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Ellie Yang  
*Editors*

Douglas H. Ginsburg

An Antitrust Professor  
on the Bench  
*Liber Amicorum*

Volume I

Alden F. Abbott, Margaret Artz, Anil Acar, Gary Born, Michelle M. Burtis, John DeQ. Briggs, Terry Calvani, James Cooper, Daniel Crane, Susan Creighton, David S. Evans, Eric M. Fraser, Jamillia P. Ferris, Damien Geradin, Ilene Knable Gotts, Gönenc Gürkaynak, John Harkrider, Joshua Hazan, Thu Hoang, Keith N. Hylton, Jonathan M. Jacobson, Bruce H. Kobayashi, Gregor Langus, Marina Lao, Vilen Lipatov, Ryan S. Maddock, Danielle Morris, Damien Neven, Barak Orbach, James F. Rill, Katarzyna Sadrak, Jana I. Seidl, Hal S. Scott, D. Daniel Sokol, Jacques Steenberg, Richard M. Steuer, Pablo Trevisán, Esra Uçtu, Nils Wahl, Joshua D. Wright

# DOUGLAS H. GINSBURG

## An Antitrust Professor on the Bench

*Liber Amicorum* - Volume I

Foreword by Joshua Wright

### Editors

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# Foreword

JOSHUA WRIGHT

It is our great honor and privilege to present this *Liber Amicorum* to Judge Douglas H. Ginsburg. I admit I also introduce this volume with some hesitation. For one usually introduces a volume such as this to mark the end of a distinguished career. And a distinguished career it has been. But as a significant beneficiary of Judge Ginsburg's scholarly endeavors at Scalia Law School, his guiding hand at the Global Antitrust Institute at George Mason University, and his friendship, I am particularly fond of the status quo.

Judge Ginsburg received a Bachelor of Science degree from Cornell University and his JD from the University of Chicago Law School. He then served as a clerk for Judge Carl McGowan on the D.C. Circuit and for Justice Thurgood Marshall on the Supreme Court. Following his clerkships, Judge Ginsburg began his career in academia at Harvard Law School in 1975.

Judge Ginsburg later became the Administrator of the Office of Information and Regulatory Affairs (OIRA) and then the Assistant Attorney General for the Antitrust Division of the Department of Justice. In 1987, he was nominated to the Supreme Court of the United States. Judge Ginsburg served on the D.C. Circuit Court of Appeals for more than 30 years, including as Chief Judge from 2001 to 2008. During this time, he also taught part-time at George Mason University School of Law. After taking senior status on the D.C. Circuit, Judge Ginsburg continued his career in academia teaching full time at NYU Law in 2012. He later returned to Scalia Law School at George Mason University, where he continues to serve as a

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Professor of Law and as the Chairman of the International Advisory Board of the Global Antitrust Institute.

A robust and full *Liber Amicorum* could focus exclusively upon Judge Ginsburg’s impactful role as a jurist, or his contributions as legal scholar, or his commitment to public service, or his mentorship as a teacher. This challenge in fully capturing Judge Ginsburg’s contributions in such a volume is to explore these dimensions of achievement individually as well as to take this opportunity to reflect upon their interactions.

The essays in this *Liber Amicorum* take up this challenge admirably. Practitioners, economists, and legal scholars explore the multiple dimensions of the footprint Judge Ginsburg has left in antitrust’s landscape. Some explore in depth the impact Judge Ginsburg’s opinions and scholarship have had in specific areas of antitrust jurisprudence: horizontal restraints, the intersection of intellectual property rights and antitrust, and international antitrust. Others focus more broadly upon how we should think about Judge Ginsburg’s intellectual legacy and public service. The *Liber Amicorum* ties together these multiple dimensions of production and service to recognize and appreciate the full fruits of Judge Ginsburg’s labors in the domestic and global antitrust community.

Judge Ginsburg is remarkably generous with his time and his wisdom with colleagues, students, legal academics, clerks, and practitioners alike. He is a source of advice and counsel for those who need it, of substantive intellectual feedback for those who seek it, and of mentorship for those fortunate enough to cross his path. The beneficiaries of his generosity range from antitrust luminaries and agency leadership around the world to aspiring law students. I would be remiss if I did not acknowledge the tremendous intellectual and personal debt I owe Judge Ginsburg as a colleague, co-author, co-venturer, and friend. I intend to run that debt even deeper in the years to come as I further benefit from Judge Ginsburg’s continued dedication and commitment to his work. And so I hope selfishly – but no doubt joined by the international antitrust community that benefits from Judge Ginsburg’s insights and wisdom – this *Liber Amicorum* is necessarily incomplete and leaves room for contributions yet realized.

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# Judge Douglas H. Ginsburg Biography

## Career

Senior Circuit Judge Douglas H. Ginsburg was appointed to the United States Court of Appeals for the District of Columbia in 1986; he served as Chief Judge from 2001 to 2008. After receiving his B.S. from Cornell University in 1970, and his J.D. from the University of Chicago Law School in 1973, he clerked for Judge Carl McGowan on the D.C. Circuit and Justice Thurgood Marshall on the United States Supreme Court. Thereafter, Judge Ginsburg was a professor at the Harvard Law School, the Deputy Assistant and then Assistant Attorney General for the Antitrust Division of the Department of Justice, as well as the Administrator of the Office of Information and Regulatory Affairs in the Office of Management and Budget. Concurrent with his service as a federal judge, Judge Ginsburg has taught at the University of Chicago Law School and the New York University School of Law. Judge Ginsburg is currently a Professor of Law at the Antonin Scalia Law School, George Mason University, and a visiting professor at University College London, Faculty of Laws.

Judge Ginsburg is the Chairman of the International Advisory Board of the Global Antitrust Institute at the Antonin Scalia Law School, George Mason University. He also serves on the Advisory Boards of: Competition Policy International; the Harvard Journal of Law and Public Policy; the Journal of Competition Law and Economics; the Journal of Law, Economics and Policy; the Supreme Court Economic Review; the University of Chicago Law Review; The New York

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University Journal of Law and Liberty; and, at University College London, both the Center for Law, Economics and Society and the Jevons Institute for Competition Law and Economics.

## **Education**

Judge Ginsburg obtained his B.S. degree from Cornell University in 1970 and his J.D. from the University of Chicago Law School in 1973.

## **Publications**

### **Books and Monographs**

GLOBAL ANTITRUST ECONOMICS - CURRENT ISSUES IN ANTITRUST AND LAW AND ECONOMICS (with Joshua D. Wright; Institute of Competition Law March 21, 2016)

REGULATION OF THE ELECTRONIC MASS MEDIA: LAW AND POLICY FOR RADIO, TELEVISION, CABLE AND THE NEW VIDEO TECHNOLOGIES, SECOND EDITION (with M. Botein and M. Director; West, 1991)

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# Merger Control in High-Tech Markets

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## Abstract

The objective of antitrust law in the United States is the protection of consumer welfare. But in high-tech markets, where market power is ephemeral and change is the only constant, intervention decisions based on current market conditions and readily provable future developments are unlikely to promote that objective. This paper analyzes various features of high-tech markets and suggests a lighter touch is needed by antitrust agencies reviewing mergers in such markets.

## I. Introduction

In 2005, Blockbuster was the largest video rental chain in America, followed by Hollywood Video and Movie Gallery.<sup>1</sup> With its business model facing increasing pressure from the online DVD-rental upstart, Netflix, and from video on-demand

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1 Joe Flint, *Blockbuster Drops Hollywood Bid*, WALL ST. J. (Mar. 28, 2005), <https://www.wsj.com/articles/SB111190652212190373>.

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services offered by cable and satellite providers, Blockbuster agreed to buy Hollywood Video for almost \$1 billion.<sup>2</sup> Both companies were losing money and downsizing stores by that time, and the deal was touted as a way to bolster each for the transformation required to survive. But the FTC was concerned that the combined company would control more than 50% of the home video rental market, so it refused to grant clearance and Blockbuster ultimately abandoned the merger.<sup>3</sup>

Fast forward to today. None of those three companies exist anymore and Netflix, the competitor the FTC did not take seriously at the time, earned more revenue last year than all three combined to earn in 2005.<sup>4</sup> Only about 6% of Netflix's revenue is from DVD rentals; the rest derives from video streaming services, which Netflix did not launch until 2007. If a distinct brick-and-mortar video rental market even still exists, then its "leader" is Family Video with fewer than 1000 stores<sup>5</sup> (compared to 9000 for Blockbuster at its peak<sup>6</sup>). It is not only the composition of market participants that has changed over the intervening time; the very manner in which we procure and consume video content in 2017 would be nearly unrecognizable to someone living in 2007. When we want to watch a movie, we no longer need to leave the confines of our homes, or even the comfort of our couches. We need not worry about late fees, misplaced rentals, or waiting lists for out-of-stock titles. We no longer even need to purchase separate hardware for video playback.

With Netflix, Amazon, Apple, and Google continuously innovating to capture the video watchers of the next generation, we as consumers need to pay much less to receive much more. The industry's changes, over a very short period of time, perfectly encapsulate Schumpeter's "creative destruction."<sup>7</sup>

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2 *Id.*

3 Tom Zeller Jr., *Blockbuster Ends Bid for Rival*, N.Y. TIMES (Mar. 26, 2005), <http://www.nytimes.com/2005/03/26/business/media/blockbuster-ends-bid-for-rival.html>.

4 See Netflix, Inc. 2016 Annual Report on SEC Form 10-K, *available at* [http://files.shareholder.com/downloads/NFLX/5071026223x0x938338/FB0485BA-48EF-4457-ABED-CF26A5B21523/10K\\_Final.PDF](http://files.shareholder.com/downloads/NFLX/5071026223x0x938338/FB0485BA-48EF-4457-ABED-CF26A5B21523/10K_Final.PDF).

5 Noah Kirsch, *The Last Video Chain: The Inside Story of Family Video and its \$400 Million Owner*, FORBES.COM (Feb. 21, 2017), <https://www.forbes.com/sites/noahkirsch/2017/02/21/the-last-video-chain-the-inside-story-of-family-video-and-its-400-million-owner/#647dd594da60>.

6 See Zeller, *supra* note 3.

7 See Joseph A. Schumpeter, CAPITALISM, SOCIALISM, AND DEMOCRACY 81-90 (1942).

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The objective of the antitrust laws is the protection of consumer welfare.<sup>8</sup> Under the consumer welfare standard, a merger is considered problematic if it is likely to harm consumers by reducing competition. But with technology transforming an ever-increasing number of industries, the competitive landscapes in those industries look increasingly unsettled and the time horizon over which we can confidently predict changes in competitive conditions grows shorter. Robert Solow’s growth model supports the assertion that innovation, rather than marginal changes in market structure, is the primary driver of welfare gains.<sup>9</sup> Indeed, in markets ranging from social networks to taxi rides to grocery stores, the strongest competitive constraints today do not come from incumbents fighting over incremental market share gains, but rather from imaginative disruptors seeking to upend the markets entirely. The upshot for merger review is that intervention decisions based on static models of competition are increasingly unlikely to enhance consumer welfare.

To be sure, the U.S. antitrust agencies do try to account for dynamic considerations, such as innovation and entry, in the merger review process. But to credit these factors fully, the agencies demand a level of certainty that is typically unrealistic in rapidly evolving markets, as innovation is difficult either to measure or to predict. We propose that in industries exhibiting certain characteristics, for which future competitive conditions are more difficult to predict and analysis is likely to underestimate future sources of competition through innovation, agencies should take a more deferential approach to merger review.

## II. Dynamic Considerations in Merger Control Generally

As Ginsburg and Wright explain, dynamic models of competition seek to predict future competitive outcomes—such as future price, output, quality, innovation, and entry—based upon what is known about present competitive conditions.<sup>10</sup>

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8 Reiter v. Sonotone Corp., 442 U.S. 330, 343 (1979) (“Congress designed the Sherman Act as a consumer welfare prescription.”) (internal quotations omitted).

9 See Robert M. Solow, *Technical Change and the Aggregate Production Function*, 39 REV. ECON. & STAT. 312-20, at n. 3 (1957).

10 Douglas H. Ginsburg & Joshua D. Wright, *Dynamic Analysis and the Limits of Antitrust Institutions*, 78 ANTITRUST L.J. 1 (2012).

In addition to traditional analysis using static models of competition, courts and antitrust agencies often “incorporate some dynamic considerations into their analyses of markets and of the likely effects of a transaction or practice.”<sup>11</sup> These considerations lead agencies to refrain, for example, from condemning monopoly pricing as a stand-alone antitrust offense, because although the high price may harm consumer welfare in the short run, the opportunity for the victor to charge a monopoly price may incentivize innovation in the first place, thereby benefitting consumers in the long run.<sup>12</sup> In the merger context, a merger that creates a very high-share competitor might not be considered problematic if agencies or courts predict that future entry will remain easy enough to constrain prices.<sup>13</sup> Indeed, the Horizontal Merger Guidelines expressly provide for consideration of likely innovation and entry.<sup>14</sup>

The advantage of a dynamic model of competition in antitrust enforcement is that it can improve analytical accuracy, primarily by reducing Type I errors. Rescuing procompetitive mergers from wrongful condemnation in turn increases consumer welfare. Of course, predictions about the future necessarily involve greater uncertainty than observations about the present,<sup>15</sup> and agencies have more data available about present competitive conditions than about future ones (such as competitor entry plans), so agencies understandably have been reluctant to credit arguments based on dynamism in the face of static analysis suggesting a merger is problematic. And the favorable standard of legal proof required for an agency—especially the FTC—to enjoin a merger dovetails with that uncertainty to erect significant obstacles to transactions for which future competitive constraints are real but not as easily provable.

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11 *Id.* at 6.

12 *See id.* (citing *Verizon Commc’ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 407 (2004) (“The opportunity to charge monopoly prices—at least for a short period—is what attracts ‘business acumen’ in the first place; it induces the risk taking that produces innovation”).

13 *Id.* at 8-9 (citing *United States v. Syufy Enters.*, 903 F.2d 659 (9th Cir. 1990) and *United States v. Waste Management, Inc.*, 743 F.2d 976 (2d Cir. 1984)).

14 *See U.S. Dep’t of Justice & Fed. Trade Comm’n*, HORIZONTAL MERGER GUIDELINES § 10 (2010), <https://www.ftc.gov/sites/default/files/attachments/merger-review/100819hmg.pdf>.

15 Ginsburg & Wright, *supra* note 10, at 14-15 (“No matter how sophisticated the analysis, no matter how confident the predictions, the future will always be more uncertain than the present.”).

Yet Type II errors—in merger review, erroneously allowing an anticompetitive transaction to proceed—are not necessarily more harmful in the aggregate to consumer welfare than Type I errors.<sup>16</sup> The opportunity cost to a consumer of one dollar of foregone efficiency gains, if future competitive constraints would have made that dollar gain likely to accrue to the consumer, is theoretically equally harmful to a one dollar overcharge due to increased market power. Therefore, where the incidence of Type I errors is likely to be high, perhaps because certain market features make market power difficult to exercise and fleeting regardless, agencies should reconsider their emphasis on static considerations over dynamic ones. High-tech markets, where change seems to be the only constant and history is littered with the remains of companies only recently deemed powerful, are good candidates for a more deferential approach.

### III. High-Tech Markets Are Difficult to Analyze

The first relic of industrial antitrust policy that needs to be reconsidered for high-tech industries is the emphasis on market structure. “[T]he traditional industrial economy,” for which antitrust policy was developed, “was a Newtonian system [of] checks and balances, in which disequilibria of demand and supply arose, only to be equilibrated by adjusting prices.”<sup>17</sup> Industries in “the new economy,” by contrast, “are more Darwinian, with the fittest surviving [and] the winner frequently taking all.”<sup>18</sup> Thus, whereas a 90% share by an oil refiner would likely confer significant market power—as it did for John Rockefeller’s Standard Oil in 1911<sup>19</sup>—a similar share for a social networking site or other web service company is much less troubling because competition from aspiring successor monopolists disciplines

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16 *See generally* Maureen K. Ohlhausen, Acting Chairman, Fed. Trade Comm’n, Remarks to the GCR Live 6th Annual Antitrust Law Leaders Forum: The FTC’s Path Ahead (Feb. 3, 2017), [https://www.ftc.gov/system/files/documents/public\\_statements/1070123/gcr\\_the-ftc\\_path\\_ahead.pdf](https://www.ftc.gov/system/files/documents/public_statements/1070123/gcr_the-ftc_path_ahead.pdf) (explaining that “it is critical to wield our competition laws with regard for the limits of our knowledge, the risk of getting it wrong, and the relative costs to society of over- and under-enforcement”).

17 Lawrence Summers, Sec’y, U.S. Dept. of Treas., Remarks to Hambrecht & Quist Technology Conference: The New Wealth of Nations (May 10, 2000), <https://www.treasury.gov/press-center/press-releases/pages/1s617.aspx>.

18 *Id.*

19 *See* Standard Oil Co. of N.J. v. United States, 221 U.S. 1, 33 (1911).

behavior. Snapchat, for example, could not charge even a fraction of a cent per message without losing users en masse to Instagram or other upstart social messaging services. And Facebook could not ramp up the quantity of advertisements it shows or degrade its reliability or features in any meaningful way without opening the door to new entrants. Nor is high share likely to enable exclusionary behavior as it did for Mr. Rockefeller. Given the ease of multi-homing (e.g., consumers using multiple shopping sites to find the best deal, romantics browsing multiple dating sites to find the perfect mate, and drivers accepting ride requests through Lyft, Uber, and Via simultaneously) and the very low cost to consumers of switching between competing web services, even the largest and highest-share firms remain vulnerable to innovation from newcomers.

The vulnerability of high-share incumbents is not merely an exercise in the hypothetical. Consider, for example, the quick work Facebook made of former social media darling MySpace. In 2005, New Corp. purchased MySpace for \$580 million.<sup>20</sup> By 2007, it was valued at an estimated \$12 billion.<sup>21</sup> In 2008, it remained the most visited social networking site in the world with 75.9 million unique visitors per month.<sup>22</sup> In 2011, it was sold again for \$35 million and today receives just over five million unique monthly visitors.<sup>23</sup> Facebook, by contrast, receives over two billion monthly visitors<sup>24</sup> and has a market cap of almost \$500 billion.<sup>25</sup> In a sector with similarly low switching costs, consider the takedown of MapQuest by Google. On the eve of the release of Google Maps in 2007, MapQuest was the market leader with a 57% market share. Google overtook it in less than two years, and MapQuest today receives just a fraction

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20 Richard Siklos, *News Corp. to Acquire Owner of MySpace.com*, N.Y. TIMES (July 18, 2005), <http://www.nytimes.com/2005/07/18/business/news-corp-to-acquire-owner-of-myspacecom.html>.

21 Michael Arrington, *Is MySpace Worth \$12 Billion?*, TECHCRUNCH (June 19, 2007), <https://techcrunch.com/2007/06/19/is-myspace-worth-12-billion/>.

22 Felix Gillette, *The Rise and Inglorious Fall of Myspace*, BLOOMBERG (June 22, 2011), <https://www.bloomberg.com/news/articles/2011-06-22/the-rise-and-inglorious-fall-of-myspace>.

23 Brian Stelter, *News Corporation Sells MySpace for \$35 Million*, N.Y. TIMES (June 29, 2011), <https://mediadecoder.blogs.nytimes.com/2011/06/29/news-corp-sells-myspace-to-specific-media-for-35-million/>.

24 Josh Constine, *Facebook Now Has 2 Billion Monthly Users . . . And Responsibility*, TECHCRUNCH (June 27, 2017), <https://techcrunch.com/2017/06/27/facebook-2-billion-users/>.

25 Facebook, Inc. (FB), YAHOO! FINANCE, <https://finance.yahoo.com/quote/FB?ltr=1> (last accessed Sept. 3, 2017).

of its former traffic.<sup>26</sup> In a number of high-tech markets, concentration simply does not accurately reflect the prevailing competitive conditions, and we would urge agencies to consider that past is likely prologue in high-tech markets with proven histories of entry, expansion, and innovation.

A second shortcoming of modern merger policy in high-tech sectors is the difficulty of using conventional tools to measure market power. Traditionally, agencies seek to prevent a firm from acquiring sufficient market power to implement a small but significant non-transitory increase in price.<sup>27</sup> Many high-tech companies compete in two-sided markets in which consumers use apparently free e-mail services such as Gmail or streaming music services such as Pandora. Although the multi-sided market is certainly not unique to the web services sector, the quid pro quo exchange of personal data for valuable services is relatively new. Since the consumer does not pay for the service, the reviewing agency is resigned to evaluating the likely competitive effects of the transaction based on the likelihood of consumer switching in response to changes in features or aesthetics (both highly subjective and difficult to quantify), or in response to changes in business practices, such as treatment of privacy data (we are doubtful whether such practices are typically even known to the consumer). We are not confident in the ability of any institution to make these assessments with a substantial degree of confidence, so we would caution agencies to err towards non-intervention when dealing with mergers in technology-driven markets, especially those in which firms compete for consumers primarily through innovation and demand is highly price-elastic.

A third consideration is that in technology-driven markets, the precise contours of the product definition is increasingly difficult to delineate. Imagine if 20 years ago, Kodak went on a buying spree and acquired Visa, Rand McNally, Universal Studios, Tower Records, Iron Mountain, and Barnes & Noble. The string of acquisitions would surely have raised eyebrows, but almost just as surely would have been treated as an innocuous conglomerate merger because there would have been no obvious connection at the time between a manufacturer of cameras and photos, a payment processor, a map maker, a music distributor, a movie producer,

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26 See Joshua Hazan, *Stop Being Evil: A Proposal for Unbiased Google Search*, 111 MICH. L. REV. 789, 796 (2013).

27 Of course, agencies do not consider ability only to raise prices; the Horizontal Merger Guidelines call for agencies also to consider ability to reduce output, quality, variety, and innovation.

a data storage company, and a bookstore. Today, that company could be called Apple, and each of those disjoint functions would be an integral part of a software ecosystem that competes with similarly comprehensive platforms from Microsoft and Google. Meanwhile, the notion that any of the individual features exists in a distinct product market is likely to become less realistic over time.

Judge Ginsburg noted in a speech last spring the phenomenon of “ecosystem” competition displacing competition between innovators of individual component features.<sup>28</sup> Antitrust agencies should take note of it also and avoid defining narrow markets for products or services that are, or are likely to become, more fairly characterized as components of a wider ecosystem.

Fourth, in markets characterized by rapid technological change, market power predicated upon technological superiority is likely to be ephemeral.<sup>29</sup> But as Ginsburg and Wright explain,

[i]dentifying firms that are not yet in the market but may develop a technology that enables them to enter or, more important, significantly to alter the market, is necessarily more difficult; indeed, it is hard to imagine the agency ever could be confident it has located all or even most of the relevant potential entrants.<sup>30</sup>

Consider how the market for “peer-to-peer” payments illustrates this phenomenon. In 2012, individuals who wanted to split a check at dinner or otherwise send money to each other had few easy alternatives to cash and PayPal. PayPal had been around since 1999, when it emerged “as a way for people to transfer money from one Palm Pilot to another,”<sup>31</sup> and its “gift payment” option allowed users to transfer money sans fee, but transfers required several steps to initiate, multiple days to

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28 Douglas H. Ginsburg, Judge, U.S.C.A. for the D.C. Circuit, Remarks to Second Advanced Conference on Contemporary Law Issues: Antitrust in High-Tech Markets (Mar. 11, 2016), <https://www.youtube.com/watch?v=D3AchQNtEIM>.

29 See Jeffrey A. Eisenach & Ilene Knable Gotts, *In Search of a Competition Doctrine for Information Technology Markets: Recent Antitrust Developments in the Online Sector*, in COMMUNICATIONS AND COMPETITION LAW: KEY ISSUES IN THE TELECOMS, MEDIA AND TECHNOLOGY SECTORS, Ch. 7 (Fabrizio Cugia de Sant’Orsola et al., eds. 2014).

30 Ginsburg & Wright, *supra* note 10, at 15.

31 Ron Lieber, *Why It’s So Hard to Transfer Cash to Your Friends*, N.Y. TIMES (Feb. 24, 2012), <http://www.nytimes.com/2012/02/25/your-money/why-its-so-hard-to-transfer-cash-to-your-friends-your-money.html>.

clear, and the process was complicated overall. One alternative was Square, which allowed a user to pay someone in person with a credit card and a separate device that plugged into the recipient's smartphone, but Square charged a 2.75% processing fee.<sup>32</sup> Large, national financial institutions such as Chase, Bank of America, and Wells Fargo each had proprietary transfer services that could be initiated through their mobile websites, but interoperability was poor for users with different banks. There was Popmoney, which had universal interoperability, but it charged a processing fee and required many steps to complete: the payer would log into her bank's mobile website and enter the recipient's phone number; the recipient then would receive a text message with a link to a web portal on which to input his bank account information.<sup>33</sup> The money would arrive a few days later. Venmo was probably the best of the bunch on the merits with instant availability of funds and no transfer fees, but few had then heard of it—it had only 3000 users in 2012.<sup>34</sup> Otherwise, there were always checks and wire transfers.

Today Venmo is becoming ubiquitous and processed over nine billion transactions last year.<sup>35</sup> That its average transaction size is just over two dollars demonstrates its tremendous convenience for even the most mundane transactions. SquareCash is an app that offers similar functionality to Venmo. Zelle, a collaboration between 30 of the largest financial institutions, was rolled out to those banks' customers this year and solves the problem of interoperability. But best of all, now anybody with a bank account and a Facebook, Google, or Snapchat account can send money seamlessly through her social network. Today, we have trouble remembering use for the phrase "I'll pay you back later," but the overarching point is that all of this invention and entry was difficult to imagine just a few short years ago. It is important for agencies to remember that in fast-moving high-tech markets (and even services like money transfer that once seemed only peripherally "high-tech"), competition from presently unknown entrants is the baseline, and new entry is always just over the horizon. That the identities of these entrants or the contours of their upcoming product offerings are difficult to predict with any degree of

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32 *Id.*

33 *Id.*

34 Ruth Reader, *How Peer-to-Peer Payment Pioneer Venmo Grew Up and Got Serious*, FAST COMPANY (Apr. 18, 2017), <https://www.fastcompany.com/40400786/how-peer-to-peer-payment-pioneer-venmo-grew-up-and-got-serious>.

35 *Id.*



specificity is a feature, not a bug, of high-tech industries. The agencies should not punish merger parties for failing to make those predictions in the new economy with the level of certainty typically required in the industrial economy.

## IV. Conclusion

As John Hicks said, “the best of all monopoly profits is a quiet life.”<sup>36</sup> But in high-tech markets there simply is no quiet life to be had, as even the largest “monopolist,” e.g., Microsoft circa 1996, lives by a different mantra: “innovate or die.”<sup>37</sup> In markets in which market power is conferred by technological superiority, conventional tools for measuring market power are unlikely to reflect competitive realities. Those difficulties are compounded by the fact that the boundaries of product markets are shifting more rapidly than ever. But even where we can confidently conclude market power exists, we can also be confident that entry is imminent even if its source is uncertain. Market power in technology-dependent markets is more fleeting and fragile than ever. Reviewing agencies should keep that in mind as they recalibrate merger policy for the new economy.

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36 John R. Hicks, *Annual Survey of Economic Theory: The Theory of Monopoly*, 3 *ECONOMETRICA* 1, 8 (1935).

37 *Innovate or Die on the Net*, CNet News (Oct. 18, 1996), <http://news.cnet.com/2100-1001-239380.html>.

# Concurrences Review

Concurrences is a print and online quarterly peer reviewed journal dedicated to EU and national competitions laws. It has been launched in 2004 as the flagship of the Institute of Competition Law in order to provide a forum for academics, practitioners and enforcers. The Institute's influence and expertise has garnered interviews with such figures as Christine Lagarde, Emmanuel Macron, Mario Monti and Margarethe Vestager.

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## CONTENTS

More than 15,000 articles, print and/or online. Quarterly issues provide current coverage with contributions from the EU or national or foreign countries thanks to more than 1,200 authors in Europe and abroad. Approximately 35 % of the contributions are published in English, 65 % in French, as the official language of the General Court of justice of the EU; all contributions have English abstracts.

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## FORMAT

In order to balance academic contributions with opinions or legal practice notes, Concurrences provides its insight and analysis in a number of formats:

- Forewords: Opinions by leading academics or enforcers
  - Interviews: Interviews of antitrust experts
  - On-Topics: 4 to 6 short papers on hot issues
  - Law & Economics: Short papers written by economists for a legal audience
  - Articles: Long academic papers
  - Case Summaries: Case commentary on EU and French case law
  - Legal Practice: Short papers for in-house counsels
  - International: Medium size papers on international policies
  - Books Review: Summaries of recent antitrust books
  - Articles Review: Summaries of leading articles published in 45 antitrust journals
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## BOARDS

The Scientific Committee is headed by Laurence Idot, Professor at Panthéon Assas University. The International Committee is headed by Frederic Jenny, OECD Competition Committee Chairman. Boards members include Bill Kovacic, Bruno Lasserre, Howard Shelanski, Isabelle de Silva, Richard Whish, Wouter Wils, etc.

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## ONLINE VERSION

Concurrences website provides all articles published since its inception, in addition to selected articles published online only in the electronic supplement (around 40%).

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## WRITE FOR CONCURRENCES

Concurrences welcome spontaneous contributions. Except in rare circumstances, the journal accepts only unpublished articles, whatever the form and nature of the contribution. The Editorial Board checks the form of the proposals, and then submits these to the Scientific Committee. Selection of the papers is conditional to a peer review by at least two members of the Committee. Within a month, the Committee assesses whether the draft article can be published and notifies the author.

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# e-Competitions Bulletin

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## CASE LAW DATABASE

e-Competitions is the only online resource that provides consistent coverage of antitrust cases from 55 jurisdictions, organized into a searchable database structure. e-Competitions concentrates on cases summaries taking into account that in the context of a continuing growing number of sources there is a need for factual information, i.e., case law.

- 12,000 case summaries
- 2,600 authors
- 55 countries covered
- 24,000 subscribers

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## SOPHISTICATED EDITORIAL AND IT ENRICHMENT

e-Competitions is structured as a database. The editors make a sophisticated technical and legal work on all articles by tagging these with key words, drafting abstracts and writing html code to increase Google ranking. There is a team of antitrust lawyers – PhD and judges clerks - and a team of IT experts. e-Competitions makes comparative law possible. Thanks to this expert editorial work, it is possible to search and compare cases.

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## PRESTIGIOUS BOARDS

e-Competitions draws upon highly distinguished editors, all leading experts in national or international antitrust. Advisory Board Members include: Sir Christopher Bellamy, Ioanis Lianos (UCL), Eleanor Fox (NYU), Damien Gérardin (Tilburg University), Frédéric Jenny (OECD), Jacqueline Riffault-Silk (Cour de cassation), Wouter Wils (DG COMP), etc.

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## LEADING PARTNERS

- Association of European Competition Law Judges: The AECLJ is a forum for judges of national Courts specializing in antitrust case law. Members timely feed e-Competitions with just released cases.
- Academics partners: Antitrust research centres from leading universities write regularly in e-Competitions: University College London, King's College London, Queen Mary University, etc.
- Law firms: Global law firms and antitrust niche firms write detailed cases summaries specifically for e-Competitions: Allen & Overy, Cleary Gottlieb, Jones Day, Norton Rose Fulbright, Skadden Arps, White & Case, etc.

# The Institute of Competition Law

The Institute of Competition Law is a publishing company, founded in 2004 by Dr. Nicolas Charbit, based in Paris and New-York. The Institute cultivates scholarship and discussion about antitrust issues through publications and conferences. Each publication and event is supervised by editorial boards and scientific or steering committees to ensure independence, objectivity, and academic rigor. Thanks to this management, the Institute has become one of the few think tanks in Europe to have significant influence on antitrust policies.

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## AIM

The Institute focuses government, business and academic attention on a broad range of subjects which concern competition laws, regulations and related economics.

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## BOARDS

To maintain its unique focus, the Institute relies upon highly distinguished editors, all leading experts in national or international antitrust: Bill Kovacic, Mario Monti, Eleanor Fox, Barry Hawk, Laurence Idot, Frédéric Jenny, etc.

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## AUTHORS

3,800 authors, from 55 jurisdictions.

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## PARTNERS

- Universities: University College London, King's College London, Queen Mary University, Paris Sorbonne Panthéon-Assas, etc.
  - Law firms: Allen & Overy, Cleary Gottlieb Steen & Hamilton, DLA Piper, Hogan Lovells, Jones Day, Norton Rose Fulbright, Skadden Arps, White & Case, etc.
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## EVENTS

More than 250 events since 2004 in Brussels, London, New York, Paris, Singapore, Hong Kong, Milan, Moscow and Washington, DC.

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## ONLINE VERSION

Concurrences website provides all articles published since its inception.

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## PUBLICATIONS

The Institute publishes Concurrences Review, a print and online quarterly peer-reviewed journal dedicated to EU and national competitions laws. e-Competitions is a bi-monthly antitrust news bulletin covering 55 countries. The e-Competitions database contains over 12,000 case summaries from 2,600 authors.

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