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MERGER CONTROL IN DYNAMIC MARKETS – Contribution from the European Union

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1. Introduction

1. The EU Merger Regulation (“EUMR”) welcomes structural reorganisations of markets "to the extent that they are in line with the requirements of dynamic competition and capable of increasing the competitiveness of European industry, improving the conditions of growth and raising the standard of living in the [Union]".¹

2. In this context, the European Commission (the "Commission"), in its quality of EU competition authority, endeavours to take in due consideration dynamic effects in its merger control analysis. The complexity of this exercise is arguably greater when the analysed merger concerns “dynamic markets”, that is markets subject to continuous processes of innovation and/or rapid evolution², and it has increased in the last decade among others due to the transformational effects brought about by the digitisation of several sectors.

3. This submission illustrates the Commission's approach to the analysis of dynamic effects, in particular in dynamic markets.

2. Competitive Assessment of Mergers in Dynamic Markets

2.1. Legal Framework

4. The requirement for an analysis of the dynamic effects of a merger is established in the legislative act which constitutes the legal basis for merger enforcement in the EU, the EUMR. Article 2 of such Regulation clearly states that, in the appraisal of mergers, the Commission shall take into account:

- "the need to maintain and develop effective competition within the common market in view of, among other things, the structure of all the markets concerned and the actual or potential competition from undertakings located either within or outwith the [Union];"


² The observation of whether a market is dynamic, and how dynamic it is, is initially undertaken by looking at basic facts, such as the amount and role of R&D in an industry; the length of innovation cycles; history of entry and exit, description of the sector in the parties’ internal documents, evolution of market shares, etc. In this respect, the Commission benefits from the information submitted by the notifying parties in the notification form or Form CO (Annex I to Commission Regulation (EC) No 802/2004 of 21 April 2004 implementing Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings, OJ L 133, 30.4.2004, p.1).
• the market position of the undertakings concerned and their economic and financial power, the alternatives available to suppliers and users, their access to supplies or markets, any legal or other barriers to entry, supply and demand trends for the relevant goods and services, the interests of the intermediate and ultimate consumers, and the development of technical and economic progress provided that it is to consumers' advantage and does not form an obstacle to competition.”

5. In order to clarify and explain how such assessment is conducted, the Commission has published in particular two guidelines, the Horizontal Merger Guidelines3 and Non-Horizontal Merger Guidelines4.

6. Both such documents make explicit, since their first paragraphs, the main challenge for the assessment of dynamic effects in rapidly evolving markets. Indeed, merger assessment is by its very nature forward looking and requires to compare the competitive conditions that would result from the merger with the conditions that would have prevailed without the merger, the so called "counterfactual". In most cases, where the markets at stake are relatively stable, the observed status quo constitute the relevant comparison for evaluating the effects of a merger.5

7. However, in dynamic markets, predicting how the market will evolve with or without the merger is, by its nature, subject to greater uncertainty. In such cases, according to its guidelines, the Commission may take into account future changes to the market that can reasonably be predicted.6

2.2. Competitive Assessment

8. To this effect, the Commission may decide, where appropriate, not to take a firm view as to the relevant scope of the market, due to its evolving nature, and to leave the "market definition open", so to assess the effects of the merger in all potential future scenarios. For example, in Facebook/WhatsApp, because of the constantly evolving nature of the markets at stake, the Commission chose to leave open the question of a possible distinction between consumer communications apps and social networks. Therefore, the Commission assessed the effects of the transaction also assuming a wider market where WhatsApp would be considered a social networking platform and thus a competitor of Facebook.7

9. In the same vein, when innovation is an important parameter of competition and the theory of harm pursued by the Commission in a case concerns a reduction in innovation, a relevant product market may not yet exist, as innovation will create new markets, or may potentially concern different product markets. In such context, the Commission has not abdicated its merger control powers but rather focused its analysis on "innovation spaces”,


5 Horizontal Merger Guidelines, paragraph 9; Non-Horizontal Merger Guidelines, paragraph 20.

6 Horizontal Merger Guidelines, paragraph 9; Non-Horizontal Merger Guidelines, paragraph 20.

that is groups of products for which innovation competition take place (e.g. Dow/DuPont⁸ and Bayer/Monsanto⁹). This was based on the observation that in the analysed sector, R&D players did not innovate for all the product markets composing a sector at the same time. They also did not innovate randomly without targeting specific spaces within that sector. To the contrary, when setting up their innovation capabilities and conducting their research, R&D players have specific research targets and this identified the relevant scope of the Commission’s competitive assessment.

10. Furthermore, the Commission's guidelines clarify that the Commission may, in particular, take account of the likely entry or exit of firms if the merger did not take place when considering what constitutes the relevant comparison.¹⁰

11. As regard entry, according to the Commission's Horizontal Merger Guidelines, the timeframe of reference for its assessment is normally 2 years. However, what constitutes an appropriate time period depends on the characteristics and dynamics of the market at stake, as well as on the specific capabilities of potential entrants.¹¹ Thus, the Commission's analytical framework is sufficiently flexible to cater for the specificities of the relevant markets in each given case and, in practice, the Commission has considered as appropriate timeframe also periods of 5 or 10 years, if appropriate. In fact, rather than a matter of timeframe, it is a matter of evidence supporting the likelihood of sufficient entry (or expansion). In this vein, for example, in Siemens/Alstom, the Commission did not disregard potential entry by Asian competitors of Siemens and Alstom in the EEA markets for high and very high-speed rolling stock because it was considered to occur outside the specific timeframe set by the EU merger control legal framework. Instead, there was no concrete evidence supporting the likelihood of such entry, even in the 10 year time horizon put forward by the parties.¹²

12. The same considerations apply to likely exit or decline of firms in the counterfactual, including the exit or decline of one of the merging parties. The Commission has often investigated these possibilities, even beyond the instances where the parties brought forward a failing firm defence. In doing this analysis, what mattered was the evidence on the likely counterfactual, and not a pre-defined timeframe during which the investigated event was likely to materialise. For example, in T-Mobile NL/Tele2 NL, the Commission assessed whether absent the merger Tele2 would have continued to exert, in the Dutch market for retail mobile telecommunications services, the same competitive constraint it had done pre-merger. It found that such constraint was likely to deteriorate and this was one of the factors which led the Commission to unconditionally approve Tele2's acquisition by T-Mobile.¹³ Likewise, in the non-NIKI part of Lufthansa/Certain Air Berlin

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⁸ Commission decision of 27 March 2017 in Case M.7932 - Dow/ DuPont.
⁹ Commission decision of 21 March 2018 in Case M.8084 - Bayer/ Monsanto.
¹⁰ Horizontal Merger Guidelines, paragraph 9; Non-Horizontal Merger Guidelines, paragraph 20.
¹¹ Horizontal Merger Guidelines paragraph 74.
¹² Commission decision of 6 February 2019 in Case M.8677 – Siemens/Alstom, recital 492 and following.
¹³ Commission decision of 27 November 2018 in Case M.8792 – T-Mobile NL/Tele2NL.
Assets the declining viability of the respective targets made the transaction less problematic than would otherwise have been the case.\textsuperscript{14}

13. When sufficient and reliable evidence is available, the Commission has also considered relevant alternative transactions that might have happened absent the transaction. For example, in ArcelorMittal/Ilva\textsuperscript{15} and in the NIKI part of Lufthansa/Certain Air Berlin Assets, the Commission maintained the pre-merger situation as the relevant counterfactual and rejected the notifying parties’ claim that the targets would continue to decline absent the transaction because of the existence of alternative viable purchasers.

14. Despite the greater uncertainty as to the relevant counterfactual, the assessment of mergers in dynamic markets shares conceptual similarities with merger assessment in more static contexts. In particular, the theories of harm identified in the Commission’s guidelines are applicable to mergers in both static and dynamic markets, although the investigative focus may shift from actual to potential competition as it has been the case in several horizontal mergers recently analysed by the Commission.

15. Horizontal mergers typically lead to the internalisation of business stealing effects between the merging parties regardless of whether they occur in a dynamic market or in a static market. Absent the transaction, competition by each party on price, innovation, or other relevant parameters of competition, comes at the expense of business stolen from (i.e. lower profits of) the other party. After the merger, this business stealing (or sales cannibalisation) between the parties will be internalised by the merged entity which will generally lower the merged entity’s incentives to compete on these parameters.

16. The difference is that when the investigated theory of harm concerns reductions of innovation or innovation effort (such as R&D), the focus moves from the assessment of existing product overlaps to the assessment of pipeline overlaps (in sectors characterised by well-defined research and testing phases such as the pharmaceutical sector), or capability overlaps. This has indeed been at the heart of investigation in many cases ranging from agro-chemicals (e.g. Dow/DuPont and Bayer/Monsanto) and pharmaceuticals (e.g. Novartis/GlaxoSmithKline’s oncology business\textsuperscript{16} and J&J/Actelion\textsuperscript{17}) to financial markets (e.g. Deutsche Börse/NYSE Euronext\textsuperscript{18}) to industrial products (General Electric/Alstom (Thermal Power - Renewable Power & Grid Business)\textsuperscript{19}).

\textsuperscript{14} Commission decision of 21 December 2017 in case M.8633 - Lufthansa/Certain Air Berlin Assets.

\textsuperscript{15} Commission decision of 7 May 2018 in Case M.8444 - ArcelorMittal/Ilva.

\textsuperscript{16} Commission decision of 28 January 2015 in Case M.7275 - Novartis/ GlaxoSmithKline’s oncology business.

\textsuperscript{17} Commission decision of 9 June 2017 in Case M.8401 - J&J/ Actelion.

\textsuperscript{18} Commission decision 1 February 2012 in Case M.6166 - Deutsche Börse/ NYSE Euronext.

\textsuperscript{19} Commission decision of 8 September 2015 in Case M.7278 - General Electric /Alstom (Thermal Power - Renewable Power & Grid Business).
2.3. Evidence to be used in the Competitive Assessment

17. The challenge in performing this type of analysis lies with the evidence to be used. Indeed, hard data may be rare. While static tools, such as market shares or measures of substitutability between the parties’ current products may carry informative value for future overlaps in situations where both parties are established players in an industry,\(^{20}\) this needs to be thoroughly investigated on a case by case basis.\(^{21}\) When one of the parties is not yet present in the market, such measures are uninformative.

18. In this context, the evidence used by the Commission in its case practice varies depending on the industry at stake. For example, in Novartis/GlaxoSmithKline’s oncology business and J&J/Actelion (both phase I decisions where the Commission investigated innovation theories of harm in relation to drugs for treatment of skin and ovarian cancer, and several other cancer types, and insomnia, respectively), the Commission performed a structural analysis of the competitive landscape for the pipeline, where responses to the market investigation indicated that only an additional product to those of the parties was being developed for launch in the EEA. In J&J/Actelion the Commission also analysed in detail the corporate documents of an R&D joint venture (which would have been demerged into a separate company) to assess the post-merger ability of the merged entity to influence R&D activities.

19. In Dow/DuPont and Bayer/Monsanto, the Commission conducted an analysis of market concentration also considering the level of common shareholdings and assessed the merging parties’ and their competitors’ innovation capabilities based on a number of past and forward-looking indicators, such as the parties’ specialisation and assets, targets in terms of R&D efforts (input) and new products (output), track record of bringing new products to the market, and strength of their patent portfolios including high-quality patents.

20. In General Electric/Alstom (Thermal Power - Renewable Power & Grid Business), where the Commission found that the merger would eliminate an important independent innovator from the market for 50 Hertz heavy duty gas turbines, it measured undertakings’ innovation capabilities in terms of R&D costs and investments and headcount.

21. As regards non-horizontal mergers, likewise, the investigative question is the same in both static and dynamic context and relates to possible exclusionary effects of the merged entity’s conduct once it achieves vertical integration or expands its product portfolio. The difference is that often, in dynamic contexts, past purchasing patterns and behaviour of customers and competitors may not offer an informative benchmark. This is because of the potential innovation stemming from the cooperation between independent undertakings in

\(^{20}\) In a concentrated industry in which both merging parties are established players, the existence of product overlaps or pipeline overlaps also suggest the existence of overlaps in R&D capabilities, i.e. the capabilities to develop the next generation of pipelines.

\(^{21}\) See Horizontal Merger Guidelines, paragraph 15: “the Commission interprets market shares in the light of likely market conditions, for instance, if the market is highly dynamic in character and if the market structure is unstable due to innovation or growth”. Also, the Union Courts found that, in a dynamic context "large market shares may turn out to be ephemeral" and "are not necessarily indicative of market power and, therefore, of lasting damage to competition.", Judgment of 11 December 2013 in Case T-79/12 Cisco Systems and Messagenet v Commission, ECLI:EU:T:2013:635, paragraph 69.
a pre-transaction scenario, which may be halted by the merger of one of those undertaking with a competitor of the other.

22. In the present context of digitisation and application of machine learning and other data technologies in several industries, the Commission has more and more often assessed whether the combination of datasets under the ownership of one player may have a foreclosing effect to the detriment of competitors of the merging parties. The investigative hypothesis is whether, post-transaction, competitors would be denied access to data which would have allowed them to innovate and improve their products and services. The Commission has investigated this theory of harm, for example, in Microsoft/LinkedIn, in relation to the use of LinkedIn data for advanced functionalities based on machine learning in CRM software solutions, and in Apple/Shazam, in relation to the use of Shazam data to power music recognition functionalities in digital music streaming services. In both cases the data were not already used for the mentioned purpose and thus the Commission has the challenge to assess future potential market developments.

23. In all of these cases, internal documents constitute essential pieces of evidence. Indeed, they constitute a contemporary business record providing insights on the competitive dynamics, the parties’ activities and the transaction rationale. Internal documents are also a very informative tool for the investigation of counterfactuals. It is in this context that the DG Competition of the Commission has been working to refine its investigative methods and practices related to the use of internal documents.

24. Despite the important probative value of internal documents, the challenge of documenting anticompetitive effects in dynamic markets remains. This in particular the case as regards digital markets, where there are less structured innovation processes and more disruptive innovation. This consideration has prompted a reflection, which is still ongoing, as to whether new tools would not be needed for the assessment of specific types of digital mergers. In this respect, in April 2019, three Special Advisors appointed by the Commissioner for Competition Vestager have released a report on “Competition policy for the digital era”. While finding that the current test set out in the EUMR remains a sound basis for assessing mergers in the digital economy, the Special Advisors propose to revisit certain theories of harm, to assess acquisitions of small start-ups by dominant platforms and/or ecosystems, in particular where such acquisition can eliminate a potential competitive threat and further lock users within their ecosystem. In such cases, the Special Advisors argue that the notifying parties should bear the burden of showing that the adverse effects on competition are offset by merger-specific efficiencies.

25. Pending the outcome of such reflection, it is important to note that the competition issues arising from the acquisition of nascent competitors by established rivals before they become actual competitors is not limited to digital markets, but may well apply also to other

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22 Commission decision of 6 December 2016 in Case M.8124 – Microsoft/LinkedIn.
24 In Apple/Shazam, the Commission has sought to overcome this difficulty by elaborating a benchmark methodology to assess the importance of data as input in technology markets, by considering the velocity or speed at which a database is updated, the volume or size of the dataset, the variety of the type of data composing a dataset, and the value of the relevant data.
25 Available at https://ec.europa.eu/competition/publications/reports/kd0419345enn.pdf
sectors where innovation is an important parameter of competition. This is testified by the academic research on the so-called “killer acquisitions” in the pharmaceutical sector.

3. Efficiency Claims in Dynamic Markets

26. Mergers may improve the degree of competition in markets to the benefit of consumers if they lead to efficiencies that outweigh the anti-competitive effects (if any) of the transaction. The Commission hence examines both static and dynamic efficiency claims under the framework set out in its Horizontal Merger Guidelines. The Horizontal Merger Guidelines put the burden of proof for substantiating efficiency claims on the merging parties. For the Commission to balance in the overall assessment of a merger any anti-competitive effects against pro-competitive effects arising from efficiencies, the claimed efficiencies must (1) benefit consumers, (2) be merger specific and (3) be verifiable.

27. The assessment of dynamic efficiency claims is a case specific exercise that does not lend itself to simple generalisation. Because of the forward looking nature, dynamic efficiencies are also inherently more uncertain than static efficiencies which complicates the assessment.

28. One type of claims that sometimes arises is that the merger will lead to fixed costs savings which will allow the merged entity to increase investments to develop new products or services or to increase the quality of existing products or services to the benefit of consumers (e.g. Western Digital/Hitachi26; Hutchison 3G/Telefonica Ireland27). The Commission typically rejects generic claims that increases in cash flow from fixed cost savings would trigger such investments. While it cannot be excluded that claims of this nature have merit in some cases, the Commission would require a coherent body of evidence showing the claimed pro-competitive effects should be expected in the specific case.

29. Another type of claim that is sometimes advanced is that a merger leads to R&D savings. R&D synergies are, for example, frequently presented by pharmaceutical companies to their investors as one of the benefits from a proposed transaction.

30. However, R&D savings do not necessarily qualify as efficiencies that the Commission can take into account. In particular, R&D savings from eliminating “duplicative” R&D efforts may actually indicate harm rather than represent an efficiency as an elimination of competing lines of R&D which, in the absence of the merger, might result in competing future products, deprives consumers (in expected terms) of the benefit of lower price and greater choice in the future. (e.g. Dow/DuPont28, Bayer/Monsanto29).

31. A more convincing claim would show that the merger increases the efficiency of R&D efforts through a combination of complementary assets and leads to economies of scale or scope or a reduction of incremental costs of R&D. In that case, the merged entity might become able to produce more R&D output (i.e. innovation) with a given R&D input (such as spend).

26 Commission decision of 23 November 2011 in Case M.6203 – Western Digital/Hitachi.
27 Commission decision of 28 May 2014 in Case M.6992 – Hutchison 3G/Telefonica Ireland.
28 Commission decision of 27 March 2017 in Case M.7932 - Dow/ DuPont, Figure 160.
29 Commission decision of 21 March 2018 in Case M.8084 - Bayer/ Monsanto, recital 1271.
32. A merger may also lead to the internalisation of voluntary or involuntary spillovers which may increase incentives for the merged entity to increase its R&D efforts. However, such benefits might also be achievable through Research Joint Ventures or licensing agreements so the Commission needs to test the merger specificity of such claims carefully.

33. In the Commission’s experience, it is often difficult to quantify dynamic efficiencies, or to express them in units that would allow the Commission to quantitatively balance the claim against harm. Balancing harm against dynamic efficiencies is therefore more prone to be a qualitative exercise.

34. Finally, as noted above, the harm from mergers in dynamic markets often comes from a reduction in innovation as well as a reduction in product market competition. To outweigh this harm, dynamic efficiencies must be shown to offset both of these components of harm.

4. Remedies in Dynamic Markets

4.1. General rules applicable to remedies

35. If the Commission takes the view that a transaction would significantly impede competition, it is for the parties to the concentration to put forward commitments that would, once implemented, eliminate the competition concerns identified.30 The commitments have to eliminate the competition concerns entirely and have to be comprehensive and effective from all points of view.31 In this assessment, the Commission will, among others, also take into account the structure and particular characteristics of the market in which the competition concerns arise.32

36. While remedies must be closely tailored to the specific theory of harm at hand, in general, the Commission considers a structural commitment, such as the sale of a business unit, as preferable over non-structural remedies.33 As to the business to be divested, the Commission has a clear preference for an existing stand-alone business.34

37. In the Commission’s view, these general rules for remedies acceptable under the EUMR also and in particular apply to remedies in dynamic markets. As expressly stated in the Remedies Notice, the characteristics of the market in which competition concerns arise are important in assessing whether a potential remedy will effectively address such competition concerns. The more dynamic a market is, the less obvious it will be that, in particular in case of a horizontal competition concern, non-structural remedies will be able to fully address the concerns identified. As Commissioner Vestager stated in a speech about mergers in the digital age:

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31 Remedies Notice, paragraph 9.
32 Remedies Notice, paragraph 12.
33 Remedies Notice, paragraphs 15 to 17.
34 Remedies Notice, paragraph 33.
“When it comes to horizontal mergers between competitors, we have good reason to prefer that those companies tackle the issues we’ve found by selling off part of their business. After all, the basic reason why those mergers are worrying is that they remove an important competitor from the market. But by divesting themselves of part of their business – and creating a new competitor or strengthening an existing one – they can tackle that problem at its source. And they can deal with our concerns once and for all, without us having to keep watch over the market, and the way those companies are behaving, for years after the merger.”

4.2. Remedies in individual cases

38. When looking into the case practice, it has to be underlined that the question whether a remedy and which type of remedy has been considered suitable to eliminate the competition concerns is highly case-specific. One not only has to take the specific competition concerns identified in the case but also the characteristics of the relevant market into account as well as the details of the individual remedy proposal.

39. Concerns relating to innovation have, for example, been addressed by divesting the overlapping pipeline products. Such targeted divestiture of individual pipeline products have been found to be sufficient if, overall, innovation competition will not be negatively affected by the transaction. The divestiture of individual products would, however, not be sufficient to address broader concerns relating not to individual (future/pipeline) products but to innovation competition as such. If the competitive assessment gave rise to concerns relating to innovation competition in general, remedies will have to ensure that the overall level of innovation is not harmed. This would result in a broader divestiture of R&D assets in addition to individual pipeline products and related assets.

40. Not only divestiture remedies but also access remedies, in certain cases, can be considered having a structural effect on the market. The Commission found such remedies suitable to address, among others, interoperability concerns. In Microsoft/LinkedIn, the Commission accepted remedies that allow competing professional social network service providers to maintain current levels of interoperability with Microsoft’s Office as well as access to "Microsoft Graph", a gateway that can potentially be used by software developers to drive subscribers and usage to their professional social networks. In Qualcomm/NXP, Qualcomm committed to offer licenses to allow competitors access to certain NXP technology and to provide to third party products the same level of interoperability with certain products acquired from NXP as for Qualcomm products. In

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36 Remedies notice, para. 16.

37 M.7559 Pfizer/Hospira, M.7275 Novartis/GSK (Oncology business).


39 Remedies Notice, paragraph 17.

40 M.8124 Microsoft/LinkedIn.

41 M.8306 Qualcomm/NXP Semiconductors.
Daimler/ BMW/ Car Sharing JV, the remedies allow third parties to integrate Daimler and BMW's car sharing services into their platforms for mobility solutions, as well as for access to Daimler’s own integrator app by third party car sharing providers.42

41. Similar to the suitable remedy as such, also the duration of remedies that do not constitute of a divestiture are highly case-specific and depend on the characteristics of the markets and products involved. In Microsoft/ LinkedIn, the remedies described above have a duration of five years. In Qualcomm/ NXP, Qualcomm will be bound by its commitments for a duration of eight years (subject to a review, see below). In Daimler/ BMW/ Car Sharing JV, the parties committed for an initial period of three years with the possibility of an extension by two years.

4.3. Review clauses

42. Typically, in the context of a divestiture and as foreseen under the Commission Model text for divestiture commitments43, the standard review clause provides for two scenarios: under the first, the Commission may extend the periods for finding a suitable purchaser or for implementing the divestiture to such purchaser. The second part of the standard clause contains a general possibility to waive, modify or substitute the commitments “in exceptional circumstances”. These review clauses do not provide for a systematic review after a certain period of time. Instead, they can only be triggered by a (reasoned) request from the party.

43. While this or a very similar clause is used in most commitments, in case of non-divestiture commitments, individual cases may also provide for a review clause relating specifically to the duration of certain commitments. In Daimler/ BMW/ Car Sharing JV, the commitments contain a review clause that allows the Commission to extend the remedy for two additional years in individual cities if no meaningful entry of a car-sharing provider has occurred within the initial three year period.

44. In a similar manner, the commitments in Qualcomm/ NXP provide for a specific review clause that can lead to a shortening of the access and the interoperability commitments mentioned above. While both commitments are entered into for eight years, the Commission may review and shorten them after three years “in the light of technological and/or market developments”. In the decision, the Commission notes “this possibility is subject to the Commission’s assessment and discretion, which will include an evaluation of the appropriateness of shortening the remedy”.44

42 M.8744 Daimler/ BMW/ Car Sharing JV.
44 M.8306 Qualcomm/ NXP Semiconductors, recital 1111.