

# The Other Side of the Coin: Complementarity in Mergers of Multiproduct Firms

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## Introduction

Horizontal antitrust analysis is heavily focused on substitution, but complementarity, which has effects that are the inverse of substitution, is also an important and fundamental economic concept that can have implications for merger analysis. Complementarity's economic impact may be particularly underappreciated in the context of mergers of multiproduct firms. Without properly accounting for both substitutability and complementarity in such mergers, agencies and courts could inadvertently prevent mergers that would otherwise enhance consumer welfare. This article proposes an approach to weighing the economic effects of substitutability and complementarity in mergers of multiproduct firms, and discusses the practical implications of doing so.

It is important to clarify at the outset that we use "complementary" as it is defined in economics, as opposed to how it often is used to simply mean non-overlapping in a business setting or even antitrust practice. For example, a practitioner might assert "this is a complementary merger because Party A is only active in North America, while Party B is only active in Asia." That is not what complementary means in economics. Rather, economic complementarity requires that the demand for one product increases with a decrease in the price of the complement. Examples of complements abound: peanut butter and jelly; hockey skates, hockey sticks, and hockey helmets; toothbrushes and toothpaste; chocolate bars, marshmallows, and graham crackers (to make s'mores); phones and phone chargers; printers and printer toner; etc. The degree of complementarity may vary widely and is an empirical question that depends on the particular circumstance (just like the substitutability of a set of differentiated products).

An analysis of the price effects from a merger of producers of only complementary products, such as a manufacturer of peanut butter merging with a manufacturer of jelly, would be fairly straightforward in most circumstances. The lack of merging substitutes would suggest a reduced risk of significant competitive harm, or antitrust scrutiny. Moreover, merging complements together results in downward pricing pressure. As the 2020 Vertical Merger Guidelines acknowledge: "Mergers of firms that make complementary products can lead to a pricing efficiency analogous to the elimination of double marginalization."<sup>2</sup> So, setting aside some of the dynamic concerns outlined in the 2020 Vertical Merger Guidelines that are beyond the scope of this article,<sup>3</sup> a merger of exclusively complementary products likely should be viewed as procompetitive.

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<sup>1</sup> The opinions expressed are those of the authors and do not necessarily reflect the views of the firms or their clients.

<sup>2</sup> U.S. Dep't of Justice, Vertical Merger Guidelines at § 6 (2020), <https://www.justice.gov/atr/page/file/1290686/download>. On September 15, 2021, the U.S. Federal Trade Commission voted to withdraw its approval of the Vertical Merger Guidelines.

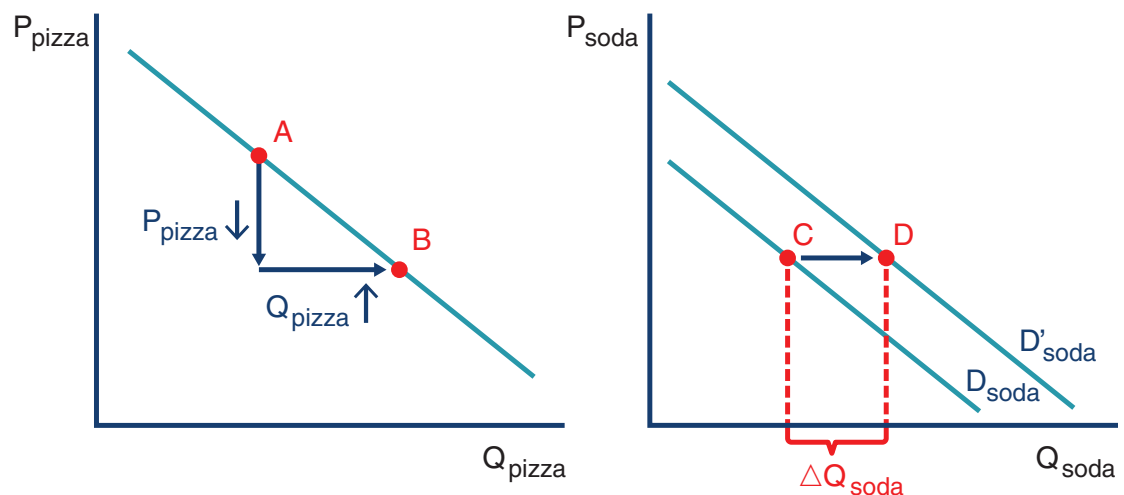
<sup>3</sup> For example, a merger of complementary products that are also complementary with competitors' products may induce the merged entity to intentionally reduce the complementarity of a merging product with a competitor's product. Such "foreclosure" concerns are described in the 2020 Vertical Merger Guidelines at § 4(a).

Now suppose that the merging firms produce a mix of products that are substitutes as well as complements. The antitrust and economic analysis of such a merger is more complex, requiring a balancing of potentially competing incentives for the merged firm. Accounting for the downward pricing pressure that results from merging complementary products is particularly important in this context because ignoring complementarity's effects in the merger analysis could result in overly aggressive enforcement against procompetitive mergers. Yet, in our experience, those procompetitive effects in multiproduct mergers involving both substitutes and complements are rarely given substantial weight.

### Economic Background About Complementarity

Economic complements are products that are positively related in demand. More precisely, two products are considered economic complements where the demand for one product increases when the quantity demanded of the other product increases due to a price decrease or quality improvement. For example, Figure 1 depicts complements—pizza and soda. As can be seen in Figure 1, the quantity of soda consumed increases as the quantity of pizza demanded increases (due to a decrease in the price of pizza).

Figure 1: Pizza and Soda



In general, a merger of complements will cause the merged entity to price more aggressively, harming competitors and benefiting consumers. The fundamental economics that underpin this result are some of the oldest in the field of industrial organization (the economics of firm behavior that underpins modern antitrust), dating back to at least Cournot (1838).<sup>4</sup> When firms that produce complements operate independently, each firm does not have an interest in how their pricing strategy affects the other. For example, if a jelly maker raises its price, demand for peanut butter will fall, but this externality (the effect of one good's pricing on another good's demand) has no direct effect on the jelly maker's profit and thus is not considered in the jelly maker's pricing decisions. However, if the firms merge, the combined firm will take into account not only the effect its prices for jelly will have on jelly sales and profits but also how its jelly pricing strategy will affect peanut butter sales and profits (and vice-versa). This "internalization" of the externality will cause the merged entity to decrease the price it sets on both products to generate greater demand and increase profits.

<sup>4</sup> ANTOINE AUGUSTIN COURNOT, RECHERCHES SUR LES PRINCIPES MATHÉMATIQUES DE LA THÉORIE DES RICHESSES (1838) (Nathaniel Bacon trans., 1897).

The fact that a merger of complements leads to reduced prices is fundamental. Whether it is profitable for firms that sell complements to merge is less clear. It depends on how competitors react to the merged firm's price reductions. For example, if competitors react strongly to the merged entity's price reductions, a merger may be unprofitable for all firms.<sup>5</sup>

Because it is fundamental that, all else being equal, mergers of substitute products are more likely to create incentives for price increases and mergers of complementary products are more likely to create incentives for price decreases, it is natural that the same fundamental economics make mergers of multi-product firms that sell a mix of substitute and complementary products more likely to create incentives to increase the prices of some products and decrease the prices of others.<sup>6</sup>

### Antitrust Background About Complementarity

It is well understood that “vertical mergers often benefit consumers through the elimination of double marginalization” (“EDM”).<sup>7</sup> As the court explained in *United States v. AT&T*:

[D]ouble marginalization refers to the situation in which two different firms in the same industry, but at different levels in the supply chain, each apply their own markups (reflecting their own margins) in pricing their products. Those “stacked” margins are both incorporated into the final price that consumers have to pay for the end product. By vertically integrating two such firms into one, the merged company is able to “shrink that total margin so there's one instead of two,” leading to lower prices for consumers. EDM is, therefore, procompetitive.<sup>8</sup>

Although EDM is better known in the context of vertical mergers, it is well known to economists that the same basic principle applies to horizontal mergers of complements. This is because, prior to a merger of complements, the owner of each product sets its price without regard for the profit of the other product. However, when producers of complements merge, the owner of the merged products considers the increase in sales (and thus profit) for jointly-owned complements when setting its prices. It is likely that this basic principle of mergers of complements is not as well-known as EDM because there rarely is a plausible antitrust theory of harm in mergers of pure complements, and thus there is no need to consider countervailing procompetitive effects. However, we discuss below several antitrust settings in which complementarity is an important element of the analysis.

Mergers of complements hypothetically can raise “conglomerate” concerns involving anticompetitive tying or bundling. The conditions necessary for such theories of harm rarely occur in practice, however. When they do arise, it is still important to analyze the procompetitive effects of complementarity, which may counteract or eclipse any purported anticompetitive effects entirely.

In analyzing network industries, complementarity plays an important role in assessing firm incentives and competitive effects. A network is inherently a system in which one participant's demand increases with the quantity demanded by other participants—in other words, the participants are

<sup>5</sup> See, e.g., Simon P. Anderson, Simon Loertscher & Yves Schneider, *The ABC of Complementary Products Mergers*, 106(3) *ECONOMICS LETTERS* 212-215 (2010) for further discussion of this point.

<sup>6</sup> This point is intuitive but has also been formally demonstrated under standard assumptions of Bertrand price-setting. For example, one can use the framework of Sonia Jaffe & E. Glen Weyl, *The First-Order Approach to Merger Analysis*, 5(4) *AMERICAN ECONOMIC JOURNAL: MICROECONOMICS* 188-218 (2013) to show that price changes can be positive or negative when firms sell a mix of complementary and substitute products.

<sup>7</sup> 2020 Vertical Merger Guidelines at § 1; see also PHILIP AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION* ¶ 1022 (5th ed. 2021).

<sup>8</sup> 310 F. Supp. 3d 161 at 197-198 (D.D.C. 2018) (internal citations omitted).

complements to one another. In mergers in network industries, therefore, complementarity can be an important aspect of the competitive analysis.<sup>9</sup>

Likewise, complementarity can play an important role in analyzing certain mergers in the transportation industry where firms use networks to move people or products from place to place. To use a stylized example: in a merger of airlines with complementary route systems, decreasing the price of one leg of a flight could increase demand for a second leg of a flight. If the merger brings together networks covering those separate flight legs, then the merged firm can more completely internalize the incentive to reduce price by earning profit from both flight legs.

Another area in which the competitive effects of complementarity have been analyzed is portfolios of standard-essential patents. The “royalty stacking” theory posits that a single owner of complementary patents would set a lower total price than disparate owners because the single owner internalizes the increased output across the portfolio that results from a lower total price. While it is unclear the degree to which royalty stacking actually is a problem in the first place,<sup>10</sup> for present purposes, it is noteworthy that the supposed problem may be solved by the common ownership of disparate complements, e.g., a horizontal merger of complements.

Although the procompetitive effects of complementarity have been analyzed in a variety of settings, they typically have not been deployed in mergers of other products or services. However, as we explain in the next section, they could be.

*In mergers of substitutes and complements, analyzing only the competitive effects of combining the substitutes could lead to an erroneous conclusion that the merger is anticompetitive or likely to result in higher prices.*

### **Application of Complementarity to Mergers of Multiproduct Firms**

In addition to the settings described above, the procompetitive effects of merging complementary products or services also apply to mergers of multiproduct firms. In such a setting, the transaction may combine both complements as well as substitutes. In fact, a single product simultaneously can be both a substitute for one of the other firm’s products and a complement with another. In mergers of substitutes and complements, analyzing only the competitive effects of combining the substitutes could lead to an erroneous conclusion that the merger is anticompetitive or likely to result in higher prices. In other words, one might miss the procompetitive effect of combining the merging complements, which could overwhelm the anticompetitive effect of the merging substitutes.

Even in the absence of merger efficiencies (e.g., savings from the merger’s reduction of variable costs), fundamental economics imply that it is plausible that a merger of multi-product firms that sell a mix of substitutes and complements is procompetitive. Here, we explain in greater detail the fundamental economic drivers of such an outcome and outline analyses that would support it.

The 2020 Vertical Merger Guidelines describe the economic reasons that mergers of firms that sell complementary products can result in lower prices:

Absent the merger, the merging parties would set the price for each complement without regard to the impact of lower prices for one on demand for the other. If the two merge, the merged firm has an incentive to set prices that maximize the profits of the firm as a whole, which may result in lower prices for each component.<sup>11</sup>

Economists can use both qualitative and quantitative analyses to determine the impact of product complementarity on a proposed merger’s likely competitive effects. A common first step in an

<sup>9</sup> See, e.g., Dennis Weisman, *Complementarities as an Antitrust Defense*, 21(4) COMPETITION AND REGULATION IN NETWORK INDUSTRIES 344-366 (2020).

<sup>10</sup> See Koren Wong-Ervin, OECD Roundtable on Licensing of IP Rights and Competition Law, Note for OECD Competition Committee (June 6, 2019), [https://www.oecd.org/daf/competition/Wong-Ervin%20OECD%20Paper\\_5-13-19.pdf](https://www.oecd.org/daf/competition/Wong-Ervin%20OECD%20Paper_5-13-19.pdf).

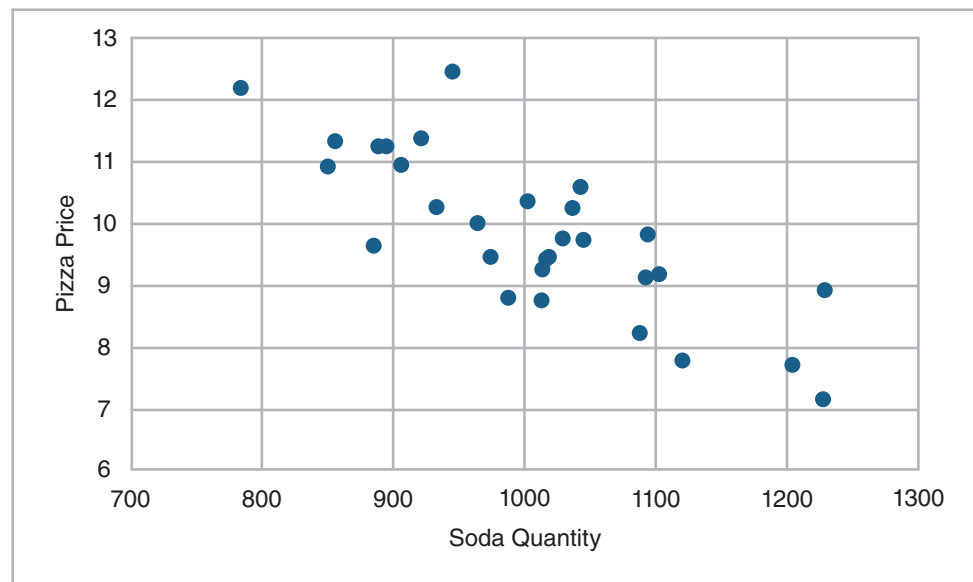
<sup>11</sup> 2020 Vertical Merger Guidelines at § 6.

economist's evaluation of product complementarity is a simple evaluation of the extent to which some of the products owned by merging parties are used or consumed together. For example, pizza and soda may be complements in comprising a meal; helmets, pads, cleats, and balls may be used together to play football; and shipping routes from points A to B and B to C may be combined to construct a shipping route from A to C. Observations such as these often are a useful starting point in the analysis of whether product complementarity among the portfolios of merging parties' products is likely to create merger benefits.

Once sets of potential complements have been identified, an economist can use quantitative tools to measure the extent of complementarity. In particular, economists can directly or indirectly measure the fundamental relationship between complementary goods—the degree to which demand for one product increases with a price decrease (and thus an increase in the quantity demanded) for the complementary product and vice versa.

A simple picture of the data often is a useful starting point when conducting an empirical study. For example, Figure 2 plots hypothetical quantities of soda consumed against pizza prices. These data are consistent with soda being a complement to pizza because lower pizza prices are generally associated with higher soda quantities. One also could focus more specifically on how soda demand responds to changes in pizza prices over time, in which case one might plot pizza price and soda quantity over time.

**Figure 2: Pizza Prices and Soda Quantities**



Simple statistics can be applied to these data as well, such as a correlation of pizza prices and soda quantity. For example, the correlation between pizza prices and soda quantity associated with Figure 2 is approximately -0.8. Here, a hypothetical merger of pizza and soda manufacturers could internalize an incentive to reduce the price of pizza to increase demand for soda.

Data on consumers' individual consumption decisions can be used to gain a deeper understanding of the demand relationship between two products. For example, customers often will

consume complementary products together, while products that are rarely consumed together are more likely to be substitutes or independent in demand.<sup>12</sup>

Although the observed relationships between the two variables described above are a useful starting point, quantitative inferences based on such relationships may be misleading as consumer purchase decisions often are affected by other factors such as consumers' incomes or the prices of other products.<sup>13</sup> That is, antitrust agencies might look at the graph above and suggest that there may be other factors explaining why pizza prices might be lower in areas with greater soda consumption, i.e., there is no causal relationship between the two. Showing that the two change together over time would be helpful in responding. However, to help confirm our pizza/soda merger would result in incentives to lower prices, quantitative estimates of the influence of the price that one product has on the demand for another can be obtained through more sophisticated econometric techniques that account for additional factors that also potentially affect product demand. Regression analysis is one commonly used econometric tool that addresses such challenges by including measures of other factors in the same estimation equation that relates two variables of interest.<sup>14</sup> For example, a regression equation might measure the change in soda demand following a change in the price of pizza, while also accounting for the price of soda and the consumer's income.

More generally, regression analysis can be used to estimate the extent to which products are substitutes or complements for one another—e.g., regressions can be used to estimate diversion ratios between products. Diversion ratios are useful for thinking about both substitutes and complements, and have similar, but inverse, interpretations. With substitute products A and B, the diversion ratio from product A to product B measures the proportion of product A's lost sales that flow to product B following a price increase on product A. With complementary products C and D, the diversion ratio from product C to product D is a negative number measuring the proportion of product C's sales that also are lost by product D following an increase in the price of product C.<sup>15</sup>

Economists frequently rely on diversion ratios as an input into models that predict merger price effects. For example, upward pricing pressure ("UPP") indexes combine diversion ratios with price cost margins to generate predictions of the relative magnitude of a merger's likely price effects. In the case of multiproduct firms that sell mixes of substitutes and complements, one can use diversion ratios among products to calculate a "generalized pricing pressure" ("GePP") index.<sup>16</sup> This index provides an overall measure of the likely direction and relative magnitude of the price effect of the merger that incorporates the incentives created by both substitute and complementary products.

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<sup>12</sup> Matthew Gentzkow, *Valuing New Goods in a Model with Complementarity: Online Newspapers*, 97(3) AMERICAN ECONOMIC REVIEW 713-744 (2007) develops this idea, provides caveats, and presents an empirical structural model that estimates the degree of complementarity between different products.

<sup>13</sup> In particular, if income increases over time in a given market, this can cause demand for both pizza and soda to increase even if the two are substitutes.

<sup>14</sup> If the regression controls for all factors that systematically affect the demand for both products, it will produce unbiased estimates. In practice, controlling for all important factors is rarely feasible because of data limitations. In such circumstances, natural experiments and instrumental variable techniques can be used to arrive at unbiased results. See, e.g., Michael Cragg, Loren Smith & Charles Gibbons, *Understanding the Econometric Tools of Antitrust – With No Math!*, ANTITRUST, Spring 2021, at 63-68.

<sup>15</sup> Because the diversion ratio between substitutes is traditionally expressed as a positive number (even though quantities move in opposite directions), the diversion ratio between complements is expressed as a negative number to emphasize the flow is in the opposite direction from a diversion ratio between substitutes.

<sup>16</sup> Jaffe & Weyl, *supra* note 5.

With sufficient time and data, economists can estimate the price effects of multiproduct mergers more precisely by using sophisticated structural modeling techniques. Structural models require the economist to apply “structure” to data by designing a specific economic model, the parameters of which can be estimated using available data. For example, an economist may design a specific demand relationship between several products and estimate the parameters of that demand system. The estimated model of the demand relationship between products can then be used to simulate the effects of a proposed merger.

It is worth noting that although textbook examples of complements typically involve pairs of products, complementary effects may be generated by relationships among several products. For example, demand for soda *and* grated parmesan cheese may increase as the price of pizza falls. In such cases, it is important that the merger analysis consider the overall competitive effects of all interrelated products (i.e., complements and substitutes).

### **Complementarity as a Procompetitive Effect Distinct from Efficiency**

Complementarity is properly viewed as a procompetitive effect, as opposed to a merger efficiency.<sup>17</sup> Merger efficiencies decrease the incremental costs associated with making a product or, equivalently, improve product quality. Lower costs or improved quality increase the value of incremental sales to the merged firm, causing lower prices and/or increased output. By contrast, complementarity creates an incentive to decrease prices that is independent of any changes in incremental costs. That is, with a merger of complements, the merged entity can gain incremental sales on product B by lowering the price of product A, creating an incentive to decrease the price of product A that is independent of the cost of producing product A. Thus, even if our pizza/soda merger results in no cognizable merger efficiencies, it could still result in lower prices because of the incentives created by mergers of complements.

Evaluation of merger efficiencies can be, and often is, considered as an independent offset to any UPP that is associated with a proposed merger. In contrast, complementarity properly should be considered along with other changes in pricing incentives caused by the demand relationships between merging parties' products.

Ignoring complementarity among products in the assessment of merger price effects can lead to erroneous conclusions about a transaction's overall competitive effect. Consider the following example: Firm 1, which produces goods A, B, and Z, proposes to merge with Firm 2, which produces good C. Products A, B, and C are substitutes for one another, while product Z is a complement to the other three.

An antitrust agency can make two mistakes by ignoring the complementarity between product Z and the other three products.

First, if the agency focuses only on the substitute products involved in the transaction, it may conclude that the merger creates an incentive to raise prices that is too large to be offset by merger efficiencies. However, once the role of product Z is considered, any incentive to raise prices on substitute goods A, B, and C may be overwhelmed by incentives to lower prices to

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<sup>17</sup> The Vertical Merger Guidelines discuss EDM and the analogous effect in mergers of complements in a section titled “Procompetitive Effects.” 2020 Vertical Merger Guidelines at § 6. The section explains how EDM is different than a typical merger efficiency and therefore should be analyzed differently. It states that EDM “arises directly from the alignment of economic incentives between the merging firms” as opposed to “production, research and development, or procurement efficiency,” and that “the same source drives any incentive to foreclose or raise rivals’ costs.” *Id.* In addition, unlike a typical merger efficiency, “[c]reditable quantifications of the elimination of double marginalization are generally of similar precision and reliability to the Agencies’ quantifications of likely foreclosure, raising rivals’ costs, or other competitive effects.” *Id.*

*The downward-pricing pressure from merging complementary products requires the joint ownership of the complementary products to fully internalize the positive externality. . . . Agencies should use their prosecutorial discretion to maximize overall welfare in this situation by crediting the inextricably-linked procompetitive effect of complementarity.*

generate demand for complementary product Z. In this case, ignoring the role of product Z may cause a procompetitive merger to be blocked.

Second, by ignoring product B's complementarity with product Z, the agency may determine that a divestiture of product B is warranted. In this case, there will be some benefits stemming from the consummated merger because of the complementarity between product Z, and products A and C. However, if product B is divested to a firm that does not own a complementary product, the divestiture buyer may have an incentive to increase the price of B, resulting in the divestiture inadvertently causing harm to consumers.

### **Complementarity as an Inextricably-Linked Procompetitive Effect as Opposed to an Incognizable Out-of-Market Efficiency**

Depending on the particular facts, the downward-pricing pressure of complementarity can materialize in the same market as the merging substitute products, as was described above, and/or in a separate market of the non-overlapping complement. Suppose that the downward-pricing pressure is predicted to occur outside the market of the substitute products and is predicted to be greater than the UPP predicted from merging substitute products. How should the antitrust agencies evaluate such a merger?

In general, the antitrust agencies take the position that an anticompetitive effect in one market cannot be offset by efficiencies in a different market, even if those "out-of-market" efficiencies are predicted to be greater than the harm.<sup>18</sup> The 2010 Horizontal Merger Guidelines do, however, contain an exception in the case of "inextricably linked" efficiencies.<sup>19</sup> The antitrust agencies may use their prosecutorial discretion to consider efficiencies that are not "strictly in the relevant market" but where they are "so inextricably linked" with the relevant market that a remedy in the relevant market would sacrifice the out-of-market efficiencies.<sup>20</sup> Setting aside for the moment the question of whether the procompetitive effects of complementarity are a type of "efficiency," inherently, those procompetitive effects are inextricably linked to the relevant market in which the merging parties' products are substitutes. The downward-pricing pressure from merging complementary products requires the joint ownership of the complementary products to fully internalize the positive externality.

As explained above, complementarity should be analyzed as a procompetitive effect rather than a merger efficiency. The 2020 Vertical Merger Guidelines refer to EDM and complementarity in a section titled "Procompetitive Effects."<sup>21</sup> The 2010 Horizontal Merger Guidelines' discussion of out-of-market efficiencies should not apply. Nonetheless, whether complementarity is categorized as a procompetitive effect or a merger efficiency, the agencies are likely to consider whether the

<sup>18</sup> See Christine Wilson, FTC Commissioner, The Unintended Consequences of Narrower Product Markets and the Overly Leveraged Nature of *Philadelphia National Bank*, Address at The Antitrust Enforcement Symposium (June 30, 2019), [https://www.ftc.gov/system/files/documents/public\\_statements/1532894/wilson\\_-\\_remarks\\_at\\_oxford\\_antitrust\\_enforcement\\_symposium\\_6-30-19\\_0.pdf](https://www.ftc.gov/system/files/documents/public_statements/1532894/wilson_-_remarks_at_oxford_antitrust_enforcement_symposium_6-30-19_0.pdf); *United States v. Philadelphia Nat'l Bank*, 374 U.S. 321, 370 (1963) (noting that "anticompetitive effects in one market [cannot] be justified by procompetitive consequences in another").

<sup>19</sup> U.S. Dep't of Justice & Federal Trade Comm'n, Horizontal Merger Guidelines (2010) at § 10 n. 14, <https://www.justice.gov/atr/horizontal-merger-guidelines-08192010#10>.

<sup>20</sup> *Id.*; see also Jonathan Orszag & Loren Smith, *Toward a More Complete Treatment of Efficiencies in Merger Analysis: Lessons from Recent Challenges*, ANTITRUST SOURCE (Oct. 2016), [https://www.americanbar.org/content/dam/aba/publishing/antitrust-magazine-online/oct16\\_full\\_source.pdf](https://www.americanbar.org/content/dam/aba/publishing/antitrust-magazine-online/oct16_full_source.pdf).

<sup>21</sup> 2020 Vertical Merger Guidelines at § 6; see supra note 16. Note, however, due to the FTC's recent withdrawal of the 2020 Vertical Merger Guidelines, FTC officials are unlikely to be persuaded by reference to the Vertical Merger Guidelines' treatment of EDM or complementarity.



effect is in the same market as the merging substitutes and apply the “out-of-market” framework from footnote 14 of the 2010 Horizontal Merger Guidelines. Even under that rubric, the procompetitive effects of merging complements should be credited as inextricably linked even when the downward-pricing pressure is predicted to occur “out of market.” The procompetitive effect of complementarity in one market is inherently due to the merging with a product in another market. In other words, a remedy in a market with predicted anticompetitive effects would necessarily reduce the procompetitive effect in the complementary market. Agencies should use their prosecutorial discretion to maximize overall welfare in this situation by crediting the inextricably-linked procompetitive effect of complementarity.

### Practical Pointers

As acquisitions involving complementary products become more common, considering the competitive effects of complementarity could be increasingly important. From an agency advocacy standpoint, therefore, it is critical to consider the kinds of evidence agency staff are likely to find most persuasive. Agencies evaluating this argument will find it most credible if it is reflected in and supported by evidence from multiple sources.

First, to the extent both merging parties’ ordinary course documents reflect the complementarity of products contemplated by the deal, the greater credibility the procompetitive benefits will have. For example, if a peanut butter manufacturer’s pre-deal strategic plans discuss the effects of jelly prices on demand for their peanut butter products, that reduces the likelihood that—in agency staff’s view—the complementarity story was simply “made for the deal.”

Second, just as importantly, company documents discussing or analyzing the transaction should reflect the importance of complementarity to the deal. For example, if the downward pricing incentives of complementarity are reflected in modeling for the combined company’s sales and margins, that lends credence to the claim that once the deal is closed, the combined company will have strong incentives to use the EDM from complementarity to be even *more* competitive, which will benefit customers. Ideally, the company’s deal analyses should reflect negative cross elasticity, i.e., a decrease in price of one product leads to increased demand for the other product. Moreover, it is also important to keep in mind that the term “complementary” can have very different meanings to business teams and economists. So, it is critical for internal business teams working on the deal to understand that economic complementarity is not the same as the business use of the term to simply mean non-overlapping—and rigorous use of the term in the economic sense will be most persuasive to agency staff.

Counsel should tailor guidance to clients to account for this fact, particularly in identifying ordinary course evidence to support the deal. For example, a request for or search of company documents for generic terms like “complements” or “complementarity” may not yield useful results because the business team uses those terms broadly. Rather, counsel should seek out evidence that is specific to the industry and the complementary products or services in the deal. In the case of a merger between peanut butter and jelly manufacturers, requests to the company for documents reflecting customer interest in purchasing both products together (e.g., customer X wants “one-stop shopping for peanut butter *and* jelly”) or sales teams tracking jelly pricing to assess demand for and pricing of peanut butter (or vice versa) are more likely to surface ordinary course materials that bolster and add credibility to the argument before agency staff. Direct engagement with internal sales or marketing teams may be needed to reach bedrock on the types of documents—e.g., emails with customers, strategic plans, or monthly sales updates—that exist in company files.

And third, quantitative evidence of complementarity and deal-specific incremental incentives to lower prices should be developed *before* engagement with agency staff. Having an economist prepare an analysis as discussed above in advance of filing will help staff get up to speed quickly and accelerate their understanding—and pressure testing—of the parties' claims.

### **Conclusion**

Complementarity is an important economic concept and has significant antitrust implications. Failing to analyze the procompetitive effects of merging complementary products can lead to erroneous enforcement decisions, reducing consumer welfare. Multiproduct firms merging complementary products should make sure to include arguments and evidence of the procompetitive effects of complementarity in their advocacy. In turn, the antitrust agencies should carefully consider complementarity and recognize that failing to do so could result in falsely condemning a procompetitive or benign merger. ●