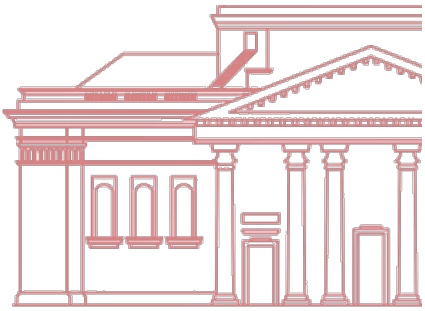

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Building an efficient regulation in the digital economy

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Building an efficient regulation in the digital economy

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[Working Paper]

1. Regulate or not to regulate is not anymore a Shakespearian issue.[1] The digital economy must be regulated. The question is now about how to regulate it to promote an efficient and fair competition. The question is tricky since the digital economy is dynamic with a high level of innovations, including by dominant undertakings such as Google, Facebook or Amazon. In this context, opponents of a regulation will argue that a regulation might chill the dynamism of the economy and the incentive to invest and innovate depriving consumers from beneficial innovations. From a law and economics point of view, it is true that a regulation might reduce the incentive to innovate and therefore care is needed.

2. All over the world, governments have commissioned reports on this issue. Since 2018, not least than six reports have been released in Germany (hereinafter "Schallbruch et al report")[2], the UK (hereinafter "Furman et al report")[3], Australia (hereinafter "ACCC

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[1] Deffains. B. and Carugati, C., *Internet Platforms: To Regulate, or not to Regulate?,* Essays in Law and Economics in honour of Roger Van den Bergh, Intersentia, 2018.

[2] Schweitzer, H. et al, *Modernising the law on abuse of market power*, Report for the Federal Ministry for Economic Affairs and Energy, September 2018 (only the executive summary is available in English).
https://www.bmwi.de/Redaktion/DE/Downloads/Studien/modernisierung-der-missbrauchsaufsicht-fuer-marktmaechtige-unternehmen-zusammenfassung-englisch.pdf?__blob=publicationFile&v=3
See also, Schallbruch, M. et al, *A new competition framework for the digital economy*, Report by the Commission 'Competition Law 4.0', September 2019. Only this report will be analyzed since it is the most recent one.
https://www.bmwi.de/Redaktion/EN/Publikationen/Wirtschaft/a-new-competition-framework-for-the-digital-economy.pdf?__blob=publicationFile&v=2

[3] Furman, J. et al, *Unlocking digital competition*. Report of the Digital Competition Expert Panel, March 2019.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/785547/unlocking_digital_competition_furman_review_web.pdf

report")[4], the European Commission (hereinafter "Crémer et al report")[5] and by the Stigler Center (hereinafter "Stigler report")[6].[7]

[4] Australian Competition and Consumer Commission (ACCC), *Digital Platforms Inquiry-Final Report*, June 2019.
https://www.accc.gov.au/system/files/Digital%20platforms%20inquiry%20-%20final%20report.pdf
See also, ACCC, Press release, *ACCC welcomes comprehensive response to Digital Platforms Inquiry*, 12 December 2019. The ACCC will start a new inquiry into the digital advertising tech supply chain and especially on digital displays ads. (accessed 4 February 2020).
https://www.accc.gov.au/media-release/accc-welcomes-comprehensive-response-to-digital-platforms-inquiry

[5] Crémer, J. et al, *Competition policy for the digital era*, April 2019.
https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf

[6] Morton, F. S. et al, *Stigler Committee on Digital Platforms-Final Report*, September 2019. This report was not commissioned by the government.
https://research.chicagobooth.edu/-/media/research/stigler/pdfs/digital-platforms---committee-report---stigler-center.pdf?la=en&hash=2D23583FF8BCC560B7FEF7A81E1F95C1DDC5225E&hash=2D23583FF8BCC560B7FEF7A81E1F95C1DDC5225E

[7] Other recent reports will not be analyzed in the section.
Trésor-éco, *Plateformes numériques et concurrence*, N° 250, November 2019 (only in French). In this report, the French Ministry for the Economy and Finance recommends to adapt competition law to the digital economy and to regulate digital platforms by adopting ex-ante symmetric and asymmetric regulation.
https://www.tresor.economie.gouv.fr/Articles/7690058a-00e4-44a7-8aed-9a2ee5a04d51/files/c888861f-5516-4e4e-b3ce-a96af66b3c34
See also, *@Echelle event with Cédric O*, 28 November 2019. In his intervention before the *Autorité de la concurrenc*e, the French Secretary of State in charge of the digital economy, Cédric O, supports the findings of the previous report.
https://www.autoritedelaconcurrence.fr/sites/default/files/2019-12/syntheseechellecedricofinal.pdf
CMA, *Online platforms and digital advertising Market study-interim report*, 18 December 2019. In this interim report, the CMA supports the proposals made by the Furman et al report and the Stigler report as regards the regulation of the digital economy and proposes specific measures to promote competition in search, social media and digital advertising markets.
https://assets.publishing.service.gov.uk/media/5dfa0580ed915d0933009761/Interim_report.pdf
See also, CMA, Press release, *CMA lifts the lid on digital giants*, 18 December 2019 (accessed 4 February 2020)
https://www.gov.uk/government/news/cma-lifts-the-lid-on-digital-giants
Akman, P., *Competition Policy in a Globalized, Digitalized Economy*, World Economic Forum (WEF), White paper, 11 December 2019. In this report, the author proposes a mix of market-driven solutions and regulatory solutions such as predictability and transparency.
https://www.weforum.org/whitepapers/competition-policy-in-a-globalized-digitalized-economy
Lianos, I. et al, *Digital Era Competition: A BRICS View-Report by the BRICS Competition Law and Policy Centre*, 2019.
http://bricscompetition.org/upload/iblock/6a1/brics%20book%20full.pdf

3. Moreover, It is worth recalling that the Commission[8] and some Member States, including France[9] and Germany[10] are considering an *ex-ante* asymmetric regulation in the digital economy concerning digital platforms acting as gatekeepers (also called structural platforms). The debate is still ongoing on whether an asymmetric regulation is appropriate as opposed to a symmetric regulation that will promote and protect consumer choice from the behavior of all firms. Furthermore, neither the criteria to identify which digital platforms will be subject to it, nor the content of the regulation have been released, but both the Commission[11] and France[12] are currently seeking views and are working on it.

4. However, an asymmetric regulation may not be the right answer to curb the market failures in the digital economy for four main reasons.

5. Firstly, market power is not the only market failure. Asymmetric information is also predominant as users (consumers and businesses) are not fully aware about the terms and conditions provided by all firms to use the service causing consumer welfare loss.

6. Secondly, it is doubtful whether an asymmetric regulation will promote competition as non-dominant firms may gain market power without being subject to the regulation and therefore replicate lawfully the same behavior that is deemed to have allowed big tech to become dominant. In other words, an asymmetric regulation will prevent the *behavior of a dominant firm* but not *the (same) behavior that enables to achieve a dominant position*.

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[8] EC, Communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions, *Shaping Europe's digital future*, 19 February 2020, p. 10.

[9] French Ministry of Economic Affairs and Finance, Press release, *Bruno Le Maire et Cédric O lancent un groupe de travail dédié à la régulation des plateformes numériques au niveau européen*, 24 February 2020 (accessed 15 May 2020).
https://minefi.hosting.augure.com/Augure_Minefi/r/ContenuEnLigne/Download?id=5FA62C31-70A4-4392-8526-EFC6F85FD8AD&filename=2043%20CP%20groupe%20de%20travail%20numérique.pdf

[10] Referentenentwurf des Bundesministeriums für Wirtschaft und Energie, Entwurf eines Zehnten Gesetzes zur Änderung des Gesetzes gegen Wettbewerbsbeschränkungen für ein fokussiertes, proaktives und digi- tales Wettbewerbsrecht 4.0 (GWB-Digitalisierungsgesetz), 24 January 2020 (accessed 15 May 2020)
https://www.bmwi.de/Redaktion/DE/Downloads/G/gwb-digitalisierungsgesetz-referentenentwurf.pdf?__blob=publicationFile&v=10

[11] Competition Policy International, *EU To Contract €600,000 Study On Gatekeeping Power Of Digital Platforms*, 12 May 2020 (accessed 15 May 2020).
https://www.competitionpolicyinternational.com/eu-to-contract-e600000-study-on-gatekeeping-power-of-digital-platforms/

[12] French Ministry of Economic Affairs and Finance, Press release, *Bruno Le Maire et Cédric O lancent un groupe de travail dédié à la régulation des plateformes numériques au niveau européen*, 24 February 2020 (accessed 15 May 2020).
See also, Adlc, *The Autorité de la concurrence's contribution to the debate on competition policy and digital challenges*, 19 February 2020, pp. 6-8.
https://www.autoritedelaconcurrence.fr/sites/default/files/2020-03/2020.03.02_contribution_adlc_enjeux_numeriques_vf_en.pdf

7. Thirdly, defining objective criteria to circumscribe the asymmetric legislation may be challenging and they are likely to be contested during and after the legislative process before the Court by big tech companies.

8. Fourthly, it is questionable that an asymmetric regulation fits with the principle of competition laws to protect *competition*, not *competitors*, as an asymmetric regulation will put firms subject to it at a competitive disadvantage.

9. As the result, an *ex-ante* asymmetric regulation is not expected to be effectively enforced in the near future.

10. As for now, as a regulation is likely to be based on these above mentioned reports, this section will first (i) present a brief overview of the main proposals about a regulation, then (ii) we will analyze these recommendations, and (iii) we will finally propose some policy recommendations that are not included in these reports.

4.1. A brief overview of the reports

11. All the reports contribute to the ongoing debate on how to adapt competition law to the digital economy. There is consensus about the key features of concentration in this economy, namely economies of scale and scope, network effects and data. Based on these findings, they all underline that the economy is entrenched in the hand of just a few dominant firms with a "*strategic market status*"[13], a "*bottleneck power*"[14], or a "*gatekeeper*"[15] position. Regardless of the terminology, these firms are indispensable to access to the market or a customer group. The high level of market power and the high entry barriers justify intervention in order to restore a well-functioning market that were subject to under-enforcement and some "*false negatives*".[16] To do so, the reports agree that a mix of competition enforcement and regulation is urgently needed. However, they diverge to the means to achieve this goal, including from a regulatory perspective.

12. First, the creation of a digital agency or a special unit inside the competition authority in charge of the digital economy is stressed out in four reports. Based on the observation that antitrust does not allow business certainty due to slow and case-specific enforcement, in the Furman et al report, the panel recommends a "*digital markets unit*"

[13] In the Furman et al report, "*strategic market status*" identifies firms with a gateway position, namely that control over others parties' market access. Furman, J. et al report, p. 59.

[14] In the Stigler report, "bottleneck power" refers to a "*situation where consumers primarily single-home and rely upon a single service provider (a "bottleneck"), which makes obtaining access to those consumers for the relevant activity by other service providers prohibitively costly*". Stigler report, p. 105.

[15] In the Schallbruch et al report and Crémer et al report, dominant platforms are "*gatekeepers*' and "*rule-markers*" acting as "*regulators*". Schallbruch, M. et al report, p. 47; Crémer, J. et al report, p. 60.

[16] Furman, J. et al report, p. 91 ; Crémer, J. et al, p. 3.

that will design and implement pro-competition rules in cooperation with platforms, businesses and stakeholders. The unit will spur competition and innovation and offer more certainty. Its enforcement power should however be focused on firms with "*strategic market status*". The institution will design a binding pro-competitive code of conduct and promote data mobility, open standards and data openness.[17] This unit has been approved by the CMA[18] and the UK government[19] and has been recently established within the CMA for a temporary period.[20] In the ACCC report, a "*digital platforms branch*" is recommended within the ACCC. This special unit will be in charge to monitor conducts by digital platforms that might harm consumers and businesses, to enforce competition and consumer laws, and to conduct market inquires and recommendations to the government to correct market failure.[21] The Australian government has committed to adopt the key recommendations of the report, and as a result the ACCC will establish a permanent digital platforms branch.[22] The Schallbruch et al report highlights that the digitalization also entails changes of other policies including contract law, consumer protection law or data protection law and that a new "*Digital Markets Board*" located in the General Secretariat of the European Commission as well as a temporary "*Digital Markets Transformation Agency*" are required to improve cooperation amongst these policies. The Board will be in charge to enable a coherent European digital policy thanks to cooperation and harmonization of the various policies while the Agency will be in charge to gather cross-cutting information about market developments and technical developments and will support the specialized authorities (e.g. competition authority) at EU level and the Board.[23] The Stigler report recommends the creation of a "*Digital Authority*" (DA) in the US. The DA will be tasked with competition and non-competition goals (privacy, media, data-use restrictions, and consumer protection). It will be in charge to support the antitrust authority by carrying out remedies that require ongoing monitoring and to implement forward-looking regulations that will apply to all market participants that have a digital business model while others will only apply to firms with bottleneck power.[24] The Crémer et al report does not consider the creation of a special

[17] Furman, J. et al report, p. 55.

[18] CMA, *Digital Competition Expert Panel recommendations-CMA view*, 21 March 2019. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/788480/CMA_letter_to_BEIS_-_DCEP_report_and_recommendations__Redacted.pdf

[19] The UK government, Speech, Theresa May, *PM speech opening London Tech Week*, 10 June 2019, 10 June 2019 (accessed 4 February 2020). https://www.gov.uk/government/speeches/pm-speech-opening-london-tech-week-10-june-2019

[20] The UK government, Press release, *Digital markets taskforce: terms of reference*, 11 March 2020 (accessed 15 May 2020). https://www.gov.uk/government/publications/digital-markets-taskforce-terms-of-reference/digital-markets-taskforce-terms-of-reference--3

[21] ACCC report, p. 31.

[22] ACCC, Press release, *ACCC welcomes comprehensive response to Digital Platforms Inquiry*, 12 December 2019.

[23] Schallbruch, M. et al report, pp. 77-80.

[24] Stigler report, pp. 104-106.

authority but outlines the need for regulatory agencies to develop internal technological capabilities.[25] These kinds of proposals are already established in some States. In the US, the FTC has launched in February 2019 the "*Technology Task Force*" to monitor competition in US technology markets, investigating any potential anti-competitive conduct, and taking enforcement actions when warranted.[26] A similar unit has also been implemented within the CMA, The Data, Technology and Analytics (DaTA) unit,[27] the *Bundeskartellamt*, the Digital Economy Unit,[28] the DG COMP, the C/6 Antitrust: E-commerce and Data economy Unit,[29] the Competition Bureau of Canada, the Chief Digital Enforcement Officer,[30] and recently the *Autorité de la concurrence*, the Digital Economy Unit.[31] Moreover, the Danish Competition and Consumer Agency (DDCA) has created the Center for Digital Platforms in order to enforce competition rules and to develop new analysis vis-à-vis digital platforms.[32]

13. Second, the majority of the reports stresses out the need to rely on a code of conduct to regulate the digital economy by clarifying the conducts that can be or not be undertaken by digital platforms. The code will be applied only by dominant firms with a "*strategic market status*" (Furman et al report) or with "*certain minimum revenues or user numbers*" (Schallbruch et al report).[33] In the Furman et al report, the code will be elaborated with market participants and the digital markets unit. It will complement the Platform to Business (P2B) Regulation that promotes transparency and fairness for business users of

[25] Crémer, J. et al report, p. 127.

[26] FTC, Press release, *FTC's Bureau of Competition Launches Task Force to Monitor Technology Markets*, 26 February 2019 (accessed 12 November 2019).
https://www.ftc.gov/news-events/press-releases/2019/02/ftcs-bureau-competition-launches-task-force-monitor-technology

[27] CMA, policy paper, *The CMA's Digital Markets Strategy*, 3 July 2019 (accessed 12 November 2019).
https://www.gov.uk/government/publications/competition-and-markets-authoritys-digital-markets-strategy/the-cmas-digital-markets-strategy

[28] BKartA, *Organisation Chart of the Bundeskartellamt*, 1st October 2019 (accessed 12 November 2019).
https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/OrganizationalChart/Organisation%20Chart.pdf?__blob=publicationFile&v=47

[29] European Commission*, Organisation Chart of the DG COMP*, 16 September 2019 (accessed 12 November 2019).
https://ec.europa.eu/dgs/competition/directory/organi_en.pdf

[30] Competition Bureau, *Building Trust to Advance Competition in the Marketplace*, 30 May 2018 (Accessed 12 November 2019).
https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04371.html

[31] Adlc, Press release, *The Autorité creates a digital economy unit*, 9 January 2020 (accessed 9 January 2020).
https://www.autoritedelaconcurrence.fr/en/press-release/autorite-creates-digital-economy-unit

[32] Danish Competition and Consumer Agency, Press release, *Konkurrence- og Forbrugerstyrelsen øger fokus på digitale platforme,* 1st May 2019 (Accessed 12 November 2019).
https://www.kfst.dk/pressemeddelelser/kfst/2019/20190501-konkurrence-og-forbrugerstyrelsen-oeger-fokus-paa-digitale-platforme/

[33] Furman, J. et al report, pp. 58-64; Schallbruch, M. et al report, pp. 47-50.

online intermediation services.[34] The unit will be in charge to monitor the effective application of the code and, in case of contraventions, to achieve fast resolutions through cooperation with affected parties or legally binding decisions and penalties where the cooperation is not effective.[35] In the Schallbruch et al report, the code will include clear-cut prohibitions rules with the possibility of an exception if the firm proves that its practice is objectively justified. It will take the form of an "EU Platform Regulation" in complement to the P2B Regulation and will include rules such as a ban on self-preferencing and the obligation to ensure data portability in real time and in an interoperable format and interoperability with complementary services.[36] Both codes of conduct will be based on principles that are flexible enough to take into account market change in the economy.[37] The Crémer et al report does not mention a code of conduct, but considers some guidance provided by competition authorities (e.g. guidance on the definition of dominance in the digital environment, guidance on data sharing and data pooling, guidance on data access and interoperability requirements) that will be updated with some frequency.[38] This latter proposal is included in the "*Joint memorandum of the Belgian, Dutch and Luxembourg competition authorities on challenges faced by competition authorities in a digital world*".[39] They outline that competition authorities must develop ex ante guidance on specific issues before the relevant case law has been established by them or the courts.[40] They also consider case-by-case guidance letters based on article 10 of Regulation 1/2003 (Finding of inapplicability) or in line with the Commission Notice on informal guidance.[41] Moreover, it is worth noting that the Commission is willing to provide individual project-related guidance on data-sharing and pooling arrangements, if needed.[42]

14. Third, all the reports agree that access to data and greater users' control over their personal data are key in order to promote effective competition and innovation and the development of complementary products in three different contexts: the entrenched

[34] Regulation (EU) 2019/1150 of the European Parliament and of the Council of 20 June 2019 on promoting fairness and transparency for business users of online intermediation services, 11 July 2019. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R1150&from=EN

[35] Furman, J. et al report, p. 63.

[36] Schallbruch, M. et al report, p. 49.

[37] Furman, J. et al report, p. 60 ; Schallbruch, M. et al report, p. 49.

[38] Crémer, J. et al report, p. 126.

[39] Belgian Competition Authority, *Joint memorandum of the Belgian, Dutch and Luxembourg competition authorities on challenges faced by competition authorities in a digital world*, 10 October 2019 (accessed 12 November 2019). https://www.belgiancompetition.be/en/about-us/publications/joint-memorandum-belgian-dutch-and-luxembourg-competition-authorities

[40] Ibid, p. 4.

[41] Ibid, p. 5.

[42] Communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions, *A European strategy for data*, 19 February 2020, p. 14.

market position of dominant platforms; the Internet of Things (IoT); and artificial intelligence where data are needed to train the algorithms. They propose different means to achieve this goal. Excepted in the ACCC report, data portability and open standard (or interoperability) are considered as solutions to fight against the market power of dominant platforms by decreasing switching costs, facilitating multi-homing and new entries, thus increasing competition and innovation to the benefit of consumers.[43] The ACCC recognizes these benefits, but does not currently recommend such solutions because they are "*unlikely*" to address the issues of market power and competition in the short term for many reasons in relation to Facebook and Google: (i) it is not clear that data portability would generate new entry or facilitate switching due to the absence of competing platforms where consumers can port their data and switch and the absence of consumers incentive to switch since services are offered for free; and (ii) data portability would not reduce network effects and may not have a significant effect on barriers to entry and expansion since as for example a Facebook's user would not switch if none of his/her contact is also moving to the competing provider. However, the ACCC is considering data portability, under its role in the Consumer Data Right, with regard to the benefits arising from the development of new products/services and innovative offerings. Moreover, it does not exclude to recommend data portability or interoperability if, as part of the tasks of the digital platforms branch, there were identified to be beneficial to overcome the issue of market power.[44] In addition, data openness (or data sharing) is also recommended despite the potential adverse effects on innovation and the incentive to invest, as well as the risk of collusive agreements.[45] To do so, the use of the "essential facilities doctrine" (EFD) under article 102 TFEU, namely in case of refusal of access to a resource (e.g. data), is not an appropriate tool. Rather data openness should be allowed with cautions under a regulation.[46]

15. However, the reports differ with regard to the extent of data portability and interoperability as well as data openness. They all offer an in-depth analysis of these proposals on competition and innovation which can be summarized here.

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[43] Furman, J. et al report, pp. 65-74; Crémer, J. et al report, pp. 58-60; Schallbruch, M. et al report, pp. 37-41; Stigler report, p. 109.

[44] ACCC report, pp. 115-116.

[45] Furman, J. et al report, pp. 74-76; Crémer, J. et al report, pp. 92-98; ACCC report, p. 11 ; Schallbruch, M. et al report, pp. 35-37; Stigler report, p. 117.

[46] Crémer, J. et al report, p. 98.

"*The debate is mostly framed as a debate on whether the criteria of the so-called "essential facilities" doctrine (EFD) are met. We argue that the "classical" EFD may not be the right framework to handle refusal of access to data cases, as the doctrine has been developed with a view to access to "classical" infrastructures and later expanded to essential IPRs*"

See also, Schallbruch, M. et al report, p. 37.

"*These aspects suggest that, in sectors with entrenched market positions in which a widespread denial of access to data results in structural competition problems, a general regulatory regime for data access is called for, e.g. in the form of an EU regulation*."

16. Data portability is commonly defined as the right of the data subject to obtain and transfer his or her personal data from one provider to another or directly from one controller to another on behalf of the data subject.[47] To sum, data portability grants the consumer greater control over his or her personal data. In Europe, the right of data portability, which the Commission recommends to enhance,[48] is already entered into force under article 20 GDPR which is defined as:

> *"The data subject shall have the right to receive the personal data concerning him or her, which he or she has provided to a controller, in a structured, commonly used and machine-readable format and have the right to transmit those data to another controller without hindrance from the controller to which the personal data have been provided, where"*

17. However, this right is unanimously criticized by the reports as ill-adapted to promote competition in the digital economy for many reasons: (i) it is still unclear which data are covered by the article.[49] The right refers to data that the data subject "*has provided*", therefore the right should cover "volunteered" data, perhaps "observed" data, but certainly not "inferred" data;[50] (ii) the scope of the right to data portability is controversial. According to article 20(4) GDPR the right "*shall not adversely affect the rights and freedoms of others*". Accordingly, it will not be possible to transfer his or her personal data when they are linked with others' personal data (e.g. photographs);[51] (iii) the GDPR does not enable for real-time data to be shared. Only the data at the time of the use of the right will be transferred, whereas ongoing data sharing is necessary for competing or complementary services;[52] (iv) rudimentary definition of the technical format. Data are transferred in a structured, commonly-used and machine-readable format but, in the absence of obligation for technical standards to facilitate the sharing, this includes formats that make further processing difficult or impossible (e.g. in PDF)[53]; and (v) data transfer from one provider to another is not mandatory, but only "*where technically feasible*" (art.

[47] Furman, J. et al report, p. 65; Crémer, J. et al report, p. 58; Schallbruch, M. et al report, pp. 37-38; Stigler report, p. 109.

[48] Communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions, *A European strategy for data*, 19 February 2020, pp. 20-21.

[49] Furman, J. et al report, p. 69; Crémer, J. et al report, p. 81; Schallbruch, M. et al report, p. 38.

[50] Volunteered data refers to data that the data subject has intentionally provided to a controller (e.g. name, email, phone number). Observed data refers to data obtained automatically by a controller from a user's or a machine's activity (e.g. web activity thanks to cookies). Inferred data refers to data that is transformed in a non-trivial manner by a controller from volunteered and/or observed data in order to derive some predictions about a data subject (e.g. shopper's profile). Crémer, J. et al, pp. 24-25.

[51] Crémer, J. et al report, pp. 81-82; Schallbruch, M. et al report, p. 38.

[52] Furman, J. et al report, p. 69; Crémer, J. et al report, pp. 81-82; Schallbruch, M. et al report, p. 38.

[53] Furman, J. et al report, p. 69; Crémer J. et al report, pp. 81-82; Schallbruch, M. et al report, p. 39.

20(2) GDPR).[54] Therefore, they agree that the right has not been designed to promote competition but rather to give more data protection option to the data subject and thus the right to data portability needs to be developed with competition objective.[55]

18. The reports propose an extension of the right to data portability by ensuring "*data mobility*" (Furman et al report and Stigler report)[56] or "*data interoperability*" (Crémer et al report and Schallbruch et al report)[57]. This refers as the right of the data subject to obtain and transfer real-time data from one provider to another or directly from one controller to another on behalf of the data subject in an interoperable data format. Excepted in the Stigler report,[58] the right should apply only to dominant firms.[59] Indeed, they argue that broader data portability could increase the market entry costs for smaller providers and diminish the incentive to invest in the collection and processing of data as a lock-in of consumers is desirable to foster this investment and that consumers may have the incentive to transfer their data from a small firm to a dominant one due to better products/services.[60] There is no unanimity about the scope of data. While the Furman et al report argues that the right "*could involve any such type of data, depending on the particular case*",[61] the Crémer et al report and Schallbruch et al report plead that the right should cover only user and usage (machine user) data.[62] The Stigler report does not mention the scope of data. The European's reports evoke the Second Payment Services Directive (hereinafter "PSD2 Directive")[63] as a model to this new right.[64] In the field of payment services, the directive enables customers to grant third-party payment service providers access to their payment accounts at the customer's request. The right applies to all payment account providers, third parties must be authorized by the Financial Supervisory Authority and data are shared based on market defined standards. The

[54] Schallbruch, M. et al report, p. 39.

[55] Furman, J. et al report, p. 69; Schallbruch, M. et al report, p. 39.

[56] Furman, J. et al report, p. 65.

[57] Crémer, J. et al report, p. 82; Schallbruch, M. et al report, p. 39.

[58] Stigler report, p. 109. The Stigler report lays out a menu of regulations that applies either to all firms or only to bottleneck firms. Nevertheless, it argues that "*[i]t would be appropriate, however, to include a small business exception and perhaps even a new business exception, to allow very small entrants, who may benefit competition, time to ramp up against larger established companies.".* Data portability is developed under the section "*broadly applicable regulations*" (p. 107).

[59] Furman, J. et al report, p. 70; Crémer, J. et al report, p. 82; Schallbruch, M. et al report, p. 39 and p. 52.

[60] Furman, J. et al report, pp. 70-71; Crémer, J. et al report, p. 59; Schallbruch, M. et al report, p. 39.

[61] Furman, J. et al report, p. 66.

[62] Crémer, J. et al report, p. 58; Schallbruch, M. et al report, p. 52.

[63] Directive (EU) 2015/2366 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC, 25 November 2015. See articles 66 and seq.
https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015L2366&from=FR

[64] Furman, J. et al report, p. 70; Crémer, J. et al report, p. 82; Schallbruch, M. et al report, pp. 40-41.

Furman et al report also mentions the UK's Open Banking initiative.[65] The latter is similar to the PSD2 Directive, but only applies to the nine largest providers and data are transferred based on a common standard, namely a common Application Programming Interface (API). It also refers to other initiatives such as the Data Transfer Project (hereinafter "DTP").[66] This project was launched in 2018 by digital companies and includes currently Apple, Facebook, Google, Microsoft, and Twitter. The goal of the project is to create an open-source, service-to-service data portability so that a user can move his or her personal data directly from one provider to another participating provider, at any given time.[67] Such project develops a standard to enable data mobility or data interoperability. The UK's smart Data Review is also cited in the Furman et al report as a potential model for data mobility.[68] The main proposal is to require communications firms to share consumers' data to third party providers at the consumer's request in order to improve the consumer experience in regulated markets.[69]

19. In sum, data interoperability will significantly reduce switching costs and promote the development of complementary services, but it may lessen the incentive to invest in the collection and processing of data as well as might result in a collusive behavior (anti-competitive information exchange).[70] Table 1 below summarizes the differences between the right to data portability under article 20 GDPR and the right to data interoperability or data mobility.

Table 1: Differences between data portability under article 20 GDPR and Data interoperability or data mobility

	Data portability	**Data interoperability or data mobility**
Definition	the right of the data subject to obtain and transfer his or her personal data from one provider to another or directly from one controller to another on behalf of the data subject	the right of the data subject to obtain and transfer real-time data from one provider to another or directly from one controller to another on behalf of the data subject in an interoperable data format

[65] Furman, J. et al report, p. 70.
[66] Furman, J. et al report, p. 69.
[67] Data Transfer Project (DTP) (accessed 18 November 2019).
https://datatransferproject.dev
[68] Furman, J. et al report, p. 70.
[69] Smart Data Review, *policy paper* (Accessed 19 November 2019).
https://www.gov.uk/government/publications/smart-data-review
[70] Crémer, J. et al report, pp. 84-85.

Scope of data	Volunteered data (perhaps observed data)	All types of data (Furman et al report) User and usage data (Crémer et al report and Schallbruch et al report)
Type of data shared	Only data at the time of the initiative	Real-time data
Mean to transfer data	Data are transferred in a structured, commonly-used and machine-readable format	Data will be transferred in an interoperable data format

20. Interoperability or open standards is recommended as a mean to facilitate switching between providers. This is commonly referred as the ability of various products/services to interconnect together (e.g. an iPhone with an Apple watch).[71] Technically, providers agree on a common standard, namely an open standard, and implement this standard to work together. Services are thus able to interoperate witch each other. Interoperability goes beyond data interoperability or data mobility as it is the entire service that can interconnect with other third-party providers and not only data.[72] The Crémer et al report distinguishes different types of interoperability: protocol interoperability, data interoperability and full protocol interoperability. Protocol interoperability refers to the usual definition of interoperability, namely "*the ability of two services or products to interconnect, technically with one another*". Data interoperability has already been defined previously in this section as the ability to transfer in real-time personal and usage (machine user) data from one provider to another. Full protocol interoperability refers "*to standard that allow substitute services to interoperate*" (e.g. in the field of consumer communications services, a WhatsApp's user will be able to send messages to a Telegram's user).[73] Beyond this distinction, interoperability enables significant benefits, but with some drawbacks.

21. Interoperability allows firms to create products and services that can work together without hindrance based on a common standard. From a competition perspective, consumers will thus be able to switch between providers and complementary products will emerge. Consumers will be no longer locked-in in one provider, they will be able to try new products and services without significant costs and losses. Accordingly, this will spur innovation and competition.[74]

[71] Furman, J. et al report, p. 71; Crémer, J. et al report, pp. 58-59; Schallbruch, M. et al report, p. 38; Stigler report, p. 113.

[72] Furman J. et al report, p. 72.

[73] Crémer, J. et al report, pp. 58-59.

[74] Furman, J. et al report, p. 72; Crémer, J. et al report, pp. 58-59; Stigler report, p. 113.

22. However, interoperability requires, as already noticed, an open standard. This may have two adverse effects in terms of competition and innovation. Indeed, open standard means the need for coordination between firms. This will in turn increase the risk of collusive agreements to limit product features or even innovation. Moreover, innovation can slow down as products/services should not differ significantly (e.g. the interface).[75]

23. Open standards will apply to all participants or only to dominant firms (Schallbruch et al report)[76] and particular attention must be granted to full protocol interoperability. Indeed, as mentioned by the Crémer et al report, even though network effects will be shared among competitors and thus the dominant firms would no longer be protected from this barrier to entry, this kind of interoperability requires "*strong standardisation across serval competing platforms"* and could thus in turn *"significantly dampen their ability to innovate and to differentiate the type(s) of service(s) they provide*".[77] Accordingly, full protocol interoperability should be "*handled with great caution*" (Crémer et al report)[78] or imposed as a remedy for antitrust violations to restore the lost competition (Stigler report).[79]

24. Finally, data openness or data-sharing is another possibility to overcome the issue of market power in the digital economy. It refers to the ability of a third-party to access real-time data held by a provider.[80] Contrary to data interoperability or data mobility, it is third parties (including potential competitors), not consumers, that are granted access to data held by a private provider. Since data are key to compete in the digital economy, data openness may thereby be key to effective competition.[81] In Europe, a guidance on "*sharing private sector data in the European data economy*" has recently been published without binding the Commission as regards the application of EU competition law.[82] It gives advices on how firms can share their data in business-to-business (B2B) data-sharing and business-to-government (B2G) data sharing. It is worth noting that the EU will create a "*single market for data*" that promotes data-sharing.[83] Accordingly, the Commission will update the Horizontal Co-operation Guidelines in order to provide more guidance on data

[75] Furman, J. et al report, p. 73; Crémer, J. et al report, pp. 58-59; Stigler report, p. 113.

[76] Schallbruch, M. et al report, pp. 51-52.

[77] Crémer, J. et al report, p. 59.

[78] Crémer, J. et al report, p. 60.

[79] Stigler report, pp. 117-118.

[80] Schallbruch, M. et al report, p. 38.

[81] Furman, J. et al report, p. 74.

[82] EC, *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" SWD/2018/125 final*, 25 April 2018.
https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=SWD%3A2018%3A125%3AFIN

[83] EC, Press release*, Shaping Europe's digital future: Commission presents strategies for data and Artificial Intelligence,* 19 February 2020 (accessed 19 February 2020).

sharing and pooling agreements.[84] Furthermore, in merger control, the Commission will consider data-access or data-sharing as remedies in case of competition concerns.[85]

25. Data openness is unanimously seen as a mean to promote competition and innovation, new entrants and products and services, to solve market power issues and to train algorithms, as well as to restore the lost competition.[86] However, the benefits do not come without drawbacks that have to be carefully considered before implementing such solution. Indeed, open data raise serious security and data protection issues, notably as regards the sharing of personal data.[87] To overcome this issue the Furman et al report considers that personal data will be excluded, unless aggregated or anonymized to be in line with the GDPR,[88] and the Schallbruch et al report recalls that user consent will be needed where access to personal is involved.[89] Other important issues are related to competition concerns. Open data might have a negative impact on the incentive to invest in data collection and processing[90] and notably when the exclusive control of a customer account is the driving force that enables non-dominant firms to invest in a product or service.[91] Data sharing may also increase the risk of anti-competitive practices (exclusionary practices by denying access to a competitor and collusive agreements by sharing sensitive information).[92]

26. Therefore, while the Stigler report suggests mandate open access only as a remedy for antitrust violations,[93] the other reports recommend that it should only be used when is necessary, namely "*the benefits of its use outweigh the costs*"[94]and proportionate, on a sector-specific regime.[95] The scope of data to be shared remains to be defined.[96] The Crémer et al report outlines the need to provide more guidance on data sharing.[97]

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[84] Communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions, *A European strategy for data*, 19 February 2020, p. 14.

[85] Ibid.

[86] Furman, J. et al report, p. 75; Crémer, J. et al report, pp. 92-93; ACCC report, p. 11; Stigler report, p .117.

[87] Schallbruch, M. et al report, p. 40; ACCC report, p. 11.

[88] Furman, J. et al report, p. 74.

[89] Schallbruch et al report, p. 37.

[90] Furman, J. et al report, p. 75; Crémer, J. et al report, p. 105.

[91] Schallbruch, M. et al report, p. 41.

[92] Crémer, J. et al report, pp. 92-93 and pp. 96-98.

[93] Stigler report, p. 117.

[94] Furman, J. et al report, pp. 75-76.

[95] Crémer, J. et al report, p. 109.

[96] But as noted by the Furman et al report, p. 76: "*Any data openness remedy should also keep intervention to a minimum to achieve its aim. Opening up raw, underlying data that is an input to the service is more likely to be proportionate than requiring access to processed information where companies have invested further in deriving insights and inferences from the original data*."

[97] Crémer, J. et al report, pp. 93-94 and p. 126.

27. To sum up, the reports expose five main propositions to regulate the digital economy: (i) the creation of a digital authority or digital unit; (ii) the implementation of a code of conduct; (iii) data interoperability or data mobility; (iv) interoperability; and (v) data openness or data sharing. Before suggesting some proposals, we will analyze these above recommendations.

4.2. Analysis of the recommendations

28. The proposals expose various ways to regulate the digital economy from the less interventionist measures (digital authority or digital unit, code of conduct) to the extreme ones (data interoperability, interoperability and data openness).

29. The digital economy is complex and fast-moving. As the economy is likely to be fully digitalized in the future, a digital authority (DA) or at least a digital unit within the competition authority is welcome. The authority or the digital unit will have to collaborate with other relevant policies and agencies (e.g. in particular consumer protection and data protection authorities) to examine in-depth competition and non-competition concerns (e.g. privacy). A competition authority must not work anymore in isolation.

30. In the digital economy, dominant firms are already acting as a regulator or a gatekeeper. Neither consumers nor businesses can access to the digital world without them. A change in the rules will thereby have an important impact on consumers and businesses. Care is needed. Considering this fact and the complexity of the economy, only a participative regulation will enable the right regulation while ensuring legal certainty to stakeholders and minimizing the regulatory costs.[98] A participative code of conduct with businesses and market participants is thus an appropriate tool in this context and might well be the most efficient one. Rules must be designed under the supervision of the DA or the digital unit in line with other relevant policies (e.g. consumer protection and data protection) to ensure a coherent digital policy. The DA or the digital unit will have to be in charge to monitor and, in case of non-compliance, to impose fines and measures through a fast track resolution mechanism to avoid irremediable damages and to restore the lost competition as quickly as possible. However, contrary to the proposals, the code should not apply only

[98] Quartz, *A Nobel-winning economist's guide to taming tech monopolies*, 27 June 2018. (accessed 4 February 2020). According to Professor Jean Tirole, "*[f]inally, we must make heavier use of more reactive processes. Drawbacks of classical approaches are well-known: self-regulation tends to be self-serving; competition policy is often too slow; public utility regulation, as we discussed, is mostly infeasible (and it is sometimes captured). We must develop what I would call "participative antitrust," in which the industry or other parties propose possible regulations and the antitrust authorities issue some opinion, creating some legal certainty without casting the rules in stone.*"
https://qz.com/1310266/nobel-winning-economist-jean-tirole-on-how-to-regulate-tech-monopolies/
See also, Bethell, O., *Competition Law & Tech-A New Approach*, 7 March 2019, p. 7.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3348636

to dominant firms with a "*strategic market status*" (Furman et al report) or with "*certain minimum revenues or user numbers*" (Schallbruch et al report), but to all market participants. Indeed, the purpose of the code of conduct is to protect consumers and businesses from harmful behaviors in the digital economy. Therefore, the code must ensure the same protection irrespective of the market power of the company used by consumers and businesses. Moreover, as the market is fast-moving, the code should not include only clear-cut prohibitions rules with the possibility of an exception if the firm proves that its practice is objectively justified (Schallbruch et al report) but also clear guidance on specific issues to be in line with the prohibition rules (Crémer et al report, Joint Memorandum of the Belgian Dutch and Luxembourg competition authorities). Both rules and guidelines must be updated with some frequency to consider market changes in the economy. We will propose some rules in the next section.

31. The other recommendations concern access to data either on behalf of the consumer (data interoperability or data mobility) or directly by third parties (data openness or data sharing). Data is a substantial feature of market power in the digital economy. From a business perspective, control over data is important to maintain or expand its dominant position and to have the incentive to invest in the collection and processing of data. From a consumer perspective, control over data is important to have the ability and incentive to move from one provider to another. In this way, giving consumers greater control over their personal data will promote effective competition and innovation, but might have an adverse effect on the incentive to invest in data collection and processing by either dominant or non-dominant firms. Indeed, the classical law and economics "free-riding" problem is likely to arise. A firm will use the investment of a rival to attract users without making any contribution to it. As a consequence, neither the firm nor the rival will have the incentive to invest in data collection and processing. The problem is even exacerbated as data are non-rivalrous goods. As a result, the digital economy will be characterized by less investment and innovation in data and in disruptive technologies. At the same time, data are needed to promote new rivals and complementary products or services. Moreover, from a total welfare perspective, it will be inefficient to invest in the same collection and processing of data. Last but not least, any type of data access to personal data will have to comply with the data protection law and, in particular, users' voluntary consent will be required. Accordingly, one can draw some general observations.

32. First, data access must be required only when is necessary and proportionate to achieve more competition and innovation.

33. Second, contrary to the reports, data access should not apply only to dominant firms but to all firms. Limiting to dominant firms the obligation of data interoperability or data openness will give an undue competitive advantage to non-dominant firms who could expand their position without making any contribution to the collection and processing of

data whereas dominant firms have significantly invested to achieve their position. Furthermore, consumers would like to port their data from one provider, irrespective of its size, to another. It would be then particularly unjust to deprive a consumer from this control over his or her data.

34. Third, the scope of data has to be defined with great caution. In this respect, it must be limited only to volunteered or raw data, since the collection of this data requires low investments compared to the collection of observed and inferred data that requires heavy investments in expertise and technology and volunteered data are by definition easily replicable by the consumer. Accordingly, limiting data portability or mandatory data openness to volunteered data will promote effective competition while minimizing the ability and incentive to free-ride on other firms since they will still have to invest to derive insights and inferences from volunteered or raw data.

35. Considering these observations, one can now analyze each proposal.

36. Data interoperability or data mobility based on the PSD2 directive is an appropriate tool to promote effective and fair competition. At the consumer's request, third-party providers will be granted access to the user's account and only to volunteered data. Data will be transferred based on a common standard developed by market participants under the supervision of the DA or the digital unit to ensure undistorted competition (e.g. anti-competitive information exchange).

37. Interoperability will be indispensable with the development of IoT devices. It makes sense that connected devices will have to interconnect with each other in order to avoid the lock-in in one provider. A consumer will thus be able to change a device without incurring the cost of changing the others. Entrants will thus have the ability and incentive to enter into the market, and as a result new products and services will emerge to the benefit of consumers. Open standard has to be developed by market participants under the supervision of the DA or the digital unit to prevent any anti-competitive practices. The adverse effect on innovation due to standardization might well be outweighed by the development of new products and services that will not emerge in the absence of interoperability.

38. Open data or data-sharing is, from a law and economics point of view, an efficient tool as it will enable firms to develop new products and services without the need to invest in the same collection of data, namely open data or data sharing will avoid over-investment in the collection of data. Similar to the cooperation in Research and Development (R&D), competition authorities should authorize cooperation in data collection in order to avoid

the lost surplus for the society due to this over-investment.[99] However, data-sharing raises competition concerns as regards the possibility of collusive agreements through the exchange of sensitive information. The problem is even exacerbated by the ability to share data via a technical enabler. The latter allows the data supplier to control the use made of the data shared with data users. It can monitor whether data users respect the provisions of the data transfer agreement by tracking the data usage made by using a blockchain. It can even sanction data users in case of violations of the data transfer agreement.[100] As it will be possible to monitor the collusive agreement in real time with the possibility of immediate punishment in case of deviation, the collusion will be perfect. There will be no incentive to deviate from the anti-competitive agreement. Moreover, as the collusion will be implemented through a blockchain, probably a private blockchain, competition authorities will not be able to detect the practice.[101] In sum, in the absence of incentive to apply for a leniency, the collusion will be sustainable and undetectable by competition authorities. In this regard, the guidance on data sharing proposed by Crémer et al is welcome. When an incumbent declines access to data, mandatory access should be required only and only if the three conditions in *Magill* and *IMS Health* are fulfilled, namely (i) the access to the database is indispensable to compete; (ii) the refusal is not objectively justified causing the elimination of all competition on a secondary downstream market; and (iii) the refusal prevents the development of new products and services not offered by the data holder and for which there is a potential demand.[102] If

[99] In EU competition law, agreements in research and development benefit from a block exemption.
EC, *Commission regulation (EU) No 1217/2010 of 14 December 2010 on the application of Article 101(3) of the Treaty on the Functioning of the European Union to certain categories of research and development agreements*, 18 December 2010.
https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32010R1217&from=EN
See also, EC, *Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements*, 14 January 2011.
https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52011XC0114(04)&from=EN

[100] EC, *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" SWD/2018/125 final*, 25 April 2018, p. 11.

[101] OECD, *Blockchain Technology and Competition Policy-Issues paper by the Secretariat*, 26 April 2018.
https://one.oecd.org/document/DAF/COMP/WD(2018)47/en/pdf
See also, Schrepel, T., *Is Blockchain the Death of Antitrust Law? The Blockchain Antitrust Paradox*, Georgetown Law Technology Review / 3 Geo. L. Tech. Rev. 281 (2019), 11 June 2018.
https://ssrn.com/abstract=3193576

[102] Joined cases C-241/91 P and C-242/91 P, *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v Commission of the European Communities* ("*Magill*"), ECLI:EU:C:1995:98, 6 April 1995, paras. 51-57.
https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:61991CJ0241&from=EN
See also Case C-418/01-*IMS Health GmbH & Co. OHG v NDC Health GmbH & Co. KG* ("*IMS Health*"), ECLI:EU:C:2004:257 , 29 April 2004, para. 52.
http://curia.europa.eu/juris/document/document.jsf?text=&docid=49104&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=5311412

one of these conditions does not hold the cost of mandatory data access will be greater than the potential benefits since neither the incumbent nor the entrant will have the incentive to invest and innovate. Even though the incumbent will still have the incentive to invest and innovate in order to maintain its competitive advantage, mandatory data access will still have profound negative effects: (i) entrants will be discouraged from innovating, thus reducing the level of competitive pressure from disruptive and alternative data collection and processing; (ii) entrants will be discouraged from developing products and services based on data that are different from the data holder, thus reducing the level of products and services variety; and (iii) mandatory data access will unnecessarily increase the risk of collusion amongst the data holder (or data supplier) and data users in a way that it will be sustainable and undetectable by competition authorities. Indeed, the data supplier will have the ability and incentive to share the data via a technical enabler to monitor whether data users respect the data transfer agreement to avoid scandal like the Cambridge Analytica but it will also enable it to implement anti-competitive agreements (e.g. to limit the data usage). Accordingly, mandatory data access will provide less investment, less innovation, less competition and less consumer choice. This is why, compulsory data access should be required only if the three above conditions are met. In this latter case, access to data should be granted through licensing. In this respect, mandatory data access faces the same problem as mandatory licensing as regards the terms of the contract which has to be defined on a case-by-case basis.[103] It is worth noting that the BKartA is currently investigating a case of mandatory data sharing concerning the access by mobility platforms to current Deutsche Bahn AG's departure and delay data in order to be able to offer new mobility concepts such as end-to-end intermodal mobility chains.[104]

39. In sum, the proposals are pro-competitive and are able to promote efficient and fair competition in the digital economy. However, they need to be complemented by other recommendations to ensure a perfect regulation in a globalized world with different policies.

4.3. Recommendations to regulate the digital economy

40. The digital economy is complex, global and linked with various polices including competition, data protection and consumer protection policies. The following proposals

[103] Padilla, J. et al, *Antitrust Analysis Involving Intellectual Property and Standards: Implications from Economics, Harvard Journal of Law & Technology*, 2019 Forthcoming, 10 January 2019, pp. 13-14. https://ssrn.com/abstract=3119034

[104] BKartA, Press release*, Proceeding against Deutsche Bahn AG - Bundeskartellamt examines possible anticompetitive impediment of mobility platforms*, 28 November 2019 (accessed 5 February 2020). https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Pressemitteilungen/2019/28_11_2019_DB_Mobilitaet.pdf;jsessionid=C82B291C7A504289FD8405A4E3F4D492.2_cid378?__blob=publicationFile&v=2

complement the above recommendations. Departures from an asymmetric regulation for the above reasons (difficulty to identify criteria, inability to solve the root causes of market power and asymmetric information, inability to protect competition (the regulation protects competitors, but not competition)), we will instead propose a participative regulation in the form of a pro-competitive code of conduct applicable to all firms in the context of an international organization.

41. As a starting point, international cooperation and consensus is needed. Given the fact that many antitrust challenges in the digital economy are global in nature, an international cooperation is crucial to ensure convergence and to avoid over-scrutiny. The G7 competition authorities agree with this view through existing international and multilateral fora (e.g. within the G7, the OECD and the ICN), including a long-term project of cooperation between them.[105] An international cooperation will ensure a coherent competition landscape to businesses while minimizing the regulatory costs of private and public resources. Competition authorities are already engaged in international cooperation to deepen their expertise and knowledge, notably through joint studies (e.g. the joint studies by the *Autorité de la concurrence* and the *Bundeskartellamt* on competition law and data,[106] and on algorithms and competition[107]), market studies (e.g.

[105] G7 Competition Authorities, *Common Understanding of G7 Competition Authorities on "Competition and the Digital Economy"*, 5 June 2019, pp. 8-9.
https://www.autoritedelaconcurrence.fr/sites/default/files/2019-11/g7_common_understanding.pdf
G7 competition authorities are: Autoritá Garante della Concorrenza e del Mercato (Italy), Autorité de la Concurrence (France), Bundeskartellamt (Germany), Competition Bureau (Canada), Competition and Markets Authority (United Kingdom), Department of Justice (United States of America), Directorate General for Competition (European Commission), Federal Trade Commission (United States of America) and Japan Fair Trade Commission (Japan).
See also, Adlc, Press release, *The Autorité de la concurrence announces its priorities for 2020*, 9 January 2020 (accessed 10 January 2020). The G7 competition authorities approved a long-term project of cooperation to find common approaches to the competitive assessment of digital issues.
"*The Autorité considers that the continued efforts of the G7 competition authorities to find common approaches to the competitive assessment of digital subjects is crucial. It has consequently proposed that this specific cooperation between authorities in the G7 countries should be a long-term project. The G7 partner authorities have approved, by the end of 2019, this proposal and have decided to pursue high-level discussions this year. This will involve in particular, besides the substantive exchanges, a conference being held in Paris in the second half of 2020 and a deeper exploration of some of the issues addressed in the July 2019 agreement*."
https://www.autoritedelaconcurrence.fr/en/press-release/autorite-de-la-concurrence-announces-its-priorities-2020
See also, OECD, *Conference on Competition and the Digital Economy Co-chairs' summary*, 3 June 2019, p. 5.
http://www.oecd.org/daf/competition/Co-chairs'%20Summary%20-%20Conference%20on%20Competition%20and%20the%20Digital%20Economy.pdf.
[106] Adlc and BKartA, *Competition law and data*, 10 May 2016.
https://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Berichte/Big%20Data%20Papier.pdf;jsessionid=6C39298B7F0949FD71D5BC4259E1C0A0.1_cid378?__blob=publicationFile&v=2
[107] Adlc and BKartA, *algorithms and competition*, 6 November 2019.
https://www.autoritedelaconcurrence.fr/sites/default/files/algorithms-and-competition.pdf

on online advertising[108]) or international discussions in the context of roundtables at the OECD (e.g. on quality considerations in the zero-price economy[109]). However, the regulatory costs faced by public and private parties are still high notably when multiple competition authorities undertake a market study in the same specific sector. For example, the online advertising sector has been or is being under scrutiny in France,[110] in Spain,[111] in Germany,[112] in Sweden,[113] in the UK,[114] in the US,[115] in Australia,[116] and may

[108] CMA, *Online platforms and digital advertising Market study-interim report*, 18 December 2019, p. 231.

[109] OECD, *Quality considerations in the zero-price economy*, 28 November 2018.
http://www.oecd.org/daf/competition/quality-considerations-in-the-zero-price-economy.htm
Other topics can be founded on the OECD website.
http://www.oecd.org/competition/roundtables.htm

[110] Adlc, *Avis n° 10-A-29 du 14 décembre 2010 sur le fonctionnement concurrentiel de la publicité en ligne*, 14 December 2010.
https://www.autoritedelaconcurrence.fr/sites/default/files/commitments//10a29.pdf
See also, Adlc, *Opinion no. 18-A-03 of 6 March 2018 on data processing in the online advertising sector*, 6 March 2018.
https://www.autoritedelaconcurrence.fr/sites/default/files/integral_texts/2019-10/avis18a03_en_.pdf

[111] Comisión Nacional de los Mercados y la Competencia (CNMC), Press release, *The CNMC launches a public consultation on online advertising in Spain*, 25 April 2019 (accessed 4 February 2020).
https://www.cnmc.es/sites/default/files/editor_contenidos/Notas%20de%20prensa/2019/20190425_NP%20Inicio%20Estudio%20Publicidad%20Online_EN.pdf

[112] BKartA, Press release, *Bundeskartellamt launches sector inquiry into market conditions in online advertising sector*, 1st February 2018 (accessed 4 February 2020).
https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2018/01_02_2018_SU_Online_Werbung.html;jsessionid=093716A034306C399E586AEBD2BAC9E7.1_cid362?nn=10321672
See also, BKartA, *"Competition and Consumer Protection in the Digital Economy ": Online advertising*, 1st February 2018.
https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Schriftenreihe_Digitales_III.pdf?__blob=publicationFile&v=5

[113] Konkurrensverket, Press release, *Market study of digital platforms*, 11 November 2019 (accessed 4 February 2020).
http://www.konkurrensverket.se/en/Competition/--ovrigt--/market-study-of-digital-platforms/

[114] OFT, *Online Targeting of Advertising and Prices-A market study*, May 2010.
https://webarchive.nationalarchives.gov.uk/20140402182803/http://oft.gov.uk/shared_oft/business_leaflets/659703/OFT1231.pdf
CMA, *Online platforms and digital advertising Market study-interim report*, 18 December 2019.
https://www.gov.uk/cma-cases/online-platforms-and-digital-advertising-market-study
See also, CMA, *Online platforms and digital advertising market study* (accessed 4 February 2020).

[115] FTC, *FTC Hearing 6-Nov. 7 Session 3 - Economics of Online Advertising; Competition and Consumer Protection Issues in Online Advertising*, 7 November 2018 (accessed 4 February 2020).
https://www.ftc.gov/news-events/audio-video/video/ftc-hearing-6-nov-7-session-3-economics-online-advertising-competition

[116] ACCC, *Digital Platforms Inquiry-final report*, 26 July 2019.
https://www.accc.gov.au/system/files/Digital%20platforms%20inquiry%20-%20final%20report.pdf
See also, ACCC, Press release, *ACCC welcomes comprehensive response to Digital Platforms Inquiry*, 12 December 2019 (accessed 4 February 2020). The ACCC will launch a sector inquiry into the digital advertising tech supply chain, focusing on digital display ads.

be in Europe.[117] It is worth noting that the Commission announced a sector inquiry in 2020 in the digital economy but without mentioning in which sector.[118]

42. The sector is at the heart of the business model of platforms funded by advertising and attention, such as Google and Facebook but this business model is not the only one and not the only issue in the digital economy. Market studies are essential to understand a market and the potential competition problems. However, they are costly in terms of time and resources for both public (time and workforce to write the study) and private parties (time and workforce to respond to the inquiry). Therefore, in order to avoid under-scrutiny of a specific sector due to over-scrutiny in another one while minimizing the regulatory costs, it would be preferable to share the work amongst agencies. One agency should be in charge to analyze in-depth one specific sector of the digital economy. Given the borderless nature of the economy, the analysis of country-specific features is unnecessary and thus only one market study will be enough to understand the sector. Recommendations will then be discussed in the context of international fora. This will enable a coherent competition landscape by avoiding divergence from multiple studies and to analyze more digital sectors. Beyond market studies, an international competition enforcement is needed to ensure that the same remedies will be applied globally. This is particularly important in a period where the practices of leading online platforms are

[117] European Parliament, *European Parliament resolution of 31 January 2019 on the Annual Report on Competition Policy (2018/2102(INI)*), 31 January 2019, para. 19.
"*asks the Commission to carry out a sectoral inquiry into the advertising market in order to better understand the dynamics of online advertising and identify anti-competitive practices that need to be addressed under competition law enforcement, as has been done by some national authorities*;"

[118] EC, Communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions, *Shaping Europe's digital future*, 19 February 2020, p. 10.
"*The Commission is also planning to launch a sector inquiry with a strong focus on these new and emerging markets that are shaping our economy and society.*" (p. 9)

currently under investigations both in the US[119] and in Europe.[120] The cooperation must also be undertaken between policy makers around the world to safeguard a global level-

[119] Financial Times, *Which antitrust investigations should Big Tech worry about?,* 28 October 2019 (accessed 3 January 2020). In the US, the practices of Google, Facebook, Apple and Amazon are under investigations by the Department of Justice (DOJ), the Federal Trade Commission (FTC), the Congress (the House Judiciary Committee), and by 50 state attorneys-general.
https://www.ft.com/content/abcc5070-f68f-11e9-a79c-bc9acae3b654
See for more details:
House Judiciary Committee, Press release*, House Judiciary Committee Launches Bipartisan Investigation into Competition in Digital Markets*, 3 June 2019 (accessed 3 January 2020).
https://judiciary.house.gov/news/documentsingle.aspx?DocumentID=2051
DOJ, Press release, *Justice Department Reviewing the Practices of Market-Leading Online Platforms*, 23 July 2019 (accessed 3 January 2020).
https://www.justice.gov/opa/pr/justice-department-reviewing-practices-market-leading-online-platforms
See also, Competition Policy International, *US: Delrahim says Big Tech probe focused on abuse of data*, 26 November 2019 (accessed 3 January 2020). According to Delrahim, the investigation by the DOJ is focused on "*the potential abuse of data by online platforms*".
https://www.competitionpolicyinternational.com/us-delrahim-says-big-tech-probe-focused-on-abuse-of-data/
Competition Policy International, *US: FTC chair aims to resolve Big Tech antitrust probes this year*, 8 January 2020 (accessed 5 February 2020).
https://www.competitionpolicyinternational.com/us-ftc-chair-aims-to-resolve-big-tech-antitrust-probes-this-year/
Competition Policy International, *US: Google target of new antitrust probe by state AGs*, 3 September 2019 (accessed 3 January 2020).
https://www.competitionpolicyinternational.com/us-google-target-of-new-antitrust-probe-by-state-ags/
Competition Policy International, *US: 47 AGs to probe Facebook for antitrust violations,* 22 October 2019 (accessed 3 January 2020).
https://www.competitionpolicyinternational.com/us-47-ags-to-probe-facebook-for-antitrust-violations/

[120] In Europe, the European Commission is currently investigating the practices of Amazon, Google, Facebook and Apple.
See for more details:
Amazon: EC, Press release, *Antitrust: Commission opens investigation into possible anti-competitive conduct of Amazon*, 17 July 2019 (accessed 3 January 2020).
https://ec.europa.eu/commission/presscorner/detail/en/IP_19_4291
Google: Reuters, *Exclusive: EU antitrust regulators say they are investigating Google's data collection*, 30 November 2019 (accessed 3 January 2020).
https://www.reuters.com/article/us-eu-alphabet-antitrust-exclusive/exclusive-eu-antitrust-regulators-say-they-are-investigating-googles-data-collection-idUSKBN1Y40NX
Facebook: Competition Policy International, *EU: Facebook marketplace now under scrutiny*, 31 October 2019 (accessed 3 January 2020).
https://www.competitionpolicyinternational.com/eu-facebook-marketplace-now-under-scrutiny/
See also, Competition Policy International, *EU: Facebook tells regulators 'data is complicated'*, 2 December 2019 (accessed 3 January 2020).
https://www.competitionpolicyinternational.com/eu-facebook-tells-regulators-data-is-complicated/
Apple: Competition Policy International, *EU: Spotify files antitrust complaint against Apple*, 13 March 2019 (accessed 3 January 2020).
https://www.competitionpolicyinternational.com/eu-spotify-files-antitrust-complaint-against-apple/

playing field. In sum, as the digital economy is global by nature, a global market for digital platforms has to be established. To do so, the discussions in existing international fora should agree on common international data protection, consumer protection and competition rules.

43. To reach these common international rules, an international organization has to be established. On the model proposed by Professor Annabelle Gawer, who recommends a Global Digital and Data Regulator as well as a Global Competition Authority,[121] the model of the existing Digital Clearinghouse, which is "*a voluntary network of regulators involved in the enforcement of legal regimes in digital markets, with a focus on data protection, consumer and competition law*",[122] and of the World Trade Organization (WTO), an independent World Digital Organization (WDO) has to be created. The aim of the WDO will be to ensure a coherent digital economy landscape for the benefit of consumers and businesses. The WDO will be in charge to implement and monitor the correct application of WDO agreements among member countries. The WDO agreements will be fundamental principles of data protection, consumer protection, competition rules and other various policies related to the digital economy. The principles will be developed in the next recommendation. Decisions made by WDO's member countries will ensure a coherent global regulation of the digital economy. In addition, the WDO will supervise the elaboration of a participative pro-competitive code of conduct with member countries and stakeholders (participative regulation). The code will be in line with WDO agreements. In this context, the WDO will monitor and, in case of non-compliance of the code, impose fines and measures through a fast track resolution mechanism. A Data Standards Committee (DSC) within the WDO will be responsible to elaborate technical standards with stakeholders to ensure that data interoperability and interoperability will be built on a unique standard. Moreover, to support the WDO's activities, a Digital Observatory Committee (DOC) will conduct law and economics research and collect and analyze data in the digital economy, as the existing EU observatory on the Online Platform

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See also, CNBC, *Google is facing another EU antitrust probe-this time over its jobs search tool*, 28 August 2019 (accessed 3 January 2020).
https://www.cnbc.com/2019/08/28/google-faces-eu-antitrust-probe-over-jobs-search-tool.html
See also, Reuters, *EU antitrust regulators plan broad enquiry into tech sector*, 12 February 2020 (accessed 17 February 2020).
https://www.reuters.com/article/us-eu-antitrust/eu-antitrust-regulators-plan-broad-enquiry-into-tech-sector-idUSKBN2062GA

[121] OECD, *Big Data: Bringing competition policy to the digital era-Note by Annabelle Gawer*, 16 December 2016, p. 16.
https://one.oecd.org/document/DAF/COMP/WD(2016)74/en/pdf

[122] The Digital Clearinghouse (accessed 3 January 2020).
https://www.digitalclearinghouse.org

Economy.[123] In this way, the WDO will guarantee that the same rules will apply and enforce around the world, thus ensuring a global level playing field.

44. The WDO agreements will be based on the three fundamental goals and means (hereinafter "the principles") developed in section 3: (i) efficient competition, which would ensure that companies face enough pressure to offer the best products and services, and that trust is protected; (ii) fair competition, which would require that digital platforms compete fairly, namely on fair, reasonable and non-discriminatory terms and conditions that do not lead to the exclusion or exploitation of customers on both sides of the market; and (iii) transparency and choice, which would require that digital platforms provide meaningful information to users and businesses as regards notably the collection and processing of data, and that customers can freely choose and consent to the terms and conditions.

45. A participative pro-competitive code of conduct must be elaborated with member countries and stakeholders under the supervision of the WDO. The code will be found on the previous principles and will include clear-cut prohibitions rules with the possibility of an exception if the practice is objectively justified and also clear guidance on specific issues to be in line with the prohibition rules. Both rules and guidelines will be updated with some frequency to take into account market change in the economy. Given the broad nature of the digital economy, the following rules cannot address competition concerns related to a specific sector such as the online advertising sector.[124] Rather a sub-committee specialized in one specific sector will be in charge to elaborate those rules. In the EU, the recent EU P2B regulation, which is entered into force on 31 July 2019 and will apply from 12 July 2020 (art. 19), already addresses a number of competition (e.g. favoring of online platforms' own services) and non-competition concerns (e.g. unclear contract terms). The main goal of the Regulation is to promote fairness and transparency for business users of online intermediation services, including e-commerce, application stores, online search engines and online social media services. It thus promotes a set of transparency rules that requires providers of online intermediation services to provide meaningful terms and conditions in a plain and intelligible language (art. 3) as regards the main parameters determining ranking (art. 5)[125], ancillary goods and services (art. 6),

[123] EC, *EU Observatory on the Online Platform Economy* (accessed 5 January 2020).
https://ec.europa.eu/digital-single-market/en/eu-observatory-online-platform-economy
See also the dedicated website.
https://platformobservatory.eu

[124] CMA, *Online platforms and digital advertising Market study-interim report*, 18 December 2019, pp. 237-243. In its interim report on online platforms and digital advertising, the CMA proposes some rules to address concerns related to the digital advertising sector.

[125] Observatory on the Online Platform Economy, Press release, *European Commission launches online survey on the ranking transparency guidelines,* 18 November 2019 (accessed 5 January 2020). The Commission will provide

differentiated treatment concerning their own offerings and those of their business users or corporate website users (art. 7), the access to personal data or other data, or both, by business users (art. 9), restrictions to offer the same goods and services to consumers under different conditions through other means than through those provided by the online intermediation services, including in particular Most-Favored Nation (MFN) clauses (art. 10), and the mediators in case of complaint by business users (art. 12). In addition, providers, unless exempted, must set up an internal system for handling the complaints of business users (art. 11). It encourages the elaborations of codes of conduct to the proper application of this Regulation and in particular vis-à-vis the ranking by providers of online search engines (art. 17). The Regulation only concerns the relation between online intermediation services/online search engines and business users/corporate website users, but not the relation between online intermediation services/online search engines and consumers (art. 1). However, in the EU, the recent EU Directive as regards the better enforcement and modernization of Union consumer protection rules,[126] which is entered into force on 7 January 2020 and will apply from 28 May 2022 by the Member States (art. 7), provides some similar transparency rules in the relationship between traders of online services and consumers. These rules amend the EU directive on consumer rights and include clear and comprehensible information about notably the main parameters determining ranking of offers by providers of an online marketplace (art. 4(5)), and personalized pricing on the basis of automated decision-making by a trader (art. 4(4)). It gives the same consumer rights for consumers of "free" digital services in exchange of their personal data (art. 4(2)(b)). This directive should extend the transparency requirements as regards the ranking to all providers of online intermediation services (e.g. the ranking of a search result on an online search engine, of an application on an application store, or the ranking of users on a dating application or social media). Nevertheless, both the EU Regulation and the EU directive do not provide enough transparency and choice rules to both businesses and consumers. It is worth noting that the Commission will propose a new Consumer Agenda that "*will empower consumers to make informed choices and play an active role in the digital transformation*" by the end of 2020 (Q4 2020).[127] The following rules of a code of conduct can fill the gap.

ranking transparency guidelines before 12 July 2020. It this context, the Commission has recently launched an online survey.
https://platformobservatory.eu/news/commission-launches-online-survey-on-the-ranking-transparency-guidelines/

[126] Directive (EU) 2019/2161 of the European Parliament and of the Council of 27 November 2019 amending Council Directive 93/13/EEC and Directives 98/6/EC, 2005/29/EC and 2011/83/EU of the European Parliament and of the Council as regards the better enforcement and modernisation of Union consumer protection rules, 18 December 2019.
https://eur-lex.europa.eu/eli/dir/2019/2161/oj

[127] EC, Communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions, *Shaping Europe's digital future*, 19 February 2020, p. 10.

46. First, privacy standards terms and conditions. Online service providers must draft the terms in a plain, intelligible and neutral manner with the possibility for users to select their privacy preference among different choices.[128] The terms will be standardized in a unique manner as to the extent the provider can collect and process personal data. To ensure that consumers freely consent, nudges will be forbidden. The privacy setting shall be designed as recommended on section 3.2. Thanks to standardization, consumers will be able to compare in a user-friendly way privacy terms among providers and freely choose the one that offers the product or service according to their privacy preference. By increasing transparency, providers will have the incentive to improve privacy and data protection in order to attract users, leading to competition over privacy. In this way, a consumer will have a genuine choice and control over his or her personal data. This will in turn improve consumer welfare due to better choice and quality (privacy is a parameter of quality). The business model of providers of free services funded by advertising may be affected by such intervention but it will not significantly change as they will still have the opportunity to monetize the service with non-personalized advertising (e.g. contextual advertising) if the consumer does not authorize the collection and processing of personal data for personalized advertising while still offering the core service to consumers.[129] The CMA is currently seeking evidence of the financial impact that will depend on the proportion of consumers who would choose to receive personalized adverting.[130] The privacy setting must be seen on a periodic basis (e.g. every 6 months) to avoid consumer inertia (default bias). Figure 9 below shows an example of privacy standards proposed by the OECD.[131]

[128] CMA, *Online platforms and digital advertising Market study-interim report*, 18 December 2019, p. 241. In its interim report on online platforms and digital advertising, the CMA found "*concerns that platforms do not make it easy enough for consumers to understand and control what data they are agreeing to share.*"

[129] Ibid, p. 253.

[130] Ibid, pp. 253-254.

[131] OECD, *Big data: Bringing competition policy to the digital era-Background note by the Secretariat*, 27 October 2016, p. 26.
https://one.oecd.org/document/DAF/COMP(2016)14/en/pdf

Figure 1: Example of privacy standards proposed by the OECD

Terms of Services
☐ I do not authorize the collection of my personal data.
☐ I authorize the collection of my personal data for internal purposes that are solely needed and used to provide the particular product or service in question.
☐ I authorize the collection of my personal data for the creation of aggregate databases that may be shared with third parties.
☐ I authorize my personal data to be collected and shared with third parties without any restrictions.

47. Second, common metrics on the value of data. It is now well-recognized that consumers use "free" digital services in exchange of their personal data.[132] However, in the absence of common metrics on the value of data, a consumer cannot assess her/his value and thus cannot determine the price of the service and her/his willingness to pay to use it.[133] This prevents consumers to make a genuine choice according to their willingness to pay with their personal data. The valuation of personal data is "*sensitive to contextual effects*",[134] then it will not be possible to set a precise price. However, online service providers must provide clear and comprehensible information on the manner in which personal data are to be calculated to set ads price for advertisers (as the advertising side subsidizes the consumer side), or other reliable metrics. In this way, a consumer will be able to understand the value of her/his data and to choose the best product or service according

[132] EC, Speech, Margrethe Vestager, *Internets of the World Conference*, Copenhagen, 5 December 2019 (accessed 5 February 2020).
https://ec.europa.eu/commission/commissioners/2019-2024/vestager/announcements/internets-world-conference-copenhagen-5-december-2019_en
"*We can get a lot of valuable online services free of charge. But there's no such as a free lunch. We still pay for these services – not in cash, perhaps, but with our data*."

[133] CMA, *The commercial use of consumer data Report on the CMA's call for information*, June 2015, pp. 79-80.
"*One implication of this is that, without knowing the value of the data they are sharing and how much of their data is being used, consumers are unable to understand the price for the data-funded transactions they engage in. This may mean that firms have limited incentives to compete over the privacy protection they afford to consumer data, that is the minimum amount of data they need to collect to generate sufficient revenue to fund the service to consumers.*"
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/435817/The_commercial_use_of_consumer_data.pdf

[134] OECD, *Exploring the Economics of Personal Data: A Survey of Methodologies for Measuring Monetary Value*, 2 April 2013, p. 5.
https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/IE/REG(2011)2/FINAL&docLanguage=EN

to her/his willingness to pay with her/his data. Moreover, since consumers will be able to compare more easily, providers will have the incentive to compete and innovate in order to offer a better product with a better privacy protection.

48. Third, a single personal online identity. To the extent that volunteered data are intentionally provided by the user to the online service provider, they are owned by the user, not the provider. In 2015, an internet user had in average 90 user accounts and might have 200 accounts by 2020.[135] As the phone number, in order to lower transaction and switching costs, a unique personal online identity must be created in which consumers will be able to seamlessly access automatically and in a secure way to all volunteered data shared with online service providers. This proposal has been recently welcomed by a large majority of respondents (63%) to a Eurobarometer survey.[136] Access will be granted either through a unique website developed by the WDO or Personal Information Management Systems (PIMS) (e.g. cozy cloud, digi.me), namely intermediaries for consumer data between consumers and online service providers in which a consumer can already access and manage from a unique interface all her/his data shared with providers such as bank, insurance, energy or internet and mobile providers. Once the consumer will provide a data to a provider, this data will automatically be registered by using the blockchain technology (e.g. Tide's blockchain based model)[137] in her/his personal online identity and she/he will not need to provide again this data to others. On the WDO website, the consumer will only be able to access to her/his personal data. PIMS offer more functionalities to manage data, such as the sharing of pictures with friends. In sum, via his/her personal online identity, the consumer can grant access to his/her data to third-party providers (data interoperability) and monitor the usage of his/her data thanks to the blockchain. In this way, the consumer can exercise a complete control over his/her personal data and can even receive a monetary reward for having consented to share his/her data with third-parties. Data will be transferred based on the standard developed by the WDO. Online service providers will still keep observed and inferred data on an internal account not accessible by consumers and third-parties. In this

[135] Schallbruch, M. et al report, p. 38.

[136] EC, Press release, *Shaping Europe's digital future: Eurobarometer survey shows support for sustainability and data sharing*, 5 March 2020 (accessed 15 May 2020).
https://ec.europa.eu/commission/presscorner/detail/en/ip_20_383
See also, Special Eurobarometer 503, *Attitudes towards the impact of digitalisation on daily lives*, March 2020, pp. 92-95.
https://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/survey/getsurveydetail/instruments/special/surveyky/2228

[137] For a complete description of the Tide's blockchain based model, see CMA, *Appendix L: Potential approaches to improving personal data mobility*, 18 December 2019, pp. 10-12.
https://assets.publishing.service.gov.uk/media/5df9efa2ed915d093f742872/Appendix_L_Potential_approaches_to_improving_personal_data_mobility_FINAL.pdf
See also, Tide website (accessed 9 January 2020).
https://tide.org

way, consumers will be able to switch or multi-home seamlessly without incurring significant costs in terms of time and loss of personal data. This will in turn spur competition and promote new entrants without reducing the incentive to invest and innovate as only volunteered data will be transferred.

49. Fourth, fair, reasonable and non-discriminatory terms and conditions. Consumers (German Facebook case) and businesses (Amazon case) can be exploited from abusive contract terms and conditions by dominant online providers in order to collect even more data on them and thus to maintain or expand a dominant position. To overcome this issue, terms and conditions must be drafted in a clear, plain, intelligible, fair and reasonable manner and must explain how the service works (e.g. algorithms, the ranking), namely for example, if a consumer consents to the collection and processing of her/his data, the provider cannot require data that are unnecessary to perform the service as mandated by the principle of data minimization (art. 5(1)(c) GDPR). Both businesses and consumers must be notified of any changes to the terms and conditions, including changes to the functioning of the service,[138] and they cannot be implemented before the expiry of a notice period which is reasonable and proportionate as required by the P2B regulation (art. 3). Furthermore, online service providers might have the ability and incentive to promote their own services at the expense of rivals. It might even pay to be the default service. The practice is not illegal *per se*, but can have significant adverse effects on competition and consumers (e.g. see Google *Search (Shopping)* and *Google Android*). To promote an effective competition and a genuine choice to consumers, terms and conditions must require that consumers will choose the service they want via a choice screen as implemented by Google following the Google Android Decision in EU[139] and in Russia.[140] However, contrary to the proposal made by Google that will show the choice screen only during the initial setup of the Android device, it must be seen on a periodic basis (e.g. every 6 months) to avoid consumer inertia (default bias). This will again spur competition and innovation while giving more choice to consumers. In addition, terms and conditions cannot promote any forms of self-preferencing behavior unless objectively justified by economic, commercial or legal grounds for such differentiation.[141]

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[138] CMA, *Online platforms and digital advertising Market study-interim report*, 18 December 2019, p. 241. In its interim report on online platforms and digital advertising, the CMA found "*concerns that platforms change their algorithms without warning in a way that can materially affect publishers and retailers that rely on the platforms*"

[139] Android, Press release, *About the choice screen* (accessed 9 January 2020). https://www.android.com/choicescreen/

[140] Federal Antimonopoly Service of the Russian Federation (FAS Russia), Press release, *FAS Russia Reaches Settlement with Google*, 17 April 2017 (accessed 10 January 2020). https://en.fas.gov.ru/press-center/news/detail.html?id=49774

[141] CMA, *Online platforms and digital advertising Market study-interim report*, 18 December 2019, p. 241. In its interim report on online platforms and digital advertising, the CMA found concerns that, in the open display market, "*Google sets the rules for the auction in Ad Manager in a way that favours its own sources of advertising demand.*"

50. Fifth, access to data by business users. Data is crucial to compete in the digital economy. In a platform-to-business relationship (P2B), the online service provider can collect and use sensitive data from business users for potential anti-competitive practices (collusion or abuse of a dominant position) as illustrated by the current EU Amazon's investigation. The P2B regulation only requires the provider to include in its terms and conditions *"a description of the technical and contractual access, or absence thereof, of business users to any personal data or other data, or both, which business users or consumers provide for the use of the online intermediation services concerned or which are generated through the provision of those services.*" (art. 9). The regulation thus does not require the provider to share data with business users. To the extent that the data concern the activities of the business user (e.g. about its products, transactions), the provider must share in real time these data with the business. Indeed, they are valuable to businesses to improve their own products and services offered to consumers and thus to compete on a fair way with the products or services supplied by the online service provider. The data-sharing requirement only concerns the data provided and generated from the business user and its consumers (under the condition of users' voluntary consent) and not the data from other businesses and consumers even in an aggregated form to avoid collusion. In this way, competitors of the provider will compete on a level-playing field to the benefit of consumers as a result of better products and services thanks to the use and analyze of such data by business users.

51. Now the rules are well defined, the code must be enforced. The question is tricky as the digital economy is fast-moving. Any decisions made by an online service provider can have significant adverse effects in the short-term on competition and consumers. The code will be enforced by both national competition authorities and the WDO in case of a global issue. They must have the power to investigate either as a result of a complaint or by their own-initiative. In case of non-compliance of the code, they have to impose fines (deterrence effect) and measures through a fast track resolution mechanism (including settlements and interim measures[142]). However, the time of the legal proceeding is likely

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See also, Regulation (EU) 2019/1150 of the European Parliament and of the Council of 20 June 2019 on promoting fairness and transparency for business users of online intermediation services, 11 July 2019, art. 18. In its first evaluation of the P2B Regulation, the Commission will focus in particular on "*investigating whether the competition between goods or services offered by a business user and goods or services offered or controlled by a provider of online intermediation services constitutes fair competition and whether providers of online intermediation services misuse privileged data in this regard.*"

[142] EC, Speech, Margrethe Vestager, *Global markets and a fair deal for consumers*, Conference of Nordic Competition Authorities, Bergen, 4 September 2019 (accessed 10 January 2020). the Commission is considering to adopt more interim measures in fast-moving markets.
https://wayback.archive-it.org/12090/20191130061303/https://ec.europa.eu/commission/commissioners/2014-2019/vestager/announcements/global-markets-and-fair-deal-consumers_en
See for a recent adoption, EC, Press release, *Antitrust: Commission imposes interim measures on Broadcom in TV and modem chipset markets*, 16 October 2019 (accessed 10 January 2020).

to be slower than the time of the digital economy notably in case of appeal. In this context, the code will not be enforced in due time. A first-best solution could be then to reward (positive incentive) providers subject to compliance with the code through legal incentives (e.g. exemption of antitrust investigations) and economic incentives (e.g. tax reductions). This will have exactly the same effect as a fine (negative incentive) but the measure will ensure the respect of the code in due time while minimizing the legal costs for both public and private parties. Another solution could be to impose mandatory reporting to the regulator of the proper respect of the code on a periodic basis (e.g. every year). The provider will have the incentive to respect the code to avoid a fine. However, this solution is costly for both public and private parties in terms of time and resources. Moreover, the time of the proceeding might not be enough fast and the regulator is likely to review a substantial number of non-problematic reporting. This will impede the regulator to monitor in-depth the problematic ones. From a law and economics standpoint, the notification regime should minimize the expenditure of public (regulators) and private parties (online service providers) while minimizing the notification of potential non-problematic reporting. Mandatory reporting for all firms is thus not an effective and efficient solution. As in merger control, the duty should concern only firms that fall above the "reporting control notification" thresholds. They can be based, as in merger control, on turnover, the number of users or the dominant position of the firm.[143] The regulators and the WDO will still have the ability to investigate firms that fall below the thresholds by requiring a reporting.

52. In addition to the code of conduct, data interoperability, interoperability and data openness are needed subject to the respect of data protection laws and intellectual property rights.

53. Data interoperability must be developed on the model proposed by the PSD2 Directive. At the consumer's request, third-party providers will be granted access to the user's account and only to volunteered data. Data will be transferred based on a common standard developed by the WDO.

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https://ec.europa.eu/commission/presscorner/detail/en/IP_19_6109

See also, Adlc, *The Autorité de la concurrence's contribution to the debate on competition policy and digital challenges*, 19 February 2020, p. 2. The French competition authority recommends the use of interim measures in the digital economy.

https://www.autoritedelaconcurrence.fr/sites/default/files/2020-02/2020.02.19_contribution_adlc_enjeux_numeriques_vf.pdf

[143] See in merger control, Carugati, C. *Reforming merger control notification thresholds*, May 2019, Concurrences Review, N° 2-2019, Art. N° 89872.

https://www.concurrences.com/fr/revue/issues/no-2-2019/pratiques/reforming-merger-control-notification-thresholds

54. Interoperability is key in the digital economy. Indeed, it enables two or more products or services to communicate which each other seamlessly without the need to change to another provider. This will overcome the market power of dominant firms with strong network effects as the latter will be spread to other (non-dominant) firms. For example, a Facebook's user will be able to communicate with users from other social media or a user will be able to connect her/his Apple Watch with an Android device. However, as underlined by the CMA in its interim report on online platforms and digital advertising in relation to Facebook, the social media may have the ability and incentive to restrict the competitors' ability to develop services that compete directly with him.[144] The CMA is thus currently seeking views on "*whether there should be limits on Facebook's ability to impose restrictions on competitors' use of the interoperable features*".[145] The restrictions will impede the development of directly competing services and thus will distort competition. Therefore, to promote effective competition, such contractual or technical restrictions must be forbidden.

55. Data openness is welcome as recommended on section 4.2.

56. Finally, the cooperation is also urgently needed at the local level between agencies. As called by many competition experts[146] and regulators,[147] data protection, consumer protection and competition authorities must collaborate together on digital cases to "*achieve common goals using most efficient tools*", "*manage conflicting objectives*" and "*avoid overlap of resources*"[148] since data protection, consumer protection and competition concerns (e.g. privacy) are closely related in the digital economy. As a first example, during its Facebook's investigation, the BkartA "*closely cooperated with leading data protection authorities in clarifying the data protection issues involved."*[149]

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[144] CMA, *Online platforms and digital advertising Market study-interim report*, 18 December 2019, p. 250.

[145] Ibid.

[146] Stucke, M. E. and Grunes, A. P., Big Data and Competition policy, *Oxford University Press*, 2016, pp. 325-334.

[147] European Data Protection Supervisor (EDPS), *Privacy and competitiveness in the age of big data: The interplay between data protection, competition law and consumer protection in the Digital Economy*, March 2014, pp. 37-38.
https://edps.europa.eu/sites/edp/files/publication/14-03-26_competitition_law_big_data_en.pdf
See also, OECD, *Big data: Bringing competition policy to the digital era-OECD Competition Division-November 2016 OECD discussion*, 23 March 2017, p. 30.
https://www.slideshare.net/OECD-DAF/big-data-bringing-competition-policy-to-the-digital-era-oecd-competition-division-november-2016-oecd-discussion
See also, CMA, *Online platforms and digital advertising Market study-interim report*, 18 December 2019, p. 259.

[148] OECD, *Big data: Bringing competition policy to the digital era-OECD Competition Division-November 2016 OECD discussion*, 23 March 2017, p. 30.

[149] BkArtA, Press release, *Bundeskartellamt prohibits Facebook from combining user data from different sources*, 7 February 2019 (accessed 13 January 2020).
https://www.bundeskartellamt.de/SharedDocs/Meldung/EN/Pressemitteilungen/2019/07_02_2019_Facebook.html

57. To conclude, the recommendations tend to address in the most cost-benefit way the challenges raised by the digital economy in a globalized world. The World Digital Organization (WDO) will ensure a coherent digital economy landscape to promote a global level-playing field through WDO agreements and a participative pro-competitive code of conduct subject to three principles: efficient competition; fair competition; and transparency and choice. In complement to the EU P2B Regulation and the EU consumer protection rules Directive, the rules of the code of conduct shall be the following: (i) privacy standards terms and conditions; (ii) common metrics on the value of data; (iii) a single personal online identity; (iv) fair, reasonable and non-discriminatory terms and conditions; and (v) access to data by business users. The code must be enforced properly. In addition, data interoperability, interoperability and data openness are required subject to the respect of data protection laws and intellectual property rights. Finally, competition, consumer protection and data protection authorities must closely collaborate together as they share the same concerns in the digital economy.