Comments to the Antitrust Division of the U.S. Department of Justice and the Federal Trade Commission

Concerning

U.S. DEPARTMENT OF JUSTICE AND THE FEDERAL TRADE COMMISSION
DRAFT VERTICAL MERGER GUIDELINES
RELEASED FOR PUBLIC COMMENT ON JANUARY 10, 2020

By

Dr. Lona Fowdur and Dr. John R. Morris

February 25, 2020

Executive Summary

These comments are submitted by Dr. Fowdur and Dr. Morris, who collectively have worked on or submitted testimony in dozens of vertical transactions in the electric energy, natural gas, petroleum, video content, pharmaceutical, and healthcare industries. This background provides a unique perspective on the Draft Vertical Merger Guidelines.

We summarize our specific recommendations as follows:

- Use terminology familiar to the business community and antitrust practitioners, such as "upstream" and "downstream" stages of production instead of "relevant" and "related" stages.
- Explicitly state that high market concentration is necessary at both the upstream and downstream levels for likely anticompetitive effects.
- Explicitly state whether 20% market shares are necessary at both the upstream and downstream levels for likely anticompetitive effects.
- Consider including alternative downstream shares and market concentration measures.
- Make Market Power Pressure Indices more explicit.
- Revise or drop Example 5.
- Revive potential competition considerations.
- Restore the regulatory evasion theory.

I. Background

These comments are being submitted by Dr. Lona Fowdur and Dr. John R. Morris. Dr. Fowdur has consulted on several recent vertical transactions in the healthcare and pharmaceutical industries. Over the past 30 years, Dr. Morris has consulted and testified on many vertical transactions in the electric energy, natural gas, petroleum and video content industries. They have submitted market power studies and testimony before the Antitrust Division of the U.S. Department of Justice ("DOJ"), the Federal Trade Commission ("FTC"), the Federal Energy Regulatory Commission ("FERC"), and state regulators. Collectively they have worked either for or on behalf of major corporations, private consulting firms, the DOJ, the FTC, and state Attorney Generals. They also have provided economic advice concerning market manipulation, market structure, design of wholesale power markets, competitive effects of rates, claims of abuse of affiliate relationships, and allegations of vertical foreclosure. Summary biographical information for Dr. Fowdur and Dr. Morris is included in an Appendix.

The views expressed in this document are ours alone and do not necessarily reflect the views of our employers or clients. These comments are not being sponsored by past or current clients.

In section II, we explain the importance of guidelines that provide clear and concise guidance to differentiate between mergers that are not anticompetitive and those that are or may be so. In section III, we provide a suggested methodology for screening vertical mergers based upon factors that we would consider when evaluating possible vertical

transactions. Section IV provides eight specific recommendations to improve the guidance and clarity in the Vertical Merger Guidelines.[1]

We recommend that the Agencies: (1) use terminology familiar to the business community and antitrust practitioners; (2) acknowledge that both the upstream and downstream markets need to be concentrated for likely anticompetitive effects; (3) clarify the 20 percent threshold; (4) consider alternative downstream shares and market concentration; (5) make Market Power Pressure Indices more explicit; (6) either revise or drop Example 5; (7) revive potential competition considerations; and (8) restore the regulatory evasion theory.

II. The Agencies Undervalue More Explicit Guidance

The Draft Vertical Merger Guidelines provide little usable guidance. They recite various well-understood theories of potential anticompetitive effects from vertical mergers, but they do little to provide guidance as to when those theoretical effects will lead to an actual competitive concern. The only attempt at a standard is to state that "[t]he Agencies are unlikely to challenge a vertical merger where the parties to the merger have a share in the relevant market of less than 20 percent, and the related product is used in less than 20 percent of the relevant market." But in the very next sentence the Draft Vertical Merger Guidelines states that "In some circumstances, mergers with shares below the thresholds can give rise to competitive concerns." As a result, the 20 percent threshold is hardly binding and ends up providing no guidance at all.

In an attempt to cover every conceivable case, the Draft Vertical Merger Guidelines fail to identify which transactions fall into one of the following three categories: those that are (1) almost certainly problematic, (2) almost certainly not problematic, or (3) ambiguous

[1] U.S. Department of Justice and Federal Trade Commission, *Draft Vertical Merger Guidelines*, January 10, 2020, available at https://www.ftc.gov/public-statements/2020/01/joint-vertical-merger-guidelines-draft-released-public-comment.

and require careful analysis. If the Draft Vertical Merger Guidelines cannot simply and clearly distinguish between transactions that are within each of these three categories, then we question their value.

The Draft Vertical Merger Guidelines reflect an apparent concern that some anticompetitive mergers might be classified within the safe harbors designed for transactions that are unlikely to be anticompetitive. Properly crafted safe harbors, however, can adequately mitigate such concerns. For example, even economists who have called for greater vertical merger enforcement accept that anticompetitive effects are unlikely when both the upstream and downstream markets are unconcentrated.[2] A statement that both markets must be concentrated does not unduly constrain the Agencies. Rather, it simply acknowledges what threshold conditions the Agencies would need to demonstrate anticompetitive effects in the course of a merger investigation, or ultimately, in the context of litigation.

The Agencies might also be concerned that requiring both the downstream (relevant) market and the upstream (related) market to be highly concentrated doubles their burden because they have to define two markets instead of one. Once again, this is an unwarranted concern because the burden of persuasion already rests with the Agencies to show that downstream firms could not find alternative substitutes to the potentially foreclosed supplies of the upstream merging party.[3] And, similarly, the Agencies need to demonstrate that customers of the downstream merging party could not find good substitutes. Finding

---

[2] *See, for example,* Jonathan Baker, Nancy Rose, Steven Salop, & Fiona Scott Morton, *Five Principles for Vertical Merger Policy*, 33 ANTITRUST 12, 16 (2019) ("Vertical mergers involving firms in at least one oligopoly market raise the greatest competitive concerns. If both markets are unconcentrated, it is less likely that a vertical merger would be anticompetitive.") As discussed in section IV.B, we believe that anticompetitive effects are unlikely unless both the upstream and downstream markets are concentrated. The level of concentration at which substantial anticompetitive effects become more likely is not as clear. We favor a requirement for upstream and downstream HHIs to be 2,500 in order to raise potential concerns. But even if the Agencies articulated 1,500 as the threshold, that would provide more guidance relative to the lack of any threshold in the current Draft Vertical Merger Guidelines.

[3] *U.S. v. Baker Hughes, Inc.*, 908 F. 2d 981, 983 (1990).

the set of potential alternative products and suppliers closely hews to the delineation of the upstream and downstream markets. Therefore, clearly stating the requirement in the Vertical Merger Guidelines does not increase the Agencies' burden.

The Vertical Merger Guidelines, like any enforcement guidelines, seek to balance an increase in the probability of preventing or dissuading anticompetitive transactions with a decrease in the probability of inadvertently stopping transactions that would benefit consumers. Vague guidelines do the opposite by decreasing the probability of preventing anticompetitive mergers and increasing the probability of stopping beneficial mergers.

Vague guidelines decrease the probability of preventing anticompetitive mergers for at least two reasons. First, without clear guidance, businesses are more likely to propose anticompetitive transactions in the hope that they are not stopped. But more importantly, vague guidelines increase the burden on Agencies. Due to vague guidelines, Agencies can waste resources investigating transactions that would otherwise not be filed. Similarly, vague guidelines fail to provide courts with information as to transactions that are likely to be anticompetitive. Without such guidance, courts are less likely to rule against anticompetitive transactions.

Vague guidelines can also deter procompetitive mergers. Because of vague guidelines, some business will not attempt procompetitive transactions that clear and correct guidance would foster. In such cases, consumers would lose the benefits of procompetitive transactions. In addition, vague guidelines increase the likelihood that procompetitive transactions will receive intense scrutiny, which again wastes Agency resources, and also acts as a tax on procompetitive mergers, thereby diminishing their frequency. The undue burden could be especially problematic for smaller transactions or where the vertical component is a smaller part of an otherwise larger and procompetitive transaction.

In our opinion, the Agencies have discounted the benefits of providing clear guidance as to circumstances that clearly result in procompetitive mergers on the one hand and anticompetitive vertical mergers on the other. By not providing objective guidance on vertical mergers that are almost certainly anticompetitive or almost certainly pro-competitive, the Draft Vertical Merger Guidelines fail to provide valuable utility. As such, we view the Draft Vertical Merger Guidelines as hindering the prevention of anticompetitive vertical mergers on the one hand and the advancement of procompetitive mergers on the other.

III. Suggested Methodology

We do not expect the Guidelines to provide perfect guidance. Rather, we propose that the goal should be to provide guidance as to when a proposed transaction is almost certainly anticompetitive on the one hand or almost certainly procompetitive or benign on the other. For transactions that fall outside of these two "tails," the Guidelines should identify with as much clarity as possible the approach that the Agencies would use to evaluate the likely competitive effects of the transaction.

To this end, we summarize in this section the approach that we take to assess competitive effects of vertical transactions when we provide guidance to businesses, industry participants, market observers, regulators and others. We begin our screening process with examining four separate shares.

First, our analysis typically begins with an examination of the upstream product market.[4] We start by identifying the substitutes for the upstream product and determining the set of products that would constitute a relevant product market. We then estimate market concentration and the market share of the upstream merging party in the upstream market. If either the market share or upstream market concentration were low, we would

[4] As discussed in section IV.A. below, we prefer the upstream and downstream product descriptions over the "relevant" and "related" products used in the Draft Vertical Merger Guidelines.

advise that the transaction would be unlikely to generate anticompetitive effects. A low market share would be 30 percent or below, and low market concentration would be 2,500 or below.[5] In these cases, the upstream merging party would be unlikely to possess an ability to raise upstream prices appreciably or to restrict supplies to rival downstream companies; therefore, anticompetitive effects would be unlikely.

Second, we examine the share of the upstream product that is used as an input into the downstream market. When one of the merging parties has an upstream market share higher than 30 percent and the upstream market concentration is higher than 2,500, we investigate the disposition of the upstream product. We would conclude that anticompetitive effects would be unlikely if less than 30 percent of the upstream product is used in as an input into the downstream market. As an example, electricity is generated from solar energy, wind energy, water, nuclear fuel, coal, natural gas, and various oil products. If the upstream product is distillate fuel oil (DFO), only a small fraction of DFO output is used for electric power generation.[6] Hence, vertical integration of a refiner and an electric generator would be unlikely to have anticompetitive effects because so little of the upstream product is used to generate electricity. Specifically, integration of a refiner and an electric generator would be unlikely to affect pricing decisions for DFO, even if DFO supplies were highly concentrated and the merging upstream refiner had a high share of DFO production in a region. On the other hand, 35 percent of natural gas consumed in the U.S. in 2018 was used for electric power

---

[5] This market share threshold would harmonize the U.S. Vertical Merger Guidelines with the EU Guidelines. *See* 2008 O.J. (C 265) 7, 9 ("The Commission is unlikely to find concern in non-horizontal mergers . . . where the market share post-merger of the new entity in each of the markets concerned is below 30% and the post-merger HHI is below 2,000." [Note omitted]). Notwithstanding the lower concentration threshold, we find anticompetitive effects unlikely when the upstream share is less than 30 percent and the upstream concentration is less than 2,500.

[6] According to data from the Energy Information Administration, less that 1 percent of DFO was used for electric power generation in 2017. *See* data at https://www.eia.gov/dnav/pet/pet_cons_821dst_dcu_nus_a.htm, accessed on Feb. 24, 2020.

generation.[7] Accordingly, combinations of natural gas suppliers with electric generators might raise concerns.

Third, we consider the share of output in the downstream market produced using the upstream input produced by a merging party, or the coverage ratio of the upstream input. For example, 35 percent of electric generation nationwide, with substantially higher shares in some areas, comes from natural gas.[8] Thus, a monopoly pipeline supplier of natural gas may have a substantial coverage ratio. Although the coverage ratio is important for our analyses, we would consider it in combination with a fourth share--the share of the merging parties in the downstream market. Typically, the downstream market is the primary market of concern because it is closest to consumers or end users. We find that the downstream market share provides valuable information when it is combined with the coverage ratio because the downstream share measures direct control, while the coverage ratio measures indirect control of the downstream market. When combining these numbers, it is necessary to remove any overlap to prevent double counting. To the extent that the coverage ratio includes a merging party's downstream sales that were produced from inputs of the upstream product from the other merging party, there would be double counting. Specifically, the combined input coverage/downstream share sums the downstream share and the coverage ratio but subtracts the merging party's downstream sales that were produced from inputs from the other merging party. When the input coverage combined with downstream share is less than 30 percent, then we would advise that the transaction is unlikely to be anticompetitive and additional investigation is not warranted.[9]

An advantage of the above approach is that it allows every vertical transaction to be recast in terms of a horizontal transaction. McGee & Bassett recognized over 40 years ago

---

[7] *See* data at http://www.eia.gov/dnav/ng/ng_cons_sum_dcu_nus_a.htm, accessed on Feb. 24, 2020

[8] *See* data at https://www.eia.gov/tools/faqs/faq.php?id=427&t=3, accessed on Feb. 24, 2020.

[9] This harmonizes the Vertical Merger Guidelines with the EU standard of 30 percent for a downstream share, albeit with a different calculation of the downstream share.

that most analyses of vertical integration involve elements of horizontal integration masquerading as a vertical transaction.[10] As they state, "Since there are many socially beneficial results from vertical integration and the real problem is horizontal monopoly, policy should be directed to the latter area rather than the former."[11] That is why we would examine the combination of the downstream share and the coverage ratio. It is not enough that one or the other is high, but it is the combination—the increase in implicit horizontal integration—that has the potential to turn a vertical combination from a socially beneficial transaction into an anticompetitive transaction.

An additional screen is whether the downstream firm is a monopolist. If the downstream firm is a monopolist, then it would already be selling at the downstream monopoly output and price levels, given the upstream prices, and the transaction could not involve any potential foreclosed rivals. Several authors have shown that under this condition vertical integration is either competitively benign or procompetitive.[12] Identifying a downstream monopolist is not always straightforward, however. At pre-transaction input prices, a true downstream monopolist will already have raised prices to the point that no further price increase would be profitable. But a true downstream monopolist may not exist unless the product is so distinct that some buyers would simply go without due to the high price, rather than find an alternative. As an example, the next best alternative to a particular medication could be a wide array of products that do not improve health. We would use the following standard to identify a downstream monopolist: A downstream monopolist exists when it is the only firm that markets a product and raising downstream prices would cause downstream customers to switch to products that do not have the upstream product as an input.

---

[10] John S. McGee & Lowell R. Bassett, *Vertical Integration Revisited*, 19 J. LAW & ECON. 17, 27-28 (1976) [hereinafter McGee & Bassett (1976)].

[11] *Id.*, at 28.

[12] *Id.*, at 19-21; Martin K. Perry, *Vertical Integration: The Monopsony Case*, 68 AM. ECON. REV. 561 (1978).

If likely anticompetitive effects cannot be excluded based on these screens, we would make further inferences about likely competitive effects based on downstream market concentration. Anticompetitive effects are unlikely when the downstream market is competitive. This is unambiguously the case when there are fixed proportions in production in the downstream market.[13] Even when the downstream market has variable proportions in production—that is, the downstream producers may in part decide to substitute from the upstream product when prices rise above competitive levels—anticompetitive effects may not occur. The models that show anticompetitive effects can occur in competitive downstream markets typically assume constant returns to scale in downstream production.[14] But industries that exhibit constant return to scale have no entry barriers, and the upstream firm can enter directly. In that case, the only motive for merger is some potential cost reduction from purchasing an existing firm rather than entering the competitive market, a cost savings that is not included in the models. Moreover, as pointed out by McGee & Bassett, the analyses hinge on the vertical transaction instantly transforming the downstream market from a competitive structure to a monopoly structure—a change that is never explained.[15] A more realistic analysis assumes some fixed factors of production that give economies of scale in production.[16] In this case, vertical integration will often increase downstream output and decrease downstream prices.[17] Hence, we conclude that vertical integration is unlikely to have anticompetitive effects when the downstream market is unconcentrated and competitive. That leaves only

---

[13] McGee & Bassett (1976), *supra* note 10, at 23. Even economists who appear to believe that vertical merger enforcement should be aggressive agree that no anticompetitive effects would occur when the downstream market exhibits fixed proportions. *See, for example*, Steven C. Salop, *Invigorating Vertical Merger Enforcement*, 127 YALE L. J. 1962, 1968-9 (2018).

[14] *See,* for example, Frederick R. Warren-Boulton, *Vertical Control with Variable Proportions*, 82 J. POL. ECON. 783 (1974); DENNIS W. CARLTON and JEFFERY M. PERLOFF, MODERN INDUSTRIAL ORGANIZATION 548-551 (Scott, Foresman & Company, 1990).

[15] McGee & Bassett (1976), *supra* note 10, at 27.

[16] *See* RICHARD S. HIGGINS, *Vertical Merger: Downstream Integration for Quasi-Rents*, 30 MANGE. DECIS. ECON. 183 (2009).

[17] *Id.*

an intermediate case where the downstream market is not served by a monopolist and the downstream market is highly concentrated.

Only if a transaction fails all of these screens would we advise that a more complete analysis is necessary. Our preferred analysis would be of generalized Market Power Pressure Indices, which we discuss in more detail in Section IV.E., below. If these indices indicate likely anticompetitive effects, we would also make other qualitative inquiries that do not fall as neatly into an economic modeling framework, including analyses of entry conditions, product repositioning, and efficiencies other than the elimination of double marginalization (which is addressed with the Market Power Pressure Indices, below).

IV. Specific Recommendations to Improve the Vertical Merger Guidelines

A. Use Terminology Familiar to the Business Community and Antitrust Practitioners

- **We recommend that the Agencies refer to the interrelated levels of the vertical chain as "upstream" and "downstream" markets instead of "relevant" and "related" product.**

Upstream and downstream levels of production are customary terms when discussing vertical relationships. As concisely explained in footnote 2 of the Draft Vertical Merger Guidelines, a vertical merger involves a combination of companies operating at two different levels of the same supply chain. The stage closer to final consumers is the downstream stage and the stage further from final consumers is the upstream stage. Every vertical merger involves a combination of upstream and downstream companies. Upstream and downstream reflect the customary way of categorizing the two companies in both economic and legal literature, and we recommend that the Agencies use these familiar terms in their new Vertical Merger Guidelines.

Despite the common usage of upstream and downstream stages, on page 2 the Draft Vertical Merger Guidelines switch to a "relevant market" and "one or more related products," which are not normal usage. Making the discussion even more confusing, in *Example 1*, the Draft Vertical Merger Guidelines first describe the downstream product as the "relevant market" and the upstream product as the "related product", and then reverse the designations.

Insofar as an analysis of a merger between suppliers of complementary goods mirrors the analysis of a vertical transaction, the Vertical Merger Guidelines could rely on a footnote that draws the relevant analytic parallels without compromising clarity within the main text of the document.

B. Acknowledge that Both the Upstream and Downstream Markets Need to be Concentrated for Likely Anticompetitive Effects

- **We recommend that the Agencies state that both the upstream and downstream markets need to be concentrated before the Agencies are likely to take action.**

We recommend that the Vertical Merger Guidelines clearly state that the Agencies would be unlikely to challenge a vertical merger where both the upstream and downstream markets are unconcentrated and would remain unconcentrated after the merger because anticompetitive effects are unlikely when either market is unconcentrated.[18] It is obvious

[18] For the purpose of this discussion, we use the language of the Horizontal Merger Guidelines for an unconcentrated market. That is, a market is unconcentrated if the HHI is below 1,500. *See* DOJ and FTC Horizontal Merger Guidelines [hereinafter HMG], *available at* http://www.justice.gov/atr/public/guidelines/hmg-2010.pdf.

In the HMG the post-merger HHI market concentration thresholds are 1500 for an unconcentrated market, 1500-2500 for a moderately concentrated market, and greater than 2500 for a highly concentrated market. The concentrated market post-merger HHI change triggers in the HMG are between 100-200 for potentially raising significant competitive concerns and greater than 200 for presuming that the merger is likely to create or enhance market power.

The Agencies might consider a threshold higher than 1,500 before looking for possible anticompetitive effects. For example, FERC uses 1,800 as its threshold of possible vertical effects. Order No. 642, *Revised Filing Requirements under Part 33 of the Commission's Regulations*, F.E.R.C. STATS. & REGS.

that when both upstream and downstream markets remain unconcentrated, both upstream and downstream buyers will have sufficient alternatives to the merged entity, and the merged entity will be unlikely to have an ability to exercise market power in either market. But even when only one of the two markets is unconcentrated, anticompetitive effects are unlikely. When the upstream market is unconcentrated, then the downstream firms would have good alternatives to the merged company for buying inputs. The upstream merging partner would not have power over price, which would make foreclosure effects unlikely. When the downstream market is not concentrated, anticompetitive vertical effects are unlikely because even if the upstream merging partner had an ability to raise downstream rivals' costs, the merged entity would be unlikely to recoup sufficient margins in the downstream market to make up for the lost volume in the upstream market. In other words, the upstream company would already be receiving most of the potential profits at the upstream level, giving little incentive to attempt foreclosure.[19]

We note that others have been willing to explicitly state that both the upstream and downstream markets must be highly concentrated for likely anticompetitive effects from vertical transactions. FERC, for example, has stated "highly concentrated upstream and downstream markets are necessary, but not sufficient, conditions for a vertical foreclosure strategy to be effective."[20] A similar statement would provide useful guidance to business, antitrust practitioners, and the courts. Accordingly, we recommend that the Agencies provide a clear statement that a specific concentration threshold is necessary at both the upstream and downstream vertical levels before anticompetitive effects from vertical transactions are possible.

¶ 31,111, 65 Fed. Reg. 70,983 (2000), at pp. 31,909-911. (". . . highly concentrated upstream and downstream markets are necessary, but not sufficient, conditions for a vertical foreclosure strategy to be effective.") [hereinafter "FERC Order No. 642"].

[19] We acknowledge that there is a literature on variable proportions at the downstream production stage that shows a theoretical possibility of anticompetitive effects from an upstream monopolist integrating downstream. *See, for example*, Warren-Boulton (1978), *supra* note 14. For the reasons discussed in section III, we do not view this possibility as a sound basis for merger enforcement policy.

[20] FERC Order No. 642, *supra* note 18, at p. 31,911.

C. Clarify the 20 Percent Threshold

We recommend that the Agencies clarify the 20 percent threshold.

The Draft Vertical Merger Guidelines at 3 state:

> The Agencies are unlikely to challenge a vertical merger where the parties to the merger have a share in the relevant market of less than 20 percent, and the related product is used in less than 20 percent of the relevant market.

We find this statement ambiguous, and it raises several issues that we now address.

We interpret the statement to mean that the Agencies are unlikely to challenge a vertical merger where the merging parties jointly have a share of less than 20 percent in the downstream market and the upstream product produced by the merging parties is an input to less than 20 percent of the downstream output or capacity. For example, the Agencies would not challenge a merger of an electric generation company and a natural gas pipeline company if the generation company accounted for less than 20 percent of the downstream electric energy market and less than 20 percent of the electricity generated in the downstream market used inputs of natural gas from the merging pipeline. If that is the meaning, then it should be stated explicitly. If the Agencies meant something else, then it would be desirable to make the statement more explicit.

We seriously doubt that the two share thresholds as articulated provide valuable guidance for vertical cases. Four shares are important in determining whether a transaction is a candidate for additional investigation of likely competitive effects, as discussed in section III above. Beginning at the upstream level, it is necessary for the upstream company to have market power in its market so that it can affect upstream prices or supplies in a meaningful manner. As discussed in section III, we recommend that an upstream supplier to have at least a 30 percent share in the upstream market to warrant a closer examination of potential anticompetitive effects. We would also calculate the percentage

of the upstream product that is used in the relevant downstream market, and require a 30 percent share or higher. We would also calculate the share of the upstream product that is used for supplies in the downstream market, the coverage ratio, and the downstream market share of the merging parties.

As we discussed in Section III above, neither the downstream coverage nor the share of downstream sales by itself is relevant for a competitive analysis. Rather, it is the combination of the two shares for the merging parties that is relevant because the combined share quantifies the amount of the downstream output that is directly or indirectly controlled by the merged company. In the case of the acquisition of Enova Corporation (Enova) by Pacific Enterprises in 1998, for example, Enova had about 10 percent of the generation capacity, while Pacific Enterprises served about 56 percent of the generation capacity, excluding Enova.[21] The potential competitive issues were equivalent to a company with a 56 percent share combining with a 10 percent share.[22] As discussed above, we believe that a 30 percent combined share (coverage plus downstream share of the merging parties) is a threshold to conclude anticompetitive effects are unlikely.

Figure 1 compares the 20/20 threshold in the Draft Vertical Merger Guidelines with the 30 percent threshold that we recommend. The coverage ratio of the merging parties is on the horizontal axis and the downstream market share of the merging parties is on the vertical access. Areas below (to the left of) the lines indicate safe harbors and the areas above (to the right of) the lines indicate a need for additional investigation. The 20/20 standard in the Draft Vertical Merger Guidelines is represented by share combinations below and to the right of the two blue lines, and the sum of shares with a 30 percent standard

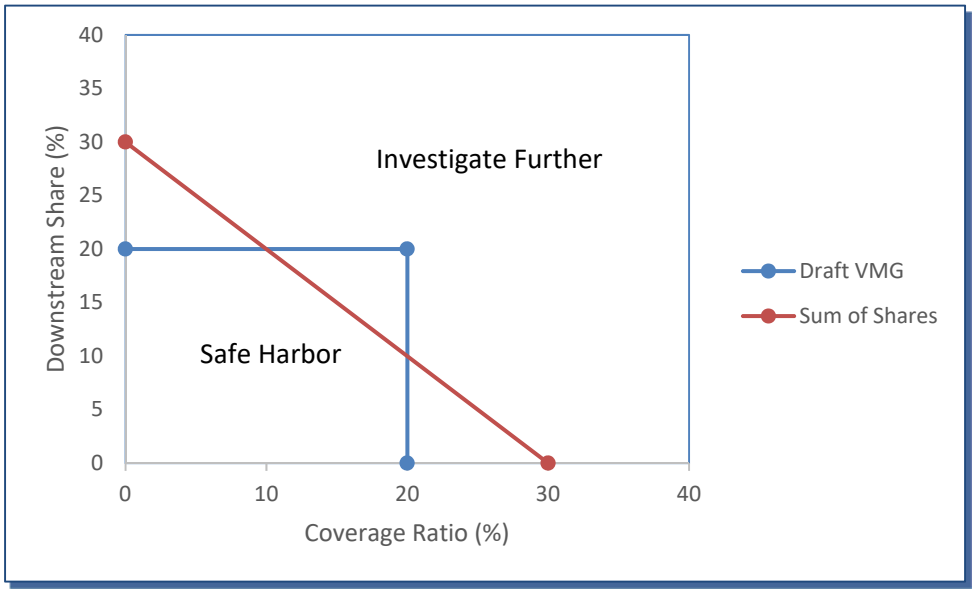
---

[21] *See* Affidavit of Dr. John R. Morris, San Diego Gas & Electric Company and Enova Energy, Inc., FERC Docket No. EC97-12-000, March 28, 1997 [hereinafter Morris SDG&E Affidavit], at Exhibit No.___(JRM-3).

[22] Pacific Enterprises supplied Enova, so it may appear that the transaction would not change the share in a combined input coverage/downstream market. However, Enova controlled the natural gas pipeline delivering to the 10 percent share, and Pacific Enterprises controlled the natural gas pipeline delivering to the 56 percent share. Hence, it is appropriate to sum the 56 percent share and the 10 percent share. See Section IV.D. below.

is represented by the diagonal orange line. The Draft standard implies that when both shares are below 20 percent, the Agencies are unlikely to challenge. This would include the case when the companies have shares of 19 percent for both coverage and downstream share. In contrast, a combination of 19 percent shares would fail a 30 percent combined screen. But the 30 percent combined screen would allow transactions in which the share in either is less than 10 percent, whenever the combined shares are less than 30 percent. For example, a combination of a 24 percent coverage ratio with a 5 percent downstream share would be unlikely to face a challenge. We find that very low shares in either the coverage or the downstream market are unlikely to be problematic.

Figure 1 – Comparison of Share Thresholds



Based on the well-documented efficiencies that tend to originate from vertical transactions, we believe that a 30 percent share threshold adequately captures transactions where anticompetitive effects might be likely. For the reasons discussed in the following subsection, we believe that providing a measure of the impact of combining the downstream share with the coverage input share of the merging parties would provide meaningful information on potential anticompetitive effects of vertical mergers.

D. Alternative Downstream Shares and Market Concentration

We recommend that the Agencies consider imputed downstream market shares and concentration thresholds.

As discussed above, any anticompetitive vertical merger can be recast as an increase in horizontal market power. This insight suggests a way of providing quantifiable guidance on which transactions are likely to be anticompetitive. We recommend imputing control changes at the downstream level and computing downstream market concentration changes from the proposed transaction.

For an example of how this methodology can work, consider the acquisition of Enova by Pacific Enterprises in 1998.[23] Enova owned San Diego Gas & Electric, which included a natural gas distribution business and two merchant power plants in the San Diego area in Southern California.[24] Pacific Enterprises owned SoCalGas, a natural gas transmission and distribution company that had a monopoly in supplying natural gas in Southern California.[25] Hence, prior to the transaction Pacific Enterprise had the ability to raise gas-transportation rates to gas-fired generators, but had no incentive.[26] Because gas-fired power plants often set the price of electric power in California, post-transaction Pacific Enterprises would have the ability to raise natural gas prices and thereby raise electric power prices, to the benefit of its new affiliate generation plants.[27] Due to these concerns over vertical market power, the DOJ required Pacific Enterprise to divest the two Enova power plants.[28]

---

[23] *See U.S. v. Enova Corp.*, 107 F. Supp. 2d 10 (D.D.C. 2000).

[24] *Id.*, at 12.

[25] *Id.*

[26] *Id.*, at 13.

[27] *Id.*

[28] *Id.*, at 14.

The above analysis is incomplete and not sufficient by itself to establish that the Pacific Enterprises/Enova transaction was anticompetitive. Pacific Enterprises had a monopoly on natural gas supply to Southern California. If it had a monopoly, why were natural gas prices below the maximum level that Pacific Enterprises might obtain? In addition, did Pacific Enterprises have the ability to raise electric power prices?

Dr. Morris addressed these issues in his affidavit on the matter before the Federal Energy Regulatory Commission.[29] Because Enova was a very large purchaser of natural gas in Southern California to supply its gas distribution company, it could economically bypass the Pacific Enterprises system if it so chose. As it result, it received a lower gas transmission rate to "compensate SDG&E for the lost opportunity value of not utilizing an alternative pipeline . . . to bypass the SoCalGas system."[30] Dr. Morris estimated that this lowered Enova's gas transportation rates on the SoCalGas system by 14 to 25 percent, which translates to about 3 to 6 percent in electric power prices.[31] As for the ability to control electric power prices, post-transaction Pacific Enterprise would deliver natural gas either directly or indirectly through Enova to 66 percent of generation capacity in Southern California.[32] To capture the downstream horizontal effect from the transaction, Dr. Morris attributed gas-fired generation capacity to the pipeline company delivering the natural gas. In this calculation, Enova controlled 9.8 percent of the capacity and Pacific Enterprises controlled 56.3 percent. He then calculated the change in the HHI measure of market concentration based upon pipeline suppliers controlling gas-fired generation units and generation owners controlling the remainder. He found that the transaction would increase the downstream HHI by 1,104 in Southern California to 4,700.[33] FERC subsequently

---

[29] Morris SDG&E Affidavit, *supra* note 21.

[30] *Id*., at 10.

[31] *Id*., at 11.

[32] *Id*., at Exhibit No.___(JRM-3).

[33] *Id*.

required merger applicants to utilize this measure of downstream market concentration in Order No. 642.[34]

Attributing downstream control to an upstream supplier raises issues when the downstream companies buy from multiple suppliers. The exercise was straightforward in the case of Pacific Enterprises/Enova because each gas-fired power plant in the relevant market had only one pipeline supplier. But when the downstream firms have multiple suppliers, some rule must be exercised to allocate the downstream capacity (or sales) to the upstream input suppliers. One solution is to split downstream companies among their suppliers up to some number, at which point supply competition is deemed robust enough that the downstream firm is not captive to any upstream suppliers. For example, when analyzing downstream vertical issues in the El Paso/Costal merger, Dr. Henderson attributed all the capacity to a merging party if the party supplied a power plant and split generation capacity among pipeline suppliers when not served by a merging party.[35] In addition, he maintained the plant owner when the plant was served by a local distribution company and that distribution company was served by more than one pipeline company.[36]

We recommend that the Agencies consider such an approach in the Vertical Merger Guidelines. The approach has the potential to objectively separate transactions that are competitively benign from those that might raise competitive concerns. Applying the current horizontal HHI thresholds to the imputed HHI levels in the downstream market would be one way of providing guidance to the public and the courts as to transactions that might be problematic and those that are very unlikely to be.

---

[34] FERC Order No. 642, *supra* note 15. One difference, however, is that FERC does not require calculating the change in concentration in the downstream market.

[35] Affidavit of J. Stephen Henderson, El Paso Energy Corporation and The Coastal Corporation, FERC Docket No. EC00-73-000, April 4, 2000, Exhibit No. ___ (JSH-2), at 13.

[36] *Id*., at 14.

E. Market Power Pressure Indices

- **We recommend that the Vertical Merger Guidelines have an explicit statement on Market Power Pressure Indices.**

- **We recommend that the Vertical Merger Guidelines explicitly state, "If the value of diverted sales is proportionally small, significant unilateral price effects are unlikely."**

In our opinion, Examples 3, 4, and 6 are the heart of the Draft Vertical Merger Guidelines. These examples, however, are based on well understood theories and provide little guidance as to when they might be applicable. We recommend that Vertical Merger Guidelines provide more guidance on incentive calibration as do the Horizontal Merger Guidelines. Specifically, we recommend that the Vertical Merger Guidelines provide a statement akin to, "If the value of diverted sales is proportionally small, significant unilateral price effects are unlikely."[37]

The statement is directly from the Horizontal Merger Guidelines, but it is equally valid for vertical transactions. The upward pricing pressure index methodology is well known and the Agencies implicitly incorporated them into the 2010 Horizontal Merger Guidelines. Professor Willig has shown that the underlying math was more general than just setting prices, and the Agencies can use the method to evaluate a wide range of strategies.[38] He calls this general version the GUMPPI, for General Upward Market Power Pressure Index, and it can be applied in the context of vertical mergers, as Salop has suggested.[39] Although the Agencies have not explicitly stated thresholds for GUMPPI

---

[37] HMG § 6.1.

[38] *See* Robert Willig, *Unilateral Competitive Effects of Mergers: Upward Pricing Pressure, Product Quality, and Other Extensions,* 39 REV. IND. ORG. 19 (2011).

[39] *See, for example*, Steven Salop, *Revising the Vertical Merger Guidelines*, presentation at Hearings on Competition and Consumer Protection in the 21st Century, Wash., DC, Nov. 1, 2018, at slide 16.

results, many practitioners consider a GUMPPI of less than 5 percent to be a "safe harbor" and of 5 to 10 percent to be "likely competitively benign."[40]

One potential advantage of the GUMPPI is that it can simultaneously combine procompetitive and anticompetitive incentives into the same statistic. Consider a hypothetical merger of two companies, Upstream and Downstream, and the two strategies are to raise the Upstream and the Downstream prices. Begin with raising the Downstream price. The GUMPPI measures the additional Upstream profits divided by the product of the Downstream lost sales due to the price increases and the initial Downstream price. If Upstream only sells to Downstream, then the change in Upstream profits will be negative, indicating an incentive for the merged firm to have lower downstream prices compared to the pre-transaction level. Therefore, the merger will be competitively benign or procompetitive. On the other hand, if Upstream only sells to Downstream's rivals, then the Upstream profits will increase as Downstream sales shift to those companies that Upstream supplies. In this case, the GUMPPI indicates that the transaction increases the incentive to increase downstream prices; therefore, the merger might be anticompetitive depending on the value of lost downstream sales relative to gained upstream margins. The likelihood of anticompetitive effects is positively related to the GUMPPI.

The other test is to increase the Upstream price. The GUMPPI in this case measures the additional Downstream profits divided by the product of the Upstream lost sales due to the price increases and the initial Upstream price. Again, if Upstream only sells to Downstream, then the change in Downstream profits will be negative which produces a negative GUMPPI. This in turn indicates that post-transaction the merged entity would have the incentive to reduce the transfer price between Upstream and Downstream; therefore, the merger would be competitively benign or procompetitive. If Upstream only

---

[40] *See, for example*, Elizabeth Xiao-Ru Wang, *Economic Tools for Evaluating Competitive Harm in Horizontal Mergers*, 2013, at 4 ("The Horizontal Merger Guidelines indicate that a merger is unlikely to raise significant unilateral effects concerns if the GUPPI is proportionately small. In practice, that amount is often considered to be less than 5%. In contrast, if the GUPPI is 10% or more, absent offsetting efficiencies, a merger is likely to indicate significant unilateral effects.").

sells to Downstream's rivals, then the Downstream profits will increase and produce a positive GUMPPI, indicating that the merger would create an incentive to increase the Upstream price. In this case, the GUMPPI would indicate that the transaction might be anticompetitive, depending on the value of lost upstream sales relative to the gained downstream margins. The likelihood of anticompetitive effects once again is positively related to the GUMPPI. The GUMPPI automatically balances the intermediate cases in which Upstream sells to Downstream and its rivals, and the GUMPPI provides a measure of the likelihood of net anticompetitive effects. For example, if Upstream sells to Downstream and Downstream's rivals and the GUMPPI is negative, that would indicate that the transaction on net gives an incentive for lower prices and the transaction could be viewed as procompetitive on net.

F. Revise or Drop Example 5

We recommend that the Agencies revise or drop Example 5 because the hypothesized facts raise little likelihood of anticompetitive effects.

As drafted, *Example 5* of the Draft Vertical Merger Guidelines considers potential effects of bilateral monopolists merging. It begins with Company A being an upstream monopolist ("sole supplier") of an active ingredient for a pharmaceutical drug made by Company B. It is clear that Company B is also a monopolist because the concern is that post-transaction the merged firm would find it profitable to refuse to sell to Company C, a potential entrant rival to Company B. The alleged harm is that the transaction might force Company C to "two stage entry," making entry less likely. There are several flaws in this reasoning.

As bilateral monopolists, the facts describe the classic situation where vertical integration would eliminate double marginalization. As such, vertical integration would

be efficient and lead to an output expansion.[41] Therefore, the priors on the integration is that it is procompetitive. It is conceivable that after the integration, entry at the downstream level would provide no additional consumer benefits. Indeed, if Company C entered because of Company B's monopoly power, the entry might be viewed as inefficient rent-seeking in activities that could be eliminated by vertical integration.

It is possible that Company C will build a better mouse trap that would be more efficient than Company B at converting the active ingredient to the pharmaceutical drug. If so, vertical integration would not prevent the entry of Company C because Company C would offer a better way for Company A to deliver its active ingredient to the ultimate consumers. Company A owning Company B would discipline Company C to enter only if it can do so as a more efficient way of serving downstream customers. In this sense, vertical integration of Companies A and B helps to ensure that entry of Company C at the downstream level occurs when it is more likely to increase social welfare.

Another possibility is that vertical integration does force Company C into two-stage entry at both the upstream and downstream levels. But if this occurs, it would mean that competition would increase at both the upstream and downstream levels. That is, the upstream monopolist would no longer be a monopolist. Breaking up the monopoly could lead to lower downstream prices due to the increase in upstream competition.

Therefore, we recommend that the Agencies either revise or drop *Example 5* from the Vertical Merger Guidelines. If the example is revised, then we recommend that at least

---

[41] *See, for example*, JEAN TIROLE, THE THEORY OF INDUSTRIAL ORGANIZATION 174-5 (MIT PRESS 1990) ("Therefore, the integrated industry makes more profit than the nonintegrated industry, and the consumer price is lower in the case of the integrated industry. These two properties are very general, as we have seen. The objective of vertical integration is to avoid the double price distortion that occurs when each firm adds its own price-cost margin at each stage of production."); F. M. SCHERER, INDUSTRIAL MARKET STRUCTURE AND INDUSTRY PERFORMANCE 301 (2d ed. Houghton Mifflin 1980) ("If their bargaining difficulties preclude joint profit maximization under bilateral monopoly, vertical integration can make everyone—producers *and* consumers—better off. Economic welfare is unambiguously improved.").

two companies exist at both the upstream and downstream level and the potential concern is integration forcing two-stage entry of a third firm.

Finally, we note that this example highlights the narrow window of likely anticompetitive effects from vertical mergers. When sustainable monopoly exists at one stage, it seems unlikely that a vertical transaction would be anticompetitive. At the opposite extreme, when either of the vertical stages are competitive, vertical transactions are also likely to be procompetitive. It is only when both stages are highly concentrated, but with two or more companies, that anticompetitive effects are likely to be a concern.

G. Revive Potential Competition

We recommend that the Agencies provide additional guidance on transactions that reduce potential competition.

The DOJ has rescinded the guidelines on potential competition theories, and the Draft Vertical Merger Guidelines do little to provide guidance on this issue. Although the existing Horizontal Merger Guidelines state that they address "the enforcement policy of the . . . Agencies . . . with respect to mergers and acquisitions involving actual or potential competitors . . ."[42] they provide little guidance on the issue. The only other comment on potential competitors is in section 5.1, which discusses market participants. It states that "Firms not currently earning revenues in the relevant market, but that have committed to entering the market in the near future, are also considered market participants. Firms that are not current producers in a relevant market, but that would very likely provide rapid supply responses with direct competitive impact in the event of a SSNIP, without incurring significant sunk costs, are also considered market participants." This comment does not cover the case of an acquisition of a company that does not currently participate in a market and that would incur substantial sunk costs. The Draft Vertical Merger Guidelines discuss

[42] HMG, § 1.

theories in which a vertical merger might result in the foreclosure of supplies to a potential rival, but they do not address the direct acquisition of a potential rival.

We recommend that in some manner the Agencies provide additional guidance on this issue. We find that the "perceived potential competitor" and "actual potential competitor" framework is a good way to think about potential competition, and that it is consistent with the case law.[43] That is, the acquiring firm perceives the acquisition target as a likely entrant or that the acquisition target would likely enter but for the transaction. Other necessary conditions for a potential competition theory would be that the relevant market is highly concentrated, that entry is generally difficult, and that the potential entrant faces unique circumstances that make its entry more likely than most other companies. The discussion of entry in the HMG would seem to set the relevant standards on the entry issue. That is, the potential entrant would meet the standards for easy entry, while other companies would not.

H. Restore Regulatory Evasion Theory

We recommend that the Agencies reinstate the Evasion of Rate Regulation Guidance.

Section 4.23 of the 1984 Merger Guidelines discussed "Evasion of Rate Regulation" as a theory under which "[t]he Department will consider challenging mergers that create substantial opportunities for such abuses." No such section exits in the Draft Vertical Merger Guidelines, and we recommend reinstating it. We base our recommendation on two considerations. First, whereas most vertical theories are ambiguous and there is little consensus in economics of the general applicability of theories, economists accept that regulatory evasion is a valid theory of potential harm to downstream buyers from vertical transactions. Second, the Agencies have applied this theory in the past to protect downstream buyers. We now discuss each of these considerations.

---

[43] *See* PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶¶1120-1135 (2d Ed. Aspen 2003) and the cases cited therein for an overview of potential competition theories.

For a long time, economists have accepted regulatory evasion as a motive for vertical integration and as a valid concern about vertical mergers. For example, Dayan demonstrated that allowing a firm subject to rate of return regulation on capital to vertically integrate into capital supplies can eviscerate the rate of return regulation unless the regulator can extend its regulation to the upstream level.[44] Morris showed that regulated firms have incentives to purchase variable inputs and raise downstream prices when regulators imperfectly monitor upstream prices.[45] These analyses hinge on regulators being unable to monitor or regulate the upstream input prices. Although it is true that rate regulators must monitor all input price decisions for prudency, there can be cases where regulators are not able to adequately monitor or enforce limits on the upstream prices. In such cases, antitrust merger enforcement can, and has, played a role in preventing or modifying transactions in which regulatory evasion is a concern.

We also note that the conditions for the regulatory evasion case may differ from other vertical cases. Like typical vertical cases, it is necessary for the downstream firm to have market power, but it is not necessary for the upstream market to be highly concentrated or for the upstream firm to have market power. All that is necessary is that the upstream firm sell sufficient quantities to the downstream firm and that regulators are not in a position to prevent affiliate transactions that would raise downstream prices. In that sense, we believe it appropriate for the Vertical Merger Guidelines to discuss the regulatory evasion theory separately from other theories and to apply different standards to the upstream market.

The Agencies have sought consents under regulatory evasion theories. Two such examples are Occidental/MidCon and Koch/Entergy.[46] The Occidental/MidCon matter in

---

[44] David Dayan, *Vertical Integration and Monopoly Regulation*, Ph.D. Dissertation, Princeton University (University Microfilms 1973).

[45] John R. Morris, *Upstream Vertical Integration with Automatic Price Adjustments*, 4 J. REG. ECON. 279 (1992)

[46] Occidental Petroleum Corporation, et. al., 109 F.T.C. 167 (1987); Entergy Corporation and Entergy-Koch, LP, FTC Docket No. C-3998, Jan. 31, 2001.

particular provides an example of a case where antitrust enforcement appears warranted. In that case, MidCon owned the MRT pipeline, which was subject to rate regulation by FERC, and it held a monopoly on sales of natural gas supplies into the St. Louis area.[47] FERC regulated the price of its sales for resale—that is, sales of natural gas to local gas distribution companies in the area.[48] Occidental was a producer of natural gas and had the ability to sell its gas to MRT.[49] Moreover, Congress had deregulated the price of natural gas at the wellhead as of January 1, 1985.[50] As part of that deregulation, FERC no longer has the ability to regulate the "first sale" of natural gas from a producer to a pipeline company.[51] To limit the price of natural gas for a first sale to an affiliate pipeline would amount to regulating the price of that sale, which arguably FERC no longer was able to do. So, the FTC required Occidental to divest the MRT pipeline.[52] To us, this is a proper application of blocking a transaction because of the regulatory evasion theory.

Because regulatory evasion may be applicable, we recommend that the Vertical Merger Guidelines include an acknowledgement of the issue and the standards that would likely be necessary for it to be applicable to a transaction.

---

47 109 F.T.C. 167, at 169-170.

48 *Id.* Prior to FERC Order No. 636 1992, interstate natural gas pipelines mainly operated as merchant sellers of natural gas. Order No. 636 transformed most interstate pipelines to transporters of natural gas. *See* Order No. 636, *Pipeline Service Obligations and Revisions to Regulations Governing Self-Implementing Transportation; and Regulation of Natural Gas Pipelines After Wellhead Decontrol*, F.E.R.C. STATS. & REGS. 30,939, 57 Fed. Reg. 13,267 (1992).

49 109 F.T.C. 167, at 168, 171.

50 *Id.*, at 170.

51 15 U.S.C. § 3331(a) (1987).

52 109 F.T.C. 167, at 173.

Appendix

Dr. John R. Morris is a Principal at Economists Incorporated, where he is an expert on competition and price formation in energy industries. He has provided competition studies and testimonies concerning many of the largest electric utility and natural gas mergers during the past 30 years. He has testified concerning competitive effects of market-based rates for electric utilities, natural gas storage facilities, and oil pipelines; mergers of coal mining companies; conduct of regulated companies and unregulated affiliates; cost of capital; rates of return from new transmission facilities; local distribution company credit requirements; and real-time pricing. Dr. Morris has often consulted on and testified on vertical mergers including Occidental/Midcon (1985), Pacific Enterprises/San Diego Gas & Electric (1997), El Paso/Sonat (1999), El Paso/Coastal (2000), Exelon/PSG&E (2005), Peoples/WPS Resources (2006), and Berkshire Hathaway Energy/NV Energy (2013). He also has consulted on and testified about vertical conduct matters such as Morris Energy Groups complaint against PSE&G before FERC (2010). Dr. Morris was formerly Assistant to the Director for Antitrust, Bureau of Economics, at the FTC, where he also served as a Commissioner Advisor and a staff economist. He has a Ph.D. in economics from the University of Washington, and he has taught at Indiana University and at Stanford University's Washington, DC campus. He was formerly the Chair of the Energy Bar Association's Antitrust Committee.

Dr. Lona Fowdur is a Principal at Economists Incorporated. She consults on competitive issues in healthcare and pharmaceutical industries. She has provided expert reports to state regulatory agencies, including a report analyzing vertical foreclosure issues in the CVS-Aetna merger (2019). She has investigated the competitive effects of horizontal and vertical mergers between hospitals, physician groups, pharmaceutical benefit managers, and health insurance companies. She testified on behalf of the merging parties in the Anthem-Cigna trial (2018) and was the expert witness in a pharmaceutical case involving allegations of anticompetitive reverse payments and product-hopping (2019). She has also consulted for a state Attorney General's office on healthcare competition matters. Dr. Fowdur has written articles and has spoken on ABA and AHLA panels regarding the economics of healthcare transactions, econometric tools of competition analysis, cross-market provider mergers, and physician practice acquisitions. She has a Ph.D. in Economics from Cornell University.