A R T I C L E S

The challenges for private competition law enforcement concerning anticompetitive conducts in digital markets

by

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Abstract

The paper reviews literature on theories of harm in digital markets, and the specific difficulties in quantifying the damage in private enforcement of competition law. The development of a tentative case-law on private enforcement in digital markets in the European Union is studied next, in comparison to the US antitrust practice, differentiating between businesses or consumers filing damages claims. Finally, the paper raises the specific issues posed by the digital economy for competition law claims for damages, and explores the idea of extending the presumption of harm also to abuse of dominance in digital markets, as well as making private parties aware of cease and desist injunctions or filing for private enforcement remedies

Résumé

L'article examine la littérature sur les théories du préjudice dans les marchés numériques ainsi que les difficultés spécifiques liées à la quantification du dommage dans le cadre d'une action en dommage concurrentiel. Ensuite, le développement timide d'une jurisprudence des actions privées sur les marchés numériques dans l'Union Européenne est étudié en comparaison avec la pratique antitrust américaine, en faisant la distinction entre les plaintes introduites par des entreprises ou des consommateurs. Enfin, le document soulève les problématiques spécifiques à l'introduction d'actions en dommages et intérêts concurrentiels sur les marchés numériques, et explore les propositions suivantes : étendre la présomption du dommage aux abus de positions dominantes sur les marchés numériques, inciter les parties privées à requérir des injonctions et encourager la mise en œuvre de remèdes dans le cadre d'actions privées.

Key words: Competition law; private enforcement; damages; digital markets; presumption of harm; remedies.

JEL: K21, K42

I. Introduction

As for any legal area, assuming the rationality of criminals, an enforcement system is only a deterrent when the risk of being sanctioned is higher than the expected utility of infringing the law.¹ There is some literature on designing optimal enforcement systems, with both public and private enforcement,

¹ Gary S. Becker, 'Crime And Punishment: An Economic Approach' (1968) 76 Journal of Political Economy 13–68.

though less related to European competition law,² where the debate was on 'over' vs. 'under' enforcement of competition law³. Public and private enforcement of competition law differ by their objectives, means and methods. Public enforcers aim to maximize total welfare, recognize global damage, and consider the potential effects of the infringement in computing the fine. By contrast, the goal of private enforcement is to compensate for individual damage, that is, to make up for a real and individual effect of the infringement. If public enforcers pursue a deterrence goal, private parties do not integrate the objective of deterrence in their choice to start, or not a damages action – they are only motivated by the compensation of their own harm. This does not mean that private enforcement does not have a deterrent effect; on the contrary, it participates in an overall deterrence system. However, the deterrent effect is *ex post*, unless private parties purposely decide to claim for damages based on a perceived injustice.

Directive 2014/104/EU (hereinafter: Damages Directive) sets a framework for damages that compensate breaches of Articles 101 and 102 of the TFEU as 'one element of an effective system of private enforcement of infringements of competition law.'4

In December 2020, the European Commission published a working document on the implementation of the Damages Directive,⁵ drawing attention to the first findings of its impact. Among them, the working document highlighted an increase in the number of cases related to cartel infringements. Actions for damages are indeed more frequently observed and studied in the framework of cartel infringements⁶, with an under-representation of private enforcement when it comes to an abuse of a dominance position. The aforementioned study took into account 239 cases, 57% of those followed a decision of a Competition Authority and 40% a decision from the Commission. Quoting it, stand-alone

² A. Mitchell Polinsky, 'Private Versus Public Enforcement Of Fines' (1980) 9 The Journal of Legal Studies 105–127.

³ Emmanuel Combe and Constance Monnier, 'Fines Against Hard Core Cartels In Europe: The Myth Of Overenforcement' (2011) 56 The Antitrust Bulletin; Marcel Boyer and others, 'The Determination Of Optimal Fines In Cartel Cases: The Myth Of Underdeterrence' [2011] SSRN Electronic Journal.

⁴ Directive 2014/104/EU of the European Parliament and of the Council of 26 November 2014 on certain rules governing actions for damages under national law for infringements of the competition law provisions of the Member States and of the European Union (Damages Directive) [2014] OJ L 349/1, recital (5).

⁵ EU Commission, SWD (2020) 338 final, on the implementation of Directive 2014/104/EU of the European Parliament and of the Council of 26 November 2014 on certain rules governing actions for damages under national law for infringements of the competition law provisions of the Member States and of the European Union [2020].

⁶ Jean-François Laborde, 'Cartel damages actions in Europe: How courts have assessed cartel overcharges (2019 ed.)', (2019), Concurrences.

private enforcement, that is, damages claims not following a decision from a Competition Authority, hardly exist. This lack of private enforcement cases in terms of abuse of dominance might be explained by several factors. The relative success of private enforcement concerning cartels might be traced back to the fact that cartel damages are partially favoured by the presumption, contained in Article 17 of the Damages Directive, that cartel infringements cause harm.

Keeping in mind that damages actions are still under-represented in relation to abuse of dominance, how should the characteristics of digital markets be approached to incentivize businesses and consumers to file private damages actions in digital markets?

Jullien and Sand-Zantman question whether platform competition leads to monopolization. The authors focus on demand-driven network effects, as the most striking aspect of digital markets, favouring large firms. Each platform has incentives to reach a critical mass, for which they need to attract more buyers in order to be attractive to the sellers' side. These incentives result in very concentrated markets, with a few big players holding significant market power, increasing the risk of anticompetitive conducts taking the form of an abuse of dominance.

Therefore, it is relevant to look at the business models of the players in digital markets, how they make profits and what incentivises them, to then link their incentives to the potentiality of an anticompetitive conduct, or rather, to the theories of harm affecting private parties.

Theories of harm are as varied as the business models of online platforms, and the severity of the damage differs and depends on the place of the private parties inside the ecosystem of the platform. Moreover, when considering all the users and trading partners in digital markets, one can expect that damages tend to be diffused. Taking the example of 'attention brokers', where an online platform is defined by the ability to obtain information about the individual preferences of their users, and to then target advertisements displayed on their

⁷ Bruno Jullien and Wilfried Sand-Zantman, 'The Economics Of Platforms: A Theory Guide For Competition Policy' (2021) 54 Information Economics and Policy.

⁸ There is also a more than ever growing literature on the risks of algorithmic collusion, both its legal and economic challenges and the theoretical possibility to detect these cartels with algorithmic evidence. *Inter alia*: Ariel Ezrachi, Maurice E. Stucke. 'Artificial intelligence & collusion: When computers inhibit competition' (2017) U. Ill. L. Rev. 1775–1810; Ulrich Schwalbe, 'Algorithms, machine learning, and collusion' (2018) 14 Journal of Competition Law & Economics 568–607; Axel Gautier, Ashwin Ittoo, Pieter Van Cleynenbreugel, 'AI algorithms, price discrimination and collusion: a technological, economic and legal perspective' (2020) 50 European Journal of Law and Economics 405–435; Nathalie de Marcellis-Warin, Frédéric Marty and Thierry Warin, 'Vers Un Virage Algorithmique De La Lutte Anticartels?' [2021] Éthique publique. However, this paper focuses on abuse of dominance in digital markets.

platform, this business model may lead to abuse by way of exploitation with an excessive data collection on the consumers' side. Loss of quality, loss of chance, loss of innovation, self-preferencing, are examples of theories of harm in digital markets that could be considered.

We are then faced with the challenge of compensating hardly imputable, spread damages, causing harm to various types of private parties under different theories of harm, the quantification of which may require thinking outside the current legal toolbox.

Even when the fact was widely publicized that public enforcement authorities have sanctioned online platforms for various abuses, very few follow-on damages cases started later on; this may be surprising since private parties would have benefited from the establishment of the infringement by relevant authorities. ¹⁰

This paper aims to reflect on whether the digital economy adds extra challenges to private enforcement of competition law. First, the paper opens with a theoretical section reviewing theories of harm in digital markets. Second, the tentative private enforcement case-law in digital markets is discussed, categorized between damages actions filed by businesses or consumers. Finally, the paper lists (non-exhaustive) issues arising in the digital economy for private enforcement of competition law, and considers some proposals to tackle two specific problems: the characterization and the compensation of harm.

II. Theories of harm in digital markets

The definition of digital markets has been approached by academic literature, competition authorities and institutions with a list of common characteristics. As an example, the Crémer report¹¹ identifies some key characteristics of the digital economy including network externalities, extreme return to scale, and the role of data. These characteristics favour high market concentration levels that benefit a handful of players, so increasing the risk of abuse of dominance.

⁹ Andrea Prat and Tommaso Valletti, 'Attention Oligopoly' (2022) 14 American Economic Journal: Microeconomics 530–557.

¹⁰ As opposed to stand-alone actions; this also raises the question of the optimal sequentiality, are follow-on actions more efficient than stand-alone actions?

¹¹ Jacques Crémer, Yves-Alexandre de Montjoye and Heike Schweitzer 'Competition Policy for the digital era' (2019) EU Commission.

The digitalisation of the economy makes it impossible to reach a one-definition-fits-all. On the contrary, it seems that the understanding of digital markets is only possible with the recognition of the heterogeneity of the players.

For this reason, Caffarra proposes to 'follow the money', meaning starting from the business models of the platforms or aggregators, to map resulting competitive issues. 12 This idea of 'framing' business models in the digital economy was researched by Brousseau and Pénard in 2007.¹³ The authors define a digital business model by a combination of three roles played by platforms, which can be either: a pure market intermediary, a pure assembler, a pure knowledge manager. In actuality, it can also combine two or three of these identified roles. In 2017, Bock and Wiener conducted a review of literature on digital business models, with a sample of 56 studies from 25 journals and four conference proceedings. The aim of their review was to categorize digital business models.¹⁴ From their research, the authors identified five key dimensions: digital offering, digital experience, digital platforms, data analytics and digital pricing. Caffarra focuses on monetization strategies in digital markets which incentivises platforms. 15 She relies on the distinction between platforms and aggregators, as well as lists what incentives play a role in advertising-funded and platform models. The author then argues that all the competitive issues raised can be tackled with existing theories of harm, such as foreclosure, exploitation, misinformation and self-preferencing.

A document issued in 2020 by the OECD also reviews types of abuses of dominance in the digital market¹⁶, from the observed conduct to the matching theory of harm. This report linked traditional theories of harms to seven specific anticompetitive conducts or market outcomes observed in digital markets. Identified among those are, for example, a dominant, vertically integrated entity charging its downstream rivals higher prices, or offering them less advantageous contractual terms or lower quality of services, which can all be analysed under the margin squeeze theory of harm. In the end, the report relies on several well known theories of harm in antitrust case-law: refusal to deal, exclusive dealing, loyalty rebates, bundling or tying, and predatory pricing. To this list, one could also add the difficult case of

¹² Cristina Caffarra, "Follow the Money" – Mapping issues with digital platforms into actionable theories of harm' (2019) e-Competitions Platforms.

¹³ Eric Brousseau and Thierry Penard, 'The Economics Of Digital Business Models: A Framework For Analyzing The Economics Of Platforms' (2007) 6 Review of Network Economics.

¹⁴ Maximilian Bock and Martin Wiener, 'Towards a Taxonomy of Digital Business Models-Conceptual Dimensions and Empirical Illustrations.' (2017).

¹⁵ Caffarra (n 12).

¹⁶ OECD, 'Abuse of dominance in digital markets' (2020).

a competitor or complementor being 'eliminated' even before entering the market (which would be analysed as 'a loss of chance' for quantification purposes).

Specifically with respect to exploitative abuses, where there is less case-law, Botta and Wiedmann analyse in depth three categories of exploitative abuses committed by dominant platforms that have the potential to directly harm consumers: excessing pricing (taking the form of an excessive data collection), discriminatory pricing facilitated via algorithms, and unfair trading conditions where data protection terms and privacy policies could be seen as unfair from a competition law standpoint.¹⁷ Additionally, Bougette, Budzinski and Marty propose to address the self-preferencing theory of harm, as an exploitative abuse, where marketplace providers have the ability to engage in self-preferencing strategies, and where they experience incentives to profitably employ self-preferencing.¹⁸

However, if anticompetitive behaviours in digital markets can be approached with traditional theories of harm, there is one significant difference between public and private enforcement once the infringement is established, namely that damages actions aim to compensate for individual harm which must first be quantified – and that can be particularly difficult in digital markets.

The Practical Guide (hereinafter: Guide) on the quantification of harm in damages action published in 2013 by the EU Commission¹⁹ distinguishes two broad categories of harmful effects following infringements of Article 101 or 102 TFEU: an increase in the price paid by customers of the infringing undertakings (an overcharge), and exclusion from the market or reduction of market shares by other market players. The Guide does not aim to exhaustively cover all possible theories of harm, and their quantification, but rather to offer some guidance on the two categories raised above. Nonetheless, the Guide confirms the flexibility of the Damages Directive with respect to the various theories of harm, confirming that infringements to Article 101 and 102 TFEU may result in 'further harmful effects, for example adverse impacts on product quality and innovation'.

¹⁷ Marco Botta and Klaus Wiedemann, 'Exploitative conducts in digital markets: Time for a discussion after the Facebook Decision' (2019) Journal of European Competition Law & Practice (2019) 465.

¹⁸ Patrice Bougette, Oliver Budzinski and Frédéric Marty, 'Self-Preferencing And Competitive Damages: A Focus On Exploitative Abuses' (2022) 67 The Antitrust Bulletin 190–207.

¹⁹ EU Commission, SWD(2013) 205, Practical guide quantifying harm in actions for damages based on breaches of article 101 and 102 of the Treaty of the functioning of the European Union [2013].

Private enforcement of competition law in digital markets raises broader issues too. Looking at transatlantic literature, Newman (2016) stresses the increasing complexity of proofs needed by customers seeking damages for 'attentional' or 'informational' overcharges. While reviewing several approaches to the quantification of damages in zero-priced markets, only the stated 'preferences approach' (and its limits) seems transposable to EU practice. The author, quoted by the OECD in its 2018 publication on quality considerations in digital zero-price markets²⁰, insists on the importance of public enforcement in these markets, to deter anticompetitive conduct, because of the difficulties in proving damages in cases involving zero-priced products.

To add to these hurdles, an infringement of competition law in a digital market has the potential to impact an entire ecosystem, from business partners, complementors, clients to consumers. Hence, market players face the risk of widespread damage that can be diffused but also future, as well as difficult to attribute and compensate. The damage would be 'future', if there are no remedies that can alter the behaviour of the digital entity; it would be 'difficult to attribute', if the technology is advanced or involves many intermediaries; and 'difficult to compensate', in the event of non-monetary damages. Furthermore, one could question the role of private enforcement in digital markets, if a player was to be excluded from the market and then compensated for such exclusion. Can damages enable harmed parties to 'return' to the situation that would have prevailed without the infringement, or are damages playing a role of 'distributive justice' only? Finally, an additional two-fold difficulty needs to be added. First, consumers are unaware of the business models of the online platforms they are using, and suffer from different cognitive biases that prevent them from even detecting the infringement²¹. By contrast, business partners and complementors may have spotted an infringement, but are exposed to a retaliation risk taking the form of their exclusion from the eco-system on a very concentrated market²². To sum up, business partners have the ability to detect damage, while the consumers have not, but at the same time, business partners have no incentives to bring a claim for damages.

²⁰ OECD, 'Quality considerations in the zero-price economy' (2018).

²¹ Pinar Akman, 'A Web of Paradoxes: Empirical Evidence on Online Platform Users and Implications for Competition and Regulation in Digital Markets' (2022) 16 Va L & Bus Rev 217–292; Alessandro Acquisti, 'The economics of personal data and the economics of privacy' (2010) OECD Working paper on the information economy.

²² Hence, the lack of private enforcement actions, but public enforcement launched following formal complaints by complementors and competitors (AT. 39740 *Google Shopping*; AT.40437 *App Store*).

III. Private competition law enforcement case-law in digital markets

Private parties can file a private enforcement action following an infringement to Article 101 or 102 TFEU, with the aim to be fully compensated for the damage they suffered from that infringement. Full compensation shall 'return' private parties to the situation that would have prevailed should the infringement have not occurred. An action for damages can either 'stand-alone', or 'follow-on' public enforcement that established and sanctioned the said infringement. Follow-on actions are reputed to be more attractive for private parties since the infringement has already been established by the 'public' hand.

Public enforcers, in particular the EU Commission, made the digital market one of their key enforcement priorities, leading to numerous heavy sanctions in this field. In some of these cases, formal complaints were submitted by competitors, raising the expectation of follow-on private enforcement. Then, one must ask, how could we explain the fact that there was, in practice, no 'boom' of private enforcement actions in digital markets? This suggests that there are no incentives for private parties to file an action for damages; or, should we blame it on unobserved data?

The following sub-section reviews the tentative antitrust enforcement caselaw in digital markets, subdividing the analysis between businesses making a claim for damages and consumers claiming for damages.

1. Businesses claiming damages following an anticompetitive conduct by a dominant platform

Businesses can claim competitive damages following an anticompetitive conduct of a dominant platform on different grounds – from exclusion, to dealing with unfair terms or competing on an adjacent market. The following section reviews the theories of harm raised in the latest private enforcement case-law in digital markets.

US antitrust practice, which is more litigation based then in Europe, tackled damages actions in the digital sector. In May 2019, the US Supreme Court, in the *Apple vs. Pepper* case, ruled that iPhone users could file a claim for overcharges as direct buyers, and that they have standing to file an action against the platform distributing their phones. The ruling clarified the Illinois Brick rule as regards to litigations in digital markets. In this case, iPhone users contested the monopolization by Apple of the after-market of iPhone software applications, allowing the dominant platform to charge a 30% fee to independent developers, eventually causing higher prices to consumers purchasing these apps. The *Amicus Curiae* by Alden F. Abbott

provides guidance on the application of the Illinois Brick rule by stating that Apple 'acts as an agent for the developers, completing sales on the developers' behalf at prices the developers set', Apple has then contractual relationships with both the developers and consumers²³. The key point of the Illinois Brick rule is that 'Section 4 cases should not conduct what this Court deemed to be unacceptably complicated inquiries about how to "apportion the recovery" among the various parties in the chain of distribution'. The *Apple vs. Pepper* case makes it clear that final consumers can seek damages whenever they are bound by a contract with the dominant platforms in digital markets.

Google and Facebook are also facing private enforcement actions for their anticompetitive practices in the US. In 2020, private publishers filed antitrust lawsuits against Google after experiencing decreases in their revenues. The publishers accused Google of making it impossible for them to make business deals with smaller advertisers, which compete with Google, because Google's position allows the platform to represent buyers and sellers, as well as controlling the exchange, by setting the auction and pricing rules. These antitrust allegations are also followed by complaints from the State Attorney General and the Justice Department. The proceedings are still ongoing with a trial date set for autumn 2023.

With a slight delay, and in spite of the forthcoming entry into force of the Digital Services Act and the Digital Markets Act that confirm EU public enforcement practice (since neither of these EU Regulations includes specific provisions encouraging actions for damages), the European Union may catch up to the US on private antitrust enforcement in digital markets.

The price parity clauses, which restrict sellers' ability to set prices in the market of online booking, led to several public antitrust enforcement interventions. Relating specifically to the Booking.com platform, the Competition Authorities of France²⁴, Sweden²⁵, Germany²⁶, Russia²⁷, Hong-Kong²⁸,

 $^{^{23}}$ Brief for the United States as Amicus Curia, Apple Inc. v Pepper, Alden F. Abbott, $n^{\circ}17-204$, [2018].

²⁴ European Competition Network Brief, 'The French Competition Authority accepts the commitments made by an online travel agency (Booking.com)' (2019) e-Competitions.

²⁵ Viktor Wahlqvist, 'The Swedish Competition Authority approves the voluntary commitments of an online hotel booking company subject to a *fine* (Booking.com)' (2015) e-Competitions.

²⁶ Andrzej Kmiecik and Laura Lehoczky-Deckers, 'The German Federal Court of Justice finds narrow price parity clauses anticompetitive (Booking.com)' (2021) e-Competitions.

²⁷ Russian Competition Authority, 'The Russian Competition Authority imposes a fine on an online travel agency for abuse of its dominant position (Booking.com)' (2021) e-Competitions.

²⁸ Hong Kong Competition Commission, 'The Hong Kong Competition Authority accepts voluntary commitments by three major online travel agents (Booking.com / Expedia / Trip.com)' (2020) e-Competitions.

and Czech Republic²⁹, to name but a few, opened public competition law enforcement proceedings against Booking.com's price parity clauses. In Germany, following a global debate on this anticompetitive issue, about 2000 hotels could have filed damages actions against the Booking.com platform's use of wide price parity clauses³⁰. Furthermore, the EU Court of Justice, in the context of a preliminary ruling, provided a clarification on actions for damages following anticompetitive behaviours of online booking platform. Following a request from the German Federal Court of Justice, the EU Court of Justice clarified jurisdiction rules related to actions for damages.³¹ To measure the impact of this ruling, we could quote the Hungarian Competition Authority, which titled its press release following this preliminary ruling: 'Amazon, Facebook, Google, Apple, Booking.com – domestic undertakings can also sue foreign "giants" in Hungarian courts.'³² The clarification of procedural rules relating to competition law actions for damages definitely acts in favour of private parties.

Recently, Google has been the target of damages actions following the *Google Shopping* case³³. In Italy, 7 Pixel, active in the Italian market for e-merchant product comparison services, submitted a request to the Court of Milan for 'preventive technical expertise', an amicable method of settling disputes, which is an alternative for an action for damages. 7 Pixel claims between 811 million and 906 million EUR of damages for the harm it suffered, which took the form of a decrease of the visibility of the website which 7 Pixel uses for its product comparison service. The request was rejected by the Court of Milan in January 2021, on the ground of Google's argument that the decision from the Commission was not final³⁴. These recent case law' developments remain to be monitored.

²⁹ Barbora Cejkova Vickers and Vojtech Chloupek, 'The Czech Competition Authority rejects the appeal brought by an online travel agency company and confirms the fine imposed for entering into prohibited vertical agreements (Booking.com)' (2019) e-Competitions.

³⁰ Klara Janiec, Sebastian Plötz and Sinziana Lanc, 'Germany's Federal Court of Justice on price parity clauses: rechtswidrig!', (Linking Competition Blog, 8 June 2021) < Germany's Federal Court of Justice on price parity clauses: rechtswidrig! | LinkingCompetition | Blog | Insights | Linklaters> accessed 8 May 2022.

³¹ Hannah Lesley, 'The EU Court of Justice clarifies the application of the special jurisdiction rules in the Brussels recast regulation regarding an action based on an abuse of dominant position (Wikingerhof / Booking.com)' (2020) e-Competitions.

³² Hungarian Competition Authority, Press release, 'Amazon, Facebook, Google, Booking. com – domestic undertakings can also sue foreign 'giants' in Hungarian courts', (2020) e-competitions.

³³ AT.39740 Google Shopping; Case T-612/17 Google and Alphabet v Commission (Google Shopping) ECLI:EU:T:2021:763.

³⁴ Silvia Pietrini, 'Italy: The Court of Milan rejects request for technical expertise to end competition dispute through conciliation (7 Pixel / Google)' (2021) Concurrences.

Even more recently, as a follow-on action to the same *Google Shopping* case, Price Runner (a price comparison service) commenced a private enforcement case against Google for 2.1 billion EUR at the Patent and Market Court in Stockholm³⁵, for diverting its traffic, and so profits, because of Google giving an unfair advantage to its own product comparison service. Price Runner published a press release containing two strong statements, first 'since the violation is still ongoing the amount of damages increases every day', and second, 'Price Runner [...] is expecting the process to take several years'. It is also interesting to note that the company's press release includes an estimation of the harm sustained by consumers, which would, according to Price Runner, account for an overcharge of 12–14% in the prices of the offers shown in Google's own shopping-comparison services.

In France, two additional damages cases targeted Google's practices. In *Google/Oxone*, a telephone services company alleged that Google illegally suspended its Ads account. Interestingly, this case is considered a 'standalone' action, where the claimant obtained 1.2 million EUR of damages from Google.³⁶ The platform announced that they will appeal the decision. In *Google/Leguide*, the Paris Court of Appeal focused on the question of jurisdiction in a follow-on damages claim also related to the *Google Shopping* case. The Paris Court of Appeal confirmed French jurisdiction over Google's liability for damages suffered by Leguide (price comparison engine editor).³⁷

2. Consumers of online platforms suffering from anticompetitive conducts

Competitors and sellers in digital markets are closely followed in these new developments by consumers.

The Portuguese consumer group 'Ius Omnibus' announced on the 22nd of March 2022 that they have submitted two actions for consumer compensation to the Portuguese Competition, Regulation and Supervision Authority. First, they claim that Portuguese consumers suffered from a passed-on 30% fee, set anticompetitively by Apple to app developers³⁸ (sounds familiar?). Second, consumers also faced a passed-on 30% commission set anticompetitively by

³⁵ Price Runner, Press release, (07 February 2022) 'PriceRunner sues Google for 2.1 billion', <PriceRunner sues Google for 2.1 billion euros>, accessed 08 May 2022.

³⁶ Michaël Cousin, 'The Paris Commercial Court imposes a €1.2 million fine on a Big Tech company for abuse of dominant position against a telephone directory services company (Oxone Technologies/Google)' (2021) e-Competitions.

³⁷ Rafael P. Amaro, Malik Idri and Bastien Thomas, 'Private Enforcement of Antitrust Law in France' (Apr. 2021 – Nov. 2021) (2022) Concurrences.

³⁸ Press release, Ius Omnibus, 'Popular action for the compensation of consumers following Apple's anticompetitive practices' (2022).

Google when entering into contracts with Android equipment manufacturers and app developers.³⁹ In both cases, Apple and Google, would have been able to set anticompetitive terms and conditions with the developers while their 'excessive value' was then passed on to consumers.

On another side of GAFAM (Google/Apple/Facebook/Amazon/Microsoft), a class action was filed in the US against Facebook in December 2020, following antitrust lawsuits brought by the FTC and 48 attorneys general. The class action seeks treble damages to compensate for Facebook's abuse of its dominant position, which allegedly allowed the company to implement dark patterns causing 'consumers to pay a higher price than they would freely choose' as well as allowing Facebook to 'sell its ads at higher prices than they would otherwise garner'.

In the UK, Dr Liza Lovdhal Gormsen made headlines when she announced the launch of an opt-out class action in January 2022 to the Competition Appeal Tribunal for a minimum of 2.2 million pounds directed against Meta. ⁴⁰ The class action is brought in order to compensate for Meta's exploitative abuse of imposing unfair trading practices and unfair prices to consumers. The Competition Appeal Tribunal, by an order dated 15 March 2022, allowed the class representative to file a case against Meta. ⁴¹ The stand-alone claim for damages may go forward.

Finally, we should not forget the unobserved data: how many private settlements have in actual fact been reached instead of engaging in judicial litigations? How many undertakings forced out of the market were in a situation where monetary compensation would not allow them to re-enter the market? How many consumers are unaware that they are being exploited in their use of platforms? How many undertakings, dependent on an ecosystem in a concentrated market, expect retaliation should they come forward with a competition law claim?

IV. Specific challenges raised by digital markets for businesses and consumers claiming damages

The issues raised by digital markets could be classified in three categories:

 Transversal issues when it comes to regulating digital markets, not specific to competition law nor to private enforcement – here one could

³⁹ Press release, Ius Omnibus, 'Popular action for the compensation of consumers following Google's anticompetitive practice' (2022).

⁴⁰ BBC News, 'Meta faces billion-pound class-action case' (2022).

⁴¹ Competition Appeal Tribunal *Dr Liza Lovdahl Gormsen v Meta Platforms, Inc. and Others* Case No: 1433/7/7/22, [2022].

think of the online architecture and exploitation of consumer's cognitive biases, which can impede consumers in detecting an infringement and so to file a claim for damages;

- Well-known gaps in the Damages Directive, which are not specific to digital markets, but where digital markets might pose an extra challenge, as an example, the fact that there is no harmonized class actions in the EU;
- And finally, the specific challenges raised by digital markets for businesses and consumers claiming damages following an abuse of dominance, which is the focus of the following section.

As a reminder, the two main specificities of private enforcement are that, one, private parties file a damages action only if they are incentivized to do so, and two, they claim for the full compensation of the harm they suffered following an anticompetitive conduct on the market. Then, could the characteristics of the digital economy be a challenge to the private enforcement of competition law?

When claiming damages, private parties must prove that an anticompetitive conduct existed/exists; establish the resulting harm; as well as the causal link between the harm and the anticompetitive conduct that resulted in a loss; and finally, they must quantify the specific damages they claim.

This section demonstrates that abuse of dominance in digital market adds extra challenges for private parties when it comes to characterizing and compensating the damages they sustained. Proposals on how to alleviate these extra hurdles are also provided.

1. Characterizing damages, should the presumption of harm caused by cartels be extended to abuse of dominance in digital markets?

Follow-on damages actions should be more attractive for private parties, with the infringement being established already. Indeed, Article 9 of the Damages Directive states that 'Member States shall ensure that an infringement of competition law found by a final decision of a national competition authority or by a review court is deemed to be irrefutably established for the purposes of an action for damages brought before their national courts under Article 101 or 102 TFEU or under national competition law.'

If the infringement is established beforehand, the claimant still needs to demonstrate that they suffered from a loss resulting from that anticompetitive infringement. To this aim, the Damages Directive provides in Article 17(2)) a rebuttable presumption of harm, that is, that cartel infringements cause harm. Although this presumption is under Article 17, which is related to the quantification of harm, per the Directive, cartel claimants still need to quantify

the harm; indeed, per recital 47, the 'presumption should not cover the concrete amount of harm'.

Importantly, the Damages Directive only sets a minimum level of protection against anticompetitive behaviours that cause harm to customers and consumers. Hence, some Member States decided to go further and to expand the presumption, either in relation to the amount of harm, or by making it applicable also to non-cartel anticompetitive conducts. Lena Hornkohl makes a comparative analysis of the different Member States' approaches. ⁴² The author differentiates between altering the definition of cartels; extending the presumption of harm to any violation of competition law (rather than just cartels); extending the cartel affectedness; or introducing a presumption relating to a concrete amount of harm.

While it is legally possible, why would we specifically need to extend this presumption of harm to also cover the abuse of dominance in digital markets?

To answer this question, let's take a step back and reflect on the reasons behind Article 17(2). The presumption of harm for cartels was introduced on two main grounds: the secret nature of cartels which increases the information asymmetry, and, per experience, cartels result in overcharges.

First, are not all anticompetitive conducts secret by default? This thought put aside, Cyril Ritter discusses four alternative, good reasons to apply such a presumption that include 'effectiveness'⁴³. This rationale is understood by the author as when 'there is a policy interest in increasing the effectiveness of enforcement, or strengthening the claimant's position', when, for example, there is an overly strong information asymmetry.

Recital 47 of the Damages Directive states that it is 'appropriate' to limit this presumption to cartels, 'given their secret nature, which increases the information asymmetry and makes it more difficult for claimants to obtain the evidence necessary to prove the harm.' Should the appropriateness of the limitation of the presumption be challenged now?

When it comes to abuse of dominance in digital markets, the information asymmetry is more than ever present. With consumers unaware of the business model of the platform they are using, consumers may be unaware of the harm caused to them when their cognitive biases are being exploited. Regarding the collection of evidence necessary to prove the harm, the length of the public enforcement cases in digital markets speaks volumes. The information asymmetry is even stronger in abuse cases in digital markets for consumers because they do not have the full understanding of the mechanisms behind

⁴² Lena Hornkohl, 'The presumption of harm in EU private enforcement of competition law – effectiveness vs overcompensation' (2021) 6 ECLIC 29–59.

⁴³ Cyril Ritter, 'Presumptions In EU Competition Law' (2018) 6 Journal of Antitrust Enforcement 198–212.

the 'price' they pay for the service they use or the goods they are purchasing. Whether consumers pay with their data, or their choice is being influenced by the online architecture of the platform, they cannot detect if the platform increased their data collected. Nor can they tell if they are paying a higher price on an online booking platform, because of the data collected by the platform on their behaviour, or, in fact, because they made the choice that the online architect led them to. The damages are less visible.

Secondly, the presumption of harm for cartels was introduced under the experience rules⁴⁴, following a study on cartels conducted by Connor and Lande, where they found overcharges in 93% of the cases in their sample.

As seen in the previous sections, companies operating in digital markets do not have a 'uniform' business model. When they engage in an anticompetitive conduct taking the form of an abuse of dominance, the resulting harm can take many shapes (loss of profits, loss of quality, exclusion from the market, decrease of innovation, loss of choice), potentially suffered by either or both businesses and consumers. It is then not possible to replicate the same study as the one provided by Connor and Lande for the Oxera report, which would identify the occurrence of a harmonized theory of harm that was an overcharge following cartels.

However, we could think of two proxy variables as indicators of whether abuse of dominance cases in digital markets do result in harming consumers or businesses namely, whether the public enforcement case was opened following a complaint⁴⁵ (as an indicator of a potential harm for businesses) and, for consumers, whether the decision from the Commission mentioned the occurrence of a harm specifically affecting consumers.

Schweitzer and Gutman provide an overview of case-law on unilateral practices in the digital sector⁴⁶, one of their sections focuses on the public enforcement at EU level, where they review 15 cases that were initiated, completed or partially completed. Among these 15 cases, which were already a very limited sample, there are only four decisions⁴⁷ and one statement of closure of the relevant proceedings⁴⁸. This can be explained by two reasons: the cases are very recent and take a very long time. Indeed, in this sample, the European Commission opened proceedings in 8 cases since 2019⁴⁹, without delivering a decision yet.

⁴⁴ Hornkohl (n 42).

⁴⁵ In this section, a complaint is understood as a formal or informal complaint brought to the attention of the EU Commission before the initiation of the proceedings.

⁴⁶ Heike Schweitzer and Frederik Gutmann, 'Unilateral Practices in the digital market: An overview of EU and national case law', (2021) e-Competitions.

⁴⁷ AT.39530 Microsoft; AT.39740 Google Search (Shopping); AT.40099 Google Android; AT.40411 Google Search (AdSense).

⁴⁸ AT.39154 *iTunes*.

⁴⁹ AT.40670; AT.40462; AT.40703; AT.40452; AT.40437; AT.40652; AT.40716; AT.40684.

The sample is too small to try to infer significant results from it, so the aim here is rather to tentatively hint at the following observations. First, in 6 cases the proceedings were opened following a complaint from a customer or a business partner⁵⁰, and there is no information on 7 cases⁵¹. Secondly, for the 4 decisions rendered by the Commission, there is either a section or several paragraphs in the commitment or prohibition decision specifying the potentiality of harm to consumers because of the anticompetitive conduct at stake.

Again, this analysis would need a larger and more comprehensive case sample. However, a certain trend can be observed in relation to complaints from customers or business partners, which makes sense since there are no incentives for them to file an extremely costly stand-alone damages action. Instead, they can provide valuable information to the Commission and, as seen before, we might then expect follow-on private enforcement. It would be interesting to see if this trend is to be confirmed for the decisions that will follow the 8 ongoing proceedings opened by the Commission in the digital sector since 2019. These decisions are also expected to confirm the practice of the Commission to dedicate several paragraph points of its decision to the potentiality of harm for consumers because of the abuse of dominance.

The introduction of a presumption of harm for abuse of dominance in the digital market might be justified by an effectiveness rationale, and confirmed by experience rules. If so, it would only be useful paired with the following proposal, namely to allow for private enforcement remedies and injunctions to be seen as an alternative to monetary damages, for which the burden of proof in quantifying the loss suffered is excessive.

2. Compensatory damages or protecting private parties: remedies and injunctions

Is the monetary compensation of anticompetitive conduct relevant in digital markets? In a paper questioning the expectations of claims for damages following the General Court ruling in the *Google Shopping* case, we argued with Reed⁵² that in fast-moving, innovative and concentrated markets, if competitors or sellers exited the market, monetary compensation would not allow them to

⁵⁰ AT.39530 Microsoft; AT.39740 Google Search (Shopping); AT.40099 Google Android; AT.40411 Google Search (AdSense); AT.40437 Apple; AT.40652 Apple.

⁵¹ AT.40670 Google – Adtech and Data-related practices; AT.40153 Amazon; AT.40462 Amazon; AT.40703 Amazon; AT.40452 Apple; AT.40716 Apple; AT.40684 Facebook.

⁵² Jeanne Mouton and Lewis Reed, Following the Google Shopping Judgment, 'Should We Expect a Private Enforcement Action?' (2022) 13 Journal of European Competition Law & Practice 154–163.

'return' to the situation that would have prevailed should the infringement have not occurred. In this situation, one should consider the aim of remedies, with their potential to achieve a structural change on the market.

Public enforcement of competition law allows for remedies and injunctions, so the aim of this section is to balance the advantages of private enforcement remedies and injunctions vs. all the difficulties that can arise from compensatory damages following abuse of dominance in digital markets.

Gal and Petit considered recently three proposals of radical restorative remedies for digital markets.⁵³ Cauffman investigated the possibilities of private parties bringing injunctions over a decade ago.⁵⁴ Hence, the approach of revisiting the idea of traditional antitrust tools because of the specificities of private enforcement or digital markets is not new. Here, however, we are considering how remedies and injunctions could solve the 'quantification' obstacle of damages in digital markets.

The added complexity of quantifying damages differs according to the various theories of harm and the type of victims. Even before computing damages, businesses have low incentives to file damages claims in a very concentrated market, where they could expect retaliation. If a business was excluded from the market, they could file a claim for lost profits, but it would not resolve the competitive issue on the market itself, which would be even more concentrated with a competitor, or complementor gone and not able to re-enter the market even if they obtain monetary compensation. On the other hand, businesses can also be exploited or face unfair terms when dealing with platforms. In such cases, the quantification of damages can be even trickier, because it would not amount to a comparison of a situation 'with profits' and 'without profits', but of a situation 'with profits that suffer from exploitation or unfair contractual terms' and 'a situation that would have prevailed should the platform have not been abusing its dominant position'.

Even so, the quantification complexity really reaches its peak when it comes to consumers. Taking the example of a zero-priced market, where consumers have access to a service for 'free', in exchange for their data being collected. How could the loss caused by excessive data collection be quantified? Competition on online platforms can also concern innovation, quality, relevance of results, where there is no identifiable monetary overcharge before, and after the infringement, while the Damages Directive only foresees monetary damages.

Article 3 of the Damages Directive states that 'Full compensation shall place a person who has suffered harm in the position in which that person would have

⁵³ Michal Gal and Nicolas Petit, 'Radical restorative remedies for digital markets' (2021) 37 Berkeley Technology Law Journal 37.

⁵⁴ Caroline Cauffman, 'Injunctions at the request of third parties in EU Competition law' (2010) 17 Maastricht Journal of European and Comparative Law 58–86.

been had the infringement of competition law not been committed.' However, when it comes to abuse of dominance on digital markets, full compensation cannot achieve this goal, which leaves the question open, should we make remedies and injunctions available to private parties?

Remedies and injunctions would not fulfil a compensatory goal, but instead a goal of deterring anticompetitive infringements and restoring a level playing field. Both structural remedies and injunctions (to cease the abuse of dominance) would ultimately add to the protection of the interests of private parties. They would prevent harm from continuing, in a situation where private parties are not incentivised to file a claim for damages – when they actually realise that they sustained damages – and where the quantification of the harm is extremely difficult.

As Cauffman stresses, private enforcement of competition law aims to prevent antitrust infringements, but this goal became less visible in the White paper⁵⁵ issued during the Damages Directive's preparatory process, and then in the Directive itself. While acknowledging that damages actions help ensure the full effectiveness of Articles 101 and 102 TFEU, the Directive puts the emphasis on 'compensation'.

Bringing the attention of private parties to cease and desist injunctions, or calling for private enforcement remedies, would for the reasons stated above be more efficient in protecting private parties than an unenforceable right to full compensation.

V. Conclusion

If literature reviews the theories of harm according to the specificities of digital markets, private enforcement is not about sanctioning a potential effect, but about compensating real damage to private parties. For example, it is theoretically possible for public enforcement to sanction a risk of market eviction, but in a claim for damages the private parties would need to prove causality and quantify their loss. Public enforcement sanctions a hypothetical damage to competition while private enforcement focuses on actual damage. If one thinks that public enforcement is struggling in digital markets, the obstacle is even higher for claims for damages.

The difficulties posed by private enforcement in digital markets explain the sparse case-law observed in the European Union. However, one, there may be unobserved data (private settlements) in this context, and two, should recent

⁵⁵ Cauffman (n 54).

cases succeed, we might observe more claims for damages where the harm is widespread and can affect the entire ecosystem of a platform.

In the last section, the paper suggests some methods that could increase incentives and effectively strengthen private enforcement in digital markets. They include, first, to extend the presumption of harm, currently foreseen only for cartels, to abuse of dominance in digital markets. Such approach could be justified on the basis of efficiency, and confirmed by experience rules, the very same reason the presumption of harm was included in the Damages Directive with respect to cartels. Second, since this presumption of harm only means a shift of the burden of proof concerning the competitive harm, this paper suggests bringing the attention to private parties to injunctions and calls for private remedies in order to solve the quantification and compensation issue.

A following step would be to extend a proposition made by Benjamin Lehaire who suggested awarding a lump-sum for competitive damages.⁵⁶ The author suggests sharpening the concept of competitive damages by distinguishing competitive consumer harm and competitive business harm. Competitive consumer harm would be 'the harm suffered by the purchaser of a good and the user of a massively available service which has been the object of an anti-competitive practice'; by encompassing a multitude of victims, the latter has a collective character. The competitive business loss would be the consequence of 'operations of any kind related to the exercise of an industrial, commercial or financial activity in connection with anti-competitive practices.' The advantage of this distinction would be to open up a lump-sum award for consumer competition damages, which would not only circumvent the obstacle of small amounts of often diffused harm, but it would also alleviate the evidentiary difficulties that consumers must overcome. A lump-sum award would also incentivise consumers to seek redress. In such a procedure, the judge would still have a role to play, since lump-sum assessment implies an overall assessment at the discretion of the judges, based on evidence. Benjamin Lehaire draws a parallel between his proposal and nominal damages awarded under Quebec law for victims of anticompetitive actions. The latter is a lumpsum award made when the assessment of the harm is so complex that it is 'almost impossible to attach an exact figure' to even 'roughly cover the harm'. The lump-sum assessment, as proposed by Benjamin Lehaire⁵⁷, inspired by solutions adopted in the context of unfair competition litigations in France and in Quebec civil law, would make it possible to replace an economic assessment of the competitive loss with a legal assessment for the competitive loss of

⁵⁶ Benjamin Lehaire, 'Réparer le préjudice concurrentiel : pour une évaluation forfaitaire du préjudice concurrentiel de « consommation »' (2018) n°78 Revue Lamy de la concurrence 43–50.

⁵⁷ Lehaire (n 56).

'consumption'. Although Benjamin Lehaire does not specifically suggest the application of his proposition to digital markets, it would certainly compensate for both the issue of quantifying and compensating harm in digital market, as characterized in this paper.

Finally, it would be interesting to update the 2013 Guidance document from the EU Commission on the quantification of harm with the aim to answer the following question: how to construct a counterfactual in fast innovative digital markets? Updating the guidance document would be a call answering the growing need of experts from different backgrounds, not only economists in microeconomics and industrial organisation, but also behavioural economists and data scientists, when it comes to private competition law enforcement in digital markets.

Literature

- Alessandro Acquisti, 'The economics of personal data and the economics of privacy' (2010) OECD Working paper on the information economy.
- Pinar Akman, 'A Web of Paradoxes: Empirical Evidence on Online Platform Users and Implications for Competition and Regulation in Digital Markets' (2022) 16 Va L & Bus Rev 217–292.
- Rafael P. Amaro, Malik Idri and Bastien Thomas, 'Private Enforcement of Antitrust Law in France' (Apr. 2021 Nov. 2021) (2022) Concurrences.
- Gary S. Becker, 'Crime And Punishment: An Economic Approach' (1968) 76 Journal of Political Economy 13–68.
- Maximilian Bock and Martin Wiener, 'Towards a Taxonomy of Digital Business Models-Conceptual Dimensions and Empirical Illustrations.' (2017).
- Marco Botta and Klaus Wiedemann, 'Exploitative conducts in digital markets: Time for a discussion after the Facebook Decision' (2019) Journal of European Competition Law & Practice (2019) 465.
- Patrice Bougette, Oliver Budzinski and Frédéric Marty, 'Self-Preferencing And Competitive Damages: A Focus On Exploitative Abuses' (2022) 67 The Antitrust Bulletin 190–207.
- Marcel Boyer and others, 'The Determination Of Optimal Fines In Cartel Cases: The Myth Of Underdeterrence' [2011] SSRN Electronic Journal.
- Eric Brousseau and Thierry Penard, 'The Economics Of Digital Business Models: A Framework For Analyzing The Economics Of Platforms' (2007) 6 Review of Network Economics.
- Cristina Caffarra, "Follow the Money" Mapping issues with digital platforms into actionable theories of harm' (2019) e-Competitions Platforms.
- Caroline Cauffman, 'Injunctions at the request of third parties in EU Competition law' (2010) 17 Maastricht Journal of European and Comparative Law 58–86.
- Barbora Cejkova Vickers and Vojtech Chloupek, 'The Czech Competition Authority rejects the appeal brought by an online travel agency company and confirms the fine imposed for entering into prohibited vertical agreements (Booking.com)' (2019) e-Competitions.

Emmanuel Combe and Constance Monnier, 'Fines Against Hard Core Cartels In Europe: The Myth Of Overenforcement' (2011) 56 The Antitrust Bulletin.

- Michaël Cousin, 'The Paris Commercial Court imposes a €1.2 million fine on a Big Tech company for abuse of dominant position against a telephone directory services company (Oxone Technologies/Google)' (2021) e-Competitions.
- Jacques Crémer, Yves-Alexandre de Montjoye and Heike Schweitzer 'Competition Policy for the digital era' (2019) EU Commission.
- Ariel Ezrachi, Maurice E. Stucke. 'Artificial intelligence & collusion: When computers inhibit competition' (2017) U. Ill. L. Rev. 1775–1810.
- Michal Gal and Nicolas Petit, 'Radical restorative remedies for digital markets' (2021) 37 Berkeley Technology Law Journal 37.
- Axel Gautier, Ashwin Ittoo, Pieter Van Cleynenbreugel, 'AI algorithms, price discrimination and collusion: a technological, economic and legal perspective' (2020) 50 European Journal of Law and Economics 405–435.
- Hong Kong Competition Commission, 'The Hong Kong Competition Authority accepts voluntary commitments by three major online travel agents (Booking.com / Expedia / Trip.com)' (2020) e-Competitions.
- Lena Hornkohl, 'The presumption of harm in EU private enforcement of competition law effectiveness vs overcompensation' (2021) 6 ECLIC 29–59.
- Hungarian Competition Authority, Press release, 'Amazon, Facebook, Google, Booking. com domestic undertakings can also sue foreign 'giants' in Hungarian courts', (2020) e-competitions.
- Klara Janiec, Sebastian Plötz and Sinziana Lanc, 'Germany's Federal Court of Justice on price parity clauses: rechtswidrig!', (Linking Competition Blog, 8 June 2021) < Germany's Federal Court of Justice on price parity clauses: rechtswidrig! | LinkingCompetition | Blog | Insights | Linklaters> accessed 8 May 2022.
- Bruno Jullien and Wilfried Sand-Zantman, 'The Economics Of Platforms: A Theory Guide For Competition Policy' (2021) 54 Information Economics and Policy.
- Andrzej Kmiecik and Laura Lehoczky-Deckers, 'The German Federal Court of Justice finds narrow price parity clauses anticompetitive (Booking.com)' (2021) e-Competitions.
- Jean-François Laborde, 'Cartel damages actions in Europe: How courts have assessed cartel overcharges (2019 ed.)', (2019), Concurrences.
- Benjamin Lehaire, 'Réparer le préjudice concurrentiel: pour une évaluation forfaitaire du préjudice concurrentiel de «consommation»' (2018) n°78 Revue Lamy de la concurrence 43–50.
- Hannah Lesley, 'The EU Court of Justice clarifies the application of the special jurisdiction rules in the Brussels recast regulation regarding an action based on an abuse of dominant position (Wikingerhof / Booking.com)' (2020) e-Competitions.
- Nathalie de Marcellis-Warin, Frédéric Marty and Thierry Warin, 'Vers Un Virage Algorithmique De La Lutte Anticartels ?' [2021] Éthique publique. However, this paper focuses on abuse of dominance in digital markets.
- Jeanne Mouton and Lewis Reed, Following the Google Shopping Judgment, 'Should We Expect a Private Enforcement Action?' (2022) 13 Journal of European Competition Law & Practice 154–163.
- Silvia Pietrini, 'Italy: The Court of Milan rejects request for technical expertise to end competition dispute through conciliation (7 Pixel / Google)' (2021) Concurrences.

- Mitchell Polinsky, 'Private Versus Public Enforcement Of Fines' (1980) 9 The Journal of Legal Studies 105–127.
- Andrea Prat and Tommaso Valletti, 'Attention Oligopoly' (2022) 14 American Economic Journal: Microeconomics 530–557.
- Price Runner, Press release, (07 February 2022) 'PriceRunner sues Google for 2.1 billion', <PriceRunner sues Google for 2.1 billion euros>, accessed 08 May 2022.
- Cyril Ritter, 'Presumptions In EU Competition Law' (2018) 6 Journal of Antitrust Enforcement 198–212.
- Russian Competition Authority, 'The Russian Competition Authority imposes a fine on an online travel agency for abuse of its dominant position (Booking.com)' (2021) e-Competitions.
- Ulrich Schwalbe, 'Algorithms, machine learning, and collusion' (2018) 14 Journal of Competition Law & Economics 568–607.
- Heike Schweitzer and Frederik Gutmann, 'Unilateral Practices in the digital market: An overview of EU and national case law' (2021) e-Competitions.
- Viktor Wahlqvist, 'The Swedish Competition Authority approves the voluntary commitments of an online hotel booking company subject to a *fine* (Booking.com)' (2015) e-Competitions.