

**The European Commission Is
Undermining R&D and Innovation:
Here's How to Change It**

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Abstract

On July 18, 2018, the European Commission fined Alphabet (Google) 4.34 billion euros. This decision confirms the Commission's willingness to deter companies from engaging in anticompetitive practices. It also confirms that the European competition authority is missing the big picture by imposing disproportionate fines with regard to the specifics of the digital economy.

According to Article 23(2) of Regulation No 1/2003, the fines imposed by competition authorities cannot exceed 10% of the overall annual turnover of the concerned company. This limit is intended to avoid disproportionate sanctions that would jeopardize the company's future. In fact, however, while this turnover threshold is useful, it is insufficient. The digital economy requires companies to compete by innovating. R&D investments have become the lifeblood of the digital economy and the very essence of competition. The specific competitive dynamics of the industry should also be taken into account in considering the extent to which fines imposed by competition authorities can disrupt the investment capacity of companies.

This article introduces an empirical study conducted over the period 2004 to 2018 (Android included) on all the fines imposed by the European Commission on the basis of Article 102 TFEU. We show that the European Commission's decisions may have the effect of slowing down R&D for numerous sanctioned companies. For this reason, an innovation protection mechanism should be incorporated into the calculation of the fine. We propose doing so by introducing a new limit that caps Article 102 fines at a certain percentage of companies' investment in R&D.

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“One of the great mistakes is to judge policies and programs by their intentions rather than their results.”²

Introduction

On July 18, 2018, the European Commission fined Alphabet 4.34 billion euros for purportedly “*illegal practices regarding Android mobile devices to strengthen dominance of Google’s search engine*”.³ This year, as well, the European Commission fined Qualcomm 997 million euros for preventing adversaries from competing on the market.⁴ A few months earlier, on June 27, 2017, the Commission slapped Google with a fine of 2.42 billion euros for abusing its dominant position in the search engine market by promoting its own price comparison service.⁵ Such practices falling under Article 102 TFEU are consistently being fined more and more heavily.

Yet the practices implemented by a dominant company are not anticompetitive *per se* under European law. Accordingly, competition agencies are required to prove, on a case-by-case basis, that they are creating an anticompetitive object and/or effect on the market. But the Commission is now avoiding doing so by using the concept of “*potential anti-competitive effect*”⁶ on competition, which allows it to presume the existence of anticompetitive effects without showing them, even though the practices took place in the past (and anticompetitive effects, if any, should be observable). This does not prevent competition authorities from imposing heavy fines, however. The disconnect between the amount of the fine and the (un)certainty of the anticompetitive effects is concerning.

In order to preserve the proportionality of fines, Article 23 of Regulation CE n°1/2003⁷ provides that fines should be limited to 10% of the consolidated annual global turnover of the company. In practice, this 10% threshold is never reached, causing some observers to argue that the fines actually imposed are not as significant

² Milton Friedman, *Interview with Richard Heffner*, in THE OPEN MIND (December 7, 1975).

³ Case COMP/40099 - Android (July 18, 2018), http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_40099.

⁴ Case COMP/40220 - Qualcomm (January 24, 2018), http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_40220.

⁵ Case COMP/39.740 - Google Shopping (June 27, 2017), http://ec.europa.eu/competition/antitrust/cases/dec_docs/39740/39740_14996_3.pdf.

⁶ See Case COMP/39.740 - Google Shopping, 589 (June 27, 2017), http://ec.europa.eu/competition/antitrust/cases/dec_docs/39740/39740_14996_3.pdf.

⁷ Council Regulation No. 1/2003, 2003 O.J. (L 1).

as they might be. But, in fact, this argument ignores the fundamental characteristic of the digital economy in which companies compete with each other through innovation (rather than price). R&D investments have become the lifeblood of the digital economy and the very essence of competition.⁸ The specific competitive dynamics of the industry should be taken into account in considering the true magnitude of antitrust fines and the extent to which fines imposed by competition authorities can disrupt the investment capacity – that is, the competitiveness – of modern technology companies.

⁸ The ten most profitable companies in the world invest far more in R&D today than they did twenty years ago. See PwC, *The 2017 Global Innovation 1000 study* (2018), <https://www.strategyand.pwc.com/innovation1000#GlobalKeyFindingsTabs4>. See also Dan Gallagher, *Big Tech's Growth Comes With a Big Bill*, WALL ST. J. (July 17, 2018), <https://www.wsj.com/articles/big-techs-growth-comes-with-a-big-bill-1531819800>.

What the data show

During the period from January 1, 2004, to July 18, 2018, the European Commission imposed 10 fines based on an infringement of Article 102 TFEU. The table below compares the fines to the companies' annual investment in R&D.

Case and date of introduction	Company (s) sanctioned	Amount of the sanction (€)	Revenues of the sanctioned company (€)	Investments in R&D of the sanctioned company (€)	% of R&D investment represented by the sanction
40220 16.07.2015	Qualcomm	€997 million 21.01.2018	€22.3 billion ⁹	\$5.15 billion (in 2017) / €4.9 billion ¹⁰	20.5 %
40099 15.04.2015	Alphabet (Google)	\$5.04 billion / €4.34 billion 18.07.2018	\$110,855 billion (in 2017) ¹¹ / €93.73 billion	\$16,625 billion (in 2017) / 14.05 billion euros	30,32%
39523 15.10.2014	Slovak Telekom	€69.9 million 15.10.2014	€767 million ¹²	R&D expenditure in the Deutsche Telekom Group amounted to €84.1 million in 2016 ¹³	83.2 %
39984 05.03.2014	OPCOM / Compania Națională de Transport al Energiei	€1 million 05.03.2014	/	493 000 RON	909 %

⁹ Statista, Qualcomm's revenue from FY 2012 to FY 2017 (in million U.S. dollars), <https://www.statista.com/statistics/737780/revenue-of-qualcomm/>.

¹⁰ Ashraf Eassa, Here's Why Qualcomm, Inc.'s Research and Development Spending Dropped in 2016 (Feb. 21, 2017), <https://www.fool.com/investing/2017/02/21/heres-why-qualcomm-incs-research-and-developments.aspx>.

¹¹ Alphabet, Form 10-K, for the fiscal year ended December 31, 2017, https://abc.xyz/investor/pdf/20171231_alphabet_10K.pdf.

¹² Slovak Telekom, Annual Report 2014, <https://www.telekom.sk/documents/10179/44166/2014-EN-annual-report.pdf/96095a80-775a-453e-88a2-abfc89317d03>.

¹³ Slovak Telekom, Annual Report 2016, <https://www.annualreport.telekom.com/site0317/management-report/innovation-and-product-development/expenditure-and-investment-in-research-and-development.html>.

	Electric "Transelectrica"			(€111,526) ¹⁴	
39759 12.07.2011	ARA foreclosure	€6 million 20.09.2016	€190 million (in 2015)	€1 million ¹⁵	600 %
39525 22.06.2011	Telekomuni kacja Polska	€127 million 22.06.2011	€3.9 billion	€14 millions (in 2011) ¹⁶	907 %
39740 30.11.2010	Alphabet (Google)	€2.42 billion 27.06.2017	\$110,855 billion (in 2017) ¹⁷ / €93.73 billion	\$16,625 billion (in 2017) / €14.05 billion ¹⁸	17.22 %
37990 13.05.2009	Intel	€1.06 billion 13.05.2009	€25.6 billion	€5.65 billion (in 2009) ¹⁹	18.8 %
38784 04.07.2007	Telefonica S.A.	€151 million 04.07.2007	Estimated at €56.4 billion (in 2007) ²⁰	4.3 billion (in 2009) ²¹	3.5 %
38113 29.03.2006	Prokent/To mra	€24 million 29.03.2006	€336 million (in 2002)	€13.6 million (in 2006) ²²	176 %

¹⁴ Transelectrica, Annual Report 2014, http://www.transelectrica.ro/documents/10179/1843327/00_Raport+Anual+2014_ENG_final.pdf/b8ccd365-a47c-49c0-9cba-b90e564b8b4e.

¹⁵ Internal source.

¹⁶ Telekomunikacja Polska, Consolidated annual report RS for the year 2012, http://www.orange-ir.pl/sites/default/files/tp_fy2012%20consolidated%20report.pdf.

¹⁷ Alphabet, Form 10-K, For the fiscal year ended December 31, 2017, https://abc.xyz/investor/pdf/20171231_alphabet_10K.pdf.

¹⁸ Alphabet, Form 10-K, For the fiscal year ended December 31, 2017, https://abc.xyz/investor/pdf/20171231_alphabet_10K.pdf.

¹⁹ Statista, Intel's expenditure on research and development from 2004 to 2017 (in billion U.S. dollars), <https://www.statista.com/statistics/263562/intel-expenditure-on-research-and-development-since-2004/>.

²⁰ Telefonica, Annual Report 2007, https://www.telefonica.com/documents/153952/13347920/1Anual_2007_eng.pdf.

²¹ Telefonica, Annual Report 2009, <https://www.telefonica.com/documents/153952/13347920/Significant%20Data.pdf>.

²² Tomra, Annual Report 2006, <https://mytomra.com.au/-/media/documents/reports/annual-reports/2006.ashx?la=en&hash=A9EB76A2FE30E4BBC237DCE52FFD892EFD9ABC5Bf>.

Comments on the findings

A. Methodology

For each of these decisions, we have preferably taken into account the turnover and the R&D investment made during the year of the sanction. When data for the year of the sanction was not available, we indicated the chosen reference year. For all of the amounts relating to R&D investment, we have indicated the source to the extent that the amounts are not provided by the European Commission itself. This information is nonetheless public and does not violate any business secrets.

B. Innovation in danger

For the vast majority of the decisions listed above, the amounts of the fines imposed by the European Commission represent a very high percentage of what companies invest annually in R&D. As a matter of fact, the imposed fines represent on average 277% of what companies invest annually in R&D. The percentage is significantly lower – 166% on average – for companies with annual sales of more than one billion euros. As for companies operating in digital sectors with an annual revenue of more than one billion euros, the fines represent 21.7% of their annual R&D investment on average, which remains considerable insofar as the three targeted companies (Qualcomm, Google and Intel) have increased their R&D spending up to, respectively, 4.9 billion, 15.1 billion and 5.65 billion euros.²³ And lastly, let us note that several fines are out of any kind of proportion. This is particularly the case for those pronounced against OPCOM, ARA Foreclosure and Telekomunikacja Polska, which respectively reach 909%, 600% and 907% of their R&D investment.

It then appears that the fines imposed by the European Commission are anything but derisory.²⁴ And as a consequence, the European Commission's decisions may have the effect of drastically slowing down innovation of numerous sanctioned companies.

Even for the largest companies, these fines are highly likely to force them to cut their R&D investments, or, at least, to slow them down. No company can be fined several hundred million euros – or several billion – without its R&D budget being

²³ Amounts spent on R&D in the year of the sanction.

²⁴ It would be inappropriate to suggest that the companies are not investing enough in research and development. It is not for lawyers, let alone judges and competition agencies, to interfere in firms' internal governance decisions.

impacted, regardless of its profits. The structure and organization of companies do not allow them to absorb such fines without it affecting one of their most significant sources of expenditure.

If we take Google as an example, its R&D expenses represent 15% as a percentage of revenues,²⁵ which evidently is a significant portion of its expenses. This percentage has been relatively stable since at least 2015 when its R&D spending was \$12,282 billion. With regard to the *Google Shopping* fine, the company has provided bank guarantees in lieu of a cash payment for the fine. It is therefore too early to say what the impact will be on its R&D investment and how exactly it will absorb the fine, but the company already expects “*changes to our business practices.*” The same is true for the *Android* fine, and, because such record fines are a new phenomenon in the digital sector, the coming months and years will show us the extent to which a competitive disadvantage has, in fact, been created by the European Commission. Notably, the company says that it is uncertain as to the impact of these sanctions on its financial stability.²⁶ It follows that the European Commission *necessarily* is ignorant of such concerns, as well, which is thus clearly not reflected in the calculation of its fine.

This does not mean that we should grant anticompetitive behaviours a free pass. Certain anticompetitive practices may have the direct effect of increasing the company’s revenues. In addition, a desire to preserve the investment capacity of firms engaging in anticompetitive conduct cannot excuse practices that reduce the investment capacity of other firms. For that reason, the company’s investments in R&D should be taken into account at the stage of calculating the fine, not at the stage of characterizing the conduct.

Nevertheless, it seems appropriate to refrain from sanctioning past behaviours – on the grounds that they have reduced the well-being of consumers – by jeopardizing the innovative *future* of a company. Doing so would reduce consumer welfare a second time, although in a largely invisible manner. As Frédéric Bastiat pointed out in 1850 in a writing entitled, “*That Which Is Seen, and That Which Is Not Seen*”:

²⁵ Alphabet, Form 10-K, For the fiscal year ended December 31, 2017, https://abc.xyz/investor/pdf/20171231_alphabet_10K.pdf.

²⁶ Alphabet, Form 10-K, For the fiscal year ended December 31, 2017, p. 74, https://abc.xyz/investor/pdf/20171231_alphabet_10K.pdf.

In the department of economy, an act, a habit, an institution, a law, gives birth not only to an effect, but to a series of effects. Of these effects, the first only is immediate; it manifests itself simultaneously with its cause—it is seen. The others unfold in succession—they are not seen: it is well for us if they are foreseen. Between a good and a bad economist this constitutes the whole difference—the one takes account of the visible effect; the other takes account both of the effects which are seen and also of those which it is necessary to foresee.²⁷

C. The need to introduce a new cap

There are many ways to measure and assess fines. The Commission has been given an upper limit based on global revenue, but why is that the right measure? And even within that limit, it has discretion to impose fines and, as shown, does not seem to do so with regard to their effect on innovation. Given the possibility that innovation could be affected by fines even within the upper global-revenue-based limit, and given the double effect on consumers, agencies and legislatures should investigate the relationship between fines and innovation further to ensure that innovation is not curbed by greatly reducing the investment capacity of companies, whether or not they have been partially enriched through the breach of competition rules. It hence seems appropriate to take account of this in the context of assessing the quantum of the fines imposed by competition authorities, in particular on the basis of Article 102 TFEU where effects on competition are often being discussed.

If we are to acknowledge the need to cap the fines imposed by competition agencies, we must also ensure that they actually promote competition rather than setting them at such a high levels that they do not. The 10% turnover cap is insufficient to ensure the proportionality of fines imposed in digital sectors. In fact, one may wonder why such fines should vary so widely as a function of turnover, let alone of innovation.

A new cap should therefore be considered,²⁸ and we propose doing so by limiting the fines to a certain percentage of companies' investment in R&D.²⁹ Presumably no company would have an incentive to voluntarily reduce its investment in R&D over the years for the sole purpose of obtaining a smaller sanction in a possible, though unlikely, antitrust decision at an unknowable date. Such a mechanism should

²⁷ Frédéric Bastiat, *That Which Is Seen, and That Which Is Not Seen* (1850), <https://mises.org/library/which-seen-and-which-not-seen>.

²⁸ For more on this, see Thibault Schrepel, *L'innovation prédatrice en droit de la concurrence*, 549-550 (Bruylant, 2018).

²⁹ It is up to economists to establish the optimal level of this threshold.

therefore have no adverse effect on firm behaviour, and, conversely, would provide better protection for innovation.

And, as matter of fact, structural and behavioural remedies may also have a direct impact on innovation, regardless of the size of the firm. The latter are not subject to any proportionality control which simply limits the amount of the fines. It may therefore be necessary to introduce such a control and/or limitation mechanism to behavioural remedies, as well, lest the failure to take R&D into be reflected in these remedies as well. Behavioural remedies that are supposed to correct abuses but nevertheless deter competition are not remedial, at all.

In the end, the consumer would benefit from such limiting mechanisms by not suffering two damages: the first because of anticompetitive practices and the second because of sanctions that penalize innovation.