



# Commentary on the Horizontal Merger Guidelines



U.S. Department of Justice



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# Foreword

Mergers between competing firms, i.e., “horizontal” mergers, are a significant dynamic force in the American economy. The vast majority of mergers pose no harm to consumers, and many produce efficiencies that benefit consumers in the form of lower prices, higher quality goods or services, or investments in innovation. Efficiencies such as these enable companies to compete more effectively, both domestically and overseas.

Fourteen years ago, to describe their application of the antitrust laws to horizontal mergers, the Federal Trade Commission and the U.S. Department of Justice (collectively, the “Agencies”)—the two federal Agencies responsible for U.S. antitrust law enforcement—jointly issued the 1992 Horizontal Merger Guidelines (the “Guidelines”). In 1997, the Agencies jointly issued revisions to the Guidelines’ section on Efficiencies. Since these publications were issued, the Agencies have consistently applied the Guidelines’ analytical framework to the horizontal mergers under their review.

Today, to provide greater transparency and foster deeper understanding regarding antitrust law enforcement, the Agencies jointly issue this Commentary on the Guidelines.

The Commentary continues the Agencies’ ongoing efforts to increase the transparency of their decision-making processes. These efforts include the Agencies’ joint publication of Merger Challenges Data, Fiscal Years 1999–2003 (issued December 18, 2003), the Commission’s subsequent publication of Horizontal Merger Investigation Data, Fiscal Years 1996–2003 (issued February 2, 2004 and revised August 31, 2004), the Department’s Merger Review Process Initiative (issued October 12, 2001 and revised August 4, 2004), the Reforms to the Merger Review Process at the Commission (issued February 16, 2006), and

the Department’s and Commission’s increased use of explanatory closing statements following merger investigations.

The Commentary follows on the Agencies’ February 2004 Merger Enforcement Workshop. Over three days, leading antitrust practitioners and economists who have examined merger policy and the Guidelines’ analytical framework discussed in detail all sections of the Guidelines. The Workshop focused on whether the analytical framework set forth by the Guidelines adequately serves the dual purposes of leading to appropriate enforcement decisions on proposed horizontal mergers, and providing the antitrust bar and the business community with reasonably clear guidance from which to assess the antitrust enforcement risks of proposed transactions.

Workshop participants generally agreed that the analytical framework set out in the Guidelines is effective in yielding the right results in individual cases and in providing advice to parties considering a merger. Thus, the Agencies concluded that a revamping of the Guidelines is neither needed nor widely desired at this time. Rather, the Guidelines’ analytic framework has proved both robust and sufficiently flexible to allow the Agencies properly to account for the particular facts presented in each merger investigation.

The Agencies also have observed that the antitrust bar and business community would find useful and beneficial an explication of how the Agencies apply the Guidelines in particular investigations. This Commentary is intended to respond to this important public interest by enhancing the transparency of the analytical process by which the Agencies apply the antitrust laws to horizontal mergers.

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# Introduction

## Governing Legal Principles

The principal federal antitrust laws applicable to mergers are section 7 of the Clayton Act, section 1 of the Sherman Act, and section 5 of the Federal Trade Commission Act. Section 7 proscribes a merger the effects of which “may be substantially to lessen competition.” Section 1 prohibits an agreement that constitutes an unreasonable “restraint of trade.” Section 5, which the Federal Trade Commission enforces, proscribes “unfair methods of competition.” Over many decades, the federal courts have provided an expansive body of case law interpreting these statutes within the factual and economic context of individual cases.

The core concern of the antitrust laws, including as they pertain to mergers between rivals, is the creation or enhancement of market power. In the context of sellers of goods or services, “market power” may be defined as the ability profitably to maintain prices above competitive levels for a significant period of time. Market power may be exercised, however, not only by raising price, but also, for example, by reducing quality or slowing innovation. In addition, mergers also can create market power on the buying side of a market. Most mergers between rivals do not create or enhance market power. Many mergers, moreover, enable the merged firm to reduce its costs and become more efficient, which, in turn, may lead to lower prices, higher quality products, or investments in innovation. However, the Agencies challenge mergers that are likely to create or enhance the merged firm’s ability—either unilaterally or through coordination with rivals—to exercise market power.

Following their mandate under the antitrust statutory and case law, the Agencies focus their horizontal merger analysis on whether the transactions under review are likely to create or enhance market power. The Guidelines set forth

the analytical framework and standards, consistent with the law and with economic learning, that the Agencies use to assess whether an anticompetitive outcome is likely. The unifying theme of that assessment is “that mergers should not be permitted to create or enhance market power or to facilitate its exercise.” Guidelines § 0.1. The Guidelines are flexible, allowing the Agencies’ analysis to adapt as business practices and economic learning evolve.

In applying the Guidelines to the transactions that each separately reviews, the Agencies strive to allow transactions unlikely substantially to lessen competition to proceed as expeditiously as possible. The Agencies focus their attention on quickly identifying those transactions that could violate the antitrust laws, subjecting those mergers to greater scrutiny. Most mergers that pose significant risk to competition come to the Agencies’ attention before they are consummated under the premerger notification and reporting requirements of the Hart-Scott-Rodino Antitrust Improvements Act of 1976, 15 U.S.C. § 18a (“HSR”). HSR requires that the parties to a transaction above a certain size notify the Agencies before consummation and prohibits consummation of the transaction until expiration of one or more waiting periods during which one of the Agencies reviews the transaction. The waiting periods provide the Agencies time to review a transaction before consummation.

For more than 95% of the transactions reported under HSR, the Agencies promptly determine—i.e., within the initial fifteen- or thirty-day waiting period that immediately follows HSR filings—that a substantial lessening of competition is unlikely. The Agencies base such expeditious determinations on material provided as part of the HSR notification, experience from prior investigations, and other market information. For many industries, a wealth of information is available from government reports, trade

directories and publications, and Internet resources. For some transactions, the parties volunteer additional information, and for some, the Agencies obtain information from non-public sources. The most important non-public sources are market participants, especially the parties' customers, who typically provide information voluntarily when the Agencies solicit their cooperation.

Evidence that the merged firm would have a relatively high share of sales (or of capacity, or of units, or of another relevant basis for measurement) or that the market is relatively highly concentrated may be particularly significant to a decision by either of the Agencies to extend a pre-merger investigation pursuant to HSR by issuing a request for additional information (commonly referred to as a "second request"). A decision to issue a second request must be made within the initial HSR thirty-day waiting period (fifteen days for cash tender offers), or the parties will no longer be prevented under HSR from consummating their merger. A second request may be necessary when it is not possible within thirty days to gather and analyze the facts necessary to address appropriately the competitive concerns that may arise at the threshold of the investigation, such as when parties to a merger appear to have relatively high shares in the market or markets in which they compete. Although the ultimate decision of whether a merger likely will be anticompetitive is based heavily on evidence of potential anticompetitive effects, the Agencies find that only in extraordinary circumstances can they conduct an extensive competitive effects analysis within thirty days. That is why market shares and concentration levels, which have some predictive value, frequently are used as at least a starting point during the initial waiting period.

Sometimes the Agencies also investigate consummated mergers, especially when evidence suggests that anticompetitive effects may have resulted from them. The Agencies apply Guidelines analysis to consummated mergers as well as to mergers under review pursuant to HSR.

## **Overview of Guidelines Analysis**

The Guidelines' five-part organizational structure has become deeply embedded in mainstream merger analysis. These parts are: (1)

market definition and concentration; (2) potential adverse competitive effects; (3) entry analysis; (4) efficiencies; and (5) failing and exiting assets.

Each of the Guidelines' sections identifies a distinct analytical element that the Agencies apply in an integrated approach to merger review. The ordering of these elements in the Guidelines, however, is not itself analytically significant, because the Agencies do not apply the Guidelines as a linear, step-by-step progression that invariably starts with market definition and ends with efficiencies or failing assets. Analysis of efficiencies, for example, does not occur "after" competitive effects or market definition in the Agencies' analysis of proposed mergers, but rather is part of an integrated approach. If the conditions necessary for an anticompetitive effect are not present—for example, because entry would reverse that effect before significant time elapsed—the Agencies terminate their review because it would be unnecessary to address all of the analytical elements.

The chapters that follow, in the context of specific analytical elements such as market definition or entry, describe many principles of Guidelines analysis that the Agencies apply in the course of investigating mergers. Three significant principles are generally applicable throughout.

### ***The Agencies' Focus Is on Competitive Effects***

The Guidelines' integrated process 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 facilitate its exercise." Guidelines § 0.2. At the center of the Agencies' application of the Guidelines, therefore, is competitive effects analysis. That inquiry directly addresses the key question that the Agencies must answer: Is the merger under review likely substantially to lessen competition? To this end, the Agencies examine whether the merger of two particular rivals matters, that is, whether the merger is likely to affect adversely the competitive process, resulting in higher prices, lower quality, or reduced innovation.

The Guidelines identify two broad analytical frameworks for assessing whether a merger between competing firms may substantially lessen competition. These frameworks require that the

Agencies ask whether the merger may increase market power by facilitating coordinated interaction among rival firms and whether the merger may enable the merged firm unilaterally to raise price or otherwise exercise market power. Together, these two frameworks are intended to embrace every competitive effect of any form of horizontal merger. The Guidelines were never intended to detail how the Agencies would assess every set of circumstances that a proposed merger may present. As the Guidelines themselves note, the specific standards set forth therein must be applied to a broad range of possible factual circumstances.

### ***Investigations Are Intensively Fact-Driven, Iterative Processes***

Merger analysis depends heavily on the specific facts of each case. At the outset of an investigation, when Agency staff may know relatively little about the merging firms, their products, their rivals, or the applicable relevant markets, staff typically contemplates several broad hypotheses of possible harm.

For example, based on initial information, staff may hypothesize that a merger would reduce the number of competitors from four to three and, in so doing, may foster or enhance coordination by enabling the remaining firms profitably to allocate customers based on prior sales. Staff also might hypothesize that the products of the merging firms are particularly close substitutes with respect to product characteristics or geographic location such that unilateral anticompetitive effects are likely.

Staff evaluates potential competitive factors of this sort by gathering additional information and conducting intensive factual analysis to assess both the applicability of individual analytical frameworks and their implications for the likely competitive effects of the merger. As it learns more about the merging firms and the market environment in which they compete, staff rejects or refines its hypotheses of probable relevant markets and competitive effects, ultimately resulting in a conclusion about likelihood of harm. If the facts do not point to such a likelihood, the merger investigation is closed.

In testing a particular postulated risk of competitive harm arising from a merger, the Agencies take into account pertinent characteristics of the market's competitive process

using data, documents, and other information obtained from the parties, their competitors, their customers, databases of various sorts, and academic literature or private industry studies. The Agencies carefully consider the views of informed customers on market structure, the competitive process, and anticipated effects from the merger. The Agencies further consider any information voluntarily provided by the parties, which may include extensive analyses prepared by economists or in consultation with economists. The Agencies also carefully consider prospects for efficiencies that the proposed transaction may generate and evaluate the effects of any efficiencies on the outcome of the competitive process.

### ***The Same Evidence Often Is Relevant to Multiple Elements of the Analysis***

A single piece of evidence often is relevant to several issues in the assessment of a proposed merger. For example, mergers frequently occur in markets that have experienced prior mergers. Sometimes evidence exists concerning the effects of prior mergers on various attributes of competition. Such evidence may be probative, for example, of the scope of the relevant product and geographic markets, of the likely competitive effects of the proposed merger, and of the likelihood that entry would deter or counteract any attempted exercise of market power following the merger under review. Similarly, evidence of actual or likely anticompetitive effects from a merger could be used in addressing the scope of the market or entry conditions.

An investigation involving potential coordinated effects may uncover evidence of past collusion and sustained supra-competitive prices in the market. This information can be relevant to several elements of the analysis. The product and geographic markets that were subject to collusion in the past may be probative of the relevant product and geographic markets today. That entry failed to undermine collusion in the past may be probative of whether entry is likely today. Of course, during its investigation, the Agency may discover facts that tend to negate these possibilities. For example, since collusion occurred, new production technologies may have emerged that have altered the ability or incentives of firms to coordinate their actions. Similarly, innovation may have led to the introduction of



new products that compete with the incumbent products and constrain the ability of the merging firms and their rivals to coordinate successfully in the future.

## **Commentary Outline**

In the chapters that follow, the Commentary explains how the Agencies have applied particular Guidelines' provisions relating to market definition and concentration, competitive effects (including coordinated interaction and unilateral effects analysis), entry conditions, and efficiencies. Application of the Guidelines' provisions relating to failure and exiting assets is not discussed in the Commentary because those provisions are very infrequently applied. For convenience, the order of these chapters follows the order of the issues set forth in the Guidelines.

Included throughout the Commentary are short summaries of matters that the Agencies have investigated. They have been included to further understanding of the principles under discussion at that point in the narrative. None of the summaries exhaustively addresses all the pertinent facts or issues that arose in the investigation. No other significance should be attributed to the selection of the matters used as examples. (In some instances in the Efficiencies chapter, names and other key facts of actual matters are changed to protect the confidentiality of business and proprietary information. Each is noted as a "Disguised Example.") An Index at the end of the Commentary lists all of the mergers discussed in these case examples and provides citations to additional public information.

For the reader's convenience, the case examples briefly state how each investigation ended, i.e., whether it was closed because the Agency determined not to challenge the merger or because the parties abandoned the merger in response to imminent Agency challenge, or whether the investigation proceeded to a consent agreement or to litigation. The discussion within each case example pertains solely to the relevant Agency's analysis of the merger, and does not elaborate on any subsequent judicial or administrative proceedings.

# 1. Market Definition and Concentration

The Agencies evaluate a merger’s likely competitive effects “within the context of economically significant markets—i.e., markets that could be subject to the exercise of market power.” Guidelines § 1.0. The purpose of merger analysis under the Guidelines is to identify those mergers that are likely to create or enhance market power in any market. The Agencies therefore examine all plausible markets to determine whether an adverse competitive effect is likely to occur in any of them. The market definition process is not isolated from the other analytic components in the Guidelines. The Agencies do not settle on a relevant market definition before proceeding to address other issues. Rather, market definition is part of the integrated process by which the Agencies apply Guidelines principles, iterated as new facts are learned, to reach an understanding of the merger’s likely effect on competition.

The mechanics of how the Agencies define markets using the Guidelines method has been the subject of extensive discussion in legal and economic literature and appears to be well understood in the antitrust community. This Commentary, accordingly, provides only a brief overview of the mechanics. The remainder of this chapter addresses a number of discrete topics concerning market definition issues that frequently arise in merger investigations.

## Mechanics of Market Definition

The Guidelines define a market 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.” Guidelines § 1.0.

This approach to market definition is referred to as the “hypothetical monopolist” test. To determine the effects of this “‘small but significant and nontransitory’ increase in price” (commonly referred to as a “SSNIP”), the Agencies generally use a price increase of five percent. This test identifies which product(s) in which geographic locations significantly constrain the price of the merging firms’ products.

The Guidelines’ method for implementing the hypothetical monopolist test starts by identifying each product produced or sold by each of the merging firms. Then, for each product, it iteratively broadens the candidate market by adding the next-best substitute. A relevant product market emerges as the smallest group of products that satisfies the hypothetical monopolist test. Product market definition depends critically upon demand-side substitution—i.e., consumers’ willingness to switch from one product to another in reaction to price changes. The Guidelines’ approach to market definition reflects the separation of demand substitutability from supply substitutability—i.e., the ability and willingness, given existing capacity, of firms to substitute from making one product to producing another in reaction to a price change. Under this approach, demand substitutability is the concern of market delineation, while supply substitutability and entry are concerned with current and future market participants.

Definition of the relevant geographic market is undertaken in much the same way as product market definition—by identifying the narrowest possible market and then broadening it by

iteratively adding the next-best substitutes. Thus, for geographic market definition, the Agencies begin with the area(s) in which the merging firms compete respecting each relevant product, and extend the boundaries of those areas until an area is determined within which a hypothetical monopolist would raise prices by at least a small but significant and non-transitory amount.

**DaVita–Gambro (FTC 2005)** DaVita Inc., proposed to acquire Gambro Healthcare, Inc. The firms competed across the United States in the provision of outpatient dialysis services for persons with end stage renal disease (“ESRD”). Commission staff found that the relevant geographic markets within which to analyze the transaction’s likely competitive effects were local. Most ESRD patients receive treatments about 3 times per week, in sessions lasting 3–5 hours, and in general either are unwilling or unable to travel more than 30 miles or 30 minutes to receive kidney dialysis treatment. In the process of defining the geographic market, staff identified the Metropolitan Statistical Areas (“MSAs”) within which both firms had outpatient dialysis clinics, then examined each area to determine if geographic factors such as mountains, rivers, and bays, and travel conditions, were such that the scope of the relevant market differed from the MSA’s boundaries.

Within each such MSA, staff isolated the area immediately surrounding each dialysis clinic of both merging parties, and assessed whether a hypothetical monopolist within that area would impose a significant price increase. Staff expanded the boundaries of each area until the evidence showed that such a hypothetical monopolist would impose a significant price increase. From interviews with industry participants and analysis of documents, staff found that, in general, dialysis patients tend to travel greater distances in rural and suburban areas than in dense urban areas, where travel distances as small as 5–10 miles may take significantly more than 30 minutes, due to congestion, road conditions, reliance on public transportation, and other factors. Maps indicating the locations from which each clinic drew its patients were particularly useful. Thus, some MSAs included within their respective

boundaries many distinct areas over which a hypothetical monopolist would exercise market power. The Commission entered into a consent agreement with the parties to resolve the concern that the transaction would likely lead to anticompetitive effects in 35 local markets. In an order issued with the consent agreement, the Commission required, among other things, the divestiture of dialysis clinics in the 35 markets at issue.

## The Breadth of Relevant Markets

Defining markets under the Guidelines’ method does not necessarily result in markets that include the full range of functional substitutes from which customers choose. That is because, as the Guidelines provide, a “relevant market is a group of products and a geographic area that is no bigger than necessary to satisfy [the hypothetical monopolist] test.” Guidelines § 1.0. This is one of several points at which the Guidelines articulate what is referred to in section 1.21 as the “‘smallest market’ principle” for determining the relevant market. The Agencies frequently conclude that a relatively narrow range of products or geographic space within a larger group describes the competitive arena within which significant anticompetitive effects are possible.

**Nestle–Dreyer’s (FTC 2003)** Nestle Holdings, Inc., proposed to merge with Dreyer’s Grand Ice Cream, Inc. The firms were rivals in the sale of superpremium ice cream. Ice cream is differentiated on the basis of the quality of ingredients. Compared to premium and non-premium ice cream, superpremium ice cream contains more butterfat, less air, and more costly ingredients. Superpremium ice cream sells at a substantially higher price than premium ice cream. Using scanner data, Commission staff estimated demand elasticities for the superpremium, premium, and economy ice cream segments. Staff’s analysis showed that a hypothetical monopolist of superpremium ice cream would increase prices significantly. This, together with other documentary and testimonial evidence, indicated that the relevant market in which to analyze the transaction was superpremium ice cream. The Commission entered into a consent agreement with the merging firms, requiring divestiture of two

brands and of key distribution assets.

**UPM-MACTac (DOJ 2003)** UPM-Kymmene Oyj sought to acquire (from Bemis Co.) Morgan Adhesives Co. (“MACTac”). They were two of the three largest producers of paper pressure-sensitive labelstock, from which “converters” make pressure-sensitive labels. End users peel pressure-sensitive labels off a silicon-coated base material and directly apply them to items being labeled. The Department challenged the acquisition on the basis of likely anticompetitive effects in two relevant product markets. One was paper labelstock used to make pressure sensitive labels for “variable information printing” (“VIP”). Some or all of the printing on VIP labels is done by end users as the label is applied. A familiar example is the price labeling of fresh meat sold in supermarkets. Although paper labelstock for VIP labels competes with plastic film labelstock, the Department found that film labels are of sufficiently higher cost that a hypothetical monopolist of paper labelstock for VIP labels would raise price significantly. The other relevant product market was paper labelstock used for “prime” labels. Prime labels are used for product identification and are printed in advance of application. Paper labelstock for prime labels, competes not just with film labelstock, but also with pre-printed packaging and other means of product identification. Nevertheless, the Department found that a hypothetical monopolist of paper labelstock for prime labels would raise price significantly because users of pressure-sensitive paper labels find them the least-cost alternative for their particular applications and because they would have to incur significant switching costs if they adopted an alternative means of product identification. After trial, the court enjoined the consummation of the acquisition.

**Tenet-Slidell (FTC 2003)** Tenet Health Care Systems owned a hospital in Slidell, Louisiana (near New Orleans), and proposed to acquire Slidell’s only other full-service hospital. There were many other full-service hospitals in the New Orleans area but all were outside of Slidell. Commission staff found that a significant number of Slidell residents and their employers required access to either of the

two Slidell hospitals in their private health insurance plans. The Slidell hospitals competed against each other for inclusion in health plan networks. After merging, the combined hospital would have had no rival with “must have” network status among Slidell residents and employers. A hypothetical monopolist of the Slidell hospitals likely would have imposed a small but significant and non-transitory price increase on health plans selling coverage in Slidell, because neighboring hospitals outside of Slidell were not effective substitutes for network inclusion. The relevant geographic market, therefore, was limited to hospitals located in Slidell. Under Louisiana law, proposed acquisitions of not-for-profit hospitals must be approved by the Louisiana Attorney General. By invitation of the state Attorney General, Commission staff, in a public letter authorized by the Commission, advised the Attorney General of the staff’s view that, based on the facts gathered in its then-ongoing investigation, the proposed acquisition raised serious competitive concerns. In a vote authorized by local law, parish residents subsequently rejected the proposed transaction, which never was consummated.

In sections 1.12 and 1.22, the Guidelines explain that the Agencies may define relevant markets on the basis of price discrimination if a hypothetical monopolist likely would exercise market power only, or especially, in sales to particular customers or in particular geographic areas. The Agencies address the same basic issues for any form of discrimination: Would price discrimination, if feasible, permit a significantly greater exercise of market power? Could competitors successfully identify the transactions to be discriminated against? Would customers or third parties be able to undermine substantially the discrimination through some form of arbitrage in which a product sold at lower prices to some customer groups is resold to customer groups intended by the firms to pay higher prices? In cases in which a hypothetical monopolist is likely to target only a subset of customers for anticompetitive price increases, the Agencies are likely to identify relevant markets based on the ability of sellers to price discriminate.

**Quest–Unilab (FTC 2003)** Quest Diagnostics, Inc. and Unilab Corp., the two leading providers of clinical laboratory testing services to physician groups in Northern California, proposed to merge. Their combined market share would have exceeded 70%; the next largest rival had a market share of 4%. Clinical laboratory testing services are marketed and sold to various groups of customers, including physicians, health insurers, and hospitals. Commission staff determined that purchasers of these services cannot economically resell them to other customers, and that suppliers of the services can potentially identify the competitive alternatives available to physician group customers according to the group's base of physicians and geographic coverage. This information indicated that a hypothetical monopolist could discriminate on price among customer types. Suppliers' ability to price discriminate, combined with the fact that some types of customers had few competitive alternatives to contracting with suppliers that had a network of locations, led staff to define markets based on customer categories. The Commission issued a complaint alleging that the transaction would lessen competition substantially in one of the customer categories: the provision of clinical laboratory testing services to physician groups in Northern California. An accompanying consent order required divestiture of assets used to provide clinical laboratory testing services to physician groups in Northern California.

**Ingersoll-Dresser–Flowserve (DOJ 2000)** Flowserve Corp. agreed to acquire Ingersoll-Dresser Pump Co. Both firms produced a broad array of pumps used in industrial processes. The Department challenged the proposed acquisition on the basis of likely anticompetitive effects in "API 610" pumps, which are used by oil refineries, and pumps used in electric power plants. Both sorts of pumps are customized according to the specifications of the particular buyer and are sold through bidding mechanisms. Customization of the pumps made arbitrage infeasible. The Department concluded that the competition in each procurement was entirely distinct and therefore that each procurement took place in a separate and distinct relevant market. The Department's challenge to the

merger was resolved by consent decree.

**Interstate Bakeries–Continental (DOJ 1995)** The Department challenged Interstate Bakeries Corp.'s purchase of Continental Baking Co. from Ralston Purina Co. The challenge focused on white pan bread, and the Department found that the purchase likely would have produced significant price increases in five metropolitan areas—Chicago, Milwaukee, Central Illinois, Los Angeles, and San Diego. Among the reasons the Department concluded that competition was localized to these metropolitan areas were that bakers charged different prices for the same brands produced in the same bakeries, depending on where the bread was sold, and that arbitrage was infeasible. Arbitrage was exceptionally costly because the bakers themselves placed their bread on the supermarket shelves, so arbitrage required removing bread from the shelves, reshipping it, and reshelving it. This process also would consume a significant portion of the brief period during which the bread is fresh. The Department settled its challenge to the proposed merger by a consent decree requiring divestiture of brands and related assets in the five metropolitan areas.

The Guidelines indicate that the relevant market is the smallest collection of products and geographic areas within which a hypothetical monopolist would raise price significantly. At times, the Agencies may act conservatively and focus on a market definition that might not be the smallest possible relevant market. For example, the Agencies may focus initially on a bright line identifying a group of products or areas within which it is clear that a hypothetical monopolist would raise price significantly and seek to determine whether anticompetitive effects are—or are not—likely to result from the transaction in such a candidate market. If the answer for the broader market is likely to be the same as for any plausible smaller relevant market, there is no need to pinpoint the smallest market as the precise line drawn does not affect the determination of whether a merger is anticompetitive. Also, when the analysis is identical across products or geographic areas that could each be defined as separate relevant markets using the smallest market principle, the Agencies may elect to

employ a broader market definition that encompasses many products or geographic areas to avoid redundancy in presentation. The Guidelines describe this practice of aggregation “as a matter of convenience.” Guidelines § 1.321 n.14.

## **Evidentiary Sources for Market Definition**

### ***The Importance of Evidence from and about Customers***

Customers typically are the best source, and in some cases they may be the only source, of critical information on the factors that govern their ability and willingness to substitute in the event of a price increase. The Agencies routinely solicit information from customers regarding their product and supplier selections. In selecting their suppliers, customers typically evaluate the alternatives available to them and can often provide the Agencies with information on their functional needs as well as on the cost and availability of substitutes. Customers also provide relevant information that they uniquely possess on how they choose products and suppliers. In some investigations, customers provide useful information on how they have responded to previous significant changes in circumstances. In some investigations, the Agencies are able to explore consumer preferences with the aid of price and quantity data that allow econometric estimation of the relevant elasticities of demand.

***Dairy Farmers–SODIAAL (DOJ 2000)*** The Department challenged the proposed acquisition by Dairy Farmers of America, Inc. of SODIAAL North America Corp. on the basis of likely anticompetitive effects in the sale of “branded stick and whipped butter in the Philadelphia and New York metropolitan areas.” DFA sold the Breakstone brand, and SODIAAL sold the Keller’s and Hotel Bar brands. The Department concluded that consumers of branded butter in these metropolitan areas so preferred it over private-label butter, as well as margarine and other substitutes, that a hypothetical monopolist over just branded butter in each of those areas would raise price significantly. This conclusion was supported by econometric

evidence, derived from data collected from supermarkets, on the elasticity of demand for branded butter in Philadelphia and New York. The Department’s complaint was resolved by a consent decree transferring the SODIAAL assets to a new company not wholly owned by DFA and containing additional injunctive provisions.

In the vast majority of cases, the Agencies largely rely on non-econometric evidence, obtained primarily from customers and from business documents.

***Cemex–RMC (FTC 2005)*** The proposed acquisition of RMC Group PLC by Cemex, S.A. de C.V. would have combined two of the three independent ready-mix concrete suppliers in Tucson, Arizona. Ready-mix concrete is a precise mixture of cement, aggregates, and water. It is produced at local plants and delivered as a slurry in trucks with revolving drums to construction sites, where it is poured and formed into its final shape. Commission staff determined from information received from customers that a hypothetical monopolist over ready-mix concrete would raise price significantly in the relevant area. Asphalt and other building materials were found not to be good substitutes for ready-mix concrete, due in significant part to concrete’s pliability when freshly mixed and strength and permanence when hardened. Concerned that the transaction likely would result in coordinated interaction in the Tucson area, the Commission, pursuant to a consent agreement, ordered Cemex, among other things, to divest RMC’s Tucson-area ready-mix concrete assets.

***Swedish Match–National (FTC 2000)*** Swedish Match North America, Inc. proposed to acquire National Tobacco Company, L.P. The acquisition would have combined the first- and third-largest producers of loose leaf chewing tobacco in the United States. Commission staff evaluated whether, as the merging firms contended, moist snuff should be included in the relevant market for loose leaf chewing tobacco. Swedish Match’s own market research revealed that consumers would substitute less expensive loose leaf, but not more expensive snuff, if loose leaf prices increased slightly. Additional evidence from

the firms' own business documents, and customer testimony from distributors that purchase and resell the products to retailers, demonstrated that loose leaf chewing tobacco constitutes a distinct product market that does not include moist snuff. The acquisition would therefore have resulted in a merged firm with a high share of the relevant market for loose leaf chewing tobacco. The Commission successfully challenged the merger in federal district court.

In determining whether to challenge a transaction, the Agencies do not simply tally the number of customers that oppose a transaction and the number of customers that support it. The Agencies take into account that all customers in a relevant market are not necessarily situated similarly in terms of their incentives. For example, intermediate resellers' views about a proposed merger between two suppliers may be influenced by the resellers' ability profitably to pass along a price increase. If resellers can profitably pass along a price increase, they may have no objection to the merger. End-users, by contrast, generally lack such an incentive because they must absorb higher prices. In all cases, the Agencies credit customer testimony only to the extent the Agencies conclude that there is a sound foundation for the testimony.

### ***Evidence of Effects May Be the Analytical Starting Point***

In some investigations, before having determined the relevant market boundaries, the Agencies may have evidence that more directly answers the "ultimate inquiry in merger analysis," i.e., "whether the merger is likely to create or enhance market power or facilitate its exercise." Guidelines § 0.2. Evidence pointing directly toward competitive effects may arise from statistical analysis of price and quantity data related to, among other things, incumbent responses to prior events (sometimes called "natural experiments") such as entry or exit by rivals. For example, it may be that one of the merging parties recently entered and that econometric tools applied to pricing data show that the other merging party responded to that entry by reducing price by a significant amount and on a nontransitory basis while the prices of some other sellers that might be in the relevant

market did not.

To be probative, of course, such data analyses must be based on accepted economic principles, valid statistical techniques, and reliable data. Moreover, the Agencies accord weight to such analyses only within the context of the full investigatory record, including information and testimony received from customers and other industry participants and from business documents.

Evidence pertaining more directly to a merger's actual or likely competitive effects also may be useful in determining the relevant market in which effects are likely. Such evidence may identify potential relevant markets and significantly reinforce or undermine other evidence relating to market definition.

***Staples–Office Depot (FTC 1997)*** Staples, Inc. proposed to acquire Office Depot, Inc., a merger that would have combined two of the three national retail chains of office supply superstores. The Commission found that in metropolitan areas where Staples faced no office superstore rival, it charged significantly higher prices than in metropolitan areas where it faced competition from Office Depot or the other office supply superstore chain, OfficeMax. Office Depot data showed a similar pattern: its prices were lowest where Staples and OfficeMax also operated, and highest where they did not. These patterns held regardless of how many non-superstore sellers of office supplies operated in the metropolitan area under review.

The Commission also found that evidence relating to entry showed that local rivalry from office supply superstores acted as the principal competitive constraint on Staples and Office Depot. Each firm regularly dropped prices in areas where they confronted entry by another office supply superstore, but did not do so in response to entry by other sellers of office supplies, such as Wal-Mart. Newspaper advertising and other promotional materials likewise reflected greater price competition in those areas in which Staples and Office Depot faced local rivalry from one another or from OfficeMax. Such evidence provided direct support for the conclusion that the acquisition would cause anticompetitive effects in the relevant product market defined as the sale of

consumable office supplies through office supply superstores, in those metropolitan areas where Staples and Office Depot competed prior to the merger. The Commission successfully challenged the merger in federal district court.

In some cases, competitive effects analysis may eliminate the need to identify with specificity the appropriate relevant market definition, because, for example, the analysis shows that anticompetitive effects are unlikely in any plausibly defined market.

***Federated–May (FTC 2005)*** Federated Department Stores, Inc. proposed to acquire The May Department Stores Co., thereby combining the two largest chains in the United States of so-called “traditional” or “conventional” department stores. Conventional department stores typically anchor enclosed shopping malls, feature products in the mid-range of price and quality, and sell a wide range of products. The transaction would create high levels of concentration among conventional department stores in many metropolitan areas of the United States, and the merged firm would become the only conventional department store at certain of the 1,200 malls in the United States.

If the relevant product market included only conventional department stores, then before the merger Federated had a market share greater than 90% in the New York–New Jersey metropolitan area. If the relevant product market also included, for example, specialty stores, then Federated’s share in that geographic area was much smaller. The evidence that Commission staff obtained indicated that the relevant product market was broader than conventional department stores. For example, in the New York–New Jersey metropolitan area, Federated charged consumers the same prices that it charged throughout much of the eastern region of the United States, including where Federated faced larger numbers of traditional department store rivals. May and other department store chains, like Federated, also set prices to consumers that were uniform over very broad geographic areas and did not appear to vary local prices based on the number or identity of

conventional department stores in malls or metropolitan areas.

This evidence provided support for the conclusion that the acquisition likely would not create anticompetitive effects. Staff also found no evidence that competitive constraints, e.g., rivalry from retailers other than department stores, in New York–New Jersey were not representative of other markets in which Federated and May competed. Further, evidence pertaining both to which firms the parties monitored for pricing and to consumer purchasing behavior also supported the conclusion that the relevant market was sufficiently broad that the merger was not likely to cause anticompetitive effects. The Commission closed the investigation.

### ***Industry Usage of the Word “Market” Is Not Controlling***

Relevant market definition is, in the antitrust context, a technical exercise involving analysis of customer substitution in response to price increases; the “markets” resulting from this definition process are specifically designed to analyze market power issues. References to a “market” in business documents may provide important insights into the identity of firms, products, or regions that key industry participants consider to be sources of rivalry, which in turn may be highly probative evidence upon which to define the “relevant market” for antitrust purposes. The Agencies are careful, however, not to assume that a “market” identified for business purposes is the same as a relevant market defined in the context of a merger analysis. When businesses and their customers use the word “market,” they generally are not referring to a product or geographic market in the precise sense used in the Guidelines, although what they term a “market” may be congruent with a Guidelines’ market.

***Staples–Office Depot (FTC 1997)*** In the blocked Staples–Office Depot transaction described above in this Chapter, the Commission alleged, and the district court found, that the relevant product market was “the sale of consumable office supplies through office supply superstores,” with “consumable” meaning products that



consumers buy recurrently, like pens, paper, and file folders. Industry members in the ordinary course of business did not describe the “market” using this phrase. The facts showed that a hypothetical monopolist office supply superstore would raise price significantly on consumable office supplies. Many retail firms that are not office supply superstores—such as discount and general merchandise stores—sold consumable office supplies in areas near the merging firms. Despite the existence of such other sellers, evidence, including the facts identified above, justified definition of the relevant product market as one limited to the sale of consumable office products solely through office supply superstores.

It is unremarkable that “markets” in common business usage do not always coincide with “markets” in an antitrust context, inasmuch as the terms are used for different purposes. The description of an “antitrust market” sometimes requires several qualifying words and as such does not reflect common business usage of the word “market.” Antitrust markets are entirely appropriate to the extent that they realistically describe the range of products and geographic areas within which a hypothetical monopolist would raise price significantly and in which a merger’s likely competitive effects would be felt.

**Waste Management–Allied (DOJ 2003)** Waste Management, Inc. agreed to acquire assets from Allied Waste Industries, Inc. that were used in its municipal solid waste collection operations in Broward County, Florida. The Department challenged the proposed acquisition on the basis of anticompetitive effects in “small container commercial hauling.” Commercial haulers serve customers such as office buildings, apartment buildings, and retail establishments. Small containers have capacities of 1–10 cubic yards, and waste from them is collected using specialized, front-end loading vehicles. The Department found that this market was separate and distinct from markets for other municipal solid waste collection services. The Department concluded that a hypothetical monopolist in just small container commercial hauling would have raised prices significantly because it was uneconomical for homeowners to use the much

larger containers used by commercial customers and uneconomical for commercial customers using large “roll-off” containers to switch to small commercial containers. The Department’s challenge to the merger was resolved by a consent decree requiring divestiture of specified collection routes and the assets used on them.

**Pacific Enterprises–Enova (DOJ 1998)** Pacific Enterprises (which owned Southern California Gas Co.) and Enova Corp. (which owned San Diego Gas & Electric Co.) agreed to combine the companies under a common holding company. The Department challenged the combination on the basis of likely anticompetitive effects arising from the ability of the combined companies to raise electricity prices by restricting the supply of natural gas. The Department concluded that the relevant market was the sale of electricity in California during periods of high demand. In high-demand periods, limitations on transmission capacity cause prices in California to be determined by power plants in California. Inter-temporal arbitrage was infeasible because there is only a very limited opportunity to store electric power. Thus, the Department concluded that a hypothetical electricity monopolist during just periods of high demand would raise prices significantly. The Department’s complaint was resolved by a consent decree requiring divestiture of generating facilities and associated assets.

## Market Definition and Integrated Analysis

### *Market Definition Is Linked to Competitive Effects Analysis*

The process of defining the relevant market is directly linked to competitive effects analysis. In analyzing mergers, the Agencies identify specific risks of potential anticompetitive harm, and delineate the appropriate markets within which to evaluate the likelihood of such potential harm. This process could lead to different conclusions about the relevant markets likely to experience competitive harm for two similar mergers within the same industry.

**Thrifty-PayLess (FTC 1994)** A proposed merger of Thrifty Drug Stores and PayLess Drug Stores would have combined retail drug store chains with store locations near one another in towns in California, Oregon, and Washington. Commission staff identified two potential anticompetitive effects from the merger: (1) that “cash” customers, i.e., individual consumers who pay out of pocket for prescription drugs, likely would pay higher prices; and (2) that third-party payers, such as health plans and pharmacy benefit managers (“PBMs”), likely would pay higher dispensing fees to chain pharmacy firms to obtain their participation in provider networks.

Cash customers tend to shop close to home or place of employment, suggesting small geographic markets for those customers. Third-party payers need network participation from chains having wide territorial coverage. The staff assessed different relevant markets for the two risks of competitive harm. In its complaint accompanying a consent agreement, the Commission alleged that the sale of prescription drugs in retail stores (i.e., sales to cash customers) was a relevant product market and that anticompetitive effects from the merger were likely in this market. The Commission did not allege a diminution in competition regarding the process by which pharmacies negotiate for inclusion in health plan provider networks and sought no relief in that market. The Commission ordered Thrifty, among other things, to divest retail pharmacies in the geographic markets of concern.

**Rite Aid-Revco (FTC 1996)** The nation’s two largest retail drug store chains, Rite Aid Corp. and Revco D.S., Inc., proposed to merge. They competed in many local markets, including in 15 metropolitan areas in which the merged firm would have had more than 35% of the retail pharmacies. As in the foregoing *Thrifty-PayLess* matter, Commission staff defined two markets in which harm potentially may have resulted: retail sales made to cash customers, and sales through PBMs, which contract with multiple pharmacy firms to form networks offering pharmacy benefits as part of health insurance coverage. Pharmacy networks often include a high percentage of local pharmacies because access to many participating pharmacies is often important to

plan enrollees.

Rite Aid and Revco constrained one another’s pricing leverage with PBMs in bargaining for inclusion in PBM networks. Each merging firm offered rival broad local coverage of pharmacy locations, such that PBMs could assemble marketable networks with just one of the firms included. A high proportion of PBM plan enrollees would have considered the merged entity to be their preferred pharmacy chain, leaving PBMs with less attractive options for assembling networks that did not include the merged firm. This would have empowered the merged firm successfully to charge higher dispensing fees as a condition of participating in a network.

Commission staff determined that the merger was likely substantially to lessen competition in the relevant market of sales to PBMs and similar customers who needed a network of pharmacies. The Commission voted to challenge the merger, stating that “the proposed Rite Aid-Revco merger is the first drug store merger where the focus has been on anticompetitive price increases to the growing numbers of employees covered by these pharmacy benefit plans, rather than exclusively focusing on the cash paying customer.” The parties subsequently abandoned the deal.

Many mergers, in a wide variety of industries, potentially have effects in more than one relevant geographic market or product market and require independent competitive assessments for each market.

**Suiza-Broughton (DOJ 1998)** The Department challenged the proposed acquisition of Broughton Foods Co. by Suiza Foods Corp. Suiza was a nationwide operator of milk processing plants with four dairies in Kentucky and Tennessee. Broughton operated two dairies, including the Southern Belle Dairy in Pulaski County, Kentucky. The two companies competed in the sale of milk and other dairy products to grocery stores, convenience stores, schools, and institutions. The Department’s investigation focused on schools, many of which require daily, or every-other-day, delivery. School districts procured the milk through annual contracts, each of which the

Department found to be an entirely separate competition. Thus, the Department defined 55 relevant markets, each consisting of a school district in south central Kentucky in which the proposed merger threatened competition. The Department's complaint was resolved by a consent decree requiring divestiture of the Southern Belle Dairy.

**NAT, L.C.-D.R. Partners (DOJ 1995)** The Department and private plaintiffs challenged the consummated acquisition of the *Northwest Arkansas Times* by interests owning the competing *Morning News of Northwest Arkansas*. The Department concluded that the acquisition likely would harm subscribers of these newspapers as well as local advertisers, and defined separate relevant markets for readers and local advertisers. The Department found that both markets included only daily newspapers because of unique characteristics valued by readers and local advertisers, and concluded that the acquisition likely would harm both groups of customers. The courts required rescission of the acquisition.

### ***Market Definition and Competitive Effects Analyses May Involve the Same Facts***

Often the same information is relevant to multiple aspects of the analysis. For example, regarding mergers that raise the concern that the merged firm would be able to exercise unilateral market power, the Agencies often use the same data and information both to define the relevant market and to ascertain whether the merger is likely to have a significant unilateral anticompetitive effect.

**General Mills-Pillsbury (FTC 2001)** General Mills, Inc. proposed to acquire The Pillsbury Co. General Mills owned the Betty Crocker brand of pancake mix and the Bisquick brand of all-purpose baking mix, a product that can be used to make pancakes as well as other products. Pillsbury owned the Hungry Jack pancake mix brand. An issue was whether the relevant product market for pancake mixes included Bisquick. General Mills' Betty Crocker pancake mix had a relatively small share of a candidate pancake mix market that excluded Bisquick, suggesting that the merger

likely would not raise significant antitrust concerns in the candidate pancake mix market should the relevant market exclude Bisquick.

In addition to obtaining information from industry documents and interviews with industry participants on the correct contours of the relevant product market, FTC staff analyzed scanner data to address whether Bisquick competed with pancake mixes. Demand estimation revealed significant cross-price elasticities of demand between Bisquick and most of the individual pancake mix brands, suggesting that Bisquick competed in the same relevant market as pancake mixes. Merger simulation based on the elasticities calculated from the scanner data showed that if General Mills acquired Pillsbury it likely would unilaterally raise prices. All of the evidence taken together further confirmed that Pillsbury's Hungry Jack and Bisquick were significant substitutes, and the staff concluded that the relevant market included both pancake mixes and Bisquick. The parties resolved the competitive concerns in this market by selling Pillsbury's baking product line. No Commission action was taken.

**Interstate Bakeries-Continental (DOJ 1995)** The Department challenged Interstate Bakeries Corp.'s purchase of Continental Baking Co. from Ralston Purina Co. on the basis of likely unilateral effects in the sale of white pan bread. Econometric analysis determined that there were substantial cross-elasticities of demand between the Continental and Interstate brands of white pan bread. The Department used the estimated cross-elasticities in a merger simulation, which predicted that the merger was likely to result in price increases for those brands of 5-10%. The data used to estimate these elasticities also were used to estimate the elasticity of demand for white pan bread in the aggregate and for just "premium" brands of white pan bread. The latter estimation indicated that the relevant market was no broader than all white pan bread, despite some limited competition from other bread products and other sources of carbohydrates. The Department's challenge to the proposed merger was settled by a consent decree requiring divestiture of brands and related assets in the five metropolitan areas.

### ***Integrated Analysis Takes into Account that Defined Market Boundaries Are Not Necessarily Precise or Rigid***

For mergers involving relatively homogeneous products and distinct, identifiable geographic areas, with no substitute products or locations just outside the market boundaries, market definition is likely to be relatively easy and uncontroversial. The boundaries of a market are less clear-cut in merger cases that involve products or geographic areas for which substitutes exist along a continuum. The simple dichotomy of “in the market” or “out of the market” may not adequately capture the competitive interaction either of particularly close substitutes or of relatively distant substitutes.

Even when no readily apparent gap exists in the chain of substitutes, drawing a market boundary within the chain may be entirely appropriate when a hypothetical monopolist over just a segment of the chain of substitutes would raise prices significantly. Whenever the Agencies draw such a boundary, they recognize and account for the fact that an increase in prices within just that segment could cause significant sales to be lost to products or geographic areas outside the segment. Although these lost sales may be insufficient to deter a hypothetical monopolist from raising price significantly, combined with other factors, they may be sufficient to make anticompetitive effects an unlikely result of the merger.

### **Significance of Concentration and Market Share Statistics**

Section 2 of the Guidelines explains that “market share and concentration data provide only the starting point for analyzing the competitive impact of a merger.” Indeed, the Agencies do not make enforcement decisions solely on the basis of market shares and concentration, but both measures nevertheless play an important role in the analysis. A merger in an industry in which all participants have low shares—especially low shares in all plausible relevant markets—usually requires no significant investigation, because experience shows that such mergers normally pose no real threat to lessen competition substantially. For example, if the

merging parties are small producers of a homogeneous product, operating in a geographic area where many other producers of the same homogeneous product also are located, the Agencies may conclude that the merger likely raises no competition concerns without ever determining the precise contours of the market. By contrast, mergers occurring in industries characterized by high shares in at least one plausible relevant market usually require additional analysis and consideration of factors in addition to market share.

Section 1.51 of the Guidelines sets out the general standards, based on market shares and concentration, that the Agencies use to determine whether a proposed merger ordinarily requires further analysis. The Agencies use the Herfindahl-Hirschman Index (“HHI”), which is the sum of the squares of the market shares of all market participants, as the measure of market concentration. In particular, the Agencies rely on the “change in the HHI,” which is twice the product of the market shares of the merging firms, and the “post-merger HHI,” which is the HHI before the merger plus the change in the HHI. Section 1.51 sets out zones defined by the HHI and the change in the HHI within which mergers ordinarily will not require additional analysis. Proposed mergers ordinarily require no further analysis if (a) the post-merger HHI is under 1000; (b) the post-merger HHI falls between 1000 and 1800, and the change in the HHI is less than 100; or (c) the post-merger HHI is above 1800, and the change in the HHI is less than 50.

The Agencies’ joint publication of Merger Challenges Data, Fiscal Years 1999–2003 (issued December 18, 2003), and the Commission’s publication of Horizontal Merger Investigation Data, Fiscal Years 1996–2003 (issued February 2, 2004 and revised August 31, 2004), document that the Agencies have often not challenged mergers involving market shares and concentration that fall outside the zones set forth in Guidelines section 1.51. This does not mean that the zones are not meaningful, but rather that market shares and concentration are but a “starting point” for the analysis, and that many mergers falling outside these three zones nevertheless, upon full consideration of the factual and economic evidence, are found unlikely substantially to lessen competition. Application of the Guidelines as an integrated whole to case-specific facts—not

undue emphasis on market share and concentration statistics—determines whether the Agency will challenge a particular merger. As discussed in section 1.521 of the Guidelines, historical market shares may not reflect a firm's future competitive significance.

***Boeing-McDonnell Douglas (FTC 1997)*** The Boeing Co., the world's largest producer of large commercial aircraft with 60% of that market, proposed to acquire McDonnell Douglas Corp., which through Douglas Aircraft had a share of nearly 5% in that market. Airbus S.A.S. was the only other significant rival, and obstacles to entry were exceptionally high. Although McDonnell Douglas was not a failing firm, staff determined that McDonnell Douglas' significance as an independent supplier of commercial aircraft had deteriorated to the point that it was no longer a competitive constraint on the pricing of Boeing and Airbus for large commercial aircraft. Many purchasers of aircraft indicated that McDonnell Douglas' prospects for future aircraft sales were close to zero. McDonnell Douglas' decline in competitive significance stemmed from the fact that it had not made the continuing investments in new aircraft technology necessary to compete successfully against Boeing and Airbus. Staff's investigation failed to turn up any evidence that this situation could be expected to be reversed. The Commission closed the investigation without taking any action.

Indeed, market concentration may be unimportant under a unilateral effects theory of competitive harm. As discussed in more detail in Chapter 2's discussion of Unilateral Effects, the question in a unilateral effects analysis is whether the merged firm likely would exercise market power absent any coordinated response from rival market incumbents. The concentration of the remainder of the market often has little impact on the answer to that question.

## 2. The Potential Adverse Competitive Effects of Mergers

Section 2 of the Guidelines identifies two broad analytical frameworks for assessing whether a merger between rival firms may substantially lessen competition: “coordinated interaction” and “unilateral effects.” A horizontal merger is likely to lessen competition substantially through coordinated interaction if it creates a likelihood that, after the merger, competitors would coordinate their pricing or other competitive actions, or would coordinate them more completely or successfully than before the merger. A merger is likely to lessen competition substantially through unilateral effects if it creates a likelihood that the merged firm, without any coordination with non-merging rivals, would raise its price or otherwise exercise market power to a greater degree than before the merger.

Normally, the likely effects of a merger within a particular market are best characterized as either coordinated or unilateral, but it is possible to have both sorts of competitive effects within a single relevant market. This possibility may be most likely if the coordinated and unilateral effects relate to different dimensions of competition or would manifest themselves at different times.

Although these two broad analytical frameworks provide guidance on how the Agencies analyze competitive effects, the particular labels are not the focus. What matters is not the label applied to a competitive effects analysis, but rather whether the analysis is clearly articulated and grounded in both sound economics and the facts of the particular case. These frameworks embrace every competitive effect of any form of horizontal merger. The Agencies do not recognize or apply narrow readings of the Guidelines that could cause anticompetitive transactions to fall outside of, or fall within a perceived gap between, the

coordinated and unilateral effects frameworks.

In evaluating the likely competitive effects of a proposed merger, the Agencies assess the full range of qualitative and quantitative evidence obtained from the merging parties, their competitors, their customers, and a variety of other sources. By carefully evaluating this evidence, the Agencies gain an understanding of the setting in which the proposed merger would occur and how best to analyze competition. This understanding draws heavily on the qualitative evidence from documents and first-hand observations of the industry by customers and other market participants. In some cases, this understanding is enhanced significantly by quantitative analyses of various sorts. One type of quantitative analysis is, as explained in Chapter 1, the “natural experiment” in which variation in market structure (e.g., from past mergers) can be empirically related to changes in market performance.

The Agencies examine whatever evidence is available and apply whatever tools of economics would be productive in an effort to arrive at the most reliable assessment of the likely effects of proposed mergers. Because the facts of merger investigations commonly are complex, some bits of evidence may appear inconsistent with the Agencies’ ultimate assessments. The Agencies challenge a merger if the weight of the evidence establishes a likelihood that the merger would be anticompetitive. The type of evidence that is most telling varies from one merger to the next, as do the most productive tools of economics.

In assessing a merger between rival sellers, the Agencies consider whether buyers are likely able to defeat any attempts by sellers after the merger to exercise market power. Large buyers rarely can negate the likelihood that an otherwise

anticompetitive merger between sellers would harm at least some buyers. Most markets with large buyers also have other buyers against which market power can be exercised even if some large buyers could protect themselves. Moreover, even very large buyers may be unable to thwart the exercise of market power.

Although they generally focus on the likely effects of proposed mergers on prices paid by consumers, the Agencies also evaluate the effects of mergers in other dimensions of competition. The Agencies may find that a proposed merger would be likely to cause significant anticompetitive effects with respect to innovation or some other form of non-price rivalry. Such effects may occur in addition to, or instead of, price effects.

The sections that follow address in greater detail the Agencies' application of the Guidelines' coordinated interaction and unilateral effects frameworks.

## **Coordinated Interaction**

A horizontal merger changes an industry's structure by removing a competitor and combining its assets with those of the acquiring firm. Such a merger may change the competitive environment in such a way that the remaining firms—both the newly merged entity and its competitors—would engage in some form of coordination on price, output, capacity, or other dimensions of competition. The coordinated effects section of the Guidelines addresses this potential competitive concern. In particular, the Agencies seek to identify those mergers that are likely either to increase the likelihood of coordination among firms in the relevant market when no coordination existed prior to the merger, or to increase the likelihood that any existing coordinated interaction among the remaining firms in the relevant market would be more successful, complete, or sustainable.

A merger could reduce competition substantially through coordinated interaction and run afoul of section 7 of the Clayton Act without an agreement or conspiracy within the meaning of the Sherman Act. Even if a merger is likely to result in coordinated interaction, or more successful coordinated interaction, and violates section 7 of the Clayton Act, that coordination, depending on the circumstances, may not

constitute a violation of the Sherman Act. As section 2.1 of the Guidelines states, coordinated interaction “includes tacit or express collusion, and may or may not be lawful in and of itself.”

Most mergers have no material effect on the potential for coordination. Some may even lessen the likelihood of coordination. To identify those mergers that enhance the likelihood or effectiveness of coordination, the Agencies typically evaluate whether the industry in which the merger would occur is one that is conducive to coordinated behavior by the market participants. The Agencies also evaluate how the merger changes the environment to determine whether the merger would make it more likely that firms successfully coordinate.

In conducting this analysis, the Agencies attempt to identify the factors that constrain rivals' ability to coordinate their actions before the merger. The Agencies also consider whether the merger would sufficiently alter competitive conditions such that the remaining rivals after the merger would be significantly more likely to overcome any pre-existing obstacles to coordination. Thus, the Agencies not only assess whether the market conditions for viable coordination are present, but also ascertain specifically whether and how the merger would affect market conditions to make successful coordination after the merger significantly more likely. This analysis includes an assessment of whether a merger is likely to foster a set of common incentives among remaining rivals, as well as to foster their ability to coordinate successfully on price, output, or other dimensions of competition.

Successful coordination typically requires rivals (1) to reach terms of coordination that are profitable to each of the participants in the coordinating group, (2) to have a means to detect deviations that would undermine the coordinated interaction, and (3) to have the ability to punish deviating firms, so as to restore the coordinated status quo and diminish the risk of deviations. Guidelines § 2.1. Punishment may be possible, for example, through strategic price-cutting to the deviating rival's customers, so as effectively to erase the rival's profits from its deviation and make the rival less likely to “cheat” again. Coordination on prices tends to be easier the more transparent are rivals' prices, and coordination through allocation of customers tends to be easier

the more transparent are the identities of particular customers' suppliers. It may be relatively more difficult for firms to coordinate on multiple dimensions of competition in markets with complex product characteristics or terms of trade. Such complexity, however, may not affect the ability to coordinate in particular ways, such as through customer allocation. Under Guidelines analysis, likely coordination need not be perfect. To the contrary, the Agencies assess whether, for example, it is likely that coordinated interaction will be sufficiently successful following the merger to result in anticompetitive effects.

***LaFarge–Blue Circle (FTC 2001)*** A merger of LaFarge S.A. and Blue Circle Industries PLC raised coordinated interaction concerns in several relevant markets, including that for cement in the Great Lakes region. In that market, the merger would have created a firm with a combined market share exceeding 40% and a market in which the top four firms would control approximately 90% of the supply. The post-merger HHI would have been greater than 3,000, with a change in the HHI of over 1,000. Cement is widely viewed as a homogeneous, highly standardized commodity product over which producers compete principally on price. Industry practice was that suppliers informed customers of price increases months before they were to take effect, making prices across rival suppliers relatively transparent.

Sales transactions tended to be frequent, regular, and relatively small. These factors heightened concern that, after the merger, incumbents were not only likely to coordinate profitably on price terms, but also that the firms would have little incentive to deviate from the consensus price. That possibility existed because the profit to be gained from deviation would be less than the potential losses that would result if rivals retaliated. The Commission challenged the merger, resolving it by a consent order that required, among other things, divestiture of cement-related assets in the Great Lakes region.

***R.J. Reynolds–British American (FTC 2004)*** In a merger of the second- and third-largest marketers of cigarettes, R.J. Reynolds Tobacco Holdings, Inc. proposed to acquire Brown & Williamson Tobacco Corporation from British

American Tobacco plc. Within the market for all cigarettes, the merger would have increased the HHI from 2,735 to 3,113. The Commission assessed whether the cigarette market was susceptible to coordinated interaction. Concluding that “the market for cigarettes is subject to many complexities, continual changes, and uncertainties that would severely complicate the tasks of reaching and monitoring a consensus,” the Commission closed the investigation without challenging the merger. The Commission’s closing statement points to the high degree of differentiation among cigarette brands, as well as sizable variation in firm sizes, product portfolios, and market positions among the manufacturers as factors that created different incentives for the different manufacturers to participate in future coordination. These factors made future coordination more difficult to manage and therefore unlikely.

Both RJR and Brown & Williamson had portfolios of cigarette brands that included a smaller proportion of strong premium brands and a larger proportion of vulnerable and declining discount brands than the other major cigarette competitors. At the time of the merger, both companies were investing in growing a smaller number of premium equity brands to maintain sales and market share. There was uncertainty about the results of these strategic changes. The Commission concluded that uncertainties of these types greatly increased the difficulty of engaging in coordinated behavior. The Commission also noted that competition in the market was driven by discount brands and by equity investment in select premium brands among the four leading rivals, and there was little evidence that Brown & Williamson’s continued autonomy was critical to the preservation of either form of competition. Brown & Williamson had been reducing, not increasing, its commitment in the discount segment, and was a very small factor in equity brands.

The Commission also described variations in the marketing environment for cigarettes from state to state and between rural and urban areas. These variations made it more difficult and costly for firms to monitor their rival’s activities and added to the complexity of coordination.



Coordination that reduces competition and consumer welfare could be accomplished using many alternative mechanisms. Coordinated interaction can occur on one or more competitive dimensions, such as price, output, capacity, customers served, territories served, and new product introduction. Coordination on price and coordination on output are essentially equivalent in their effects. When rivals successfully coordinate to restrict output, price rises. Similarly, when rivals successfully coordinate on price—that is, they maintain price above the level it would be absent the coordination—the rate of output declines because consumers buy fewer units.

Coordination on either price or output may pose difficulties that can be avoided by coordinating on customers or territories served. Rivals may coordinate on the specific customers with which each does business, or on the general types of customers with which they seek to do business. They also may coordinate on the particular geographic areas in which they operate or concentrate their efforts. Coordination also can occur with respect to aspects of rivalry, such as new product introduction. Rivals are likely to adopt the form of coordination for which it is easiest to spot deviations from the agreed terms of coordination and easiest to punish firms that deviate from those terms. Industry-specific factors thus are likely to influence firms' choices on how to coordinate their activities.

## **Concentration**

The number of rival firms remaining after a merger, their market shares, and market concentration are relevant factors in determining the effect of a merger on the likelihood of coordinated interaction. The presence of many competitors tends to make it more difficult to achieve and sustain coordination on competitive terms and also reduces the incentive to participate in coordination. Guidelines § 2.0. The Guidelines' market share and concentration thresholds reflect this reality.

The Agencies do not automatically conclude that a merger is likely to lead to coordination simply because the merger increases concentration above a certain level or reduces the number of remaining firms below a certain level. Although the Agencies recently have challenged mergers when four or more competitors would have

remained in the market, *see, e.g., LaFarge–Blue Circle*, described above, when the evidence does not show that the merger will change the likelihood of coordination among the market participants or of other anticompetitive effects, the Agencies regularly close merger investigations, including those involving markets that would have fewer than four firms.

As discussed in Chapter 1, enforcement data released by the Agencies show that market shares and concentration alone are not good predictors of enforcement challenges, except at high levels. Market shares and concentration nevertheless are important in the Agencies' evaluation of the likely competitive effects of a merger. Investigations are almost always closed when concentration levels are below the thresholds set forth in section 1.51 of the Guidelines. In addition, the larger the market shares of the merging firms, and the higher the market concentration after the merger, the more disposed are the Agencies to concluding that significant anticompetitive effects are likely.

## **Additional Market Characteristics Relevant to Competitive Analysis**

Section 2.1 of the Guidelines sets forth several general market characteristics that may be relevant to the analysis of the likelihood of coordinated interaction following a merger: “the availability of key information concerning market conditions, transactions and individual competitors; the extent of firm and product heterogeneity; pricing or market practices typically employed by firms in the market; the characteristics of buyers and sellers; and the characteristics of typical transactions.” Section 2.11 of the Guidelines states that the ability of firms to reach 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.” Further, “[k]ey information about rival firms and the market may also facilitate reaching terms of coordination.” *Id.*

These market characteristics may illuminate the degree of transparency and complexity in the competitive environment. The existence or absence of any particular characteristic (e.g., product homogeneity or transparency in prices) in a relevant market, however, is neither a necessary

nor a sufficient basis for the Agencies to determine whether successful coordination is likely following a merger. In other words, these factors are not simply put on the left or right side of a ledger and balanced against one another. Rather, the Agencies identify the specific factors relevant to the particular mechanism for coordination being assessed and focus on how those factors affect whether the merger would alter the likelihood of successful coordination.

***Formica–International Paper (DOJ 1999)***

Formica Corp. and International Paper Co. were two producers of high-pressure laminates used to make durable surfaces such as countertops, work surfaces, doors, and other interior building products. Formica sought to acquire the high-pressure laminates business of International Paper Co. There were just four competitors in the United States, and the acquisition of International Paper Co.'s business would have given Formica and its largest remaining competitor almost 90% of total sales between them. The market appeared to have been performing reasonably competitively, but the Department was concerned that two dominant competitors would coordinate pricing and output after the acquisition.

One reason for this concern was that the small competitors remaining after the merger had relatively high costs and were unable to expand output significantly, so they would not have been able to undermine that coordination. In addition, the Department concluded that International Paper, with significant excess capacity, had the ability to undermine coordination and had done so. The Department also found that major competitors had very good information on each others' pricing and would be able to detect deviations from coordinated price levels. After the Department announced its intention to challenge the merger, the parties abandoned the deal.

Although coordination may be less likely the greater the extent of product heterogeneity, mergers in markets with differentiated products nonetheless can facilitate coordination. Although a merger resulting in closer portfolio conformity may prompt more intense, head-to-head competition among rivals that benefits consumers,

an enhanced mutual understanding of the production and marketing variables that each rival faces also may result. Better mutual understanding can increase the ability to coordinate successfully, thus diminishing the benefits to consumers that the more intense competition otherwise would have provided. Sellers of differentiated products also may coordinate in non-price dimensions of competition by limiting their product portfolios, thereby limiting the extent of competition between the products of rival sellers. They also may coordinate on customers or territories rather than on prices.

***Diageo–Vivendi (FTC 2001)***

The Commission challenged a merger between Diageo plc and Vivendi Universal S.A., competitors in the manufacture and sale of premium rum—a product that is heterogeneous as to brand name and the type of rum, e.g., light or gold, flavored or unflavored—on the grounds, among others, that the transaction was likely to lead to coordinated interaction among premium rum rivals. Diageo, which owned the Malibu Rum brand with about an 8% share, was seeking to acquire Seagram's, which marketed Captain Morgan Original Spiced Rum and Captain Morgan Parrot Bay Rum brands and had about a 33% share. Bacardi USA, with its Bacardi Light and Bacardi Limon brands, was the largest competitor with about a 54% share. Thus, after the acquisition, Diageo and Bacardi USA would have had a combined share of about 95% in the U.S. premium rum market.

Significant differentiation among major brands of rum reduces the closeness of substitution among them. Nonetheless, the Commission had reason to believe that the acquisition would increase the likelihood and extent of coordinated interaction to raise prices. Having a single owner of both the Seagram's rum products and the Malibu brand created the substantial concern that coordination that was not profitable for Bacardi and Seagram's before the merger likely would have become profitable after the merger. Although a smaller rival before the merger, Diageo's Malibu imposed a significant competitive constraint on Seagram's and Bacardi. The Commission challenged the merger and agreed

to a settlement with the parties that required Diageo to divest its worldwide Malibu rum business to a third party.

### ***Role of Evidence of Past Coordination***

Facts showing that rivals in the relevant market have coordinated in the past are probative of whether a market is conducive to coordination. Guidelines § 2.1. Such facts are probative because they demonstrate the feasibility of coordination under past market conditions. Other things being equal, the removal of a firm via merger, in a market in which incumbents already have engaged in coordinated behavior, generally raises the risk that future coordination would be more successful, durable, or complete. Accordingly, the Agencies investigate whether the relevant market at issue has experienced such behavior and, if so, whether market conditions that existed when the coordination took place—and thus were conducive to coordination—are still in place. A past history of coordination found unlawful can provide strong evidence of the potential for coordination after a merger.

***Air Products–L’Air Liquide (FTC 2000)*** Two of the four largest industrial gas suppliers, Air Products and Chemicals, Inc. and L’Air Liquide S.A., proposed acquisitions that would result in splitting between them the assets of a third large rival, The BOC Group plc. The proposed asset split would have resulted in three remaining industrial gas suppliers that were nearly the same in size, cost structure, and geographic service areas. Products involved in the asset split included bulk liquid oxygen, bulk liquid nitrogen, and bulk liquid argon (together referred to as atmospheric gases), various electronic specialty gases, and helium—each of which is a homogeneous product. Bulk liquid oxygen and nitrogen trade in regional markets, and the transactions would have affected multiple regional areas. In these areas, the four largest producers accounted for between 70% and 100% of the markets. The four suppliers also accounted for about 90% of the national market for bulk liquid argon.

The staff found evidence of past coordination. In 1991, the four major industrial air gas suppliers pled guilty in Canada to a charge of conspiring to eliminate competition

for a wide range of industrial gases, including bulk liquid oxygen, nitrogen, and argon. Industrial gas technology is well-established, market institutions in the U.S. were similar to those in Canada, and nothing had changed significantly during the intervening period to suggest that coordination had become more difficult or less likely.

Other evidence also indicated that the markets were susceptible to coordinated behavior: firms announced price changes publicly, and industry-wide price increases tended to follow such announcements; a number of joint ventures, swap agreements, and other relationships among the suppliers provided opportunities for information sharing; and incumbents tended not to bid aggressively for rivals’ current customers. Neither fringe expansion nor new entry was likely to defeat future coordination. Staff concluded that the proposed asset split would likely enable the remaining firms to engage in coordination more effectively. The parties abandoned the proposed transactions.

***Suiza–Broughton (DOJ 1999)*** Suiza Foods Corp. and Broughton Foods Co. proposed to merge. Broughton owned the Southern Belle dairy in Somerset, Kentucky, and Suiza operated several dairies in Kentucky, including the Flav-O-Rich dairy in London, Kentucky. Six years earlier, when Flav-O-Rich and Southern Belle were independently owned, both pleaded guilty to criminal charges of rigging bids in the sale of milk to schools. The Department found that the proposed merger would have reduced from three to two the number of dairies competing to supply milk to thirty-two school districts in South Central Kentucky, including many that had been victimized by the prior bid rigging. The Department challenged the merger on the basis that it likely would lead to coordinated anticompetitive effects, and the demonstrated ability of these particular dairies to coordinate was a significant factor in the Department’s decision. The Department’s complaint was resolved by a consent decree requiring divestiture of the Southern Belle Dairy.

***Degussa–DuPont (FTC 1998)*** Degussa Aktiengesellschaft, a producer of hydrogen peroxide, proposed to acquire rival E.I. du

Pont de Nemours & Co.'s hydrogen peroxide manufacturing assets. The Commission found that the relevant U.S. market was conducive to coordinated interaction based on evidence that showed, among other things, high concentration levels, product homogeneity, and the ready availability of reliable competitive information. Moreover, the same firms that would have been the leading U.S. producers after the merger had recently been found to have engaged in market division in Europe for several years. The Commission identified this history of collusion as a factor supporting its conclusion that the proposed transaction likely would result in anticompetitive effects from coordinated interaction. Under the terms of a consent agreement to resolve these competitive concerns, the acquirer was permitted to purchase one plant but not the entirety of the seller's hydrogen peroxide manufacturing assets.

Even when firms have no prior record of antitrust violations, evidence that firms have coordinated at least partially on competitive terms suggests that market characteristics are conducive to coordination.

***Rhodia-Albright & Wilson (FTC 2000)*** Rhodia entered into an agreement to acquire Albright & Wilson PLC, a wholly owned subsidiary of Donau Chemie AG. The merging firms were industrial phosphoric acid producers. The Commission developed evidence that the market was highly concentrated, that the relevant product was homogenous, and that timely competitive intelligence was readily available—all conditions that are generally conducive to coordination. Incumbent marketing strategies suggested a tendency to curb aggressive price competition and suggested a lack of competition.

The Commission found that industrial phosphoric acid pricing, unlike the pricing of other similar chemical products, had not historically responded significantly to changes in the rate of capacity utilization among producers. In most chemical product markets, when capacity utilization declines, prices often decline as well. In this market, however, during periods of decline in capacity utilization among industrial phosphoric acid

producers, prices often remained relatively stable. All of these factors established that the relevant market—even before the proposed merger—was performing in a manner consistent with coordination. The Commission entered into a consent order requiring, among other things, divestiture of phosphoric acid assets.

When investigating mergers in industries characterized by collusive behavior or previous coordinated interaction, the Agencies focus on how the mergers affect the likelihood of successful coordination in the future. In some instances, a simple reduction in the number of firms may increase the likelihood of effective coordinated interaction. Evidence of past coordination is less probative if the conduct preceded significant changes in the competitive environment that made coordination more difficult or otherwise less likely. Such changes might include, for example, entry, changes in the manufacturing processes of some competitors, or changes in the characteristics in the relevant product itself. Events such as these may have altered the incumbents' incentives or ability to coordinate successfully.

Although a history of past collusion may be probative as to whether the market currently is conducive to coordination, the converse is not necessarily true, i.e., a lack of evidence of past coordination does not imply that future coordination is unlikely. When the Agencies conclude that previous episodes of coordinated interaction are not probative in the context of current market conditions—or when they find no evidence that rivals coordinated in the past—an important focus of the investigation becomes whether the merger is likely to cause the relevant market to change from one in which coordination did not occur to one in which such coordination is likely.

***Premdor-Masonite (DOJ 2001)*** Premdor Inc. sought to acquire (from International Paper Co.) Masonite Corp., one of two large producers of “interior molded doorskins,” which form the front and back of “interior molded doors.” Interior molded doors provide much the same appearance as solid wood doors but at a much lower cost, and Premdor was the world's largest producer. Premdor also held a substantial equity stake in a firm that supplied some of its doorskins. The vast

majority of doorskins, however, were produced by Masonite and by a third party that was also Premdor's only large rival in the sale of interior molded doors. The Department concluded that the upstream and downstream markets for interior molded doorskins and interior molded doors were highly concentrated and that the proposed acquisition would have removed significant impediments to coordination.

The Department found that the most significant impediment to upstream coordination was Premdor's ability, in the event of an upstream price increase, to expand production of doorskins, both for its own use and for sale to other door producers. The proposed acquisition, however, would have eliminated Premdor's incentive to undermine upstream coordination. The Department also found that a significant impediment to downstream coordination was Masonite's incentive and ability to support output increases by smaller downstream competitors. The proposed acquisition, however, would have eliminated Masonite's incentive to do so.

Finally, the Department found that the acquisition would have facilitated coordination by bringing the cost structures of the principal competitors into alignment, both upstream and downstream, and by making it easier to monitor departures from any coordination. The Department's challenge of the acquisition was resolved by a consent decree requiring, among other things, divestiture of a Masonite manufacturing facility.

### ***Maverick and Capacity Factors in Coordination***

A merger may make coordination more likely or more effective when it involves the acquisition of a firm or asset that is competitively unique. In this regard, section 2.12 of the Guidelines addresses the acquisition of "maverick" firms, i.e., "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)." If the acquired firm is a maverick, its acquisition may make coordination more likely because the nature and intensity of competition may change significantly as a result of the merger.

In such a case, the Agency's investigation examines whether the acquired firm has behaved as a maverick and whether the incentives that are expected to guide the merged firm's behavior likely would be different.

Similarly, a merger might lead to anticompetitive coordination if assets that might constrain coordination are acquired by one of a limited number of larger incumbents. For example, coordination could result if, prior to the acquisition, the capacity of fringe firms to expand output was sufficient to defeat the larger firms' attempts to coordinate price, but the acquisition would shift enough of the fringe capacity to a major firm (or otherwise eliminate it as a competitive threat) so that insufficient fringe capacity would remain to undermine a coordinated price increase.

***Arch Coal–Triton (FTC 2004)*** The Commission challenged Arch Coal, Inc.'s acquisition of Triton Coal Co., LLC's North Rochelle mine in the Southern Powder River Basin of Wyoming ("SPRB"). Prior to the acquisition, three large companies—Arch, Kennecott, and Peabody (the "Big Three")—owned a large majority of SPRB mining capacity. The remaining capacity, including the North Rochelle mine, was owned by fringe companies with smaller market shares. The Commission's competitive concern was that, by transferring ownership of the North Rochelle mine from the fringe to a member of the Big Three, the acquisition would significantly reduce the supply elasticity of the fringe and increase the likelihood of coordination to reduce Big Three output. As a result of the reduction in fringe supply elasticity, a given reduction in output by the Big Three would be more profitable to each member of that group after the acquisition than would have been the case before the acquisition. Mine operators had, in the past, announced their future intentions with regard to production and had publicly encouraged "production discipline." The court denied the Commission's preliminary injunction request and, after further investigation, the Commission decided not to pursue further administrative litigation.

***UPM–MActac (DOJ 2003)*** UPM-Kymmene Oyj sought to acquire (from Bemis Co.) Morgan Adhesives Co. ("MActac"). Three

firms—MACtac, UPM's Raflatac, Inc. subsidiary, and Avery Dennison Corp.—were the only large producers of paper pressure-sensitive labelstock, which is used by "converters" to make paper self-adhesive labels for a range of consumer and commercial applications. The Department found that the proposed acquisition would result in UPM and Avery controlling over 70% of sales in the relevant market, and in smaller rivals having insufficient capacity to undermine a price increase by UPM and Avery. Prior to the announcement of its proposed acquisition of MACtac, UPM and Avery had exchanged communications about their mutual concerns regarding intense price competition, and there was evidence that they had reached an understanding to hold the line on further price cuts. MACtac, however, was not a party to this understanding, and it had both substantial excess capacity and the incentive to expand sales by cutting price.

The Department concluded that the proposed acquisition would eliminate the threat to coordination from MACtac and that no other competitor posed such a threat. Also significant was the fact that UPM was a major input supplier for Avery both because this relationship created opportunities for communication between the two and because it made possible mutual threats that could be used to induce or enforce coordination. The Department, therefore, concluded that Avery and UPM would be likely to coordinate after the acquisition and challenged the transaction on that basis. After trial, the district court enjoined the consummation of the acquisition.

## Unilateral Effects

Section 2.2 of the Guidelines states that "merging firms may find it profitable to alter their behavior unilaterally following the acquisition by elevating price and suppressing output." The manner in which a horizontal merger may generate unilateral competitive effects is straightforward: By eliminating competition between the merging firms, a merger gives the merged firm incentives different from those of the merging firms. The simplest unilateral effect arises from merger to monopoly, which eliminates all competition in the relevant market. Since the

issuance of the Guidelines in 1992, a substantial proportion of the Agencies' merger challenges have been predicated at least in part on a conclusion that the proposed mergers were likely to generate anticompetitive unilateral effects.

Section 2.2 of the Guidelines explains: "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." Section 2.2 does not articulate, much less detail, every particular unilateral effects analysis the Agencies may apply.

The Agencies' analysis of unilateral competitive effects draws on many models developed by economists. The simplest is the model of monopoly, which applies to a merger involving the only two competitors in the relevant market. One step removed from monopoly is the dominant firm model. That model posits that all competitors but one in an industry act as a "competitive fringe," which can economically satisfy only part of total market demand. The remaining competitor acts as a monopolist with respect to the portion of total industry demand that the competitive fringe does not elect to supply. This model might apply, for example, in a homogeneous product industry in which the fringe competitors are unable to expand output significantly.

In other models, two or more competitors interact strategically. These models differ with respect to how competitors interact. In the Bertrand model, for example, competitors interact in the choice of the prices they charge. Similar to the Bertrand model are auction models, in which firms interact by bidding. There are many auction models with many different bidding procedures. In the Cournot model, competitors interact in the choice of the quantities they sell. And in bargaining models, competitors interact through their choices of terms on which they will deal with their customers.

Formal economic modeling can be useful in interpreting the available data (even with natural experiments). One type of modeling the Agencies use is "merger simulation," which "calibrates" a model to match quantitative aspects (e.g., demand

elasticities) of the industry in which the merger occurs and uses the calibrated model to predict the outcome of the competitive process after the merger. Merger simulation can be a useful tool in determining whether unilateral effects are likely to constitute a substantial lessening of competition when a particular model mentioned above fits the facts of the industry under review and suitable data can be found to calibrate the model. The fit of a model is evaluated on the basis of the totality of the evidence.

Section 2.2 of the Guidelines does not establish a special safe harbor applicable to the Agencies' consideration of possible unilateral effects. Section 2.2.1 provides that significant unilateral effects are likely with differentiated products when the combined market share of the merging firms exceeds 35% and other market characteristics indicate that market share is a reasonable proxy for the relative appeal of the merging products as second choices as well as first choices. Section 2.2.2 provides that significant unilateral effects are likely with undifferentiated products when the combined market share of the merging firms exceeds 35% and other market characteristics indicate that non-merging firms would not expand output sufficiently to frustrate an effort to reduce total market output.

As an empirical matter, the unilateral effects challenges made by the Agencies nearly always have involved combined shares greater than 35%. Nevertheless, the Agencies may challenge mergers when the combined share falls below 35% if the analysis of the mergers' particular unilateral competitive effects indicates that they would be likely substantially to lessen competition. Combined shares less than 35% may be sufficiently high to produce a substantial unilateral anticompetitive effect if the products are differentiated and the merging products are especially close substitutes or if the product is undifferentiated and the non-merging firms are capacity constrained.

### ***Unilateral Effects from Merger to Monopoly***

The Agencies are likely to challenge a proposed merger of the only two firms in a relevant market. The case against such a merger would rest upon the simplest of all unilateral effects models. Relatively few mergers to

monopoly are proposed. Some proposed mergers affecting many markets would have resulted in monopolies in one or more of these markets.

***Franklin Electric–United Dominion (DOJ 2000)*** Subsidiaries of Franklin Electric Co. and United Dominion Industries were the only two domestic producers of submersible turbine pumps used for pumping gasoline from underground storage tanks at retail stations. The parent companies entered into a joint venture agreement that would have combined those subsidiaries. The Department found that entry was difficult and that other pumps, including foreign-produced pumps, were not good substitutes. Hence, the Department concluded that the formation of the joint venture likely would create a monopoly and thus give rise to a significant unilateral anticompetitive effect. After trial, the district court granted the Department's motion for a permanent injunction.

***Glaxo Wellcome–SmithKline Beecham (FTC 2000)*** When Glaxo Wellcome plc and SmithKline Beecham plc proposed to merge, each manufactured and marketed numerous pharmaceutical products. For most products, the transaction raised no significant competition issues, but it did raise concerns in several product lines. Among them was the market for research, development, manufacture, and sale of second generation oral and intravenous antiviral drugs used in the treatment of herpes. Glaxo Wellcome's Valtrex and SmithKline Beecham's Famvir were the only such drugs sold in the United States. Having concern both for the market for currently approved drugs and the market for new competing drugs, the Commission alleged that the merger would have prompted a unilateral increase in prices and reduction in innovation in this monopolized market. The matter was resolved by a consent order, pursuant to which the merged firm was required, among other things, to divest SmithKline's Famvir-related assets.

***Suiza–Broughton (DOJ 1999)*** Suiza Foods Corp. and Broughton Foods Co. competed in the sale of milk to school districts, which procured the milk through annual contracts entered into after taking bids. The Department found that competition for each of the school

districts was entirely separate from the others, so each constituted a separate geographic market. The Department sought to enjoin the proposed merger of the two companies after finding that it threatened competition in 55 school districts in south central Kentucky and would have created a monopoly in 23 of those districts. The matter was resolved by a consent order, pursuant to which the merged firm was required to divest the dairy in Kentucky owned by Broughton.

### ***Unilateral Effects Relating to Capacity and Output for Homogeneous Products***

In markets for homogeneous products, the Agencies consider whether proposed mergers would, once consummated, likely provide the incentive to restrict capacity or output significantly and thereby drive up prices.

***Georgia-Pacific-Fort James (DOJ 2000)*** Georgia-Pacific Corp. and Fort James Corp. were the two largest producers in the United States of “away-from-home” tissue products (i.e., paper napkins, towels, and toilet tissue used in commercial establishments). These products are produced in a two-stage process, the first stage of which is the production of massive parent rolls, which also are used to make at-home tissue products. Georgia-Pacific’s proposed acquisition of Fort James would have increased Georgia-Pacific’s share of North American parent roll capacity to 36%. Investigation revealed that the industry was operating at nearly full capacity, that capacity could not be quickly expanded, and that demand was relatively inelastic. These factors combined to create a danger that, after the merger, Georgia-Pacific would act as a dominant firm by restricting production of parent rolls and thereby forcing up prices for away-from-home tissue products. Merger simulation indicated that the acquisition would cause a significant price increase. The Department’s challenge to the acquisition was settled by a consent decree requiring the divestiture of Georgia-Pacific’s away-from-home tissue business.

### ***Unilateral Effects Relating to the Pricing of Differentiated Products***

In analyzing a merger of two producers of differentiated consumer products, the Agencies examine whether the merger will alter the merged firm’s incentives in a way that leads to higher prices. The seller of a differentiated consumer product raises price above marginal cost to the point at which the profit gain from higher prices is balanced by the loss in sales. Merging two sellers of competing differentiated products may create an incentive for the merged firm to increase the price of either or both products because some of the sales lost as a result of the increase in the price of either of the two products would be “recaptured” by the other.

As section 2.21 of the Guidelines explains, what matters in determining the unilateral effect of a differentiated products merger is whether “a significant share of sales in the market [is] accounted for by consumers who regard the products of the merging firms as their first and second choices.” Consumers typically differ widely with respect to both their most preferred products and their second choices. If a significant share of consumers view the products combined by the merger as their first and second choices, the merger may result in a significant unilateral effect.

In all merger cases, the Agencies focus on the particular competitive relationship between the merging firms, and for mergers involving differentiated products, the “diversion ratios” between products combined by the merger are of particular importance. An increase in the price of a differentiated product causes a decrease in the quantity sold for that product and an increase in the quantities sold of products to which consumers switch. The diversion ratio from one product to another is the proportion of the decrease in the quantity of the first product purchased resulting from a small increase in its price that is accounted for by the increase in quantity purchased for the other product. In general, for any two products brought under common control by a transaction, the higher the diversion ratios, the more likely is significant harm to competition.

A merger may produce significant unilateral effects even though a large majority of the substitution away from each merging product goes to non-merging products. The products of



the merging firms need only be sufficiently close to each other (that is, have sufficiently high diversion ratios) that recapturing the portion of the lost sales indicated by the diversion ratios provides a significant incentive to raise prices. Significant unilateral effects are unlikely if the diversion ratios between pairs of products brought together by a merger are sufficiently low.

A merger may produce significant unilateral effects even though a non-merging product is the “closest” substitute for every merging product in the sense that the largest diversion ratio for every product of the merged firm is to a non-merging firm’s product. The unilateral effects of a merger of differentiated consumer products are largely determined by the diversion ratios between pairs of products combined by the merger, and the diversion ratios between those products and the products of non-merging firms have at most a secondary effect.

In ascertaining the competitive relationships in mergers involving differentiated products, the Agencies look to both qualitative and quantitative evidence bearing on the intensity or nature of competition. The Agencies make use of any available data that can shed light on diversion ratios, and when possible estimate them using statistical methods. Often, however, the available data are insufficient for reliable estimation of the diversion ratios. The absence of data suitable for such estimation does not preclude a challenge to a merger. The Agencies also rely on traditional sources of evidence, including documentary and testimonial evidence from market participants. Even when the Agencies estimate diversion ratios, documentary and testimonial evidence typically are used to corroborate the estimates.

***General Electric–Agfa NDT (FTC 2003)***

General Electric Co. proposed to acquire Agfa NDT Inc. from Agfa-Gevaert N.V. Through their subsidiaries, the firms were the two largest suppliers of ultrasonic non-destructive testing (“NDT”) equipment in the United States. NDT equipment is used to inspect the structure and tolerance of materials without damaging them or impairing their future usefulness. Manufacturers and end users in a variety of industries use ultrasonic NDT equipment for quality control and safety purposes. Unilateral concerns arose in three relevant product markets: portable flaw

detectors, corrosion thickness gauges, and precision thickness gauges. In each of these markets, the merging parties were the two largest firms, and the combined firm would have had a market share of greater than 70% in each of the markets. Documents and testimonial evidence indicated that the rivalry between GE and Agfa was particularly close, and that, for a wide variety of industry participants, the products of the two firms were their first and second choices. The evidence also showed that the two firms frequently were head-to-head rivals and that this competition benefitted consumers through aggressive price competition and innovation. Evidence also suggested that the remaining fringe manufacturers would not be able to constrain a unilateral price increase by the merged firm. The Commission obtained a consent order requiring divestiture of GE’s NDT business.

In many matters involving differentiated consumer products, the Agencies have analyzed price and quantity data generated at the point of sale, particularly by scanners at supermarket checkouts, to assess the likely effect of the merger on prices.

***Nestle–Dreyer’s (FTC 2003)*** Nestle Holdings, Inc., proposed to merge with Dreyer’s Grand Ice Cream, Inc. The firms were rivals in the sale of “superpremium ice cream.” Compared to premium and non-premium ice cream, superpremium ice cream contains more butterfat, less air, and more costly ingredients, and sells at a substantially higher price. Nestle sold the Haagen-Dazs brand in competition with the Dreyer’s Dreamery, Godiva, and Starbucks brands. Together Nestle and Dreyer’s accounted for about 55% of superpremium ice cream sales, and Unilever, through its Ben & Jerry’s brand, accounted for nearly all of the rest. Commission staff developed evidence showing that the merger was likely to result in unilateral anticompetitive effects, reflecting the close rivalry between the merging firms. Dreyer’s recently had expanded on a large scale into superpremium ice cream production and increased its share in this relatively mature market to above 20%. Analysis suggested that, by expanding, Dreyer’s induced increased

competition from incumbent superpremium firms. Econometric analysis showed that the diversion ratios between the Nestle and Dreyer's superpremium brands were sufficient to make a significant unilateral price increase by the merged firm likely. The diversion ratios with Unilever's superpremium brands also were high. The analysis implied that the merged firm would be likely to raise its prices anticompetitively and that Unilever would also likely raise its Ben & Jerry's prices in the post-merger environment. The Commission entered into a consent agreement with the merging firms requiring divestiture of two brands and key distribution assets.

**General Mills–Pillsbury (FTC 2001)** General Mills, Inc.'s proposed purchase of The Pillsbury Co. from Diageo plc, involved the sale of some of the most widely recognized food products in the United States. Most of the products involved in the transaction did not raise antitrust concerns, but there were overlaps of potential concern in a handful of product lines, including flour. The Pillsbury and General Mills (Gold Medal) brands were the only two national flour brands, and after the merger General Mills would account for over half of total U.S. retail flour sales. Private label sales comprised less than 25% of sales nationwide, with the balance accounted for by numerous regional firms. Evidence tended to indicate that regional brands were not a significant constraint on General Mills and Pillsbury. The regional brands generally were highly differentiated, specialty brands and were not viewed as close substitutes for the more commodity-like General Mills and Pillsbury brands. The degree of constraint provided by private label brands was mixed, with some evidence suggesting that private label brands were a significant constraint but other evidence suggesting otherwise.

Commission staff used scanner data to estimate demand elasticities. Because the strength of private label and regional flour brands varied across geographic regions, staff estimated elasticities for groups of markets defined according to the presence of regional brands. The cross-price elasticities between Gold Medal and Pillsbury brands and between these brands and private label and regional brands differed across regions. For example,

the results suggested that Gold Medal and Pillsbury were the closest substitutes in some markets, while private label alternatives were an equally close substitute in other markets. Some regional brands also were found to be relatively close substitutes for Gold Medal and Pillsbury, while others were not. Commission staff used the estimated elasticities to simulate the expected price effect from the merger using the Bertrand model. The results suggested that the merging parties would raise their prices more than 10% even in markets where private label and regional brands were estimated to be equally close substitutes for Gold Medal and Pillsbury.

Commission staff also examined whether pricing for flour varied across markets in relation to the amount of competition from private label or other brands. In particular, staff compared prices in geographic markets that were supplied predominantly by Gold Medal and private label, with prices in markets where Pillsbury or another brand was also strong. The results indicated that Pillsbury generally played an important role in constraining Gold Medal prices. These results were consistent with the elasticity results discussed above, and both suggested that the proposed merger would lead to price increases for flour. The parties resolved the competitive concerns in this market by selling Pillsbury's product line. No Commission action was taken.

**Kimberly-Clark–Scott (DOJ 1995)** Kimberly-Clark Corp. and Scott Paper Co. were two of the nation's leading producers of consumer paper products when they announced their intention to merge. In facial tissue, Kimberly-Clark and Scott, together with Procter & Gamble, accounted for nearly 90% of all sales, and Kimberly-Clark's Kleenex brand itself accounted for over half of sales. By estimating the relevant demand elasticities using scanner data, the Department determined that Scott's facial tissue products, which were "value" products (sold at relatively low prices) and accounted for only 7% of sales, imposed a significant constraint on Kimberly-Clark's prices. Likewise, in baby wipes, in which Kimberly-Clark and Scott's brands together accounted for approximately 56% of sales, the Department's analysis indicated that each was

the other's most significant competitive constraint. Hence, the Department concluded that acquiring Scott's facial tissue and baby wipes businesses likely would give Kimberly-Clark an incentive to increase prices significantly for the merging brands. The Department's challenge to the proposed merger was settled by a consent decree requiring the divestiture of assets relating to facial tissue and baby wipes.

***Interstate Bakeries–Continental (DOJ 1995)***

The Department undertook significant analysis of scanner data in evaluating Interstate Bakeries Corp.'s purchase of Continental Baking Co. from Ralston Purina Co. At the time, Continental, with its Wonder brand, was the largest baker of fresh bread in the United States, and Interstate was the third-largest. The Department's investigation focused on white pan bread. White pan bread is the primary sandwich and toasting bread in the United States, and market participants viewed it as a highly differentiated product. Price differences were a clear indication of consumer preference for premium brands over supermarket private label brands; the price of the premium brands was at least twice the price of the private label products. Econometric evidence confirmed that there was only limited competitive interaction between premium and private label brands. Marketing, econometric, and other evidence also indicated that there were significant preferences among individual premium brands. The Department's investigation focused on five metropolitan areas (Chicago, Milwaukee, Central Illinois, Los Angeles, and San Diego) in which Continental and Interstate had the two largest-selling premium brands, or two of the three largest-selling brands.

Econometric analysis determined that there were substantial cross-elasticities of demand between the Continental and Interstate brands of white pan bread, consistent with a likelihood of significant unilateral anticompetitive effects following the merger. The Department used the estimated cross elasticities in a Bertrand merger simulation, which predicted that the merger was likely to result in price increases of 5–10% for those brands. The Bertrand model was considered reliable for several reasons, including that it

accurately predicted pre-merger price-cost margins. In addition, retailers marked up every wholesale price by the same percentage, so estimated retail-level demand elasticities were the same as those at the wholesale level. The Department concluded that the proposed acquisition likely would result in significant price increases for premium white pan bread in five metropolitan areas. The Department's challenge to the proposed merger was settled by a consent decree requiring divestiture of brands and related assets in the five metropolitan areas.

The Agencies challenge only a tiny fraction of proposed mergers. (In fiscal years 1999–2003, over 14,000 transactions were notified to the Agencies under HSR; the Agencies collectively challenged fewer than 200.) The following matters illustrate, for differentiated consumer products, the sort of evidence that has formed the basis of decisions not to challenge particular transactions.

***Fortune Brands–Allied Domecq (FTC 2005)***

Fortune Brands, Inc., owner of the Knob Creek brand of bourbon, proposed to acquire Allied Domecq's Maker's Mark brand of bourbon. Commission staff analyzed whether the acquisition would create or enhance unilateral market power for premium bourbon. Staff analysis of information discovered in the investigation suggested that several other large whiskey brands, including bourbons, competed strongly with Maker's Mark and with Knob Creek. Econometric analysis of retail scanner pricing data indicated substantial cross-price elasticities among the several whiskey brands. Using these cross-price elasticities staff estimated the diversion ratios involving Maker's Mark and Knob Creek. The results showed that, in the event of a Maker's Mark price increase, very few of the sales lost would go to Knob Creek. The analysis also found no support for the proposition that Maker's Mark would receive a substantial proportion of the substitution away from Knob Creek in the event of an increase in the price of the latter. The staff closed the investigation.

***Maybelline–Cosmair (DOJ 1996)***

The Department investigated and decided not to challenge the proposed merger of Maybelline,

Inc., a leading U.S. cosmetics company, and Cosmair, Inc., the U.S. subsidiary of French cosmetics giant L’Oreal S.A. Maybelline and L’Oreal were leading brands, and both were sold almost exclusively through mass-market outlets. Although the merger involved many products, the investigation focused largely on mascara, in which Maybelline had the leading share among brands sold through mass-market outlets, and L’Oreal ranked third. They combined to account for 52% of sales. Some evidence suggested that the images associated with the merging brands were quite different, and demand estimation was employed to determine whether there was substantial direct competition between them.

As in many other investigations involving differentiated consumer products, the Department relied on weekly data generated by scanners at the point of retail sale. Estimated demand elasticities were used to simulate the effects of the proposed merger using the Bertrand model. The analysis indicated that a significant anticompetitive effect was not likely, and the Department decided not to challenge the proposed merger.

Although the Agencies commonly use scanner data in analyzing the likely competitive effects of mergers involving differentiated products, such data do not exist for many such products. When scanner data do not exist, if feasible, it may be useful to conduct a consumer survey.

***Vail Resorts–Ralston Resorts (DOJ 1997)*** Vail Resorts, Inc. and Ralston Resorts, Inc. were the two largest owner-operators of ski resorts in Colorado. In 1996, Vail proposed to acquire three ski areas operated by Ralston, which would have given Vail control of five ski areas in the “front range” area west of Denver, accounting for 38–50% of front range skier-days. Relying in part on a survey of skiers, the Department found that the Vail and Ralston facilities were close, premium-quality competitors and that skiers were likely to switch from one to the other on the basis of small changes in price, whereas consumers were much less likely to switch to several other resorts considered to be of lesser quality.

Bertrand merger simulation based on the survey data suggested the merger likely would

cause a significant increase in lift-ticket prices at the acquiring firm’s resorts. The Department therefore challenged the merger. The merger simulation also indicated that divestiture of Ralston’s Arapahoe Basin resort would substantially prevent price increases, and that remedy was implemented through a consent decree.

Before challenging a merger involving differentiated consumer products, the Agencies consider the possibility of product repositioning by non-merging firms in accord with section 2.212 of the Guidelines. Consideration of repositioning closely parallels the consideration of entry, discussed below, and also focuses on timeliness, likelihood, and sufficiency. The Agencies rarely find evidence that repositioning would be sufficient to prevent or reverse what otherwise would be significant anticompetitive unilateral effects from a differentiated products merger. Repositioning of a differentiated product entails altering consumers’ perceptions instead of, or in addition to, altering its physical properties. The former can be difficult, especially with well-established brands, and expensive efforts at doing so typically pose a significant risk of failure and thus may not be undertaken.

### ***Unilateral Effects Relating to Auctions***

In some markets, buyers conduct formal auctions to select suppliers and set prices. In such markets, the Agencies account for the fact that competition takes place through an auction. To an extent, the effects of a merger may depend on the specific auction format employed, and the Agencies also account for the specific format of the auction. The basic effects of mergers, however, may be quite similar in different auction formats.

Procurement through an auction tends to be simple for a homogeneous industrial product.

***Cargill–Akzo Nobel (DOJ 1997)*** Cargill, Inc. proposed to acquire the western hemisphere salt-producing assets of Akzo Nobel, N.V. Cargill and Akzo Nobel were two of only four competitors engaged in the production of rock salt used for de-icing purposes in an area of the United States centered on the eastern portion of Lake Erie, and de-icing salt was sold primarily to government agencies through formal sealed bid auctions. To gauge the likely

unilateral effect of the merger, the Department conducted an econometric analysis of data on winning bids in the area of interest and found that bids had been significantly lower when there were four bids than when there were three. Partly on the strength of that evidence, the Department challenged the merger on the basis of a likely unilateral price increase, and the case was settled by a consent decree requiring divestitures.

Procurement using an auction is also observed with more complex and customized products. With customized products, arbitrage between customers is likely to be infeasible, and the Agencies have sometimes found that there was a separate competition in each auction because vendors tailored their prices and other terms to the particular situation of each customer.

***Chicago Bridge–Pitt-Des Moines (FTC 2005)***

The Commission issued an administrative ruling that the consummated acquisition by Chicago Bridge & Iron Co. of certain assets from Pitt-Des Moines, Inc., violated section 7 of the Clayton Act and section 5 of the FTC Act. The companies designed, engineered, and built storage tanks for liquefied natural gas (“LNG”), liquefied petroleum gas (“LPG”), and liquid atmospheric gases such as nitrogen, oxygen, and argon (“LIN/LOX”); they also designed, engineered, and built thermal vacuum chambers (“TVC”). It was uncontested that each of these “field-erected” products was a distinct relevant market. The Commission found that, in all four markets, respondents were each other’s closest pre-acquisition rival and that together they largely had dominated sales since 1990. Field-erected tanks for LNG, LPG, and LIN/LOX, and TVCs are custom-made to suit each purchaser’s needs, and customers place great emphasis upon a supplier’s reputation for quality and service.

For each of the relevant products, customers generally seek competitive bids from several suppliers. Customers in the tank markets use a second round of bidding to negotiate price, and sometimes inform bidders of the existence of competition to reduce the prices that are bid. TVC customers select one bidder with which to negotiate a best and final offer, or they negotiate such offers from multiple bidders. Chicago Bridge exerted

substantial competitive pressure on Pitt-Des Moines, and vice-versa. The companies closely monitored each other’s activities, and customers frequently were able to play one firm against the other in order to obtain lower prices. Although other firms sometimes were awarded bids, the Commission found that most pre-merger competition was between Chicago Bridge and Pitt-Des Moines.

The bidding evidence also showed that the markets were not characterized by easy entry and expansion and that Chicago Bridge and Pitt-Des Moines would have continued to dominate the competition for years. The Commission considered specific instances of bidding by entrants into the relevant markets but concluded that these instances of bidding did not demonstrate that the entrants would be able to gain enough market share to affect prices and provide sufficient competition to replace the competition that was lost through the merger. In most instances, entrants’ bids were rejected because the entrants lacked requisite reputation and experience. To remedy the transaction’s anticompetitive effects, the Commission ordered Chicago Bridge, among other things, to reorganize its business into two stand-alone divisions, and divest one of them.

***Metso Oyj–Svedala (FTC 2001)*** In a merger involving producers of rock-crushing equipment, Metso Oyj proposed acquiring Svedala Industri AB. Rock-crushing equipment is used in mining and aggregate production to make small rocks out of big rocks. Rock-crushing equipment includes cone crushers, jaw crushers, primary gyratory crushers, and grinding mills. Each of these types of equipment was determined to be a separate relevant product market. In some of these markets, Metso and Svedala were the largest and second largest competitors, and the combined firm would have had a market share many times higher than any other competitor. Competition in these markets was analyzed in an auction model. Metso and Svedala regularly bid against each other for rock-crushing equipment sales in each of the relevant markets. By eliminating competition between these two leading suppliers, the proposed acquisition would have allowed Metso to raise prices unilaterally for certain

bids and to reduce innovation. The Commission resolved the competitive concerns by requiring divestitures in the relevant markets of concern.

***Ingersoll-Dresser-Flowserve (DOJ 2001)*** Flowserve Corp. proposed to acquire Ingersoll-Dresser Pump Co. These companies were two of the largest U.S. manufacturers of specialized, highly engineered pumps used in oil refining (“API 610 pumps”) and electrical generation facilities (“power plant pumps”), and only two other suppliers competed to sell these pumps in the United States. These pumps are procured through formal sealed-bid auctions and then manufactured to meet the buyers’ specifications. The Department found that each of these auctions was an entirely separate competition, and therefore each constituted a distinct relevant market. The Department also found that there were only four competitors in these markets and concluded that the merger likely would cause the remaining competitors unilaterally to increase their bids significantly. Each competitor would realize that eliminating a bidder in these auctions would increase the probability of winning the auction associated with any given bid. The Department’s challenge to the acquisition was settled by a consent decree requiring divestiture of Flowserve brands as well as manufacturing and repair facilities.

The procurement process for many complex products tends to be rather involved, and competition may occur in several distinct stages with extensive discussions between buyer and seller at such stages. The Agencies have often found that such competition could be understood in terms of an auction model with the procurement process working much like multiple rounds of bidding in an oral auction.

***Arch Wireless-Metrocall (DOJ 2004)*** The Department investigated and decided not to challenge the proposed acquisition of Metrocall Holdings, Inc. by Arch Wireless, Inc. The two firms were the two largest providers of paging services in the United States. The Department focused on possible unilateral anticompetitive effects in the sale of one-way paging services to businesses in many individual metropolitan

areas within the United States. In these areas, the combined firm would have accounted for a share of all pager units in service from less than 15% to over 80%. Because many paging customers had switched to other technologies, such as cellular or PCS telephony, the Department focused on the customers least likely to switch, notably many hospitals and emergency “first responders.”

The Department observed that the competition at any one hospital was separate from the competition at any other, and that each hospital paid a price determined by that hospital’s particular needs and the local rivalry among alternative technologies. This suggested that competition was best analyzed as an oral auction. The Department ultimately concluded that the merger likely would not substantially lessen competition primarily because most customers have sufficient alternatives to Arch and Metrocall. These alternatives included other paging providers, self-provision of paging services, and emerging technologies, such as wireless local area networks. Although some customers may not have sufficient alternatives, the Department concluded that service providers competing for their business would not be able to identify such customers and therefore likely would act as if they faced substantial competition.

***Quest Diagnostics-Unilab (FTC 2003)*** Quest Diagnostics, Inc. and Unilab Corp. were the two leading providers of clinical laboratory testing services to physician groups in Northern California, with a combined market share of approximately 70% (the next largest competitor had approximately 4%). Delivery of health care in California was distinguished by high penetration by managed care organizations, which often delegated the financial risk for providing health care services to physician groups. Independent physician associations (“IPAs”) in Northern California that assumed the financial risk for laboratory services, generally under a capitated arrangement, constituted a significant category of purchasers of laboratory services. IPA arrangements with the laboratories typically consisted of exclusive or semi-exclusive contracts, pursuant to which the physician group paid the laboratory a set amount per month for each patient affiliated with the pre-

paid health plans.

An auction model best represented competition for these capitated contracts with the IPAs. Quest and Unilab were the first- and second-lowest bidders for a substantial portion of these contracts, and thus the merger was likely to cause prices to rise to the constraining level of the next-lowest-price seller. The Commission resolved by consent agreement its concern that the merger was likely to result in anticompetitive effects. Pursuant to the consent agreement, the Commission ordered, among other things, that the merged firm divest assets used to provide clinical laboratory testing services to physician groups in Northern California.

### ***Unilateral Effects Relating to Bargaining***

In some markets, individual sellers negotiate with individual buyers on a transaction-by-transaction basis to determine prices and other terms of trade. The merger of competing sellers in such markets may enhance the ability of the combined seller to bargain for a more favorable result. That may be most apt to occur if, before the merger, the buyer viewed a bargain with either of the two merging parties as significantly better than a bargain with any other seller. In that event, the merger could cause the buyer to be willing to accept worse terms from the merged seller rather than to strike no bargain at all. That willingness normally would cause a bargain to be struck on terms less favorable for the buyer.

***Aspen Technology–Hyprotech (FTC 2004)*** The Commission challenged the consummated acquisition by Aspen Technology, Inc. of Hyprotech, Ltd. Prior to the acquisition, they were two of the three significant vendors of process engineering simulation software. This software is used in the petroleum, chemical, and pharmaceutical industries to design new, and model existing, processes to produce intermediate and finished products. The combined firm accounted for between 67% and 82% of various process engineering simulation software markets, and a single other firm made virtually all other sales. The Commission's complaint alleged that the transaction may have allowed AspenTech unilaterally to exercise market power in seven global markets.

The firms' software offerings were differentiated in their respective capabilities and in how well they met customers' needs and equipment. Evidence showed that AspenTech and Hyprotech were the two closest competitors on price and on innovation in each of the markets. Evidence also showed that, prior to the merger, AspenTech and Hyprotech discounted prices to win or maintain customers, and that, due to the merger, customers would no longer be able to obtain a lower price from AspenTech by threatening to switch to Hyprotech. The third firm in the market was declining and represented a less credible threat for customers to use in price negotiations. This suggested that competition was best analyzed in a bargaining framework. Staff concluded that the transaction would have allowed AspenTech to profit by unilaterally raising prices and reducing innovation because a significant portion of the sales that may otherwise have been lost to the other merging partner as a consequence of such actions would be retained because of the acquisition. The Commission resolved these competitive concerns by issuing a consent order requiring divestiture of certain process engineering simulation software assets.

The Agencies have used bargaining theory to analyze the effects of hospital mergers on the prices they charge managed care organizations ("MCOs"). MCOs market health care plans in which subscribers' health care costs are, in whole or in part, paid for directly by the plan or reimbursed after being paid by the subscriber. MCOs negotiate with health care providers, especially hospitals, the charges they or their subscribers pay. A subscriber's out-of-pocket costs of using a particular hospital depends significantly on whether that subscriber's plan has contracted with that hospital and on what terms.

To market a plan successfully in a given area, an MCO seeks to contract on favorable terms with a wide array of hospitals so that the hospitals preferred by many potential subscribers are available to them on favorable terms. Subscribers are attracted to a plan by the ability to get care from providers they prefer on favorable terms resulting from the MCO having negotiated discounts off the providers' usual rates. The

strength of a hospital's bargaining position with respect to MCOs is determined in large part by the proximity of other hospitals offering a similar or broader package of services with a similar or higher perceived quality. For example, close head-to-head competition between two hospitals allows an MCO credibly to threaten both that it will contract with, and steer its patients to, only the other. The elimination of such competition through a merger, therefore, can enable the hospitals to negotiate higher prices.

**Carilion-Centra (FTC 2005)** The Commission investigated a consummated joint venture between Carilion Health System, the largest hospital system in southwest Virginia, and Centra Health, Inc. Carilion owns and operates two large hospitals in Roanoke, Virginia, while Centra owns two hospitals in Lynchburg, Virginia. Prior to the transaction, Carilion also was the sole owner of a small community hospital located in Bedford County, halfway between Roanoke and Lynchburg, about 30 miles from each city. In connection with the joint venture transaction, Carilion sold half of its interest in Bedford to Centra, so that the two hospital systems each had a 50% interest in the Bedford facility.

The joint venture partners, Carilion and Centra, were the two largest hospital competitors in the Bedford area prior to the joint venture. Staff examined whether the joint venture would result in an increase in prices in Bedford County as a result of reduced competition between Carilion and Centra to attract Bedford area patients. Staff found that, after the creation of the joint venture, the Bedford hospital negotiated its prices separately from the Carilion or Centra systems and that Bedford prices either declined substantially or remained roughly the same. Staff closed the investigation.

**Slidell Memorial-Tenet (FTC 2003)** Tenet Health Care Systems, which operated NorthShore Regional Medical Center in Slidell, Louisiana, proposed to acquire Slidell Memorial Hospital. The transaction would have combined the only full-service acute care hospitals in Slidell. Evidence suggested to Commission staff that Slidell residents and their employers demanded health insurance plans that included either Slidell Memorial or

NorthShore Regional as network participants, and that a nearby small surgical hospital and cardiac specialty hospital were inadequate substitutes because they were not full-service hospitals.

If Tenet purchased Slidell Memorial, health insurance companies would face the choice either of meeting Tenet's price terms, or, alternatively, excluding both NorthShore Regional and Slidell Memorial from their provider networks. The latter action would likely make the health plan far less marketable, particularly to employers and their employees who desire access to a Slidell hospital. In addition, a health plan that did not include these hospitals could offer services only from physicians willing and able to treat the plan's patients at hospitals located outside of Slidell. Information received from local employers, residents, and health insurance plans suggested to Commission staff that health insurance companies would be unlikely to risk losing NorthShore Regional, Slidell Memorial, and the physician base of the hospitals, and instead likely would agree to a price increase. Commission staff set forth its competition analysis in public comments to the Louisiana Attorney General, subsequent to which local citizens, prior to conclusion of the Commission's investigation, voted to reject the proposed acquisition. The deal was never consummated.

**Rite Aid-Revco (FTC 1996)** The nation's two largest retail drug store chains, Rite Aid Corp. and Revco D.S., Inc., sought to merge. The firms competed with each other in many local markets, including in 15 metropolitan areas in which the merged firm would have had more than 35% of the retail pharmacies. Commission staff analyzed the merger's effect on retail sales made through pharmacy benefit plans. Pharmacy benefit managers ("PBMs") contract with multiple pharmacy firms to form networks offering pharmacy benefits as part of health insurance coverage. Pharmacy networks often include a high percentage of local pharmacies because access to many participating pharmacies is often important to plan enrollees.

Rite Aid and Revco each offered a significant portion of the broad local coverage



that payers demanded on behalf of their enrollees. Marketable networks could be assembled with just one of the firms participating. After the merger, a high proportion of plan enrollees would have considered the merged entity to be their most preferred pharmacy chain, leaving PBMs with less attractive options for assembling networks that did not include the merged firm. The merged firm as a result unilaterally could have demanded higher dispensing fees as a condition of participating in a network. The Commission voted to challenge the transaction, after which the parties abandoned it.

Mergers can create or enhance market power on the part of buyers as well as on the part of sellers. The Agencies, therefore, consider the possibility that a merger would produce a significant anticompetitive effect by eliminating competition between the merging firms in a relevant market in which they compete for an input. By eliminating an important alternative for input suppliers, a merger can lessen competition for an input significantly.

***Aetna-Prudential (DOJ 1999)*** Aetna, Inc. proposed to acquire assets relating to health insurance from The Prudential Insurance Co. of America. The acquisition would have eliminated head-to-head competition between Aetna and Prudential in the sale of health maintenance organization (“HMO”) and HMO-based point-of-service health plans in Dallas and Houston. The Department challenged the proposed acquisition on the basis of likely anticompetitive effects in the purchase of physicians services for these two types of health plans and on the basis of likely anticompetitive effects in the sale of those plans. The Department concluded that the proposed merger would have allowed Aetna to reduce physician reimbursement rates because it would have significantly increased the number of patients enrolled in Aetna health plans and therefore also the number of patients a physician would have lost by terminating participation in Aetna health plans. The Department’s challenge to the acquisition was settled by a consent decree requiring, among other things, the divestiture of interests Aetna had acquired in two other health plans operating in Dallas and Houston.

# 3. Entry Analysis

As explained by section 3.0 of the Guidelines, an anticompetitive merger can create “sales opportunities available to entrants,” and consequently a “merger having anticompetitive effects can attract . . . entry, profitable at premerger prices, that would not have occurred” without the merger. In evaluating the competitive effects of a proposed merger, the Agencies therefore ask whether the merger would attract entry that “would be timely, likely, and sufficient in its magnitude, character and scope to deter or counteract the competitive effects” of the merger, thereby causing “prices to fall to their premerger levels or lower.” To address this question, the Agencies examine industry conditions to determine whether a merger is likely to attract entry, as well as whether entry would be likely to prevent, or to reverse in a timely fashion, any anticompetitive effects of a merger.

In evaluating the likely competitive effects of a proposed merger, the Agencies distinguish among different sorts of firms that potentially would supply the relevant product in the event of an attempt to exercise market power. Section 3 of the Guidelines addresses “committed entry,” which is defined as “new competition that requires expenditure of significant sunk costs.” Costs associated with entry are “sunk” if they cannot be recovered by reversing the entry decision. Section 1.32 of the Guidelines addresses “uncommitted entry,” which refers to supply responses not incurring significant sunk costs. Uncommitted entry normally takes the form of incumbent firms using their existing assets to make products or perform services those firms do not currently make or perform.

The focus of this chapter is Section 3 of the Guidelines, which addresses committed entry, referred to here simply as “entry.” Other sections of the Guidelines separately consider three specific types of supply responses to mergers: output

increases by maverick incumbent firms that potentially would frustrate coordination among the merged firm and its rivals (§ 2.12 & n.20); output increases by market incumbents with excess capacity that potentially would frustrate the unilateral exercise of market power with undifferentiated products (§ 2.22 & n.24); and product repositioning by non-merging firms that potentially would frustrate the unilateral exercise of market power with differentiated products (§ 2.212 & n.23). As with entry, the examination of these supply responses focuses on the likelihood, timeliness, and sufficiency of the supply response.

Entry may be considered successful if the entrant generates sufficient revenue to cover all costs apart from the sunk costs of entry. Such entry succeeds in the sense that the entrant becomes and remains a viable competitor in the market. Defined in this way, successful entry into some markets may require nothing more than the investment of time and money. In such a market, an anticompetitive merger nevertheless will not attract entry if the sunk cost is so great that the entry offers little prospect of a reasonable return on that investment. Significant sunk costs may be associated, for example, with building a manufacturing facility, developing a product, achieving regulatory approvals, and gaining customer acceptance. An anticompetitive merger also will not attract entry if the risk of failed entry, and the associated loss of the entry investment, is so great that potential rewards do not justify making that investment. The Agencies therefore examine the sunk costs and likely returns associated with entry.

In other markets, successful entry may not be possible despite the investment of time and money because success may depend on factors over which a potential entrant has little control. For example, an anticompetitive merger may not attract entry because entry is regulated or even

legally barred, or because entrants' efforts would be stymied by the intellectual property rights of incumbents or by the unavailability of essential inputs. An anticompetitive merger also may not attract entry because entrants would suffer significant cost disadvantages in competing with incumbents. This situation can occur for a variety of reasons, but tends to be most important when entrants would be unlikely to achieve the economies of scale (i.e., reductions in average cost from operating at a higher rate of output) and scope (i.e., reductions in cost from producing several products together) already achieved by incumbents. The Agencies therefore examine obstacles to entry and possible cost disadvantages for entrants.

If a merger does attract entry, that entry still may be insufficient to deter or fully counteract the merger's anticompetitive effect, or the entrant may take so long to achieve market significance that the merger nevertheless produces sustained anticompetitive effects. The Agencies therefore examine how long entry would take and how it likely would affect the merger's competitive consequences. The discussion that follows addresses in more detail the Guidelines' concepts of likelihood, timeliness, and sufficiency of entry.

## Likelihood of Entry

The Agencies do not assess merely whether firms *could* commit incremental resources to the relevant market, but more importantly whether the proposed merger *would* be likely to induce firms to do so in a timely fashion and in a sufficient magnitude to deter or counteract the merger's anticompetitive effects. Thus, information regarding such factors as technical capability, know-how, sunk costs, and other requirements for successful entry is necessary, but not sufficient, for the Agencies' evaluation of entry conditions. The Agencies must also determine whether firms would have an adequate profit incentive to enter at prices prevailing before the merger, i.e., the prices to which the market likely would return following entry sufficient to deter or counteract the merger's anticompetitive effects. In evaluating the likelihood of entry, the Agencies thus focus on the sales opportunities created by the proposed merger.

## ***Sunk Costs and Risks Associated with Entry***

### **Consumer Products**

The Agencies commonly find that proposed mergers involving highly differentiated consumer products would not attract the entry of new brands because entry would not be profitable at pre-merger prices. In a market populated by well-established brands, successful entry usually requires a substantial investment in advertising and promotional activity over a long period of time to build share and achieve widespread distribution through retail channels. Moreover, making such investments by no means assures success.

***Nestle–Dreyer's (FTC 2003)*** Nestle Holdings, Inc. proposed to merge with Dreyer's Grand Ice Cream, Inc. The firms were two of the top three rivals in the superpremium ice cream market. Those three combined for 98% of sales. Grocery retailer private label sales accounted for the remaining 2%. Evidence showed entry to be difficult, both because of the need to develop brand equity to compete effectively, and the need to obtain effective distribution, which is difficult in this market because the product must be maintained at a particular freezing temperature throughout the distribution process. The Commission determined that entry was unlikely to prevent or reverse the merged firm's likely unilateral anticompetitive price increase and challenged the merger. To resolve the competitive concerns, the Commission entered into a consent agreement with the parties requiring divestiture of two brands.

***Staples–Office Depot (FTC 1997)*** The Commission successfully challenged a merger between Staples, Inc. and Office Depot, Inc., two of the three national office supply superstore retail chains. The Commission found, and the court agreed, that entry was unlikely to prevent anticompetitive effects arising from the merger. Important to this finding was that the three incumbent office superstores had saturated many of the local markets such that a new office superstore entrant would have difficulty in achieving economies of scale in, among other things,

advertising and distribution.

**Kimberly-Clark-Scott (DOJ 1995)** The Department found that entry would be unlikely to be attracted by the proposed merger of Kimberly-Clark Corp. and Scott Paper Co., which the Department challenged on the basis of unilateral anticompetitive effects in facial tissue and in baby wipes. Brand recognition was very important for both products, and the Department concluded that the costs and risks associated with establishing new brands likely would prevent the sort of entry that could prevent or reverse the likely anticompetitive effects of the merger. The Department's challenge to the proposed merger was settled by a consent decree requiring the divestiture of assets relating to facial tissue and baby wipes.

Successful prior entry can provide evidence that an anticompetitive merger would attract entry despite the need to make a substantial investment in advertising and promotional activity. Successful prior entry, however, is by no means proof that entry likely would occur following a proposed merger, or that any such entry would be sufficient to prevent significant anticompetitive effects. Evidence of the severity of entry obstacles sometimes is found in an inability of past entrants to gain consumer acceptance.

**L'Oreal-Carson (DOJ 2000)** In considering L'Oreal's proposed acquisition of Carson, Inc., the Department found that several brands of hair relaxer kits introduced in recent years had been unable to generate significant sales. That evidence reinforced the Department's conclusion that the proposed merger would not attract entry sufficient to deter or counteract the likely anticompetitive effects of the merger. The Department's challenge to the merger was resolved by a consent decree requiring the divestiture of relevant brands and associated assets, including a manufacturing facility.

**Swedish Match-National (FTC 2000)** Swedish Match North America, Inc., proposed to acquire National Tobacco Company, L.P. The companies were the first- and third-largest producers of loose leaf chewing tobacco in the United States, with shares of 42% and 18%. Swedish Match's loose leaf products included

the Red Man premium brands. National Tobacco produced the Beech-Nut line of premium brands. The Commission successfully challenged the merger in district court, asserting that the transaction would result in anticompetitive effects in the U.S. market for loose leaf chewing tobacco. The evidence showed that entry would be thwarted by, among other things, the substantial sunk costs required to overcome strong brand loyalty. The evidence included prior unsuccessful efforts at introducing new brands by established rivals.

Mergers involving differentiated consumer products also may be unlikely to attract entry because no customer has an incentive to sponsor entry. Wholesale customers often are retailers, and there are circumstances under which retailers suffer little from wholesale price increases because they pass the price increases on to final consumers. Moreover, retailers can benefit from a merger of manufacturers if the retailers sell private label products in competition with the merging manufacturers. A merger involving differentiated consumer products also is unlikely to attract entry when its anticompetitive effects would be felt in just a few local markets or if there are important local brands catering to local tastes and traditions.

**Interstate Bakeries-Continental (DOJ 1995)** The Department challenged the proposed purchase of Continental Baking Co. by Interstate Bakeries Corp. on the basis of anticompetitive effects in the sale of white pan bread within five metropolitan areas. Anticompetitive effects in these five metropolitan areas would have been unlikely to attract entry by a national brand because the overall effect of the merger on national price would have been insignificant. In each of the five metropolitan areas, only one of the leading premium brands was sold nationally, while the others were regional or strictly local. Anticompetitive effects in these areas would have been unlikely to attract local entry because the sunk costs of brand development would be spread over relatively few sales and because important media used for advertising and promotion cannot be effectively targeted at limited metropolitan areas. The Department's challenge to the proposed

merger was settled by a consent decree requiring divestiture of brands and related assets in the five metropolitan areas.

## **Industrial Products**

The sources of the sunk costs associated with entry into markets for industrial products vary from one market to the next. In many markets, the only significant sunk costs are those associated with the construction or acquisition of productive facilities, such as manufacturing plants. In other markets, substantial investments are required for product development and to establish support organizations for distribution and service. And in some markets, additional sunk costs are associated with demonstrating product performance and reliability to potential customers. The sunk costs from each of these sources can be large or small. Mergers of industrial products manufacturers may be unlikely to attract entry if customers are unwilling to purchase products without a well-established record of satisfactory performance. A merger is especially unlikely to attract entry if product failure imposes a substantial cost on customers.

***Ingersoll-Dresser-Flowserve (DOJ 2001)*** The Department challenged the proposed acquisition of Ingersoll-Dresser Pump Co. by Flowserve Corp. on the basis of likely unilateral anticompetitive effects in markets for specialized pumps used in oil refining and electrical generation facilities. The Department found that the design and testing of an array of such pumps would entail substantial sunk costs. The Department also found that an entrant could not effectively compete in the relevant markets without incurring additional sunk costs in the establishment of a network of service and repair facilities. And because pump failure could shut down part of a refinery or electric generation plant, the Department found that many customers in the relevant markets would not purchase from a supplier that had not demonstrated the reliability and efficiency of its pumps in the particular use for which the pump was being sought. This fact added additional sunk entry costs and extended yet further the substantial time successful entry would take. The Department's challenge to the acquisition was settled by a consent decree requiring

divestiture of Flowserve brands as well as manufacturing and repair facilities.

***Metso Oyj-Svedala (FTC 2001)*** The Commission investigated a proposed merger between leading manufacturers of mining equipment, Metso Oyj and Svedala Industri AB. Both firms made equipment used in mining, including gyratory crushers, jaw crushers, cone crushers, and grinding mills. Operational failure by any of these machines would require shutting down the entire mining circuit. Purchasers would deal only with well-established companies producing equipment with a proven track record of reliability. A new entrant would face significant sunk costs in developing and testing a new piece of equipment and in gaining customer acceptance. Although several potential entrants could manufacture this equipment within two years, it was unlikely that customers would purchase new and untested equipment within this period. The Commission resolved the competitive concerns by requiring divestitures in the relevant markets of concern.

***Exxon-Mobil (FTC 1999)*** Prior to merging, Exxon Corp. and Mobil Corp. were leading producers of jet turbine oil. Jet turbine engines require a specialized lubricant that can operate in an extreme environment. Failure by the lubricant could lead to engine failure, requiring the engine to be taken out of service for an extended period of time for repairs or overhaul. This lubricant, although expensive for a lubricating oil, was inexpensive relative to the cost of losing use of an engine for any period of time as well as to the cost of repairing or replacing an engine. To secure sales to customers, jet turbine oil producers submitted their products for extensive product testing, including testing on the customer's specific model engine. After developing a satisfactory lubricant, therefore, a new entrant would have to invest substantial sunk costs in product testing and incur substantial time delay in entering. The Commission, therefore, concluded that entry would not eliminate competitive concerns. The Commission and the parties entered into a settlement that required, among other things, divestiture of Exxon's jet turbine oil business.

**Precision Castparts–Wyman-Gordon (FTC 1999)** Precision Castparts Corp. and Wyman-Gordon Co., two leading manufacturers of titanium, stainless steel, and nickel-based superalloy cast components for jet engine and airframe applications, proposed to merge. Several companies worldwide had the capability of manufacturing these types of cast parts, but customers were not likely to purchase them from companies lacking a proven, years-long track record of producing products that did not fail. The Commission concluded that entry would not be timely, likely, and sufficient to thwart anticompetitive effects from the merger. It resolved its competitive concerns in a consent order that, among other things, required divestiture of a titanium foundry and a large cast parts foundry.

The Agencies have sometimes found that sunk costs did not pose a significant entry obstacle. In such cases, expected returns justified any required investment in new productive facilities, and successful entry typically did not require the establishment of a brand or reputation for quality.

**ADS–Hancor (FTC 2005)** The FTC closed its investigation into the acquisition by Advanced Drainage Systems, Inc. of Hancor Holding Corp. Both firms were major producers of corrugated high density polyethylene (“HDPE”) pipe used for underground water drainage. Staff found that demand for HDPE was growing, that a new HDPE manufacturing plant could be constructed at relatively low cost and could be in operation within a short period, that several firms had entered de novo in the prior ten years, and that several fringe incumbents were expanding output. Also, existing manufacturers of certain other, non-HDPE pipes could enter at relatively little sunk cost. Many of them served common customers already and thus did not have to establish a new marketing organization. The Commission concluded that entry conditions were such that anticompetitive effects from the merger were unlikely.

**Omnicare–NeighborCare (FTC 2005)** The largest provider of pharmacy services to long-term care facilities (“LTC pharmacy”), Omnicare, Inc., offered to acquire a large rival

LTC pharmacy, NeighborCare, Inc. The combined firm would have under contract more than half of skilled nursing facility beds in multiple states, and the post-merger market structure would be highly concentrated in many areas. The Commission’s decision not to challenge the acquisition was based in part on relatively easy entry conditions in the then-current marketplace. Sunk costs were relatively low, illustrated by many historical examples of entry, including entry by former employees of incumbent LTC pharmacies, expansion by retail pharmacies into the LTC business, and vertical integration by skilled nursing facility operators.

**Wrigley–Kraft (FTC 2005)** Wm. Wrigley Jr. Co. proposed to acquire certain confectionary assets from Kraft Foods, Inc., including certain well-known breath mint and chewing gum brands. Commission staff assessed whether sunk costs that would have to be incurred in acquiring the capacity to produce or market breath mints or chewing gum would pose significant impediments to post-merger competitive entry. Staff found that new entrants would have relatively easy access to third-party “co-manufacturers” for the production of the relevant products and thereby could avoid costly expenditures in developing manufacturing expertise or in building a new facility. Entrants also could competitively distribute their products by outsourcing those functions to third-parties. Staff also found evidence of significant recent branded entry. Based in part on this evidence concerning entry conditions, staff closed its investigation.

**Playbill–Stagebill (DOJ 2002)** In its analysis of the consummated acquisition of certain assets of Stagebill Media by Playbill Inc., the Department found that sunk costs of entry were insignificant. Prior to the acquisition, Playbill was the nation’s largest publisher of theater programs and Stagebill was its largest competitor in many cities. The Department found that the merger was not likely to be anticompetitive because the printing itself could be out-sourced, so an entrant did not need to incur significant sunk costs. Indeed, the Department found that entry based on out-sourcing had occurred. The Department also

found that theaters could contract directly with printers and some had done so. Finally, the Department found that prices of theater programs had not increased. Consequently, the Department took no action against the acquisition.

Although many purchasers of differentiated consumer products are reluctant to switch from brands they know and trust, purchasers of industrial commodities may be more likely to switch and be willing to sponsor entry when they perceive a lack of competition.

**National Oilwell-Varco (DOJ 2005)** Entry considerations were a major factor in the Department's decision not to challenge the acquisition by National Oilwell Inc. of Varco, Inc. Those firms were among the very few significant competitors in the sale of various products and services relating to offshore drilling for oil and gas, and that fact initially gave the Department serious concerns about the competitive effects of the acquisition. Nevertheless, the Department found that several major customers for these products and services believed that they would be able to sponsor successful entry by committing to make purchases from firms with little or no current market presence. The Department also identified sellers of related products and services interested in entering.

In some markets, it is clear that a merger would not attract entry simply because the sunk costs of entry are far too great in comparison to the likely rewards.

**General Dynamics-Newport News (DOJ 2001)** General Dynamics Corp. proposed to acquire Newport News Shipbuilding Inc. These were the only firms that built nuclear submarines for the U.S. Navy. The manufacture of a nuclear submarine requires much highly specialized equipment, personnel, and know-how, all of which combined to make the sunk cost of entry extraordinarily high. As a result, the merger was not likely to attract entry, especially in view of the fact that an entrant might never make a single sale. The proposed acquisition was abandoned after the Department filed suit to enjoin it.

## ***Other Significant Obstacles to Successful Entry***

Entry may not be attracted by an anticompetitive merger for many reasons. In some markets, entry is explicitly regulated, and in others, government regulation can effectively bar entry. The Agencies have found legal obstacles to entry to be significant in some instances.

For example, many states have certificate of need ("CON") programs barring entry into health care markets unless a potential entrant makes an expensive and time-consuming demonstration that there is an unmet need for its services. Regulation of this sort increases sunk costs and the time it takes to enter, and it also creates a significant risk that entry ultimately will be prohibited. For several hospital mergers challenged by the Agencies, as well as a merger of outpatient surgical centers, CON regulation was a factor in the Agencies' determination that the mergers would not attract entry.

**Mercy Health-Finley (DOJ 1994)** The Department challenged the formation of a partnership between Mercy Health Services and Finley Tri-States Health Group, Inc. The companies owned the only general acute care hospitals in Dubuque, Iowa, and the Department concluded that Iowa's CON statute would prevent the construction of any new general acute care hospital in Dubuque. That no new hospital would be built was stipulated at trial, but the district court rejected the Department's challenge to the merger on other grounds. The case became moot before the Department's appeal could be decided because the parties abandoned the merger.

Environmental and zoning regulations are other examples of rules that may make entry difficult.

**Florida Rock-Harper Bros. (DOJ 1999)** Florida Rock Industries, Inc. proposed to acquire Harper Bros., Inc. These companies competed in the sale of aggregate and silica sand in southwest Florida and together accounted for at least 60% of the sales of each product. The Department concluded that the acquisition would be likely to lessen competition substantially and challenged the acquisition. The Department found many reasons why the

acquisition would not attract entry, including environmental regulation at the local, state, and federal levels that made it very difficult to open a new aggregate or silica sand production facility in the area. The Department's challenge to the merger was resolved by a consent decree requiring the divestiture of a quarry and sand mine.

In the telecommunications and pharmaceutical industries, federal regulation may pose a significant obstacle to entry. Entry into some telecommunications markets is constrained by the need to have a licence from the Federal Communication Commission for use of part of the electromagnetic spectrum, while the introduction of pharmaceuticals requires approval by the Food and Drug Administration.

**Cingular-AT&T Wireless (DOJ 2004)** Cingular Wireless Corp., a joint venture of SBC Communications Inc. and BellSouth Corp., proposed to acquire AT&T Wireless Services, Inc. Both Cingular and AT&T Wireless provided mobile wireless telecommunications service ("MWTS") throughout the United States. The Department concluded that the acquisition likely would be anticompetitive in ten local MWTS markets and challenged the acquisition partly on that basis. MWTS is provided using electromagnetic spectrum, the rights to which are licensed by the Federal Communications Commission. Among the reasons the Department concluded that the acquisition would not attract entry was difficulty in obtaining licenses to the necessary spectrum. The Department's challenge to the merger was resolved by a consent decree requiring divestitures in particular locations.

**Cephalon-Cima (FTC 2004)** Cephalon, Inc. proposed to acquire Cima Labs, Inc. Cephalon was the only firm selling a breakthrough cancer pain ("BTCP") drug in the United States. Evidence suggested that Cima was the most likely first entrant with a BTCP drug to rival Cephalon's product, and that entry subsequent to Cima's was unlikely for at least the next four years. The time needed to secure FDA approval was a significant factor in reaching this conclusion. The Commission resolved its competitive concerns with a consent order that required Cephalon, among

other things, to grant an irrevocable, fully paid license to a specific third party for the manufacture and sale of a generic formulation of Cephalon's BTCP drug.

Intellectual property rights such as patents can at times pose a significant entry obstacle. Intellectual property can be important in both high-tech and low-tech industries.

**3D Systems-DTM (DOJ 2001)** 3D Systems Corp. proposed to acquire DTM Corp., a competitor in industrial rapid prototyping systems, which are used to make functional and non-functional prototypes of new products or components. The Department challenged the acquisition in part because the two companies held extensive patent portfolios that likely created an insuperable entry obstacle even for well-established competitors outside the United States. The Department's challenge to the merger was resolved by a consent decree requiring divestiture of a package of intellectual property rights.

**Franklin Electric-United Dominion (DOJ 2000)** The Department challenged the proposed joint venture between subsidiaries of Franklin Electric Co. and United Dominion Industries because it would have eliminated competition between the only two domestic producers of submersible turbine pumps used for pumping gasoline from underground storage tanks at retail stations. The Department found that the proposed merger would be unlikely to attract entry for several reasons, including the necessity of designing around Franklin Electric's patents. After trial, a district court granted the Department's motion for a permanent injunction.

**American Home Products-Solvay (FTC 1997)** American Home Products Corp. proposed to acquire the animal health business of Solvay S.A. The Commission found that the proposed acquisition raised serious competitive concerns in three, highly concentrated, relevant product markets for the production and sale of animal vaccines. The Commission found, moreover, that post-merger entry was unlikely to mitigate the competitive concerns because entry would not be likely, timely, or sufficient. For each relevant market, entry would require the expenditure of significant resources over a



period of many years with no assurance that a viable commercial product would result. The time required to enter the relevant markets could be further lengthened by the need to obtain U.S. Department of Agriculture approvals to sell the vaccines. Significantly, the existence of broad patents governing the manufacture of each of the relevant products enhanced the difficulty of entry. As a result, the Commission issued a complaint challenging the proposed acquisition, and ultimately reached a settlement with the parties that called for, among other things, divestiture of Solvay's intellectual property rights relating to the three vaccines.

Patents need not impose a significant obstacle to entry, even in a high-tech industry with many important patents. The Agencies may find that the requisite technology is nevertheless reasonably available, for example, because required patents could easily be licensed or invented around.

***Cinram–AOL Time Warner (DOJ 2003)*** The Department decided not to challenge the acquisition by Cinram International Inc. of the DVD and CD replication assets of AOL Time Warner Inc. in part because the requisite technology was readily available for license from patent pools. The Department also found that sunk costs were relatively low and that the prospects for recovering them were good due to high demand growth.

A merger may lead to price increases without attracting entry because potential entrants would be unable to obtain a source of supply for essential inputs, for example, when entry requires access to scarce natural resources.

***Imetal–English China Clays (DOJ 1999)*** Imetal proposed to acquire English China Clays, plc, both of which produced water-washed kaolin and calcined kaolin. These products are produced from kaolin clay, which is quite scarce. Much of the world's highest quality kaolin is found in a small area within Georgia. Among the reasons why the Department concluded that the proposed merger was unlikely to attract significant entry was that an entrant would have difficulty in acquiring suitable kaolin deposits. The Department's challenge to the merger was

resolved by a consent decree requiring divestiture of a plant and associated assets such as kaolin reserves.

Difficulty in securing essential inputs can impede entry in a variety of contexts, particularly when incumbents own or control access to the inputs. In some cases, an entrant might find it difficult to secure a source of supply for a manufactured input product. In other cases, gaining access to physical facilities built and owned by third parties can pose a significant entry obstacle. In addition, access to human resources may pose a significant entry obstacle in some markets.

***DaVita–Gambro (FTC 2005)*** DaVita Inc. proposed to acquire Gambro Healthcare, Inc. The firms were rivals in the provision of outpatient dialysis services. The Commission alleged that anticompetitive effects would result from the transaction in 35 local markets where the firms competed. Laws applicable to dialysis clinics required that each such clinic must have a nephrologist as its medical director. In addition, the medical director is the clinic's primary source of referrals and thus is essential to the clinic's competitiveness. A lack of available nephrologists with an established referral stream was an obstacle to entry into each of the relevant geographic markets at issue. To resolve the Commission's concerns, the parties entered into a consent agreement that required, among other things, divestiture of dialysis clinics in the markets at issue.

***Central Parking–Allright (DOJ 1999)*** The unavailability of facilities that had to be provided by others made entry unlikely after the proposed merger of Central Parking Corp. and Allright Holdings, Inc. Both companies operated off-street parking facilities in the central business districts of many U.S. cities. In these areas, land was scarce and typically had uses higher-valued than parking lots, so adding additional parking spaces typically required the construction of a new office building, and higher parking rates were not likely to spur the construction of new office buildings. The Department's challenge to the merger was resolved by a consent decree requiring divestiture of parking facilities in many cities.

## ***Cost Disadvantages of Entrants***

A merger may lead to price increases but not attract entry because entrants would suffer a significant cost disadvantage relative to incumbents. The most common reason for a cost disadvantage is the presence of significant economies of scale and scope. In other situations, entrants may be significantly disadvantaged by economies of density in route delivery systems (i.e., reductions in cost from increasing volume, holding the size of a network fixed).

***Waste Management–Allied (DOJ 2003)*** Waste Management, Inc. agreed to acquire the assets Allied Waste Industries, Inc. used in small container commercial waste hauling in Broward County, Florida. This portion of the municipal solid waste business entails the collection, transportation, and disposal of waste generated by commercial establishments. The Department challenged the acquisition in part because an entrant would be unable to operate efficiently and provide meaningful price competition. To be efficient, a competitor must achieve a high route density by contracting with a large number of commercial establishments in a relatively small area. Doing so was found to be exceptionally difficult for an entrant because incumbents had secured many existing customers through long-term contracts. The Department’s challenge to the merger was resolved by a consent decree requiring divestiture of specified routes and the assets used on them.

***Federal-Mogul–T&N (FTC 1998)*** In the merger of Federal-Mogul Corp. and T&N PLC, one of the markets the staff examined was the manufacture and sale of engine bearings to the aftermarket for repairing and overhauling engines. Each engine bearing is designed for and used in a particular truck or car engine, and each engine can use only bearings designed and built to its specifications. The parties acquired the tooling for their broad line of aftermarket bearings when engines were first in production, allowing them to amortize the cost of that tooling over a longer time and over a larger number of bearings. A new entrant that attempted to match an incumbent’s product line would have been

able to amortize the tooling for many bearings only over a portion of the engine’s life, and would necessarily have higher relative costs. This would have put any entrant in the aftermarket at a substantial cost disadvantage to the incumbent firms. Thus, the Commission found that entry would not be timely or likely to prevent anticompetitive effects. The Commission resolved the matter with a consent order that required, among other things, divestiture of T&N’s engine bearing business.

## **Timeliness of Entry**

Section 3.2 of the Guidelines states that entry generally is considered timely only if “achieved within two years from initial planning to significant market impact.” Even if a proposed merger likely would attract entry that eventually reverses any likely anticompetitive effect from a merger, the Agencies nonetheless would challenge the merger if they determined the entry would not be timely. For many of the proposed mergers discussed in this chapter, the Agencies found that entry having a material effect on competition would take significantly longer than the two-year period specified by the Guidelines.

***Alcan–Pechiney (DOJ 2003)*** The Department challenged the proposed acquisition of Pechiney, S.A. by Alcan, Inc. on the basis of likely anticompetitive effects in the production and sale of a class of aluminum alloys called “brazing sheet.” Manufacturing brazing sheet requires an expensive rolling mill, which the Department found would take at least three years to construct. The Department also found that successfully selling brazing sheet requires the mastery of alloy technologies and that it likely would take several additional years after a new mill commenced production to “qualify” its output with major customers and begin making significant sales. Thus, the Department concluded that entry was unlikely and would necessarily take far longer than two years if it did occur. The Department’s challenge to the merger was resolved by a consent decree requiring divestiture of Alcan’s brazing sheet business, including a smelting facility, rolling mill, and associated intellectual property.

**Healthtrust–Holy Cross (FTC 1994)** In a merger between Healthtrust, Inc. - The Hospital Co. and Holy Cross Health Services of Utah, there was no CON regulation that would preclude or delay entry into the market, and prior entry of hospitals had occurred in the geographic market. Nonetheless, the Commission concluded that timely entry was unlikely to prevent anticompetitive effects from the merger under investigation because it takes many years to plan and build a new hospital. The Commission resolved its competitive concerns arising from the transaction by reaching a consent agreement with the parties that, among other things, included an order requiring divestiture of one of the acquired firm’s hospitals.

In evaluating the timeliness of entry, the Agencies include the time to complete any necessary preliminary steps, such as establishing a reputation or the development of specialized inputs into the production of the product in question.

**Federal-Mogul–T&N (FTC 1998)** Federal-Mogul Corp. and T&N PLC, which proposed to merge, competed in selling thin-wall engine bearings, light-duty engine bearings, and heavy-duty engine bearings to original equipment manufacturers (“OEMs”) and to customers in the aftermarket. These bearings required specialized alloys developed for specific applications. Entry required time to develop such alloys, to design the specific bearings for particular applications, and to test and qualify in particular applications. For each type of bearing, as to both OEM and aftermarket customers, FTC staff found that timely entry would not prevent anticompetitive effects in the relevant markets. Further, in the aftermarket, effective entry required brand name recognition that took additional time to develop. The Commission resolved the matter with a consent order that required, among other things, divestiture of T&N’s engine bearing business.

## Sufficiency of Entry

Section 3.0 of the Guidelines states that “[e]ntry that is sufficient to counteract the competitive effects of concern will cause prices to fall to their

premerger levels or lower.” Thus, even if the evidence suggests that timely entry into the relevant market is likely, the entry analysis is not complete. The entry must also be of a character and magnitude that it would “deter or counteract the competitive effect of concern.”

### **Chicago Bridge–Pitt-Des Moines (FTC 2005)**

The Commission ruled that the consummated acquisition by Chicago Bridge & Iron Co. of certain assets from Pitt-Des Moines, Inc., violated Section 7 of the Clayton Act and Section 5 of the FTC Act. The merging parties designed, engineered, and built storage tanks for liquified natural gas (“LNG”), liquified petroleum gas (“LPG”), and liquid atmospheric gases such as nitrogen, oxygen, and argon (“LIN/LOX”). They also designed, engineered, and built thermal vacuum chambers (“TVC”). TVCs and field-erected tanks for LNG, LPG, and LIN/LOX are custom-made to suit each purchaser’s needs, and customers place great emphasis upon a supplier’s reputation for quality and service. For each of the relevant products, customers generally seek competitive bids from several suppliers.

The Commission found that some timely entry into each of these markets might occur, but that it was unlikely to be sufficient to prevent anticompetitive effects from the merger. Although new firms had appeared and fringe firms had the intent to compete, these firms were not found to be significant competitors capable of replacing the competition lost due to the merger. With respect to the LNG tank market, the Commission found that new entrants lacked the reputation and experience that most customers demand, and they lacked the requisite personnel skills. With respect to the LPG and the LIN/LOX tank markets, the Commission found that, although the merging parties identified a number of actual and potential entrants, entry of those firms would not prevent the anticompetitive effects of the merger because the firms would not have the attributes desired by most customers. The record evidence showed no attempted entry into the TVC tank market by any suppliers. The Commission ordered, among other things, divestiture of assets and other remedial action

to restore the competition lost as a result of the transaction.

The Agencies' reasons for concluding that entry would not face significant obstacles also can be relevant to determining whether entry would be sufficient.

***Sherwin-Williams-Duron (FTC 2004)*** The Sherwin-Williams Co., the nation's largest manufacturer of architectural paint, proposed to acquire Duron, Inc., a leading architectural paint manufacturer in the eastern United States. The firms were head-to-head competitors in several metropolitan areas where each had a relatively large number of store locations. A focus of the Commission's investigation was on the potential effects of the merger on professional contractors, which in significant numbers patronize architectural paint stores rather than other retailers of paint (such as home improvement stores and other big-box retailers). Staff concluded that this class of customers made purchasing decisions largely based on local market conditions that determine price and service, rather than on national or regional contracts with paint suppliers.

The investigation assessed whether entry would require a network of store locations to compete effectively for professional painters' business. Data analysis revealed that even professional painters who use numerous company stores during a year spend the vast majority of their dollars at a limited number of favored stores. Thus, the evidence showed that professional painters did not rely on an extended store network and would not likely pay a premium to do business with firms that operate a network of stores in a region. In addition, even if a network of some size were required, the requirements to open additional stores did not pose an entry barrier. Few significant obstacles appeared to prevent firms with established brand names from opening paint stores to serve professional painters. No Commission action was taken.

# 4. Efficiencies

Merging parties may reduce their costs by combining complementary assets, eliminating duplicate activities, or achieving scale economies. Mergers also may lead to enhanced product quality or to increased innovation that results in lower costs and prices or in more rapid introduction of new products that benefit consumers.

As the Guidelines state, efficiencies “can enhance the merged firm’s ability and incentive to compete, which may result in lower prices, improved quality, enhanced service, or new products.” Guidelines § 4. Moreover, when a merged firm achieves such efficiencies, it may induce competitors to strive for greater efficiencies in order to compete more effectively. Consumers benefit from such increased competition.

Efficiencies may directly prevent the consumer harm that otherwise would result from a merger. The Agencies thus do not challenge a proposed merger “if 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.” Guidelines § 4. In analyzing mergers, including the likely effects of cost reductions, the Agencies assume that firms maximize profits. Other things equal, a reduction in any cost that depends on a firm’s output rate causes a profit-maximizing firm to reduce prices. This effect may be sufficient to counteract a merger’s anticompetitive effects.

For example, one potential concern is that a proposed merger would increase the likelihood that competitors will coordinate pricing and output decisions in a way that harms consumers. In the presence of other conditions conducive to coordination, uniform cost structures across incumbent competitors may facilitate coordination. Therefore, some mergers that appreciably reduce the uniformity of costs across competitors may disrupt existing coordination or

otherwise make coordination less likely. As a lower-cost producer, the merged firm may find it profitable to reduce prices notwithstanding its rivals’ likely reactions. Similarly, sufficiently large reductions in the marginal costs of producing and selling the products of one or both of the merging firms may eliminate the unilateral incentive to raise prices that the merger might otherwise have created. In both of these situations, the Agencies integrate efficiencies into their assessments of competitive effects. In so doing, the Agencies assess the effects of the elimination of competition between the merging firms in light of any cognizable, merger-specific efficiencies.

Efficiencies in the form of quality improvements also may be sufficient to offset anticompetitive price increases following a merger. Because a quality improvement involves a change in product attributes, a simple comparison of pre- and post-merger prices could be misleading. A careful analysis of the effects of changes in product attributes and prices on consumer welfare is likely to be necessary.

## Efficiencies the Agencies Consider

Section 4 of the Guidelines provides that, to be considered by the Agencies, an efficiency must be “merger-specific” and “cognizable.”

### *Merger-Specific Efficiencies*

Efficiencies are not taken into account by the Agencies if they are not merger-specific. Merger-specific efficiencies are “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.” The Guidelines explain that, although the Agencies ask whether the efficiencies can be achieved by means other than the merger, “[o]nly 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.”

The Agencies recognize that the merging parties often have information with respect both to how they plan to integrate after the merger and to the effect of the integration on the merged firm. Accordingly, the Agencies give full consideration to the parties’ reasonable and well-supported explanations of merger-specific cost savings.

Any efficiency that enables the combined firm to achieve lower costs for a given quantity and quality of product than the firms likely would achieve without the proposed merger is merger-specific. For example, if a merged firm would combine the production from two small or underutilized facilities (one from each of the merging firms) at one facility that has lower costs, and if such a cost reduction could not practically be achieved without the merger (e.g., by one of the merging firms combining two of its own underutilized facilities or through rapid internal growth), this cost reduction is merger-specific. Such a cost reduction benefits consumers to the extent that it makes the merged firm a more vigorous competitor, reduces prices, or expands output.

That an efficiency theoretically could be achieved without a merger—for example, through a joint venture or contract—does not disqualify it from consideration in the analysis. Many joint venture agreements or contracts may not be practically feasible or may impose substantial transaction costs (including monitoring costs). In their assessment of proffered efficiency claims, the Agencies accord appropriate weight to evidence that alternatives to the merger are likely to be impractical or relatively costly.

**Alpha-Beta (Disguised FTC Matter)** A proposed merger of two of the largest gizmo manufacturers (“Alpha” and “Beta”) would create a firm with a market share in excess of 30%. In addition to its manufacturing business, Alpha owned a subsidiary company engaged in industrial packaging. At the time of the proposed merger, Alpha’s packaging subsidiary had unutilized capacity. Among the subsidiary’s customers was Beta, which owned Get-To, Inc., a company that dispenses

gizmos to customers located in isolated areas not otherwise served by normal distribution channels. The parties planned to combine Alpha’s unused packaging capacity with Get-To’s demand for packaging. The parties claimed that this combination would yield significant cost savings. Commission staff concluded that, although such an arrangement may yield savings, the savings would not be merger-specific. Beta already was an Alpha customer, and the evidence suggested that, even in the absence of the merger, Alpha and Beta were in the position readily to expand their existing packaging services contract to achieve the claimed savings. The Commission did not challenge the merger because evidence was insufficient to show that the merger was likely to cause competitive harm.

**Nucor-Birmingham Steel (DOJ 2002)** Nucor Corp.’s acquisition of substantially all of the assets of Birmingham Steel Corp. raised competitive concerns because the firms owned two of the three mills producing certain types of steel bar in the western United States. The Department concluded, however, that the third western mill and other domestic mills would substantially constrain any post-merger price increases and that the merger likely would generate significant efficiencies. The Department found that the acquisition would allow the merged firm to close some distribution facilities and to supply some customers from a closer mill at a lower delivered cost. The Department also found that the acquisition would provide a Nucor mill with a lower cost input supply from Birmingham, although some of the savings might have been obtainable through a contractual arrangement. Even though some of the latter efficiencies may not have been merger specific, the Department concluded that plausible merger-specific reductions in variable costs were significant relative to the worst case scenario of anticompetitive effects from the acquisition, and the Department granted early termination under HSR.

Competition spurs firms to implement cost reduction initiatives, and those likely to be implemented without a proposed merger do not yield merger-specific efficiencies. For example, the parties may believe that they can reduce costs

by adopting each other's "best practices" or by modernizing outdated equipment. But, in many cases, these efficiencies can be achieved without the proposed merger. The presence of other firms in the industry unilaterally adopting similar "best practices" would suggest that such cost savings are not merger-specific. By contrast, if a "best practice" is protected by intellectual property rights, then it could be the basis for a merger-specific efficiency claim.

Merging parties also may claim cost savings from combining sales and realizing economies of scale. These types of economies, however, might be realized from internal growth. If such unilateral changes are likely without the proposed merger (for example, if they have already been planned), they are not merger-specific. Timing can be an important factor in the consideration of such claims. If a merger can be expected significantly to accelerate the achievement of economies of scale due to increased sales as compared to internal growth, the Agencies credit the merger with merger-specific acceleration of the cost reduction.

### ***Cognizable Efficiencies***

The Guidelines define cognizable efficiencies to be "merger-specific efficiencies that have been verified and do not arise from anticompetitive reductions in output or service." Moreover, "[c]ognizable efficiencies are assessed net of costs produced by the merger or incurred in achieving those efficiencies." Guidelines § 4.

The parties can facilitate the Agencies' assessment of whether efficiency claims are cognizable by providing documentation that is logical, coherent, and grounded on facts and business experience. It is in the parties' interest to provide detailed information on the likelihood, magnitude, and timing of claimed efficiencies. They may, for example, draw on a detailed business plan that describes how the merged firm intends to achieve the efficiencies. If not already included in the business plan, the parties should also consider providing supporting evidence that justifies the planning methods and shows the reasonableness of applied assumptions.

When efficiencies are an important business motive for the merger, information pertinent to verification will often exist prior to the Agencies' antitrust review of the merger. In other

situations—particularly when projected efficiencies are not a principal motive for the merger and evidence to substantiate claims has not been prepared prior to the merger agreement—the parties can elect to develop and submit to the reviewing Agency evidence (e.g., documents, data, consultant reports, or evidence from past experiences) to substantiate the claimed efficiencies.

***Arch Coal–Triton (FTC 2004)*** Pursuant to a Commission action in federal district court to enjoin the proposed merger of Arch Coal, Inc. and Triton Coal Co. LLC, the parties claimed merger-specific efficiencies totaling \$130 million to \$140 million over a five-year period. The parties' efficiency claims included cost-savings from equipment and operator reductions, the ability to extract additional coal through redeployment of coal mining equipment, insurance premium reductions, and safety improvements. Commission staff found that Arch Coal failed to substantiate many of its claimed savings and, in some instances, employed a methodology that overstated savings. Therefore, the staff determined that a substantial portion of Arch's claimed savings were not cognizable. For example, staff found that claims related to the ability to extract additional coal through redeployment of coal mining equipment were overstated because staff believed Triton would recover the additional coal absent the merger, just not as quickly as Arch would be able to in the combined operation. The court denied the Commission's preliminary injunction request and, after further investigation, the Commission decided not to pursue further administrative litigation.

***Oracle–PeopleSoft (DOJ 2004)*** Oracle Corp. made an unsolicited tender offer for PeopleSoft, Inc. Oracle and PeopleSoft competed in the sale of Enterprise Resource Planning software, which provides tools for automating essential operating functions within large organizations. Oracle Corp. claimed that the proposed takeover would produce cost reductions of more than \$1 billion per year. Although these claims were based on projections made by a high ranking executive, the Department's attempts to verify these claims revealed that they were predicated on

little more than unsupported speculation with no allowance having been made for the costs of integrating the two companies. Moreover, the Department concluded that at least a significant portion of the projected cost savings were a consequence of projected reductions in sales that would be the result of eliminating the R&D and sales staffs of PeopleSoft. The Department found that, for the most part, the cost reductions would stem from anticompetitive reductions in innovation, service, and output, and therefore did not reflect cognizable efficiencies. The Department filed suit to block the transaction, but the district court declined, on other grounds, to enjoin it.

## Verification of Efficiency Claims

After the parties have presented substantiation for their claimed merger-specific efficiencies, the Agencies attempt to verify those claims. The verification process usually includes, among other things, an assessment of the parties' analytical methods, including the accuracy of their data collection and measurement, an evaluation of the reasonableness of assumptions in the analysis, and scrutiny into how well the parties' conclusions stand up to modifications in any assumptions (i.e., the "robustness" of the parties' analysis). To evaluate the parties' efficiency claims, the Agencies typically review the parties' internal documents and data, as well as the statements of knowledgeable company personnel. In some cases, to evaluate further how realistic the claimed efficiencies are, the Agencies also contact third parties, for example, to learn what efficiencies others have been able to achieve and how they have achieved those efficiencies.

The Agencies recognize that assessing a proposed merger's potential efficiency benefits, like its competitive effects, necessarily involves projections about the future. The Agencies do not automatically reject a claim due to minor discrepancies uncovered in the verification process. Nor do the Agencies reject an efficiency claim solely because the efficiency has never before been accomplished. Shortcomings in the substantiation of a particular efficiency claim may cause the Agencies to reduce the magnitude of the efficiencies associated with that claim rather than to reject the claim altogether. Similarly, the fact

that one stand-alone efficiency claim cannot be verified does not necessarily result in rejection of other claims.

The stronger the supporting evidence, the more credence the Agencies are likely to give the claimed efficiencies in the competitive effects analysis. Efficiency claims that are vague, speculative, or unquantifiable and, therefore, cannot be verified by reasonable means, are not credited. For example, a general claim that the acquiring firm will save 20% of the acquired firm's expenses, without substantiation, generally would not be credited.

***Fine Look-Snazzy (Disguised FTC Matter)*** In a proposed merger of two consumer products packagers, Fine Look and Snazzy, the parties claimed efficiencies from rationalization and consolidation of packaging facilities ("PFs"); elimination of duplicate corporate overhead; and combining specialty packaging operations. Commission staff determined that a portion, but not all, of the savings claimed through consolidation of PFs was merger-specific and cognizable, but rejected the other claims because they could not be reasonably verified and thus were not cognizable. The Commission did not challenge the merger because evidence was insufficient to show that the merger was likely to cause competitive harm. The Commission credited the portion of the parties' efficiency claims that staff found to be merger-specific and cognizable.

First, the staff considered the consolidation of PFs. Fine Look operated 30 PFs and Snazzy operated 20. The parties planned to operate 35 PFs after the merger by closing 15 owned by Fine Look and 10 owned by Snazzy, and by building 10 new PFs. The parties claimed that sales from the closed Fine Look PFs would be shifted to Snazzy PFs and that this shift would result in reduced operating and delivery costs at the Snazzy PFs. Similarly, savings would derive from reduced operating costs at Fine Look PFs because of transferred sales from closed Snazzy PFs. The parties also claimed reduced inventory costs tied to reducing the number of PFs.

In estimating the potential savings from closing PFs, the parties assumed that all PF costs would be eliminated except for certain variable costs that would be shifted to the



remaining PFs. In the case of the 15 Fine Look PFs projected to be closed, the parties provided reasonable substantiation of these cost savings derived from Fine Look cost records. Nonetheless, the parties' estimates assumed that, in each case of a closing, the remaining post-merger PFs would retain 100% of the customers of the closed PFs. The parties provided no analysis respecting how sensitive their estimates were to this key assumption.

In addition, at least some of the consolidations for which the parties claimed efficiencies were purely intra-Snazzy (i.e., closing one Snazzy PF in proximity to another Snazzy PF). Staff concluded that such consolidations would not be merger-specific. Furthermore, the claimed savings from closings of the Snazzy PFs were not substantiated from cost records, but instead were conjecture. Staff could not accept these claims.

Based on all of the claims respecting PF consolidation, staff concluded that only savings associated with the 15 Fine Look closings for which substantiation was provided were cognizable. But because no sensitivity analysis was performed regarding the assumption on the retention of customers, staff considered the estimated savings from the closing of the Fine Look PFs to be only an upper bound on the potential savings.

Second, the staff considered the corporate savings. The parties made a very rough calculation of projected savings through consolidation of various corporate functions. They contended that 75% of one party's corporate expenses would be eliminated by this consolidation. The calculation, however, was unsubstantiated conjecture rather than an analysis based on objective data that Agency staff could evaluate. Staff thus found the claim not to be cognizable.

Third, the staff considered the specialty packaging operations. Both Fine Look and Snazzy operated specialty packaging facilities for high-end luxury widgets, independent of their other PFs. The parties planned to consolidate Fine Look's specialty business into Snazzy's specialty business. They claimed that this consolidation would reduce costs because it would yield savings of 50% in operating

expenses. In deposition, a senior executive admitted that the 50% figure was merely an unsupported assumption. Staff concluded that the parties' failure to provide sufficient evidence in support of the claim made the efficiency claim unverifiable and therefore not cognizable.

The Agencies may accord less significance to shortcomings in the documentation of claimed efficiencies when the weight of evidence suggests that merger-specific efficiencies appear to be significant and likely to be achieved.

**Genzyme–Novazyme (FTC 2004)** Genzyme Corp. acquired Novazyme Pharmaceuticals, Inc., combining the world's only firms engaged in developing the first enzyme replacement therapy ("ERT") to treat Pompe disease, a rare, fatal disease that affects about 10,000 people worldwide. Whether either firm's Pompe drug would make it to market was not certain, but the acquisition left Genzyme as the only firm engaged in developing Pompe ERT treatments. Genzyme asserted that, even without competition from Novazyme, it had the incentive to bring its Pompe product to market in the fastest possible time frame.

Genzyme also asserted that the acquisition had resulted in significant efficiencies. Genzyme claimed that each firm had unique skills and expertise, and that, by combining, the merged firm could accelerate development of Genzyme's and Novazyme's Pompe drugs. Genzyme asserted that it possessed certain unique capabilities and technologies that it was applying to Novazyme's Pompe drug. The Commission voted to close the investigation without challenging the transaction due, in part, to the evidence supporting the claim that the merger would accelerate development of the drug.

The best way to substantiate an efficiency claim is to demonstrate that similar efficiencies were achieved in the recent past from similar actions. Documentation must be based on appropriate methods and realistic assumptions, and ideally would be grounded on actual experience. For example, a firm that recently combined its own distribution centers, or consolidated distribution centers after a recent merger, could use its actual cost savings experiences in those instances as a

basis for, and to substantiate claims made about, efficiency claims arising from combining distribution centers after a proposed merger.

If the parties cannot point to similar efficiencies achieved in the recent past, they should use the best information available to substantiate their efficiency claims. For example, the parties might do an internal study and analysis of expected efficiencies using recent cost records and other pertinent objective data. In addition, some parties have found outside consultants helpful in substantiating efficiency claims.

The Agencies may verify and accept part of an efficiency claim. For example, an acquiring firm might estimate a particular efficiency by assuming that all of the acquired firm's customers and sales will transfer to the merged entity when experience suggests that customers and sales are not likely to transfer completely. Or, a party may estimate the dollar value of a particular efficiency using a discount rate that is significantly different from the discount rate it normally uses, without any justification for the difference. In such cases, the differences between the parties' efficiencies estimates and ones using the more supported assumptions are not verifiable, and those portions of the efficiency claims are unlikely to be credited.

**A-1 Goods-Bingo (Disguised FTC Matter)** In a proposed merger of consumer products companies, A-1 Goods, Inc. and Bingo Co., the parties claimed cost savings of several million dollars from a reduction in the sales force and a combining of certain manufacturing facilities. Commission staff concluded that the parties' estimates were exaggerated. Staff credited some, but not the entire dollar amount of the claims.

First, the staff considered the sales force reduction. The parties claimed that the merger would permit the post-merger firm to eliminate the equivalent of 90% of one of the party's pre-merger sales force, representing approximately 40% of the combined pre-merger sales employees. For calculating the estimated efficiencies, the parties assumed that the combined post-merger output would be the same as that before the merger. They also assumed that pre-merger levels of marketing and selling support to customers would be maintained. Achieving these efficiencies would require one-time costs approximating

almost 80% of the projected annual cost savings.

These one-time costs derived from severance payments and relocation expenses. Evidence from the parties suggested that the claims were based on aggressive assumptions. For this reason, Commission staff discounted the parties' estimates. Applying more reasonable assumptions, the staff credited most of the parties' claimed cost savings, from which the one-time cost of achieving the efficiencies was subtracted.

Second, the staff considered the consolidation of manufacturing facilities. The parties claimed several million dollars in projected savings from the expected consolidation of certain manufacturing facilities. The parties planned to shut down an A-1 production facility and consolidate its output into a Bingo plant. The post-merger output rate was to be the same as on a combined, pre-merger basis, but with fewer people needed to run the consolidated manufacturing operations. To maintain the same rate of pre-merger output, the parties envisioned that 70% of A-1's manufacturing equipment in the shut-down facility would be moved to unused space at the Bingo facility, adding to the overall manufacturing capacity of that facility. In addition, a number of A-1 employees would be relocated to the Bingo plant, while other employees would be let go. Certain retooling and capital expenditures related to integrating manufacturing operations would have to be incurred.

The parties claimed that no arrangement other than the proposed merger would generate the efficiencies claimed. They contended that any non-merger arrangement would raise insurmountable issues of control, allocation of savings between owners, transfer pricing problems, and issues dealing with the sharing of proprietary knowledge. To buttress this point, the parties presented Commission staff with evidence that the parties considered entering into contract manufacturing arrangements, joint ventures, and other internal measures to save money on production, but concluded that these were impractical or could not bring about the desired level of efficiencies. Based in part on this evidence, Commission staff concluded that

the claimed efficiencies were merger-specific and cognizable.

The Commission ultimately decided not to challenge the merger on the grounds that it posed no substantial threat to competition, irrespective of any efficiency claims.

When parties to a merger base an efficiency claim on past experience, the Agencies examine whether the experience is indicative of what is likely to occur with the merger. If the experience was far out of the ordinary (e.g., during bankruptcy, a worker's strike, drought, or war), the Agencies may not credit the claims.

## Sufficiency of Efficiencies

As noted in section 4 of the Guidelines, the Agencies seek to determine “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.” Within the integrated analysis framework for evaluating competitive effects, “efficiencies are most likely to make a difference in merger analysis when the likely adverse competitive effects, absent the efficiencies, are not great.” Efficiencies are a significant factor in the Agencies’ decisions not to challenge some mergers that otherwise are likely to have, at most, only slight anticompetitive effects.

**Toppan–DuPont (DOJ 2005)** Photomasks are the masters from which integrated circuits are produced. Toppan Printing Co., Ltd. was a Japanese company that had recently begun competing in the United States. Toppan was proposing to acquire DuPont Photomasks, Inc., which was one of its three competitors for U.S. sales of the highest technology photomasks. The Department found that competition was best modeled as an auction process, with each auction essentially a separate relevant market. The Department’s economists used a formal auction model to estimate the likely price effects of the transaction. This exercise indicated that, even without any efficiencies, the acquisition most likely would lead to, at most, only small price increases. Incorporating the portion of the claimed efficiencies the Department determined to be merger-specific and cognizable indicated that the transaction would not lessen the welfare of U.S. customers

under the assumptions considered most plausible. Accordingly, the Department did not challenge the merger.

**PayPal–eBay (DOJ 2002)** PayPal, Inc. and eBay, Inc. provided competing person-to-person payment systems used largely to complete transactions following eBay auctions. Even though the person-to-person payment systems offered advantages over the other means of payment, the Department decided not to challenge eBay’s acquisition of Pay Pal principally because other means of payment substantially constrained eBay’s ability to increase fees after the acquisition. Efficiencies to be gained by integrating PayPal with eBay were also a factor in the Department’s analysis. Integrating the two would make transactions more convenient for eBay buyers and also improve the detection of fraud by combining the information that had been separately amassed by the two companies.

**DirecTV–Dish Network (DOJ 2002)** DirecTV Enterprises Inc. was owned by Hughes Electronics Corp., which was owned by General Motors Corp. DirecTV operated one of two direct broadcast satellite (“DBS”) services in the United States. EchoStar Communications Corp., which operated the other DBS service, Dish Network, proposed to acquire Hughes. Economists working for the parties and economists in the Department both engaged in extensive modeling of the competition between the two DBS services and with cable television operators with which the DBS services competed in providing “multichannel video programming distribution.”

The Department concluded that this modeling supported the conclusion that the acquisition would substantially harm consumers and filed suit to prevent its consummation. Shortly thereafter, the acquisition was abandoned. The Department’s modeling indicated that efficiencies claimed by the parties would be insufficient to prevent the merger from creating significant anticompetitive effects.

One source of claimed efficiencies was the reduction of programming costs. Incorporating the Department’s best estimate of those reductions into the modeling only

slightly reduced the likely price increase from the proposed acquisition. A second source of claimed efficiencies was a quality improvement; by combining the two services, it would be possible to offer local programming in many additional metropolitan areas with the available satellite bandwidth. The Department's analysis indicated that the consumer benefits from this quality improvement were far from sufficient to prevent the merger from harming consumers and also would be realized without the merger.

***Enerco-KleenBurn (Disguised FTC Matter)***

Enerco and KleenBurn Refinery, Inc. were gasoline refining and distribution firms that proposed to merge. The transaction involved the markets for bulk supply of conventional gasoline in the "Plains Corridor" and for bulk supply of reformulated gasoline ("RFG") in Metropolis. The parties claimed that the transaction would create substantial efficiencies in refinery and pipeline operations.

Enerco asserted that the KleenBurn refinery could, with relative ease, be integrated into Enerco's nearby refinery, which, in turn, would enable Enerco to generate substantial operational efficiencies by enhancing its ability to (1) coordinate the acquisition of crude oil and lower raw material costs; (2) align more efficiently the production processes of various light petroleum products, including conventional gasoline and RFG; (3) increase available storage to permit Enerco to manufacture and sell more gasoline grades; and (4) better plan and consolidate shipments. Commission staff concluded that at least some portion of the parties' efficiency claims were likely to be cognizable.

Enerco documents showed that it based a large portion of its bid on the value of expected synergies. When the expected synergies were counted, the refinery's value was estimated to increase four-fold over the KleenBurn refinery's stand-alone value. This estimated increase was about the same amount that Enerco offered to pay. Enerco's willingness to pay upfront for these synergies lent credence to its claims.

Enerco contended that the savings from these efficiencies would enable it to continue

operating the KleenBurn refinery beyond the date that the refinery otherwise would have been expected to be decommissioned. Enerco further claimed that its previous efforts to meet new low-sulphur gasoline standards would enable KleenBurn to comply with those standards sooner and at lower cost. Thus, Enerco could, with less investment, maintain or exceed Kleenburn's historical production levels. Enerco financial analyses confirmed that it planned to run the KleenBurn refinery at or above current output rates.

Enerco asserted that it would connect the KleenBurn refinery to Enerco's Metropolis-area refineries, and reallocate Kleenburn barrels for sale in neighboring states, while reserving Metropolis-area barrels for shipment west. The Plains Feeder Line Pipeline tariff was substantially higher from the KleenBurn facility than from Enerco's refineries, and Enerco claimed that it would save over \$1 million in variable delivery costs.

Enerco planned to ship several million barrels per day of combined refinery output into the Plains Corridor on Plains Feeder Line under this lower tariff. Because most bulk conventional gasoline shipped into the Plains Corridor was purchased FOB refinery gate in Metropolis, the tariff savings would, in most instances, inure directly to customers in the Plains Corridor. These customers had the existing shipping rights on Plains Corridor gasoline during the summer months when the pipeline is frequently prorated.

The Commission ultimately decided not to challenge the merger on the grounds that it posed no substantial threat to competition, irrespective of any efficiency claims.

## **"Out-of-Market" Efficiencies**

In some cases, merger efficiencies are "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)." Guidelines § 4 at n.36. If out-of-market efficiencies are not inextricably linked to the relevant market, the Agencies often find an acceptable narrowly tailored remedy that preserves the efficiencies while preventing

anticompetitive effects.

**Genzyme–Ilex (FTC 2004)** Genzyme Corp. proposed to acquire Ilex Oncology, Inc. Ilex had one FDA-approved product, Campath, an oncology product used off-label in the solid organ transplant field. Genzyme did not compete with Campath in oncology but had a drug that was Campath’s closest competitor in the market for solid organ transplant acute therapy drugs. The acquisition would have eliminated direct competition between Genzyme’s market-leading drug, Thymoglobulin, and Campath.

The companies asserted that the transaction would yield significant efficiencies for oncology treatment and development. The primary efficiency encompassed several diagnostic tests that could aid the expansion of Campath for treatments in leukemia and other oncology and immune-related diseases by identifying patients who are most likely to benefit from Campath treatment.

After investigation and analysis of this efficiency, Commission staff concurred that Genzyme likely would improve Campath’s quality and breadth of treatment in oncology. The companies did not demonstrate, however, that credible efficiencies would result in the solid transplant organ area. In light of the efficiencies in oncology and immune-related disease areas, the Commission tailored a remedy to alleviate the competitive concern in the market for solid organ transplant drugs while allowing the merged company to realize the potential efficiencies in oncology and other areas. In a consent order, the Commission required Genzyme, among other things, to divest contractual rights to Campath for use in solid organ transplant.

Inextricably linked out-of-market efficiencies, however, can cause the Agencies, in their discretion, not to challenge mergers that would be challenged absent the efficiencies. This circumstance may arise, for example, if a merger presents large procompetitive benefits in a large market and a small anticompetitive problem in another, smaller market.

### ***Gai’s–United States Bakery (DOJ 1996)***

United States Bakery and Gai’s Seattle French Bakery Co. proposed a joint venture, which the Department viewed as a merger. The two companies sold bread products in competition with one another in the Pacific Northwest, and the Department was concerned about the competitive effects of the transaction on restaurants and institutional accounts, particularly fast food restaurants, because the two companies accounted for more than 90% of the bread sales to such customers. Supplying such customers required a higher level of service (e.g., much more frequent deliveries) than supplying retail stores, and few bakeries provided that level of service. Without entirely resolving issues relating to competitive effects and entry, the Department decided not to challenge the transaction, concluding that the efficiencies likely would cause the merger to benefit the merged firm’s customers as a whole.

Critical to the Department’s assessment was the fact that the merger-specific efficiencies would benefit all customers, and the restaurant and institutional customers potentially of concern accounted for only about 20% of the companies’ sales. The two groups of customers were buying essentially the same products, produced with the same facilities. Because it was otherwise impossible to preserve the efficiency benefits to all customers, the Department did not challenge the merger.

## **Fixed-Cost Savings**

Merger-specific, cognizable efficiencies are most likely to make a difference in the Agencies’ enforcement decisions when the efficiencies can be expected to result in direct, short-term, procompetitive price effects. Economic analysis teaches that price reductions are expected when efficiencies reduce the merged firm’s marginal costs, i.e., costs associated with producing one additional unit of each of its products. By contrast, reductions in fixed costs—costs that do not change in the short-run with changes in output rates—typically are not expected to lead to immediate price effects and hence to benefit consumers in the short term. Instead, the immediate benefits of lower fixed costs (e.g., most

reductions in overhead, management, or administrative costs) usually accrue to firm profits.

Exceptions to this general rule, however, exist. For example, under certain market or sales circumstances, fixed-cost savings may result in lower prices in the short term. Selling prices that are determined on a “cost-plus basis” (e.g., cost-based contracts) can be influenced by changes in fixed costs. Contractual arrangements also may allow fixed-cost savings to be passed through.

The Agencies consider merger-specific, cognizable reductions in fixed costs, even if they cannot be expected to result in direct, short-term, procompetitive price effects because consumers may benefit from them over the longer term even if not immediately. As with any other type of efficiency, reductions in fixed costs must be substantiated by the parties and verified by reasonable means.

***Verizon-MCI; SBC-AT&T (DOJ 2005)*** In 2005 Verizon Communications, Inc. and SBC Communications, Inc., the nation’s two largest regional Bell operating companies, sought to acquire MCI Inc. and AT&T Corp., the nation’s two largest inter-exchange (long distance) and competitive local exchange (local service) carriers. To a significant extent, the pairs of firms proposing to merge were engaged in complementary activities. Verizon and SBC dominated local exchange and access service in their respective territories but had limited long-haul networks and only moderate success with large enterprise customers. MCI and AT&T had extensive long-haul networks and were the leading providers of telecommunications services to large businesses. The Department concluded that the proposed mergers would substantially lessen competition only in the facilities-based local private line services to many buildings for which the merging pairs of firms owned the only lines.

The Department investigated the effects of the transactions on competition in residential local and long distance telephone service, internet backbone services, and a variety of other telecommunications services. A significant factor in the Department’s decision not to challenge the proposed mergers was that the transactions were likely to produce

substantial efficiencies. The merging inter-exchange carriers, AT&T and MCI, sell advanced retail products to enterprise customers and generally have relied on local exchange carriers, such as their merger partners, for customer access. The merging local exchange carriers, SBC and Verizon, similarly have relied on inter-exchange carriers in selling advanced retail products to multi-region and out-of-region enterprises. The merger allowed each of the firms to provide these products at a lower cost to the customers by making inputs and complementary products available at a lower cost.

***IMC Global-Western Ag (DOJ 1997)*** IMC Global Inc. proposed to acquire Western Ag-Minerals Co. The two companies operated the only potash mines and processing facilities in the Carlsbad region of New Mexico, which contains the only known reserves of langbeinite in the Western Hemisphere. Langbeinite is a mineral used to produce an agricultural fertilizer supplying magnesium, potassium, and sulfur, which are important in the production of certain crops and in correcting deficiencies in certain soils. Critically, langbeinite supplies these important elements without also containing significant amounts of chlorine.

It is possible to produce a fertilizer with the same qualities from other minerals, but the Department’s preliminary analysis indicated that a single owner of both langbeinite mines would find it optimal to raise prices significantly in the absence of any efficiencies from combining the mines. The Department, nevertheless, decided not to challenge the merger because of substantial merger-specific efficiencies. The parties provided the Department with studies indicating that combining the two mining and processing operations would result in substantial efficiencies that could be achieved in no other way.

To verify these claims, the Department hired a consulting mining engineer to conduct an independent study of both the benefits of combining the two operations and alternative means of achieving particular efficiencies. The independent study concluded that the parties’ efficiency claims were conservative. Among

other things, the study concluded that IMC would avoid substantial costs by transporting the Western-Ag ore through its mine to its processing plant at the mine mouth. Western-Ag had been shipping the ore to its off-site processing plant. The study found additional efficiencies in combining the mining and processing of the other important mineral, sylvite, found on the adjoining IMC and Western-Ag properties.

The evidence ultimately indicated that the annual dollar savings from the merger would be as much as ten times the likely annual increase in customer costs from the merger, absent any efficiencies. Because the magnitude of the merger-specific cost savings dwarfed any potential effects exclusive of factoring in these savings, the Department did not separately evaluate the extent to which the efficiencies were likely to affect fixed costs versus variable costs.

## Supporting Documentation

As with the Guidelines, the Commentary addresses how the Agencies assess the likely competitive effects of horizontal mergers but not the assignment of burdens of proof or burdens of coming forward with evidence. In litigation, the parties have the burden on any efficiencies claim (Guidelines § 0.1 n.5), and it is to their advantage to present efficiency claims (including supporting documents and data) to the reviewing Agency as early as possible. The Agencies, for their part, make a serious effort to assess each efficiency claim made. Early receipt of documentation relating to the nature and size of efficiencies allows the Agencies to factor fully the cognizable efficiencies into an integrated analysis of the likely overall competitive effects of the merger. In particular, the parties may want to highlight significant documents that support their claims and to make their experts (for example, accountants, engineers, or economists) available as early as feasible to discuss specifics regarding efficiencies. Doing so helps underscore the seriousness of efficiency claims and assists the Agencies in according the appropriate weight to efficiency considerations in assessing the mergers before them.

The Agencies recognize that, in many cases, substantiation of efficiency claims requires the

collection, compilation, and analysis of competitively significant data and information from both of the merging parties. The sharing between rivals of proprietary information having potential competitive significance necessarily raises concerns about violations of section 1 of the Sherman Act, 15 U.S.C. § 1, and section 5 of the Federal Trade Commission Act, 15 U.S.C. § 45. Furthermore, the Hart-Scott-Rodino Act, 15 U.S.C. § 18a, prohibits changes in beneficial ownership prior to the end of the HSR waiting period.

Although prudent firms are cognizant of so-called “gun jumping” concerns, they can adopt appropriate safeguards to enable them to collect the information necessary to substantiate their efficiency claims. Information exchanges reasonably related to due diligence and integration planning that are accompanied by safeguards that prevent any other pre-merger use of that information are unlikely to be unlawful. The Agencies are mindful of the parties’ need to provide sensitive efficiencies-related information and, in that vein, the Agencies note that the antitrust laws are flexible enough to allow the parties to adopt reasonable means to achieve that end lawfully.

# Referenced Agency Materials

*Horizontal Merger Guidelines* (jointly issued April 2, 1992 and revised April 8, 1997), available at <http://www.usdoj.gov/atr/public/guidelines/hmg.pdf> and <http://www.ftc.gov/bc/docs/horizmer.htm>

*Horizontal Merger Investigation Data, Fiscal Years 1996–2003* (issued by the Commission February 2, 2004 and revised August 31, 2004), available at <http://www.ftc.gov/opa/2004/08/fyi0450.htm>

*Merger Challenges Data, Fiscal Years 1999–2003* (jointly issued December 18, 2003), available at <http://www.ftc.gov/os/2003/12/mdp.pdf> and <http://www.usdoj.gov/atr/public/201898.pdf>

Merger Enforcement Workshop proceedings, including transcripts, presentations, submitted papers, and public comments are all available at <http://www.ftc.gov/bc/mergerenforce/index.html> and <http://www.usdoj.gov/atr/public/workshops/mewagenda2.htm>

Merger Review Process Initiative (issued by the Department October 12, 2001 and revised August 4, 2004), available at <http://www.usdoj.gov/atr/public/9300.pdf>

Reforms to the Merger Review Process at the Commission (issued February 16, 2006), available at <http://www.ftc.gov/os/2006/02/mergerreviewprocess.pdf>



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