Economic Dependence and Data Access

Tombal, Thomas

Published in:
International Review of Intellectual Property and Competition Law

DOI:
10.1007/s40319-019-00891-0

Publication date:
2020

Document Version
Publisher's PDF, also known as Version of record

IIC (2020) 51:70–98
https://doi.org/10.1007/s40319-019-00891-0

ARTICLE

Economic Dependence and Data Access

Thomas Tombal

Published online: 4 December 2019

Abstract Traditionally, according to EU competition law, if an undertaking holding a dominant position refuses to grant access to its data to another undertaking, this could potentially lead to an abuse precluded by Art. 102 TFEU. However, the scope of this provision is limited as it only applies to dominant undertakings. Yet, powerful data holders that do not benefit from such a dominant position might start refusing to provide access to their data to undertakings with limited bargaining power. This is notably illustrated by two cases in the USA, namely *PeopleBrowsr v. Twitter* and *hiQ v. LinkedIn*. These two cases raise the question of whether the concept of abuse of economic dependence could prove to be a valuable alternative in order to deal with refusals, by non-dominant undertakings, to provide access to data to undertakings with a weaker bargaining power. In this article, the rationale for data access and sharing in light of the data's characteristics will first be briefly outlined. Then, the conditions of the abuse of economic dependence will be identified by relying on Belgian, German and French law. On these grounds, the article will question whether a refusal to provide access to data could qualify as an abuse of economic dependence.

Keywords Economic dependence · Relative market power · Data access · Data sharing economy

1 Introduction

The European Commission has chosen to let the data market self-regulate and rely on contractual freedom, while nevertheless proposing key principles for the

T. Tombal (✉)
University of Namur – CRIDS – NaDI, Namur, Belgium
e-mail: thomas.tombal@unamur.be

undertakings wishing to engage in B2B data sharing agreements.[1] In this context, it will be necessary to keep an eye on potential market failures deriving from discrepancies in bargaining power, having as a consequence that some undertakings are not able to access certain data at all, or only at unreasonable conditions.[2] While this does not seem to be a major issue so far, it must nevertheless be noted that the data market is only in its infancy and that only a limited number of undertakings (6.3%) take an active part in B2B data sharing and re-use.[3] As this market matures, and as economic operators start to better perceive the value of data, one cannot exclude that powerful data holders might start refusing to provide access to their data to undertakings with limited bargaining power.

Traditionally, under EU competition law, if an undertaking holding a dominant position refuses to grant access to its data to another undertaking, this could potentially lead to an abuse precluded by Art. 102 TFEU.[4] [5] While the applicability of the "essential facilities doctrine" case law[6] to refusals to grant access to data has been the topic of numerous academic contributions,[7] some serious doubts have been cast about its potential application to data markets,[8] especially in light of the "indispensability" condition.[9] Indeed, this requires demonstrating that "the data owned by the incumbent is truly unique and that there is no possibility for the competitor to obtain the data that it needs to perform its services".[10]

Moreover, Art. 102 TFEU might not often be called upon in practice because it only allows targeting a limited number of undertakings, namely those holding a dominant position in an identified market. Yet, powerful data holders that do not benefit from such a dominant position could also start refusing to provide access to their data to undertakings with limited bargaining power. For instance, in the USA, Twitter suddenly decided to stop providing access to its "firehose" data to PeopleBrowsr, a data analytics company, while this access had been provided freely for years and while PeopleBrowsr had built its business model on this access.[11] Similarly, after having allowed hiQ access and use of its data for several years, LinkedIn requested hiQ to stop accessing its data, and used blocking techniques preventing hiQ from doing so, while this access was at the core of hiQ's business

[1] European Commission (2018a), p. 10.

[2] Barbero et al. (2018), pp. 92–93.

[3] Barbero et al. (2018), p. 31.

[4] Treaty on the Functioning of the European Union, OJ C 326/47, 26 October 2012.

[5] Drexl (2016), p. 44.

[6] CFI, 17 September 2007, T-201/04, *Microsoft I*; ECJ, 29 April 2004, C-418/01, *IMS Health*; ECJ, 26 November 1998, C-7/97, *Bronner*; ECJ, 6 April 1995, joined cases C-241/91 and C-242/91, *Magill*.

[7] *See*, *inter alia*, Graef (2016); Drexl (2016), pp. 44–55; Graef et al. (2015), p. 382.

[8] *See* Colangelo and Maggiolino (2017).

[9] For the essential facilities doctrine to apply, access to the essential facility has to be indispensable in order to conduct a business on the secondary market.

[10] Autorité de la concurrence and Bundeskartellamt (2016), p. 18.

[11] Superior Court of the State of California, *PeopleBrowsr, Inc.* et al. *v. Twitter, Inc. (PeopleBrowsr)*, No. C-12-6120 EMC, 2013 WL 843032, N. D. Cal., 6 March 2013; Graef (2016), p. 257.

model.[12] In these two cases, neither Twitter nor LinkedIn were considered as being dominant.

These two cases, which will be discussed more extensively below,[13] raise the question of whether the concept of abuse of economic dependence could prove to be a valuable alternative in order to deal with refusals, by non-dominant undertakings, to provide access to data to undertakings having a weaker bargaining power. In this article, the rationale for data access and sharing in light of the data's characteristics will first be briefly outlined (Sect. 2). Then, the conditions of the abuse of economic dependence will be identified by relying on Belgian, German and French law (Sect. 3). On these grounds, the article will question whether a refusal to provide access to data could qualify as an abuse of economic dependence (Sect. 4).

2 Data Characteristics and the Rationale for Data Access and Sharing

Access to data is key for an undertaking's competitiveness.[14] Accordingly, the European Commission promotes data access, sharing and re-use in order to stimulate innovation.[15] This is apparent, among other things, from its initiative to create guidelines on B2B data sharing, and a Support Centre for data sharing whose aim will notably be to collect best practices and existing model contract terms.[16]

The benefits of such data sharing stem from the fact that, as pointed out by the OECD, data can, in principle, be considered as an "*infrastructural resource*".[17] According to Frischmann, "infrastructure resources are a 'shared means to many ends', which satisfy the non-rivalrous, the capital good and the general-purpose criteria".[18] First, data is a non-rivalrous good which can be consumed by an unlimited number of actors – even simultaneously – and "maximising access to the non-rivalrous good will in theory maximise social welfare, as every additional private benefit comes at no additional cost".[19] Second, data is often a capital good, which means that it is used as an input for goods or services rather than as an end in itself. This is because data have no intrinsic value as the value will derive from the use made of this data. As data is a non-rival capital that "can in theory be used (simultaneously) by multiple users for multiple purposes as an input to produce an unlimited number of goods and services",[20] data access and sharing is highly valuable. Third, data may be described as a general-purpose good. Indeed, data

[12] United States District Court, Northern District of California, *hiQ Labs, Inc. v. LinkedIn Corporation*, No. 17-cv-03301-EMC, 14 August 2017, available at https://epic.org/amicus/cfaa/linkedin/2017-08-15-PI-Order.pdf.

[13] *See* Sect. 4. "Refusal to Provide Access to Data and Abuse of Economic Dependence".

[14] Crémer et al. (2019), p. 76.

[15] Graef and Prüfer (2018), p. 298.

[16] European Commission (2018b).

[17] OECD (2015), p. 179.

[18] Frischmann (2012), cited in OCDE (2015), p. 179.

[19] OECD (2015), p. 179–180.

[20] OECD (2015), pp. 180–181.

could in theory be used for an unlimited number of purposes, including public and social purposes, and additionally, the use of data for one purpose can provide valuable insights for uses in other domains, thus having significant spillover effects.[21]

Nevertheless, promoting data access and sharing should not be done blindly, as it also entails potential costs. Indeed, data sharing obligations might create disincentives for data collection and processing. This is because, while sharing promotes more competition by providing data access to competitors, imposing data sharing might deter innovation by the incumbent compelled to provide access to its data. The incumbent, due to the fear of free-riding, might no longer want to invest in data collection, which used to provide it with a competitive advantage. Moreover, imposing data sharing might also deter innovation by competitors who will no longer see the point in innovating in order to collect the data themselves, as they will receive it from the incumbent (expectation to free-ride).[22] Finally, data sharing obligations could also have negative effects on the protection of privacy and business secrets.[23]

Accordingly, any policy initiative must take account of this trade-off between the benefits and costs of data sharing,[24] and data sharing obligations should only be imposed if the benefits it creates outweigh the related costs. This fits into the broader balancing between private and public/social interests and requires a case-by-case analysis. However, it should be pointed out that, in light of the characteristics of data outlined above, the benefits of data access are arguably greater than the benefits of access to other goods, and the costs of data access are arguably smaller than the costs of access to other goods. This serves as a rationale for those who call for more data access and sharing in the European digital economy.

3 Abuse of Economic Dependence

Given that there is no harmonisation of the provisions pertaining to the abuse of economic dependence in the EU, each Member State is free to adopt the rules that it sees fit.[25] For the purpose of this article, it has been chosen to focus on Belgium, which adopted such a law on 4 April 2019,[26] as well as on Germany and France, which provided inspiration to the Belgian legislator.

[21] OECD (2015), pp. 181–182.

[22] De Streel, "From one bridge to another: The essential facilities doctrine and data" (to be published), p. 14.

[23] Crémer et al. (2019), p. 76.

[24] Larouche (2008), pp. 616–620.

[25] Art. 3.2 of Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Arts. 81 and 82 of the Treaty Regulation (OJ L 1, 4 January 2003) indeed allows Member States to adopt and apply on their territory stricter national laws which prohibit or sanction unilateral conduct engaged in by undertakings.

[26] Loi du 4 avril 2019 modifiant le Code de droit économique en ce qui concerne les abus de dépendance économique, les clauses abusives et les pratiques du marché déloyales entre entreprises, *M.B.*, 24 mai 2019.

In Belgium, the law of 4 April 2019 added a new Art. IV.2/1 in the "Code de droit économique" (hereinafter "CDE"), which provides that:

> The abusive exploitation, by one or more undertaking(s), of the state of economic dependence of one or more dependent undertaking(s) is prohibited, if competition is likely to be affected on the relevant Belgian market or a substantial part of it.[27]

In Germany, § 20 of the Act against Restraints of Competition (hereinafter "Competition Act")[28] provides that:

> (1) § 19(1)[29] in conjunction with paragraph 2 no. 1 shall also apply to undertakings and associations of undertakings to the extent that small or medium-sized enterprises[30] as suppliers or purchasers of a certain type of goods or commercial services depend on them in such a way that sufficient and reasonable possibilities of switching to other undertakings do not exist (relative or superior market power).[31]

In France, Art. L. 420-2, al. 2 of the French "Code de Commerce" provides that:

> The abuse of the state of economic dependence of a client or supplier by an undertaking or group of undertakings is also prohibited, if it is likely to affect the functioning or structure of competition.[32]

Two main conditions for the application of these provisions are common to the three Member States, namely the need to show a state of economic dependence (3.1) and the need to show an abuse of this state of economic dependence (3.2).

3.1 State of Economic Dependence

The notion of economic dependence can be defined as the absence of sufficient and reasonable possibilities of switching to other undertakings. According to Feteira:

[27] Author's translation of: "Est interdit le fait pour une ou plusieurs entreprises d'exploiter de façon abusive une position de dépendance économique dans laquelle se trouvent une ou plusieurs entreprises à son ou à leur égard, dès lors que la concurrence est susceptible d'en être affectée sur le marché belge concerné ou une partie substantielle de celui-ci".

[28] "Gesetz gegen Wettbewerbsbeschränkungen" (Act against Restraints of Competition, adopted on 26 August 1998 and lastly amended on 12 July 2018). The official English translation of the Competition Act is available at http://www.gesetze-im-internet.de/englisch_gwb/englisch_gwb.html#p0066.

[29] §19 Competition Act targets the prohibited conduct of dominant undertakings.

[30] The German Federal Ministry for Economic Affairs and Energy recommended to abolish the limitation of the benefit of § 20 Competition Act to SMEs, as it is well established that the situation of dependence covered by this provision could also arise for large firms (Schweitzer et al. (2018)). An English version of the summary of the report's recommendations is available at https://www.bmwi.de/Redaktion/DE/Downloads/Studien/modernisierung-der-missbrauchsaufsicht-fuer-marktmaechtige-unternehmen-zusammenfassungenglisch.pdf?__blob=publicationFilev=3.

[31] Official English translation: http://www.gesetze-im-internet.de/englisch_gwb/englisch_gwb.html#p0066.

[32] Official translation available on https://www.legifrance.gouv.fr/Traductions/en-English/Legifrance-translations.

> [It] is usually understood that the *sufficiency* of existing alternatives can be assessed on *objective* grounds, whilst the *reasonableness* of resorting to such alternatives necessarily entails a more *subjective* assessment which relies more heavily on the possibilities available to the plaintiff.[33] (emphasis in the original text)

Though this is the specific wording used in Germany, the test is substantially the same in France and Belgium. Indeed, French law requires to show the absence of an equivalent solution (objective assessment of the sufficiency of alternatives) as it is impossible for the plaintiff to resort to another undertaking *due to technical or economic reasons* (subjective assessment of the reasonableness to resort to these alternatives).[34] Similarly, Belgian law requires to show the absence of an equivalent alternative (objective assessment of the sufficiency of alternatives) for the dependent undertaking to switch towards another undertaking *within a reasonable time frame, on reasonable terms and at reasonable cost* (subjective assessment of the reasonableness to resort to these alternatives).[35]

Contrary to the assessment of a position of dominance, which takes place in the context of a given relevant market involving multiple actors, the assessment of a state of economic dependence focusses on a bilateral relationship. This bilateral perspective is at the core of these provisions, as the concern is not whether a dominant undertaking has the market power to behave independently of the other actors on the market, but rather whether an undertaking is dependent on its bilateral relationship with a (non-dominant) undertaking in order to operate. This is apparent from the four classical case groups of economic dependence, namely: assortment-based dependence[36] (the other party's product is considered as a must-stock good due to its notoriety or popularity); scarcity-based dependence[37] (the other party is one of the rare sources where the good can be found); dependence arising from a long-lasting business relationship[38]; and

[33] Feteira (2016), p. 150.

[34] Feteira (2016), pp. 167–168.

[35] Article I.6, 4° CDE. Belgian law requires to show that, due to this lack of a reasonably equivalent alternative, the stronger undertaking can impose services or conditions which could not be obtained under normal market circumstances, but this condition is redundant with the definition of the abuse provided for in Belgian law: "any behaviour that an undertaking can adopt because it holds the dependent undertaking in a situation of economic dependence" (Proposition de loi du 22 février 2019 modifiant le Code de droit économique en ce qui concerne les abus de dépendance économique, les clauses abusives et les pratiques du marché déloyales entre entreprises, *Doc*., Ch., 2018-2019, n° 3595/001, p. 15).

[36] *See* for example German Federal Supreme Court, *Designer Polstermöbel*, 9 May 2000, WuW/DE-R 481; *Depotkosmetik*, 15 May 1998, WuW/DE-R 206; *Reparaturbetrieb*, 23 February 1988, WuW/E BGH 2479; *Cartier,* 10 November 1987, WuW/E BGH 2451; *Adidas*, 30 June 1981, WuW/E BGH 1885; *Rossignol*, 20 November 1975, WuW/E BGH 1391. *See* decisions Nos. 87-MC-02, 25 March 1987; 89-D-39, 13 December 1989; 93-D-48, 9 November 1993; 98-D-32, 26 May 1998; and 01-D-49, 31 August 2001 of the French competition authority.

[37] *See* for example Berlin Court of Appeal, *Agip II*, 7 June 1974 and 4 July 1974, WuW/E OLG 1497 and 1499.

[38] *See* for example BGH, *Kfz-Vertragshändler*, 21 February 1995, WuW/E BGH 2983; *Herstellerleasing*, 19 January 1993, WuW/E BGH 2875; *Opel Blitz*, WuW/E BGH 2491; *Kraftwagenleasing*, 30 September 1971, WuW/E BGH 1211. *See* decisions Nos. 89-D-16, 30 May 1989; 90-D-42, 6 November 1990; and 99-D-54, 29 September 1999, of the French competition authority.

demand-based dependence[39] (due to the other party's importance in the undertaking's turnover).[40]

3.2 Abuse of the Economic Dependence

Showing a state of economic dependence is not enough, as it must also be shown that there has been an abuse of this state. This calls for two types of considerations. On the one hand, it is first necessary to discuss the types of conduct that may constitute a potential abuse (3.2.1). On the other hand, the anticompetitive harm deriving from this abuse must be questioned (3.2.2).

3.2.1 Types of Conduct that May Constitute a Potential Abuse

Any behaviour that an undertaking can adopt because it holds the dependent undertaking in a situation of economic dependence may constitute a potential abuse. Therefore, it will be necessary to show that the undertaking has exceeded the reasonable exercise of its economic freedom and that it could not have adopted this behaviour absent the state of economic dependence.[41]

In this regard, Belgian law proves particularly useful as Art. IV.2/1 CDE identifies five practices that can be considered as abusive:

> 1° the unlawful refusal of a sale, purchase or other transaction conditions; 2° the direct or indirect imposition of purchase or sale prices or other unfair trading conditions; 3° the limitation of production, markets or technical development to the detriment of consumers; 4° the application of unequal conditions to equivalent services to economic partners, thereby placing them at a competitive disadvantage; 5° the subjection of the conclusion of contracts to the acceptance, by the economic partners, of additional services which, by their nature or according to commercial usage, are not related to the subject matter of those contracts.[42]

[39] *See* for example Federal Supreme Court, *Konditionenanpassung*, 24 September 2002, WuW/DE-R 948; *Sehhilfen*, 12 May 1976, WuW/E BGH 1423. *See* decisions Nos. 91-D-51, 19 November 1991; 94-D-60, 13 December 1994; 96-D-44, 18 June 1996; and 03-D-11, 23 February 2003 of the French competition authority.

[40] Feteira (2016), pp. 151–158 and 170–171.

[41] Feteira (2016), p. 171; Proposition de loi du 22 février 2019 modifiant le Code de droit économique en ce qui concerne les abus de dépendance économique, les clauses abusives et les pratiques du marché déloyales entre entreprises, *Doc*., Ch., 2018-2019, n° 3595/001, p. 15.

[42] Author's translation of: "1° le refus illicite d'une vente, d'un achat ou d'autres conditions de transaction; 2° l'imposition de façon directe ou indirecte des prix d'achat ou de vente ou d'autres conditions de transaction non équitables; 3° la limitation de la production, des débouchés ou du développement technique au préjudice des consommateurs; 4° le fait d'appliquer à l'égard de partenaires économiques des conditions inégales à des prestations équivalentes, en leur infligeant de ce fait un désavantage dans la concurrence; 5° le fait de subordonner la conclusion de contrats à l'acceptation, par les partenaires économiques, de prestations supplémentaires, qui, par leur nature ou selon les usages commerciaux, n'ont pas de lien avec l'objet de ces contrats."

This list provides some clarity regarding practices that could potentially be considered as abusive, as it is presumed that an undertaking has adopted them because it holds the dependent undertaking in a situation of economic dependence.

3.2.2 Anticompetitive Effects

As these provisions on the abuse of economic dependence are situated in the realm of competition law, it seems natural that a form of anticompetitive effect must also be demonstrated. Yet, this might seem counter-intuitive as, at first sight, these provisions focus on bilateral relationships and not on a given market. To clarify this, the *ratio legis* of these abuse of economic dependence provisions must be recalled.

In Belgian law, the stated objective is to protect weaker parties against stronger undertakings who act unfairly by limiting marginally, and in the public interest, their entrepreneurial freedom by sanctioning abusive conducts resulting from positions of economic dependence.[43] Similarly, abuse of economic dependence provisions were introduced in French law in order to counter the economic power of distribution groups that the rules of abuse of dominance were allegedly not able to address, and in German law in order to tackle concerns over market conditions in the retail market.[44] This tends to show that the goal of such provisions is two-fold, namely: (i) protecting weaker parties against stronger undertakings, and (ii) countering the economic power of some non-dominant undertakings.

This illustrates the core challenge at hand when applying legal provisions relating to economic dependence, as they require reaching a careful balancing between "safeguarding competition in the market, respecting freedom of contract and protecting the freedom of competition of the weaker parties against powerful business partners".[45] Indeed, while the non-dominant undertaking has the freedom not to contract (or to bring an end to an existing contract) with the dependent undertaking, this might create anticompetitive effects by restricting the latter's freedom to compete, and more broadly by restricting market access and contestability. A balance of interest thus has to be conducted, whose aim is to protect the ability of the parties to take part in the process of competition and to ensure that all benefit from an equal opportunity to enter and operate in the market. This illustrates the core underlying tension between the parties' individual interests and the broader institutional interest in protecting the competitive process.[46]

More fundamentally, this illustrates the debate between the different approaches of the economic role of competition law, namely whether the focus of competition law should be on the efficiency of the market or the protection of the freedom to compete.[47] Incidentally, this debate is especially important for the effectivity of the

[43] Proposition de loi du 22 février 2019 modifiant le Code de droit économique en ce qui concerne les abus de dépendance économique, les clauses abusives et les pratiques du marché déloyales entre entreprises, *Doc*., Ch., 2018–2019, n° 3595/001, pp. 4–5.

[44] Feteira (2016), p. 144–145 and 165.

[45] Boy (2006), p. 218, cited in Bakhoum (2015), p. 14.

[46] Feteira (2016), pp. 161–162.

[47] Bakhoum (2015), p. 14.

French and Belgian provisions, which explicitly state that the abuse has to be likely to affect the functioning or the structure of competition.[48]

Under the "efficiency approach", the possibility to protect against abuses of economic dependence through competition law is questionable because, as pointed out by Bougette et al., "at first sight, an abuse of economic dependence involves only a vertical relationship between two partners along a supply chain. It may not affect any relevant markets and inflict harm only on a given undertaking".[49] Indeed, given that this issue of economic dependence is assessed in a bilateral relationship and that the stronger undertaking is not required to have a dominant position, but merely a relative market power towards the weaker undertaking, the exclusion by a non-dominant undertaking's behaviour of a small dependent undertaking may arguably rarely be likely to affect the functioning or structure of competition under the "efficiency approach". Indeed, showing that the mere exclusion of a dependent undertaking from the market is likely to have such an effect is a major hurdle.[50] For instance, if an aftermarket service provider is dependent on a car manufacturer having a 20% market share due to a long-lasting business relationship, and that the latter terminates this relationship in an abusive way by refusing to keep providing the necessary goods for the aftermarket service, the small undertaking will more than likely not be able to show that this abuse of economic dependence is likely to affect the efficiency of this aftermarket. Moreover, the competition authorities' reluctance to deal with issues that appear to be more linked to contract law than to competition law explains that cases of abuse of economic dependence have been neglected in their decisional practice.[51]

However, under the "freedom to compete approach", protecting against abuses of economic dependence may be justified in order to protect the market against structural restrictions.[52] As pointed out by Bougette et al.,

> economic dependence related abuses can have significant effects on overall welfare. Ignoring such abuses as potential anticompetitive behavior per se, violates the fundamental idea of the effects-based approach, namely that actual effects should trump formalistic assertions. Depending on the case in question, consumer welfare and the competition process may be negatively affected by (…) economic dependence abuses in several ways.[53]

Notably, the competitive process could be harmed if these abuses of economic dependence undermine the undertakings' possibilities to access the market. Accordingly, such abuses should be sanctioned on the basis of competition law in order to protect the freedom to compete.[54] In this second perspective, the standard

[48] Art. L. 420-2, al. 2 of the French Code de Commerce; Art. IV.2/1 of the Belgian Code de droit économique.

[49] Bougette et al. (2018), p. 6.

[50] De Boüard (2007), pp. 298–299; Feteira (2016), p. 171.

[51] Bougette et al. (2018), p. 6.

[52] Bakhoum (2015), p. 17.

[53] Bougette et al. (2018), p. 7.

[54] Bougette et al. (2018), p. 8.

for establishing that there is a likely effect on the functioning or the structure of competition is lower as "intervention is required in order to protect freedom, as an institution, and as an individual economic right".[55] This second approach fits more with the two-fold objective of the provisions pertaining to the abuse of economic dependence, as the weaker party is not only protected because (i) it is in a situation of unequal bargaining power (ii) but also because this "protects the competitive process as a whole"[56] by countering the economic power of some non-dominant undertakings. Indeed, "preserving market access cannot be seen as a non-economic goal of antitrust legislation which can be criticised for an induced trade-off with economic efficiency. Instead, freedom to access the market (contestability) is considered a necessary condition for efficiency and long-run welfare".[57] Therefore, in light of this potential effect on the competitive process and of the potential negative welfare it might entail, abuses of economic dependence should fall within the scope of competition law.[58] Of course, the standard should not be so low as to protect firms that free-ride.[59]

4 Refusal to Provide Access to Data and Abuse of Economic Dependence

As indicated in the Introduction, refusals to provide access to data are traditionally discussed under the realm of Art. 102 TFEU. However, this provision only allows targeting undertakings holding a dominant position in an identified market. Yet, powerful data holders that do not benefit from such a dominant position could also start refusing to provide access to their data to undertakings with limited bargaining power. To illustrate this, two US cases should be presented.

The first case is *PeopleBrowsr v. Twitter*.[60] PeopleBrowsr's business model was to analyse Twitter data in order to resell information to clients about consumer feedback towards products/services and to identify "influencers", via its access to the Twitter "firehose" (all the tweets passing through Twitter on a real-time basis). At one point, Twitter informed PeopleBrowsr and other third-party developers that, as of 30 November 2012, it would cut the "firehose" tap and that PeopleBrowsr would have to conclude a contract with one of Twitter's certified data resellers in order to get access to the "firehose" data.[61] PeopleBrowsr argued that it was *dependent* on this access in order to deliver the service it had built, and a San Francisco court issued a temporary restraining order mandating Twitter to temporarily keep providing access to the "firehose" to PeopleBrowsr. Unfortunately, no decision on the merits of the case followed this preliminary injunction as

[55] Bakhoum (2015), p. 17.

[56] Kerber (2019), p. 29.

[57] Bougette et al. (2018), p. 8.

[58] Bougette et al. (2018), p. 10.

[59] Bakhoum (2015), p. 17.

[60] Superior Court of the State of California, *PeopleBrowsr, Inc.* et al. *v. Twitter, Inc. (PeopleBrowsr)*, No. C-12-6120 EMC, 2013 WL 843032, N. D. Cal., 6 March 2013.

[61] Graef (2016), p. 257.

the parties settled the case in 2013, by agreeing that PeopleBrowsr would retain its access to the "firehose" until the end of 2013, and would then have to transition towards access via a certified data reseller in 2014.[62]

The second case is *hiQ v. LinkedIn*.[63] hiQ's business model was to provide information to businesses about their workforces based on statistical analysis of publicly available LinkedIn data.[64] Their "Keeper" product told employers which of their employees presented the greatest risk of being recruited by another company, while their "Skill Mapper" product provided a summary of the workers' skills. After having allowed hiQ access and use of its data for several years (from 2012 to 2017), on 23 May 2017 LinkedIn sent a cease-and-desist letter requesting hiQ to stop accessing its data, and used blocking techniques preventing hiQ from doing so. hiQ complained and argued that its data analytics business was wholly *dependent* on the access to that data, and that LinkedIn's decision to block access to its data had an anticompetitive purpose – namely to monetise this data itself with a competing product – and thus had to be considered as an unfair competition practice. LinkedIn argued that its decision was only motivated by the aim to protect its users' privacy and to preserve their trust, to which hiQ replied that it was only accessing data that users had willingly made public to all. The Court concluded that hiQ had raised serious questions about whether LinkedIn had unfairly leveraged its power in the professional networking market in order to develop a competing product, and therefore issued a preliminary injunction ordering LinkedIn to stop preventing hiQ's access to the data. It will remain to be seen whether the parties settle the dispute outside of the courts or whether a judgment on the merits will be issued.

These two cases raise the question of whether the refusal, by a non-dominant undertaking benefiting from a "relative or superior market power", to provide access to data to another undertaking, whose commercial activity "depends" on this access, could amount to an abuse of economic dependence.

To do so, this article will first outline the conditions that have to be met in order for a refusal to provide access to data to be considered as an abuse of economic dependence (4.1). Then, it will reflect on the categories of data potentially covered by the access (4.2). Finally, the potential remedy will be discussed (4.3).

4.1 Conditions to Be Met in Order for a Refusal to Provide Access to Data to Be Considered as an Abuse of Economic Dependence

The brief overview of the Belgian, German and French law has shown that two main conditions for the application of these provisions are common to the three Member

[62] Graef (2016), p. 257.

[63] United States District Court, Northern District of California, *hiQ Labs, Inc. v. LinkedIn Corporation*, No. 17-cv-03301-EMC, 14 August 2017, available at https://epic.org/amicus/cfaa/linkedin/2017-08-15-PI-Order.pdf.

[64] LinkedIn users can choose to keep their profiles entirely private, or to make them viewable by their direct connections on the site, a broader network of connections, all other LinkedIn members or the entire public (including internet users not registered on LinkedIn). In the case at hand, hiQ conducted its business by automatically collecting, harvesting or "scraping" the data from the latter categories of profiles (publicly available LinkedIn profiles).

States, namely the need to show a state of economic dependence (4.1.1) and the need to show an abuse of this state of economic dependence (4.1.2).

4.1.1 Assessment of the State of Economic Dependence

To determine whether the access seeker is dependent, in order to conduct its business, on the access to the data of the undertaking having a superior market power, a two-step assessment must be conducted: first an objective assessment of the sufficiency of alternatives for any undertaking, and second a subjective assessment of the reasonableness to resort to these alternatives for the access seeker.

4.1.1.1 Objective assessment of the sufficiency of alternatives for any undertaking The first question is thus whether sufficient alternatives to the data held by the undertaking having superior market power are available to any other undertaking. It must be questioned whether the access seeker could, in theory, collect that data itself or access it via another undertaking.

This first objective assessment is rather similar to the indispensability test of the "essential facilities doctrine". Indeed, according to the French "*Autorité de la concurrence*" and the German "*Bundeskartellamt*", this indispensability test requires to show that "the data owned by the incumbent is truly unique and that there is no [other] possibility for the competitor to obtain the data that it needs to perform its services".[65]

To be precise, the indispensability test does not require the demonstration of the absence of "any alternative at all", but rather the absence of "a sufficient alternative for *any* undertaking". Indeed, if one takes the example of a port used as the starting point to cross a narrow sea, this infrastructure might be considered as an essential facility for ferry operators even if there is another port 200 kilometres away, as this alternative, though existent, might not be considered as "sufficient for any undertaking" in this context.

This finding can be derived from the *Bronner*[66] case, where the ECJ indicated that in order for the indispensability of the facility (*in casu* a nationwide home-delivery system for newspapers) to be established, there must be "obstacles capable of making it *impossible, or even unreasonably difficult, for any other publisher* [to develop a substitute]"[67] (emphasis added).

If this objective assessment leads to the conclusion that there are no sufficient alternatives to the data for any undertaking, then the indispensability test is met, and the refusal, by a dominant undertaking, to provide access to that data could amount to an abuse of dominant possition prohibited by Art. 102 TFEU, provided that the

[65] Autorité de la concurrence and Bundeskartellamt (2016), p. 18.

[66] ECJ, 26 November 1998, C-7/97, *Bronner*.

[67] ECJ, *Bronner*, para. 44.

other conditions of the essential facilities doctrine are met.[68] However, when applied to data, it is questionable whether these other conditions can be met, especially the condition pertaining to the indispensability of the dataset. This is because, according to Colangelo and Maggiolino, if applied to data, the *Bronner* case implies that data that is openly accessible online or can be purchased should never be considered as indispensable, as virtually any undertaking can access it or purchase it from data brokers.[69] Graef is more nuanced. Though she agrees that data that is truly non-rivalrous may not be considered as being indispensable, she underlines that it should be kept in mind that this same data is excludable and can be made exclusive through contractual or technical means.[70] Yet, even if some data are not accessible to all firms on an equal basis and are not sold by data brokers, this does not necessarily imply that these data are necessarily indispensable, as long as it is possible to find substitutes.[71] This was notably affirmed by the European Commission in the *Facebook/WhatsApp* merger, where it indicated that a wide number of undertakings collect user data for advertising purposes (Google, Facebook, Amazon, eBay …).[72] In the same vein, the user data at hand in the *PeopleBrowsr v. Twitter*[73] and *hiQ v. LinkedIn*[74] cases should arguably not be considered as indispensable either.

Moreover, if it appears from this objective assessment that no sufficient alternatives to the data held by a non-dominant undertaking having superior market power exist for any undertaking, it will de facto not be reasonable for the access seeker to collect that data itself or to access it via another undertaking (subjective assessment of the reasonableness to resort to these alternatives). Therefore, the state of economic dependence will be established.

However, if this objective assessment leads to the finding that the data is not indispensable and that there are, in fact, sufficient alternatives to the data, then it is necessary to move on to the second step and to assess, from a subjective point of view, whether it is reasonable *for the access seeker* to collect that data itself or to access it via another undertaking.

[68] (i) The refusal to grant access excludes all effective competition on the downstream market; (ii) prevents the introduction of a new product/technological innovation; and (iii) there is no objective justification for the refusal. *See* the case law and legal literature cited in footnotes 6 and 7.

[69] Colangelo and Maggiolino (2017), pp. 270–271.

[70] Graef (2016), p. 267.

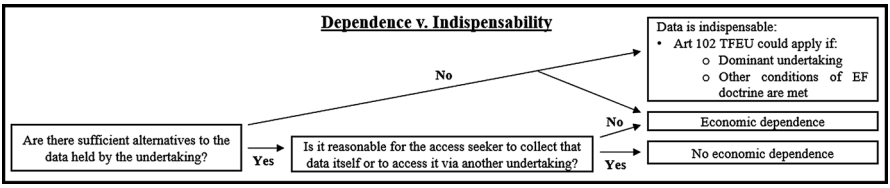
[71] Colangelo and Maggiolino (2017), p. 273.

[72] European Commission, Case COMP/M.7217, *Facebook/WhatsApp* (2014), paras. 188–189; Colangelo and Maggiolino (2017), p. 271.

[73] Superior Court of the State of California, *PeopleBrowsr, Inc.* et al. *v. Twitter, Inc. (PeopleBrowsr)*, No. C-12-6120 EMC, 2013 WL 843032, N. D. Cal., 6 March 2013.

[74] United States District Court, Northern District of California, *hiQ Labs, Inc. v. LinkedIn Corporation*, No. 17-cv-03301-EMC, 14 August 2017, available at https://epic.org/amicus/cfaa/linkedin/2017-08-15-PI-Order.pdf.

4.1.1.2 Subjective assessment of the reasonableness to resort to these alternatives for the access seeker This subjective assessment is one of the key differences between resorting to provisions of abuse of economic dependence and resorting to Art. 102 TFEU, as the latter does not provide such a second step. This is because Art. 102 TFEU requires an absolute indispensability (e.g. the access to the dataset is indispensable for *any undertaking*), while the provisions of "abuse of economic dependence" only require a relative dependence (e.g. the access to the dataset is necessary in order *for the access seeker* to conduct its business, but it might not be necessary for other undertakings).



This subjective assessment is about questioning whether it is reasonable, for the access seeker, to collect the data itself or to access that data via another undertaking. If it is reasonable to require this from the access seeker, then it is not in a state of economic dependence. On the contrary, if it is not reasonable, then it should be deemed to be in a state of economic dependence. To determine the reasonableness of requiring the access seeker to collect the data itself or to access that data via another undertaking, the *technical and economic barriers* to this alternative should be considered. This means questioning whether the access seeker could collect the data itself, or access that data via another undertaking, *within a reasonable time frame, on reasonable terms and at reasonable cost*.

Such barriers are not new in the realm of competition law. As indicated earlier, the ECJ held in the *Bronner* case that, in the context of Art. 102 TFEU, there must be "*obstacles* capable of making it impossible, or even unreasonably difficult, for *any other publisher* [to develop a substitute]"[75] (emphasis added). In *Bronner*, the ECJ added that "it is *not enough to argue that it is not economically viable by reason of the small circulation* of the daily newspaper or newspapers to be distributed. *For such access to be* capable of being regarded as *indispensable*, it would be *necessary* (…) *to establish* (…) *that it is not economically viable to create a second home-delivery scheme* (…) *with a circulation comparable to* (…) *the existing scheme*"[76] (emphasis added). This finding could be used to assess the existence of economic barriers creating a situation of economic dependence. Naturally, given that the provisions of "abuse of economic dependence" only require a relative dependence, while Art. 102 TFEU requires an absolute indispensability, the standard for recognising such an economic barrier should be lower. Thus, the test could be reformulated as follows: Are there obstacles making it unreasonably difficult for the access seeker (and not for *any* undertaking) to collect

[75] ECJ, 26 November 1998, C-7/97, *Bronner*, para. 44.

[76] ECJ, *Bronner*, §§ 45–46.

the data itself or to access that data via another undertaking? Considering that the assessment of dependence is relative and not absolute, it will be enough to argue that it is not economically viable for the access seeker to do so due to its own limited capacities, rather than having to show that it would not be economically viable for an undertaking having the same capacities as the data holder.

More specifically for data, it should be outlined that access to data relevant for competition is considered as one of the five factors to assess an undertaking's power in a multi-sided market and network.[77] Therefore, "consumer lock-in"[78] and "network effects"[79] could constitute such economic and technical barriers that make an access seeker dependant on another undertaking having relative or superior market power. Indeed, if the users are locked-in the latter's product or service – because no alternative having reached a critical mass of users is available (network effects) – the access seeker will be dependent on this undertaking as it is the only viable connection to these users. The undertaking having superior market power could thus be a "gatekeeper" of that user data as the access seeker would not be able to collect the data itself, or to access that data via another undertaking, within a reasonable time frame, on reasonable terms and at reasonable cost.

This "gatekeeper" situation was arguably present in the *PeopleBrowsr v. Twitter*[80] and *hiQ v. LinkedIn*[81] cases. Indeed, PeopleBrowsr argued that its business-model was dependent on the access to the Twitter "firehose" in order to deliver the service it had built. It argued that Twitter's data was unique and essential as tweets "provide unique feedback regarding consumers' reactions to products and brands, (…) provide unique insight about which members of communities are influential (…), [and other social networking sites, such as Facebook] do not provide the same rich set of public data regarding users' sentiments and influence".[82] Similarly, hiQ argued that its data analytics business was wholly dependent on the access to LinkedIn's data. Like several other digital platforms, Twitter and LinkedIn benefit from a form of "gatekeeper power" as

> these companies serve effectively as infrastructure for digital markets. (…) [T]his means that not only are the platforms vital intermediaries, but – *in many instances – they are the only real option*. (…) The platforms generate too

[77] §18, No. 3a Competition Act; Haucap (2018), p.10.

[78] Consumers are "locked into" a service because no other reasonable alternative exists, having reached a minimum scale (e.g. having a sufficient minimum number of users).

[79] Having more costumers provides more data, which allows to improve the product/service. In turn, improving the product/service attracts more consumers that provide additional data, which again allows to improve the product/service, etc.

[80] Superior Court of the State of California, *PeopleBrowsr, Inc.* et al. *v. Twitter, Inc. (PeopleBrowsr)*, No. C-12-6120 EMC, 2013 WL 843032, N. D. Cal., 6 March 2013.

[81] United States District Court, Northern District of California, *hiQ Labs, Inc. v. LinkedIn Corporation*, No. 17-cv-03301-EMC, 14 August 2017, available at https://epic.org/amicus/cfaa/linkedin/2017-08-15-PI-Order.pdf.

[82] Declaration of John David Rich in support of the plaintiff's application for a temporary restraining order in the case *PeopleBrowsr v. Twitter* in the Superior Court of the State of California, County of San Francisco, November 2012, paras. 4–5, available at http://www.scribd.com/doc/114846303/Rich-Declaration-PB-v-TW-Restraining-Order-28-Nov-12, cited in Graef (2015), p. 499.

> much business and attract too many eyeballs for firms to bypass them entirely. (…) Platforms can use their gatekeeper power to extort and extract better terms from the users that *depend on their infrastructure*.[83] (emphasis added)

An additional key factor for this "assessment of reasonableness" test lies in the access seeker's burden of proof, as it has to convince the competition authorities that it is truly dependent on the access as it cannot reasonably collect the data itself or access that data via other means. To do so, the access seeker has to provide clear explanations about the product/service that it offers (or intends to offer) and the reasons why that data is necessary for its (current or future) business model.[84] Indeed, requiring these additional explanations would avoid that these provisions of abuse of economic dependence are used as proxies for free-riding tactics, which would deter innovation. This implies that access should not be granted to undertakings that simply want to copy the data holder's business model. Rather, access to data through the provisions on the abuse of economic dependence should only be provided if the access seeker offers (or wishes to offer) a different product/service than the one offered by the data holder.

Arguably, this requirement was satisfied in the *PeopleBrowsr v. Twitter*[85] and *hiQ v. LinkedIn*[86] cases. Indeed, PeopleBrowsr's business model was to analyse Twitter data in order to resell information to clients about consumers' feedback regarding products/services and to identify "influencers". It therefore did not access Twitter's data in order to copy its business model and to create a similar social network, but rather to provide new added-value services on the basis this data. Similarly, hiQ's business model was to provide information to businesses about their workforces based on statistical analysis of publicly available LinkedIn data, by telling employers which of their employees presented the greatest risk of being recruited by another company and by providing a summary of the workers' skills. Once again, this access to LinkedIn's data was not made to copy its business model and to create a similar professional social network, but rather to provide new added-value services.

Finally, a last word must be said about the necessity to demonstrate the unreasonableness of accessing the requested data via other means, and this has to do with the data portability right contained in the EU General Data Protection

[83] Khan (2018), pp. 13–14. *See also* Bougette et al. (2018), p. 14.

[84] Naturally, the access seeker should be careful not to provide too much information, in order to avoid the application of Art. 101 TFEU because of a risk of tacit collusion. However, this latter issue could be solved by preventing the data holder's department dealing with the data access request from sharing this specific information with other departments. Moreover, if some of the data to which the access is requested is personal data, providing explanations about the product/service that it intends to offer will also be necessary to comply with the core processing principles of Art. 5 GDPR, and notably the principle of purpose limitation.

[85] Superior Court of the State of California, *PeopleBrowsr, Inc.* et al. *v. Twitter, Inc. (PeopleBrowsr)*, No. C-12-6120 EMC, 2013 WL 843032, N. D. Cal., 6 March 2013.

[86] United States District Court, Northern District of California, *hiQ Labs, Inc. v. LinkedIn Corporation*, No. 17-cv-03301-EMC, 14 August 2017, available at https://epic.org/amicus/cfaa/linkedin/2017-08-15-PI-Order.pdf.

Regulation (hereinafter "GDPR").[87] Indeed, Art. 20.2 GDPR grants to the data subject[88] the right to transfer the personal data[89] that he/she has provided[90] to a data controller,[91] directly from one controller to another without hindrance from the original controller, *where technically feasible*. This means that, if technically feasible, the second data controller can ask the data subject to exercise his portability right in order to transfer to him the data that he/she has provided to the original controller. In this way, the second data controller can thus get access to some of the original controller's data through the intermediary of the data subject. Therefore, if this right to data portability turns out to be efficient in practice, an undertaking will struggle to argue that it is dependent on the data holder's wilful granting of an access to such data, as it can obtain access to the same data via another channel, namely through the intermediary of the data subject. However, if this data portability right turns out to be inefficient – notably if it is not technically feasible to port the data directly from one undertaking to the other (lack of interoperability) – this tool should not be considered as a reasonable alternative mean to get access to the personal data that the access seeker depends on for his business model.

4.1.2 Assessment of the Abuse

After having established that the access seeker is in a state of economic dependence towards the data holder, it will be necessary to determine whether the refusal, by the latter, to provide access to the data constitutes an abuse of such economic dependence. This second condition calls for two types of considerations. On the one hand, it is first necessary to demonstrate a conduct that constitutes a potential abuse (4.1.2.1). On the other hand, the anticompetitive harm deriving from this abuse must be proven (4.1.2.2).

[87] Regulation (EU) 2016/679 of the European parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), O.J., L 119, 4 May 2016.

[88] "An identified or identifiable natural person" (Art. 4.1 GDPR).

[89] "Any information relating to an identified or identifiable natural person ("data subject"); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person" (Art. 4.1 GDPR).

[90] Considered as "provided" are the data actively and knowingly provided by the data subject (name, age, email address …) and the observed data provided by the data subject by virtue of the use of the service or the device of the data controller (search history, traffic and localisation data, number of footsteps per day collected by a smart watch …), but not the inferred data and derived data that are created by the data controller on the basis of the data "provided" by the data subject (user profiles, results of an evaluation of the data subject's health based on the data that its smart watch has collected …) (WP 29 (2017), p. 10).

[91] "The natural or legal person, public authority, agency or other body which, alone or jointly with others, determines the purposes and means of the processing of personal data" (Art. 4.7 GDPR).

4.1.2.1 Demonstrating conduct that constitutes a potential abuse In Belgian law, Art. IV.2/1, 1° CDE explicitly identifies the unlawful refusal to supply as a practice that can be considered as abusive. Similarly, in French law, Art. L.420-2, al. 2 of the Code de Commerce provides that a refusal to sell may be abusive. An unlawful refusal to supply/provide access to data to an undertaking which has demonstrated that it is dependent on this access – as it cannot reasonably collect the data itself or access that data via other means – could thus, in certain circumstances, be abusive. The key issue is to determine when such a refusal to provide access to the data is *unlawful*. Two possible sets of cases should be outlined.

In the first set of cases, the access seeker has already developed his product/service on the basis of the access to the data holder's data, and the latter decides to "close the tap" and to no longer provide access to this data (termination of an existing business relationship). The question is whether this refusal to continue providing access to data for the future, while access had been provided in the past which allowed the dependent undertaking to build its product/service, constitutes an unlawful restriction of the latter's possibility to compete in the market, amounting to an abuse. In this regard, it should be noted that the European Commission indicates in its guidance on abusive exclusionary conducts by dominant undertakings that terminating an existing business relationship is more likely to be abusive than a de novo refusal to supply because of the relationship-specific investments that have already been made.[92]

Once again, the *PeopleBrowsr v. Twitter*[93] and *hiQ v. LinkedIn*[94] cases could arguably be considered as conducts that constitute a potential abuse. Indeed, in both these cases, the data holders let another undertaking develop an added-value service on the basis of the free access to its data, creating the impression that they could create a perennial business-model via this free access. Yet, once Twitter and LinkedIn realised that these services had added-value and that PeopleBrowsr and hiQ were dependent on this access, they decided to terminate the existing business relationship. This conduct could potentially be abusive if it generates anti-competitive effects.[95]

In the second set of cases, the access seeker has no pre-existing business relation with the data holder, and alleges that it is dependent on the data holder's data to launch a new product/service, which is not a simple copy of the data holder's business model, but rather aims at creating added-value (refusal to supply). In this example, there could potentially be an abuse if the undertaking has exceeded the reasonable exercise of its economic freedom and that it could not have refused the access absent the state of economic dependence. To do so, the conduct, *in casu*, of

[92] European Commission (2009), para. 84.

[93] Superior Court of the State of California, *PeopleBrowsr, Inc.* et al. *v. Twitter, Inc. (PeopleBrowsr)*, No. C-12-6120 EMC, 2013 WL 843032, N. D. Cal., 6 March 2013.

[94] United States District Court, Northern District of California, *hiQ Labs, Inc. v. LinkedIn Corporation*, No. 17-cv-03301-EMC, 14 August 2017, available at https://epic.org/amicus/cfaa/linkedin/2017-08-15-PI-Order.pdf.

[95] *See infra* Sect. 4.1.2.2.

the undertaking having a superior market power towards the dependent undertaking should be compared with the conduct of a similar undertaking operating in a similar market (e.g. in other countries or in markets for similar products/services) where there is no dependence.

For instance, Kerber raises the question of whether the refusal, by car manufacturers, to provide access to vehicle data to independent repair services and providers of complementary services (e.g. on-board applications), while access is provided to official distributors or "certified" service providers, could amount to an abuse of economic dependence.[96] He points out, in this regard, that "it can be argued that under certain conditions firms on aftermarkets and in IOT-contexts with several stakeholders that need access to the same data for offering valuable services might claim access to the data that one stakeholder holds exclusively".[97] Moreover, and because refusal to supply access to data might not fit perfectly within the four traditional case groups of abuse of economic dependence identified earlier, Kerber suggests to develop a new case group for cases where data holders have a de facto exclusive control on the access to certain data sources and where they might abuse from the state of economic dependence of other firms who need this access in order to offer products or services to the users.[98] To support this, Kerber relies on the report of the German Federal Ministry for Economic Affairs and Energy, which indicated that:

> It may be useful to clarify in § 20 para. 1 Competition Act[99] that a relevant form of dependence may also result from an undertaking being dependent, in order to achieve a substantial value creation within a value creation network, on access to automatically generated machine or service usage data that is exclusively controlled by another company; and *denial of access to data can constitute an unreasonable exclusionary conduct, even if markets for such data do not yet exist*.[100] (emphasis added)

Once again, the importance of the access seeker's explanations about the product/service that it intends to offer, and about the reasons why that data is necessary to offer that product/service, will be paramount in order to avoid free-riding tactics that would deter innovation.

[96] Kerber (2018), p. 329.

[97] Kerber (2018), p. 329.

[98] Kerber (2019), p. 32. For a more thorough analysis of how this could be applied to the automotive sector, where the car manufacturers might have such de facto exclusive control, *see* pp. 28–35.

[99] The benefit of the protection of § 20 Competition Act is not limited to undertakings engaged in existing agreements or business relations, but may extend to undertakings willing to enter into such agreements or relations (Feteira (2016), p. 152).

[100] Schweitzer et al. (2018), p. 5.

4.1.2.2 Demonstrating the anticompetitive harm deriving from this abuse Additionally, the anticompetitive harm deriving from this abuse must be proven. As we have discussed above,[101] the "freedom to compete approach" of the economic role of competition law fits more with the two-fold objective of the provisions pertaining to the abuse of economic dependence, as the weaker party is not only protected because (i) it is in a situation of unequal bargaining power, but also (ii) because this "protects the competitive process as a whole"[102] by countering the economic power of some non-dominant undertakings. Indeed, "freedom to access the market (contestability) is considered a necessary condition for efficiency and long-run welfare".[103] Abuses of economic dependence might thus be sanctioned in order to protect the freedom to compete, as an institution, and as an individual economic right.[104]

The first set of conducts outlined above (termination of an existing business relationship), can indeed have anticompetitive effects. To illustrate this, the *PeopleBrowsr v. Twitter*[105] and *hiQ v. LinkedIn*[106] cases should once again be outlined. In *PeopleBrowsr*, Twitter's conduct might have been considered as anticompetitive, as it can arguably be defined as a "leveraging" behaviour by which Twitter intended to foreclose competition in this downstream analysis market to the benefit of its certified resellers.[107] Additionally, it could also be argued that Twitter's conduct was anticompetitive as it waited for a data re-user, *in casu* PeopleBrowsr, to show the lucrative nature of a market based on the "firehose" data analysis before reserving that market to its certified data resellers.[108] Similarly, LinkedIn's conduct does tend to indicate an anticompetitive "leveraging" behaviour by which it intended to foreclose competition in the downstream analysis market by developing a competing product after having waited for a data re-user, *in casu* hiQ, to show the lucrative nature of a such a data analysis market. In both of these cases, it seemed necessary to protect the access seekers' freedom to compete.

Similarly, the second set of conducts outlined above (refusal to supply), might also have anticompetitive effects as there might be cases where the refusal to provide access to the data unlawfully restricts the access seeker's possibility to compete in the market. In this regard, the final report on "Competition Policy for the digital era" outlined that:

> [W]here a machine producer enjoys some degree of market power, or even just bilateral power, the bargaining power of a machine user may not suffice. A

[101] *See supra* Sect. 3.2.2 Anticompetitive Effects.

[102] Kerber (2019), p. 29.

[103] Bougette et al. (2018), p. 8.

[104] Bakhoum (2015), p. 17.

[105] Superior Court of the State of California, *PeopleBrowsr, Inc.* et al. *v. Twitter, Inc. (PeopleBrowsr)*, No. C-12-6120 EMC, 2013 WL 843032, N. D. Cal., 6 March 2013.

[106] United States District Court, Northern District of California, *hiQ Labs, Inc. v. LinkedIn Corporation*, No. 17-cv-03301-EMC, 14 August 2017, available at https://epic.org/amicus/cfaa/linkedin/2017-08-15-PI-Order.pdf.

[107] Graef et al. (2015), pp. 384–385; Graef (2016), p. 257.

[108] Abrahamson (2014), p. 874, cited in Graef (2016), p. 257.

> number of experts and industry participants argue that exclusive control over machine usage data then leads to the foreclosure of secondary markets and *may significantly reduce the contestability* of a machine producer's position on the primary market, due to a data-driven lock-in of machine users.[109] (emphasis added)

4.2 Categories of Data Potentially Covered by the Access

If the conditions identified above are fulfilled, the provisions prohibiting the abuse of economic dependence could theoretically be applied to the refusal to provide access to data. Yet, it is still necessary to determine the categories of data potentially covered by the access.

Indeed, depending on this scope, the consequences for the non-dominant data holder, and for the data subjects in case personal data are involved, could vary greatly. This is because the true value is not in the data as such, but rather in the economic value of the information and knowledge that can be extracted from it.[110] In fact, raw data, whether personal or not, has little value in itself, and only becomes valuable once it has been structured and organised (transforming it into information), and even more so when this information is analysed to extract knowledge.[111] Moreover, access could be requested to personal or non-personal data. This latter distinction could, however, be rather artificial in some cases, as it might not be easy to determine whether or not specific data should be considered as personal.[112] This is because, due to the constant development of Big Data[113] analytics, data considered today as non-personal could later become personal if it is merged with other datasets, allowing the re-identification of data subjects. Of course, some data will more than likely always remain non-personal, such as data generated by industry machines in a production line equipped with sensors.

This article argues that the categories of personal and non-personal data potentially covered by the access should be determined on a case-by-case basis, and that the access should only be limited to the data that the access seeker is dependent on, in light of the conditions identified in Sect. 4.1. Indeed, in each case, a trade-off must be made between the benefits of protecting the weaker party (the dependant access seeker) and the costs of the access in terms of incentives to innovate and to

[109] Crémer et al. (2019), p. 88.

[110] De Streel, "From one bridge to another: The essential facilities doctrine and data" (to be published), p. 14.

[111] Gal and Rubinfeld (2019), p. 9.

[112] In the same vein, the data continuum described above (raw – structured – analysed) might not necessarily apply in all situations, notably because Big Data analytics also allows the analysis of unstructured data.

[113] "'Big data' is a field that treats ways to analyse, systematically extract information from, or otherwise deal with data sets that are too large or complex to be dealt with by traditional data-processing application software (…) Big data was originally associated with three key concepts: volume, variety, and velocity. Other concepts later attributed with big data are veracity (i.e. how much noise is in the data) and value" (https://en.wikipedia.org/wiki/Big_data).

collect data. In practice, the access seeker might be dependent on the access to personal or non-personal data.

4.2.1 Personal Data

The access seeker might first be dependent on the access to personal data held by the undertaking having a superior market power. Indeed, some of the consumer data collected by this undertaking could be highly valuable for the access seeker and it might be dependent on it. In practice, access requests to personal data are frequently targeted at "observed data, which often cannot be replicated, and volunteered data that would take a significant amount of effort to volunteer again".[114] This was notably the case in *PeopleBrowsr v. Twitter*[115] and *hiQ v. LinkedIn*.[116]

To determine which types of personal data should fall within the scope of the economic dependence provisions, a trade-off must be made between the benefits of protecting the dependant access seeker and the costs of the access in terms of incentives to innovate and to collect data. In this regard, it should be outlined that the most valuable personal data for the data holder will generally not be the data that has been provided by the data subject (actively or through his/her use of the data holder's product/service), but rather the data that the data holder has inferred on the basis of this primary data, as these secondary data are what provides the true added-value to their service. For instance, the true added-value of the services offered by Fitbit is not that the bracelet calculates the number of steps a person takes in one day, but rather the insights that are derived from this calculation and the personalised advice that is provided, on this basis, to this user. Similarly, Argenton and Prüfer, suggest that search engines should share their data on previous searches as the true added-value of search engines does not derive from this collection, but rather from the referencing services that it offers through the analysis of the collected data.[117]

In light of the above, access should only be provided to the well-identified categories of personal data that the access seeker is dependent on, and only if a trade-off has been made and concludes that the benefits for the access seeker trump the costs of the access in terms of incentives to innovate and to collect data for the data holder. Naturally, providing access to personal data would require compliance with the GDPR. In this regard, one way to circumvent the GDPR would be to anonymise the personal data before providing access to it, as the data would then no

[114] Crémer et al. (2019), p. 101.

[115] Superior Court of the State of California, *PeopleBrowsr, Inc.* et al. *v. Twitter, Inc. (PeopleBrowsr)*, No. C-12-6120 EMC, 2013 WL 843032, N. D. Cal., 6 March 2013.

[116] United States District Court, Northern District of California, *hiQ Labs, Inc. v. LinkedIn Corporation*, No. 17-cv-03301-EMC, 14 August 2017, available at https://epic.org/amicus/cfaa/linkedin/2017-08-15-PI-Order.pdf.

[117] Argenton and Prüfer (2012), p. 73. The two-sided market nature of search engines should, however, not be ignored. Given that they are remunerated by the revenue from advertising and not by the searches, an imposition to share this search data could undermine the viability of the service if it is used by the access seeker to provide competing online advertising services.

longer be subject to the GDPR. However, truly effective anonymisation[118] is difficult to achieve, and the mere pseudonymisation[119] of the data would not be sufficient as pseudonymised data remain personal data subject to the GDPR, given that the data subject can still be re-identified.

4.2.2 Non-Personal Data

The access seeker might also be dependent on the access to some of the non-personal data held by the undertaking having a superior market power. For instance, an independent repairer could be dependent on the access to car performance data held by a car manufacturer in order to be able to offer adequate repair services. Once again, in order to determine which types of non-personal data could fall within the access request, a trade-off has to be made between the benefits and the costs of access. In this regard, one of the elements that could be taken into consideration is whether the data to which the access is requested has been collected as part of the data holder's core business, or whether it has been collected as a by-product of this core business.

This is because the costs of access in terms of incentives to innovate and to collect this data in both scenarios are arguably different. Indeed, providing access to data collected as a by-product will arguably generate lower incentives costs than providing access to data collected as part of the data holder's core business because, in the former case, they are not collected for the sake of a data-centric business, but rather in order to facilitate the pursuit of the undertaking's core activity for which data are a mean and not a goal. The undertaking having a superior market power has to collect these data in any case for the pursuit of its core business, and having to provide access to this data thus entails fewer incentive costs than having to provide access to data that has been collected as part of its core-business. To be sure, this does not mean that it does not entail any costs at all in terms of innovation and incentives to collect the data, but rather that these costs are lower. This has to be balanced with the fact that these data generated as a by-product could be re-used for other purposes, potentially not linked to the undertaking's core activity, thus generating additional value for society. To give an example, one could think of data collected by sensors on machines in an assembly line, which could be used for other purposes. Indeed, these data are not collected and structured as a goal in itself, but as a by-product of the core business, e.g. assembling cars in a factory, as a mean to increase the efficiency of production.

Additionally, taking this factor into consideration in the trade-off is in line with the analogous discussions pertaining to the "spin-off effect" for the *sui generis*

[118] The ISO 29100 standard defines anonymisation as the: "process by which personally identifiable information (PII) is irreversibly altered in such a way that a PII principal can no longer be identified directly or indirectly, either by the PII controller alone or in collaboration with any other party" (ISO 29100:2011, point 2.2, available at https://www.iso.org/obp/ui/#iso:std:iso-iec:29100:ed-1:v1:en).

[119] "The processing of personal data in such a manner that the personal data can no longer be attributed to a specific data subject without the use of additional information, provided that such additional information is kept separately and is subject to technical and organisational measures to ensure that the personal data are not attributed to an identified or identifiable natural person" (Art. 4.5 GDPR).

database right. Indeed, some authors question whether databases that are by-products ("spin-offs") of a main or other activity of the data producer should also be protected by the *sui generis* database right.[120] In some cases, protecting these spin-off databases could give rise to absolute or unwanted natural monopolies.[121]

Nevertheless, while the above suggested distinction could have merit when assessing the trade-off between the benefits and the costs of providing the access, it must be underlined that, in practice, it might be extremely difficult to determine whether a specific dataset has been collected as a by-product or as (one of) the company's core business(es). Indeed, this notion of "core business" is evolutive. For instance, Monsanto-Bayer, historically considered as an agriculture and bioengineering business, seems to be "heading towards becoming an information broker with the acquisition of Climate Corp".[122] Therefore, while the datasets generated through the use of its agricultural and bioengineering products would have likely been considered, in the past, as by-products of its core business, the same conclusion might not necessarily be reached today. In fact, it could perhaps even be argued that generating this agricultural data is part of its new core business, which is to become a major agricultural data broker, and that it only sells agricultural and bioengineering products in order to generate more data. In the same vein, car manufacturers might attempt to argue that in the near future, with the advent of autonomous cars, they will strive towards becoming "mobility data companies" rather than simple "car builders". Accordingly, data generated by these autonomous cars might no longer simply be considered as by-products generated by these car manufacturers' core business (selling cars), but might rather be considered as part of their new core business (becoming leading mobility data companies) and that these mobility companies only sell cars in order to generate more data.

In light of the above, access should only be provided to the well-identified categories of non-personal data that the access seeker is dependent on, and only if a trade-off has been made and concludes that the benefits for the access seeker trump the costs of the access in terms of incentives to innovate and to collect data for the data holder.

4.3 Providing Data Access as a Remedy

If the provisions on the abuse of economic dependence are deemed applicable in cases of refusal to provide access to data and if the scope of the relevant data has been identified, the final issue is to determine the remedy.

This article argues that the remedy should be a duty to provide access to the categories of data on which the access seeker is dependent.[123] These will have to be determined on a case-by-case basis, in light of the trade-off between the benefits of

[120] On this "spin-off effect" theory, *see inter alia*, Derclaye (2004), pp. 402–413; Hugenholtz (2003).

[121] Derclaye (2004), p. 412; Hugenholtz (2003), p. 7.

[122] Carbonell (2016), p.5.

[123] For case law addressing data sharing as a remedy *see*: Autorité de la concurrence, decision No. 17-D-06 (GDF Suez), 21 March 2017, available on http://www.autoritedelaconcurrence.fr/pdf/avis/17d06.pdf.

protecting the dependent access seeker and the costs of access in terms of incentives to innovate and to collect data. The scope of the data covered by this remedy is the main difference with a remedy sanctioning an abuse of dominant position. Indeed, in the latter case, the remedy to an abuse resulting from the refusal to share the access to "indispensable" data (essential facilities doctrine) would be an obligation to share this "indispensable" data. Yet, as we have seen above,[124] "indispensable data" and "data that the access seeker is dependent on" are two different concepts, having a different scope.

This access should, however, be remunerated, in order to counter-balance the possible stifling effects that such a duty to share could have on the data holder's incentive to invest in data collection and analysis,[125] and the price could be set on the basis of FRAND (fair reasonable and non-discriminatory) remuneration considerations. In this regard, Drexl points out that the *Huawei*[126] judgment of the ECJ, where the Court created a negotiation framework for the licensing of SEPs,[127] could "provide inspiration to deal with cases on access to data".[128] It could thus assist the parties to reach an agreement on the price of access.[129] This negotiation framework, applied to data, could be the following: (i) once the access seeker has expressed its willingness to pay a FRAND remuneration for the data, the data holder must present a specific, written offer specifying the price and the way in which it is to be calculated; (ii) it is then for the access seeker to respond diligently to that offer in good faith and without delaying tactics; (iii) should the access seeker not accept the offer made to it, it must submit to the data holder, promptly and in writing, a specific counter-offer that corresponds to FRAND remuneration; and (iv) where no agreement is reached on the details of the FRAND remuneration following the counter-offer, the parties should, by common agreement, request that the price be determined by an independent third party.

This independent third party could be the Support Centre for data sharing, created in 2019, as it will be in a good position to assess the appropriateness of the conditions of a data sharing agreement since it will be tasked with collecting the best practices and existing model contract terms.[130] It will thus have a basis of comparison to assess the prices proposed by both parties. Moreover, it would arguably also be in a good position to determine the technical means of the access (a one-shot data transfer; daily/weekly/monthly transfers of bulks of data; real-time

[124] *See supra* Sect. 4.1.1 Assessment of the State of Economic Dependence.

[125] Here it should be mentioned that, regarding personal data, the GDPR provides that the exercise of the portability right should be free (Art. 12.5 GDPR). It could thus seem incoherent to allow the data holder to be remunerated for the access to the data via the abuse of economic dependence provisions if it has to port the same data for free under the GDPR portability right. However, portability is free under the GDPR in order to facilitate the exercise of the "data subjects" rights. Considering that here the access seeker is a competing undertaking, and not a data subject, it makes sense to subject the access to a fee.

[126] ECJ, 16 July 2015, C-170/13, *Huawei*.

[127] ECJ, *Huawei*, paras. 60–69.

[128] Drexl (2016), p. 55. *See also* Richter and Slowenski (2019).

[129] Drexl (2016), p. 55.

[130] European Commission (2018b).

access[131] via application programming interfaces (APIs)[132]) if the parties do not reach an agreement in this regard. Indeed, appointing experts in the Support Centre for data sharing to assess these remuneration and technical issues, in cases where the parties fail to reach an agreement, relieves the competition authorities from assuming this role for which they are ill-suited.[133]

Additionally, in cases of termination of an existing business relationship, this article argues that the price of access should remain the same as that which existed prior to the refusal, for a reasonable period of time to be determined on a case-by-case basis. For instance, this reasonable period of time could correspond to the above-mentioned negotiation period. Though there might be an objective justification for a price increase, "freezing" the price during this reasonable period should ensure that the dependent undertaking will be put in a more comfortable bargaining position during the negotiation period. This fits in with the goal of protecting the weaker party. Accordingly, if that access was provided for free, as in the *PeopleBrowsr v. Twitter*[134] and *hiQ v. LinkedIn*[135] cases in the USA, the access should remain free during the negotiation period.

Moreover, and provided that such a difference can be established in practice, the remuneration for the access to data generated as a by-product of a core business should be lower than the remuneration for the access to data whose collection, structuration and analysis is the core business of the data holder. This is because providing access to data collected as a by-product will arguably generate lower incentives costs than providing access to data collected as part of the data holder's core business.

Finally, it would be worth reflecting on the compatibility with the GDPR of a competition authority's decision imposing the provision of access to personal data to a competitor. Indeed, such a remedy might, in some cases, come into conflict with data protection law if the data is not anonymised[136] prior to transfer.[137] This important research question will not be addressed at length in this article,[138] but three lawful bases could potentially justify, under certain conditions, the transfer of this personal data, namely: consent; necessary processing for the compliance with a

[131] The "freshness" and "up-to-dateness" of the data can indeed be of the utmost importance for certain business models (*see* Kathuria and Globocnik (2019), pp. 18–19).

[132] "In computer programming, an application programming interface (API) is a set of subroutine definitions, communication protocols, and tools for building software. In general terms, it is a set of clearly defined methods of communication among various components" (Source: https://en.wikipedia.org/wiki/Application_ programming_interface).

[133] Kathuria and Globocnik (2019), p. 17.

[134] Superior Court of the State of California, *PeopleBrowsr, Inc.* et al. *v. Twitter, Inc. (PeopleBrowsr)*, No. C-12-6120 EMC, 2013 WL 843032, N. D. Cal., 6 March 2013.

[135] United States District Court, Northern District of California, *hiQ Labs, Inc. v. LinkedIn Corporation*, No. 17-cv-03301-EMC, 14 August 2017, available at https://epic.org/amicus/cfaa/linkedin/2017-08-15-PI-Order.pdf.

[136] If the data is anonymised, and thus not simply pseudonymised, the data are no longer personal data and the GDPR no longer applies.

[137] Haucap (2018), p. 12.

[138] On this question, *see* Kathuria and Globocnik (2019).

legal obligation[139] to which the controller is subject; and necessary processing for the purposes of the legitimate interests pursued by the data holder and the access seeker, provided that these interests are not overridden by the interests or fundamental rights and freedoms of the data subjects.[140] For these three scenarios, the access seeker would need to be very specific about the product/service it wants to offer in order to comply with the principle of purpose limitation.[141]

5 Conclusion

The aim of this article was to demonstrate that the provisions against the abuse of economic dependence could prove to be a valuable alternative to Art. 102 TFEU and the essential facilities doctrine in order to deal with refusals, by non-dominant undertakings, to provide access to data to undertakings having a weaker bargaining power.

To do so, the provisions on the abuse of economic dependence in Belgian, French and German law were presented, and two cases that occurred in the USA – *PeopleBrowsr v. Twitter* and *hiQ v. LinkedIn* – were used as a main thread to shed some light on the conditions that need to be fulfilled in order for a refusal to provide access to data to be considered as an abuse of economic dependence. In essence, the access seeker needs to show a state of economic dependence (lack of sufficient reasonable possibilities to collect the data itself or elsewhere) and needs to show an abuse of this state of economic dependence. This second condition implies the demonstration of a conduct that constitutes a potential abuse (termination of an existing business relationship or refusal to supply) and the demonstration of the anticompetitive effect of this abuse (harm to the freedom to compete and to the contestability of the market).

This analysis has been conducted on the basis of the national laws of three EU Member States, as there is no harmonisation of the provisions pertaining to the abuse of economic dependence in the EU. As it attempted to demonstrate that such provisions could be an interesting alternative to Art. 102 TFEU, and in order to avoid national law discrepancies on how these issues are handled in the internal market, this article encourages the European Commission to think about creating an abuse of economic dependence provision at the EU level that would allow to deal, in specific cases, with refusals to provide access to data.

Acknowledgments The author would like to thank Prof. Dr. Alexandre de Streel, Prof. Dr. Reto M Hilty, Dr. Inge Graef, Dr. Bertin Martens and the participants to the "Third Workshop for Junior Researchers in IP law" organised at Sciences Po Law School on 20–21 June 2019 (in particular Thomas Verdonk), for their valuable comments on the draft versions of this article. The author would also like to thank

[139] The ECtHR consistently holds that the term "law" must not be given a "formal interpretation", which would necessarily imply the existence of a written statute, but rather a "material interpretation", which not only covers the written statutes but all the legal rules in force, including case law. *See* ECtHR, *Sunday Times v. United Kingdom*, 26 April 1979, req. No. 6538/74, paras. 46–53; *Hüvig v. France*, 24 April 1990, req. No. 11105/84, para. 28; *Kruslin v. France*, 24 April 1990, req. No. 11801/85, para. 29.

[140] Art. 6.1(a), (c) and (f) GDPR.

[141] Art. 5.1(a) GDPR.

BELSPO, the Belgian Federal Science Policy office, for their financial aid, according to the agreement of subsidy No. [BR/154/A4/FLEXPUB].

References

Abrahamson Z (2014) Essential data. Yale Law J 124(3), (867):867–881

Argenton C, Prüfer J (2012) Search engine competition with network externalities. J Compet Law Econ 8(1):73–105

Autorité de la concurrence and Bundeskartellamt (2016) Competition law and data. 10 May 2016, available at http://www.autoritedelaconcurrence.fr/doc/reportcompetitionlawanddatafinal.pdf

Bakhoum M. (2015) Abuse without dominance in competition law: abuse of economic dependence and its interface with abuse of dominance. Max Planck Institute for Innovation & Competition Research Paper No. 15-15. Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2703809

Barbero M, Cocoru D, Graux H, Hillebrand A, Linz F, Osimo D, Siede A, Wauters P (2018) Study on emerging issues of data ownership, interoperability, (re-)usability and access to data, and liability, 25 April 2018. Available at https://ec.europa.eu/digital-single-market/en/news/study-emerging-issues-data-ownership-interoperability-re-usability-and-access-data-and

Bougette P, Budzinski O, Marty F (2018) Exploitative abuse and abuse of economic dependence: What can we learn from an industrial organization approach?. Ilmenau Economics Discussion Papers No. 119. Available at http://hdl.handle.net/10419/191022

Boy L (2006) Abuse of market power: controlling dominance or protecting competition? In: Ullrich H (ed) The Evolution of European competition law: whose regulation, which competition?. Cheltenham and Northampton, Edward Elgar, pp 201–223

Carbonell I (2016) "The ethics of big data in big agriculture. Internet Policy Rev 5(1):pp. 1–13. Available at https://policyreview.info/articles/analysis/ethics-big-data-big-agriculture

Colangelo C, Maggiolino M (2017) Big data as misleading facilities. Eur Compet J 2–3(13):249–281

Crémer J, de Montjoye Y-A, Schweitzer H (2019) Competition policy for the digital era—final report. available at http://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf

De Boüard F (2007) La dépendance économique née d'un contrat. LGDJ, Paris

Derclaye E (2004) Databases sui generis right: Should I adopt the spin off theory? E.I.P.R., 2004, 26(9), pp 402–413

Drexl J (2016) Designing competitive markets for industrial data—between propertisation and access (October 31, 2016). Max Planck Institute for Innovation & Competition Research Paper No. 16–13. Available at SSRN: https://ssrn.com/abstract=2862975

European Commission (2009) Communication from the commission—guidance on the commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings, *OJ C 45*, 24 February 2009

European Commission (2018a) Communication from the commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, "Towards a common European data space", 25 April 2018, COM(2018) 232 final

European Commission (2018b) Commission Staff Working Document. "Guidance on sharing private sector data in the European data economy", accompanying the document Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, "Towards a common European data space", 25 April 2018, SWD(2018) 125 final

Feteira L (2016) The interplay between European and national competition law after regulation 1/2003. Kluwer, Alphen aan den Rijn

Frischmann BM (2012) Infrastructure: the social value of shared resources. Oxford University Press, Oxford

Gal MS, Rubinfeld DL (2019) Data standardization. NYU Law Review 94, forthcoming

Graef I (2015) Market definition and market power in data: the case of online platforms. World Compet Law Econ Rev 38(4):473–506

Graef I (2016) EU competition law, data protection and online platforms: data as essential facility. Kluwer, Alphen aan den Rijn

Graef I, Prüfer J (2018) Mandated data sharing is a necessity in specific sectors. Jaargang, No.103 (4763), 5 July 2018, pp. 298–301, available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3206685

Graef I, Wahyuningtyas S, Valcke P (2015) Assessing data access issues in online platforms. Telecommun Policy 39:375–387

Haucap J (2018) A German approach to antitrust for digital platforms. In: Digital platforms and concentration, second annual antitrust and competition conference, pp 8–13, https://promarket.org/wp-content/uploads/2018/04/Digital-Platforms-and-Concentration.pdf

Hugenholtz B (2003) Program schedules, event data and telephone subscriber listings under the database directive–The 'Spin-Off' Doctrine in the Netherlands and elsewhere in Europe, Paper presented at 11th annual conference on international intellectual property law and policy, Fordham University School of Law, New York, April 14–25, available at https://www.ivir.nl/publicaties/download/spinofffordham.pdf

Kathuria V, Globocnik J (2019) Exclusionary conduct in data-driven markets: limitations of data sharing remedy. Max Planck Institute for Innovation and Competition Research Paper No. 19-04, https://ssrn.com/abstract=3337524

Kerber W (2018) Data governance in connected cars: the problem of access to in-vehicle data. JIPITEC 9(2018):310–331

Kerber W (2019) Data-sharing in IoT ecosystems from a competition law perspective: the example of connected cars, 26 August 2019, https://ssrn.com/abstract=3445422

Khan L (2018) What makes tech platforms so powerful? In: Digital platforms and concentration, second annual antitrust and competition conference, pp 14–17, https://promarket.org/wp-content/uploads/2018/04/Digital-Platforms-and-Concentrati on.pdf

Larouche P (2008) The European Microsoft case at the crossroads of competition policy and innovation. Antitrust Law J 75:933–963

OCDE (2015) Data-driven innovation: big data for growth and well-being. OECD Publishing, Paris. https://doi.org/10.1787/9789264229358-en

Richter H, Slowinski P (2019) The data sharing economy: on the emergence of new intermediaries. IIC 50:4–29

Schweitzer H, Haucap J, Kerber W, Welker R (2018) Modernisierung der Missbrauchsaufsicht für marktmächtige Unternehmen, Projekt Nr. 66/17 im Auftrag des Bundesministeriums für Wirtschaft und Energie (BMWi), 29 August 2018, available at https://www.bmwi.de/Redaktion/DE/Publikationen/Wirtschaft/modernisierung-der-missbrauchsaufsicht-fuer-marktmaechtige-unternehmen.pdf?__blob=publicationFile&v=14

WP 29 (2017) Guidelines on the right to data portability, 5 April 2017, WP 242 rev.01, available at https://ec.europa.eu/newsroom/document.cfm?doc_id=44099