Are digital platforms the railways of the 21st century?

Executive summary

Digital platforms might well be the railways of the 21st century. They have become gateways through which consumers and businesses use the internet. They also serve as essential facilities for businesses wishing to partake in the digital economy. This article argues that the essential facilities doctrine may serve as a useful basis for tackling some of the competition concerns associated with digital platforms. Also, it may provide a valuable alternative to the regulation of the digital economy or to the break-up of large digital corporate conglomerates.

1. The evolution of railways, from private investments to public infrastructure

In the second half of the 18th century technological innovations and inventions fundamentally changed the ways of production. As a result of these innovations the 19th century and the early 20th century can be described as the era of railways. Railways became a symbol of the new modern world, progress, economic power, and industrial production, having a significant impact not only on the economy, but also on society as a whole.

Just as the internet and digital platforms currently do, railways significantly reduced the transportation costs of coal and iron, the two most important raw materials of that era. Transportation not only became cheaper and faster, but also more secure, accelerating economic efficiency, progress, and industrialization.

Initially, railways were typically built by private companies that later led to the emergence of public limited liability companies in order to share the significant risks and the huge private investments associated with their development. As the construction of railways required huge capital investments construction companies lobbied incessantly for government aid. These lobbying efforts and the State's understanding of the potentials railways hold for economic progress led to enormous public investments. The construction of railways that began with private investments soon continued with the help of state subsidies. Later states started to nationalize the infrastructure, the backbone of the economy.

At the same time, operators of the infrastructure gained control over certain bottlenecks, that is to say choke points in the railway infrastructure which could not be sufficiently bypassed. Control over these bottleneck positions such as bridges or tunnels enabled gatekeepers to exclude their competitors and prevent them from reaching consumers and businesses in certain destinations or regions.

The essential facilities doctrine – although never formally approved or refuted – was developed against this background by the US Supreme Court.[1] The aim was to grant access for competitors to critical infrastructure where monopolists control certain bottleneck positions.

2. The internet and digital platforms as the railway of the digital economy

Digital platforms might well have become today what railways were to the economy in the early twentieth century. As mentioned before, railways in the 19th century significantly reduced transportation costs of coal and iron, back then, the two most important raw materials for the economy. This resulted in the reduction of production costs and allowed for previously unprecedented economies of scale and scope, which set the scene for the first industrial revolution.

Just as in the case of railways, the internet, as a tool and a new delivery system allowing for a previously unprecedented flow of information, further reduced transactions costs, and set the scene for a digital industrial revolution.

In 2010, the largest company by market capitalisation in the world was Exxon Mobil. It was followed by other oil companies such as the Chinese PetroChina, the Brazilian Petrobras and the Dutch oil giant Royal Dutch Shell. Among the first ten companies we can also see banks like the Industrial and Commercial Bank of China, and the China Construction Bank, and traditional transnational companies like Nestle.[2]

The above list has changed significantly in the past decade illustrating the magnitude of change in the economy. Today, as a result of the digital industrial revolution, the largest companies of the world by market capitalization are mainly active in the "digital sector" such as Apple, followed by Microsoft, Amazon, Alphabet, Meta, and Tesla. The Chinese technology companies such as Tencent and Alibaba are also on the rise.[3]

The digital economy is now based on platforms and data. As a result of the digital industrial revolution the largest corporations today are not only active in the digital sector, but also operate as so-called platforms. By platforms we mean businesses that derive their market power by connecting entities together[4] or businesses based on "*enabling value-creating interactions between external producers and consumers*".[5] Multi-sided platforms as intermediaries emerged with the growth of content and traffic generated by the internet. These platforms started gathering and ranking information

[1] United States v. Terminal Railroad Association of St. Louis, 224 U.S. 383 (1912)
[2] Financial Times, 'Global 500 December 2010', available at: http://media.ft.com/cms/253867ca-1a60-11e0-b003-00144feab49a.pdf.
[3] PricewaterhouseCoopers, 'Global Top 100 companies- March 2021', available at https://www.pwc.com/gx/en/services/audit-assurance/publications/global-top-100-companies.html.
[4] European Commission, Directorate-General for Competition, Montjoye, Y., Schweitzer, H., Crémer, J., 'Competition policy for the digital era', Publications Office, 2019, available at: https://data.europa.eu/doi/10.2763/407537.
[5] Geoffrey G. Parker, Marshall W. van Alstyne & Sangeet Paul Choudary, 'Platform Revolution: how networked markets are transforming the economy and how the make them work for you', W.W. Norton, New York, 2017.

available on the internet. This led to increasingly separated value creation and value extraction, and unprecedented amount of data and power in the hands of a fistful of platforms. As a result of this, not only consumers but also businesses depend more and more on platforms.

Market concentration in certain segments of the digital economy is now unprecedented. Just to name a few examples: ***Google Android and Apple IOS have a clear duopoly*** in the worldwide markets for mobile operating systems. This duopoly in mobile operating systems is also apparent in the application store market shares where Google and Apple jointly have a market share of 95%. ***Google's primacy in the general market for online search also seems to be durable and previously unprecedented floating at around 90% in Europe for more than a decade***. In digital advertising the largest players are dominating their respective segments: ***Facebook has a 90% worldwide market share in the social media advertising, Google has an 86% market share in search advertising*** and YouTube obtains 59% in digital video advertising. In addition to this, the top digital advertisers such as Google, Facebook, Alibaba, Amazon, Tencent, Microsoft and Baidu generated approximately 83% of total revenues in digital ad sales in 2020. Moreover***, in the E-commerce sector two-thirds of the global transaction volume is generated by the top7 players***. Finally, the key ***cloud infrastructure providers (Microsoft, Amazon, Google, Alibaba, IMB, Tencent and Oracle) have a joint market share of nearly 80%***.[6] And this list could go on in many other sectors like food delivery, music, or video streaming as well.

This extraordinary level of concentration and market power provoked an intense debate over the need for regulation of digital platforms. ***Some voices called for the revival of the essential facilities doctrine*** – a novel remedy laid down by the US Supreme Court more than a century ago.[7] Other voices emphasized the need for direct regulation of the digital economy or the breaking up of tech giants.[8]

3. The essential facilities doctrine

Generally speaking, companies are free to choose their trading partners. Freedom of ownership, freedom of contract are the basic principles of market economy. In other words, ***the default rule is that companies can lawfully refuse to deal with their rivals***. Thus, leaving the competitors standing, beating them, and obtaining higher revenue, profit, and growth is in principle a justified goal of an undertaking.

---

[6] Statista, 'Digital Economy Compass 2021', available at: https://www.statista.com/study/105653/digital-economy-compass/.

[7] Guggenberger, Nikolas, 'Essential Platforms' (September 30, 2020). 24 Stan. Tech. L. Rev. 237 (2021), Yale Law & Economics Research Paper, available at: http://dx.doi.org/10.2139/ssrn.3703361; Hovenkamp, Erik, 'The Antitrust Duty to Deal in the Age of Big Tech' (August 5, 2021). 131 Yale Law Journal 1483 (2022), available at http://dx.doi.org/10.2139/ssrn.3889774.

[8] Khan, Lina M. 'Amazon's antitrust paradox' Yale lJ 126 (2016): 710., The New York Times, 'Elizabeth Warren on Breaking Up Big Tech', June 26, 2019, available at: https://www.nytimes.com/2019/06/26/us/politics/elizabeth-warren-break-up-amazon-facebook.html.

However, that freedom is subject to limitations under competition law rules. A company holding a position which enables it to prevent effective competition in a given market by being able to operate to an appreciable extent independently of its competitors, customers and ultimately of its consumers is subject to strict rules.[9] ***While dominance as such is not unlawful under Article 102 TFEU, dominant companies bear a special responsibility***. They cannot impair undistorted competition on the EU internal market.[10] Thus, what is prohibited is the abuse of a dominant position.

Nevertheless, even dominant companies have the right to choose their trading partners and freely dispose of their properties. These are generally recognised principles in the laws of EU Member states.[11] However, there are circumstances in which incursions on those rights are justified. These incursions are based on the careful consideration that forcing a dominant company to supply may not have a beneficial effect on competition and pose the threat that free riders may take an advantage of the investments and innovations of others.[12] However, this is not always the case.

Competition problems with regards to refusals to deal typically arise when dominant companies refuse to supply their downstream competitors. In these cases, downstream competitors may be refused to access a product or a service that is objectively necessary to be able to compete effectively on a downstream market.[13]

In this regard, early cases in Europe such as *Oscar Bronner*, concerned access to news distribution services.[14] Other cases like *Commercial Solvents* elaborated on the supply of certain raw materials, namely amino-butanol.[15]Access to ports,[16] airports,[17] and intellectual property rights also became subject of disputes.[18] Newer precedents concerned network industries such as telecommunications services,[19] rail networks,[20] and gas pipelines.[21] In digital industries the doctrine was invoked in cases related to for instance set-top boxes,[22] and cross-border payment systems.[23]

[9] Case C- 27/76 United Brands v Commission, EU:C:1978:22 paragraph 65.
[10] Case C-322/81 Michelin v Commission, EU:C:1983:313 paragraph 57.
[11] Opinion of Advocate General Jacobs of his opinion delivered in the Case C-7/97 Oscar Bronner, EU:C:1998:264 point 56.
[12] *Ibid.*
[13] 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 2009/C 45/02.
[14] Case C-7/97 Bronner, EU:C:1998:264.
[15] Cases 6 and 7/73 Commercial Solvents v Commission, EU:C:1974:18.
[16] Port of Rodby OJ [1994] L 55/52.
[17] Fankfurt Airport OJ [1998] L 72/30.
[18] Case T-201/04 Microsoft v Commission, ECLI:EU:T:2007:289.
[19] C-123/16 P - Orange Polska v Commission, ECLI:EU:C:2018:590, Case T-851/14 - Slovak Telekom v Commission, ECLI:EU:T:2018:929.
[20] GVG/FS OJ [2004] L 11/17.
[21] COMP/39.316 - Gaz de France.
[22] JV.37 BskyB/KirchPayTV.

The early refusal to deal cases were subject to a very high standard of proof which was virtually impossible for claimants to satisfy. This legal standard (i.e. a refusal to supply constitutes an abuse of dominant position) seems to require that the product or service, to which access is sought, is indispensable to a rival that intends to compete in a downstream market.

In Oscar Bronner the ECJ held that a refusal to access to an input constituted an abuse of a dominant position only if three cumulative criteria were met. First, the refusal of the input is likely to eliminate all competition in another market. Second, such refusal is incapable of being objectively justified. Third, the Court required proof that the input to which access is sought was indispensable for rivals to carrying on a business.[24] These criteria are virtually impossible to meet apart from a very limited set of cases mentioned above. The indispensability criterion is especially difficult to prove as it requires to show that there are no actual or potential substitutes to the input. The rationale behind this is twofold: the legal rationale is the fundamental rights of businesses, while the economic rationale is to provide incentives to innovate.[25]

However, more recent judgments of the ECJ have clarified and limited the scope of the above legal standard, making it easier for plaintiffs and complainants to successfully invoke the essential facilities doctrine or to otherwise challenge the practices of dominant companies hampering access to certain input to which access is sought. The Court has already made clear in *TeliaSonera*[26] and in *Telefonica*[27] that indispensability is not necessary to be proven with regards to a conduct amounting to margin squeeze.

Furthermore, the judgment delivered in the *Slovak Telekom* case also has significant implications to the application of the doctrine. In essence, the ECJ stated that the conditions set out in the Oscar Bronner case – and the indispensability criterion – do not apply in cases when the practice at hand did not constitute an outright refusal to deal, but rather related to the conditions for access to an input. In the latter case of constructive refusal, the indispensability of the input is not necessary for a practice to be found abusive.

4. The application of the essential facilities doctrine in the digital sector

The evolution of the case law with regards to refusal to deal has significant implications to the applicability of the doctrine in the digital sector. In its judgment of

[23] Commission Notice on the Application of the Competition Rules to Cross-border Credit Transfers OJ [1995] C 251/3.
[24] Case C-7/97 Bronner, EU:C:1998:264, para 41.
[25] Jose Rivas, 'How Indispensable is the Indispensability Criterion in Cases of Refusal to Supply Competitors by Dominant Companies? (Slovak Telekom, C-165/19 P)', Kluwer Competition Law Blog, April 1, 2021, available at: http://competitionlawblog.kluwercompetitionlaw.com/2021/04/01/how-indispensable-is-the-indispensability-criterion-in-cases-of-refusal-to-supply-competitors-by-dominant-companies-slovak-telekom-c-165-19-p/#_ftn4.
[26] Case C-52/09 Konkurrensverket v TeliaSonera Sverige AB, ECLI:EU:C:2011:83.
[27] Case C-295/12 P Telefónica SA and Telefónica de España SAU v European Commission, ECLI:EU:C:2014:2062.

2007, the General Court confirmed the decision of the European Commission rendering Microsoft's refusal to licence interoperability information abusive.[28] The judgment seems to have applied a lower threshold than the one established in *Oscar Bronner* in order to condemn the tech giant's conduct.[29] The court stated – among others –that it was not "*necessary to demonstrate that all competition on the market would be eliminated*". What matters is that the refusal *"is liable, or is likely to, eliminate all effective competition on the market"*.[30] In 2021, in the Google Shopping case the General Court (largely upholding the European Commission's decision) further reduced the scope of application of the indispensability criteria.[31] Although the General Court ***did not consider Google's proprietary search engine as an essential facility it noted that Google's general results page has characteristics akin to those of an essential facility*** inasmuch as there is currently no actual or potential substitute available that would enable it to be replaced in an economically viable manner on the market.[32]

The General Court held that Google's practices favouring its own comparison shopping service over competing services while demoting rivals had infringed Article 102 TFEU. According to the Court, the practices of Google favouring its own service by positioning and displaying Google Shopping on the top of the general search results page can be distinguished in their constituent element from the refusal to supply cases.[33] As a refusal to supply warranting the application of the Bronner criteria implies that there is an express refusal i.e., there is a request and a consequential refusal. Moreover, it implies that the exclusionary effect lies predominantly in the refusal as such and not in the leveraging of market power to an adjacent market as in this case.[34] The lack of express refusal precluded the application of the indispensability criteria.

The judgment, thus, is a step forward to recognizing certain internet-based markets such as general search services as public utilities that are essential for smaller businesses to compete.

Conclusion

To conclude, the sound principles and the well-established theoretical background of European competition law are adaptable to tackling some of the challenges posed by the emergence of digital gatekeepers. Therefore, the ***essential facilities doctrine applied in a digital context provides a useful alternative to the regulation of digital platforms or to the break-up of large digital corporate conglomerates***. Lowering the standard of proof when applying the doctrine could allow enforcers and courts to carefully balance – on an individual basis – the trade-off between the possible increase in short term competition,

[28] Case T-201/04 Microsoft v Commission, ECLI:EU:T:2007:289.
[29] Inge Graef, 'Rethinking the Essential Facilities Doctrine for the EU Digital Economy' (April 4, 2019) TILEC Discussion Paper No. DP2019-028, available at SSRN: https://ssrn.com/abstract=3371457 p. 45.
[30] Case T-201/04 Microsoft v Commission, ECLI:EU:T:2007:289, paragraph 563.
[31] Case T-612/17 Google LLC and Alphabet v Commission, ECLI:EU:T:2021:763.
[32] *Ibid* paragraph 224.
[33] *Ibid* paragraph 229.
[34] *Ibid* paragraph 232.

the development of complementary services, and the reduced incentives for dominant companies or downstream competitors to develop substitutes to facilities to which access is sought.