

DIGITAL MARKETS IN EU MERGER CONTROL: KEY FEATURES AND IMPLICATIONS



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I. INTRODUCTION

Digital markets play an increasingly important role in the economy. This also translates in increased merger activity in this area and requires merger control enforcement authorities to get acquainted with the issues specific to those markets.

Against this background, this article seeks to identify certain key features of digital markets and describe their implications for the competitive assessment of mergers in this area. To this end, the article draws on the European Commission's (the "Commission") merger practice concerning digital markets, which continues to develop as merger activity in this area intensifies.

For the purposes of this article, digital markets are defined as those markets where companies supply intangible products or services² to their customers over the internet, i.e. online. Examples include media content, advertising space, data analytics, software applications, communication services, search engines, social networks and games, which are made available to customers online.

II. KEY FEATURES OF DIGITAL MARKETS

This section examines some key features of digital markets and their implications for EU merger control. These features include: (A) fast-moving nature; (B) two- or multi-sidedness; (C) non-monetary-price nature; (D) network effects; (E) multi-homing; and (F) data accumulation issues.

The list of features is not necessarily exhaustive and, conversely, not all of these features are present in all digital markets. Moreover, the degree to which each of them is present may vary according to the market at issue and may evolve over time within a market. As shown by the Commission's merger practice, a case-by-case analysis is required, taking into account all the circumstances of each market and of the merger at issue.

For ease of reference, the following table provides an overview of the Commission's merger cases reviewed for the purposes of this article and of the key features that were recognized as present in each case.

Cases	Fast-moving nature	Two-or multi-sidedness	Non-monetary-price nature	Multi-homing	Network effects	Data accumulation
<i>M.4523 – Travelport / Worldspan</i>		Y		Y	Y	
<i>M.4731 – Google / DoubleClick</i>	Y	Y		Y	Y	Y
<i>M.5008 – Vivendi / Activision</i>	Y	Y	Y			
<i>M.5727 – Microsoft / Yahoo! Search Business</i>	Y	Y	Y	Y		Y
<i>M.6281 – Microsoft / Skype</i>	Y		Y	Y	Y	
<i>M.6314 – Telefónica UK / Vodafone UK / Everything Everywhere / JV</i>	Y	Y				Y
<i>M.6967 – BNP Paribas Fortis / Belgacom / Belgian Mobile Wallet</i>	Y	Y	Y			
<i>M.7023 – Publicis / Omnicom</i>		Y				Y
<i>M.7047 – Microsoft / Nokia</i>			Y			
<i>M.7217 – Facebook / WhatsApp</i>	Y	Y	Y	Y	Y	Y
<i>M.7866 – Activision Blizzard / King</i>			Y			
<i>M.8124 – Microsoft / LinkedIn</i>	Y	Y	Y	Y	Y	Y

² The terms "products" and "services" are used indistinctly throughout this article.

M.8180 – Verizon / Yahoo!			Y			Y
M.8251 – Bite / Tele2 / Telia Lietuva / JV	Y	Y				Y

A. Fast-Moving Nature

Many digital markets are characterized by rapid technological innovation. Existing products are continuously being enriched with new features and new products are being developed and brought to the market.

In this context, defining the relevant product market may become challenging. This is because traditional tools for market definition, such as the SSNIP test, may not be appropriate or the short innovation cycles may blur the boundaries of markets encompassing different services. For example, in *Facebook/WhatsApp* the Commission faced the question of where to draw the line between consumer communication services and social networking services. In these cases, the Commission has taken a conservative approach, leaving the exact product market definition open and assessing the merger on alternative relevant product markets.

In addition, for those digital markets which, besides being dynamic, have low barriers to entry, measuring market power may prove difficult. In particular, market shares in those markets may fluctuate frequently, sometimes even within weeks or months, certainly within a few years. The evolution of WhatsApp is a telling example. In the Commission's decision in *Microsoft/Skype*, WhatsApp was not even listed as a competitor in the market for consumer communication services, while only a few years later it became one of the leading providers in this market. This means that, in those markets, past market shares may not in all cases be truly representative of the competitive constraint exercised by a company at the time of the assessment of a merger, or in the following two/three-years (which is the time frame normally considered by the Commission to assess the likely future effects of a merger).

The lower informative value of market shares in certain digital markets was even recognized by the EU General Court in 2013, when dismissing an appeal against the Commission's clearance decision in the *Microsoft/Skype* case. In its judgment, the Court held, in what has become an oft-cited passage: “the consumer communications sector is a recent and fast-growing sector which is characterized by short innovation cycles in which large market shares may turn out to be ephemeral. In such a dynamic context, high market shares are not necessarily indicative of market power and, therefore, of lasting damage to competition which [the EU Merger Regulation] seeks to prevent.”³

Of course, this does not mean that high market shares should be considered irrelevant in all mergers involving digital markets. For example, particular consideration should be given to those markets where high market shares are combined with strong network effects, which may further entrench firms' market positions (see Section D below).

B. Two- or Multi-Sidedness

Many digital products are offered to a group of customers through a digital platform. Often the platform operator supplies, through the same platform, distinct services to a second group of customers. The demands of the two customer groups are interlinked, and the platform connects them in a way that generates value for at least one of the two customer groups.⁴ The market on which the platform operates is therefore referred to as two-sided, with each customer group representing one “side” of the market. A platform can also serve more than two groups of customers and thus operate on a multi-sided market.

Depending on the way the demands of the different customer groups are interlinked, it is possible to identify two types of platforms in two- or multi-sided markets: (i) transaction platforms, whose primary objective is to offer an infrastructure where different customer groups (buyers and sellers) can directly interact with one another and conclude a transaction, and (ii) non-transaction platforms, which are not directly aimed at facilitating trading between customer groups.⁵ An example of a transaction platform is Booking.com, which allows consumers to buy hotel stays

³ Judgment of the General Court of December 11, 2013, Case T-79/12, *Cisco Systems and Messagenet v. Commission*, ECLI:EU:T:2013:635, para. 69.

⁴ Typically, these customers cannot obtain such value to the same extent without the platform. See Filistrucchi, Geradin & Van Damme, “Identifying Two-Sided Markets,” *World Competition* 36, No. 1 (2013).

⁵ In both cases, however, the platform operates on the assumption that the number of customers on one side of the market affects the demand on the other side and possibly vice versa (“indirect network effects,” on which see Section D below).

from providers of hotel services. An example of a non-transaction platform is Facebook, which offers social networking services to its members and online non-search advertising services to advertisers. The distinction between transaction and non-transaction platforms is however not always as neat as just described. Depending on the business model of its operator, a platform can also be “hybrid.” For example, LinkedIn not only offers a recruiting platform where job seekers can directly interact with recruiters with a view to possibly enter into an employment contract, but also social networking services for professionals and online advertising services to advertisers.

In this context, the identification of the relevant markets for the assessment of a merger deserves particular attention. This is because, when multi-sided platforms compete with each other, their competitive interaction does not necessarily occur with respect to the same customer group, i.e. “on the same side.” As a result, a market definition that focuses on one side only may make it very difficult, for example, to verify the degree of closeness of competition between the two platforms.

In past cases, the Commission’s approach in this respect varied depending on the type of platform at stake.

With respect to transaction platforms, the Commission has identified as a relevant market one overall transaction market, including both customer groups. For instance, in *Microsoft/LinkedIn*, the Commission defined one relevant product market for online recruiting services (on which LinkedIn was active), including both sides, job seekers and recruiters. Likewise, in *Google/DoubleClick* the Commission considered that the services provided, among others, by “ad networks” and “ad exchanges” to both publishers and advertisers were part of a single product market for intermediation in online advertising services.⁶

With respect to non-transaction platforms, the Commission has assessed on separate relevant markets the position of the merging firms in relation to the services offered to the different customer groups. For example, in *Microsoft/Yahoo! Search Business*, the Commission considered as separate product markets Internet search and online advertising services. Likewise, in *Facebook/WhatsApp*, the Commission examined separately the effects of the merger on the markets for social networking services and for online advertising services. Nonetheless, the Commission also took into account the interrelation between the two sides of Facebook’s platform and the impact of the merger in that respect. While it excluded any competition concerns resulting from an increase in the size of Facebook’s social network, it still looked at possible effects on Facebook’s position in the advertising market in the event that Facebook would use WhatsApp data for advertising purposes.

C. Non-Monetary-Price Nature

In many digital markets, products and services are offered to customers free of charge. In some cases, the fact that digital products and services are offered for free is linked to their being part of two- or multi-sided markets. Typically, digital platforms (transaction or non-transaction based) charge a price to one customer group, while offering the product free of charge to the other customer group (that is more price sensitive). For example, consumers who use the social network Facebook or the travel platform Booking.com are offered services for free by the platform.

However, not all digital products and services that are supplied free of charge are part of two-sided markets. Also in one-sided markets firms can choose to offer their products for free. For example, a firm can choose to do so in order to generate a critical mass of users by relying on the network effects existing in the market (see Section D below) or on the low marginal costs of distribution. Moreover, the firm may plan to monetize its product through other means at a later stage, thus eventually becoming two-sided. For instance, certain consumer communications apps that are offered for free, such as WhatsApp, which initially operated on a one-sided market, then started monetizing their product by introducing commercial messaging.

The fact that some digital services are offered free of charge has several implications for merger control, both in terms of jurisdiction and of substantive assessment.

As regards jurisdiction, the EU Merger Regulation relies on turnover thresholds to identify mergers subject to review by the Commission. Therefore, transactions where one of the merging parties only offers free products and thus has limited or no revenues may escape the

⁶ In *Travelport/Worldspan*, the Commission also identified one product market for global distribution systems (“GDS”), i.e. platforms through which travel agents (“TA”) obtain information and make reservations with travel service providers (“TSPs”), and TSPs distribute their travel content to TAs and ultimately to end-consumers. However, in that decision the Commission found that the geographic scope of the two sides of the GDS market was different and it assessed the impact of the transaction on each side separately.

Commission's jurisdiction⁷ despite their potentially relevant impact on competition in the EU. This was the case, for example, of the *Travelport/Worldspan*, *Google/DoubleClick*, *Facebook/Instagram*, *Google/Waze* and *Facebook/WhatsApp* mergers. Some of these cases were eventually reviewed by the Commission thanks to the referral mechanisms laid down in the EU Merger Regulation.⁸ For instance, the *Travelport/Worldspan*, *Google/DoubleClick* and *Facebook/WhatsApp* mergers were referred to the Commission on request of the notifying party. Another example in point is the recent *Apple/Shazam* merger. While the merger was notifiable in Austria and not at EU level, the Austrian competition authority requested a referral of the case to the Commission. The request was subsequently joined by France, Iceland, Italy, Norway, Spain and Sweden. Having regard to the arguments put forward by those seven countries, the Commission has decided to accept the referral request and to examine the transaction.

As regards the substantive assessment, adjustments to the traditional merger control analytical toolkit may be required with respect to mergers involving markets where the services are offered for free. In the past, the question had arisen as to whether a market could be identified in the absence of a monetary payment for a product or a service. The Commission's practice in this regard is clear, as follows from the *Microsoft/Skype* and *Facebook/WhatsApp* decisions. The fact that products or services are offered for free is not considered an obstacle to defining a relevant product market for antitrust purposes.

Once the relevant market has been defined, two further questions are particularly relevant for the assessment of mergers in markets where services are offered for free.

A first issue concerns how to measure market power in the absence of sales revenues and hence of value-based market shares. This is because in many digital markets there is no consolidated industry practice for measuring market performance in terms of volume. In *Facebook/WhatsApp*, during the pre-notification phase, the Commission consulted third-party market participants in search of possible volume-based metrics to measure the competitive importance of providers of consumer communications services. However, the Commission ultimately found that all proposed metrics (e.g. number of downloads, number of messages sent/received, time spent on the app) were either flawed or not sufficiently meaningful. As a result, "reach" data proposed by Facebook, which measure the penetration rate of an app among users (i.e. the percentage of paneled users who have used a certain consumer communications app over 30 days), were considered to be the best available metric in that case, despite some shortcomings. However, in other cases, different metrics may be considered relevant, depending on the products at issue and on the theory of harm. For example, in *Microsoft/LinkedIn*, the Commission considered market shares based on website traffic on desktop computers to be an acceptable metric to measure the position of providers of professional social networking services. In that case, the analysis focused on conglomerate effects premised on Microsoft's leveraging of its strong market position in operating systems and productivity software for PCs. Thus, market shares measuring the strength of professional social networks on the basis of desktop traffic seemed to be appropriate.

A second issue concerns identifying the parameters on which firms compete, which becomes particularly important in markets where services are not offered against a monetary payment (commonly referred to as "zero-price" markets). Indeed, if price is not a relevant parameter of competition, the possible consumer harm caused by a merger cannot be assessed in terms of price increase. Consumer harm, thus, has to be assessed in terms of deterioration of quality, which is a multifaceted factor with several dimensions (for instance, ease of use, reliability, privacy, etc.) that are not all relevant in the same way and vary from case to case. For example, in *Facebook/WhatsApp* the Commission identified, among others, perceived trendiness and "coolness" as relevant parameters of competition for consumer communication services.

In many of those "zero-price" markets that are part of two-sided markets, the customers that do not pay a monetary price can actually be seen as paying "with their data." Indeed, customers authorize the platform to collect and use the personal data that they provide when subscribing to the service or that they generate when using the service. Accordingly, data can be seen as a new type of "currency" in digital industries. In such markets, the degree of privacy afforded by the platform (i.e. the type of data protection policy in place) may thus become a relevant parameter of competition. However, whether that is the case depends on whether privacy is an important factor in customers' decision to choose a product in that market. Such an assessment should be carried out on a case-by-case basis, considering the actual dynamics of competition and customers' preferences in the market at stake. For example, in *Facebook/WhatsApp*, in 2014, the Commission found that, while an increasing number of

⁷ It follows from the thresholds set out in Article 1(2) and 1(3) of the Merger Regulation that a transaction involving two parties, one of which generates less than EUR 100 million in the EU, will automatically fall outside the Commission's jurisdiction.

⁸ Those mechanisms allow the notifying party or the national competition authorities of the EU Member States to request that a merger that does not meet the EU thresholds but is notifiable at the national level be referred to the Commission, provided certain conditions are met. In particular, the transaction must be notifiable in at least three EU Member States.

users valued privacy and security, at that time the majority of consumer communications apps (e.g. Facebook Messenger, Skype, WeChat, Line, etc.) did not (mainly) compete on privacy features. When reviewing *Microsoft/LinkedIn* in 2016, the Commission found that privacy was an important parameter of competition among professional social networks, in particular in certain EU Member States, such as Germany.

D. Network Effects

Network effects are another common feature of digital markets. In markets prone to network effects, the higher the number of users of a product or service (i.e. the larger the size of the “network”), the larger the benefits this brings to its users. Many digital markets are characterized by network effects because they are based on the interaction of users (or of different groups of users) through a platform.

Network effects can be either direct or indirect. Direct network effects arise when the increase in the number of users of a product benefits the *same* group of users. An example in point are professional social networks: the more professionals that are hosted on a given network, the more valuable the network is to its members and the more attractive it becomes to non-members. Indirect network effects occur when the increase in the number of users benefits a *different* group of users. This is typical of two-sided markets such as advertising intermediation, where an ad network becomes more valuable to advertisers as the number of publishers increases (and vice versa).

The existence of network effects on a market can come into play in various ways in the competition law assessment of mergers.

First, network effects are taken into account in the analysis of the pre-existing characteristics of the market on which the merger takes place, which affect the competitive pressure, the ease of entry and expansion on that market. Depending on the case, network effects can be considered a pro-competitive factor, for example if they fuel competitive pressure among firms to gain new customers and increase the size of their respective networks. Conversely, in markets where there are already established players with large customer bases that benefit from network effects, such effects can act as a barrier that makes it more difficult for new firms to enter⁹ or for fringe players to expand. For example, the Commission assessed network effects as a barrier to entry and expansion in relation to consumer communications services in *Facebook/WhatsApp*.¹⁰

Second, network effects can play a crucial role in the assessment of the merger-specific effects on competition in the market concerned. The question here is whether the pre-existing network effects are likely to be amplified as a result of the merger, and whether that is likely to increase the size of the merged entity’s network and thus its market power in such a way as to cause competitive harm. In some cases, following the merger, the merged entity’s network may grow up to a point where the market “tips” in favor of that network and it ends up dominating the market, while rivals and new entrants are no longer able to compete effectively. This outcome is also often referred to as “winner takes all” effect.

Both horizontal and non-horizontal mergers may lead to competitive harm through the strengthening of network effects.

In horizontal mergers, where the merging parties are both active on the market that is characterized by network effects, the strengthening of network effects may derive from the combination of the parties’ respective customer bases into one larger network. A larger network may in turn attract more users, in a positive feedback loop, ultimately increasing the merged entity’s market power. However, in markets where users interact through a platform, a combination of customer bases also typically requires some form of integration between the networks of the two platforms (unless interoperability exists between the two). This was the case in *Facebook/WhatsApp*. The Commission examined whether the merged entity would be likely to introduce cross-platform communication between Facebook Messenger and WhatsApp, enabling their respective user bases to communicate with each other and thereby potentially strengthening the pre-existing network effects.¹¹

In non-horizontal mergers, the strengthening of network effects on a market may be triggered, in particular, by a foreclosure strategy of the merged entity. Following such foreclosure strategy, the merged entity may engage in a conduct on market A to strengthen its position on

⁹ See Commission’s Guidelines on the assessment of horizontal mergers, para. 72.

¹⁰ However, a number of factors were found to mitigate the negative impact of network effects, such as the dynamic nature of the market, the low “traditional” barriers to entry, the ease of distribution, the low customer switching costs, the prevalence of multi-homing and the absence of user lock-in mechanisms.

¹¹ The Commission noted that, even if some integration between the two consumer communications services were to take place post-merger, a significant overlap existed between their respective user bases. As a result, the addition of WhatsApp’s user base would not lead to a significant increase of Facebook Messenger’s network, and the network effects would not be substantially strengthened by the merger.

market B (which is upstream, downstream, or neighboring, to market A). If the foreclosure strategy is successful on market B and this market is prone to network effects, such effects may “kick in” and further exacerbate the impact of the foreclosure strategy, leading the market to “tip” in favor of the merged entity’s network.

The Commission examined such a scenario in *Google/DoubleClick* in relation to the use of DoubleClick’s position in the market for ad serving tools to foreclose ad intermediation networks competing with Google AdSense. According to third-party complainants, the merged entity would be able, through a number of foreclosure strategies, to attract additional publishers or advertisers to its AdSense intermediation platform and, because of the indirect network effects, reach a critical size while denying the necessary scale to competing platforms. However, the Commission ultimately dismissed those concerns.¹²

In *Microsoft/LinkedIn*, the Commission reached a different conclusion in relation to the possible leveraging of Microsoft’s market power in operating systems and productivity software to the market for professional social networks, where LinkedIn was active. The Commission found that, post-merger, certain practices that the merged entity would be likely to engage in could potentially lead to a meaningful growth in the number of LinkedIn members and in user engagement on LinkedIn. Network effects would likely amplify such growth. Over time, more users would be tempted to join and to generate activity on LinkedIn, while competing professional social networks existing in some EU Member States would face the opposite trend. This pattern could continue up to a point where, eventually, the market would “tip” in favor of LinkedIn’s network and LinkedIn’s already strong position would become entrenched.¹³ The Commission ultimately approved the merger only subject to the remedies offered by Microsoft.¹⁴

E. Multi-Homing

Some digital markets are characterized by multi-sourcing by customers, or rather “multi-homing.” This means that customers tend to use multiple digital services of the same type (e.g. multiple consumer communication services) over a given reference period (usually, a day or a month).

Several factors may influence customers’ choice to multi-home. In markets characterized by network effects, one of the main benefits of multi-homing for customers is the ability to “reach” a larger number of other customers, whether on the same market or, in the case of multi-sided markets with indirect network effects, on another side of the market. Other driving factors behind multi-homing may include the customers’ willingness to experience differentiated services (e.g. if services offer different features) and, in general, customers’ preferences. At the same time, the costs of multi-homing are often relatively limited, either because the products are offered for free (see Section C above) or because of the limited effort required to adopt them and start using them. However, in many markets, despite the low costs, multi-homing may be limited due to customers’ inertia, i.e. their tendency to use “default” digital products. Also, multi-homing trends may vary over time, depending on various factors, including the strength of the platform’s market position and the size of its network.

In digital markets where multi-homing is prevalent and effective, it is likely to play an important role in the assessment of the effects of a merger, particularly if the market is prone to network effects. Indeed, multi-homing can be seen as a source of countervailing buyer power if it allows customers to counter the increase in market power that a merger would otherwise likely create.

In particular, if multi-homing is sufficiently significant, effective and long-lasting, it may mitigate the negative impact of network effects arising from a merger. For example, in *Facebook/WhatsApp*, extensive multi-homing (by 80-90 percent of EEA users at the time of the decision) was one of the factors supporting the Commission’s finding that network effects would be unlikely to prevent entry or expansion into the market for consumer communications services. Conversely, in *Microsoft/LinkedIn*, multi-homing in relation to professional social networks was not found to be sufficiently widespread and, importantly, it was not likely to remain an effective constraint post-merger, as a result of the potential foreclosure strategy of the merged entity.

¹² See Section E below.

¹³ In addition, LinkedIn was also active on the market for online recruiting services, which is characterized by indirect network effects between job seekers and recruiters. The Commission found that, as a result, the growth of LinkedIn’s user base (which is also made of job-seekers) would likely also attract additional LinkedIn customers on the other side of the market, i.e. recruiters, thus potentially also affecting competing providers of online recruitment services.

¹⁴ The remedies offered by Microsoft included a set of commitments aimed at: (i) ensuring that PC manufacturers and distributors would be free not to install LinkedIn on Windows and allowing users to remove LinkedIn from Windows should PC manufacturers and distributors decide to preinstall it; (ii) allowing competing providers of professional social networking services to maintain current levels of interoperability with Microsoft’s Office suite of products through the so-called Office add-in program and Office application programming interfaces; and (iii) granting competing professional social network service providers access to “Microsoft Graph,” a gateway for software developers.

However, in the case of multi-sided markets with indirect network effects, substantial multi-homing may not be sufficient to offset anticompetitive effects, if it is limited to one side of the market. In particular, if a platform faces multi-homing on one side and single-homing on the other, this may create a “bottleneck” effect. Because the platform has exclusive access to the customers that single-home, it is able to exercise market power towards those customers on the other side who want to reach the single-homers. The Commission examined such a scenario in *Travelport/Worldspan*, which concerned the market for electronic distribution services through a global distribution system (“GDS”), where both parties were active. In that case, the customers on one side of a GDS platform (travel agencies, “TAs”) used single-homing, while the customers on the other side (travel service providers, “TSPs”) tended to multi-home. As a result, each GDS platform enjoyed a certain degree of monopoly power in relation to TSPs that needed to reach TAs exclusively connected to that GDS. Because of such “asymmetric” multi-homing, post-merger, access to a larger base of TAs could potentially harm competition by strengthening the merged entity’s market power *vis-à-vis* TSPs on the other side of the market. The Commission ultimately considered those concerns unfounded.

F. Data Accumulation Issues

In many digital markets, platforms collect data from their users to build large datasets (so-called “big data”), which enable them to improve their services (e.g. better targeted online advertising) or even to develop new services. As such, data increasingly constitute a valuable asset in digital markets.

The Commission, however, has not yet defined a relevant product market for data in the digital sector, as the parties to the mergers it investigated were not selling access to their dataset to third parties, nor were they expected to offer such access in the near future absent the merger.

Yet, the Commission has in several cases examined so called “big data” issues, i.e. issues related to the aggregation, under a common ownership, of large sets of data. In those cases, the data were an input to supply services in a market where both merging parties were (or could potentially become) active (typically, online advertising). However, in the Commission’s assessment, those data issues were assessed as “horizontal” effects in the market for online advertising, rather than “vertical” effects. This is because, as mentioned, they arose in situations where the data was used captively and there was no indication (or allegation) that it would be offered to third parties absent the merger.¹⁵

The Commission’s decision in *Microsoft/LinkedIn* is a recent illustration of the framework applied by the Commission to examine data aggregation issues in digital mergers. In that case, both Microsoft and LinkedIn used data that they collected from their respective users to provide online advertising services. In its decision, the Commission distinguished between two situations.

The first situation arises where the aggregation of the merging parties’ datasets is not possible. This can be due to practical, technical, contractual or regulatory factors, such as data protection laws, which limit the merging parties’ ability to access and process the data of each other’s users. In such a situation, even though no data aggregation occurs post-merger, competition concerns may arise if, pre-transaction, the merging companies were competing with each other on a given market (e.g. online advertising) on the basis of their respective datasets: this head-to-head competition would be eliminated by the merger. In *Microsoft/LinkedIn*, the Commission dismissed this theory of harm on the ground that the merging parties were small players in online advertising.

The second situation is where, instead, data aggregation would be possible. In this scenario, competition concerns may arise if the data aggregation strengthens the market power of the merged entity in the market for the supply of services for which the data is a valuable asset. Competition concerns may also arise if the data aggregation increases barriers to entry/expansion for actual or potential competitors, who may need this data to supply their services. In *Microsoft/LinkedIn*, the Commission also excluded concerns on this point given that, irrespective of data aggregation, a large amount of user data valuable for advertising purposes would remain available to third parties after the merger. Assessing the consequences of potential data aggregation can also be relevant in cases where, pre-merger, the parties were not competing with each other on the market for which data is an asset, as the *Facebook/WhatsApp* decision demonstrates. In that case, WhatsApp, unlike Facebook, was not active in online advertising and did not even collect user data valuable for advertising. The Commission nevertheless assessed (and eventually dismissed) possible anticompetitive effects in online advertising in the event that Facebook would start collecting data from WhatsApp users to strengthen its position in online advertising.

¹⁵ In fact, a vertical input foreclosure theory requires that, post-merger, the merged entity would restrict access to products that it would have otherwise supplied absent the merger. See Commission’s Guidelines on the assessment of non-horizontal mergers, para. 31.

III. CONCLUSION

Digital markets exhibit specific features that pose new interesting challenges on merger control enforcement authorities. However, the Commission's merger practice in the digital sector suggests that the current analytical tool-box is sufficiently flexible to deal with mergers in this sector.

Of the digital mergers reviewed by the Commission,¹⁶ the majority was examined and cleared in Phase I. Three mergers led to the opening of a Phase II investigation, but were eventually cleared.¹⁷ No merger was prohibited. Only one case led to Commission intervention in the form of remedies, namely *Microsoft/LinkedIn*.

In *Microsoft/LinkedIn*, the existence of network effects in the market for professional social networking services was a crucial factor underpinning the Commission's concerns at the end of Phase I (i.e. "serious doubts"). In the case of other mergers involving digital markets, large market shares were not considered sufficient on their own to warrant the Commission's intervention, in light of factors such as those markets' fast-moving nature and the prevalence of multi-homing. Needless to say, for each merger, a case-by-case assessment of each market at the relevant point in time remains necessary. However, these cases confirm that the "key features" of digital markets identified in this article may play an important role in the competitive assessment of digital mergers. In fact, those key features may sometimes even prove decisive for the outcome of the Commission's merger review in the field of digital markets.

¹⁶ Based on the definition of "digital markets" retained for the purposes of this article and on the list of cases reviewed on this basis. See Section I above.

¹⁷ Those are *Travelport/Worldspan*, *Google/DoubleClick* and *Telefónica UK/Vodafone UK/Everything Everywhere/JV*. See table in Section I above for references.