

EU Antitrust vs. Google

By Andrea Varsori and Diego Zuluaga

Introduction

On April 15th, 2015, the European Commission (EC) issued a Statement of Objections against Google. The Statement of Objections was centred on one main allegation, regarding Google's Shopping service appearance in search results; the EC chose to press its case on this among four different concerns of anti-competitive behaviour. The announcement of formal proceedings against the company followed a five-year-long probe by EU authorities into its business practices. In the intervening years, Google had proposed three sets of commitments to avoid EU action against it. These were all rejected in due course.

On the same day that the Statement of Objections was presented, the European Commission announced the start of a new investigation against Google, this time regarding its mobile operating system Android. This announcement marks the formalization of an inquiry started in 2012. While this is only a first step that does not involve formal legal action, the coordination between the two announcements has been viewed as a meaningful signal sent by Brussels to the Mountain View, Ca. company.

Both investigations are based on an alleged "abuse of dominant position" by Google. The company has been accused, with regard to the first set of charges, of giving preference to its own shopping service by making it always visible on the top of its search results pages, at the expense of its direct competitors. As for Android related allegations, Google is accused of forcing mobile phone manufacturers to pre-install its own set of apps, again at the expense of competitors, and of restricting potential rival modifications of the Android open-source software.

These allegations have come under intense criticism. The Commission's allegations depend, inter alia, on how the antitrust authority defines the relevant market. This task is all the more difficult in the digital market, where distinctions are often blurred and the rapid pace of innovation on the one hand outruns the institutions' ability to pursue enquiries, and on the other hand should be a reason to be cautious of intervention in the first place. Moreover, it has been argued that the typical negative effects of anti-competitive behaviour, such as diminished incentives to innovation, or the lack of entry of new players, are notably absent in Google's relevant markets.

Our view is that intervention by antitrust authorities in a fast growing and changing market can have substantial negative consequences for innovation and consumer

KEY FINDINGS

- The extent of market power enjoyed by Google is a debatable question.
- The antitrust literature emphasises the importance of error costs in making judgements about the appropriateness of regulatory intervention.
- Regulators should find compelling and consistent evidence of anti-competitive harm before intervening in a market, as the costs of wrongful action can be very high.
- In these perspective, one can compare the US approach with the EU one, regarding Google services and anticompetitive practices.

Andrea Varsori is PhD Candidate at King's College.

Diego Zuluaga is research fellow at Institute of Economic Affairs and Deputy Director at Epicenter network.

welfare. Any assessment of the EC's case against Google in the use of its search engine and of Android should take these risks into account. An analysis of such risks will be the focus of this paper. We shall begin by discussing how the Federal Trade Commission, the US antitrust authority, has acted on similar allegations. We shall then review the EC's charges against Google relating to search and the manifold effects that an antitrust action of this kind can have on the European digital market. Finally, we will assess the strength of the charges against Google on Android, by also showing the context of the mobile software market worldwide.

The FTC Case against Google

In the years that passed between the opening of formal investigations and the sending of a Statement of Objections by the European Commission, the Federal Trade Commission (FTC), the antitrust authority of the United States, examined similar allegations against Google. On January 3rd, 2013, the Chairman of the FTC, Jon Leibowitz, announced in a press conference that lawsuits would not be pressed against the Mountain View company. Instead, he announced a series of comprehensive commitments on the part of Google to settle some of the allegations¹, while the main charge, the so-called "search bias", was dropped. Google's practices were found as fair, and actually beneficial for the consumers².

The investigation itself had lasted for 21 months. It had required the submission and examination of around nine million pages of documents; numerous industry participants were interviewed and several key Google executives were heard, including Eric Schmidt, Google's Chairman and former CEO³. In addition, staff economists conducted several empirical analyses about the allegations made by complainants; the Commission also listened to formal complaints⁴.

The investigation was centred on three main allegations. The first concerned "**scraping**", or the practice of misappropriating the content of rivals for use in Google's own specialised search results⁵. The harm caused by this practice was allegedly magnified by the impossibility to selectively 'opt out' of specialised services like Google Shopping or Google Local, without being for this reason penalized or demoted in the appearance in search results⁶. The second accusation concerned **restrictions to advertise** on competing advertising platforms: in particular, Google's customers allegedly were prevented from using on third-party

1 Google agreed to enter into voluntary commitments around some search and advertising activities, and entered into a formal Consent Decree regarding standard essential patents. This article does not address the patent situation further. The European Commission's cases in this regard were conducted against Motorola and Samsung, ending in an Article 7 decision against Motorola (without imposing a fine) and in an Article 9 decision against Samsung.

2 FTC, "Opening Remarks of FTC Chairman Jon Leibowitz", January 3rd, 2013, p. 1. Available at <https://goo.gl/Fnjv87>, last viewed on June 18th, 2015.

3 J. Puzanghera, "Eric Schmidt defends Google in Senate antitrust hearing", *Los Angeles Times*, September 22nd, 2011. Available at <http://goo.gl/DeoLOf>, last viewed on June 14th, 2015.

4 FTC, "Statement of the FTC Regarding Google's Search Practices", FTC File Number 111-0163, January 3rd, 2013, p. 1. Available at <https://goo.gl/GuRpX8>, last viewed on June 14th, 2015.

5 FTC, "Opening Remarks", p. 3.

6 *Ibidem*.

advertising platforms the data gathered through Adwords, Google's advertising portal⁷. The FTC found that the practice of "multi-homing", i.e. the purchase of advertising space on several platforms, was significantly lower among small businesses, which would feel the impact of the restriction more than bigger firms. Finally, the third charge concerned Google's alleged **preferential treatment** of its own services, especially Google Shopping. In particular, plaintiffs claimed that Google undertook anti-competitive behaviour by issuing a special box for Google Shopping results in its Universal Search page, at the expense of other sites providing vertical search services. To this, Google replied by highlighting how the company encouraged customers to export their campaign to this new, vertical feature of Universal Search. Notwithstanding Google's version of the facts, this last charge was actually the most widely known.

As we will see, these three allegations closely resemble those issued by the European Commission against Google.⁸ On January 3rd, 2013, however, the FTC chose not to press lawsuits against any of them, with a bipartisan and unanimous vote of 5-0. Google agreed to make some voluntary changes to address the scraping and the AdWords API concerns, but was cleared of any wrongdoing regarding search bias.

This final settlement, nonetheless, can be considered as a good model of how an antitrust authority should act to stop anti-competitive activities without distorting the mechanisms of the free market and without being seen as protecting competitors more than competition itself. Dealing in it a little further will highlight the main differences in the approach at its base and the EC guidelines for action.

During the 21 months of investigation, the FTC searched only for proof of anti-competitive behaviour. In order for antitrust action to be justified, in fact, the FTC is required to find conclusive evidence of damage to competition, as outlined in Section 5 of the Sherman Act, the foundational document of U.S. antitrust legislation. Such anti-competitive action would have, for example, diminished Google's rivals' incentive to bring new and innovative content, or reduced Google's incentive to innovate, or restricted small businesses' access to new markets through multiple advertising.

In order to address concerns by the FTC in relation to the scraping and AdWords API issues⁹, Google proposed a set of voluntary commitments. A public letter to FTC Chairman Leibowitz from David Drummond, Google's Chief Legal Officer, described in detail how the Mountain View firm would correct its behaviour regarding the relevant charges¹⁰. In particular, the "scraping" procedure had to be severely limited; businesses, in fact, have been offered, through the completion of a web-based form, the option of opting out from Google's displaying of third-party content in its Covered Webpages¹¹. Google's Adwords

7 FTC, "Opening Remarks", p. 4.

8 The European Commission is also investigating contractual provisions in ads contracts with third party websites, an allegation not picked up by the FTC. This will be also dealt in further on. See <http://goo.gl/wpV2QD>, last viewed on June 25th, 2015.

9 The FTC, in fact, claimed to have found evidence of these two allegations. FTC, "Statement", p. 3.

10 D. Drummond, "Re: Google Inc.", File No. 111 – 0163, December 27th, 2012, available on <https://goo.gl/ZvRcHH>, last viewed on June 18th, 2015.

11 "Covered Webpages" means only Google's current Shopping, G+, Local, Flights, Hotels, and Advisor webpages, together with any future "substantially similar" successor and with any non-experimental

API¹² Terms & Conditions had to be modified so that third party tools would be allowed to manage campaigns programmatically cross platform¹³. As an indirect consequence, the management of advertising campaigns has been made more affordable for small companies.

As we have seen, all these commitments were required by the FTC because of inherent harm to consumers in the continuation of earlier behaviour. On the grounds of the third allegation on Google's search practices, however, the FTC did not find similar evidence: the Commission, thus, decided not to act. In the words of Chairman Leibowitz, "the evidence does not support the claim that Google's prominent display of its own content on its general search page was undertaken without a legitimate justification"¹⁴. With a unanimous vote, the FTC decided that Google's "primary reason for changing the look and feel of its search results to highlight its own products was to improve the user experience"¹⁵. In handling this particular allegation, the most sensational among the ones considered, the difference between the FTC and the European Commission becomes particularly evident, as the below analysis of the European case will show. The US antitrust authority, in fact, highlights that no antitrust action could be sensibly taken, as there was no solid proof of an act that might have harmed consumers. It is the public at large, in fact, that has to be safeguarded by the FTC: Chairman Leibowitz borrows the words from Earl Warren, Chief Justice of the United States from 1953 to 1969, in order to underline that the antitrust regulations protect "competition, not competitors"¹⁶. In this view, the demotions some websites had seen in search rankings could be seen as a natural, and incidental – indeed necessary - by-product of "competition on the merits", not as an intentional attempt to damage competitors¹⁷. Most importantly, according to the FTC, Google's changes to search, in particular Universal Search (including the substitution of Google Product Search with Google Shopping¹⁸), benefited users. After the modifications, in fact, Google presented a greater diversity of websites, as vertical search sites were naturally demoted to the benefit of some merchant websites and other pages. Finally, the change seemed to go in the direction of providing users with faster and more accurate answers¹⁹.

The difference in quality and motivation between the actions by the FTC and by the EC is rooted in the legal foundations of the two institutions²⁰. The US antitrust authority, in

specialized webpages linked with google.com and having the end of linking merchants with customers. D. Drummond, "Re: Google Inc.", p. 1.

12 Application Programming Interface.

13 D. Drummond, "Re: Google Inc.", pp. 2-3.

14 FTC, "Opening Remarks", p. 1.

15 FTC, "Opening Remarks", p. 5.

16 *Ibidem*.

17 FTC, "Statement", p. 2.

18 Google Product Search was part of organic search until 2012. Google changed the design in that year, launching Google Shopping as an advertising unit in a number of jurisdictions, and discontinued Google Product Search.

19 FTC, "Statement", pp. 2-3.

20 F. Vasoli, "Antitrust in Europa e negli Stati Uniti. Un confronto", in A. Mingardi and P. Zanetto (eds.),

fact, harks back to the Sherman Act of 1890²¹, which bans every agreement that “unreasonably” restrains competition: the main reason for the punishment of an act remains the defence of the rights of customers and their benefit. The antitrust activity of the Competition Commissioner, on the other hand, is aimed at actions which are harmful to the current state of competition: the European Commission, then, seeks to restore the situation that preceded the wrongful action, of which the competitors are the main victims²². The variance is in the focus: the FTC may admit behaviour that hurts rivals, if customers can benefit from it; the EC, on the contrary, is more disposed to hear adversary firms’ complaints. This feature of EC legal proceedings, among others, becomes apparent in the main investigation on Google’s “search bias”: the difference in the European focal point has been highlighted by a fundamental turn that took place in April.

The economics of Google in the context of EU antitrust probe

In April 2015, the European Commission issued a so-called Statement of Objections (formal charge sheet) against Google. The move followed five years after the investigations into alleged anti-competitive practices by the company had been initiated. While the original probe asserted potential abuses in four areas,²³ the charge sheet unveiled in April focused on just one of these, namely the allegation that Google “systematically favour[s] its own comparison shopping service in its general search results pages [...], irrespective of its merits.”²⁴ This is believed to have increased the use of Google’s own service, at the expense of competing ones. The Commission alleges that these practices have a detrimental impact on innovation and consumer welfare. Yet, far from this being a clear-cut instance of abuse of dominant position, as is often claimed in policy circles and public debates, there are serious questions about the appropriateness of antitrust action by DG Competition. Key variables like a properly defined relevant market, the applicable theory of harm, the extent of the harm to competition and consumer welfare, and the potential for Google’s practices to stifle the innovative process if unchecked, are all hotly debated. Proponents of antitrust action have not yet put forward a convincing case to settle each of these questions.

There is a great deal of uncertainty about the need for and the potential consequences of regulatory intervention. Such uncertainty, known in the antitrust literature as ‘error costs,’ suggests that the potential damage of unwarranted action is likely to be much more substantial than that arising from neglectful inaction.²⁵ This is a well-established precept

Colpirne uno per educarne cento. Il caso Microsoft e il futuro della concorrenza in Europa, Soveria Mannelli-Treviglio, Rubbettino-Leonardo Facco, 2005, pp. 109-114.

21 Available at <https://goo.gl/rHxr6Q> (Section 1) and <https://goo.gl/bvbCKN> (Section 2). Last view on June 18th, 2015.

22 F. Vasoli, “Antitrust in Europa e negli Stati Uniti”, pp. 118-119.

23 Press release: “Antitrust: Commission probes allegations of antitrust violations by Google”, European Commission, November 30th, 2010.

24 Fact sheet: “Antitrust: Commission sends Statement of Objections to Google on comparison shopping service”, European Commission, April 15th, 2015.

25 Cf. F. H. Easterbrook, “The limits of antitrust”, *Texas Law Review* 63.1 (August 1984), p. 2: “If the court errs by permitting a deleterious practice, though, the welfare loss decreases over time. Monopoly is self-destructive. Monopoly prices eventually attract entry. [...] judicial errors that tolerate baleful

in antitrust policy, which is magnified in the case of innovative industries about which, by definition, we know very little.

The following analysis highlights the dangers involved in a rushed ruling in favour of intervention, as sought by industry complainants and some EU officials. We begin with an outline of the error-cost framework, as established by Easterbrook and applied by Manne and Wright in their analysis of Google and antitrust in the American context.²⁶ We go on to examine the possible relevant markets for the purposes of the antitrust case. The case for a broader definition than has been used by EU antitrust authorities is made. We then look at the impact of Google's actions on competitors and the competitive process, finding that the grounds for intervention on the basis of harmful effects to competition are lacking. Finally, we analyse recent developments in online search to show that there is little evidence of a decline in innovation.

Uncertainty and the costs of antitrust error

The case for regulatory intervention to correct alleged anti-competitive practices tends to assume sufficient knowledge about the source of perceived wrongful practices, the extent of damage to the competitive process, and the likelihood that government action will deliver the desired outcome (and nothing more).²⁷

Yet, this idealised picture of antitrust hardly conforms to reality. Judgements about the extent of competition in a particular market are uncertain in the best of circumstances, for instance, in an established sector producing a straightforward and uniform product. Even then, heterogeneous consumer preferences, as well as myriad factors such as geographical location, brand recognition, the presence and extent of economies of scale, and contractual agreements between suppliers – to name but a few – complicate any assessment of whether an individual company's practices are anti-competitive. Any market contains information about billions of daily interactions between discrete individuals, who are in turn making dozens of separate choices which affect their other decisions. While markets aggregate all of this information and convey it in the form of prices, profit and loss, the drivers and motives of particular decisions – i.e. each of the individual bits of information which make up the whole – are rarely discernible to outsiders.²⁸ Indeed, this is why markets are deemed a superior tool for economic organisation: because they offer agents accurate and timely information about the optimal use of resources, information which could not conceivably be accumulated in any central register.

Nevertheless, the impossibility of obtaining the vast majority of information leading to a particular economic outcome raises substantial difficulties for antitrust authorities. The first challenge is to determine the causes and extent of a firm's dominance in a particular market. In the specific instance of Google, the comparably large market share of its

practices are self-correcting, while erroneous condemnations are not."

26 *Ibidem*, and G. A. Manne and J. D. Wright, "Google and the limits of antitrust: the case against the case against Google," *Harvard Journal of Law and Public Policy* 34.1 (Winter 2011).

27 G. A. Manne and J. D. Wright, "Google and the limits of antitrust", p. 176.

28 "[...] the knowledge of the circumstances of which we must make use never exists in [...] integrated form, but solely as the dispersed bits of incomplete [...] knowledge which all the separate individuals possess". F. A. Hayek, "The use of knowledge in society", *American Economic Review* 35.4 (September 1945), p. 519.

horizontal search engine is often cited as an indicator of dominance.²⁹ But this assumes that competition is solely with other horizontal search engines, which would appear to be negated by the fact that most plaintiffs in the Commission probe are vertical (specialised) search engines.³⁰ Even a definition that included both would appear restrictive, as social networks and apps are increasingly active competitors for the provision of information to users.

Once the relevant competitors have been established, the next question is where one firm's dominance of the market – if indeed this is the case – comes from. Does the relevant market feature ineluctable pressures towards monopoly, perhaps through network effects and the presence of large fixed costs and low variable costs?³¹ Or is a firm's preponderance merely the product of competition, innovation and consumer preferences? Next, the impact of this dominance on the competitive process and the welfare of consumers must be determined. The fact that a dominant firm is active in the provision of other, related services need not be evidence of potential anti-competitive practices. Indeed, vertical integration has been shown to be pro-competitive in most instances.³²

Yet, perhaps the most significant issue which antitrust regulators must grapple with is the potential for intervention to improve or worsen a given state of affairs. Considering the difficulty of ascertaining the relevant market, the drivers of dominance, and the impact of a dominant firm on competition, what is the risk of an antitrust ruling being wrong? And what is the potential cost of error?

Two categories of antitrust error can be identified. Type I errors, or 'false positives,' concern instances where authorities might rule a practice to be anti-competitive without its actually being so. Conversely, Type II errors or 'false negatives' involve anti-competitive practices that were not deemed as such by the regulator. Determining the prevalence and magnitude of antitrust errors is extremely difficult because it involves counterfactuals, but given the large size of the typical firm probed by antitrust authorities, and the fact that investigations tend to involve practices that are at the heart of firms' business activity, the stakes can be presumed to be high.³³ They are, however, not equally high for each type of

29 As of October 2014, Google's share of the European horizontal search market stood at 92.83 per cent, according to StatCounter. Figures cited by Business Insider:<http://goo.gl/Pajb0f>.

30 Complainants against Google include Yelp, TripAdvisor and Foundem, all of whom offer vertical search for food services, accommodation and/ or product comparison.

31 Geoffrey Manne and others have convincingly shown that neither network effects nor traditional 'essential facility' arguments can be used in the online search market. Cf. G. A. Manne and J. D. Wright, "Google and the limits of antitrust"; G. A. Manne, "The problem of search engines as essential facilities: an economic and legal assessment", *The Next Digital Decade: Essays on the Future of the Internet*, Washington, DC, TechFreedom, 2011, pp. 419-434; G. A. Manne and W. Rinehart, "The market realities that undermined the FTC's antitrust case against Google". *Harvard Journal of Law and Technology* (July 2013).

32 Joshua Wright, in particular, has analysed the impact of vertical integration in the context of search engines' alleged 'bias' for their own results. Cf. "Defining and measuring search bias: some preliminary evidence", *George Mason Law and Economics Research Paper* 12-14 (November 2011), p. 5.

33 As an illustration, EU competition authorities can demand up to 10 per cent of a firm's annual EU turnover in fines, as well requiring a number of commitments from the affected undertaking. The latter can involve the release of sensitive information, restrictions on sales and marketing practices, as

error. Type II errors, which would allow anti-competitive practices to continue unchecked, may involve certain social costs in the short run, but in the medium and long term they are likely to be corrected by market forces. This is because monopoly rents and abnormal profits attract new entrants into the market, while also creating incentives for innovation to overcome the monopolist's anti-competitive practices.³⁴

Type I errors, on the other hand, tend to stifle innovation and competition over the long run, for several reasons. First of all, it is hard to reverse a wrong antitrust ruling even after later evidence confirms that it was inappropriate. Indeed, it is more likely that manifestly erroneous interventions will continue to be used as precedent for future interventions.³⁵ Secondly, antitrust rulings tend to close off entire avenues for innovation and cost reduction, and the implications of mistakenly proscribing the bundling of multiple services or the use of large supplier discounts can be long-standing.³⁶ Thirdly, intervention is likely to cool incentives to entry into the concerned market, both by foreclosing the ability of new players to emulate the practices of established ones, and by signalling to potential entrants that their own innovative methods may be deemed harmful if they are too successful. Fourthly, under the usual assumptions, the cost of an unchecked monopoly is limited to losses through reduced output, while the cost of erroneous intervention affects all output by raising equilibrium prices.³⁷

The high potential costs of intervention have led scholars of antitrust to posit that, in the presence of uncertainty about whether a firm's practices are pro- or anti-competitive, a false negative is preferable to a false positive. Easterbrook in particular called for traditional antitrust evaluations to be replaced by a series of filters which would minimise the likelihood of a beneficial practice being ruled anti-competitive, rather than maximise the chance of all anti-competitive practices being identified.³⁸ In the context of the error-cost framework, this is equivalent to a cost-minimising approach to antitrust.

The importance of adopting an error-cost approach is magnified in the case of innovative industries, for a number of reasons. First, new innovations tend to be poorly understood, which not only increases the uncertainty of the procedure, but is also likely to make regulators over-reliant on monopoly explanations.³⁹ Second, innovations in dynamic markets tend to fundamentally threaten the business model of established competitors – think of Micro-

well as commitments to permanently refrain from the practices deemed harmful to competition. The compounded cost of a Type I error can thus be substantial.

34 F. H. Easterbrook, "The limits of antitrust", p. 15.

35 "There is no automatic way to expunge mistaken decisions of the Supreme Court". F. H. Easterbrook, "The limits of antitrust", p. 15.

36 These two practices were respectively ruled anti-competitive by the European Commission in its probes against Microsoft and Intel, the other two high-profile competition cases in the EU tech sector. Cf. D. Zuluaga, "Competition policy in the digital economy", EPICENTER Briefing (April 2015). Available at www.epicenternetwork.eu.

37 F. H. Easterbrook, "The limits of antitrust", pp. 15-16.

38 F. H. Easterbrook, "The limits of antitrust", pp. 17-40. The filters suggested by Easterbrook include market power, impact on output and firm survival, and the extent to which the alleged anti-competitive practice has been adopted in the sector in question.

39 R. H. Coase cit. in G. A. Manne and J. D. Wright, "Google and the limits of antitrust", p. 183.

soft PC software in the context of ever-increasing smartphone use, or local data storage against cloud storage – raising the latter's incentive to use antitrust as a tool to defend their position. Third, it is important to allow sufficient time to determine whether an innovative practice is anti- or pro-competitive, beyond the short-term increase in the innovator's market share.⁴⁰ If we are to go by past experience in the high-tech sector, a sudden rise in market share is no indicator of long-term market power.⁴¹ For these reasons, the importance of understanding and incorporating error costs into antitrust analysis is particularly critical in the European Commission's Google probe.

The case for broader market definition

As mentioned above, discussions of the Google case have tended to focus on the company's large market share in the horizontal search market, and its ability to use such preponderance to influence outcomes in the vertical search market, where Google Shopping competes with a number of specialised players. In order to understand Google's potential to behave in a sustainably anti-competitive fashion, however, it is important to define precisely what Google is competing for, and by extension, who its competitors are. For that, we need to understand the company's business model.

Google operates in a two-sided market. On one hand, it is in the business of providing relevant information to its users for free and at low time cost. It seeks to offer this through its horizontal and vertical search services, which respond to users' queries through an algorithm designed to maximise relevance.⁴² It thus acts as an organiser of information set up to minimise search costs, as first posited by Stigler.⁴³ On the other hand, Google derives revenue from the sale of advertising services, and as an intermediary between advertisers and websites. Apart from the price that the advertiser is willing to pay, the key variable for ads is their relevance to users, predominantly measured by the predicted "click through" rate to the website of the advertised product.⁴⁴

Google's continued success is thus dependent not just on the quality of the results delivered by its search engine, but also on its ability to match users with ads that they are likely interested in – the mere number of users is, in contrast, less important. The latter distinction is particularly important because it raises questions about Google's ability to out-compete its vertical search rivals.⁴⁵ If a user tends to look up [the best local dishes in Austria] on Google, but then goes to TripAdvisor to make a restaurant booking in Vienna, the value

40 F. H. Easterbrook, "The limits of antitrust", pp. 32-33.

41 Cf. *supra* note 15: High-tech firms deemed all-powerful in the past have, in the span of only a few years, been challenged by new innovations.

42 Cf. G. A. Manne and J. D. Wright, "Google and the limits of antitrust", pp. 189-213, for a detailed explanation of Google's algorithm and results-ranking policy.

43 G. J. Stigler, "The economics of information", *Journal of Political Economy* 69.3 (June 1961), p. 220. Interestingly, Stigler predicted "a strong tendency toward monopoly in the provision of information," although this is presumably dependent on how narrowly one defines the market for a specific category of information.

44 G. A. Manne, "The problem of search engines as essential facilities", p. 426.

45 It also contradicts the common assumption that scale (i.e. number of users) gives an insurmountable advantage to incumbents, becoming a barrier to entry for new competitors.

of that user to each search engine is very different. In that scenario, Google would derive no advertising revenue from her, whilst her value to TripAdvisor is substantial, because she goes to them when she actually intends to make a purchase. In other words – and assuming millions of users like the one in our example – Google may enjoy a broader user base, but the quality, from the search engine’s perspective, of the average user may well be lower for Google than for TripAdvisor and other specialised search engines like Yelp.⁴⁶

Relatedly, it is important to understand that horizontal and vertical search engines can be either substitutes or complements depending on the particular search and user in question. If our hypothetical user browsed for Viennese restaurants on Google, and then went to TripAdvisor to make her selection, she would be using Google and TripAdvisor as complements to facilitate her search. If, on the other hand, she goes to TripAdvisor directly when she wants to make a restaurant booking, bypassing Google altogether, then TripAdvisor is acting as a substitute for Google. In both instances, however, the horizontal and the vertical search engines are competing against one another to monetise the user’s search.

The European Commission and some of Google’s competitors claim that the company’s alleged preferential treatment of its own vertical search results – as delivered through Google Shopping ads – hampers competitors’ ability to reach users with relevant information. This, in turn, would threaten their viability by reducing their value to advertisers.

However, the relationship between Google’s universal search engine its advertising system and competing vertical services cannot be viewed in isolation. These firms compete for the provision of information to users and the sale of advertising services. They are thus vying for online users’ eyeballs, i.e. the attention spent on each of the companies’ services, in the hope that some of the time some of the users will click through a paid link.⁴⁷ But they are not alone in this effort, as countless other online services, from online news sources and individual websites to – increasingly – social networks are also in the business of providing abundant information to a growing user base with little time and a short attention span. Most of these non-search-engine competitors also derive the bulk of their income from advertising. The market in which Google operates, i.e. the delivery of relevant information financed through targeted advertising sales, is therefore much broader than a narrow focus on search engines might suggest.⁴⁸

As we expand the market to incorporate all relevant competitors, Google’s market share diminishes: According to eMarketer.com, the company’s global share of search advertising revenue will reach 55 per cent in 2015, down slightly from the previous two years – and in the context of rapidly expanding ad volume.⁴⁹ If we include all forms of digital advertising, which seems appropriate given that all Internet users can be assumed to spend their time online on a variety of search engines and websites,⁵⁰ Google’s global share shrinks to 31 per

46 G. A. Manne, “The problem of search engines as essential facilities”, pp. 427-428, and G. A. Manne and J. D. Wright, “Google and the limits of antitrust”, pp. 202-203.

47 G. A. Manne and W. Rinehart, “The market realities that undermined the FTC’s antitrust case against Google”, p. 10.

48 G. A. Manne and J. D. Wright, “Google and the limits of antitrust”, pp. 221-222.

49 “Google will take 55% of search ad dollars globally in 2015”, March 31st, 2015. Available at <http://goo.gl/iz9dQH>.

50 Surveys of online retailers have also found that the different varieties of digital advertising (search,

cent (as of 2014).⁵¹ Its preponderance is further diluted if we then add offline advertising, which some analysts and anecdotal evidence suggest is seen by advertisers as a substitute to online ads.⁵²

A broad definition of the relevant market, including at least all digital providers of information and advertising services, would appear most appropriate. This is not just because horizontal and vertical search engines, as well as other online platforms, are effectively competing for the same user base and advertising budgets. It is also because a broad market definition offers a more accurate picture of market contestability, i.e. the ability to challenge established players. The online marketplace is highly dynamic and constantly evolving,⁵³ and there is ample evidence of established practices which were challenged from outside the narrow market where they were prevalent: Microsoft and smartphones is one example, social networks and instant messaging apps are another. Indeed, one might argue that the greatest competitive threat currently facing Google is not per se the rise of competing vertical search engines, but rather the growing role of smartphone technology in online activity, which in turn makes apps an increasingly common conduit for online traffic – and thus users' time and attention – eschewing the role traditionally played by Google's search engine.⁵⁴

Google's impact on competitors and the competitive process

There is a tendency to conflate conduct that may harm a firm's competitors with conduct which could harm the competitive process, i.e. the ability of other firms, both existing and potential, to contest a market. Yet, making a clear distinction between the two is essential to effective antitrust policy. Practices which threaten a competitor's position are part of, indeed fundamental to, healthy market competition.⁵⁵ This was recognised by the U.S. Federal Trade Commission as it closed its investigation of Google in 2012, with the FTC's outside counsel reiterating that its "mission is to protect competition, and not individual competitors."⁵⁶

display and contextual) are viewed as substitutes. Cf. G. A. Manne and J. D. Wright, "Google and the limits of antitrust", p. 196.

51 Data compiled by www.statista.com.

52 G. A. Manne and J. D. Wright, "Google and the limits of antitrust", pp. 197-198.

53 Cf. D. A. Crane, "Search neutrality as an antitrust principle", *George Mason Law Review* 19.5 (2012) for the policy implications of dynamic online markets.

54 These developments have also likely increased competitive pressures for Google to integrate vertically, moving away from the stereotypical "ten blue links" model, in order to retain more users for longer. Cf. D. A. Crane, "Search neutrality as an antitrust principle", pp. 4-5, and A. Renda, "Antitrust, regulation and the neutrality trap: a plea for a smart, evidence-based policy", *CEPS Special Report* 104 (April 2015), pp. 13-14.

55 J. Wright, "Defining and measuring search bias", p. 6.

56 Press release: "Google agrees to change its business practices to resolve FTC competition concerns in the markets for devices like smart phones, games and tablets, and in online search", Federal Trade Commission, January 3rd, 2012. A similar stance is taken by the European Commission in its Guidance to EU antitrust law, cf. B. Vesterdorf, "Theories of self-preferencing and duty to deal – two sides of the same coin?", *Competition Law and Policy Debate* 1.1 (February 2015), p. 6.

Nevertheless, the potential for Google's alleged preferential treatment of its own results has often been claimed as indicative of harm to competition in online search.⁵⁷ Such thinking underpins arguments that Google's search engine is an "essential facility" that must be available on equal terms to vertical competitors, as well as calls for so-called "search neutrality" to limit Google's ability to manipulate its algorithm. Thus it is worth considering to what extent such manipulation of results is legitimate, and how it might conceivably harm the ability of vertical search engines to compete.

There is little theoretical or empirical justification for "search neutrality." Indeed, the benefit of a any search engine would seem to lie precisely in that it delivers "non-neutral" results.⁵⁸ Search engines are a filtering device to bring users relevant answers to their queries, dramatically reducing search costs for them.⁵⁹ It happens to be the case that, some search traffic flows from horizontal to vertical engines, and then from vertical engines to the relevant merchant or information provider. However, the essence of innovation in search is the reduction in search costs for users - primarily time costs since search engines are overwhelmingly free to use. Therefore, to the extent that users can find what they are looking for directly from horizontal search engines - what Google is attempting to offer - it cannot be argued that any reduction of traffic to another search provider is in any way harmful to consumer welfare, or indeed to competition or the innovative process. In fact, such a change would appear to be pro-competitive.

Furthermore, in order to ensure continued relevance, results must constantly be updated to reflect new information, changing user preferences and the relative quality of existing results. And new innovations have meant that search engines are now able to deliver a much richer set of answers – including maps, user reviews, and direct replies to queries about (e.g.) the weather – than was the case before. While these improvements may allow users to completely bypass intermediaries – such as vertical search engines – to the extent that they enable faster access to more accurate information, they are clearly pro-competitive and pro-consumer.

Some of the confusion regarding the "neutrality" of search engines may stem from the fact that users have tended to perceive organic (i.e. non-paid) results as somehow objective.⁶⁰ Yet, the ranking of results is determined by an algorithm that, by design, involves subjective choices and unrelenting change. This is what enables search engines to compete with each other on the basis of the quality of their results, and it is also why answers to the same query will not be identical on Google and Bing/ Yahoo. But it means that "search bias" is an essential feature, not a bug, of the process. As far as the specific bias towards search engines' own content is concerned, empirical studies have found such bias to be "a relatively infrequent phenomenon," with Microsoft's Bing far more likely than Google to treat its own content preferentially.⁶¹

57 Cf. M. Luca, T. Wu et al., "Is Google degrading search? Consumer harm from universal search", for the latest study in this tradition. Accessible at <http://goo.gl/zEFfnl>.

58 A. Renda, "Antitrust, regulation and the neutrality trap", pp. 13-15, and J. Grimmelmann, "Some skepticism about net neutrality", in B. Szoka and A. Marcus (eds.), *The Next Digital Decade: Essays on the Future of Internet*, Washington D.C., TechFreedom, 2011, p. 442.

59 D. A. Crane, "Search neutrality as an antitrust principle", p. 5.

60 D. A. Crane, "Search neutrality as an antitrust principle", p. 7.

61 Cf. J. Wright, "Defining and measuring search bias", pp. 49-51. The author also finds search bias to be

Even acknowledging the impossibility of “search neutrality,” it has been argued that Google’s position in horizontal search enables it to harm vertical search competitors by reducing their visibility in general search results, hampering their ability to reach users and derive advertising revenue from them. These claims are rooted in the theory that Google’s search engine is an “essential facility,” i.e. that lack of access to it would make it “impossible or extremely difficult” for vertical search engines to compete.⁶²

There are a number of possible objections to this narrative. First, the economic features of an essential facility do not seem to be present in the case of Google. As we have seen, barriers to entry are low, and because search engines compete for quality – of results and users – as well as quantity, scale is not a decisive factor.⁶³ By contrast, essential facilities typically exhibit high fixed (capital investment) costs and low variable (operating) costs. This explains why they tend to be the sole supplier, which in turn justifies – at least in theory – demanding guaranteed access for competitors. Regardless of Google’s market share, however, its position is easily contestable, and indeed contested on a query-by-query level.

Second, Google is not an indispensable conduit for vertical search engines to reach users. In addition, there are many online and offline alternatives for the latter to publicise their services and make them available to users, from ads on websites, social networks and printed publications, to links on relevant online sources and paid advertisements on search engines, as well as placement in the organic results of competing horizontal ones like Yahoo.⁶⁴ Some of the above alternatives might be better than others depending on the particular vertical search engine’s line of business and target audience, but the point is that additional channels are available. This is confirmed empirically: Only 25 per cent of vertical travel search engine Kayak’s traffic comes from horizontal search engines – any of them – while 35 per cent is direct.⁶⁵ For flight search engine Skyscanner, the percentages are 40 per cent each for direct traffic and search traffic. Other vertical services obtain a larger share of their traffic from horizontal search engines – up to 75 per cent for TripAdvisor and Foundem – but this is probably a consequence of their own marketing strategies, rather than any essential dependence on Google, Yahoo and others.

Third, the legal case for intervention on essential facility grounds is dubious. The Court of Justice of the European Union (CJEU) has tended to favour a narrow definition of essential facilities to avoid abuse by complainants, arguing that “it is not sufficient that access to the product or service in question would be convenient or useful.”⁶⁶ Given the empirical evidence, EU precedent appears to advise against application of the essential facilities doctrine in the case of Google. Furthermore, even if Google was found to be an essential facility

a product of vertical integration, with likely pro-competitive benefits in the context of heterogeneous and dynamic consumer preferences.

62 A. A. Massadeh, “The essential facilities doctrine under scrutiny: EU and US perspective”, *UEA law School Working Paper Series* (2011), p. 1.

63 G. A. Manne and J. D. Wright, “Google and the limits of antitrust”, pp. 208-212.

64 Geoffrey Manne lists a more comprehensive set of alternative channels. Cf. “The problem of search engines as essential facilities”, pp. 423-424. Cf. also B. Vesterdorf, “Theories of self-preferencing and duty to deal”, p. 8.

65 All the figures listed are available at www.similarweb.com. Last accessed on June 29th, 2015.

66 CJEU, quoted in Vesterdorf, “Theories of self-preferencing,” p. 7.

with a duty to supply its competitors, it does not follow that it would have an obligation to give results from rival websites identical treatment to the one given to its own results.⁶⁷ In the past, the Commission itself has called equal treatment, as demanded by complainants, “an unprecedented constraint imposed on a company [...] [which] would deprive European users from the search innovations that Google has introduced.”⁶⁸

It is thus highly unlikely that Google could ever be able to exclude vertical competitors from access to users and advertising.

Is innovation in online search stalling?

Ultimately, if competition in online search was being undermined by Google, one would expect innovation in the sector to slow. Established practices and methods would remain unchallenged, and existing players would become entrenched. Incidentally, this is a hallmark of highly regulated industries like banking, transport and the utilities, where high compliance costs raise barriers to entry and incumbents are able to capture the regulatory process.⁶⁹

As anyone familiar with the matter will acknowledge, the above is scarcely representative of recent and ongoing developments in the online search market. Change and innovation continue to characterise the sector, and they take many different forms. Google’s own transformation, from a purely horizontal search engine offering “ten blue links” in response to a user’s query, to an increasingly sophisticated direct source of information which can anticipate user intent when typing a particular word into the search bar, is one of them.⁷⁰ The emergence of ever more specialised vertical search engines, which cater to very specific user needs and tastes and can therefore develop a comparative advantage in that particular niche, is another. An example of a successful new specialist is Quixey, “the search engine for apps,” which enables users to browse results from different mobile applications at the same time.

The horizontal search market is also under continuous transformation. The traditional American players, Google, Microsoft’s Bing, Yahoo and AOL have been joined by new players from emerging markets, most prominently Yandex of Russia and Baidu of China. The latter have largely focused on their own domestic markets until recently, but there is no reason to doubt their will – and ability – to expand to other countries in the near future. Additionally, social networks are taking advantage of the potentially valuable information posted by millions of its users every day to answer other users’ queries.

Perhaps the most momentous development of all, however, is the rise of smartphone technology and its consequences for online search. With an increasing proportion of users’ Internet time being spent on mobile devices,⁷¹ more and more online traffic is happening

67 B. Vesterdorf, “Theories of self-preferencing and duty to deal”, p. 7: “This obligation [to deal] has not given rise to any requirement for identical treatment”.

68 “Almunia sticking to his guns in Google antitrust case”, *EurActiv.com*, March 13th, 2014, cit. in B. Vesterdorf, “Theories of self-preferencing and duty to deal”, p. 8.

69 Cf. G. Stigler, “A theory of economic regulation”, *Bell Journal of Economics and Management Science* 2.1 (Spring 1971), pp. 3-21. Stigler argues that, “as a rule, regulation is acquired by the industry and is designed and operated primarily for its benefit”.

70 D. A. Crane, “Search neutrality as an antitrust principle”, pp. 2-3.

71 Indeed, TIME magazine has predicted that “most internet users will soon be smartphone-only”. See

through apps. This has created new market opportunities for search specialists, especially product comparison engines like Amazon, eBay and Alibaba, who can now keep users in the self-contained environment of their mobile applications. Yet, this could pose an existential threat to general search engines, who will have to find a way to reconcile the increased specialisation and customisation that is becoming the norm, with their traditional mission of offering all things to all people.

Developments both within and outside the horizontal and vertical search spheres are therefore fundamentally changing the way users look for information – and advertising technology to monetise the new trends is evolving apace.⁷² This further reinforces the view that Google's relevant market is broader than its immediate competitors, and it shows that, despite allegations of growing market concentration and potential exclusion, innovation in the field of online search is thriving.

Summing up

Competition analyses of Google have tended to assume that it is a quasi-monopoly with the potential and ability to exclude competitors by blocking their access to users. As the above discussion demonstrates, however, the firm's power to influence developments in its market is much less than commonly portrayed, because it competes with a far wider range of information providers than merely other horizontal and vertical search engines. Competitors can reach users in many ways, most of which do not necessarily involve the use of Google services. Furthermore, given low barriers to entry and an expanding user base, opportunities to challenge Google's position would appear to be plentiful. Ongoing developments in online search confirm this impression, as the firm's preponderance in individual segments of the market is continually contested by old competitors and new, be they other search engines, vertical specialists, or apps.

The Android case

Uncertainties about the effectiveness and the appropriateness of antitrust action in the digital sector are certainly not shared by DG Competition. The latter, in fact, threatened to carry on another intervention in this rapidly evolving market. As we have seen, on April 2015, the European Commission officially sent a Statement of Objections to Google, with concern to alleged its Shopping service. On the same day, however, a second prong of the European Commission offensive against Google was revealed. EU Competition Commissioner Margaret Vestager, in fact, also announced the opening of a formal investigation against the Mountain View company, this time on the grounds of alleged anticompetitive behaviour regarding the Android mobile operating system (OS)⁷³.

As the Commission itself stated in its official press release, the investigation was decided

B. Bajarin, "Most Internet Users Will Soon Be Smartphone-Only", *Time.com*, December 30th, 2014. Accessible at <http://goo.gl/R2fGIA>.

72 See G. Dobush, "5 digital innovations changing advertising and marketing in 2015", *Consumer Electronics Association - Blog*, April 16th, 2015 for an update on new online advertising methods.. Accessible at <http://goo.gl/NGNWBo>.

73 Press Release: "Antitrust: Commission sends Statement of Objections to Google on comparison shopping service; opens separate formal investigation on Android", European Commission, April 15th, 2015, <http://goo.gl/llkB2D>, last viewed on June 3rd, 2015.

“after the receipt of two complaints, as well as an initial investigation carried out by the Commission on its own initiative”⁷⁴. It should be emphasised that the opening of an investigation does not necessarily imply that a Statement of Objections will be sent in the future, nor that sanctions will eventually be imposed on Google. Therefore, it could simply constitute the beginning of a complex process of dialogue and bargaining between Google and the Commission.

The EC will proceed with regard to three main allegations. As with the first one, the Commission will assess whether Google has illegally hindered the development or market access of rival mobile applications or services by requiring or incentivising smartphone and tablet manufacturers **to exclusively pre-install** Google’s applications and services. This, of course, could constitute an instance of anti-competitive behaviour, as Google would have then stemmed its rivals’ investments in innovation and competition. The Commission will need to prove that Google has market power, not only market share (which could constitute an unreliable proxy), and that Google is really excluding competitors from its platform in an anti-competitive manner.

Secondly, the Commission will evaluate if Google has somehow prevented smartphone and tablet manufacturers from exploiting the open source nature of the Android operating system by developing variants, or so-called **“forks”**, of the original OS. The potential harm to consumers would then lie in the fact of preventing the emergence of better mobile platforms and the possibility to choose between different and better versions of Android. The Commission will need to prove that emergence of rivals and liberty of choice have been denied in order to guarantee Google’s control on the software.

Lastly, the Commission will investigate if Google has illegally hindered the development or market access of rival applications and services by **bundling** some of its own applications and services to other Google apps, services or application programming interfaces (API). This accusation is slightly different from the first one, inasmuch as the contested behaviour is not the pre-installation of some Google apps or services in tablets and smartphones, but rather the unjustified tying of a Google application or service with another Google product when licensing them out. This action would bring harm to competitors; less competition, in turn, could bring significant harm to consumers. The Commission will need to prove that users have actually been damaged.

In order to better understand the allegations, we shall focus briefly on what Android is and on its position in the mobile OS market with respect to its rivals.

Android is an open source mobile OS; its beginnings can be traced back to Android, Inc., a firm that had been founded in Palo Alto, Ca. in 2003. Android, Inc. was bought in 2005 by Google for \$50 million; at the time, observers recognized this acquisition as the first move of Google in the mobile devices market. This became all the more evident two years later, when the Open Handset Alliance, a consortium formed by Google and a set of phone manufacturers, unveiled itself and Android as its first product⁷⁵. The Android OS was first installed on the HTC Dream, a smartphone released on October 22nd, 2008.

74 Fact Sheet: “Antitrust: Commission opens formal investigation against Google in relation to Android mobile operating system”, European Commission, April 15th, 2015, <http://goo.gl/WCEZ5g>, last viewed on June 9th, 2015.

75 Open Handset Alliance, “Industry Leaders Announce Open Platform for Mobile Devices”, November 5th, 2007. Available at <http://goo.gl/1l28Hw>, last viewed on June 20th, 2015.

Even though Google did not benefit from a first mover advantage - the smartphone market had already been pioneered by Blackberry and by Apple, with their own OS operating systems - Google managed to acquire a large share of the market in the next couple of years. According to International Data Corporation, which documents the number of quarterly mobile units shipped globally, three years after launch, Android had a share of 36.1% of the mobile operating system market in Q1 2011, climbing up to 59.2% in Q1 2012, to 75.5% in Q1 2013, and to 81.2% in Q1 2014, before shrinking a little to 78% in Q1 2015⁷⁶. Other data, provided by StatCounter, a Dublin-based web traffic analysis tool, show that global browsing activity with Android devices started from 0.66% in January 2009, three months after the release of HTC Dream; this climbed to 4.54% in January 2010. The threshold of 10% was quickly passed between September and October of that year: in January 2011, 14.61% of mobile browsing happened on Android OS. In January 2012, this arrived to 23.21%; the year later, to 36.87%; according to the latest figures, in March 2015, it had arrived to an absolute majority of mobile browsing, with 61.94%⁷⁷. In Europe, however, Android's share is even higher: it commanded, in Q2 2014, the 71% of platform market share in France, 74% in Italy, 81% in Germany and 84% in Spain⁷⁸, albeit with recent signs of weakening⁷⁹. Google thus has out-competed older rivals, like Apple, Blackberry and Nokia's Symbian, by making Android the most used mobile OS in the world.

Now, Android has become the target of DG Competition. It is not the first time, however: Google's mobile presence has already been probed between 2011 and 2013 by the South Korean antitrust authority, the Fair Trade Commission. Its inquiry was opened after two local search engine firms filed a complaint on the allegedly unfair pre-installing of Google Search on Android mobile phones. After two years, the Commission found that South Korean rivals were not hurt and that competition was not limited by Google's practices⁸⁰. Some months before, in January 2013, the United States' FTC, while announcing that Google had been cleared of its allegations in the "Google Shopping" case, also revealed that an investigation that was undergoing at the same time on the Android OS had not provided sufficient evidence to justify further legal actions against the Mountain View company⁸¹. Later, in 2015, the Android market for apps, Google Play Store, was held under

76 IDC, "Smartphone OS Market Share Q1 2015", <http://goo.gl/riWcYy>, last viewed on June 3rd, 2015.

77 StatCounter, "Top 8 Mobile Operating Systems from Dec 2008 to Mar 2015", <http://goo.gl/uTDCju>, last viewed on June 9th, 2015.

78 T. Danova, "These Charts Show How Android Is Demolishing Apple In The Key European Smartphone Markets", *Business Insider*, August 15th, 2014. Available at <http://goo.gl/i2Bww5>, last viewed on June 24th, 2015.

79 According to data from the Kantar Wordpanel consultancy network. Available at <http://goo.gl/6XeAE8>, last viewed on June 24th, 2015.

80 Y. Lee, "South Korea's fair trade commission clears Google after 2-year probe", *NBC News*, July 18th, 2013. Available at <http://goo.gl/e7qtoX>, last viewed on August 7th, 2015.

81 In particular, the FTC "conducted an extensive investigation into allegations that ... Google entered into anticompetitive exclusive agreements for the distribution of Google Search on both desktop and in the mobile arena. The agency decided not to take action in connection with these allegations". See Press Release: "Google Agrees To Change Its Business Practices...", Federal Trade Commission, January 3rd, 2013. Available at <https://goo.gl/khgBjv>, last viewed on August 8th, 2015. The FTC has reportedly reopened an investigation into Android, even if there is no official confirmation yet. See

scrutiny by the Taiwan Fair Trade Commission after a complaint by a local company: the case was dismissed in the summer of the same year⁸².

Yet, it is still too early to advance a comparison, as we know little about the European case as it stands today. The announcement of a formal investigation, in fact, is only the beginning of a long and complex process that might well end with the Commission dropping the case or accepting a commitment from Google, thereby avoiding a formal probe altogether. The latter outcome, however, seems fairly unlikely from today's perspective. The main reason for this assertion is historical: as we have analysed in the preceding section, the Commission has already refused to accept three different sets of commitments from Google on the "search bias" case. The case of the rejection of the third set is exemplary: even if, at the beginning, the Commission deemed it to be "adequate" and "far-reaching"⁸³, DG Competition ultimately rejected it some months later, mostly because of an intense lobbying activity on the part of Google's competitors⁸⁴. In general, in earlier similar cases in the innovative industries Competition Commissioners have showed resolve and pressed ahead for a sentence, as they were often capable to obtain a guilty verdict against firms for abuse of a "dominant position" and then defend it in European Courts⁸⁵. The fact that, in European Union antitrust law, the Commission acts as judge, jury and prosecutor at the same time contributes to the achievement of this kind of outcome. In some cases, we should also not underestimate the political value of a guilty verdict when an American firm is involved.

We can see both of these points in the Microsoft case, which first spurred enforcement in technology markets. This case is recognised as a landmark case, as it has been one of the most important cases in the Commission's history, and one that made the then Competition Commissioner, Italy's Mario Monti, highly renowned internationally. The case also can show partial similarities to one of the three current allegations in the Android investigation: one of the two accusations against Microsoft, in fact, involved the "bundling" of a Microsoft application together with the whole Windows operating system⁸⁶. The app, known as Win-

S. Thielman, "Google's Android under antitrust investigation by FTC", *The Guardian*, September 25th, 2015. Available at <http://goo.gl/xl9g4l>, last viewed on September 26th, 2015.

82 D. D. Sokol, "Taiwan Fair Trade Commission Closes Investigations Into Allegations that Google Abused Dominant Position", *Antitrust & Competition Policy Blog*, August 8th, 2015. Available at <http://goo.gl/XVfvdQ>, last viewed on August 9th, 2015.

83 I.e., in February 2014. See C. Cain Miller and M. Scott, "Google Settles Its European Antitrust Case; Critics Remain", *New York Times*, February 5th, 2014. Available at <http://goo.gl/YccAQl>, last viewed on August 9th, 2015.

84 G. Smith, "E.U. rejects Google's latest effort to settle antitrust case", *Fortune*, September 9th, 2014. Available at <http://goo.gl/OtIpmB>, last viewed on August 9th, 2015.

85 While the Commission has had setbacks in the merger area before the European Courts (e.g., Air-tours), the courts have regularly backed the Commission's cases in the Article 102 TFEU area.

86 The second charge regarded Microsoft's alleged "abuse of dominant position" in the relevant market of "work group servers". In particular, Microsoft was accused to have denied rival operating system vendors access to fundamental interface information, thus not allowing them to create software that could be interoperated with Windows. This charge posed some important problems as for the intellectual property of Windows' source code: these problems are more akin to those that could emerge from the "search bias" case, with regard to Google's search algorithm, than to those that could come from the Android "forks" case. Information on the Microsoft case is available on the Commission's

dows Media Player (WMP), was always pre-installed on Personal Computers featuring the Windows OS since 1990⁸⁷. The Commission maintained that the inclusion of this feature in the standard version of Windows harmed WMP's direct competitors, hereby damaging digital music customers. This version was confirmed through three different Statements of Objections from 2001 to 2003, notwithstanding the fact that the bundling of other applications in Windows helped to lower or nullify user prices⁸⁸ and that a sizable number of users actually installed other media players without any obstacle⁸⁹.

At the end, the Commission decided to punish Microsoft for the WMP charge and for another allegation involving interoperability problems. The Seattle company was forced to pay a \$497 million fine and, as for the WMP case, it had to develop a European version of Windows without its media player⁹⁰. The case itself lasted three more years, because of Microsoft's appeal to the European Court of First Instance. The main point to be learned from this long legal proceeding is of a different nature, though: during the battle between the European Commission and Microsoft, the market for consumer electronics witnessed the first of a series of impressive mutations. Some two months before the EC final decision, Apple unveiled its first iPod Mini, the first model with the "Click Wheel". Between 2005 and 2007, the iPod Nano and Shuffle were launched: finally, in 2007, the first generation of iPod Touch and iPhone were sold on the market. This was the start of a revolution that completely changed how we listen to digital music and, actually, also how we connect to the world. These events made Windows Media Player practically obsolescent; no one of them, however, could have been predicted by DG Competition.

From this set of transformations, the global diffusion of smartphones was born, as we have seen, and the prevalence of Android followed soon after. As for Microsoft before, a hugely successful company has now come under the target of the European antitrust authority. For what concerns the Android case, however, there could be some teeth to its allegations: perhaps more than in the Google Shopping case.

With regard to "forks", for instance, the nature of Android as an open source software entails the possibility that manufacturers and IT firms may develop too many different versions of this OS, thus fragmenting the market (Linux never took off as a realistic desktop alternative to Microsoft Windows for precisely this problem). In order to prevent a fragmented ecosystem where Android apps stop working on forked devices, Google and mobile manufacturers have concluded several voluntary agreements concerning compatibility between different devices. Manufacturers such as Acer and Samsung have accepted to provide users with similar and compatible versions of Android. Critics, however, have

DG Competition site at <http://goo.gl/r4tId>, last viewed on June 18th, 2015.

87 Press Release: "Microsoft Confirms That The European Commission Has Merged Two Separate Pending Cases", Microsoft, August 30th, 2001. Available at <http://goo.gl/gpT1ez>, last viewed on June 20th, 2015.

88 D. B. Kopel, *Antitrust after Microsoft: The Obsolescence of Antitrust in the Digital Era*, Chicago, Il., Heartland Institute, 2001. Outline available on <https://goo.gl/js6Ctl>, last viewed on June 20th, 2015.

89 For example, RealPlayer at the time was installed on more than 90% of global PCs. A. Mingardi and P. Zanetto, "Microsoft e Antitrust europeo. Cronaca di una condanna annunciata", in A. Mingardi and P. Zanetto (eds.), *Colpirne uno per educarne cento*, p. 21.

90 The EC Decision on Microsoft is available at <http://goo.gl/QA3xLs>, pp. 298-301, last viewed on June 20th, 2015.

suggested that these agreements have, in practice, the effect of preventing anyone to create a successful competitor to Android using modified source code of the OS, thus restraining the freedom of action of hardware makers and retaining control of this successful product. This issue is particularly relevant in new markets where Google is trying to boost the use of Android: for example, watches, or “smart TVs”, or cars⁹¹. So, the new Asus Zen Watch, which could become a rival to the Apple Watch, will have severely limited software customization; the situation is akin for cars’ Android entertainment systems. Google, on its part, claims that some restrictive legal measures will only last until the company is sure that the software is fully adjusted to the new hardware.

Fragmentation and compatibility between different versions of Android, however, are likely to remain disputed issues in the near future: agreements on this matter will still be deemed necessary by Google, potentially entailing legal consequences from local antitrust authorities. On one hand, as far as phones and tablets are concerned, it is unclear how these restrictions can harm app developers or users: both groups have a huge interest in developing and using apps that will “just work” on Android devices. This outcome will not be secured if Android forks proliferated and re-created the Linux situation on the desktop. On the other hand, as for the aforementioned new markets, Google’s attempt to apply compatible-only versions of Android to watches, cars and other objects would possibly be played by the Commission as a broader proof for their current allegation. On the longer term, the expansion of Google in these sectors would also blur the distinctions between “relevant markets”, as Google’s advantage on the mobile OS market would be used by the Mountain View company in order to compete for shares of the car sales market, for example⁹². This phenomenon is generally deemed as harmful by the Commission, which tends to see it as an instance of “collective dominance”⁹³.

As far as mobile is concerned, on the other hand, Google restrictions on Android forks are not so easy to point out. Some particularly visible cases have been made public recently: for example, in January 2014, Google and Samsung entered a round of negotiations so that the former managed to obtain from the latter the cancellation of Magazine UX, a new user interface that changed substantially the appearance and organization of standard Android interfaces⁹⁴. Nonetheless, the share of global smartphone shipments retained by hardware relying on “forked” Android has been rising, from 14% in Q4 2012 to 22% in Q1 2014⁹⁵.

91 I. Fried, “Android Exec Says Google Will Loosen Reins On Watches, TVs and Cars Over Time”, *Re/Code*, October 16th, 2014. Available at <http://goo.gl/wjGtjk>, last viewed on June 11th, 2015.

92 Even if Google is not a direct competitor on the car market, a potential success of “smart cars” and the same compatibility issues that are present in mobile markets can constitute a reason for Google to strengthen its links to the car making industry. The creation of the Open Automotive Alliance, echoing the Open Handset Alliance of Google’s heyday, and the presentation of Android Auto, on June 25th, 2014, may be seen as a first step in this direction. C. Welch, “Google is bringing Android to the Car with Android Auto”, *The Verge*, June 25th, 2014. Available at <http://goo.gl/HPvfy5>, last viewed on June 30th, 2015.

93 A. Kaczorowska, A., *European Union Law*, Abingdon, Routledge, 2011, pp. 873-877.

94 I. Fried and L. Gannes, “After Google Pressure, Samsung Will Dial Back Android Tweaks, Homegrown Apps”, *Re/Code*, January 29th, 2014. Available at <http://goo.gl/f0Ag0W>, last viewed on June 18th, 2015.

95 J. Edwards, “Proof That Android Is Really For The Poor”, *Business Insider*, June 27th, 2014. Available at <http://goo.gl/S03d5I>, last viewed on June 12th, 2015.

This fact is not going to change in the future, because of two persistent features of the global smartphone market. The first feature is the presence of Amazon. Amazon.com is an American online retailer, which started its business in book-selling. It has hugely diversified its activities in recent years. Amazon has also tried to acquire a share in the consumer electronics market: its tablet, the Kindle Fire, is using a forked version of Android. Amazon actually offers a very rigid variant of this OS, as customization is very restricted and the user is highly dependent on Amazon's own app environment. Google services, in this case, are not provided as a pre-installed feature. The Kindle Fire has been pointed out as an example of closed, autonomous version of Android that partially exposes the weakness in the EU Commission's allegation on forks. In any case, even if recently Amazon is struggling to wield its share in a shrinking tablet market (with a decrease from 7.4% of shipments in Q4 2013 to 2.3% in Q4 2014), for now is one of the most important tablet producers, still a long way from Apple (28.1% in Q4 2014) and Samsung (14.5%), but not so far from Asus (4.0%)⁹⁶. It is still a valid competitor, as long as its other business activities are not harmed.

The second reason for the persistence and thriving of Android forks is China. In China, in fact, consumer electronics are booming, while Google, since January 2010, chose to stay gradually on the side-lines, as a result of past contrasts on freedom of expression in the local version of the search engine. The last episode in the long-running feud between Chinese authorities and Mountain View concerned Google's refusal to recognize the Chinese internet authority's certificates of trust for local websites⁹⁷. This has had huge effects on Google's presence in the People's Republic, as its share of the search engines market has subsided from 36.2% in August 2009 to 1.7% in October 2013⁹⁸. As a result, Chinese original equipment manufacturers (OEMs) are using the Android open source software in order to profit from the expanding home demand: Google, however, cannot do anything about it. Moreover, Chinese mobile customers, even when enjoying an original or modified version of Android OS, do not usually download their apps from Google Play Store, rather preferring alternative app stores. Local start-ups and major web companies, as a consequence, often bypass the Play Store and prefer to give directly the app files⁹⁹. Reportedly, Google executives are thinking about a comeback to China, by offering an official Android version with in-built apps and, therefore, limited customization akin to Amazon's Kindle Fire¹⁰⁰.

We should also look to the wider context, in order to assess Google's "dominant" status. All hypotheses of monopoly are thwarted by the existence of a well-known competitor: Apple. This rival is more successful on the mobile market than Google currently is. In the last year, in fact, Google suffered a setback in the form of Samsung, the largest manufacturer

96 J. Cook, "Sales of Amazon's Kindle Fire tablet have been decimated", *Business Insider UK*, February 3rd, 2015. Available at <http://goo.gl/0pgxod>, last viewed on June 12th, 2015.

97 A. Kharpal, "Why Google and China are in a war over the internet", *CNBC*, April 2nd, 2015. Available at <http://goo.gl/eD6Bdz>, last viewed on June 12th, 2015.

98 P. Carsten, "Microsoft blocks censorship of Skype in China: advocacy group", *NBC News*, November 27th, 2013. Available at <http://goo.gl/ajvCO8>, last viewed on June 20th, 2015.

99 S. Millward, "Chinese Apps are Bypassing Google's Play Store, Giving Android Apps Straight to Users", *Tech in Asia*, March 30th, 2012. Available at <https://goo.gl/c5NXLz>, last viewed on June 30th, 2015.

100 R. Winkler, A. Barr, W. Ma, "Google Looks To Get Back Into China", *The Wall Street Journal*, November 20th, 2014. Available at <http://goo.gl/Vigh8u>, last viewed on June 12th, 2015.

of Android smartphones, seeing its profits declining by 60 percent between Q3 2013 and Q3 2014¹⁰¹. The situation was similar in Q4 2014, with a decline of around 50 percent¹⁰².

On these grounds, even if the Commission's investigation has just started and its outcome is still undefined, the allegations that moved this action are uncertain and debatable, to say the least. The "pre-installation" and "bundling" charges have precedents in the Microsoft case: we cannot claim for deep similarities between the two cases, however. Firstly, as we have seen, Android is in a highly competitive environment¹⁰³, while Microsoft Windows, at the end of the '90s, enjoyed a quasi-monopoly. Moreover, Microsoft's position was less defensible: laptops and PCs equipped with the Windows OS were always provided with WMP pre-installed; no such contractual obligation exists for Android OEMs (they can choose on a device-by-device basis whether to pre-install Google apps, and are free to offer competing apps and features). This is possible thanks to the voluntary basis of the agreements between manufacturers and Google; the very open source nature of the OS is also a positive factor.

Finally, choice is already there for the customer, who can find it right in the Google Play Store. The Android environment, in fact, is by itself more open to rival developers' apps and even to rival app marketplaces, as the Amazon and Samsung app stores, or the local Chinese third-party stores. Actually, Android is the only platform that allows the development of rival app stores. Rival apps, moreover, can also be pre-installed, through similar voluntary agreements, alongside or instead of Google's own set of apps. Rival apps, in any case, can compete with Google by brandishing their "vertical" properties (as for TripAdvisor) or by exploiting their social character: for example, among the nine apps with more than one billion downloads on the Play Store, six are Google's, but three are Facebook's (Facebook, Facebook Messenger and WhatsApp)¹⁰⁴. As competition thrives both in Android itself and between Android and other OSs, Google's "dominant position" is ill-defined, as there is no lack of rivals.

For what concerns the "forks" charge, on the other hand, the lasting presence of Amazon, the success of forked versions in China and the open source nature of Android can guarantee that any attempt by Google to lock "its" mobile OS will probably fail. In this and other respects, the European Commission's investigations in high-tech and rapidly changing sectors are actually overlooking the huge benefits that have been reaped by consumers in recent years as a consequence of the innovation and growth of the mobile Internet economy¹⁰⁵.

101 D. Chmielewski, "Samsung Warns of Lower Third-Quarter Earnings", *Re/Code*, October 6th, 2014. Available at <http://goo.gl/UMKjip>, last viewed on June 12th, 2015.

102 Samsung Electronics Pre-Earnings Guidance (2014.4Q), <http://goo.gl/kChQ8Y>, last viewed on June 12th, 2015.

103 Reportedly, Apple has achieved a higher profitability on its mobile devices: its share of smartphone industry profits has recently soared to 92%. S. Ovide and D. Wakabayashi, "Apple's Share of Smartphone Industry's Profits Soars to 92%", *Wall Street Journal*, July 12th, 2015. Available at <http://goo.gl/r2uYq6>, last view in September 12th, 2015.

104 "Quali sono le app più scaricate dal Play Store di Google?", *Il Post*, June 10th, 2015. Available at <http://goo.gl/nQL6Rw>, last viewed on June 20th, 2015.

105 The Boston Consulting Group estimates that the total annual consumer surplus created by the mobile Internet in 13 major countries is approximately \$3.5 trillion. On a per capita basis, the average

The European Commission, then, is currently treading an uncertain path, searching for blurred concepts in a constantly changing environment. Of course, as we have stated before, the opening of an investigation does not determine that this inquiry will finally result in a Statement of Objections, much less in the payment of a fine. However, the abstention from any legal action whatsoever would have been a more sensible and cautious move on the part of the EC. High-tech markets are among the most dynamic productive sectors and are susceptible to huge changes occurring in very small periods. This entails risks of losing sight of what a truly “dominant position” or “dominant market share” can actually be. The absence of rigidly defined boundaries between these and other kinds of markets often contributes to impair the search conducted by antitrust authorities. As the situation stands now, DG Competition should engage in an earnest dialogue with Google on the allegations of the Android case. Complaints from competitors should only be examined if a real damage to consumers can be proved. This might be the case, if any, for the allegation on forks. On this and other accusations, the antitrust authorities and Google should carry on a mutual exchange of information and a clarification of intentions: this can build again a relationship based on trust and could, if necessary, result in a set of commitments that addresses in a selective and effective manner only those behaviours that allegedly damage mobile phone users. For this set of commitments to be beneficial to consumers, overall, it should be achieved rapidly and precisely; it is a result that was hardly obtained in the past years, also with respect to the parallel Google Shopping case. Google, at that point, could engage itself in respecting said set of agreements. Only by arriving at a fast and definitive solution to this case the European mobile phone and app markets will not be damaged by the EC’s legal actions of the last months.

Conclusions

Our inquiry into the EU antitrust case against Google, its American parallel, and the still vague case on Android has led us to be reasonably doubtful about the decisions that have been enacted by the European Commission. In our opinion, the DG Competition should choose to pursue a less forceful and less interventionist approach. This view is based on the above analysis of the main allegations, of the current situation of the global digital market and of the potential alternative courses of action.

As we have seen, during the time that the EC spent unsuccessfully bargaining with Google for a commitment that could avert the imposition of a fine, the FTC managed to come to an agreement with the Mountain View company without damaging innovation. Hardly from being too soft on Google, the US antitrust authority acknowledged the existence of some negative conducts enacted by the search engine firm. Nonetheless, the two main actors in the dispute avoided the full consequences of a lawsuit and agreed on an extensive set of commitments that the FTC can enforce. The FTC did not see the need to “exact vengeance” on a successful firm of the digital sector on behalf of its competitors.

In Europe, on the other hand, the Commission has decided, after a change at the helm of the DG Competition in November 2014, to send a Statement of Objections against Google, thus making the prospect of a fine more plausible. This outcome, however, should be avoided at all costs. Firstly, the importance of rivals’ complaints in shaping the Commis-

annual surplus is around \$4,000, seven times what users actually pay for devices. BCG, *The Growth of the Mobile Internet Economy*, February 10th, 2015. The report is available online on <https://goo.gl/j0XdFL>, last viewed on June 30th, 2015.

sion's judgement is a negative factor in the assessment of charges against Google. Secondly, the very nature of the Commission, judge, jury and prosecutor in antitrust issues, does not help in arguing for the suitability of the Commission's role. Thirdly, and most important, the relevance of the main allegation against Google, i.e. the "search bias" argument, is greatly diminished by a thorough analysis of the current state of the global digital market. The geographically narrow approach of the Commission, which focuses solely on Google's "predominance" in the continent, masks a context that spans the entire world and that is still very competitive and open to innovation.

The formal opening of an investigation on Android, in this respect, appears as a new error of the same kind. The current DG Competition, to be fair, is showing a very active approach in the pursuit of potential anti-competitive behaviour in the digital market. Recent news about possible inquiries into other successful firms in the sector, including Amazon, seems to be testament to this. One can only hope that this new boost in assertiveness by antitrust authorities will not be seen as a way to achieve a political punishment against expanding American digital companies; similarly, we can hope that these new proceedings will not become a bargaining tool; nor shall we think about a potential role of antitrust actions in the overall dispute on some companies' strategy of "tax avoidance".

More simply, one can hope that the protection of competition will prevail on the protection of competitors.

On the whole, however, it is the danger of intervention in the digital market that constitutes the foremost worry. The latter sector of global economic activity is still thriving after more than thirty years from the beginning of the computer revolution. New actors, both from advanced and emerging countries, enter the market each year. New applications of current technology are being discovered. Old distinctions between markets become blurred. In this context, action by antitrust authorities could be seen as unnecessary and unwise. Not only does previous experience show that innovation is quick to threaten any dominant firm's position, but the potential costs of erroneous public intervention are likely to be very high. We know little about what drives economic outcomes in the digital sector, but from all available evidence, it is one of the most competitive, most challenging, most thriving markets in the world. Regulatory action may actually stifle, not help its continued vibrancy.

Chi Siamo

L'Istituto Bruno Leoni (IBL), intitolato al grande giurista e filosofo torinese, nasce con l'ambizione di stimolare il dibattito pubblico, in Italia, promuovendo in modo puntuale e rigoroso un punto di vista autenticamente liberale. L'IBL intende studiare, promuovere e diffondere gli ideali del mercato, della proprietà privata, e della libertà di scambio. Attraverso la pubblicazione di libri (sia di taglio accademico, sia divulgativi), l'organizzazione di convegni, la diffusione di articoli sulla stampa nazionale e internazionale, l'elaborazione di brevi studi e briefing papers, l'IBL mira ad orientare il processo decisionale, ad informare al meglio la pubblica opinione, a crescere una nuova generazione di intellettuali e studiosi sensibili alle ragioni della libertà.

Cosa Vogliamo

La nostra filosofia è conosciuta sotto molte etichette: "liberale", "liberista", "individualista", "libertaria". I nomi non contano. Ciò che importa è che a orientare la nostra azione è la fedeltà a quello che Lord Acton ha definito "il fine politico supremo": la libertà individuale. In un'epoca nella quale i nemici della libertà sembrano acquistare nuovo vigore, l'IBL vuole promuovere le ragioni della libertà attraverso studi e ricerche puntuali e rigorosi, ma al contempo scevri da ogni tecnicismo.

I Briefing Paper

I "Briefing Papers" dell'Istituto Bruno Leoni vogliono mettere a disposizione di tutti, e in particolare dei professionisti dell'informazione, un punto di vista originale e coerentemente liberale su questioni d'attualità di sicuro interesse. I Briefing Papers vengono pubblicati e divulgati ogni mese. Essi sono liberamente scaricabili dal sito www.brunoleoni.it.