducted in markets that still were in full expansion, and that such interventions have been made possible due to the conceptualization of Japan's competition law. Japan has a dual structure to declare conduct unlawful. Anticompetitive restraints of trade (horizontal agreements) and private monopolization (unilateral exclusionary conduct) is dealt with in Article 3 of the Japanese Competition Law, while Article 19 of the Japanese Competition Law, prohibiting unfair trade practices, focuses at the lawfulness of vertical agreements and unilateral exclusionary conduct. The difference between these two articles is that the latter applies only to conduct that intends to impede competition, while Article 19 applies also to unfair competition practices. The authors argue that, if proactive competition law enforcement is the preferred choice of the Japanese legislator, the scholarly calls for abolishing Article 19 AML has to be disregarded.

In the next chapter, Konstantina Bania, follows-up on this issue and discusses the EU Commission *Google Shopping* case. She argues that the *Google shopping* case deviates from past decisional practice of the EU Commission, suggesting a paradigm shift. Far from price-driven, this decision places weight on parameters such as the non-monetary data-driven transactions between a search engine and its users, the relevance of search results, and the role of internet traffic in developing new services. Indeed, possible fairness consideration can be detected?

Part III, entitled ‘Remedies to be imposed in case of restriction on digital markets’ finalise the book with chapters ten and eleven, where Katharina Voss and Stavros Makris, respectively, examine the potential for commitments-centred antitrust intervention in the Digital Economy. Interestingly, they both see the benefits and draw backs of settlements and decisions to accept commitments, while acknowledging that commitment-centred antitrust resolutions perhaps is the only remedy system quick enough to deal with the fast moving Digital Economy.

The different chapters aim to offer a grand overview on a variety of ‘hot’ competition law issues currently being discussed, and they also, simultaneously, harbour a hope, to stimulate debates on how the legal framework can be adapted or improved to be important also in the future economy.

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