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# Horizontal Merger Guidelines



U.S. Department of Justice  
and the  
Federal Trade Commission

**Issued: April 2, 1992**  
Revised: April 8, 1997

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Note: Section 4 of these Guidelines, relating to Efficiencies, appears as it was issued in revised form by the Department of Justice and the Federal Trade Commission on April 8, 1997; and the footnotes in Section 5 of the Guidelines have been renumbered accordingly. The remaining portions of the Guidelines were unchanged in 1997, and appear as they were issued on April 2, 1992.

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## **0. Purpose, Underlying Policy Assumptions and Overview**

These Guidelines outline the present enforcement policy of the Department of Justice and the Federal Trade Commission (the “Agency”) concerning horizontal acquisitions and mergers (“mergers”) subject to section 7 of the Clayton Act,<sup>1</sup> to section 1 of the Sherman Act,<sup>2</sup> or to section 5 of the FTC Act.<sup>3</sup> They describe the analytical framework and specific standards normally used by the Agency in analyzing mergers.<sup>4</sup> By stating its policy as simply and clearly as possible, the Agency hopes to reduce the uncertainty associated with enforcement of the antitrust laws in this area.

Although the Guidelines should improve the predictability of the Agency’s merger enforcement policy, it is not possible to remove the exercise of judgment from the evaluation of mergers under the antitrust laws. Because the specific standards set forth in the Guidelines must be applied to a broad range of possible factual circumstances, mechanical application of those standards may provide misleading answers to the economic questions raised under the antitrust laws. Moreover, information is often incomplete and the picture of competitive conditions that develops from historical evidence may provide an incomplete answer to the forward-looking inquiry of the Guidelines. Therefore, the Agency will apply the standards of the Guidelines reasonably and flexibly to the particular facts and circumstances of each proposed merger.

### **0.1 Purpose and Underlying Policy Assumptions of the Guidelines**

The Guidelines are designed primarily to articulate the analytical framework the Agency applies in determining whether a merger is likely substan-

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<sup>1</sup> 15 U.S.C. § 18 (1988). Mergers subject to section 7 are prohibited if their effect “may be substantially to lessen competition, or to tend to create a monopoly.”

<sup>2</sup> 15 U.S.C. § 1 (1988). Mergers subject to section 1 are prohibited if they constitute a “contract, combination . . . , or conspiracy in restraint of trade.”

<sup>3</sup> 15 U.S.C. § 45 (1988). Mergers subject to section 5 are prohibited if they constitute an “unfair method of competition.”

<sup>4</sup> These Guidelines update the Merger Guidelines issued by the U.S. Department of Justice in 1984 and the Statement of Federal Trade Commission Concerning Horizontal Mergers issued in 1982. The Merger Guidelines may be revised from time to time as necessary to reflect any significant changes in enforcement policy or to clarify aspects of existing policy.

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tially to lessen competition, not to describe how the Agency will conduct the litigation of cases that it decides to bring. Although relevant in the latter context, the factors contemplated in the Guidelines neither dictate nor exhaust the range of evidence that the Agency must or may introduce in litigation. Consistent with their objective, the Guidelines do not attempt to assign the burden of proof, or the burden of coming forward with evidence, on any particular issue. Nor do the Guidelines attempt to adjust or reapportion burdens of proof or burdens of coming forward as those standards have been established by the courts.<sup>5</sup> Instead, the Guidelines set forth a methodology for analyzing issues once the necessary facts are available. The necessary facts may be derived from the documents and statements of both the merging firms and other sources.

Throughout the Guidelines, the analysis is focused on whether consumers or producers “likely would” take certain actions, that is, whether the action is in the actor’s economic interest. References to the profitability of certain actions focus on economic profits rather than accounting profits. Economic profits may be defined as the excess of revenues over costs where costs include the opportunity cost of invested capital.

Mergers are motivated by the prospect of financial gains. The possible sources of the financial gains from mergers are many, and the Guidelines do not attempt to identify all possible sources of gain in every merger. Instead, the Guidelines focus on the one potential source of gain that is of concern under the antitrust laws: market power.

The unifying theme of the Guidelines is that mergers should not be permitted to create or enhance market power or to facilitate its exercise. Market power to a seller is the ability profitably to maintain prices above competitive levels for a significant period of time.<sup>6</sup> In some circumstances, a sole seller (a “monopolist”) of a product with no good substitutes can maintain a selling price that is above the level that would prevail if the market were competitive. Similarly, in some circumstances, where only a few firms account for most of the sales of a product, those firms can exercise market power, perhaps even approximating the performance of a monopolist, by either explicitly or implicitly coordinating their actions. Circumstances also may permit a single firm, not a monopolist, to exercise market

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<sup>5</sup> For example, the burden with respect to efficiency and failure continues to reside with the proponents of the merger.

<sup>6</sup> Sellers with market power also may lessen competition on dimensions other than price, such as product quality, service, or innovation.

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power through unilateral or non-coordinated conduct -- conduct the success of which does not rely on the concurrence of other firms in the market or on coordinated responses by those firms. In any case, the result of the exercise of market power is a transfer of wealth from buyers to sellers or a misallocation of resources.

Market power also encompasses the ability of a single buyer (a “monopsonist”), a coordinating group of buyers, or a single buyer, not a monopsonist, to depress the price paid for a product to a level that is below the competitive price and thereby depress output. The exercise of market power by buyers (“monopsony power”) has adverse effects comparable to those associated with the exercise of market power by sellers. In order to assess potential monopsony concerns, the Agency will apply an analytical framework analogous to the framework of these Guidelines.

While challenging competitively harmful mergers, the Agency seeks to avoid unnecessary interference with the larger universe of mergers that are either competitively beneficial or neutral. In implementing this objective, however, the Guidelines reflect the congressional intent that merger enforcement should interdict competitive problems in their incipiency.

## **0.2 Overview**

The Guidelines describe the analytical process that the Agency will employ in determining whether to challenge a horizontal merger. First, the Agency assesses whether the merger would significantly increase concentration and result in a concentrated market, properly defined and measured. Second, the Agency assesses whether the merger, in light of market concentration and other factors that characterize the market, raises concern about potential adverse competitive effects. Third, the Agency assesses whether entry would be timely, likely and sufficient either to deter or to counteract the competitive effects of concern. Fourth, the Agency assesses any efficiency gains that reasonably cannot be achieved by the parties through other means. Finally the Agency assesses whether, but for the merger, either party to the transaction would be likely to fail, causing its assets to exit the market. The process of assessing market concentration, potential adverse competitive effects, entry, efficiency and failure is a tool that allows the Agency to answer the ultimate inquiry in merger analysis: whether the merger is likely to create or enhance market power or to facilitate its exercise.

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# 1. Market Definition, Measurement and Concentration

## 1.0 Overview

A merger is unlikely to create or enhance market power or to facilitate its exercise unless it significantly increases concentration and results in a concentrated market, properly defined and measured. Mergers that either do not significantly increase concentration or do not result in a concentrated market ordinarily require no further analysis.

The analytic process described in this section ensures that the Agency evaluates the likely competitive impact of a merger within the context of economically meaningful markets -- i.e., markets that could be subject to the exercise of market power. Accordingly, for each product or service (hereafter "product") of each merging firm, the Agency seeks to define a market in which firms could effectively exercise market power if they were able to coordinate their actions.

Market definition focuses solely on demand substitution factors -- i.e., possible consumer responses. Supply substitution factors -- i.e., possible production responses -- are considered elsewhere in the Guidelines in the identification of firms that participate in the relevant market and the analysis of entry. See Sections 1.3 and 3. A market is defined as a product or group of products and a geographic area in which it is produced or sold such that a hypothetical profit-maximizing firm, not subject to price regulation, that was the only present and future producer or seller of those products in that area likely would impose at least a "small but significant and nontransitory" increase in price, assuming the terms of sale of all other products are held constant. A relevant market is a group of products and a geographic area that is no bigger than necessary to satisfy this test. The "small but significant and nontransitory" increase in price is employed solely as a methodological tool for the analysis of mergers: it is not a tolerance level for price increases.

Absent price discrimination, a relevant market is described by a product or group of products and a geographic area. In determining whether a hypothetical monopolist would be in a position to exercise market power, it is necessary to evaluate the likely demand responses of consumers to a price increase. A price increase could be made unprofitable by consumers either switching to other products or switching to the same product produced by firms at other locations. The nature and magnitude of these two

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types of demand responses respectively determine the scope of the product market and the geographic market.

In contrast, where a hypothetical monopolist likely would discriminate in prices charged to different groups of buyers, distinguished, for example, by their uses or locations, the Agency may delineate different relevant markets corresponding to each such buyer group. Competition for sales to each such group may be affected differently by a particular merger and markets are delineated by evaluating the demand response of each such buyer group. A relevant market of this kind is described by a collection of products for sale to a given group of buyers.

Once defined, a relevant market must be measured in terms of its participants and concentration. Participants include firms currently producing or selling the market's products in the market's geographic area. In addition, participants may include other firms depending on their likely supply responses to a "small but significant and nontransitory" price increase. A firm is viewed as a participant if, in response to a "small but significant and nontransitory" price increase, it likely would enter rapidly into production or sale of a market product in the market's area, without incurring significant sunk costs of entry and exit. Firms likely to make any of these supply responses are considered to be "uncommitted" entrants because their supply response would create new production or sale in the relevant market and because that production or sale could be quickly terminated without significant loss.<sup>7</sup> Uncommitted entrants are capable of making such quick and uncommitted supply responses that they likely influenced the market premerger, would influence it post-merger, and accordingly are considered as market participants at both times. This analysis of market definition and market measurement applies equally to foreign and domestic firms.

If the process of market definition and market measurement identifies one or more relevant markets in which the merging firms are both participants, then the merger is considered to be horizontal. Sections 1.1 through 1.5 describe in greater detail how product and geographic markets will be defined, how market shares will be calculated and how market concentration will be assessed.

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<sup>7</sup> Probable supply responses that require the entrant to incur significant sunk costs of entry and exit are not part of market measurement, but are included in the analysis of the significance of entry. See Section 3. Entrants that must commit substantial sunk costs are regarded as "committed" entrants because those sunk costs make entry irreversible in the short term without foregoing that investment; thus the likelihood of their entry must be evaluated with regard to their long-term profitability.



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## 1.1 Product Market Definition

The Agency will first define the relevant product market with respect to each of the products of each of the merging firms.<sup>8</sup>

### 1.11 General Standards

Absent price discrimination, the Agency will delineate the product market to be a product or group of products such that a hypothetical profit-maximizing firm that was the only present and future seller of those products (“monopolist”) likely would impose at least a “small but significant and nontransitory” increase in price. That is, assuming that buyers likely would respond to an increase in price for a tentatively identified product group only by shifting to other products, what would happen? If the alternatives were, in the aggregate, sufficiently attractive at their existing terms of sale, an attempt to raise prices would result in a reduction of sales large enough that the price increase would not prove profitable, and the tentatively identified product group would prove to be too narrow.

Specifically, the Agency will begin with each product (narrowly defined) produced or sold by each merging firm and ask what would happen if a hypothetical monopolist of that product imposed at least a “small but significant and nontransitory” increase in price, but the terms of sale of all other products remained constant. If, in response to the price increase, the reduction in sales of the product would be large enough that a hypothetical monopolist would not find it profitable to impose such an increase in price, then the Agency will add to the product group the product that is the next-best substitute for the merging firm’s product.<sup>9</sup>

In considering the likely reaction of buyers to a price increase, the Agency will take into account all relevant evidence, including, but not limited to, the following:

(1) evidence that buyers have shifted or have considered shifting purchases between products in response to relative changes in price or other competitive variables;

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<sup>8</sup> Although discussed separately, product market definition and geographic market definition are inter-related. In particular, the extent to which buyers of a particular product would shift to other products in the event of a “small but significant and nontransitory” increase in price must be evaluated in the context of the relevant geographic market.

<sup>9</sup> Throughout the Guidelines, the term “next best substitute” refers to the alternative which, if available in unlimited quantities at constant prices, would account for the greatest value of diversion of demand in response to a “small but significant and nontransitory” price increase.

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(2) evidence that sellers base business decisions on the prospect of buyer substitution between products in response to relative changes in price or other competitive variables;

(3) the influence of downstream competition faced by buyers in their output markets; and

(4) the timing and costs of switching products.

The price increase question is then asked for a hypothetical monopolist controlling the expanded product group. In performing successive iterations of the price increase test, the hypothetical monopolist will be assumed to pursue maximum profits in deciding whether to raise the prices of any or all of the additional products under its control. This process will continue until a group of products is identified such that a hypothetical monopolist over that group of products would profitably impose at least a “small but significant and nontransitory” increase, including the price of a product of one of the merging firms. The Agency generally will consider the relevant product market to be the smallest group of products that satisfies this test.

In the above analysis, the Agency will use prevailing prices of the products of the merging firms and possible substitutes for such products, unless premerger circumstances are strongly suggestive of coordinated interaction, in which case the Agency will use a price more reflective of the competitive price.<sup>10</sup> However, the Agency may use likely future prices, absent the merger, when changes in the prevailing prices can be predicted with reasonable reliability. Changes in price may be predicted on the basis of, for example, changes in regulation which affect price either directly or indirectly by affecting costs or demand.

In general, the price for which an increase will be postulated will be whatever is considered to be the price of the product at the stage of the industry being examined.<sup>11</sup> In attempting to determine objectively the effect of a “small but significant and nontransitory” increase in price, the Agency, in most contexts, will use a price increase of five percent lasting for the foreseeable future. However, what constitutes a “small but significant and nontransitory” increase in price will depend on the nature of the

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<sup>10</sup> The terms of sale of all other products are held constant in order to focus market definition on the behavior of consumers. Movements in the terms of sale for other products, as may result from the behavior of producers of those products, are accounted for in the analysis of competitive effects and entry. See Sections 2 and 3.

<sup>11</sup> For example, in a merger between retailers, the relevant price would be the retail price of a product to consumers. In the case of a merger among oil pipelines, the relevant price would be the tariff – the price of the transportation service.

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industry, and the Agency at times may use a price increase that is larger or smaller than five percent.

### ***1.12 Product Market Definition in the Presence of Price Discrimination***

The analysis of product market definition to this point has assumed that price discrimination -- charging different buyers different prices for the same product, for example -- would not be profitable for a hypothetical monopolist. A different analysis applies where price discrimination would be profitable for a hypothetical monopolist.

Existing buyers sometimes will differ significantly in their likelihood of switching to other products in response to a "small but significant and non-transitory" price increase. If a hypothetical monopolist can identify and price differently to those buyers ("targeted buyers") who would not defeat the targeted price increase by substituting to other products in response to a "small but significant and nontransitory" price increase for the relevant product, and if other buyers likely would not purchase the relevant product and resell to targeted buyers, then a hypothetical monopolist would profitably impose a discriminatory price increase on sales to targeted buyers. This is true regardless of whether a general increase in price would cause such significant substitution that the price increase would not be profitable. The Agency will consider additional relevant product markets consisting of a particular use or uses by groups of buyers of the product for which a hypothetical monopolist would profitably and separately impose at least a "small but significant and nontransitory" increase in price.

## **1.2 Geographic Market Definition**

For each product market in which both merging firms participate, the Agency will determine the geographic market or markets in which the firms produce or sell. A single firm may operate in a number of different geographic markets.

### ***1.21 General Standards***

Absent price discrimination, the Agency will delineate the geographic market to be a region such that a hypothetical monopolist that was the only present or future producer of the relevant product at locations in that

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region would profitably impose at least a “small but significant and nontransitory” increase in price, holding constant the terms of sale for all products produced elsewhere. That is, assuming that buyers likely would respond to a price increase on products produced within the tentatively identified region only by shifting to products produced at locations of production outside the region, what would happen? If those locations of production outside the region were, in the aggregate, sufficiently attractive at their existing terms of sale, an attempt to raise price would result in a reduction in sales large enough that the price increase would not prove profitable, and the tentatively identified geographic area would prove to be too narrow.

In defining the geographic market or markets affected by a merger, the Agency will begin with the location of each merging firm (or each plant of a multiplant firm) and ask what would happen if a hypothetical monopolist of the relevant product at that point imposed at least a “small but significant and nontransitory” increase in price, but the terms of sale at all other locations remained constant. If, in response to the price increase, the reduction in sales of the product at that location would be large enough that a hypothetical monopolist producing or selling the relevant product at the merging firm’s location would not find it profitable to impose such an increase in price, then the Agency will add the location from which production is the next-best substitute for production at the merging firm’s location.

In considering the likely reaction of buyers to a price increase, the Agency will take into account all relevant evidence, including, but not limited to, the following:

- (1) evidence that buyers have shifted or have considered shifting purchases between different geographic locations in response to relative changes in price or other competitive variables;
- (2) evidence that sellers base business decisions on the prospect of buyer substitution between geographic locations in response to relative changes in price or other competitive variables;
- (3) the influence of downstream competition faced by buyers in their output markets; and
- (4) the timing and costs of switching suppliers.

The price increase question is then asked for a hypothetical monopolist controlling the expanded group of locations. In performing successive iterations of the price increase test, the hypothetical monopolist will be assumed to pursue maximum profits in deciding whether to raise the price

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at any or all of the additional locations under its control. This process will continue until a group of locations is identified such that a hypothetical monopolist over that group of locations would profitably impose at least a “small but significant and nontransitory” increase, including the price charged at a location of one of the merging firms.

The “smallest market” principle will be applied as it is in product market definition. The price for which an increase will be postulated, what constitutes a “small but significant and nontransitory” increase in price, and the substitution decisions of consumers all will be determined in the same way in which they are determined in product market definition.

### ***1.22 Geographic Market Definition in the Presence of Price Discrimination***

The analysis of geographic market definition to this point has assumed that geographic price discrimination -- charging different prices net of transportation costs for the same product to buyers in different areas, for example -- would not be profitable for a hypothetical monopolist. However, if a hypothetical monopolist can identify and price differently to buyers in certain areas (“targeted buyers”) who would not defeat the targeted price increase by substituting to more distant sellers in response to a “small but significant and nontransitory” price increase for the relevant product, and if other buyers likely would not purchase the relevant product and resell to targeted buyers,<sup>12</sup> then a hypothetical monopolist would profitably impose a discriminatory price increase. This is true even where a general price increase would cause such significant substitution that the price increase would not be profitable. The Agency will consider additional geographic markets consisting of particular locations of buyers for which a hypothetical monopolist would profitably and separately impose at least a “small but significant and nontransitory” increase in price.

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<sup>12</sup> This arbitrage is inherently impossible for many services and is particularly difficult where the product is sold on a delivered basis and where transportation costs are a significant percentage of the final cost.

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## **1.3 Identification of Firms That Participate in the Relevant Market**

### **1.31 Current Producers or Sellers**

The Agency's identification of firms that participate in the relevant market begins with all firms that currently produce or sell in the relevant market. This includes vertically integrated firms to the extent that such inclusion accurately reflects their competitive significance in the relevant market prior to the merger. To the extent that the analysis under Section 1.1 indicates that used, reconditioned or recycled goods are included in the relevant market, market participants will include firms that produce or sell such goods and that likely would offer those goods in competition with other relevant products.

### **1.32 Firms That Participate Through Supply Response**

In addition, the Agency will identify other firms not currently producing or selling the relevant product in the relevant area as participating in the relevant market if their inclusion would more accurately reflect probable supply responses. These firms are termed "uncommitted entrants." These supply responses must be likely to occur within one year and without the expenditure of significant sunk costs of entry and exit, in response to a "small but significant and nontransitory" price increase. If a firm has the technological capability to achieve such an uncommitted supply response, but likely would not (e.g., because difficulties in achieving product acceptance, distribution, or production would render such a response unprofitable), that firm will not be considered to be a market participant. The competitive significance of supply responses that require more time or that require firms to incur significant sunk costs of entry and exit will be considered in entry analysis. See Section 3.<sup>13</sup>

Sunk costs are the acquisition costs of tangible and intangible assets that cannot be recovered through the redeployment of these assets outside the relevant market, i.e., costs uniquely incurred to supply the relevant product and geographic market. Examples of sunk costs may include mar-

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<sup>13</sup> If uncommitted entrants likely would also remain in the market and would meet the entry tests of timeliness, likelihood and sufficiency, and thus would likely deter anticompetitive mergers or deter or counteract the competitive effects of concern (see Section 3, *infra*), the Agency will consider the impact of those firms in the entry analysis.

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ket-specific investments in production facilities, technologies, marketing (including product acceptance), research and development, regulatory approvals, and testing. A significant sunk cost is one which would not be recouped within one year of the commencement of the supply response, assuming a “small but significant and nontransitory” price increase in the relevant market. In this context, a “small but significant and nontransitory” price increase will be determined in the same way in which it is determined in product market definition, except the price increase will be assumed to last one year. In some instances, it may be difficult to calculate sunk costs with precision. Accordingly, when necessary, the Agency will make an overall assessment of the extent of sunk costs for firms likely to participate through supply responses.

These supply responses may give rise to new production of products in the relevant product market or new sources of supply in the relevant geographic market. Alternatively, where price discrimination is likely so that the relevant market is defined in terms of a targeted group of buyers, these supply responses serve to identify new sellers to the targeted buyers. Uncommitted supply responses may occur in several different ways: by the switching or extension of existing assets to production or sale in the relevant market; or by the construction or acquisition of assets that enable production or sale in the relevant market.

### *1.321 Production Substitution and Extension: The Switching or Extension of Existing Assets to Production or Sale in the Relevant Market*

The productive and distributive assets of a firm sometimes can be used to produce and sell either the relevant products or products that buyers do not regard as good substitutes. Production substitution refers to the shift by a firm in the use of assets from producing and selling one product to producing and selling another. Production extension refers to the use of those assets, for example, existing brand names and reputation, both for their current production and for production of the relevant product. Depending upon the speed of that shift and the extent of sunk costs incurred in the shift or extension, the potential for production substitution or extension

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may necessitate treating as market participants firms that do not currently produce the relevant product.<sup>14</sup>

If a firm has existing assets that likely would be shifted or extended into production and sale of the relevant product within one year, and without incurring significant sunk costs of entry and exit, in response to a “small but significant and nontransitory” increase in price for only the relevant product, the Agency will treat that firm as a market participant. In assessing whether a firm is such a market participant, the Agency will take into account the costs of substitution or extension relative to the profitability of sales at the elevated price, and whether the firm’s capacity is elsewhere committed or elsewhere so profitably employed that such capacity likely would not be available to respond to an increase in price in the market.

### *1.322 Obtaining New Assets for Production or Sale of the Relevant Product*

A firm may also be able to enter into production or sale in the relevant market within one year and without the expenditure of significant sunk costs of entry and exit, in response to a “small but significant and nontransitory” increase in price for only the relevant product, even if the firm is newly organized or is an existing firm without products or productive assets closely related to the relevant market. If new firms, or existing firms without closely related products or productive assets, likely would enter into production or sale in the relevant market within one year without the expenditure of significant sunk costs of entry and exit, the Agency will treat those firms as market participants.

## **1.4 Calculating Market Shares**

### **1.41 General Approach**

The Agency normally will calculate market shares for all firms (or plants) identified as market participants in Section 1.3 based on the total sales or capacity currently devoted to the relevant market together with that

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<sup>14</sup> Under other analytical approaches, production substitution sometimes has been reflected in the description of the product market. For example, the product market for stamped metal products such as automobile hub caps might be described as “light metal stamping,” a production process rather than a product. The Agency believes that the approach described in the text provides a more clearly focused method of incorporating this factor in merger analysis. If production substitution among a group of products is nearly universal among the firms selling one or more of those products, however, the Agency may use an aggregate description of those markets as a matter of convenience.



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which likely would be devoted to the relevant market in response to a “small but significant and nontransitory” price increase. Market shares can be expressed either in dollar terms through measurement of sales, shipments, or production, or in physical terms through measurement of sales, shipments, production, capacity, or reserves.

Market shares will be calculated using the best indicator of firms’ future competitive significance. Dollar sales or shipments generally will be used if firms are distinguished primarily by differentiation of their products. Unit sales generally will be used if firms are distinguished primarily on the basis of their relative advantages in serving different buyers or groups of buyers. Physical capacity or reserves generally will be used if it is these measures that most effectively distinguish firms.<sup>15</sup> Typically, annual data are used, but where individual sales are large and infrequent so that annual data may be unrepresentative, the Agency may measure market shares over a longer period of time.

In measuring a firm’s market share, the Agency will not include its sales or capacity to the extent that the firm’s capacity is committed or so profitably employed outside the relevant market that it would not be available to respond to an increase in price in the market.

### ***1.42 Price Discrimination Markets***

When markets are defined on the basis of price discrimination (Sections 1.12 and 1.22), the Agency will include only sales likely to be made into, or capacity likely to be used to supply, the relevant market in response to a “small but significant and nontransitory” price increase.

### ***1.43 Special Factors Affecting Foreign Firms***

Market shares will be assigned to foreign competitors in the same way in which they are assigned to domestic competitors. However, if exchange rates fluctuate significantly, so that comparable dollar calculations on an annual basis may be unrepresentative, the Agency may measure market shares over a period longer than one year.

If shipments from a particular country to the United States are subject to a quota, the market shares assigned to firms in that country will not

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<sup>15</sup> Where all firms have, on a forward-looking basis, an equal likelihood of securing sales, the Agency will assign firms equal shares.

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exceed the amount of shipments by such firms allowed under the quota.<sup>16</sup> In the case of restraints that limit imports to some percentage of the total amount of the product sold in the United States (i.e., percentage quotas), a domestic price increase that reduced domestic consumption also would reduce the volume of imports into the United States. Accordingly, actual import sales and capacity data will be reduced for purposes of calculating market shares. Finally, a single market share may be assigned to a country or group of countries if firms in that country or group of countries act in coordination.

## 1.5 Concentration and Market Shares

Market concentration is a function of the number of firms in a market and their respective market shares. As an aid to the interpretation of market data, the Agency will use the Herfindahl-Hirschman Index (“HHI”) of market concentration. The HHI is calculated by summing the squares of the individual market shares of all the participants.<sup>17</sup> Unlike the four-firm concentration ratio, the HHI reflects both the distribution of the market shares of the top four firms and the composition of the market outside the top four firms. It also gives proportionately greater weight to the market shares of the larger firms, in accord with their relative importance in competitive interactions.

The Agency divides the spectrum of market concentration as measured by the HHI into three regions that can be broadly characterized as unconcentrated (HHI below 1000), moderately concentrated (HHI between 1000 and 1800), and highly concentrated (HHI above 1800). Although the resulting regions provide a useful framework for merger analysis, the numerical divisions suggest greater precision than is possible with the available economic tools and information. Other things being equal, cases falling just above and just below a threshold present comparable competitive issues.

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<sup>16</sup> The constraining effect of the quota on the importer’s ability to expand sales is relevant to the evaluation of potential adverse competitive effects. See Section 2.

<sup>17</sup> For example, a market consisting of four firms with market shares of 30 percent, 30 percent, 20 percent and 20 percent has an HHI of 2600 ( $30^2 + 30^2 + 20^2 + 20^2 = 2600$ ). The HHI ranges from 10,000 (in the case of a pure monopoly) to a number approaching zero (in the case of an atomistic market). Although it is desirable to include all firms in the calculation, lack of information about small firms is not critical because such firms do not affect the HHI significantly.

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## 1.51 General Standards

In evaluating horizontal mergers, the Agency will consider both the post-merger market concentration and the increase in concentration resulting from the merger.<sup>18</sup> Market concentration is a useful indicator of the likely potential competitive effect of a merger. The general standards for horizontal mergers are as follows:

a) Post-Merger HHI Below 1000. The Agency regards markets in this region to be unconcentrated. Mergers resulting in unconcentrated markets are unlikely to have adverse competitive effects and ordinarily require no further analysis.

b) Post-Merger HHI Between 1000 and 1800. The Agency regards markets in this region to be moderately concentrated. Mergers producing an increase in the HHI of less than 100 points in moderately concentrated markets post-merger are unlikely to have adverse competitive consequences and ordinarily require no further analysis. Mergers producing an increase in the HHI of more than 100 points in moderately concentrated markets post-merger potentially raise significant competitive concerns depending on the factors set forth in Sections 2-5 of the Guidelines.

c) Post-Merger HHI Above 1800. The Agency regards markets in this region to be highly concentrated. Mergers producing an increase in the HHI of less than 50 points, even in highly concentrated markets post-merger, are unlikely to have adverse competitive consequences and ordinarily require no further analysis. Mergers producing an increase in the HHI of more than 50 points in highly concentrated markets post-merger potentially raise significant competitive concerns, depending on the factors set forth in Sections 2-5 of the Guidelines. Where the post-merger HHI exceeds 1800, it will be presumed that mergers producing an increase in the HHI of more than 100 points are likely to create or enhance market power or facilitate its exercise. The presumption may be overcome by a showing that factors set forth in Sections 2-5 of the Guidelines make it

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<sup>18</sup> The increase in concentration as measured by the HHI can be calculated independently of the overall market concentration by doubling the product of the market shares of the merging firms. For example, the merger of firms with shares of 5 percent and 10 percent of the market would increase the HHI by 100 ( $5 \times 10 \times 2 = 100$ ). The explanation for this technique is as follows: In calculating the HHI before the merger, the market shares of the merging firms are squared individually:  $(a)^2 + (b)^2$ . After the merger, the sum of those shares would be squared:  $(a + b)^2$ , which equals  $a^2 + 2ab + b^2$ . The increase in the HHI therefore is represented by  $2ab$ .

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unlikely that the merger will create or enhance market power or facilitate its exercise, in light of market concentration and market shares.

### ***1.52 Factors Affecting the Significance of Market Shares and Concentration***

The post-merger level of market concentration and the change in concentration resulting from a merger affect the degree to which a merger raises competitive concerns. However, in some situations, market share and market concentration data may either understate or overstate the likely future competitive significance of a firm or firms in the market or the impact of a merger. The following are examples of such situations.

#### *1.521 Changing Market Conditions*

Market concentration and market share data of necessity are based on historical evidence. However, recent or ongoing changes in the market may indicate that the current market share of a particular firm either understates or overstates the firm's future competitive significance. For example, if a new technology that is important to long-term competitive viability is available to other firms in the market, but is not available to a particular firm, the Agency may conclude that the historical market share of that firm overstates its future competitive significance. The Agency will consider reasonably predictable effects of recent or ongoing changes in market conditions in interpreting market concentration and market share data.

#### *1.522 Degree of Difference Between the Products and Locations in the Market and Substitutes Outside the Market*

All else equal, the magnitude of potential competitive harm from a merger is greater if a hypothetical monopolist would raise price within the relevant market by substantially more than a "small but significant and non-transitory" amount. This may occur when the demand substitutes outside the relevant market, as a group, are not close substitutes for the products and locations within the relevant market. There thus may be a wide gap in the chain of demand substitutes at the edge of the product and geographic market. Under such circumstances, more market power is at stake in the relevant market than in a market in which a hypothetical monopolist would raise price by exactly five percent.

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## **2. The Potential Adverse Competitive Effects of Mergers**

### **2.0 Overview**

Other things being equal, market concentration affects the likelihood that one firm, or a small group of firms, could successfully exercise market power. The smaller the percentage of total supply that a firm controls, the more severely it must restrict its own output in order to produce a given price increase, and the less likely it is that an output restriction will be profitable. If collective action is necessary for the exercise of market power, as the number of firms necessary to control a given percentage of total supply decreases, the difficulties and costs of reaching and enforcing an understanding with respect to the control of that supply might be reduced. However, market share and concentration data provide only the starting point for analyzing the competitive impact of a merger. Before determining whether to challenge a merger, the Agency also will assess the other market factors that pertain to competitive effects, as well as entry, efficiencies and failure.

This section considers some of the potential adverse competitive effects of mergers and the factors in addition to market concentration relevant to each. Because an individual merger may threaten to harm competition through more than one of these effects, mergers will be analyzed in terms of as many potential adverse competitive effects as are appropriate. Entry, efficiencies, and failure are treated in Sections 3-5.

### **2.1 Lessening of Competition Through Coordinated Interaction**

A merger may diminish competition by enabling the firms selling in the relevant market more likely, more successfully, or more completely to engage in coordinated interaction that harms consumers. Coordinated interaction is comprised of actions by a group of firms that are profitable for each of them only as a result of the accommodating reactions of the others. This behavior includes tacit or express collusion, and may or may not be lawful in and of itself.

Successful coordinated interaction entails reaching terms of coordination that are profitable to the firms involved and an ability to detect and punish deviations that would undermine the coordinated interaction.

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Detection and punishment of deviations ensure that coordinating firms will find it more profitable to adhere to the terms of coordination than to pursue short-term profits from deviating, given the costs of reprisal. In this phase of the analysis, the Agency will examine the extent to which post-merger market conditions are conducive to reaching terms of coordination, detecting deviations from those terms, and punishing such deviations. Depending upon the circumstances, the following market factors, among others, may be relevant: the availability of key information concerning market conditions, transactions and individual competitors; the extent of firm and product heterogeneity; pricing or marketing practices typically employed by firms in the market; the characteristics of buyers and sellers; and the characteristics of typical transactions.

Certain market conditions that are conducive to reaching terms of coordination also may be conducive to detecting or punishing deviations from those terms. For example, the extent of information available to firms in the market, or the extent of homogeneity, may be relevant to both the ability to reach terms of coordination and to detect or punish deviations from those terms. The extent to which any specific market condition will be relevant to one or more of the conditions necessary to coordinated interaction will depend on the circumstances of the particular case.

It is likely that market conditions are conducive to coordinated interaction when the firms in the market previously have engaged in express collusion and when the salient characteristics of the market have not changed appreciably since the most recent such incident. Previous express collusion in another geographic market will have the same weight when the salient characteristics of that other market at the time of the collusion are comparable to those in the relevant market.

In analyzing the effect of a particular merger on coordinated interaction, the Agency is mindful of the difficulties of predicting likely future behavior based on the types of incomplete and sometimes contradictory information typically generated in merger investigations. Whether a merger is likely to diminish competition by enabling firms more likely, more successfully or more completely to engage in coordinated interaction depends on whether market conditions, on the whole, are conducive to reaching terms of coordination and detecting and punishing deviations from those terms.

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## **2.11 Conditions Conducive to Reaching Terms of Coordination**

Firms coordinating their interactions need not reach complex terms concerning the allocation of the market output across firms or the level of the market prices but may, instead, follow simple terms such as a common price, fixed price differentials, stable market shares, or customer or territorial restrictions. Terms of coordination need not perfectly achieve the monopoly outcome in order to be harmful to consumers. Instead, the terms of coordination may be imperfect and incomplete -- inasmuch as they omit some market participants, omit some dimensions of competition, omit some customers, yield elevated prices short of monopoly levels, or lapse into episodic price wars -- and still result in significant competitive harm. At some point, however, imperfections cause the profitability of abiding by the terms of coordination to decrease and, depending on their extent, may make coordinated interaction unlikely in the first instance.

Market conditions may be conducive to or hinder reaching terms of coordination. For example, reaching terms of coordination may be facilitated by product or firm homogeneity and by existing practices among firms, practices not necessarily themselves antitrust violations, such as standardization of pricing or product variables on which firms could compete. Key information about rival firms and the market may also facilitate reaching terms of coordination. Conversely, reaching terms of coordination may be limited or impeded by product heterogeneity or by firms having substantially incomplete information about the conditions and prospects of their rivals' businesses, perhaps because of important differences among their current business operations. In addition, reaching terms of coordination may be limited or impeded by firm heterogeneity, for example, differences in vertical integration or the production of another product that tends to be used together with the relevant product.

## **2.12 Conditions Conducive to Detecting and Punishing Deviations**

Where market conditions are conducive to timely detection and punishment of significant deviations, a firm will find it more profitable to abide by the terms of coordination than to deviate from them. Deviation from the terms of coordination will be deterred where the threat of punishment is credible. Credible punishment, however, may not need to be any more

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complex than temporary abandonment of the terms of coordination by other firms in the market.

Where detection and punishment likely would be rapid, incentives to deviate are diminished and coordination is likely to be successful. The detection and punishment of deviations may be facilitated by existing practices among firms, themselves not necessarily antitrust violations, and by the characteristics of typical transactions. For example, if key information about specific transactions or individual price or output levels is available routinely to competitors, it may be difficult for a firm to deviate secretly. If orders for the relevant product are frequent, regular and small relative to the total output of a firm in a market, it may be difficult for the firm to deviate in a substantial way without the knowledge of rivals and without the opportunity for rivals to react. If demand or cost fluctuations are relatively infrequent and small, deviations may be relatively easy to deter.

By contrast, where detection or punishment is likely to be slow, incentives to deviate are enhanced and coordinated interaction is unlikely to be successful. If demand or cost fluctuations are relatively frequent and large, deviations may be relatively difficult to distinguish from these other sources of market price fluctuations, and, in consequence, deviations may be relatively difficult to deter.

In certain circumstances, buyer characteristics and the nature of the procurement process may affect the incentives to deviate from terms of coordination. Buyer size alone is not the determining characteristic. Where large buyers likely would engage in long-term contracting, so that the sales covered by such contracts can be large relative to the total output of a firm in the market, firms may have the incentive to deviate. However, this only can be accomplished where the duration, volume and profitability of the business covered by such contracts are sufficiently large as to make deviation more profitable in the long term than honoring the terms of coordination, and buyers likely would switch suppliers.

In some circumstances, coordinated interaction can be effectively prevented or limited by maverick firms -- firms that have a greater economic incentive to deviate from the terms of coordination than do most of their rivals (e.g., firms that are unusually disruptive and competitive influences in the market). Consequently, acquisition of a maverick firm is one way in which a merger may make coordinated interaction more likely, more successful, or more complete. For example, in a market where capacity constraints are significant for many competitors, a firm is more likely to be a maverick the greater is its excess or divertable capacity in relation to its



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sales or its total capacity, and the lower are its direct and opportunity costs of expanding sales in the relevant market.<sup>19</sup> This is so because a firm's incentive to deviate from price-elevating and output-limiting terms of coordination is greater the more the firm is able profitably to expand its output as a proportion of the sales it would obtain if it adhered to the terms of coordination and the smaller is the base of sales on which it enjoys elevated profits prior to the price cutting deviation.<sup>20</sup> A firm also may be a maverick if it has an unusual ability secretly to expand its sales in relation to the sales it would obtain if it adhered to the terms of coordination. This ability might arise from opportunities to expand captive production for a downstream affiliate.

## **2.2 Lessening of Competition Through Unilateral Effects**

A merger may diminish competition even if it does not lead to increased likelihood of successful coordinated interaction, because merging firms may find it profitable to alter their behavior unilaterally following the acquisition by elevating price and suppressing output. Unilateral competitive effects can arise in a variety of different settings. In each setting, particular other factors describing the relevant market affect the likelihood of unilateral competitive effects. The settings differ by the primary characteristics that distinguish firms and shape the nature of their competition.

### **2.21 Firms Distinguished Primarily by Differentiated Products**

In some markets the products are differentiated, so that products sold by different participants in the market are not perfect substitutes for one another. Moreover, different products in the market may vary in the

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<sup>19</sup> But excess capacity in the hands of non-maverick firms may be a potent weapon with which to punish deviations from the terms of coordination.

<sup>20</sup> Similarly, in a market where product design or quality is significant, a firm is more likely to be an effective maverick the greater is the sales potential of its products among customers of its rivals, in relation to the sales it would obtain if it adhered to the terms of coordination. The likelihood of expansion responses by a maverick will be analyzed in the same fashion as uncommitted entry or committed entry (see Sections 1.3 and 3) depending on the significance of the sunk costs entailed in expansion.

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degree of their substitutability for one another. In this setting, competition may be non-uniform (i.e., localized), so that individual sellers compete more directly with those rivals selling closer substitutes.<sup>21</sup>

A merger between firms in a market for differentiated products may diminish competition by enabling the merged firm to profit by unilaterally raising the price of one or both products above the premerger level. Some of the sales loss due to the price rise merely will be diverted to the product of the merger partner and, depending on relative margins, capturing such sales loss through merger may make the price increase profitable even though it would not have been profitable premerger. Substantial unilateral price elevation in a market for differentiated products requires that there be a significant share of sales in the market accounted for by consumers who regard the products of the merging firms as their first and second choices, and that repositioning of the non-parties' product lines to replace the localized competition lost through the merger be unlikely. The price rise will be greater the closer substitutes are the products of the merging firms, i.e., the more the buyers of one product consider the other product to be their next choice.

### *2.211 Closeness of the Products of the Merging Firms*

The market concentration measures articulated in Section 1 may help assess the extent of the likely competitive effect from a unilateral price elevation by the merged firm notwithstanding the fact that the affected products are differentiated. The market concentration measures provide a measure of this effect if each product's market share is reflective of not only its relative appeal as a first choice to consumers of the merging firms' products but also its relative appeal as a second choice, and hence as a competitive constraint to the first choice.<sup>22</sup> Where this circumstance holds, market

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<sup>21</sup> Similarly, in some markets sellers are primarily distinguished by their relative advantages in serving different buyers or groups of buyers, and buyers negotiate individually with sellers. Here, for example, sellers may formally bid against one another for the business of a buyer, or each buyer may elicit individual price quotes from multiple sellers. A seller may find it relatively inexpensive to meet the demands of particular buyers or types of buyers, and relatively expensive to meet others' demands. Competition, again, may be localized: sellers compete more directly with those rivals having similar relative advantages in serving particular buyers or groups of buyers. For example, in open outcry auctions, price is determined by the cost of the second lowest-cost seller. A merger involving the first and second lowest-cost sellers could cause prices to rise to the constraining level of the next lowest-cost seller.

<sup>22</sup> Information about consumers' actual first and second product choices may be provided by marketing surveys, information from bidding structures, or normal course of business documents from industry participants.

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concentration data fall outside the safeharbor regions of Section 1.5, and the merging firms have a combined market share of at least thirty-five percent, the Agency will presume that a significant share of sales in the market are accounted for by consumers who regard the products of the merging firms as their first and second choices.

Purchasers of one of the merging firms' products may be more or less likely to make the other their second choice than market shares alone would indicate. The market shares of the merging firms' products may understate the competitive effect of concern, when, for example, the products of the merging firms are relatively more similar in their various attributes to one another than to other products in the relevant market. On the other hand, the market shares alone may overstate the competitive effects of concern when, for example, the relevant products are less similar in their attributes to one another than to other products in the relevant market.

Where market concentration data fall outside the safeharbor regions of Section 1.5, the merging firms have a combined market share of at least thirty-five percent, and where data on product attributes and relative product appeal show that a significant share of purchasers of one merging firm's product regard the other as their second choice, then market share data may be relied upon to demonstrate that there is a significant share of sales in the market accounted for by consumers who would be adversely affected by the merger.

### *2.212 Ability of Rival Sellers to Replace Lost Competition*

A merger is not likely to lead to unilateral elevation of prices of differentiated products if, in response to such an effect, rival sellers likely would replace any localized competition lost through the merger by repositioning their product lines.<sup>23</sup>

In markets where it is costly for buyers to evaluate product quality, buyers who consider purchasing from both merging parties may limit the total number of sellers they consider. If either of the merging firms would be replaced in such buyers' consideration by an equally competitive seller not formerly considered, then the merger is not likely to lead to a unilateral elevation of prices.

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<sup>23</sup> The timeliness and likelihood of repositioning responses will be analyzed using the same methodology as used in analyzing uncommitted entry or committed entry (see Sections 1.3 and 3), depending on the significance of the sunk costs entailed in repositioning.

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## **2.22 Firms Distinguished Primarily by Their Capacities**

Where products are relatively undifferentiated and capacity primarily distinguishes firms and shapes the nature of their competition, the merged firm may find it profitable unilaterally to raise price and suppress output. The merger provides the merged firm a larger base of sales on which to enjoy the resulting price rise and also eliminates a competitor to which customers otherwise would have diverted their sales. Where the merging firms have a combined market share of at least thirty-five percent, merged firms may find it profitable to raise price and reduce joint output below the sum of their premerger outputs because the lost markups on the foregone sales may be outweighed by the resulting price increase on the merged base of sales.

This unilateral effect is unlikely unless a sufficiently large number of the merged firm's customers would not be able to find economical alternative sources of supply, i.e., competitors of the merged firm likely would not respond to the price increase and output reduction by the merged firm with increases in their own outputs sufficient in the aggregate to make the unilateral action of the merged firm unprofitable. Such non-party expansion is unlikely if those firms face binding capacity constraints that could not be economically relaxed within two years or if existing excess capacity is significantly more costly to operate than capacity currently in use.<sup>24</sup>

# **3. Entry Analysis**

## **3.0 Overview**

A merger is not likely to create or enhance market power or to facilitate its exercise, if entry into the market is so easy that market participants, after the merger, either collectively or unilaterally could not profitably maintain a price increase above premerger levels. Such entry likely will deter an anticompetitive merger in its incipiency, or deter or counteract the competitive effects of concern.

Entry is that easy if entry would be timely, likely, and sufficient in its magnitude, character and scope to deter or counteract the competitive

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<sup>24</sup> The timeliness and likelihood of non-party expansion will be analyzed using the same methodology as used in analyzing uncommitted or committed entry (see Sections 1.3 and 3) depending on the significance of the sunk costs entailed in expansion.

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effects of concern. In markets where entry is that easy (i.e., where entry passes these tests of timeliness, likelihood, and sufficiency), the merger raises no antitrust concern and ordinarily requires no further analysis.

The committed entry treated in this Section is defined as new competition that requires expenditure of significant sunk costs of entry and exit.<sup>25</sup> The Agency employs a three-step methodology to assess whether committed entry would deter or counteract a competitive effect of concern.

The first step assesses whether entry can achieve significant market impact within a timely period. If significant market impact would require a longer period, entry will not deter or counteract the competitive effect of concern.

The second step assesses whether committed entry would be a profitable and, hence, a likely response to a merger having competitive effects of concern. Firms considering entry that requires significant sunk costs must evaluate the profitability of the entry on the basis of long term participation in the market, because the underlying assets will be committed to the market until they are economically depreciated. Entry that is sufficient to counteract the competitive effects of concern will cause prices to fall to their premerger levels or lower. Thus, the profitability of such committed entry must be determined on the basis of premerger market prices over the long-term.

A merger having anticompetitive effects can attract committed entry, profitable at premerger prices, that would not have occurred premerger at these same prices. But following the merger, the reduction in industry output and increase in prices associated with the competitive effect of concern may allow the same entry to occur without driving market prices below premerger levels. After a merger that results in decreased output and increased prices, the likely sales opportunities available to entrants at premerger prices will be larger than they were premerger, larger by the output reduction caused by the merger. If entry could be profitable at premerger prices without exceeding the likely sales opportunities -- opportunities that include pre-existing pertinent factors as well as the merger-induced output reduction -- then such entry is likely in response to the merger.

The third step assesses whether timely and likely entry would be sufficient to return market prices to their premerger levels. This end may be accomplished either through multiple entry or individual entry at a sufficient

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<sup>25</sup> Supply responses that require less than one year and insignificant sunk costs to effectuate are analyzed as uncommitted entry in Section 1.3.

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scale. Entry may not be sufficient, even though timely and likely, where the constraints on availability of essential assets, due to incumbent control, make it impossible for entry profitably to achieve the necessary level of sales. Also, the character and scope of entrants' products might not be fully responsive to the localized sales opportunities created by the removal of direct competition among sellers of differentiated products. In assessing whether entry will be timely, likely, and sufficient, the Agency recognizes that precise and detailed information may be difficult or impossible to obtain. In such instances, the Agency will rely on all available evidence bearing on whether entry will satisfy the conditions of timeliness, likelihood, and sufficiency.

### **3.1 Entry Alternatives**

The Agency will examine the timeliness, likelihood, and sufficiency of the means of entry (entry alternatives) a potential entrant might practically employ, without attempting to identify who might be potential entrants. An entry alternative is defined by the actions the firm must take in order to produce and sell in the market. All phases of the entry effort will be considered, including, where relevant, planning, design, and management; permitting, licensing, and other approvals; construction, debugging, and operation of production facilities; and promotion (including necessary introductory discounts), marketing, distribution, and satisfaction of customer testing and qualification requirements.<sup>26</sup> Recent examples of entry, whether successful or unsuccessful, may provide a useful starting point for identifying the necessary actions, time requirements, and characteristics of possible entry alternatives.

### **3.2 Timeliness of Entry**

In order to deter or counteract the competitive effects of concern, entrants quickly must achieve a significant impact on price in the relevant market. The Agency generally will consider timely only those committed entry alternatives that can be achieved within two years from initial planning to significant market impact.<sup>27</sup> Where the relevant product is a

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<sup>26</sup> Many of these phases may be undertaken simultaneously.

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durable good, consumers, in response to a significant commitment to entry, may defer purchases by making additional investments to extend the useful life of previously purchased goods and in this way deter or counteract for a time the competitive effects of concern. In these circumstances, if entry only can occur outside of the two year period, the Agency will consider entry to be timely so long as it would deter or counteract the competitive effects of concern within the two-year period and subsequently.

### 3.3 Likelihood of Entry

An entry alternative is likely if it would be profitable at premerger prices, and if such prices could be secured by the entrant.<sup>28</sup> The committed entrant will be unable to secure prices at premerger levels if its output is too large for the market to absorb without depressing prices further. Thus, entry is unlikely if the minimum viable scale is larger than the likely sales opportunity available to entrants.

Minimum viable scale is the smallest average annual level of sales that the committed entrant must persistently achieve for profitability at premerger prices.<sup>29</sup> Minimum viable scale is a function of expected revenues, based upon premerger prices,<sup>30</sup> and all categories of costs associated with the entry alternative, including an appropriate rate of return on invested capital given that entry could fail and sunk costs, if any, will be lost.<sup>31</sup>

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<sup>27</sup> Firms which have committed to entering the market prior to the merger generally will be included in the measurement of the market. Only committed entry or adjustments to pre-existing entry plans that are induced by the merger will be considered as possibly deterring or counteracting the competitive effects of concern.

<sup>28</sup> Where conditions indicate that entry may be profitable at prices below premerger levels, the Agency will assess the likelihood of entry at the lowest price at which such entry would be profitable.

<sup>29</sup> The concept of minimum viable scale ("MVS") differs from the concept of minimum efficient scale ("MES"). While MES is the smallest scale at which average costs are minimized, MVS is the smallest scale at which average costs equal the premerger price.

<sup>30</sup> The expected path of future prices, absent the merger, may be used if future price changes can be predicted with reasonable reliability.

<sup>31</sup> The minimum viable scale of an entry alternative will be relatively large when the fixed costs of entry are large, when the fixed costs of entry are largely sunk, when the marginal costs of production are high at low levels of output, and when a plant is underutilized for a long time because of delays in achieving market acceptance.

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Sources of sales opportunities available to entrants include: (a) the output reduction associated with the competitive effect of concern,<sup>32</sup> (b) entrants' ability to capture a share of reasonably expected growth in market demand,<sup>33</sup> (c) entrants' ability securely to divert sales from incumbents, for example, through vertical integration or through forward contracting, and (d) any additional anticipated contraction in incumbents' output in response to entry.<sup>34</sup> Factors that reduce the sales opportunities available to entrants include: (a) the prospect that an entrant will share in a reasonably expected decline in market demand, (b) the exclusion of an entrant from a portion of the market over the long term because of vertical integration or forward contracting by incumbents, and (c) any anticipated sales expansion by incumbents in reaction to entry, either generalized or targeted at customers approached by the entrant, that utilizes prior irreversible investments in excess production capacity. Demand growth or decline will be viewed as relevant only if total market demand is projected to experience long-lasting change during at least the two year period following the competitive effect of concern.

### 3.4 Sufficiency of Entry

Inasmuch as multiple entry generally is possible and individual entrants may flexibly choose their scale, committed entry generally will be sufficient to deter or counteract the competitive effects of concern whenever entry is likely under the analysis of Section 3.3. However, entry, although likely, will not be sufficient if, as a result of incumbent control, the tangible and intangible assets required for entry are not adequately available for entrants to respond fully to their sales opportunities. In addition, where the competitive effect of concern is not uniform across the relevant market, in order for entry to be sufficient, the character and scope of entrants' products must be responsive to the localized sales opportunities that include the output reduction associated with the competitive effect of concern. For exam-

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<sup>32</sup> Five percent of total market sales typically is used because where a monopolist profitably would raise price by five percent or more across the entire relevant market, it is likely that the accompanying reduction in sales would be no less than five percent.

<sup>33</sup> Entrants' anticipated share of growth in demand depends on incumbents' capacity constraints and irreversible investments in capacity expansion, as well as on the relative appeal, acceptability and reputation of incumbents' and entrants' products to the new demand.

<sup>34</sup> For example, in a bidding market where all bidders are on equal footing, the market share of incumbents will contract as a result of entry.



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ple, where the concern is unilateral price elevation as a result of a merger between producers of differentiated products, entry, in order to be sufficient, must involve a product so close to the products of the merging firms that the merged firm will be unable to internalize enough of the sales loss due to the price rise, rendering the price increase unprofitable.

## **4. Efficiencies**

### **(Revised Section 4 Horizontal Merger Guidelines Issued by the U.S. Department of Justice and the Federal Trade Commission April 8, 1997)**

Competition usually spurs firms to achieve efficiencies internally. Nevertheless, mergers have the potential to generate significant efficiencies by permitting a better utilization of existing assets, enabling the combined firm to achieve lower costs in producing a given quantity and quality than either firm could have achieved without the proposed transaction. Indeed, the primary benefit of mergers to the economy is their potential to generate such efficiencies.

Efficiencies generated through merger can enhance the merged firm's ability and incentive to compete, which may result in lower prices, improved quality, enhanced service, or new products. For example, merger-generated efficiencies may enhance competition by permitting two ineffective (e.g., high cost) competitors to become one effective (e.g., lower cost) competitor. In a coordinated interaction context (see Section 2.1), marginal cost reductions may make coordination less likely or effective by enhancing the incentive of a maverick to lower price or by creating a new maverick firm. In a unilateral effects context (see Section 2.2), marginal cost reductions may reduce the merged firm's incentive to elevate price. Efficiencies also may result in benefits in the form of new or improved products, and efficiencies may result in benefits even when price is not immediately and directly affected. Even when efficiencies generated through merger enhance a firm's ability to compete, however, a merger may have other effects that may lessen competition and ultimately may make the merger anticompetitive.

The Agency will consider only those efficiencies likely to be accomplished with the proposed merger and unlikely to be accomplished in the absence of either the proposed merger or another means having comparable anticompetitive effects. These are termed *merger-specific efficien-*

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cies.<sup>35</sup> Only alternatives that are practical in the business situation faced by the merging firms will be considered in making this determination; the Agency will not insist upon a less restrictive alternative that is merely theoretical.

Efficiencies are difficult to verify and quantify, in part because much of the information relating to efficiencies is uniquely in the possession of the merging firms. Moreover, efficiencies projected reasonably and in good faith by the merging firms may not be realized. Therefore, the merging firms must substantiate efficiency claims so that the Agency can verify by reasonable means the likelihood and magnitude of each asserted efficiency, how and when each would be achieved (and any costs of doing so), how each would enhance the merged firm's ability and incentive to compete, and why each would be merger-specific. Efficiency claims will not be considered if they are vague or speculative or otherwise cannot be verified by reasonable means.

*Cognizable efficiencies* are merger-specific efficiencies that have been verified and do not arise from anticompetitive reductions in output or service. Cognizable efficiencies are assessed net of costs produced by the merger or incurred in achieving those efficiencies.

The Agency will not challenge a merger if cognizable efficiencies are of a character and magnitude such that the merger is not likely to be anticompetitive in any relevant market.<sup>36</sup> To make the requisite determination, the Agency considers whether cognizable efficiencies likely would be sufficient to reverse the merger's potential to harm consumers in the relevant market, e.g., by preventing price increases in that market. In con-

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<sup>35</sup> The Agency will not deem efficiencies to be merger-specific if they could be preserved by practical alternatives that mitigate competitive concerns, such as divestiture or licensing. If a merger affects not whether but only when an efficiency would be achieved, only the timing advantage is a merger-specific efficiency.

<sup>36</sup> Section 7 of the Clayton Act prohibits mergers that may substantially lessen competition "in any line of commerce . . . in any section of the country." Accordingly, the Agency normally assesses competition in each relevant market affected by a merger independently and normally will challenge the merger if it is likely to be anticompetitive in any relevant market. In some cases, however, the Agency in its prosecutorial discretion will consider efficiencies not strictly in the relevant market, but so inextricably linked with it that a partial divestiture or other remedy could not feasibly eliminate the anticompetitive effect in the relevant market without sacrificing the efficiencies in the other market(s). Inextricably linked efficiencies rarely are a significant factor in the Agency's determination not to challenge a merger. They are most likely to make a difference when they are great and the likely anticompetitive effect in the relevant market(s) is small.

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ducting this analysis,<sup>37</sup> the Agency will not simply compare the magnitude of the cognizable efficiencies with the magnitude of the likely harm to competition absent the efficiencies. The greater the potential adverse competitive effect of a merger—as indicated by the increase in the HHI and post-merger HHI from Section 1, the analysis of potential adverse competitive effects from Section 2, and the timeliness, likelihood, and sufficiency of entry from Section 3—the greater must be cognizable efficiencies in order for the Agency to conclude that the merger will not have an anticompetitive effect in the relevant market. When the potential adverse competitive effect of a merger is likely to be particularly large, extraordinarily great cognizable efficiencies would be necessary to prevent the merger from being anticompetitive.

In the Agency's experience, efficiencies are most likely to make a difference in merger analysis when the likely adverse competitive effects, absent the efficiencies, are not great. Efficiencies almost never justify a merger to monopoly or near-monopoly.

The Agency has found that certain types of efficiencies are more likely to be cognizable and substantial than others. For example, efficiencies resulting from shifting production among facilities formerly owned separately, which enable the merging firms to reduce the marginal cost of production, are more likely to be susceptible to verification, merger-specific, and substantial, and are less likely to result from anticompetitive reductions in output. Other efficiencies, such as those relating to research and development, are potentially substantial but are generally less susceptible to verification and may be the result of anticompetitive output reductions. Yet others, such as those relating to procurement, management, or capital cost are less likely to be merger-specific or substantial, or may not be cognizable for other reasons.

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<sup>37</sup> The result of this analysis over the short term will determine the Agency's enforcement decision in most cases. The Agency also will consider the effects of cognizable efficiencies with no short-term, direct effect on prices in the relevant market. Delayed benefits from efficiencies (due to delay in the achievement of, or the realization of consumer benefits from, the efficiencies) will be given less weight because they are less proximate and more difficult to predict.

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## 5. Failure and Exiting Assets

### 5.0 Overview

Notwithstanding the analysis of Sections 1-4 of the Guidelines, a merger is not likely to create or enhance market power or to facilitate its exercise, if imminent failure, as defined below, of one of the merging firms would cause the assets of that firm to exit the relevant market. In such circumstances, post-merger performance in the relevant market may be no worse than market performance had the merger been blocked and the assets left the market.

### 5.1 Failing Firm

A merger is not likely to create or enhance market power or facilitate its exercise if the following circumstances are met: 1) the allegedly failing firm would be unable to meet its financial obligations in the near future; 2) it would not be able to reorganize successfully under Chapter 11 of the Bankruptcy Act;<sup>38</sup> 3) it has made unsuccessful good-faith efforts to elicit reasonable alternative offers of acquisition of the assets of the failing firm<sup>39</sup> that would both keep its tangible and intangible assets in the relevant market and pose a less severe danger to competition than does the proposed merger; and 4) absent the acquisition, the assets of the failing firm would exit the relevant market

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<sup>38</sup> 11 U.S.C. §§ 1101-1174 (1988).

<sup>39</sup> Any offer to purchase the assets of the failing firm for a price above the liquidation value of those assets -- the highest valued use outside the relevant market or equivalent offer to purchase the stock of the failing firm -- will be regarded as a reasonable alternative offer.

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## 5.2 Failing Division

A similar argument can be made for “failing” divisions as for failing firms. First, upon applying appropriate cost allocation rules, the division must have a negative cash flow on an operating basis. Second, absent the acquisition, it must be that the assets of the division would exit the relevant market in the near future if not sold. Due to the ability of the parent firm to allocate costs, revenues, and intracompany transactions among itself and its subsidiaries and divisions, the Agency will require evidence, not based solely on management plans that could be prepared solely for the purpose of demonstrating negative cash flow or the prospect of exit from the relevant market. Third, the owner of the failing division also must have complied with the competitively-preferable purchaser requirement of Section 5.1.