

ARTICLE

Dynamic Capabilities and EC Merger Control: A Difficult Match?

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The Network Law Review is pleased to present you with a special issue curated by the Dynamic Competition Initiative (“DCI”). Co-sponsored by UC Berkeley and the EUI, the DCI seeks to develop and advance innovation-based dynamic competition theories, tools, and policy processes adapted to the nature and pace of innovation in the 21st century. This special issue brings together contributions from speakers and panelists who participated in DCI’s second annual conference in October 2024. This article is authored by Svend Albaek, a Visiting Fellow at the Robert Schuman Centre for Advanced Studies, European University Institute, also Senior Consultant at Charles River Associates (CRA), and Raphaël De Coninck, a Vice President and head of the Brussels Office at CRA.

1. Introduction

There is no doubt that competition authorities in the future will give a higher role to innovation – and dynamic effects in general – in merger control. As the Draghi Report puts it: “The economy has shifted towards more innovation-heavy sectors where competition is usually based on digital technologies and brands, where both scale and innovation are critical to compete rather than just low prices”.¹ Among the measures proposed in the Report is therefore to “emphasize the weight of innovation and future competition in DG COMP decisions” and the Report calls for updated merger guidelines that should explain “how the authority assesses the impact of

¹ “The future of European Competitiveness – Part B: In-depth analysis and recommendations”, p. 298 (2024).

competition on the incentive to innovate” and “what evidence merging parties can present to prove that their merger increases the ability and incentive to innovate, allowing for an ‘innovation defence’.”²

Although we agree that competition authorities will need to put more emphasis on innovation³, we also think that while doing so, they must find a way to ensure predictability of the assessment of mergers. This may be difficult since innovation and other dynamic effects are inevitably harder to predict than short-term effects on prices and quantities. The Draghi Report implicitly illustrates the difficulties when it states that “short terms benefits to innovation linked to increased scale must, therefore, be weighed against future costs of reduced incentives to innovate by both the companies seeking to concentrate and their rivals, clients and suppliers.”⁴ This is not an easy task, as anyone who has been involved in merger assessments will recognise. And it entails, in our view, a risk of making merger control considerably less predictable unless competition authorities and courts show strong discipline in what types of analysis and evidence they view as acceptable. A good deal of “R&D” in both the academic world and the competition community will be needed before widely accepted methods are found. However, this R&D has already started – and indeed been going on for some time – as this Dynamic Competition Initiative Symposium shows.

One response to the need for more emphasis on innovation and dynamic effects has been calls for competition authorities to incorporate an analysis of “capabilities” – and in particular “dynamic capabilities” – in their analyses. Recently, Petit and Teece have argued that “what appears to be missing from the economic analysis deployed in antitrust and merger cases is a fine-grained study of competing and merging firms’ capabilities.”⁵ In this short article we focus on the analysis of dynamic capabilities and what has been called the “Dynamic Capabilities Framework”.⁶ We do not here describe and discuss this framework in detail. That is done in other

² P. 299. It is not entirely clear from the report whether Draghi envisages that this “innovation defence” would be similar to or even part of the existing “efficiency defence”, or something different and specific to innovation. We have chosen to remain within the existing framework, although we do argue that it should be adjusted to better reflect the inherent uncertainties related to an “innovation defence”.

³ For the role of innovation in the case law of the European courts, see Thibault Schrepel, A systematic content analysis of innovation in European competition law, *European Journal of Law and Economics*, 58, 355-395 (2024).

⁴ Draghi Report, p. 299.

⁵ Nicolas Petit and David Teece, *Capabilities: the next step for the economic construction of competition law*, *Journal of European Competition Law & Practice*, forthcoming.

⁶ See, for instance, David Teece, *Hand in Glove: Open Innovation and the Dynamic Capabilities Framework*, *Strategic Management Review*, 1, 233-253 (2020). The related terms “Dynamic Competition Framework” and “Dynamic Competition Paradigm” are also used.

contributions to this Symposium.⁷ What we do instead is to give our perspective as economists with many years of experience in European competition cases on the use of the framework in merger proceedings. We discuss from a European perspective the possible use of the framework in showing anti-competitive effects from a merger and in showing efficiencies from a merger.⁸ We argue that the tendency of competition agencies to focus more on the effects on innovation as a theory of harm may open up for a wider use of the analysis of “capabilities” as a basis for showing anti-competitive effects. However, we also express our worry that this may lead to too much discretion for competition authorities, in particular if the analysis is not backed up by solid evidence on the parties’ incentives. We also argue that the framework may be relevant for efficiencies discussions and that the “standard of proof” for showing anti-competitive effects and for showing efficiencies should be similar. Since the analysis of innovation effects, both positive and negative, is inherently more uncertain than traditional static analysis, it is in our view untenable to allow a low intervention threshold for establishing dynamic concerns while requiring a high degree of certainty to demonstrate dynamic efficiencies. The European Commission’s planned revision of its Horizontal Merger Guidelines⁹ should in our view provide an opportunity to address the current imbalance in this respect, which is at odds with sound merger enforcement in an innovation-driven world.

2. Using The Framework To Show Anti-Competitive Effects of Mergers

A greater focus on dynamic competition presents some challenges compared to how merger control has traditionally been performed in Europe. We will later argue that the Commission itself has been moving somewhat in that direction with a greater emphasis on dynamic – or long term – considerations. However, before doing that it is useful to look at what the Commission’s Horizontal Merger Guidelines¹⁰ say.

First of all, the Guidelines do seem to be open to “dynamic analyses” – and, in particular, analyses of innovation – since they state that “in markets where innovation is an important competitive force, a merger may increase the firms’ ability and incentive to bring new innovations to the market and, thereby, the

⁷ For an example of use of the framework, see Nicolas Petit and David Teece, *Innovating Big Tech firms and competition policy: favouring dynamic over static competition*, *Industrial and Corporate Change*, 30, 1168-1198 (2021). For a more detailed explanation, see David Teece, *The Dynamic Competition Paradigm: Insights and Implications*, *Columbia Business Law Review*, 373-461 (2023).

⁸ One area where competition authorities routinely analyze “capabilities” is when assessing potential purchasers of remedy packages. This is uncontroversial and we do not discuss it further in this article.

⁹ See European Commission President Ursula von der Leyen’s “Mission Letter” to Competition Commissioner Teresa Ribera Rodríguez.

¹⁰ Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (OJ 2004/C 31/03).

competitive pressure on rivals to innovate in that market. Alternatively, effective competition may be significantly impeded by a merger between two important innovators, for instance between two companies with ‘pipeline’ products related to a specific product market. Similarly, a firm with a relatively small market share may nevertheless be an important competitive force if it has promising pipeline products.”¹¹

On the other hand, the Guidelines stress that the assessment cannot be too “speculative”. Thus the Guidelines say that “in some circumstances, the Commission may take into account future changes to the market that can reasonably be predicted”,¹² that the overall assessment is of the “foreseeable impact of the merger”,¹³ and that “current marketshares may be adjusted to reflect reasonably certain future changes”.¹⁴ This view is also reflected in the way the Guidelines talk about the relevant framework for the assessment, which cannot be too long. For instance, when discussing a merger with a potential competitor, the Guidelines state that “anti-competitive effects may also occur where the merging partner is very likely to incur the necessary sunk costs to enter the market in a relatively short period of time.”¹⁵ Similarly, when discussing entry as a countervailing factor, it is said that “what constitutes an appropriate time period depends on the characteristics and dynamics of the market, as well as on the specific capabilities of potential entrants. However, entry is normally only considered timely if it occurs within two years.”¹⁶ As regard efficiencies, “the later the efficiencies are expected to materialise in the future, the less weight the Commission can assign to them. This implies that, in order to be considered as a counteracting factor, the efficiencies must be timely.”¹⁷ The general impression from reading the Guidelines is therefore that it may be difficult to show dynamic anti-competitive effects that are sufficiently “timely” and “reasonably certain”, except perhaps when pipeline products can be identified.

Another issue is the type of analysis that the Commission typically uses when trying to show possible anti-competitive effects. The Commission’s analysis often essentially focuses on the extent to which products in the relevant market are substitutable. The Guidelines set out an array of empirical methods of various degrees of sophistication that may be applied: “When data are available, the degree of substitutability may be evaluated through customer preference surveys, analysis of purchasing patterns, estimation of the cross-price elasticities of the products

¹¹ Paragraph 38.

¹² Paragraph 9.

¹³ Paragraph 13.

¹⁴ Paragraph 15.

¹⁵ Paragraph 59.

¹⁶ Paragraph 74.

¹⁷ Paragraph 83.

involved, or diversion ratios. In bidding markets it may be possible to measure whether historically the submitted bids by one of the merging parties have been constrained by the presence of the other merging party.”¹⁸

It is not clear to us that the empirical methods used in the capabilities literature are of a type that the Commission until recently has been comfortable using and that would, importantly, stand up in court. This is not to say that these methods are not useful in other situations, for instance, when the management in a company is trying to understand its capabilities – and those of its competitors – to undertake certain lines of action. In such a situation, what is important is whether the analysis paints a picture that the management can recognise. If the analysis seems off the mark, the management will recognise this from its intimate knowledge of the industry and discard it. However, in competition proceedings the analysis has to convince decision makers without such intimate knowledge (for instance the courts), which may imply a need for other types of analysis. An interesting example is a recent article by Murmann and Vogt¹⁹ on the transition of the car industry to electric vehicles. The authors look at 26 capabilities that they deem important for producing electric vehicles. They then rate manufacturers for each of these capabilities by giving them “marks” ranging from “best-in-class” capability over “strong”, “moderate”, “weak”, “very weak”, to “non-existent.” A careful, systematic study of this sort can be very useful to executives in the car industry wondering about the positioning of their companies in the race to be successful in the production of electric vehicles. It may help them decide whether they need to invest in order to strengthen their weak points. The executives would probably also be able to recognise the picture painted by the analysis and – to a large extent – judge whether this picture is a fair one.

But what would be the role of such an analysis in merger control proceedings? Would competition agencies need to analyse the capabilities of both the merging parties and their competitors?²⁰ Do the agencies have the staff who could perform such an analysis or would it have to be outsourced? How many people would be needed to do so, if the analysis is done internally? Can the agencies perform such analyses within the timeframe of a merger case, where they realistically often only would have a couple of months to do so? And, perhaps most importantly, can such a capabilities analysis – especially if done internally – be so persuasive that a court would accept it as determinative evidence to prohibit a merger? We are not convinced

¹⁸ Paragraph 29.

¹⁹ Johann Peter Murmann and Fabian Vogt, *A Capabilities Framework for Dynamic Competition: Assessing the Relative Chances of Incumbents, Start-Ups, and Diversifying Entrants*, Management and Organization Review, 19, 141-156 (2023).

²⁰ Murmann and Vogt write that “to predict the future competitiveness of incumbent firms, it is necessary to make a comparative and comprehensive evaluation of the capabilities of incumbents, potential start-ups, and diversifying entrants, which compete in a product class” (p. 151).

that the Commission should rely to a significant degree on such an analysis, but – as we explain below – we do admit that there are some signs showing that the Commission may be willing to move in this direction.

Let us therefore look at what the Commission has done in some recent cases where one could argue that it was analysing capabilities. The Commission covered new ground in the two agrochemicals cases *Dow/Dupont*²¹ and *Bayer/Monsanto*.²² The Commission found that both mergers would have led to competition concerns related to innovation and the parties therefore had to offer innovation-related remedies in order to secure clearance of their transactions. In the words of the then Chief Economist and two Commission economists working on the cases, “the analysis of innovation competition in *Dow/DuPont* and *Bayer/Monsanto* represented significant steps forward in terms of prominence of the innovation-related analyses” since “in previous cases that involved innovation competition, the concerns were mainly related to late pipeline products, and to a lesser extent to earlier stages of the R&D process.”²³ Thus, the Commission in these two cases looked not only at pipeline products but also at “innovation spaces” which were “broader than an individual downstream crop protection market”.²⁴ To assess competition in these innovation spaces.

The Commission approached the parties’ R&D “capabilities” through a thorough²⁵ analysis of the patents of the parties and their rivals, citations of those patents, etc. Whatever one may think of these analyses, they were at least attempts to arrive at empirical analyses of the capabilities of the parties to do R&D in specific areas. But the incremental and predictable nature of innovation in the agrochemical industry played an important role in the Commission’s assessment; in most other industries a similar analysis would not be very useful. The Commission did not rely

²¹ Case M.7932 *Dow/DuPont*, Commission Decision of 27/03/2017. See also Alexandre Bertuzzi, Soledad Blanco Thomas, Daniel Coublucq, Johan Jonckheere, Julia Tew, and Thomas Deisenhofer, *Dow/DuPont: protecting product and innovation competition*, Competition Merger Brief 2/2017, 1-8.

²² Case M.8084 *Bayer/Monsanto*, Commission Decision of 21/03/2018. See also Alexandre Bertuzzi, Soledad Blanco Thomas, Roberto Bove, Laurent Forestier, Marie Goppelsroeder, Cyril Hariton, Alessandra Impellizzeri, David Kovo, Giovanni Notaro, Marco Ramandino, Julia Tew, Simon Vande Walle, and Thomas Deisenhofer, *Bayer/Monsanto - protecting innovation and product competition in seeds, traits and pesticides*, Competition Merger Brief 2/2018, 6-12.

²³ Daniel Coublucq, David Kovo, and Tommaso Valletti, *Innovation concerns in European merger control: The agrochemical saga (Dow/DuPont and Bayer/Monsanto)*, in *Antitrust Economics at a Time of Upheaval*, John E. Kwoka, Tommaso Valletti and Lawrence J. White (editors). Competition Policy International (2023).

²⁴ *Dow/DuPont*, recital 351.

²⁵ The annex in the *Dow/Dupont* decision describing the Commission’s patent analysis contains 91 pages and that in *Bayer/Monsanto* 88 pages.

only on the analysis of patents, it also extensively analysed internal documents of the parties. In both cases the Commission thus identified documents showing that the parties were planning to reduce their innovation efforts post-merger.²⁶ The Commission also relied on documents describing the general nature of R&D in the industry, the capabilities of the various firms in the industry, and that the parties in both cases were important and close innovation competitors.

The Commission thus in these two cases based its conclusions about innovation capabilities of the merging parties on both an empirical analysis of patents and an extensive analysis of internal documents. But what could it do if a similar empirical analysis is not possible and internal documents do not help much in showing that the merger would be anti-competitive? Another more recent case where the Commission assessed dynamic competition, *Adobe/Figma*, perhaps gives us a hint.²⁷ Adobe is a leading player in vector and raster editing tools, and the Commission investigated whether Figma should be considered a potential competitor in these markets. According to Commission officials who worked on the case,²⁸ the Commission investigated²⁹ both whether Figma already exerted a “significant constraining influence” and whether Figma likely would “grow into an effective competitive force”. With respect to the second, the officials write that:

The Commission’s assessment of potential competition must be based on objective evidence rather than mere theoretical possibilities. The Commission considers that, depending on the characteristics of the industry and the specific circumstances of a case, any of the following non-exhaustive circumstances, separately or combined, can constitute such objective evidence: (i) the potential competitor has sufficient relevant resources to enter the market in a timely manner; (ii) the potential competitor has the ability to expand or add to its capabilities, whether organically or through acquisition; (iii) the potential competitor has advantages that would make it well-situated to enter; (iv) the potential competitor has successfully expanded into other markets in the past or already participates in adjacent markets; and (v) industry participants recognise the potential competitor as a potential entrant.³⁰

²⁶ See *Dow/Dupont*, Section V.8.10 and *Bayer/Monsanto*, Sections X.1.7.6 and XI.1.4.5.2.

²⁷ Case M.11033 *Adobe/Figma*.

²⁸ The parties abandoned the merger before the Commission took a final decision. We therefore base our description of the Commission’s analysis on Laura Corbett, Florian Deuflhard, Stefan Frübing, Leonor Nunes, Thorsten Schiffer, and Ariti Skarpa, *Adobe/Figma: Much Ado(be) About Nothing?*, Competition Merger Brief 2/2024, 1-5.

²⁹ Following paragraph 60 of the Horizontal Merger Guidelines.

³⁰ Corbett et al, p. 4.

The “circumstances” listed above seem mostly to be concerned with assessing the “ability” of a potential competitor to enter while there is little about its “incentive” to enter. Since it is said that these “circumstances, separately or combined, can substitute such objective evidence”, the question arises whether it is enough to conclude that a firm is a potential competitor if it, for instance, “has sufficient relevant resources to enter the market in a timely manner”. In the tech sector, many large firms in adjacent markets probably would have such resources. Indeed, they may also tick the boxes for some – or even all – of the other four “circumstances”. Yet, this does not necessarily tell us whether they have the incentive to enter the market. Even the Big Tech firms do not enter all markets where they have “sufficient relevant resources” to enter. Should they nevertheless be considered potential competitors in all of them?

One way to assess the incentives of potential competitors is to study their internal documents. However, here the Commission officials write that

The Commission considers that the finding of potential entry does not require the existence of concrete or extensively developed entry plans (for example in the form of a detailed business plan or investment project) or a firm decision by the company to enter. While such steps constitute factual elements that the Commission will take into account in its assessment of potential entry, they do not constitute necessary evidentiary requirements for such a finding. This is particularly relevant in dynamic and fast-moving technology markets, where (unlike in more traditional industries) investment decisions are often made quickly and rather informally in line with the start-up culture of many young technology industries.³¹

While it perhaps is understandable that the Commission does not want to limit its possibility to intervene to situations where there are “concrete or extensively developed entry plans”, the description above leaves the intriguing question in the air whether the Commission should intervene if it finds no trace of entry discussions at all – or perhaps even finds documents discussing entry but dismissing it.³² Should the Commission in such a situation on the basis of “objective” evidence of “capabilities” for entry decide that one of the merging parties is a potential competitor even though it apparently does not consider itself to be so? We doubt this is a good idea unless the Commission has very convincing evidence on its hand.

³¹ Corbett et al, p. 4.

³² It is, of course, possible that the merging parties through careful control of documents could make sure that no such “inculpatory” documents were retained or even that documents would be made with the sole purpose to influence competition authorities. There may be an extra awareness of the significance of internal documents in the run-up to a merger, but we think it is unlikely that there will be a tight control of documents throughout the ordinary course of business. See also Dow/DuPont, Section V.8.10.2.

This discussion is likely to become pertinent in the upcoming revision of the Horizontal Merger Guidelines. We expect that the Commission will want to thoroughly revise the section on “Merger with a potential competitor,”³³ in particularly in light of the many acquisitions in the tech sector of firms that are not (yet) direct competitors. We agree that the current wording does not fit well with mergers in fast-moving innovative industries such as the tech sector.³⁴ However, we also worry that the approach set out by the Commission officials above could give the Commission too much discretion in designating firms as potential competitors. Legal certainty may suffer as a consequence and the natural process of firms bringing in new capabilities through acquisitions may be slowed down. It is therefore important that the Commission gets the balance right.

3. Using The Framework To Show Merger Efficiencies

Many would probably think that the analysis of dynamic capabilities could be particularly relevant for the analysis of potential efficiencies from a merger. The analysis could help uncover how the merged entity could benefit from combining the capabilities of the merging parties and whether investments would be needed in order to “unblock” such efficiencies.

The Commission recognises in the first sentence in the section on efficiencies of its Horizontal Merger Guidelines that “corporate reorganisations in the form of mergers may be in line with the requirements of dynamic competition”.³⁵ However, the potential usefulness of the analysis of capabilities has to be understood within the context of merger proceedings and the (current) high requirements for efficiency defences to be successful. The Guidelines explain that “efficiencies have to benefit consumers, be merger-specific and be verifiable.”³⁶ This means that, although the Guidelines acknowledge that “consumers may also benefit from new or improved products or services, for instance resulting from efficiency gains in the sphere of R & D and innovation,”³⁷ they also set out a test that requires that efficiencies should be merger specific,³⁸ timely,³⁹ verifiable, quantified (“where reasonably possible”), and need to be passed on to customers with a high degree of certainty.⁴⁰ This test has proven hard to meet.

³³ Horizontal Merger Guidelines, paragraphs 58-60.

³⁴ For a discussion of possible changes to the section, see Svend Albaek and Daniel Donath, *The Role of Uncertainty in the Future European Horizontal Merger Guidelines: Lessons Learned from Illumina/GRAIL*, CPI Antitrust Chronicle, December 2024.

³⁵ Paragraph 76.

³⁶ Paragraph 78.

³⁷ Paragraph 81.

³⁸ Paragraph 85.

³⁹ Paragraph 83.

⁴⁰ Paragraph 86.

Although we do see that a capabilities analysis could be relevant for showing efficiencies, it is probably unlikely that such an analysis would be accepted if it is developed after the merger has been decided. Competition authorities would probably question – with some justification, in our view – why they should put much weight on the analysis if the merging parties had not thought about these potential efficiencies when they were considering the merger – and deciding the financial details of the merger. On the other hand, if the merging parties have indeed performed such an analysis – or something that looks like it – and taken the outcome of the analysis into account when considering possible options for action, then it would seem reasonable for competition authorities to take the analysis seriously. A statement to that effect can indeed be found in the Guidelines, since they state that “evidence relevant to the assessment of efficiency claims includes, in particular, internal documents that were used by the management to decide on the merger, statements from the management to the owners and financial markets about the expected efficiencies, historical examples of efficiencies and consumer benefit, and pre-merger external experts’ studies on the type and size of efficiency gains, and on the extent to which consumers are likely to benefit”.⁴¹

This would suggest that a capabilities analysis may be most effectual for an efficiency defence in a merger case if it is performed not as an “afterthought” during (or in preparation for) the merger proceedings, but rather as part of the “strategic” analyses forming the basis for deciding on the merger in the first place. However, even in that case there would likely be a need for other types of economic analysis that show that the efficiencies identified by a capabilities analysis would meet the Commission’s criteria for an efficiency defence.

4. Conclusion

We have in this article argued that the tendency of competition agencies to focus more on the effects on innovation as a theory of harm may open up for a wider use of the analysis of “capabilities” as a basis for showing anti-competitive effects. However, we have also expressed our worry that this may lead to too much discretion for competition authorities, in particular if the analysis is not backed up by solid evidence on the parties’ incentives. We have furthermore argued that the framework may be relevant for efficiencies discussions, but that, similarly, to be credible the arguments should show up in internal documents prior to the merger and not only be presented during the merger proceedings.

⁴¹ Paragraph 88.

As a final point, we want to link the two arguments. Many consider that the “standard of proof” for showing efficiencies is higher than that for showing anti-competitive effects from mergers. As we noted above, according to the Horizontal Merger Guidelines, efficiencies should be merger specific, timely, verifiable, quantified, and need to be passed on to customers with a high degree of certainty. This is such a high standard that it is rarely met in practice, at least judging from published merger decisions. And it clearly seems higher than the standard used by the Commission for showing anti-competitive effects. We consider that this is already a problem, and a problem that could worsen if the Commission in the future relies on more “uncertain” analyses in order, for instance, to consider theories of harm addressing effects on innovation. In such a situation it would be natural also to accept that it cannot be, for instance, a requirement to show that efficiencies are passed on to customers with a high degree of certainty. The Draghi Report calls for more emphasis on how mergers “will affect future innovation potential, despite its uncertainty”.⁴² In our view, the present test in the Horizontal Merger Guidelines does not properly allow for such an analysis of innovation.

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⁴² P. 299.