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Conglomerate effects of mergers – Note by the European Union

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1. Introduction

1. This contribution discusses the approach of the European Commission (the "Commission") towards conglomerate effects of mergers. A conglomerate merger is understood as a transaction in which the merging companies are neither in a horizontal nor a vertical relationship but are active in "*closely related markets*". The Commission's Guidelines on the assessment of non-horizontal mergers (the "Non-horizontal merger guidelines") provide the following examples for closely related markets: "*mergers involving suppliers of complementary products or of products which belong to a range of products that is generally purchased by the same set of customers for the same end use.*"[1]

2. Across sectors, the large majority of the Commission's interventions in merger cases involve horizontal theories of harm. Whereas the Commission analyses non-horizontal theories of harm and potential conglomerate effects regularly in its merger cases, including in in-depth investigations, the number of cases where it intervened because of conglomerate theories of harm is low.[2]

3. This contribution first sets out the analytical framework under which the Commission investigates conglomerate mergers, addressing potential theories of harm, evidence, efficiencies and remedies in conglomerate mergers (**Section 2**). Then this contribution discusses the theories of harm that arose in recent conglomerate merger cases and the remedies that addressed the Commission's competitive concerns (**Section 3**). Finally, the contribution explores some future challenges of conglomerate mergers (**Section 4**).

2. The Commission's analytical framework for the assessment of conglomerate effects in mergers, theories of harm, evidence, efficiencies and remedies

4. The EU Merger Regulation[3] sets out the substantive test for EU merger control, namely "[a] concentration which would significantly impede effective competition, in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant position, shall be declared incompatible with the common market".

5. In 2008, the Commission adopted the Non-horizontal merger guidelines, which set out the Commission's legal and analytical framework for the assessment of non-horizontal mergers, distinguishing between two broad types of non-horizontal mergers: vertical

[1] Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings, OJ C 265, 18.10.2008, paragraph 5. This article does not discuss the second type of non-horizontal mergers, namely vertical mergers.

[2] Over the period 2015-2019, the Commission intervened in 117 merger cases – intervention cases comprise Phase I and Phase II cases with remedies, abandonments in Phase II and prohibitions. Out of these intervention cases, only six cases raised conglomerate concerns (i.e. approximately 5%).

[3] Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings, OJ L 024 , 29.1.2004.

mergers and conglomerate mergers. These guidelines provide a robust basis for the Commission's decisional practice and making the Commission's enforcement predictable.

6. The Non-horizontal merger guidelines acknowledge that non-horizontal mergers are "generally less likely to significantly impede effective competition than horizontal mergers."[4] However, "there are circumstances in which non-horizontal mergers may significantly impede effective competition, in particular as a result of the creation or strengthening of a dominant position. This is essentially because a non-horizontal merger may change the ability and incentive to compete on the part of the merging companies and their competitors in ways that cause harm to consumers."[5] The Commission therefore assesses each case on its own merits and "will consider both the possible anti-competitive effects arising from conglomerate mergers and the possible pro-competitive effects stemming from efficiencies substantiated by the parties."[6]

7. As an indication, the Non-horizontal merger guidelines establish market shares and concentration levels below which the Commission is unlikely to find concerns, namely where the market share post-merger of the merged entity in each of the markets concerned will be below 30% and post-merger HHI is below 2000.[7] These thresholds are only indicative and do not give rise to a legal presumption.[8]

2.1. Theories of harm

8. Conglomerate mergers may give rise to a significant impediment to effective competition ("SIEC") in two main ways: non-coordinated and coordinated effects. Non-coordinated effects principally arise when conglomerate mergers give rise to foreclosure; and coordinated effects arise when firms that were not coordinating their behaviour are now significantly more likely to coordinate and raise prices or otherwise harm effective competition or where a merger makes coordination easier, more stable or more effective for firms which were coordinating prior to the merger.

9. When assessing ***non-coordinated effects*** of conglomerate mergers, the main competitive concern is that of foreclosure and the Commission applies the so-called "ability-incentive-effect" framework, the elements of which are set out below in more detail. In recent cases, the Commission also applied a theory of harm based on an

[4] Non-horizontal merger guidelines, paragraph 11.

[5] Non-horizontal merger guidelines, paragraph 15.

[6] Non-horizontal merger guidelines, paragraph 92.

[7] Non-horizontal merger guidelines, paragraph 25. Paragraph 13 of the Commission Notice on a simplified procedure for treatment of certain concentrations under Council Regulation (EC) No 139/2004, OJ C 366, states that "*Concentrations where at least two parties to the concentration are present in closely related neighbouring markets may also be unsuitable for the simplified procedure, in particular, where one or more of the parties to the concentration holds individually a market share of 30 % or more in any product market in which there is no horizontal or vertical relationship between the parties but which is a neighbouring market to a market where another party is active.*"

[8] These thresholds are different from the thresholds applied by the Commission in horizontal mergers. In horizontal cases, where the market share of the undertakings concerned does not exceed 25%, this is an indication that the concentrations may be presumed to be compatible with the common market –see, Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings, ("Horizontal merger guidelines").

exploitative conduct[9] and took into account the merged entity's access to commercially sensitive information regarding rivals' activities[10].

10. The Commission's foreclosure framework to assess conglomerate effects is similar to that of vertical effects which aims at preventing the merged entity from raising rivals' costs and/or making it harder for competitors to reach the market, thereby reducing their ability or incentive to compete.

11. The combination of products in related markets may confer on the merged entity the ability and incentive to leverage a strong market position from one market to another by means of tying or bundling or other exclusionary practices.

12. By bundling, the Non-horizontal merger guidelines refer to the way products are offered and priced by the merged entity. A distinction is made between "pure bundling", where the products are only offered on the market jointly in fixed proportions, and "mixed bundling", where the products continue to remain available on the market also separately, but are offered at a discount when purchased together, or in other words, the sum of the stand-alone prices is higher than the bundled price.

13. By tying, the Non-horizontal merger guidelines refer to situations where customers that purchase one good are also required to purchase another good from the producer. Such tying can take place either on a technical basis or on a contractual basis. If technical, the tying product is designed in such a way as to only work with the tied product and not with alternatives offered by competitors. Contractual tying refers to situations where a customer purchasing a good undertakes to only purchase the tied product of the same producer rather than any alternatives by competitors.

14. By such limitations to the purchase options available to customers, the merged entity may shift demand towards its own products and away from products of rivals who only offer one of the two products in the bundle – which, if the shift is significant enough, may lead to a reduction in rivals' ability or incentive to compete. Such practices may also make entry to the market more difficult. The specific characteristics of products may determine the availability of any of these practices to the merged entity. Pure bundling is for instance not likely if products are not bought simultaneously or by the same customers, while technical tying may only be an option in certain industries.

15. The Non-horizontal merger guidelines set-out a three-stage analytical framework (namely the ability-incentive-effect framework), pursuant to which the Commission examines, first, whether the merged firm would have the ability to foreclose its rivals, second, whether it would have the economic incentive to do so and third, whether a foreclosure strategy would have a significant detrimental effect on competition, thus causing harm to consumers.[11]

16. With regard to the merged entity's ***ability*** to engage in foreclosure of competitors, the merged entity must have a significant degree of market power in one of the markets concerned. Among other things, the Commission assesses:

- The merging parties' positions in their respective markets;

[9] See Section 3.1.2. for an analysis of the Commission Decision of 18 January 2018, in case M.8306 – Qualcomm/NXP Semiconductors.

[10] See Section 3.1.2. for an analysis of the Commission Decision of 12 May 2017, in case M.8314 – Broadcom/Brocade.

[11] Non-horizontal merger guidelines, paragraph 94.

- Whether one of the merging parties' products is perceived as particularly important by customers and whether there are alternatives to this product;
- Whether there is a large common pool of customers for the individual products concerned;
- The market structure: foreclosure effects may be more pronounced in industries with economies of scale and where the demand pattern has dynamic implications for conditions of supply in the future;
- Whether the foreclosing strategy is a lasting one and not costly to reverse;
- Whether the rival firms may deploy effective and timely counterstrategies.

17. With regard to the merged entity's ***incentive*** to engage in foreclosure of competitors, the Commission assesses the profitability of the foreclosure strategy, based – among other things – on:

- The trade-off that the merged entity will face between the possible costs associated with bundling or tying its products and the possible gains from expanding market shares in the market(s) concerned or, as the case may be, being able to raise prices in those market(s) due to its market power;
- The customers' behaviour (e.g. whether they would be interested in buying a bundle of products or whether they buy the products on a standalone basis; whether they used to "mix and match" the products from different companies);
- The relative value of the different products;
- Other factors such as the type of strategies adopted on the market in the past.

18. With regard to the ***effects*** of the merged entity's foreclosure strategy, the Commission's assessment revolves around (i) the significance in the reduction of sales prospects of single-component rivals in the market that would lower their ability and incentive to compete and (ii) the deterrence effect of potential entry by competitors. Elements that are relevant in this respect include:

- The fraction of the output market affected by the foreclosure strategy;
- Whether there are effective single-product players remaining on the markets concerned;
- The countervailing factors such as countervailing buyer power and the likelihood of market entry in the markets concerned; and
- The efficiencies brought by the transaction.[12]

19. The Non-horizontal merger guidelines acknowledge that, in practice, the factors of ability, incentive and effects are often examined together as they are closely intertwined.[13]

20. For the assessment of ***coordinated effects*** in conglomerate mergers, the Non-horizontal merger guidelines follow the analytical framework established by the Horizontal merger guidelines.[14]

[12] The assessment of efficiencies by the Commission is detailed in section 2.3. of this contribution.

[13] Non-horizontal merger guidelines, paragraph 94.

[14] Non-horizontal merger guidelines, paragraph 119.

2.2. Efficiencies

21. Through the integration of complementary activities or products within a single firm, the Non-horizontal merger guidelines recognise that conglomerate mergers provide substantial scope for efficiencies and may be pro-competitive.[15] For example, "*[i]ntegration may also decrease transaction costs and allow for a better co-ordination in terms of product design, the organisation of the production process, and the way in which the products are sold. Similarly, mergers which involve products belonging to a range or portfolio of products that are generally sold to the same set of customers (be they complementary products or not) may give rise to customer benefits such as one-stop-shopping.*"[16]

22. The Non-horizontal merger guidelines state that many of the efficiencies identified in the context of vertical mergers may, mutatis mutandis, also apply to conglomerate mergers. In that sense, when producers of complementary goods are pricing independently, they will not take into account the positive effect of a drop in the price of their product on the sales of the other product. Depending on the market conditions, a merged firm may internalise this effect and may have a certain incentive to lower margins if this leads to higher overall profits (this incentive is often referred to as the 'Cournot effect'). In most cases, the merged firm will make the most out of this effect by means of mixed bundling, i.e. by making the price drop conditional upon whether or not the customer buys both products from the merged entity.[17]

23. Other types of efficiencies are specific to conglomerate mergers. For example, conglomerate mergers may produce cost savings in the form of economies of scope (either on the production or the consumption side), yielding an inherent advantage to supplying the goods together rather than apart. For instance, it may be more efficient that certain components are marketed together as a bundle rather than separately. Value enhancements for the customer can result from better compatibility and quality assurance of complementary components. Such economies of scope however are necessary but not sufficient to provide an efficiency justification for bundling or tying. Indeed, benefits from economies of scope frequently can be realised without any need for technical or contractual bundling.[18]

24. The Non-horizontal merger guidelines set out that, as in horizontal merger assessments, in order to claim efficiencies as a mitigating factor to the likely competitive harm, the merging parties need to be able to show that the efficiencies are merger-specific, and will benefit consumers and are verifiable.[19]

2.3. Evidence

25. The Commission's findings in its decisions rely on all of the qualitative and quantitative evidence on the case file, in particular the notification received from the merging parties, feedback from third parties provided in meetings, during conference calls or in reply to the Commission's market investigation questionnaires, the assessment of

[15] Non-horizontal merger guidelines, paragraph 13.

[16] Non-horizontal merger guidelines, paragraph 14.

[17] Non-horizontal merger guidelines, paragraph 117.

[18] Non-horizontal merger guidelines, paragraph 118.

[19] Non-horizontal merger guidelines, paragraphs 21 and 115.

internal documents from the merging or third parties and economic evidence. These different pieces of evidence are complementary and together inform the overall assessment of the merger.

26. Internal documents have proven to be a particularly important source of qualitative evidence and have contributed in recent cases both to the finding of competition concerns and to their dismissal. They are of particular value for the investigation because they provide information established independently of the merger control procedure and are likely to reflect the views of the company that produced them. In conglomerate mergers, internal documents can help to get a better understanding of the rationale of the transaction and the competitive constraints faced by each of the merging parties in their respective markets. They can also serve to explain the general working and evolution of competition in the relevant markets, for instance what the main parameters of competition are or what new trends are expected over the next years.

27. Economic evidence in the assessment of conglomerate mergers is often used by the Commission to assess the incentives of the merged entity to engage in a foreclosure strategy and the likely impact on the relevant market. For example, in ASL/ Arianespace, the Commission assessed the impact of bundling, among others, on the basis of economic models.[20] Similarly, in Qualcomm/ NXP, the Commission has reflected economic models in its assessment of several potential conglomerate concerns, among others a potential refusal to provide interoperability, mixed bundling, pure bundling or foreclosure of essential intellectual property rights.[21]

2.4. Remedies

28. The Commission's approach to remedies is set out in the "Remedies notice".[22] In general, the Commission has a clear preference for structural remedies, that is, remedies that change the structure of the market, normally through the divestiture of a business. There is a clear logic to this: a merger results in a lasting structural change in the market, so the remedy also should have a lasting effect. A positive side effect is that there is typically no need for long-term monitoring in case of structural remedies.

29. This preference for structural remedies is reflected in the Commission's statistics. Over 70% of the cases that were cleared by the Commission with remedies over the period 2011-2019 involved a divestiture. The Remedies notice does not automatically rule out that other types of commitments may also be capable of preventing the significant impediment of effective competition. Which type of remedy is suitable to eliminate the competition concerns identified has to be examined on a case-by-case basis.

30. This preference for structural solutions does, in principle, apply not only to horizontal but also to conglomerate mergers. As stated in the Remedies notice, divestiture commitments may "be the best means of resolving problems resulting from vertical or conglomerate concerns".[23] However, other remedies, such as granting access to key infrastructure or inputs on non-discriminatory terms, ensuring interoperability between products, may be suitable and have been accepted to resolve competition concerns if those remedies are equivalent to divestitures in their effects. The Remedies notice sets out that

[20] Decision M.7724 ASL/ Arianespace, dated 20 July 2016, recitals 335, 350 et seq.

[21] Decision M.8306 Qualcomm/ NXP Semiconductors, dated 18 January 2018, recitals 635 et seq., 683, 745 et seq.

[22] Commission Notice on remedies acceptable under Council Regulation (EC) No 139/2004 and under Commission Regulation (EC) No 802/2004, OJ C 267, 22.10.2008

[23] Remedies notice, paragraph 17.

other types of non-divestiture remedies may be examined "only exceptionally in specific circumstances, such as in respect of competition concerns arising in conglomerate structures".[24] As will be shown in the discussion of Commission cases, non-divestiture remedies have indeed been accepted more frequently to address conglomerate concerns as compared the overall statistics mentioned before In this context, it is very important that individual remedies are always tailor-made to and fully address the specific theory of harm raised by the merger at hand.

31. By way of example, the Commission has accepted interoperability remedies (i.e. requiring the merging parties to ensure their systems remain interoperable with the products of competitors) to address conglomerate competition concerns, notably in Microsoft/LinkedIn and in Broadcom/Brocade.[25] In any event, behavioural remedies can only exceptionally be accepted if their workability is fully ensured by effective implementation and monitoring.

3. Recent case experience in conglomerate mergers

3.1. Intervention cases

32. Since 2015, the Commission intervened in six cases that raised conglomerate concerns (alone or in combination with other theories of harm).[26] In four of those six cases, the conglomerate concerns were mainly interoperability concerns.[27]

33. The following section includes a summary of four of those intervention cases: Microsoft/LinkedIn, Broadcom/Brocade, Qualcomm/NXP Semiconductors and Telia/Bonnier Broadcasting.

3.1.1. Microsoft/LinkedIn (2016)

34. In the case Microsoft/LinkedIn, two companies mainly active in complementary business areas, the Commission examined whether several conglomerate relationships could lead to foreclosure of the merging parties' competitors.

35. The Commission assessed conglomerate effects in five distinct technology markets (namely customer relationship management software solutions, online recruitment services, productivity software, enterprise communications services, and professional social networking services) and found that the evidence available did not point to anti-competitive foreclosure except in relation to the market for professional social networking

[24] Remedies notice, paragraph 69

[25] Remedies accepted in these two cases are described in more details in Section 3 of this contribution.

[26] Intervention cases comprise Phase I and Phase II cases with remedies, abandonments in Phase II and prohibitions. Commission Decision of 20 April 2016 in case M.7873 – Worldline/Equens/Paysquare; Commission Decision of 25 February 2016 in case M.7822 - Dentsply/Sirona; Commission Decision of 6 December 2016 in case M.8124 - Microsoft/LinkedIn; Commission Decision of 12 May 2017 in case M.8314 - Broadcom/Brocade; Commission Decision of 18 January 2018 in case M.8306 - Qualcomm/NXP Semiconductors; Commission Decision of 12 November 2019 in case M.9064 – Telia/Bonnier Broadcasting.

[27] Commission Decision of 25 February 2016 in case M.7822 - Dentsply/Sirona; Commission Decision of 6 December 2016 in case M.8124 - Microsoft/LinkedIn; Commission Decision of 12 May 2017 in case M.8314 - Broadcom/Brocade; Commission Decision of 18 January 2018 in case M.8306 - Qualcomm/NXP Semiconductors.

services where serious doubts of conglomerate effects could not be excluded in the preliminary investigation (Phase I).

36. The Commission was concerned that the merger with LinkedIn would allow Microsoft to leverage its strong market positions from the markets for PC operating systems ("**OSs**") and PC productivity software (tying markets) to the market for professional social networking services (tied market), where LinkedIn is present – thereby foreclosing LinkedIn's competitors and harming competition.

37. The Commission identified two sets of exclusionary practices that Microsoft could engage in post-merger, involving respectively its Windows OS and Office productivity software (including Outlook, Word, PowerPoint, etc.).

38. First, as part of its cooperation agreements with OEMs for the distribution of Windows OS, Microsoft could require OEMs to pre-install a LinkedIn application on the Windows OS PCs that OEMs distribute to users.

39. Second, Microsoft could pursue a combination of tying measures and limits on interoperability. First, Microsoft could integrate certain LinkedIn features into Office applications. Possible forms of integration include, for instance, allowing Outlook users to see information about their LinkedIn contacts within Outlook, or making suggestions for new LinkedIn contacts on the basis of the contacts in a user's Outlook address book. At the same time, Microsoft could prevent competing professional social networks from integrating their features into Office. In particular, Microsoft could deny competing professional social networks access to some of its application programming interfaces (APIs), which currently enable third parties to build add-ins for Office. Microsoft could also deny competing professional social networks access to Microsoft Graph, a unified set of APIs that enables applications, subject to user consent, to access data (such as contact and calendar information) from Microsoft's cloud services to provide users with certain functionality.

40. The Commission found that the merged entity would have the likely ability and incentive to foreclose competing providers of professional social networking services.

41. As for effects, the Commission found that these measures could have significantly enhanced LinkedIn's visibility whilst competing professional social networks could potentially have been denied such access. As a result, LinkedIn would have been able to expand its user base and activity in a way that it would not have been able to do absent the merger. In view of significant network effects, the increase in LinkedIn's user base would have made it harder for new players to start providing professional social network services in the EEA. Furthermore, it could have gradually and irreversibly tipped the market towards LinkedIn in Member States where a competitor of LinkedIn operated (such as Austria, Germany or Poland). To the extent that data protection was a relevant parameter of competition for users of professional social networking services in the EEA, the harm caused by the merger could have materialised in a reduction not only of choice but also in the level of privacy protection afforded to users.

42. The Commission therefore concluded that the transaction raised serious doubts as to its compatibility with the internal market.

43. To remove the conglomerate concerns, Microsoft offered a series of commitments applicable for a period of five years, namely: (i) ensuring that PC manufacturers and distributors would be free not to install LinkedIn on Windows and allowing users to remove LinkedIn from Windows should PC manufacturers and distributors decide to preinstall it; (ii) allowing competing professional social network service providers to maintain current levels of interoperability with Microsoft's Office suite of products through the so-called

Office add-in program and Office application programming interfaces; and (iii) granting competing professional social network service providers access to "Microsoft Graph", a gateway for software developers and used to build applications and services that can, subject to user consent, access data stored in the Microsoft cloud.

44. The Commission concluded that the commitments addressed the competition concerns identified and cleared the transaction subject to full compliance with the commitments.

3.1.2. Broadcom/Brocade (2017)

45. In the case Broadcom/Brocade, concerning the supply of different networking products for communications and datacentre infrastructures and applications, the Commission was concerned that the merged entity would foreclose the only competitor in one of the product markets concerned.

46. The merger mainly concerns storage area network ("**SAN**") solutions, and specifically those based on the Fibre Channel ("**FC**") interconnect protocol ("**FC SANs**"). FC SANs enable highly secure and reliable data transfer between servers and storage equipment over fibre optic cables in data centres. End customers of FC SANs are typically financial institutions, telecom/media companies and government customers. The conglomerate concerns arose from the relationship between Broadcom's FC SAN Host Bus Adaptor ("**HBA**") and Brocade's FC SAN switches. The Commission examined several foreclosure conducts in which the merger entity could engage post-merger.

47. First, the Commission found that Broadcom could ***reduce the degree of interoperability*** between its own FC SAN switches and the FC HBAs of its only competitor, Cavium (so-called "technical tying").

48. The merged entity would have the ***ability*** to degrade interoperability. Among others, the Commission noted that Brocade enjoyed a significant degree of market power in FC SAN switches, demonstrated by its constant very high market share and its first mover advantage. Moreover, there were no obstacles to the technical feasibility to degradation strategies. Also, OEMs, essentially acting as resellers of the FC HBAs to fulfil end customers' demand, would not necessarily be able or willing to detect and counter interoperability degradation practices to a sufficient degree as to defeat the merged entity's strategy. Finally, barriers to entry were found to be very high and competitors did not have any timely and effective counterstrategy to offset interoperability degradation.

49. The merged entity would have the ***incentive*** to degrade interoperability. The Commission considered that the strategy would be particularly attractive for the merged entity, based on the significant gross margins in FC HBAs, which were higher than the ones in FC SAN switches and on the existence of a significant (and easily accessible) portion of addressable market in FC HBAs. Moreover, there were no drawbacks to this strategy, notably because even frustrated FC SAN switches end-customer would not change suppliers, so that there was no risk for the merged entity to lose FC SAN switches sales.

50. Finally, the Commission found that the degradation of interoperability would result in increased prices and lowered innovation. Cavium was the only FC HBA competitor. By diverting sales from Cavium to the merged entity, Cavium would incur a significant loss of revenues and would not be able to invest in the development of future generations of FC HBAs.

51. Second, the Commission found that the merged entity would have the ability and incentive to ***misuse the confidential information*** that it obtained from competing FC HBA suppliers during the qualification process to favour its own position on the FC HBA market.

In particular, post-transaction, the business unit responsible for FC SAN switches of the Merged Entity could make this information accessible to the business unit responsible for FC HBAs, which could potentially misuse it to favour the Merged Entity's own FC HBAs to the detriment of competing FC HBA suppliers. The Commission considered that it would not be possible for competitors to effectively monitor and detect a potential breach of confidentiality and that the sanctions foreseen in contractual relationship did not provide a satisfactory level of deterrence to prevent a potential leakage of confidential information. While this concern related to a possible distinct behaviour by the merged entity that has in itself the potential to harm competing FC HBA suppliers, if implemented in combination with the interoperability degradation strategy examined, it could aggravate the possible detrimental effects of such strategy on competition in the FC HBA market.

52. Finally, with regard to a possible ***mixed bundling strategy*** (i.e. offering a discount to the customers who purchased both FC SAN switches and FC HBAs from the merged entity, while possibly also increasing the price of the standalone products), the Commission found that the merged entity would not have the ability and incentive to engage in such foreclosure strategy. This finding was mainly based on the lack of synchronicity of sales between FC HBAs and FC SAN switches which follow different life cycles and on the possibility for OEMs to defeat a bundling strategy by unbundling the two products.

53. The Commission's competitive concerns were solved by a remedy package, comprising notably the protection of competitors' confidential information (no disclosure to unauthorized staff and firewall protections) and an interoperability remedy, which should remain effective for a period of 10 years. The merged entity committed (i) to ensure the same level of interoperability between competing FC HBAs and its FC SAN switches as it exists at any point in time between Brocade's FC SAN switches and Broadcom's FC HBAs. And (ii) to provide in a timely fashion the same level of qualification support to competing FC HBA providers that Brocade was providing to Broadcom for Broadcom's FC HBAs. Moreover, the merged entity committed to a non-discrimination clause consisting of an obligation to refrain from (i) designing or engineering its FC SAN switches in such manner and (ii) implementing any technical changes to its FC SAN switches, and the way in which those switches interoperate with its FC HBAs, which would discriminate against competing FC HBA suppliers for the purpose of favouring its own FC HBAs, or would negatively affect the FC HBAs of competing suppliers.

3.1.3. Qualcomm/NXP Semiconductors (2018)

54. The case concerned the supply of semiconductors, in particular for mobile devices, by Qualcomm and NXP, namely baseband chipsets, Near Field Communication (NFC) and Secure Element ("SE") technology, and mobile transit service technology (namely NXP's technology platform MIFARE). The case also concerned the intellectual property held by the parties, in particular the standard and non-standard essential patents to NFC technology.

55. The Commission found that the transaction gave rise to a significant impediment to effective competition in relation to Qualcomm's baseband chipsets and NXP's NFC and SE technology and MIFARE, all complementary products bought by the same pool of customers, namely mobile device manufacturers. The Commission found that the transaction also gave rise to IP related competition concerns.

56. In its in-depth investigation, the Commission found that the merged entity held market power: it would be dominant in the market for LTE baseband chipsets, it would hold a certain degree of market power in relation to NFC chips, SE chips and combined NFC/SE solutions and it would be dominant in the market for transit services technologies through NXP's MIFARE. Furthermore, each of NXP and Qualcomm held market power with regard to their NFC standard-essential patents.

57. The Commission investigated possible tying or bundling strategies of Qualcomm's baseband chipsets with NXP's NFC/SE technology, and found that the merged entity would have the ability but lack the incentive to engage in tying or pure bundling. With regard to mixed bundling, the Commission found that the merged entity would have the ability and incentive but such a strategy was unlikely to lead to foreclosure effects to the extent such bundling comprised Qualcomm's LTE baseband chipsets and NXP's NFC and SE products alone. However, if the merged entity as part of its mixed bundling strategy would add MIFARE to the bundle and raise royalties for MIFARE to competing NFC and SE suppliers or cease licensing of MIFARE altogether, this would change the competitive conditions in the market and give rise to anti-competitive foreclosure effects. The merged entity was found to have the ability and incentive to pursue such conduct which would likely directly raise rivals' costs and the merged entity's competitors would not be able to react to the merged entity by offering a bundle comprising MIFARE-enabled SE or would only be able to offer it at unattractive prices compared to those of the merged entity.

58. The Commission also identified interoperability concerns with the merged entity having the ability and incentive to degrade the interoperability of Qualcomm's LTE baseband chipsets and NXP's NFC and SE chips with rival suppliers' standalone components. The effect of such strategy would be that customers would prefer the merged entity's products over those of rival suppliers. This strategy would compound the effects of the merged entity's strategy of raising the licensing royalties or ceasing the licensing of MIFARE, carried out with mixed bundling.

59. Finally, the Commission identified exploitative IP licensing concerns as a result of the merged entity combining both companies' significant intellectual property portfolios related to NFC technology. This would have disproportionally improved the merged entity's bargaining power, allowing it to charge significantly higher royalties for its NFC patents than absent the transaction.

60. To address the competition concerns related to MIFARE, Qualcomm committed to offer licenses to NXP's MIFARE technology and trademarks, for an eight-year period, on terms at least as advantageous as those available at the time of the decision. This would enable competitors of the merged entity to have access to MIFARE technology and trademarks and compete effectively with the merged entity. To address the interoperability concerns, Qualcomm committed to ensure that, for an eight-year period, it would provide the same level of interoperability between its own baseband chipset and the NFC and SE products it acquires from NXP with the corresponding products of other companies. Finally, to address the IP licensing concerns, Qualcomm offered to not acquire NXP's standard essential NFC patents and certain of NXP's non-standard essential NFC patents that would instead be transferred to a third party that would grant worldwide royalty-free licenses to the patents for three years. For the non-standard essential patents acquired by Qualcomm, the merged entity would not enforce its rights against other companies and grant worldwide royalty-free licenses to the patents.

61. The Commission considered that the commitments were capable of entirely removing the competition concerns raised by the transaction.

3.1.4. Telia/Bonnier Broadcasting

62. The case concerned the acquisition of Bonnier Broadcasting by Telia. Telia is a telecommunication operator which distributes fixed telephony, mobile telephony, broadband and TV services to retail customers. Bonnier Broadcasting is primarily a TV broadcaster, but with activities also in the retail supply of audio-visual services. Both companies active in the Nordic countries.

63. The Commission identified both vertical and conglomerate competition concerns in Finland and Sweden. With regard to the conglomerate concerns, the transaction gave rise to a conglomerate relationship in view of Bonnier Broadcasting's activities in the retail supply of audio-visual services, namely through its over the top (OTT) video-on-demand services in Sweden and Finland, and Telia's activities in the retail supply of fixed internet access, mobile telecommunications services and multiple play services (together "providers of telecommunications services") in Finland and Sweden, which are used to distribute OTT-based audio-visual services to end customers.

64. The Commission assessed the risk of the following types of foreclosure strategies: (i) foreclosure of rival providers of telecommunications services by tying or bundling Bonnier Broadcasting's OTT audio-visual service with Telia's telecommunications services, and (ii) foreclosure of rival retail suppliers of OTT audio-visual services by tying or bundling Bonnier Broadcasting's OTT audio-visual service with Telia's telecommunications services or engaging in exclusionary practices.

65. The Commission found that Bonnier Broadcasting held a significant degree of market power in relation to OTT video-on-demand services (both advertisement video-on-demand and subscription video-on-demand services) and that there was a common pool of customers for video-on-demand services and telecommunication services.

66. With regard to the foreclosure of rival providers of telecommunication services, the Commission found that the merged entity would have both the ability and the incentive to make Bonnier Broadcasting's OTT services exclusive to Telia mobile and broadband customers. As for impact, the Commission found that such a strategy would likely divert a significant number of mobile and fixed internet telecom customers to Telia. In particular, the Commission concluded that the merged entity would likely limit access by rival providers of telecommunications services to the merged entity's OTT applications, by making them exclusive to its fixed internet access and mobile customers, make them available with a significant price discount to its fixed internet access and mobile customers, or provide exclusive content to such customers. The refusal to make these OTT services available to rival suppliers would have significant detrimental effect on the rivals' ability to compete. The Commission also found that competing providers would also not be able to deploy counter strategies in a timely fashion in order to bypass the merged entity and neutralise the effects of any attempted foreclosure. The Commission further considered that a significant proportion of telecommunications customers, in particular fixed internet access customers, would be impacted by such a foreclosure strategy and rival distributors could stand to lose a large proportion of their multiple play customers, with customers likely to switch from rival telecommunications providers to the merged entity in order to benefit from a multiple play package that included Bonnier Broadcasting's video-on-demand services

67. With regard to foreclosure of rival retail providers of OTT audio-visual services, the Commission found that the merged entity lacked the ability and incentive to pursue such strategies. The Commission also found that such strategies were unlikely to have a significant impact on competition since cooperation with fixed and mobile internet providers was not necessary for OTT service providers to effectively compete in the retail audio-visual market. In addition, the Open Internet Regulation would protect the merged entity's competitors from discriminatory treatment.

68. To address the Commission's conglomerate competition concerns in Finland and Sweden due to the foreclosure of rival providers of telecommunication services, Telia offered two commitments, namely to license standalone OTT rights to one other market player in each of Sweden and Finland and not to limit access to the merged entity's

standalone streaming services and applications over the internet for end users. The Commission found that taken together, these commitments adequately addressed the conglomerate concerns identified.

69. First, the commitment to license standalone OTT rights to a market player in each of Sweden and Finland ensured that the merged entity would face competition post-transaction also in the OTT space. Providers of telecommunications services could partner with the standalone OTT licensee and offer bundled services in competition with the merged entity. Second, the merged entity's standalone video-on-demand services would remain available to all end users, at the same quality conditions, and irrespective of the provider of the mobile or fixed broadband network of the end user.

70. The Commission considered that the commitments were capable of entirely removing the conglomerate competition concerns raised by the transaction.

3.2. Non-intervention cases

71. In addition to the above intervention cases, the Commission has recently investigated in-depth conglomerate theories of harm also in other recent cases that did not result in the finding of competition concerns. Two of those cases will be summarized here, Essilor/Luxottica and Apple/Shazam.

3.2.1. Essilor/Luxottica (2018)

72. The case concerned the merger between Essilor, the largest supplier of ophthalmic lenses, and Luxottica, the largest supplier of eyewear in Europe and worldwide.

73. In its in-depth investigation, the Commission focused on whether the complementary optical products could be used by the merged entity to foreclose competition through tying or bundling practices.

74. The Commission's assessment of conglomerate non-coordinated effects focussed on:

- the potential leveraging of Luxottica's position in frames and sunglasses, based on its powerful brands, to foreclose competitors in lenses;
- the potential leveraging of Essilor's position in lenses to foreclose competitors in frames and sunglasses;
- the leveraging of Essilor's position in ophthalmic machines to foreclose competitors in eyewear; and
- the leveraging of Luxottica's position in eyewear to foreclose competitors in contact lenses or ophthalmic machines.

75. In its in-depth investigation, the Commission assessed whether the merged entity would hold market power in the market and thereafter conducted an ability-incentive-effects analysis of the conglomerate theories of harm.

76. The Commission focussed in particular on whether the merged entity could have used Luxottica's powerful eyewear brands, including Ray-Ban and Oakley, to make opticians buy Essilor lenses and thereby degrade competing suppliers' access to the markets. The Commission, however, found that Luxottica's strongest brands in frames and sunglasses are generally not essential products for opticians; the merged entity would not be able to exploit any market power in sunglasses to shut out competing suppliers of lenses from the market as sunglasses are mostly sold without visual correction and account for a

small portion of opticians' revenues. In addition, the merged entity would have limited incentives to engage in practices such as bundling and tying because of the risk of losing customers and even if it did have the ability and incentive, this would be unlikely to marginalise competing suppliers of lenses and harm effective competition.

77. For these reasons, the Commission concluded that the transaction would not significantly impede effective competition as a result of conglomerate non-coordinated effects.

3.2.2. Apple/Shazam (2019)

78. The case concerned the acquisition of Shazam by Apple, with the two companies mainly active in complementary business areas giving rise to conglomerate relationships.

79. In its in-depth investigation on the conglomerate relationships, the Commission assessed (i) the possible foreclosure of competing providers of digital music streaming apps; and (ii) the possible foreclosure of competing providers of automatic content recognition (“ACR”) software solutions, including music recognition apps.

80. In relation to the foreclosure of competing providers of digital music streaming apps, the Commission found that music recognition apps and digital music streaming apps could be considered complementary or at least closely related products. In its assessment, the Commission considered whether the merged entity could increase Apple Music's market position in the markets for digital music streaming apps by leveraging Shazam's position in the market for music recognition apps by engaging in restricting and exclusionary practices, namely (i) the denial or degradation of access to Shazam's referral mechanism as customer acquisition channel or as functionality, which boosts user engagement or enriches user experience on digital music streaming apps; (ii) the denial or degradation of access to Shazam as advertising tool; (iii) the integration of Shazam's music recognition functionalities within the Apple Music apps; or (iv) the restriction of access to Shazam user data as an important input to improve existing functionalities, or offer additional functionalities, on digital music streaming apps.

81. The Commission considered first whether the merged entity would hold significant market power on the markets for music recognition apps and thereafter applied the ability-incentive-effect framework. Based on this assessment, the Commission concluded that, even if the merged entity had the technical ability and the incentives to engage in the mentioned practices, it was unlikely that such conducts would have a negative impact on effective competition because: (i) Shazam's high market share had not translated into a significant degree of market power; (ii) Shazam was not a significant customer acquisition channel; (iii) Shazam's referral mechanism did not boost user engagement or enrich user experience on digital music streaming apps; (iv) Shazam was not a significant advertising tool to target music enthusiasts and alternative and more effective customer acquisition tools would remain available to competitors; (v) Shazam's ACR technology was not a significant input and alternative providers would remain available in the market; and (vi) Shazam's data were not unique and Apple's competitors would have had the opportunity to access similar databases in terms of variety, velocity, volume and value.

82. In relation to the foreclosure of competing providers of automatic content recognition (“ACR”) software solutions, including music recognition apps, the Commission found that ACR software solutions and software solutions platforms for PCs, smart TVs, smart mobile devices and smart wearables could be considered complementary or at least closely related products. In its assessment, the Commission considered whether the merged entity could increase Shazam's market position in the market for ACR software solutions, including music recognition apps, by leveraging Apple's position as software

solutions platform. Applying the ability-incentive-effect framework, the Commission considered that, even if the merged entity had the technical ability and the incentives to engage in such leveraging practices, it is unlikely that such conduct would have a negative impact on competition.

83. The Commission concluded that the transaction would not significantly impede effective competition.

4. Outlook: trends and challenges

84. As shown in the previous sections, conglomerate concerns have played a significant role in only a limited number of cases compared to the overall merger enforcement practice of the Commission. However, in several of these cases, the Commission required remedies addressing conglomerate concerns in order to prevent a significant impediment to effective competition. As the Commission is charged with preventing a significant impediment to effective competition caused by transactions falling within its jurisdiction, it will continue examining carefully all mergers for potential conglomerate concerns. Looking at the industries in which the cases discussed in this submission took place, there is no clear trend that cases in specific industries are more prone to give rise to conglomerate competition concerns.

85. Early 2019, three special advisors to the Commission presented their report "Competition policy for the digital era"[28], in which they assessed, among others, whether the existing legal framework in the European Union is fit to address the challenges of mergers in digital markets. While, in general, they found that the "significant impediment to effective competition"-test constitutes a sound basis for assessing mergers in the digital economy, they suggested to revisit the substantive theories of harm in specific cases, namely for transactions in which a dominant platform or ecosystem acquires a target with a low turnover but a large or fast-growing user base and high future market potential.

86. In these scenarios, the authors of the 2019 report suggest not to limit potential theories of harm to traditional conglomerate theories of harm based on foreclosure concerns. Instead, the authors propose to "inject some 'horizontal' elements into the 'conglomerate' theories of harm". This should be done by looking at barriers to entry linked to network effects or the use of data, potential or actual competitive constraints exercised by the target within the relevant ecosystem, the increase of market power within such ecosystem and potential efficiencies. According to the authors, this would result in a heightened degree of control of acquisitions of small start-ups by dominant platforms or ecosystems.

87. The proposals of the Special Advisors underline that certain acquisitions might be particularly likely to give rise to conglomerate concerns. As already reflected in the existing ability-incentives-effect framework, an undertaking that has a very strong or even dominant position in a market is typically better situated to engage in foreclosure strategies that would also have a stronger effect on the markets. While there are many traditional markets with clear market leaders, certain digital companies have become very strong or even dominant in some digital markets.

88. Transactions involving such companies acquiring a successful undertaking in a neighbouring market can be expected to continue to play an important role in the further

[28] Report by Jacques Crémer, Yves-Alexandre de Montjoye and Heike Schweitzer, available under https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf.

development of conglomerate theories of harm – complemented by considerations of importance of data sets and access to data. For conglomerate concerns based on the accumulation of data sets, the decision in Apple/Shazam shows the Commissions' approach to assessing the combination of data sets. Benchmarking each set of data against the databases available to competitors along the "4 Vs" variety, velocity, volume and value gave the Commission a useful indicator of the relevance of acquired data and the impact of potential foreclosure strategies.