

The digital economy, a challenge to competition policies

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Summary:

The digital economy is upending the organization of markets and operation of the economy. By turning amateurs into professionals and challenging traditional commerce with new business models, digital technology has spawned a teeming, complicated ecosystem. Digital service platforms typically operate in two- or multi-sided markets; in other words, they position themselves in between different categories of customers or users. Based on drawing profit from crossing the network effects stemming from these different categories, this new business model has fostered sometimes surprising practices, which contrast with the usual conclusions adopted by competition regulatory authorities.

Economic studies of two- and multi-sided markets and of service platforms have developed considerably in the past few years (CAILLAUD & JULIEN 2001, 2003; ROCHET & TIROLE 2003, 2006). More recently, studies have focused on the implications of the digital economy for competition policies (EVANS 2003). They have recurrently emphasized that the major conclusions drawn for traditional markets cannot be extrapolated to e-businesses. This holds, in particular, for prices, which, if lower than costs, would be evidence of predatory (or abusive) behavior, or for profit margins, which, if too large, would necessarily be incompatible with strong competition (BEHRINGER & FILISTRUCCHI 2015; VASCONCELOS 2015; WRIGHT 2004). Despite these findings, several recent studies have suggested that the insights provided by the standard arguments about the manufacturing economy do still hold for service platforms.

Competition policy has tools well adapted for overseeing the practices of manufacturing.¹ But what about the digital economy? What diagnosis should regulatory authorities make? Do they have the right tools for correctly evaluating situations and behaviors with respect to competition? We would like to bring information to help answer these questions.²

Characteristics of digital firms

Digital technology in a firm is a source of growth. It brings lower costs, in particular for transactions, by facilitating interactions; and it helps match supply with demand by processing information. This advantage brings another source of efficiency owing to increased economies of

¹ In the EU, articles 101-109 of the Treaty Establishing the European Economic Community (TEEC, also called the Treaty of Rome) on the fight against ententes, the abuse of dominant position and the control of government subsidies.

² This article has been translated from French by Noal Mellott (Omaha Beach, France).

scale or higher productivity: the more customers a company has, the more capable it is of offering them a service of better quality at the same price.

These effects set off a virtuous circle, since gaining new customers improves, in turn, the quality to be offered, and so forth... This comes from the fact that the perceived quality of a service depends directly on the number of users; whence a network effect. Although this phenomenon already exists in the traditional economy, digital firms draw more profit from it by bringing into relation two or even several types of users via two- or multisided platforms. This is not a direct network effect, whereby each user benefits from the presence of others, but an indirect network effect, whereby different categories of customers (or rather of buyers and sellers) are brought together via the platform. Each category thus benefits from the categories of customers/users present on the other “side” of the market. This generates crossed externalities since at least one side of the market is normally a positive externality for the other(s). There are many examples: newspaper readers attract advertising, cybernauts attract advertisers, etc.

The reality of these crossed (or cross-sided) externalities underlies the business model adopted by service platforms: the side of the market generating the externality is subsidized by offering services at a very low price or for free, so as to consolidate a sizeable customer base and exert a strong attraction on the other side of the market.

The digital economy thus has two noticeable characteristics relevant to competition. First of all, on one side of the market, extremely low prices are set that arouse a strong suspicion of predatory behavior. Only an examination of prices on all the markets (or sides of the market) can clear up this suspicion. The second characteristic is the tendency toward a concentration of markets and the creation of dominant positions, reinforced by economies of scale and direct network effects and driven by the necessity to form a sizeable user base (EVANS & SCHMALENSEE 2007).

In the following pages, we shall describe the most significant insights gleaned from studies of how firms coordinate their actions, in particular through horizontal and vertical concentrations and unlawful agreements.

Horizontal concentrations

Horizontal mergers between companies competing in a single market normally reinforce the firm’s market position, this being reflected in higher prices, unless savings on costs happen to occur and act as a countervailing force (FARREL & SHAPIRO 1990). Ultimately, this market concentration does not necessarily harm consumers. The duty of competition regulators is to authorize such a concentration only if it improves (or at the very least leaves unchanged) the consumer’s well-being.³ In the case of digital service platforms however, another process is at work. A platform enables its users to benefit from the crossed externality between the two (or more) sides of the market. A horizontal merger thus gives users access to a larger base and, too, increases the possibility of interactions for each category of users.

By thus creating value, a horizontal merger of platforms can generate a gain of utility superior to the potential loss eventually ensuing from price hikes for access to the services offered. From this strict point of view, such a merger should not be forbidden (EVANS 2003), since it will probably not lead to higher prices. It might be in the merged platform’s interest to retrieve internally the externalities generated by the crossed network effect; it could do so by significantly lowering prices and thus exerting a stronger attraction on users (CHANDRA & COLLARD-WEXLER 2009).

³ See, for example, Council Regulation (EC) N° 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation). Available at: <http://eur-lex.europa.eu/legal-content/AUTO/?uri=CELEX:32004R0139&qid=1478450656241&rid=5>

By, however, taking into account the differences between the services offered and the presence in the market of platforms other than the ones being merged, we can hone the analysis to conclude that only mergers between highly substitutable platforms are likely to lead to higher prices (BARANES *et al.* 2014). This suggests that the same rules should hold for regulating horizontal concentrations of digital platforms as are normally applied to traditional markets.

Vertical mergers

In the case of vertical concentrations — mergers between firms in various stages along the value chain — competition regulators must evaluate the risk of abusive practices, which could eventually expel rival firms from the market upstream or downstream in the chain. How, then, to take into account the aforementioned crossed externalities, which characterize digital platforms, when analyzing the incentives and the capacity for vertical mergers to push competing platforms out of the market?

Traditionally, competition regulators adopt the general idea that a vertical merger softens competition downstream with a risk of higher prices for supplies upstream in the production process — whence the risk of chasing rivals out of the market (ORDOVER *et al.* 1990; CHEN 2001). Taking into account the two-sides of platforms forces us, however, to shade this opinion. Owing to crossed externalities in a vertical merger between a platform and its supplier, the merger might be profitable to rival, unintegrated platforms. Following the merger, prices are rising upstream in the chain of production, but crossed externalities might modify the nature of competition between rival platforms and cause higher prices downstream too (POUYET & TRÉGOUËT 2016). As a consequence, there might be a lesser risk of rivals being expelled from the market and thus a lesser need for competition regulators to become involved in controlling such concentrations. This insight has strong implications for the analysis of vertical price-fixing.

According to a study (KIND *et al.* 2016) of relations between television companies and content distributors (cable operators), the setting of prices directly by platforms allows for gains to users even though it resembles resale price maintenance (RPM), a practice still unlawful under EU competition law.⁴ In general, the diagnosis made by competition regulators about restricting vertical mergers of digital platforms should increasingly stand back from the usual conclusions drawn for traditional markets. This runs contrary to the conclusion drawn about horizontal concentrations (mergers or unlawful agreements).

Price-fixing agreements

The economic analysis of the factors that incite platforms to enter into price-fixing agreements is still very limited. Collusion between platforms would necessitate simultaneous price-fixing on both sides of the market. This would strongly impair the colluding firms' ability to implement it and sustain the agreement. A recent study⁵ has confirmed this insight, initially formulated by Evans and Schmalensee (2007).

A few empirical studies have tried to test how easy or difficult it is to sustain collusion in two-sided markets. According to a study on Italian newspapers (ARGENTESI & FILISTRUCCHI 2007), it was easy to fix prices on the side of the market turned toward readers; but it was much harder for dailies to simultaneously coordinate their actions on the advertising market, where rates were normally negotiated and frequently subject to rebates.

⁴ Article 102 of the TEEC.

⁵ Ruhmer (2011) has corroborated the negative impact of crossed externalities between the two sides of the market on the ability of firms to sustain price collusion.

Taking under consideration specific points inherent in competition between platforms could lead to questions about the status to be granted to businesses in the media industry. It has been proven that collusion on the sale price of newspapers and on advertising rates bears the risk of uniformizing contents (ANTONIELLI & FILISTRUCCHI 2012), a finding brought to light by studying the “joint operating agreements” under antitrust legislation in the United States, which allows newspaper companies to coordinate their prices under certain circumstances.

What recommendations for adapting competition policies?

Although competition regulators have the tools necessary for dealing with digital firms’ anticompetitive practices and with structural changes due to multisided markets, some of their arguments and tools should be adapted specifically to the digital economy. For example, it might be more complicated to identify and define “relevant” markets in cases of mergers or of abusive practices, since, by definition, digital platforms hook up at least two different categories of users.⁶ But that does not at all mean there is no need for competition regulators to formulate a definition (or even adapt the current one)⁷ of the damage to competition. This would help us understand and anticipate how platforms’ practices affect competition.

Given, however, the wide room of maneuver that digital firms have for continually reshifting the bounds of existing markets, or even creating new ones, competition regulators should concentrate, above all, on business models. Their aim should be to identify the competitors who are likely to challenge a dominant position not by proposing alternative goods and services but by vying with the dominant business model. This approach would pay more attention to the ability of digital firms to maintain, through innovations, strong competitive pressure in the marketplace. From this perspective, the collection and possession of big data are factors to be meticulously examined when applying competition policies (AUTORITÉ DE LA CONCURRENCE & BUNDESKARTELLAMT 2016).

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⁶ See Filistrucchi et al. (2014) on the Google/DoubleClick merger (Case COMP/M.4731).

⁷ Affeldt et al. (2013) have explained how to modify the “upward price pressure method” so as to anticipate the direction of price variations following a horizontal merger, in cases of concentration involving two-sided platforms. See, too, Boffa & Filistrucchi (2014).

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