

**DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS
COMPETITION COMMITTEE**

Non-price Effects of Mergers - Note by the United States

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More documents related to this discussion can be found at www.oecd.org/daf/competition/non-price-effects-of-mergers.htm.

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1. Introduction

1. A product or service is comprised of a bundle of various attributes; these attributes may be tangible or intangible, objective or subjective. Certain products and services may be homogenous and fungible, and competition to satisfy consumer demand for homogeneous products therefore occurs only on price. Many products and services, however, have one or more unique attributes that give rise to competition based on price and non-price factors, such as quality, reliability, durability, and method of distribution. Consumers may thus be willing to pay more for their preferred mix of price and non-price attributes, and competition in these non-price attributes can be a significant aspect of market competition.

2. Competition among independent firms can produce both price and non-price benefits to consumers. For instance, as discussed in a prior submission, superior quality is a non-price benefit of vigorous competition, and preserving those benefits may be the subject of competition enforcement.¹ Other non-price benefits of competition may include longer or more convenient operating hours and more favorable contract terms, such as financing and shipping priority.

3. Mergers often enable the merged firm to reduce its costs and become more efficient, which, in turn, may lead to lower prices, higher quality products, or investments in innovation. Antitrust enforcement by the Federal Trade Commission or the Department of Justice (the Agencies) is primarily directed at those mergers that are likely to create or enhance the merged firm's ability — either unilaterally or through coordination with rivals — to exercise market power and thereby reduce consumer welfare. The US Horizontal Merger Guidelines explicitly recognize non-price factors of competition,² and how these elements factor into the Agencies' merger review:

Enhanced market power can also be manifested in non-price terms and conditions that adversely affect customers, including reduced product quality, reduced product variety, reduced service, or diminished innovation. Such non-price effects may coexist with price effects, or can arise in their absence. When the Agencies

¹ U.S. submission on The Role and Measurement of Quality in Competition Analysis (DAF/COMP/WD (2013)31), available at <https://www.ftc.gov/sites/default/files/attachments/us-submissions-oecd-and-other-international-competition-fora/1306qualityanalysis.pdf>.

² Non-price factors of competition may also affect market definition, especially for differentiated products. When customers confront a range of possible substitutes, some substitutes may be closer than others, either geographically or in terms of product attributes and perceptions. The Agencies employ the hypothetical monopolist test to evaluate groups of products in candidate markets, and identify a set of products that are reasonably interchangeable with a product sold by one of the merging firms. U.S. Dep't of Justice and the Fed. Tr. Comm'n, *Horizontal Merger Guidelines* §4.0 (2010), available at <https://www.ftc.gov/sites/default/files/attachments/merger-review/100819hmg.pdf> (hereinafter US Horizontal Merger Guidelines).

investigate whether a merger may lead to a substantial lessening of non-price competition, they employ an approach analogous to that used to evaluate price competition.³

4. Mergers between manufacturers of close substitutes may pose a risk of increased prices. The merged firm could, sometimes, instead reduce the quality (or the average fit of attributes to customer preferences), which can sometimes be thought of as an increase in the “quality-adjusted price.” When it is possible to conceptualize the impact of a merger that may potentially affect both price and quality in terms of an adjusted price, the usual price-centric analytical framework in the Guidelines can be employed.

5. Acquisitions may diminish innovation competition by encouraging the merged firm to curtail its innovative efforts below the level that would prevail in the absence of the merger. This is a type of unilateral effect that could take the form of reduced incentives to continue with an existing product-development effort, or reduced incentive to initiate development of new products.⁴

6. Mergers may also generate efficiencies that produce non-price benefits, such as improved quality, enhanced service, new products⁵, or stronger incentives and ability to engage in, or increase, innovative efforts. The Agencies will not challenge a merger if cognizable efficiencies are of a character and magnitude such that the merger is not likely to be anticompetitive in any market. In some instances, this may include out-of-market efficiencies that are inextricably linked with efficiencies in the relevant market.⁶ In addition, mergers that increase product variety by encouraging the merged firm to reposition its products to be more differentiated are unlikely to be anticompetitive.

7. When evaluating the effects of a merger on innovation, the Agencies consider the ability of the merged firm to conduct research and development more effectively. Research and development cost savings may be substantial and yet not be legally cognizable efficiencies if they result from anticompetitive reductions in innovative activities.⁷

2. The interplay of non-price aspects of competition and market definition

8. In some markets, the non-price factors of a product or service can help firms distinguish their offerings and better satisfy consumer preferences. For instance, where firms compete to deliver products to customers, travel time or distance to a distribution center may be a key service factor as well as a basis for differences in cost. In addition, the scale of operations and the ability to provide additional services may give a firm an economic or competitive advantage over rivals.

³ US Horizontal Merger Guidelines §1.0.

⁴ US Horizontal Merger Guidelines §6.4.

⁵ US Horizontal Merger Guidelines §10.

⁶ US Horizontal Merger Guidelines footnote 14.

⁷ US Horizontal Merger Guidelines §10.

9. These factors are relevant throughout a merger analysis. Non-price factors often are considered by the Agencies and courts in defining the relevant market affected by the merger.⁸ A merger that may reduce incentives to provide these valuable features may lead to a reduction in non-price competition.⁹ Evidence of the extent of direct competition between the products sold by the merger parties on non-price factors is often the same evidence relied on to determine customer substitution relevant to the hypothetical monopolist test.¹⁰

3. Modeling price and non-price effects

10. For nearly all products and services, price competition is an important component of competition; the Agencies' analysis will always include an examination of any potential price effects. In many cases, an examination of the merger's potential non-price effects will not be different from the examination of the potential price effects. In some cases, the Agencies can conduct economic analysis or modeling to estimate probable price effects.¹¹ Because non-price effects tend to be non-quantitative in nature, the Agencies rely less on formal empirical models and more on qualitative evidence to assess the non-price effects of a merger.¹²

⁸ See, e.g., *FTC v. Sysco Corp.*, 113 F.Supp. 3d 1 (D.D.C. 2015)(broadline foodservice distribution is a relevant market for national customers that prefer suppliers with a wide selection of products, distinct facilities, timely and reliable delivery, national pricing, and value-add services such as menu planning.)

⁹ *Id.* at 66 (“Sysco and USF are the country’s two largest broadliners by any measure. They have far more distribution centers, SKUs, private label products, sales representatives, and delivery trucks than any other broadline distributor. . . . [B]ecause the proposed merger would eliminate head-to-head competition between the number one and number two competitors in the market for national customers, the merger is likely to lead to unilateral anticompetitive effects in that market.”).

¹⁰ US Horizontal Merger Guidelines §§ 6.1 and 4.1.1.

¹¹ U.S. submission on Impact Evaluation of Merger Decisions (DAF/COMP/WD(2011)58), available at <https://www.ftc.gov/sites/default/files/attachments/us-submissions-oced-and-other-international-competition-fora/1106impacetevaluation.pdf>; U.S. submission on Economic Evidence in Merger Analysis (DAF/COMP/WP3/WD(2011)4), available at <https://www.ftc.gov/sites/default/files/attachments/us-submissions-oced-and-other-international-competition-fora/1102economicvidenceemerger.pdf>.

¹² Examples of studies analyzing non-price effects of mergers include Gregory J. Werden, Andrew S. Joskow & Richard L. Johnson, *The Effects of Mergers on Price and Output: Two Case Studies from the Airline Industry*, 12 *MANAGERIAL & DECISION ECON.* 341 (1991); Steven Berry & Joel Waldfogel, *Do Mergers Increase Product Variety? Evidence from Radio Broadcasting*, 116 *Q.J. OF ECONOMICS* 1009 (2001); Andrew Sweeting, *The Effects of Mergers on Product Positioning: Evidence from the Music Radio Industry*, 41 *RAND J. OF ECONOMICS* 372 (2010); Patrick S. Romano & David J. Balan, *A Retrospective Analysis of the Clinical Quality Effects of the Acquisition of Highland Park Hospital by Evanston Northwestern Healthcare*, 18 *INT’L J. ECON. OF BUSINESS* 45 (2011); B.P. Pinto & D.S. Sibley, *Unilateral Effects with Endogenous Quality*, 49 *REVIEW OF INDUSTRIAL ORGANIZATION* 449 (2016); and K.R. Brekke, L. Siciliani, & O.R. Straume, *Horizontal Mergers and Product Quality*, 50 *CANADIAN J. OF ECONOMICS* 1063 (2017).

4. Examples of markets with important non-price competitive effects

11. The Agencies routinely examine non-price elements of competition during merger review. For instance, in markets involving differentiated products or in service markets, competition often occurs on the basis of quality or other non-price elements that are important to customers. The Agencies will identify any dimension of competition that will be affected by the merger in order to assess the potential for the merger to substantially lessen competition in any relevant market.

4.1. Hospitals

12. FTC enforcement actions involving competing hospitals typically involve consideration of a number of non-price effects, such as investments in health information technology, advancements in disease management, and clinical integration.¹³ Hospital systems generally compete in two interrelated stages: first, they compete for inclusion in a health insurer's network; second, they compete to attract patients and physician referrals to their respective systems. In the first stage, health insurers use competition between hospitals as leverage to negotiate better reimbursement rates (i.e., prices). This, in turn, results in lower premiums, copayments, deductibles, and other out-of-pocket expenses. In the second stage, competition between hospitals to attract patients typically leads to increased quality and availability of healthcare services. Thus, hospital systems compete on both price and quality, and mergers between close rivals may eliminate both types of beneficial competition. When competing hospitals merge, two different kinds of adverse effects may occur: higher prices charged to insurance companies (which may be passed on to employers and consumers) and non-price effects such as reduced quality and availability of services. These anticompetitive effects are larger when the merging hospitals are closer (i.e., more intense) competitors, and when other hospitals are less significant competitors.

13. As discussed in our prior submission on the Role and Measurement of Quality in Competition Analysis, retrospective studies of consummated hospital mergers confirm that mergers of significant hospital competitors can result in a reduction in important measures of clinical quality, such as mortality or complications.¹⁴

¹³ See *In re Advocate Health Care Network, et al*, Dkt. 9369 (complaint issued Dec. 18, 2015), available at <https://www.ftc.gov/enforcement/cases-proceedings/141-0231/advocate-health-care-network-advocate-health-hospitals>; *In re Penn State Hershey Medical Center*, Dkt. 9368 (complaint filed Dec. 14, 2015)(merger would eliminate incentives to continue efforts to modernize, expand oncology services, construct new outpatient facility), available at <https://www.ftc.gov/enforcement/cases-proceedings/141-0191/penn-state-hershey-medical-centerpinnaclehealth-system>. See also FTC staff submission to Southwest Virginia Health Authority and Virginia Dept. of Health Regarding MSHA/Wellmont Cooperative Agreement Application 21-23 (filed Oct. 3, 2016), available at https://www.ftc.gov/system/files/documents/advocacy_documents/submission-ftc-staff-southwest-virginia-health-authority-virginia-department-health-regarding/160930wellmontswvastaffcomment.pdf.

¹⁴ U.S. submission on *The Role and Measurement of Quality in Competition Analysis* (DAF/COMP/WD (2013)31), available at <https://www.ftc.gov/sites/default/files/attachments/us-submissions-oecd-and-other-international-competition-fora/1306qualityanalysis.pdf>. See Patrick S. Romano & David J. Balan, *A Retrospective Analysis of the Clinical Quality Effects of the*

14. Some hospital mergers, including those that raise competitive concerns, may yield meaningful clinical quality improvements and cost savings that might not be possible without the merger. Taking this into account, the analysis of a proposed merger includes a thorough assessment of the potential benefits and efficiencies, as well as the disadvantages and harms resulting from a reduction in competition. Those benefits are then weighed against the likely adverse effects. In general, the Agencies may decline to challenge transactions that might raise competitive concerns when there is compelling evidence that the likely benefits of the transaction would be of sufficient magnitude to offset the potential harm from lost competition. It should be noted, however, that the greater the likelihood or magnitude of harm from a proposed merger, the more likely or substantial any claimed benefits must be to conclude that the benefits outweigh the harms.

4.2. Physician services

15. Competition between health care providers may involve important non-price dimensions that benefit patients. In a recent FTC challenge to a merger of competing physician practices, the FTC alleged that the merger would eliminate existing competition that had resulted in both practices investing in acquiring new technology, expanding their services and facilities, and improving patient access.¹⁵ After a trial on the FTC's motion for a preliminary injunction, the district court found that, in addition to price effects, the merger was likely to reduce non-price competition between the practices to attract patients.¹⁶

4.3. Health insurance

16. DOJ enforcement efforts in the health insurance industry highlight the important role that non-price effects can play in merger analysis. In 2016, the DOJ challenged a merger between Anthem and Cigna, the second and third largest health insurance companies in the United States.¹⁷ The DOJ alleged that Anthem and Cigna competed vigorously against one another to sell commercial health insurance to national accounts. Although Cigna could not compete with Anthem solely on price, it could compete on price and non-price terms, which included finding innovative ways to lower its customers' medical costs by offering sophisticated wellness programs, providing highly

Acquisition of Highland Park Hospital by Evanston Northwestern Healthcare, 18 INT'L J. ECON. BUS. 45 (2011); Deborah Haas-Wilson & Christopher Garmon, *Two Hospital Mergers on Chicago's North Shore: A Retrospective Study*, 18 INT'L J. ECON. BUS. 17 (2011).

¹⁵ In re Sanford Health, Dkt. 9376 (complaint filed Jun. 22, 2017), available at <https://www.ftc.gov/enforcement/cases-proceedings/171-0019/sanford-healthsanford-bismarckmid-dakota-clinic>.

¹⁶ FTC v. Sanford Health, 1:17-cv-00133 (Dec. 15, 2017).

¹⁷ Press Release, Dep't of Justice, Justice Department and State Attorneys General Sue to Block Anthem's Acquisition of Cigna, Aetna's Acquisition of Humana (July 21, 2016), available at <https://www.justice.gov/opa/pr/justice-department-and-state-attorneys-general-sue-block-anthem-s-acquisition-cigna-aetna-s>; Complaint, United States et al. v. Anthem, Inc., and Cigna Corp., No. 1:16-cv-01493 (D.D.C. July 21, 2016), available at <https://www.justice.gov/atr/file/903111/download>.

regarded customer service, and working closely with doctors and hospitals to improve the quality and lower the cost of care. The DOJ alleged that because the merger would eliminate Cigna as a competitor against Anthem, it would reduce the incentive to continue innovating with respect to—and competing on—these non-price elements of its product offerings. The district court, blocked the merger, finding that it likely would slow such innovation; the district court’s decision was upheld by the appellate court.¹⁸

4.4. Integrated software systems

17. The FTC recently challenged a merger between two companies that sell dealer management systems to new car dealerships. CDK, the leading DMS software provider, proposed to buy Auto/Mate, a competitor with a small but growing share of the market.¹⁹ According to the FTC’s complaint, Auto/Mate had been winning business by offering dealers not only lower prices, but also flexible contract terms, free software upgrades and training, high quality customer service, and modest fees to integrate third-party applications. Dealerships benefitted from Auto/Mate’s innovative and disruptive offerings. The complaint alleged that after the acquisition, in addition to potential price effects, DMS providers would have less incentive to offer non-price benefits, such as shorter contracts or faster software enhancements, to retain or gain customers. After the Commission voted to block the deal, the parties abandoned their merger plans.

4.5. Free software products

18. The value associated with non-price product attributes can be more readily observed when the product is offered for free, with opportunities to generate revenue through the sale of complementary products. In *United States v. H&R Block, Inc.*,²⁰ the Department successfully blocked the merger of two digital tax software firms even though the target firm, TaxACT, offered many of its do-it-yourself tax preparation products for free. The court found that the proposed merger would eliminate TaxACT’s role in constraining prices: “Not only did TaxACT buck prevailing price norms by introducing the free-for-all offer, which others later matched, it has remained the only competitor with significant market share to embrace a business strategy that relies primarily on offering high-quality, full-featured products for free with associated products at low prices.”²¹ The court also cited evidence that TaxACT’s growth strategy relied on providing great customer service, a great product, and a great customer experience for a much lower price, including offering products and services for free. “This type of healthy competition benefits taxpaying consumers.”²²

¹⁸ *United States, et al., v. Anthem Inc. et al.*, 236 F.Supp.3d 171, 231 (D.D.C. 2017); *United States, et al., v. Anthem Inc., et al.*, 855 F.3d 345, 362 (D.C. Cir. 2017) (“The threat to innovation is anticompetitive in its own right.”).

¹⁹ *In re CDK Global, Inc.*, Dkt. 9382 (complaint filed Mar. 20, 2018), available at <https://www.ftc.gov/enforcement/cases-proceedings/171-0156/cdk-global-automate-matter>.

²⁰ *United States v. H&R Block, Inc.*, 833 F.Supp. 2d 36 (D.C. Cir. 2011).

²¹ 833 F.Supp. 2d at xx.

²² *Id.* at 83.

5. Innovation as a non-price consideration in merger review

19. Competition drives firms to innovate, and a merger may substantially lessen competition in violation of U.S. law by reducing or eliminating innovative activity that would result in higher quality products or greater product variety. The Agencies may consider whether a merger is likely to diminish innovation competition by encouraging the merged firm to curtail its innovative efforts below the level that would prevail but for the merger²³; the Agencies will also consider whether a merger will increase the incentive or ability of a firm to engage in innovation competition. Innovation in the form of new products or new competitors can also alleviate any short-run competitive concerns.²⁴ A fact-based analysis of likely competitive effects takes into account changing market conditions and likely future competition to determine whether a proposed transaction is likely to slow, enhance, or have a neutral effect on the pace of innovation.

20. Competition-driven innovation may produce superior products, and a merger that eliminates that competitive dynamic may deny customers the benefits of that rivalry in the future.²⁵ The Agencies may consider whether a merger is likely to diminish innovation competition by reducing the incentive for the merged firm to (1) continue with an existing product development effort or (2) initiate development of new products.

6. Reduced incentive to continue with existing product development

21. The Agencies analyze acquisitions involving products in development to determine whether the firm's development efforts have, or are likely to have in the near future, a beneficial effect on competition. This effect is most likely to occur if at least one of the merging firms is engaging in efforts to introduce a new product that would capture substantial revenues from the other merging firm. These cases, sometimes styled as "potential competition" cases, focus on the merger's effect on likely entry by one (or both) firms.

22. The FTC has challenged many mergers between pharmaceutical manufacturers where the merger would eliminate likely entry of a new product in development by one manufacturer that, once launched, would take sales from a product sold by the other merging party. The FTC has taken action to prevent a reduction in emerging competition in mergers that would combine (1) a brand manufacturer and the likely first generic supplier;²⁶ (2) an existing generic supplier and a company developing a competing

²³ US Horizontal Merger Guidelines § 6.4.

²⁴ US Horizontal Merger Guidelines § 10.

²⁵ See, e.g., In the Matter of Otto Bock HealthCare NA, Inc., Dkt. 9378 (Dec. 20, 2017) ("Under common ownership and without the incentive to introduce innovations to take and defend sales from each other, Respondent Otto Bock does not have the same incentive to launch these products on the same timeline or in the same form as Otto Bock and Freedom had independently pre-Merger.").

²⁶ See, e.g., Analysis to Aid Public Comment, In the Matter of Actavis and Warner Chilcott, Dkt. C-4414 (Sept. 27, 2013), http://www.ftc.gov/sites/default/files/documents/federal_register_notices/2013/10/131031actavisfrn.pdf. ("Evidence, including information regarding the status of the FDA approval process for potential suppliers of generic Loestrin 24 FE, suggests that Actavis will be the first generic

generic product;²⁷ (3) two companies both developing generic products in an existing market;²⁸ and (4) two companies both developing generic products in a market where there is no generic currently available.²⁹ These pharmaceutical cases typically involved the introduction of a generic product that offers significant price savings, but does not result in marketplace innovation in the classic sense of developing something beyond what exists today.

23. In other markets, a proposed transaction between an existing competitor and a future entrant working on a product that customers would likely view as superior to existing products have raised significant competitive concerns. In 2009, the FTC challenged Thoratec Corporation's proposed \$282 million acquisition of rival medical device maker HeartWare International, Inc., charging that the transaction would substantially reduce competition in the U.S. market for left ventricular assist devices (LVADs). LVADs are a life-sustaining treatment for patients with advanced heart failure.³⁰ Thoratec's HeartMate II product was the only commercial LVAD available in the United States. Its competitor, HeartWare, was engaged in clinical trials for what many considered to be a superior device, the HVAD. FDA approval was expected by 2012. Although the path to regulatory approval of these devices was not assured, the Commission relied on evidence that HeartWare's device was the most likely future competitor to Thoratec's HeartMate II, and other companies developing LVADs were significantly behind in developing competitive products. The parties abandoned their merger plans.

24. In markets with significant lead times for effective entry, an incumbent's acquisition of an emerging competitor may delay beneficial entry indefinitely. The Department recently challenged Westinghouse Air Brake Technology Corporation's ("Wabtec") acquisition of Faiveley. The Department alleged the transaction, as originally structured, would have substantially lessened competition for the development, manufacture, and sale of various freight railcar brake components. Prior to the acquisition, acquisition-target Faiveley had formed a joint venture with another rail equipment supplier that allowed it to bundle brake components and compete more

supplier to compete against Warner Chilcott's branded product. Moreover, no other generic supplier is likely to enter the market for a significant period of time. Thus, the combined firm would likely delay the entry of Actavis's generic version of Loestrin 24 FE or, at a minimum, cause Actavis's generic drug to compete less vigorously against Warner Chilcott's branded product, resulting in higher prices for consumers. Similarly, in the markets for Lo Loestrin FE and Atelvia, Actavis may be the first and only generic competitor to Warner Chilcott's branded products for a significant period absent the Proposed Acquisition. By eliminating this potential competition between Warner Chilcott and Actavis in each of these markets, the Proposed Acquisition would harm U.S. consumers by substantially increasing the likelihood of higher post-acquisition prices for Lo Loestrin FE and Atelvia.").

²⁷ See, e.g., In the Matter of Mylan, N.V., Dkt. C-4590 (July 27, 2016).

²⁸ See, e.g., In the Matter of Impax Laboratories, Inc., Dkt. C-4511 (Mar. 6, 2015).

²⁹ See, e.g., In the Matter of Watson Pharmaceuticals Inc. and Actavis Inc., Dkt. C-4373 (Oct. 15, 2012); In the Matter of Endo Health Solutions, Inc. and Boca Life Sciences Holdings, LLC, Dkt. C-4430 (Jan. 30, 2014); In the Matter of Mylan Inc. and Agila Specialties Global Pte. Ltd., Dkt. C-4413 (Sept. 26, 2013).

³⁰ In the Matter of Thoratec Corp., Dkt. 9339 (July 30, 2009).

effectively with the two large incumbents, one of which is Wabtec. In addition, Faiveley had developed its own control valve, which is the most highly-engineered, technologically-sophisticated component in a freight car brake system. With that capability, Faiveley could more directly compete with the incumbents—even though full commercialization and approval was likely seven years off. The transaction would have also eliminated future competition for control valves by preventing Faiveley’s entry into this market, and would have thus maintained a century-old duopoly between Wabtec and its only other control valve rival. To remedy these concerns, the companies agreed to divest Faiveley’s entire U.S. freight car brakes business to a court-approved buyer.³¹

25. The outcome of this analysis will very much depend on how certain and timely entry would be without the merger, and the evidence may not be clear-cut. In 2015, the Commission challenged the merger of Steris Corporation and Synergy Health, alleging that the merger would significantly reduce future competition in regional markets for sterilization of products using radiation, particularly gamma or x-ray radiation. At the time of the merger, only Steris and one other company provided contract gamma sterilization services in the U.S., while Synergy had a plan to open new plants to provide x-ray sterilization services, an alternative to gamma radiation. The FTC alleged that the merger would eliminate likely future competition between Steris’s gamma sterilization facilities and Synergy’s planned x-ray sterilization facilities, thus depriving customers of an alternative sterilization service and additional competition. The district court denied the FTC’s motion for a preliminary injunction based on a different view of what the evidence showed about the likelihood that Synergy would open new U.S. facilities to provide contract x-ray sterilization services.³²

7. Reduced incentive to initiate development of new products

26. Where both firms are engaged in product development a merger may reduce competition even though neither party has a commercially available product, because both firms are among only a few likely entrants into a future market. In future markets the merging firms each have established research and development efforts, and have taken steps to develop a product, but commercial entry is still some time off. A merger that eliminates existing incentives to continue innovation efforts could lead to fewer products or innovative features being introduced, reducing future price and non-price competition in a future market.

27. Current competition between firms in product markets characterized by a high degree of innovation may be indicative of future competition between the firms. In 2013, two of the world’s largest semiconductor manufacturing equipment makers, Applied Materials and Tokyo Electron, announced a merger that would combine the two leading firms that possessed the necessary knowhow, resources, and ability to develop and supply

³¹ United States v. Westinghouse Air Brake Technologies Corp., No.1:16-cv-02147 (D.D. C. 2017 filed Oct. 26, 2016), available at <https://www.justice.gov/atr/case/us-v-westinghouse-air-brake-technologies-corp-et-al>.

³² FTC v. Steris Corp., 133 F. Supp. 3d 962, 966 (N.D. Ohio 2015) (FTC failed to show that Synergy probably would have entered the U.S. contract sterilization market by building one or more x-ray facilities within a reasonable period of time).

high-volume non-lithography semiconductor equipment.³³ The DOJ conducted an extensive investigation that found that the existing competitive overlap between specific equipment offered by the two firms was emblematic of a broader competition to develop new equipment. Existing competition indicated that each firm had the “building blocks,” the appropriate collection of assets and capabilities, necessary to be successful developers of new equipment.³⁴ As a result, the DOJ had substantial concerns that the merger would diminish competition to develop equipment for the manufacture of next-generation semiconductors. In 2015, Applied Materials and Tokyo Electron announced they were abandoning the merger after the DOJ informed them that their proposed remedy was inadequate.³⁵

28. In certain industries, a small number of large integrated global firms engage in research and development across a broad range of products, and compete in specific product lines based on those innovative efforts. A merger between two of these competitors may slow the rate of innovation by reducing spending on overlapping research projects that would support innovation competition in existing and emerging markets. In 2016, the DOJ challenged a merger between Halliburton and Baker Hughes that would have combined two of the three largest oilfield services companies in the United States and the world, eliminating important head-to-head competition in markets for more than twenty products or services used for on- and offshore oil exploration and production in the United States.³⁶ Halliburton, Baker Hughes, and Schlumberger comprised the “Big Three” in the industry, and they possessed unrivaled research and innovation capabilities. The DOJ alleged that because of plans to eliminate expenditures on overlapping research projects, the merger would end competition between Halliburton and Baker Hughes to develop and bring to market “game changing” or “disruptive” new technologies. The firms abandoned their merger soon after the DOJ filed suit.³⁷

³³ Antitrust Div., Congressional Submission: FY 2017 Performance Budget 44 (2016), available at <https://www.justice.gov/jmd/file/821001/download>.

³⁴ Nicholas Hill, et al., Economics at the Antitrust Division 2014-2015: Comcast/Time Warner Cable and Applied Materials/Tokyo Electron, 47 Rev. Ind. Or. 425, 433 (2015).

³⁵ Press Release, Dep’t of Justice, Applied Materials Inc. and Tokyo Electron Ltd. Abandon Merger Plans After Justice Department Rejected Their Proposed Remedy (April 27, 2015), available at <https://www.justice.gov/opa/pr/applied-materials-inc-and-tokyo-electron-ltd-abandon-merger-plans-after-justice-department>.

³⁶ Press Release, Dep’t of Justice, Justice Department Sues to Block Halliburton’s Acquisition of Baker Hughes (April 6, 2016), available at <https://www.justice.gov/opa/pr/justice-department-sues-block-halliburton-s-acquisition-baker-hughes>; Complaint, United States v. Halliburton Co. and Baker Hughes, Inc., No. 1:16-cv-00233-UNA (D. Del. April 6, 2016), available at <https://www.justice.gov/opa/file/838651/download>.

³⁷ Press Release, Dep’t of Justice, Halliburton and Baker Hughes Abandon Merger After Department of Justice Sued to Block Deal (May 1, 2016), available at <https://www.justice.gov/opa/pr/halliburton-and-baker-hughes-abandon-merger-after-department-justice-sued-block-deal>.

8. Innovation efficiencies

29. A merger of two innovative firms may lead to an increase in innovative activity relative to the status quo, and these merger-specific efficiencies may outweigh the potential for harm due to an elimination of competition between them. Section 10 of the Horizontal Merger Guidelines discusses how to treat innovation efficiencies:

When considering the effects of a merger on innovation, the Agencies consider the ability of the merged firm to conduct research and development more effectively. Such efficiencies may spur innovation but not affect short-term pricing. The Agencies also consider the ability of the merged firm to appropriate a greater fraction of the benefits resulting from its innovations. Licensing and intellectual property conditions may be important to this enquiry, as they affect the ability of a firm to appropriate the benefits of its innovation. Research and development cost savings may be substantial and yet not be cognizable efficiencies because they are difficult to verify or result from anticompetitive reductions in innovative activities.

30. Sometimes, reduced incentives to innovate may not be a cause for competitive concern if the merger increases the merged firm's ability to conduct R&D more successfully. For instance, the Commission closed its investigation of a consummated merger of two large pharmaceutical companies after concluding that, on balance, the merger was likely to be procompetitive by speeding up on-going efforts at each firm to develop the first drug to treat Pompe disease a rare, often fatal, disease affecting infants and children.³⁸

³⁸ See FTC News Release, "FTC Closes its Investigation of Genzyme Corporation's 2001 Acquisition of Novazyme Pharmaceuticals, Inc.," (Jan. 13, 2004), available at <https://www.ftc.gov/news-events/press-releases/2004/01/ftc-closes-its-investigation-genzyme-corporations-2001>.