

Friederiszick, Hans; Reinhold, Steffen

Working Paper

The economics of dependence: A theory of relativity

ESMT Working Paper, No. 21-02

Provided in Cooperation with:

ESMT European School of Management and Technology, Berlin

Suggested Citation: Friederiszick, Hans; Reinhold, Steffen (2021) : The economics of dependence: A theory of relativity, ESMT Working Paper, No. 21-02, European School of Management and Technology (ESMT), Berlin

This Version is available at:

<https://hdl.handle.net/10419/244736>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

October 14, 2021

ESMT Working Paper 21-02

The economics of dependence: A theory of relativity

Hans W. Friederiszick, ESMT Berlin and E.CA Economics

Steffen Reinhold, E.CA Economics and ECARES – Université Libre de Bruxelles

Copyright 2021 by ESMT European School of Management and Technology GmbH, Berlin, Germany, <https://esmt.berlin/>.

All rights reserved. This document may be distributed for free – electronically or in print – in the same formats as it is available on the website of the ESMT (<https://esmt.berlin/>) for non-commercial purposes. It is not allowed to produce any derivatives of it without the written permission of ESMT.

Find more ESMT working papers at [ESMT faculty publications](#), [SSRN](#), [RePEc](#), and [EconStor](#).

The economics of dependence: a theory of relativity

Hans W. Friederiszick and Alexis Walckiers

Abstract

An increasing number of countries have introduced some form of prohibition of abuses of economic dependence or broadened the scope of their existing legislation. Yet, very little has been written on the economics of economic dependence, that is on economic reasoning, tools or metrics that can be relied upon to identify whether a company is economically dependent on another company. The present paper aims to fill this gap, and argues that bargaining theory and the economics of relative market power can be helpful to characterise economic dependence. We summarise a number of takeaways from this literature, and describe empirical strategies that can be relied upon to try and quantify economic dependence in specific cases.

1. Introduction

An increasing number of EU countries have introduced some form of prohibition of abuses of economic dependence. Others, most notably France and Germany, have actualised theirs, often by broadening the scope of application. While some of these legislations have been in place for decades, very little has been written on their economic implications, or on the economic tools that can be used to identify economic dependence. Yet, they raise a multitude of questions, ranging from their effect on consumer welfare, to the threshold of intervention, as well as their potential instrumentalization in the course of negotiations. In this article, we will try and shed some light on these questions, from an economics perspective.

Belgium was the last country to introduce a law prohibiting abuse of economic dependence. It entered into force in August 2020. Belgium thereby joined a non-negligible list of EU countries that have some type of provisions against abuse of economic dependence in their legislation: Austria, Cyprus, France, Germany, Greece, Hungary, Italy, Portugal, Romania, and Spain.¹ Outside of the European Union, Switzerland recently introduced a legislation on abuse of economic dependence, and the Korean Competition Authority very actively enforces the local legislation on the subject.

But for companies that wonder how the Belgian law will be applied in practice, international precedents from countries who already prohibit abuses of economic dependence may not bring precise insights. Indeed, laws are drafted differently across EU countries, and do not stem from a common underlying text, or underlying case law.²

This paper focuses on the economics of economic dependence. While economists have explained in detail what characterises a dominant position, we are not aware of any paper describing in any detail how

¹ Proposition de Loi modifiant le Code de droit économique en ce qui concerne l'abus d'une position dominante significative, Doc 54 1451/ (2015/2016), p. 8.

² Economic dependence does not appear as such in EU competition case law, beyond "unavoidable trading partner" in the sense of Hoffmann-La Roche (Judgment of the Court of 13 February 1979 - *Hoffmann-La Roche & Co. AG v Commission of the European Communities* - Case 85/76), or after-sales markets in the sense of *Hugin/Liptons* (Commission Decision of 8 December 1977 IV/29.132) or *Pelikan/Kyocera* (Rejection Letter of 22 September 1999 in Case No IV/34.330).

economic dependence should be assessed. Similarly, we are not aware of any attempt to review the case law that has emerged in different countries, and portray how economic dependence has been assessed in different contexts. We try and fill this gap, by reviewing case law from an economics perspective, and explain which economic models fit the case law most usefully.

The paper is structured as follows. Section 2 reviews enforcement against abuse of economic dependence in Europe, starting with the new Belgian law, before discussing the French and German experience. Section 3 is dedicated to the economics of relative market power, focusing mainly on the bargaining theory, and on empirical models that can be used to estimate the relative market power of a company. Section 4 discusses the specific case of the digital environment—more particularly platforms—as several officials have highlighted that provisions in terms of economic dependence could help address the alleged abuses of online platforms. Finally, Section 5 concludes with a number of considerations on legal certainty and welfare, as well as the potential instrumentalization of the ban on abuse of economic dependence.

2. Enforcement against abuse of economic dependence in Europe

As discussed in the introduction, in August 2020, Belgium joined ten other EU countries that prohibit abuses of economic dependence. We will not review all legislations in any detail, and will focus on the new Belgian law, as well as the French and German experience. We will focus mainly on the alleged theories of harm, on the notion of economic dependence, as described by the case law, and on economic insights that can be deducted by the law and case law on what characterises economic dependence.

2.1. Economic dependence in Belgian law

2.1.1. A broad political support, but a bumpy process

The Belgian Law on abuse of economic dependence was first voted (unanimously) in Parliament on April 4, 2019. Stuyck and Keirsbilck (2019)³ explain the genesis of the law. The Belgian Government had worked on an (unpublished) preliminary draft of the law on economic dependence, which ultimately did not make it to the Council of Ministers due to the government crisis that started in December 2018. One of the coalition parties (the N-VA) left the Government at that time, leaving the Government without majority in Parliament. An alternative majority was found to support the project on economic dependence by amending an initiative from January 2015 of the political party that had left the government (N-VA). To broaden political support, the NV-A initiative was merged with the Government's preliminary draft and a related proposal from an opposition party (PS). It ultimately led to a unanimous approval to insert a provision on economic dependence in Book IV of the Code of Economic Law (Book IV; CEL) on April 4, 2019. Next to the rules on economic dependence that are discussed in this article, the act of 4 April 2019

³ Stuyck, J. and B. Keirsbilck (2019), "De nieuwe Belgische wet met betrekking tot misbruik van economische afhankelijkheid, onrechtmatige bedingen en oneerlijke marktpraktijken tussen ondernemingen: een eerste commentaar," *SEW-Tijdschrift voor Europees en economisch recht*, 9 (September): 374-394. See also De Pourcq, S. (2019), "Belangrijke wijzigingen op komst voor de contractuele verhouding tussen ondernemingen: misbruik van economische afhankelijkheid, oneerlijke bedingen en misleidende en agressieve handelspraktijken worden verboden" *Revue de Droit Commercial Belge-Tijdschrift voor Belgisch Handelsrecht*, 2019(5): 642-665 and Binet, C. (2019), "Interdiction des abus de dépendance économique, des clauses abusives et des pratiques de marché déloyales : vers une meilleure protection contre les abus dans les relations B2B?" *Revue de Droit Commercial Belge-Tijdschrift voor Belgisch Handelsrecht*, 2019(7): 838-860.

also extended certain unfair market practices and abusive clauses in the consumer protection legislation (Book VI CEL) to business-to-business (B2B) contracts.

Sadly, in parallel, the Parliament worked on other plans of the previous Government, concerning the rules of competition law, contained in Book IV, on 2 May 2019 the Parliament replaced the entire Book IV, forgetting to insert the provisions on economic dependency that it had introduced a month earlier. Ultimately, on 27 May 2020, the Parliament reintroduced the provisions banning abuses of economic dependence in the law (still with a very wide political backing, but not with a unanimous vote this time). These rules entered into force on 22 August 2020.

The new Article 2/1 of Book IV forbids that one or more undertakings abuse a position of economic dependence in which one or more undertakings find themselves, thereby affecting competition on the relevant Belgian market or an essential part of it. It consists of three limbs that we will discuss successively: (i) economic dependence, (ii) abuse and (iii) effect on the relevant market.⁴ The motivation for this new article relies, for example, according to the commentary on the articles, on the possibility to avoid “a supply stoppage or the imposition of an excessive price increase” for a product which is “unavoidable because of its reputation or its specificity”. The law provides that the Belgian Competition Authority (BCA) (and the ordinary courts) can impose fines up to 2% of the turnover of the infringer.

2.1.2. Economic dependence

The law gives a double definition to economic dependence in article I.6 4° CEL:

- the absence of a *reasonably equivalent alternative* available within a reasonable period of time, under reasonable conditions and at reasonable costs, whereby
- the company can impose services or conditions that could not be obtained under *normal market circumstances*.

This double definition raises a number of inspiring questions that will find an answer in (future) case law. Concerning the first limb, as will be discussed in more detail in section 3, economists consider that alternatives (almost) always exist, but what is *reasonable* in terms of costs, conditions and timing is likely to be more disputed. Specialists of competition law know, for instance, that when it comes to prices, what is deemed *reasonable*, depends on a wide range of factors. Empirically, benchmarking with other sectors, other countries, or other periods of time, may help shed some light on what is *reasonable*. While benchmarking may help confirm ex post that a price was *reasonable*, this type of exercise is extremely to undertake ex ante, not only because data on contractual counterparts is not always available, but also because it is difficult to know where to draw the line on what is deemed reasonable (case law should hopefully help specifying what a *reasonably equivalent alternative* is).

The second limb referring to *normal market circumstances*, raises another set of questions. From an economic perspective, *normal market circumstances* can take various forms (the perfect competition benchmark is not always realistic). Some degree of competition is presumably *normal*, but which degree? Defendants which do not discriminate between counterparts that are economically dependent and counterparts that do not fall in this category could argue that they act under normal market

⁴ Doc 54 1451/ (2015/2016), op. cit.

circumstances. On the contrary, complainants could argue that the (alleged) abuse indicates that the weaker party was economically dependent and hence that both contractual parties did not act in *normal market circumstances*.

The commentary on the articles of the law of 4 April 2019 provides a list of eight factors that are worth investigating to decide on economic dependence:⁵

- a) the relative market power of the other firm;
- b) the share of the other firm's sales, it being understood that the higher that share, the greater the risk of dependence;
- c) the technology or know-how held by the other undertaking;
- d) the strong reputation of a brand, the rarity of a product, the perishable nature of a product, or the loyalty of consumers to purchase the product;
- e) access to essential resources or infrastructure by the other company;
- f) fear of serious economic disadvantage, retaliation or termination of contractual relationships;
- g) the regular granting to a firm of special conditions, such as rebates, that are not granted to other firms in similar cases;
- h) its deliberate choice or, on the contrary, forced to place itself in a position of economic dependence.

We will revert to some of these features of economic dependence in the remainder of this article. Most of them have been inspired by French and/or German experience. As we argue in Section 3, in combination to the first limb of the definition of economic dependence, which focuses on the presence of reasonably equivalent alternative, these eight factors confirm that, from an economics perspective, bilateral bargaining is the appropriate framework to look at economic dependence.

2.1.3. Abuse

Article IV.2/1 §1 CEL provides a non-exhaustive list of potential abuses: refusal to buy or sell, unfair prices, limitation of production, unequal conditions and subordination of the conclusion of contracts to the acceptance of additional services. They seem familiar to competition law practitioners.

Perhaps more interesting, the commentary on articles insists on examining whether conduct is abusive, by comparing it with an appropriate counterfactual scenario, such as the absence of the conduct in question or with some other realistic scenario having regard to established business practices.⁶ The comparison of the alleged infringement—especially when the third limb invites to look at the effect on the market—could be interpreted as an introduction of an effects-based application of the law. As discussed below, given that the abuses of economic dependence are sometimes presented as abuses of dominance with a lower threshold for intervention, an analysis of the effects of alleged infringements would be more than welcome.

⁵ Doc 54 1451/ (2015/2016), op. cit. p. 4.

⁶ Doc 54 1451/ (2015/2016), op. cit. p. 12.

2.1.4. Effect on competition on the relevant market

As explained above, the new Article 2/1 of Book IV requires that the abuse affects competition on the relevant Belgian market or an essential part of it. Scholars have opposing views on whether this requirement will play an important role in practice. Stuyck and Keirsbilck (2019)⁷ welcome this requirement, but think that it is unlikely that it will affect the threshold for intervention significantly, given the way the law is drafted. Referring to the French practice, Binet (2019)⁸ thinks that this third limb could be difficult for claimants to prove, which according to her could raise the threshold for intervention.

The BCA and Judges will set the threshold for intervention. As will be discussed later in this paper, from an economics perspective, it is important to take this requirement seriously. Especially for the BCA, when opening a case, in line with its priorities.

The commentary on this article, however, provides a very general interpretation, which suggests that the threshold for intervention could, in practice, end up being quite easy to satisfy: “[T]he affectation may be actual or potential. In reality, it is sufficient that it is possible on the basis of elements of law and fact and with a sufficient degree of probability that the abuse has a direct or indirect, actual or potential influence on competition.”⁹

2.2. Economic dependence in French law

Article L420-2 of the Code of Commerce forbids, where it is likely to affect the functioning or structure of competition, for an undertaking or group of undertakings to abusively exploit the state of economic dependence in which a client or supplier undertaking finds itself in relation to it. These abuses may in particular consist of refusal to sell, tied sales, discriminatory practices or range agreements.

Relatedly, another article of the Code of Commerce prohibits unfair business-to-business commercial practices (L442). Article L442-1 in particular proscribes that a contractual party subjects another party to obligations that create a significant imbalance (*déséquilibre significatif*) in the rights and obligations of the parties.

Fines for infringing Article L420-2 on abuse of economic dependence can be significant (up to 10% of turnover). Although major fines have been rare, a recent decision of the Autorité de la Concurrence against Apple and its wholesalers,¹⁰ shows that such fines can exist: the total fine amounted to €1,24Bn, and the fine for abusing economic dependence (one of three theories of harm) are understood to have been as high as €218m.

⁷ Stuyck, J. and B. Keirsbilck (2019), “De nieuwe Belgische wet met betrekking tot misbruik van economische afhankelijkheid, onrechtmatige bedingen en oneerlijke marktpraktijken tussen ondernemingen: een eerste commentaar,” *SEW-Tijdschrift voor Europees en economisch recht*, 9 (September): 374-394.

⁸ Binet, C. (2019), “Interdiction des abus de dépendance économique, des clauses abusives et des pratiques de marché déloyales : vers une meilleure protection contre les abus dans les relations B2B?” *Revue de Droit Commercial Belge-Tijdschrift voor Belgisch Handelsrecht*, 2019(7): 838-860.

⁹ Doc 54 1451/ (2015/2016), op. cit. p. 13.

¹⁰ Autorité de la Concurrence, decision 20-D-04 Apple Premium Resellers.

The French case law defines economic dependence relying on a set of four cumulative criteria:¹¹

- The defendant has a solid brand reputation;
- The defendant serves a significant share of the market concerned;
- The turnover achieved by the claimant with the defendant's products or services is significant;
- The claimant does not have equivalent alternative solutions.

The absence of an equivalent alternative solution, which was explicitly mentioned in the law until 2000, has been withdrawn since. But, in practice, it is still relevant following a decision of the Cour de Cassation in *Sintel vs Lotus* in 2002.¹²

Overall the standard of proof that needs to be met by complainants seems quite demanding, with the consequence that a restricted number of fines has been imposed for abuses of economic dependence, mainly related to abrupt termination of a commercial relationship, where economic dependence is an aggravating factor. Especially, the last criterion, related to the absence of alternative solutions, seems to be difficult to prove. Relatedly, a number of complaints have been dismissed because of the deliberate choice by the claimant to concentrate its sales with the same contractual party. But, in 2004, the Paris Court of Appeal considered that it was not sufficient to show economic dependence results from a deliberate choice of the dependent company in order to refute the existence of a situation of dependence.

In an opinion of 2015 on purchasing alliances,¹³ the Autorité de la Concurrence explains (§293-297) that it has proposed amendments to Article L420-2 of the Code of Commerce to facilitate complaints against abuses of economic dependence. These propositions were aimed more specifically at reducing the burden of proof required to establish economic dependence. But the propositions of the Autorité de la Concurrence were withdrawn from the project discussed in Parliament.

In the recent *Apple Premium Reseller's (APR)* decision, the economic dependence of APRs vis-à-vis Apple (and its wholesalers) is the result of a "complex intermingling of numerous contractual clauses and practices"¹⁴. In particular, the decision noted that the contracts Apple and its APRs required them to sell Apple products almost exclusively and prohibited them, during life span of the contract (until six months after the end of the contract), from opening a shop specialising in the sale of a competing brand. Furthermore, the Autorité de la Concurrence notes that Apple was the only supplier of electronic goods to operate a network of retailers specialising in physical shops dedicated to its own brand throughout the country, which further reduced the APRs' alternatives beyond contractual limitations.¹⁵

Given the limited number of decisions, the notion of economic dependency cannot be delineated solely based on the case law. Usefully, in its opinion on purchasing alliances (the *Avis*)¹⁶ the Autorité de la Concurrence discusses the advantages and limits of a number of indicators used to assess economic dependency. The main criterion to be considered is relative sales: a higher proportion of sales generated by the claimant with the defendant, indicates that it is more likely that the claimant is economically

¹¹ Autorité de la Concurrence, decision 19-MC-01 *Amadeus vs Google* and decision 20-D-04 *Apple Premium Resellers*.

¹² *Pourvoi* 00-13.921, *Sintel vs Lotus*, 2002.

¹³ *Avis* 15-A-06.

¹⁴ Decision 20-D-04 *Apple Premium Resellers*, p. 5.

¹⁵ Decision 20-D-04 *Apple Premium Resellers*, p. 206.

¹⁶ *Avis* 15-A-06.

dependent. But the Avis also underlines the limits of this criterion, and discusses alternative criteria such as upstream and downstream HHIs, or a comparison of margins, which have their own limits. In essence, economic dependency, rests on the difficulty to end the contractual relationship, redirect activities and engage with the next best alternative. As will be discussed later in this paper (and underlined by the Avis) this alternative may for example be unattractive, because of relation specific investments.

2.3. Economic dependence in German law

The German Act against Restraints of Competition (ARC) has included provisions against the abuse of economic dependence for decades. While dominance was part of the first version of the German law enacted in 1958, the notion of relative market power was introduced in 1973 only. The original purpose of it was to address the consequences of the oil crisis, but it quickly also became an important legal basis to support the enforcement of the prohibition of retail price maintenance.¹⁷ The notion of superior market power - which is addressing a horizontal imbalance of market power, not a vertical one like for relative market power - first appeared a couple of years later (in the early 80s) to soften the consequences of the development of supermarkets and department stores and related abuses of sales prices below input costs.

On the 19th of January 2021, the 10th amendment of the ARC has entered into force. The German legislator has significantly broadened the scope of review of abuses of economic dependence, showing its eagerness to use this legislation to tackle perceived enforcement gaps, in particular in the digital economy. The new law will enable the Bundeskartellamt to further intensify its enforcement against abuse of economic dependency, an area where it has recently shown its willingness to invest. In the last two years, it has issued decisions based on the abuse of economic dependency in the automotive sector, on online marketplaces, on selective distribution networks and even for sports associations.

Prosecutions of abuses of relative market power differ from prosecution of other infringements to competition law in at least two ways. First, market definition is required but in some limited form, as the main purpose is to assess relative market power. In this sense, market definition does not seek to identify the entire market, but primarily to shed light on the bilateral context. The case law has identified a number of relevant criteria, including shares of bilateral sales in total sales, as well as the identification of trading alternatives and of the gatekeeper character of one of the contractual counterparties. Second, most cases are pursued in private litigation. While the competition authority has made clear that it welcomes the prosecution of abuses of economic dependence, it usually intervenes only when its involvement is required for fact-finding or to mark an important competition law priority.

Until its recent revision, the ARC limited the protection against abuses of relative and superior market power to small and medium sized companies—with the notable exception of ARC §20(2)—but its scope has now been extended to protect larger companies. The ARC defines dependency as an insufficient and reasonable possibility to switch to third undertakings with the implication that there is a clear imbalance to the countervailing power of the dependent undertaking (relative market power) (ARC §20(1)). The law has been amended to cover multilateral markets, where companies can become dependent on intermediaries “for access to procurement and sales markets” (ARC §20(1)). Similarly, the law now

¹⁷ Bunte and Lange p.665/666. Notdurft (20215, p.V)

explicitly provides that dependency can result from the need to access data controlled by another undertaking. (ARC §20(1a)).

In general, there is a well-established case-law in Germany over economic dependency. Broadly speaking, over the years, four categories of situations have been identified, where the concept of economic dependency applies:

- **Dependency on a product line:** One important category of cases relates inferior market power derives from a company's dependency on the purchase of "must stock" products ("Spitzenstellung") or on the purchase of a group of premium brands ("Spitzengruppen"). While in the past this category protected mostly retailer against excessive market power of branded product manufactures (see examples given below) it can equally be applied, "mirror inverted", vis-à-vis retailer which are essential to reach the customer, i.e. hold a gatekeeper function.
 - **The Rossignol decision:** The case law concerning product line related superior market power was first shaped in 1975 by a decision of the Bundesgerichtshof (BGH).¹⁸ The Court had to decide on a dispute concerning the delivery of 478 pairs of skis ordered in October 1973 by a Bavarian sports shop from the supplier of Rossignol skis in Germany. The BGH noted that the year before the dispute, the market share of Rossignol was only 8% in Germany Rossignol, and that the proportion of sales of Rossignol skis at the shop in question was even lower: Rossignol only accounted for DM 100,000, on a total turnover amounting to DM 3 million. Nevertheless, the BGH held that "for the question of dependence [...] it is [...] not solely a matter of the number of undertakings to which the customer can switch. Rather, it is decisive to establish if the Rossignol brand—above all with regard to advertising and its success in races—has become so important for sports shops in the sales area of Upper Bavaria that they are dependent on carrying these brands in their assortment in order to be able to continue to claim the status of a generally recognised sports shop, and for this reason existing possibilities to switch to other companies cannot be regarded as sufficient and reasonable."
 - **The Rimowa decision:** In a more recent decision,¹⁹ the BGH confirmed its position, when it had to decide on a dispute between a manufacturer of Rimowa suitcases and a reseller of these suitcases in Munich and Regensburg, who held a dealer agreement from 2005 to September 2012. The parties were unable to agree on the conclusion of a new dealer agreement, leading to the dispute. The Court of Appeal had previously defined the relevant market as the market for high-priced and high-quality suitcases, holding that consumers distinguish between price segments. The Court of Appeal added that the fact that the boundaries between those price segments may not be clearly defined is not decisive in that regard. It further held that Rimowa held a leading position on the market, which could arise from outstanding quality, unique technical design or prominent advertising. The BGH reaffirmed these points, but nevertheless sent the dispute back to the Court of Appeal, because, in its Judgment, the Court failed to consider the falling proportion of resellers of Rimowa suitcases (38% to less than 20%), after Rimowa

¹⁸ Urt. v. 20.11.1975, Az.: KZR 1/75 "Rossignol".

¹⁹ BGH judgement, 12.12.2017 - KZR 50/15.

introduced a system of selective distribution. More in general, the BGH stressed the relevance of distribution depth as a measure of importance of a brand for retailers.

- **Company specific dependency:** A second category of cases relates to lock-in effects and aftermarkets. For example, suppliers in the car industry must make significant investments to supply parts for a specific model of a specific constructor. As explained in more detail in section 3.3, after such relation-specific investments, the company that has invested sees its bargaining position become weaker, because switching to an alternative contractual partner means that the relation-specific investment is lost. Similarly, in aftermarkets, companies may find themselves in a weak bargaining position when purchasing consumables after having purchased machinery. For instance, an industrial printer, who has purchased a printing machine, needs to acquire consumables (ink for instance) that are compatible with its investment.
- **Scarcity related dependency:** During the oil crisis, rationing in gasoline markets formed another category of abuses of economic dependency, where independent station owner – without upstream ownership in refinery capacity - required protection of being not served. Such cases have not been empirically relevant since then.²⁰
- **Demand related dependency:** A last category are demand related abuses of economic dependency. In a relatively recent decision, the Bundesgerichtshof ²¹ held that a number of relatively large sparkling wine producers were economically dependent on supermarket chain Edeka to access final consumers. The case concerned a so-called Hochzeitboni (wedding present in the form of rebates) that supermarket chains Edeka and Plus imposed to their suppliers, after their merger in 2008. Despite the size of the undertakings involved and the reputation of their sparkling wine brands, the sparkling wine producers did not have a sufficient countervailing power, according to the assessment of the Bundeskartellamt, confirmed by the BGH. The Court held that even for large companies, there could be an asymmetry in their mutual dependencies. On Edeka's side, the failure to contract would only have affected their sales in a number of product categories (notably, sparkling wine producers' assortment), while for sparkling wine producers, a significant proportion of their sales to supermarket customers would have ceased. The Court evaluated that due to the low brand loyalty of end consumers, sparkling wine producers would have lost 10-40% of their total turnover (recitals 47-48). In contrast, supermarket chains sales would not have been affected significantly, even if these sparkling wines would have been delisted.

As already emphasized, with its 10th amendment of the ARC, the German legislator has significantly broadened the scope of review of abuses of economic dependence, showing its eagerness to use this legislation to tackle perceived enforcement gaps, in particular in the digital economy. First, abuses of economic dependence are no longer limited to SMEs. Dependence is defined as a clear economic disequilibrium, leaving companies (including larger ones) unable to counterweigh the relative market power of the undertaking they are dependent on. Secondly, the law now explicitly refers to access to data by larger companies, as potential motive for economic dependence, i.e. defined a further category of

²⁰ Most recently the German Competition Authority considered this provision within the context of price spikes due to the Corona crises. Crises induced scarcity resulted in substantially higher prices of raw particle boards which are used in the furniture and construction industry. As the competition authority could not find indications of discriminatory treatment of different customers they did not further pursue the matter. BKartA (23.7.2021), case report, B1-71/21.

²¹ BGH, Beschl. v. 23.1.2018, KVR 3/17, Hochzeitsboni Edeka/Plus.

relative dependency. Thirdly, a new form of economic dependency is introduced in two-sided markets: an undertaking providing essential intermediary services is also subject to the prohibition of abusive impediment and discrimination substitutes for the intermediary service are insufficient. Whether a firm holding intermediary market power qualifies for a dominant position or for relative market power is subject to the degree of intermediary market power. Finally, the company can be considered of holding a superior market position across markets, prohibition abuses related to interoperability and access to data for companies holding a dominant market position in an adjunct market but not in the affected market itself.

In addition to the changes introduced by the 10th amendment of the ARC, the causal link between (relative) market power and abusive conduct has been loosened. It is now sufficient that relative market power is reflected in the anticompetitive outcome of the abusive conduct (and not the anticompetitive behavior), as was established by the BGH in its Facebook decision of 23 June 2020.²²

More specifically, the new law focuses on digital platforms, calling for a “Focused, Proactive and Digital Competition Law 4.0”. In a press release published on the day of the enactment of the new law, the Bundeskartellamt emphasizes the proactive role that it is called to exert in the digital sector, especially in the context of economic dependence: “An important innovation is also that the Federal Cartel Office can, under certain conditions, order that access to data be granted for reasonable remuneration in favour of dependent companies. In addition, special intervention options are provided in the event that a platform market threatens to “tilt” towards a large provider (so-called “tipping” of a market).”²³

3. Economics of relative market power

As our overview shows, a number of factors can be considered to confirm the alleged economic dependence of a plaintiff. But, as often in competition law, competition authorities and judges do not rely on a single metric in their assessment. The current section will try and identify the questions that decision makers must answer when assessing an alleged economic dependence, and hopefully bring some economic structure to the discussion.

In essence, economic dependence is not so much related to the structure of the market—as would typically be the case for abuses of dominance—but instead to the bargaining power of two (or more) contractual partners. The investigation must therefore identify possible sources of bargaining power of these contractual partners. In doing so, one needs to identify a company’s next best option—or the reasonably equivalent alternative. For each of these alternatives, the sources of switching costs should thereafter be found. Or, more broadly, uncover the constraints faced by firms who would like to change contractual partners.

As discussed in this section, economic dependence is not unrelated to market structure. Attractive alternatives typically do not abound for customers of dominant companies. But economic dependence can arise in sectors where no firm holds a dominant position. For instance, even if the contractual partner

²² KVR 69/19

²³

https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2021/19_01_2021_GWB%20Novelle.html

was ex ante not significantly different from another partner, over the course of a contractual relation matters may have evolved. For instance, one of the parties may have become locked-in the contractual relationship by relation specific investment.

This section discusses these questions in more detail. It also explores whether bargaining power can be quantified. And if so, raises the question of whether the proposed metrics are robust.

3.1. Bargaining theory

John Nash famously won the 1994 Nobel Prize in economics (with two colleagues) for his “pioneering analysis of equilibria in the theory of non-cooperative games”. One of his most pathbreaking papers—which is only 7 pages long—was published in 1950, when he was only 22 years old.²⁴ It is simply entitled “The Bargaining Problem”, and the abstract explains that “[a] new treatment is presented of a classical economic problem, one which occurs in many forms, as bargaining, bilateral monopoly, etc. It may also be regarded as a nonzero sum two-person game.”

Another key contributor to bargaining theory is Ariel Rubinstein, who also published a short article—in *Econometrica*, the same review—when he was relatively young, entitled “perfect equilibrium in a bargaining model”.²⁵ Since then bargaining theory has developed and has been applied to many different contexts, including politics, trade or military wars, as well as family.

Muthoo (1999, 2000)²⁶ summarised the main findings of the literature in a book and a non-technical article (see also Inderst and Wey, 2007²⁷). He defines a bargaining situation as a situation in which “two or more players have a common interest to co-operate, but have conflicting interests over exactly how to co-operate”. While quite general, this definition applies very well to the vertical context of economic dependence: firms are typically active at different levels of the value chain, and while their cooperation creates a surplus, they typically disagree—or bargain—on a number of features of their cooperation, often including how the surplus should be shared, in short, the prize.

This bilateral (or multilateral) context, while related to market structure, moves away from imperfect competition à la Bertrand or à la Cournot. But it has been used in the context of competition investigations, for instance, in merger assessments to explore whether, post-merger, the bargaining power of the combined entity over downstream (or upstream) rivals is likely to increase, and, if so, what are the likely effects of such increase. Bargaining models have for instance been used in the context of the merger between AT&T and Time Warner²⁸ in the U.S. or Liberty Global/ Corelio/ W&W/ De Vijver

²⁴ Nash, J. F. (1950), “The Bargaining Problem,” *Econometrica*, 18 (2): 155–62.

²⁵ Rubinstein, A. (1982), “Perfect Equilibrium in a Bargaining Model,” *Econometrica*, 50(1): 97–109.

²⁶ Muthoo, A. (1999), “*Bargaining Theory with Applications*,” Cambridge University Press, Cambridge, and Muthoo, A. (2000), “A Non-Technical Introduction to Bargaining Theory,” *World Economics*, 1(April–June): 145–166.

²⁷ Inderst, R. and C. Wey (2007), “Buyer power and supplier incentives,” *European Economic Review*, 51(3): 647–667. Inderst, R. & Ch. Wey (2008): Die Wettbewerbsanalyse von Nachfragemacht aus verhandlungstheoretischer Sicht. *Perspektiven der Wirtschaftspolitik* 2008 9(4): 465–485.

²⁸ See for instance Salop, S. C. (2018), “The AT&T/Time Warner Merger: How Judge Leon Garbled Professor Nash,” *Journal of Antitrust Enforcement*, 6(3): 459–477.

Media at EU level in 2015²⁹ and in Belgium in 2019³⁰. Bargaining models have also been used in infringement cases, including buyer power³¹, licensing of standard essential patents³², TV rights³³, and long-term contracts for gas and gas storage³⁴.

3.2. Takeaways of bargaining theory for economic dependence

Bargaining theory is mainly concerned with the efficiency of the outcome, ie whether the bargaining process leads to an agreement, what is the size of the surplus generated by the agreement and at which cost (eg, whether the agreement is reached after some costly delay). Bargaining theory also studies how the surplus generated by cooperation is divided between participants. But, in most papers, the relative bargaining power of participants is assumed and not derived (it is even often assumed to be equal for all participants). Yet, a number of conclusions can be drawn from this literature, concerning relative bargaining power, that can be used to determine whether a company is economically dependent of another one. The current section describes a number of findings of the literature, drawing for instance on Muthoo (1999)³⁵.

A first takeaway from bargaining theory is that outside options—or “reasonably equivalent alternative”—is an important ingredient of bargaining power. Contractual parties who have an alternative are in a better position. In practice, whether there exists a reasonable alternative will depend on switching costs. Therefore, as is usual in merger proceedings, investigations into alleged abuses of economic dependence will have to identify the sources of stickiness.

The role of outside options is very well explained in the opinion of the Autorité de la Concurrence on purchasing alliances:³⁶ “the respective negotiating powers of suppliers and distributors depend to a large extent on the alternatives to which they could resort if their negotiations fail: the more effective these alternatives are, the more likely the operator is to exert pressure on its partner, for example by threatening to break off negotiations.”

As discussed in section 2.2, the French case law also puts a strong emphasis on brand reputation. Brand reputation is a source of consumer loyalty, which may hinder switching, because the contractual party may fear to lose its customer base when changing supplier. Ideally, an investigation would try to quantify this effect. Similarly, contractual parties may be reluctant to switch suppliers because they need access to technology, or access to other essential and/or rare resources.

²⁹ Case M.7194-Liberty Global/ Corelio/ W&W/ De Vijver Media, §396-402 and Annex A.

³⁰ 19-CC-16 Telenet Group BVBA / De Vijver Media NV.

³¹ Buyer power has been analysed based on bargaining theory, for instance, in the German retail grocery sector inquiry in 2014: https://www.bundeskartellamt.de/Sektoruntersuchung_LEH.html?nn=4143254

³² Mario Mariniello (2013), European Antitrust Control and Standard Setting. Bruegel Working Paper 2013/01.

³³ Nitsche, R., P. Heidhues, and L. Wiethaus, (2015). Größe und Verhandlungsmacht – ökonomische Grundprinzipien am Beispiel der Liberty Global / Kabel-BW Fusion. *Wirtschaft und Wettbewerb*, 1: 35-49.

³⁴ Gazprom CASE AT.39816 (24/05/2018) – Upstream gas supplies in Central and Eastern Europe.

³⁵ Muthoo, A. (1999), *“Bargaining Theory with Applications,”* Cambridge University Press, Cambridge, and Muthoo, A. (2000), “A Non-Technical Introduction to Bargaining Theory,” *World Economics*, 1(April–June): 145-166.

³⁶ Avis 15-A-06, p. 73.

Relatedly, the investigation into economic dependency should identify whether switching costs, whether they are legal or technical in nature, are likely to stay. What are the barriers to entry. Relatedly, are switching costs self-inflicted? If so, have been compensated for in the course of the contractual relation, and how?

Furthermore, a party's alternative only enhances her bargaining power to the extent that it is attractive enough and therefore credible. As a consequence, growing larger does not always improve bargaining power. Large operators with a significant output cannot always credibly shift their output. When they also have significant fixed costs or economies of scale, reducing the scale of their operations may be very costly, which reduces their bargaining power.

Second, bargaining power is relative. The relevant characteristics of contractual partners cannot be evaluated in absolute terms. They are mostly informative in relative terms, and in the context of the bargaining process at hand. While the availability of alternatives is a key component of bargaining power, what actually matters most for one party's bargaining power is that its alternative is relatively more attractive than its contractual party's best alternative.

Third, next to outside options, inside options also matter. This may seem somewhat counter-intuitive, but a party's bargaining power is higher if her share of the surplus is not too high. Indeed, a party that receives the greatest share of the surplus can become relatively weak, because it has more to lose than the other side, if the cooperation is suspended.

Fourth, patience during the process of negotiations confers bargaining power, because patient operators can wait that other parties realise how costly time is to their operations. In contrast, risk aversion reduces bargaining power to the extent that risk averse parties are eager to contractual breakdowns, which can be exploited by the other side. In practice, both aspects are likely to reinforce the bargaining advantage of relatively large operators. They are unlikely to be impatient or risk averse, to the extent that what is at stake in the course of negotiations is relatively unimportant to them (eg, because the amounts at stake are relatively limited).

Finally, it is important to consider the initial choice to enter in a contractual relationship. For instance, it is insightful for the assessment of an alleged abuse of economic dependence to know whether engaging in a relationship with little alternatives was compensated, and how. There are many cases where contractual counterparts get a return for their lack of outside options, or for entering into exclusive agreements. For instance, in franchise systems, the costs for franchisees to switch to another franchisor can be significant, because they have developed a concept, built up customer loyalty, and have become part of a system. Yet, initially, they often have had to choose between a number of "reasonably equivalent" franchisors. And, usually, their expected profits when making the initial choice to join a franchise system compensated for the high switching costs ex post. An example of such compensation are exclusive dealership agreements. These agreements give the distributor an advantage by ensuring that there are no competitors in a given geographical area. The supplier will often use this sort of agreement as an argument for striking a deal. Sometimes, such agreements are also accompanied by marketing investments by the supplier, which should also be considered.

3.3. Hold up and other dynamic aspects of bargaining theory

As much as it is important to revert to the initial decision to enter into an agreement, it is key to recognize that the bargaining position of the parties can change over time. For instance, bargaining theory explains how outside options can deteriorate in the course of the relation, for instance because of relation specific investments. Parties to an agreement that have made investments that can only be recovered in the relationship—commonly referred to as relation specific investments—see their bargaining position become weaker if the contract is renegotiated, because their counterpart could threaten to switch, leaving them in a sorrow financial condition.

For instance, in its Apple decision, the Autorité de la concurrence notes that Apple’s premium resellers made relation specific investments that made them economically dependent. They were committed to present and market of products in shops specially equipped to Apple standards, making it impossible to find a conversion solution that was technically and economically equivalent to the contractual relationship with Apple. The Autorité de la concurrence notes in particular that “the furnishing of shops to Apple standards, which had to be entrusted to suppliers recommended by Apple, was so specific that the furniture could not be used to distribute products of other brands.”³⁷

Such theories of harm, whereby one of the contractual parties seeks to renegotiate an agreement when its bargaining position has improved, are also commonly referred to in economics as “hold-up”. Klein, Crawford, and Alchian (1978) first highlighted this problem, underlining that they could undermine investment.³⁸ The risk of hold-ups, and more broadly the difficulties related to incomplete contracts, are one of the main motives for non-horizontal mergers, as bringing operators under the same ownership structure enables to internalise the cost of incomplete contracts.³⁹

Problems of incomplete contracts and hold-ups have also been investigated in the context of licensing of standard essential patents (SEPs). There, the question is whether prices of a given technology rise after they have been included in a standard.

3.4. Capacity constraints as a source of bargaining power

Up to now this section has been mainly concerned with markets for differentiated products. Bargaining power, we argued, derived from the fact that contractual parties were not willing to switch, because alternatives are not equivalent. And we explored a number of sources of product and service differentiation.

Yet, switching can be difficult, even when contractual partners are perfectly substitutable. For instance, because potential other contractual parties are capacity constrained. In this case, capacity constraints of alternatives can be a source of bargaining power for contractual parties.

The so-called Bertrand-Edgeworth model explores situations where a supplier (or a purchaser) becomes pivotal, because the portion of demand that it serves cannot be entirely served by all other suppliers. This

³⁷ Decision 20-D-04 Apple Premium Resellers, p. 206.

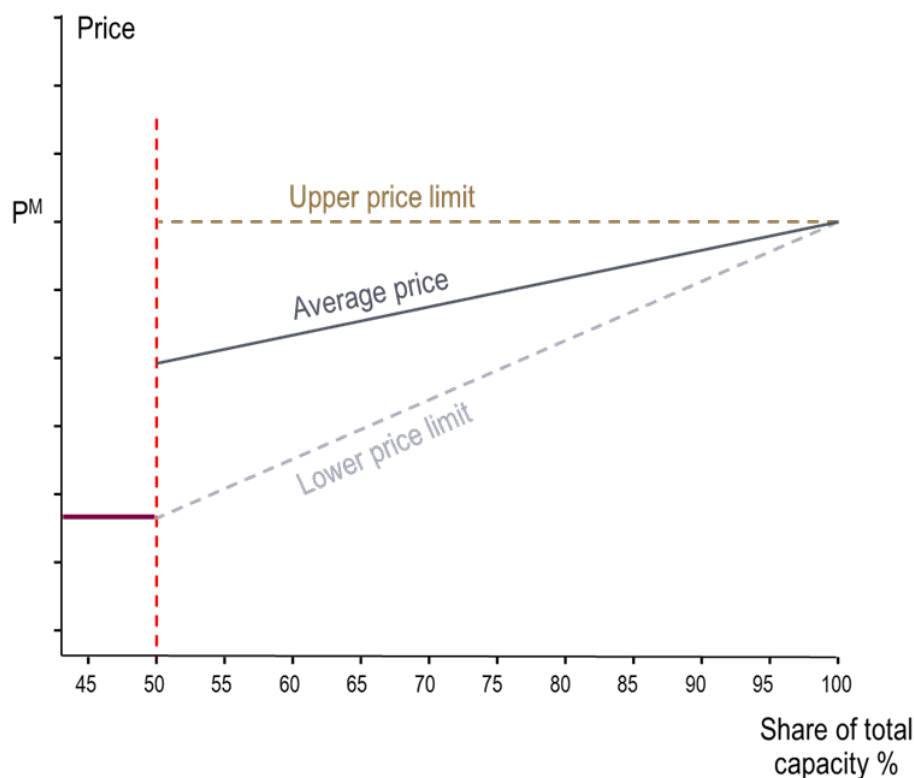
³⁸ Klein, B., R. Crawford, and A. Alchian (1978), “Appropriable Rents, and the Competitive Contracting Process,” *Journal of Law and Economics* 21: 297-326.

³⁹ Oliver Hart received the Nobel Prize in 2016 for his contributions to a “new branch of contract theory that deals with the important case of incomplete contracts. [...] His research provides us with new theoretical tools for studying questions such as which kinds of companies should merge.”

model shows that a pivotal supplier can then steer the market price by setting a monopoly price on the residual demand (serving a relatively small quantity) or undercut other suppliers and sell a larger quantity. As a result, it is difficult to precisely predict the effect of bargaining power, and a price range emerges (see the following figure).

In this example we assume that a provider becomes a pivotal supplier if he controls at least 50% of the total capacity. In this situation if he withholds his capacity market price will jump to the monopoly price as supply by others will not be sufficient to serve the market.⁴⁰ The pivotal supplier can for the residual demand, i.e. the fraction of demand which cannot be served by others, charge the monopoly price as well (labelled “upper price level” in the figure). Alternatively, the pivotal supplier could undercut the others, and serve a large quantity at a lower price (labelled “lower price level” in the figure). With the pivotal supplier controlling an increasing part of the market both prices levels converge to the monopoly price level.⁴¹

Figure 1: Price range in Bertrand-Edgeworth model, stylized example



⁴⁰ For simplicity we assume demand is inelastic.

⁴¹ In equilibrium the pivotal supplier must be indifferent between the two alternative equilibrium strategies. Hence, if he is only marginally pivotal he can only serve a very small quantity at the monopoly price which in turn means that the lower price limit must be rather low.

Bertrand-Edgeworth models have been used in a number of competition cases, especially in heavy industries such as steel,⁴² plastic⁴³ and aluminium for the automotive industry.⁴⁴ In a recent paper, De Coninck and Fisher (2020)⁴⁵ critically review the use of Bertrand-Edgeworth models in merger cases.

Bertrand-Edgeworth models have also been used to investigate alleged abuses of dominant position.⁴⁶ They illustrate how the lack of excess capacity with competitors, and the cost of building more capacity (or the legal constraints to do so) generate market power for firm(s) with available capacity.

3.5. Empirical evidence

In most cases, investigations into abuses of economic dependence will have to first establish economic dependence. As we have argued, a number of takeaways of the economic literature, and in particular of bargaining theory, are useful to help shape this investigation. In some cases, economic dependence will probably be established relying solely on documentary evidence, for instance because of very restrictive exclusivity agreements, with long and wide post contractual restrictions. But in other cases, the investigation will have to gather economic evidence of economic dependence. This section reviews the type of evidence that can be relied upon. We first review simple measures, before discussing more complete empirical methods.

3.5.1. Simple measures

As explained in Section 3.2., one of the main determinants of bargaining power is the existence and attractiveness of alternatives. While, the existence of alternatives is difficult to catch with a single figure, the comparison of the proportion of sales can provide some indication of how important the counterpart is for a party, especially in the distribution sector.

For instance, if a supplier claims that it is economically dependent of a distributor, the share of its turnover achieved with the distributor will be an important metric. But, while this metric is important, as explained by the Autorité de la Concurrence in its opinion on purchasing alliances,⁴⁷ not only are there limits to the predictive power of this measure, but parties disagree widely on the threshold for intervention. Upstream

⁴² Outokumpu/ Inoxum, M.6471.

⁴³ Ineos / Solvay / JV, M.6905.

⁴⁴ Novelis / Aleris, M.9076.

⁴⁵ De Coninck, R. and R. Fischer (2020), “Pivotality: A Sound New Theory of Harm in Horizontal Mergers?,” *Journal of European Competition Law & Practice*, 11(September): 380–385.

⁴⁶ In the electricity sector the so-called Residual Supply Index (RSI) is a standard measure. See sector inquiry electricity generation and wholesale (German Competition Authority, 2011). <https://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Sektoruntersuchungen/Sektoruntersuchung%20Stromerzeugung%20Stromgrosshandel%20-%20Abschlussbericht.html?nn=4143254> . For an extension of this index see: Marc Bataille, Olivia Bodnar, Alexander Steinmetz, Susanne Thorwarth, Screening instruments for monitoring market power — The Return on Withholding Capacity Index (RWC), *Energy Economics*, Volume 81, 2019, Pages 227-237.

⁴⁷ Avis 15-A-06, p. 74-76.

and downstream market shares or HHIs, can be of interest as well, but lead to the same limits, concerning predictive power and threshold of intervention.

Another indicator of relative bargaining power in a value chain is a comparison of profit margins, or profitability, because, in essence, this indicator summarises the result of the bargaining process over the surplus generated by the relationship. Yet, margins are also driven by other factors, such as the need to cover fixed costs or sunk costs, or to provide a return on investments in capital intensive industries. As a consequence, industries with higher margins are not always those with significant bargaining power.

3.5.2. Other empirical methods

The limits to simple measures highlighted in section 3.5.1. bring to the search for more ambitious empirical methods for the assessment of economic dependence. Ideally, one would try to construct structural models, where bargaining power parameters can be identified relying on a theoretical model and estimated with the available data. Yet these models often require access to substantial databases, of disaggregated data, which is not always feasible.

For instance, the paper by Draganska et al. 2010⁴⁸ estimates the bargaining power of the leading branded coffee manufacturer vis-à-vis retailers in the German grocery retail market. In order to derive the relative bargaining position of each of the seven brand owners with one of the five leading retailers they rely on a unique dataset of weekly revenue and volume data over the years 2000 and 2001, disaggregated by brand name and retailer. In addition, they can rely on cost data of the most important cost factor – raw coffee – based on publicly available data from the New York Stock Exchange. In conjunction with assumptions on the bargaining process, i.e. Nash bargaining, the authors can derive margins of manufacturers and retailers. The sum of the two margins describes the total trading profit; the share of the own margin in the total trading profit describes the relative bargaining power.

This kind of disaggregated price, costs and volume information is in most cases not available, though, through public or commercial data sources. And even if, the effort to derive robust results is still non-trivial.

Reduced form models are easier to handle and less demanding in terms of data. Yet, when the framework is carefully designed, such models can be very informative. Competition economists frequently use such models, for instance to quantify harm in actions for damages based on breaches of competition law. While the main objective in such exercises is to quantify direct harm and cost pass-through, they usually require to estimate bargaining power at different levels of the value chain. Such estimates provide insights on relative bargaining power that can be used in the course of investigations of economic dependence.

Finally, and depending on the disclosure regime under which the case is running, full disclosure of margin information may allow a direct measurement of relative bargaining positions. It is then to determine what the “undistorted” margin distribution is, i.e. the share of the trading profits between the two parties assuming well- functioning markets on the different vertical markets. Often it is a comparison of profits in markets with a more balanced market structure which are then compared to the profits in the affected segment.

⁴⁸ Michaela Draganska, Daniel Klapper, Sofia B. Villas-Boas, (2010) A Larger Slice or a Larger Pie? An Empirical Investigation of Bargaining Power in the Distribution Channel. *Marketing Science* 29(1):57-74.

It is beyond the scope of this paper to review the methods for estimating damages based on breaches of competition law.⁴⁹ In essence, economic dependence would be evaluated relying on regression analyses, whereby contractual conditions where the parties have more/less bargaining power are compared over time on the same market, or across geographic markets, or with other product markets, or by combining different periods and different markets.

3.5.3. Focus of the empirical approach

In practice, the discussion on empirical methods should be driven by the focus of the investigation. While economic dependence is a prerequisite of abuse of economic dependency, it is not clear how much efforts and resources needs to go in the assessment of economic dependence. In some cases, the Authority/judge seems could focus on the abuse, and deduct economic dependence from the finding of an abuse.

4. Conclusion and outlook

By way of conclusion, we would first like to discuss the welfare implications of legislations against abuses of economic dependence. These legislations aim at protecting weaker competitors against alleged abuses by stronger companies, without reference to consumer welfare. Therefore, and this is unusual for competition economics, consumer welfare is not the legislator's benchmark. Such legislations are, at least in some instances, detrimental for consumer welfare and, as economists, we would be interested to know how much consumer welfare the legislator—and those in charge of the implementation of such legislations—are willing to abandon to protect weaker competitors.

Another concern for the companies involved is that economic dependence is often difficult to assess for potential infringers. As a consequence, legislations against abuses of economic dependence may come along with significant risks of legal certainty, especially for larger companies. As discussed in this article, economic dependence hinges in the first place on contractual counterparts' alternatives. This makes it difficult for a company to engage in self-assessment exercises, because a company typically—and rightfully—does not know whether its counterparts have alternatives, and how attractive these alternatives are. Competition authorities could raise eyebrows if companies started gathering information on their counterparts' alternatives, or asked them to declare an alleged economic dependence—what would this mean for their future bargaining positions? Moreover, what makes self-assessment exercises even more difficult is that many counterparts, especially smaller ones, embellish their experience and achievements in the course of negotiations.

Relatedly, the metrics that have been used in neighbouring countries to evaluate economic dependence are usually unavailable to counterparts. If such data was to be shared with counterparts, competition agencies might in some cases rightfully intervene for breach of competition law.

⁴⁹ For an official source, see for instance, the European Commission (2013), "Commission Staff Working Document on quantifying harm in actions for damages based on breaches of article 101 or 102 of the Treaty on the Functioning of the European Union, accompanying the Communication from the Commission on quantifying harm in actions for damages based on breaches of Article 101 or 102 of the Treaty on the Functioning of the European Union," C2013-3440.

Another subject of apprehension is that legislations against economic dependence could be instrumentalized in the course of negotiations. While such negotiations are typically characterised by threats of all kinds, smaller companies could credibly threaten to file a complaint against abuse of economic dependence in order to improve their bargaining position. Such instrumentalization could end up in a transfer from consumers to the shareholders of smaller producers. In the worst case, it could also be costly for tax payers if a complaint is filed with enforcers.

Other sources of potential unintended consequences arise in the online environment, when lowering the threshold for intervention from dominance to economic dependence. In multi-sided markets, singlehomers, are typically attractive to platforms, who can thereby differentiate themselves from other platforms by granting access to these singlehomers and gain market power vis-à-vis the other side. All other things being equal, singlehomers are therefore better served by platforms than multi-homers. Yet, with simple metrics, single-homers are arguably more economically dependent on platforms, because multihomers, who use more than one platform, have equivalent alternatives.⁵⁰ Arguably, legislations against abuses of economic dependence therefore provide a better protection to better served customers than to less well-served customers.

Similarly, in a multisided environment, entry is favoured by user heterogeneity and local network effects.⁵¹ Entry focusing on a niche market or exploiting local network effects can therefore be beneficial for competition in the longer run. If legislations against abuses of economic dependence prevent such short-term exploitation of local network effects, they can hamper entry and competition in the medium to long term. This is a classic arbitrage between short term and longer-term objectives.

To conclude on a more positive note, we also recognise the benefits of legislations against abuses of economic dependence. First of all, in some circumstances, protecting weaker competitors can, indirectly, increase consumer welfare. This is for instance the case, when strong downstream companies favour lower prices, while consumer welfare requires a higher level of investment to foster additional services, innovation, product quality, or product variety. Second, as illustrated by the German case law, decisions can rely on sound economic concepts. In this case, a light-handed approach to economic dependence allows for timely enforcement, for instance through injunctions. Such rapid answers enable to address rising market power early on, reducing the risk of persistent buckets of power and entrenched market positions. National courts are often best placed to provide such decentralised, timely enforcement.

⁵⁰ We do not deny that singlehomers can be locked-in by past investments, such as reputation on market places or matching platforms and past advertisement on social networks.

⁵¹ Bedre-Defolie, Ö., and R. Nitsche (2020), "When do markets tip? An overview and some insights for policy," *Journal of European Competition Law and Practice*, 11(10): 610–622.

Recent ESMT Working Papers

	ESMT No.
Beyond retail stores: Managing product proliferation along the supply chain Işık Biçer, Schulich School of Business, York University Florian Lücker, Cass Business School, City, University of London Tamer Boyaci, ESMT Berlin	19-02 (R3)
Effectiveness and efficiency of state aid for new broadband networks: Evidence from OECD member states Wolfgang Briglauer, Vienna University of Economics and Business (WU) Michał Grajek, ESMT Berlin	21-01
Contracting, pricing, and data collection under the AI flywheel effect Huseyin Gurkan, ESMT Berlin Francis de Véricourt, ESMT Berlin	20-01 (R3)
Informing the public about a pandemic Francis de Véricourt, ESMT Berlin Huseyin Gurkan, ESMT Berlin Shouqiang Wang, Naveen Jindal School of Management, The University of Texas at Dallas	20-03 (R2)
Human and machine: The impact of machine input on decision-making under cognitive limitations Tamer Boyaci, ESMT Berlin Caner Canyakmaz, ESMT Berlin Francis de Véricourt, ESMT Berlin	20-02