22.1. INTRODUCTION

Merger analysis has generally developed with a focus on mergers among sellers and whether a merger will create or enhance seller market power. The issue of buyer power, however, can be important in many merger cases.

- First, some mergers will combine two significant purchasers of a product or service. In such cases, the competitive analysis of the merger for those products or services assesses (1) whether the merger creates or enhances buyer power sufficiently to raise competitive concerns, and (2) whether competitive concerns are offset due to efficiencies resulting from the combination.
- Second, some seller mergers involve markets where customers have some level of buyer power. In such cases, part of the competitive assessment of the merger may be to determine whether the presence of buyer power will constrain the potential exercise of seller market power following the proposed merger.

In this chapter, we address both issues, including providing a summary of the relevant literature. In section 22.2, we discuss the competitive analysis of mergers among buyers. We describe different ways of defining buyer power (the standard textbook case of monopsony power or a broader notion of buyer power) and how these definitions affect the competitive analysis of buyer mergers. We then discuss when such mergers may create competitive concerns or alternatively result in procompetitive benefits. In section 22.3, we outline the role of buyer power in the competitive analysis of mergers among sellers. We detail the conditions under which buyer power might offset potential competitive
concerns from a merger among sellers. In both sections, we stress the limitations on the predictions that can be derived entirely from theoretical analyses and thus the need for empirical analysis.

22.2. ASSESSMENT OF BUYER POWER IN MERGERS BETWEEN BUYERS

Mergers of buyers have historically received far less attention than mergers among sellers, although that has been changing in recent years.¹

A key question in evaluating buyer mergers is whether buy-side merger analysis should properly be a "mirror image" of sell-side merger analysis. The answer to this question in part depends on how one conceptualizes the "buyer power" that may be created by a buy-side merger.² If one limits the definition of buyer power to the standard economic textbook case of monopsony power, then as we discuss in section 22.2.1, buyer power is precisely the mirror image of seller power—where "seller power" is defined as the ability to set a single price (to all consumers) above competitive levels—and thus buyer mergers should be evaluated in the same way as standard seller mergers.

However, in many situations encountered in antitrust analysis, the standard economic textbook concept of monopsony power may be too narrow, and thus a broader definition of buyer power—which takes into account negotiations between buyers and sellers, neither of whom are price takers—is needed. In such cases, the definition of buyer power relates to the ability to extract additional surplus from the negotiated outcomes. In such cases, the creation of (or an increase in) buyer power can create either competitive harm (less efficient contractual terms and lower output) or competitive benefits (more efficient contractual terms and higher output).³

¹ Two proposed acquisitions that raised monopsony concerns were Aetna's acquisition of Prudential's health insurance assets and Cargill's acquisition of Continental's grain-trading division (both in 1999). Both transactions were approved by the DOJ's Antitrust Division subject to divestitures that addressed competitive concerns. See Schwartz (1999) for a discussion of those mergers. Monopsony concerns also arose in UnitedHealth Group's acquisition of Oxford Health Plans in 2004 and of PacifiCare in 2005. See Capps (2009) for a discussion of buyer power in health plan mergers. For other recent economic analyses of buyer mergers, see, e.g., Raskovich (2003), Adilov and Alexander (2006), Fauli-Oller and Bru (2008), Carstensen (2008, 2010), Inderst and Shaffer (2008), Blair (2010), and Carlton and Israel (2011).

² Chen (2008) surveys various definitions of buyer power and Chen (2007) discusses how the welfare implications of buyer power depend on how the term is defined.

³ The fact that mergers in which neither side is a price taker raise complex economic issues (related to the mergers; effect on the efficiency of outcomes from negotiation) is not unique to mergers of buyers. The same issue can arise in mergers of sellers. As with mergers of buyers, theoretically, an increase in seller power from a merger of sellers could result in negotiated outcomes that result in increased, decreased, or unchanged output.
22.2.1. Monopsony Power: Buyer Power with Competitive Supply

One way to define buyer power is simply as classic monopsony power, or “the power to profitably reduce the price of an input below the competitive level.”\(^4\) A buyer has monopsony power if, when facing an upward-sloping supply curve, it has the incentive and ability to restrict output to pay lower prices. If one were to equate buyer power and monopsony power, the question of how to treat buyer power would be straightforward: In a manner exactly symmetric to that for monopoly power held by suppliers, monopsony power is inherently inefficient and welfare reducing.\(^5\)

The potential for buyers to possess monopsony power is not just a theoretical concern. Empirical studies claim to have documented monopsony power faced by dairy farmers (Cotterill, Rabinowitz, and Tian 2003), teachers (Ransom and Sims 2010; Sohn 2008), nurses (Staiger, Spetz, and Phibbs 2010), and athletes.\(^6\)

However, some studies fail to find significant evidence of monopsony power.\(^7\) Economic theory helps to explain the limitations on monopsony power that may generate this result, at least over the longer term. In particular, a reasonable supposition is that for many industries, supply elasticities are near infinite, at least in the long term. If powerful buyers attempt to reduce their demand to drive down prices, capital and labor will flow out of the industry over time. This yields the precise analog of situations in which demand elasticities are near infinite, leaving no scope for the anticompetitive exercise of market power. However, a key distinction is that, although there are certainly many cases where demand elasticities are not infinite—substitution away from “necessity” products is surely limited—supply elasticities are much more likely to be very large, at least over the long term. As a result, there are likely to be more situations in which monopoly power is a serious concern than there are for monopsony power.

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\(^5\) See Carlton and Perloff (2005, p. 108), who observe: “The monopsony deadweight loss triangle (Figure 4.5) is analogous to the deadweight loss that results from monopoly (Figure 4.2a).” See also Blair and Harrison (2010, p. 41): “In the same sense that a monopolist has market power in selling its output, the monopsonist has buying power in purchasing some of its input requirements. The economic objections to monopoly and monopsony are similar: The exercise of market power reduces social welfare.” For more discussion of the symmetry between monopoly power and monopsony power, see Noll (2005, p. 591).

\(^6\) See Blair and Romano (1997), who examine monopsony in college athletics, and Twomey and Monks (2011), who examine monopsony in Major League Soccer. For more examples of the possible exercise of monopsony power, see Blair and Harrison (2010, chapters 1 and 8–10), who discuss bid rigging in antique auctions, the activities of Salomon Brothers at Treasury auctions, the efforts of restaurants in Boston vs. American Express, collusion among elite colleges in financial aid decisions, collusion by baseball owners in the free agent market, effects of NCAA rules on coaches’ salaries and players’ scholarships, and monopsony power issues in agriculture and healthcare markets.

\(^7\) See, e.g., Boal (2009), who rejects the monopsony model of the market for schoolteachers in South Carolina and Texas; Medcalfe and Thornton (2006), who conclude that the effect of monopsony on teachers’ salaries in Georgia is very small; and Hirsch and Schumacher (1995, 2005), who conclude that monopsony power is not an important determinant of the wages of nurses.
In addition, although a merger of buyers that creates or increases monopsony power for the merged firm may raise competitive concerns, as with mergers among sellers, this effect may be offset, either partially or completely, by the realization of merger-specific efficiencies (Blair 2010). Importantly though, the ability for firms to obtain lower input prices via the exercise of monopsony power is not itself an efficiency. Arguments to the contrary may be premised on a belief that the lower input prices will translate into lower downstream prices. Such a claim is belied by the fact that a firm with monopsony power obtains lower prices by reducing the quantity of inputs that it purchases and thus it produces less output. Hence, given a downward-sloping demand curve in the downstream market, downstream prices must rise (and total welfare fall) due to the exercise of monopsony power.\(^8\)

The US Merger Guidelines correctly reflect the anticompetitive nature of monopsony power (DOJ and FTC 2010, Section 12). In some cases, the potential creation of monopsony power has led US Department of Justice (DOJ) or the Federal Trade Commission (FTC) to challenge a merger. For example, Schwartz (1999) explains that consideration of the interaction among a variety of factors, including physician's switching costs, price discrimination, postmerger market shares, and the merging firm's market shares across particular physicians, led the DOJ to conclude that the acquisition of Prudential by Aetna would depress the price significantly to a substantial number of physicians in the Houston and Dallas areas. Again, however, we stress the important distinction between the short run and the long run. In the short run, supply elasticities may be relatively low and there may be scope for monopsony power; in the long run, it seems likely that some physicians in the Houston and Dallas area would move out and fewer people would choose to become physicians in these areas—the supply elasticities would become quite large—thus offsetting any monopsony power.

As another example, the FTC has frequently challenged mergers among owners of natural gas pipeline gathering systems in cases where the merging firms are the only two or two of a small number of options by which owners of wells producing natural gas can get their product to consumers. Typically these natural gas gathering systems connect to larger pipeline systems and the natural gas is sold at a gathering point or “hub” that is relatively elastically supplied. Thus, although such mergers are likely to have little impact on downstream prices of natural gas, the potential for an exercise of monopsony power could result in lower prices received by natural gas producers and, potentially, an inefficiently low supply of natural gas in the affected areas.\(^9\)

\(^8\) In fact, even if the demand curve facing the firm were perfectly elastic so that the output price does not rise, there could still be an economic inefficiency since the firm would produce too little output. Even if other firms were to make up the reduction in output, there could still be an economic inefficiency if the production by a relatively low cost, inframarginal firm were replaced by more production from higher cost, marginal producers.

\(^9\) For examples of such cases, see Conoco Inc. and Phillips Petroleum Company (2002), File No. 021 0040, Docket No. C-4058, and Chevron Corporation, and Texaco Inc (2001), File No. 011 0011, Docket No. C-4033. (Some of the authors have worked on these transactions.)
22.2.2. Buyer Power Where Suppliers Are Not Price Takers

22.2.2.1. Broader Definition of Buyer Power

The monopsony model provides a very narrow description of "buyer power." It is based on the restrictive assumptions that a buyer pays the same price per unit for all units of the input and that the amount paid per unit increases (according to the supply curve of the sellers who themselves have no market power as sellers) if more units are purchased. These assumptions are widely violated, particularly in the more sophisticated contractual negotiations that are often associated with input purchases where both buyers and sellers have some degree of market power. For example, the monopsony model assumptions are violated by the presence of (non-cost-based) volume discounts or, more generally, nonlinear pricing terms.

In this more general, nonmonopsony case, the buyer and seller (neither of whom is a price taker) can be thought of as engaging in a bilateral bargaining game, in which they negotiate jointly over price and quantity (and possibly other terms), unlike the monopsony model in which the buyer sets the price and the sellers produce according to their marginal cost curves, taking that price as given. Because quantity can be negotiated jointly with price, there is no need for a buyer to be constrained to choose price and quantity combinations on the supply curve, and therefore it is not necessarily the case that the buyer must restrict its input purchases to obtain a lower price.

In this context, we define an increase in buyer power as the ability of a buyer to obtain a greater percentage of the combined surplus created through an agreement with a given supplier via price and nonprice terms. We note that it is possible that the changes that lead to increased buyer power also change total surplus—for example, if more powerful buyers are also able to arrive at more efficient contracts when negotiating with sellers—so that buyers could end up with more surplus even if they capture a smaller share of surplus. We would not call this an increase in buyer power. Rather, our definition of

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10 Chen (2007, p. 22) explains that two important assumptions of the 'textbook' theory of monopsony are that the supply curve is upward sloping (because with a horizontal supply curve the monopsonist would be unable to affect the market price and cause an efficiency loss) and transactions between the monopsonist and the supplier occur at a single unit price (because if "nonlinear" pricing is permitted, the efficiency loss of the monopsony may be reduced or eliminated).

11 Others have also used a similar definition. The American Antitrust Institute (2008, p. 99) concludes that "buyer power is best defined as the ability of a buyer to depress the price it pays a supplier or to induce a supplier to provide more favorable nonprice terms." (This is consistent with our definition if "price" means total revenue.) Chen (2008, p. 247) defines buyer power as "the ability of a buyer to reduce price profitably below a supplier's normal selling price, or more generally the ability to obtain terms of supply more favorable than a supplier's normal terms," where the "normal selling price" is defined as "the supplier's profit-maximizing price in the absence of buyer power." Doyle and Inderst (2007, note 29) distinguish between "countervailing power" and "substantial buyer power," with the latter referring to "the ability (though not necessarily the incentive) to engage in potentially anti-competitive behavior," but the economic literature generally does not follow this suggestion.
an increase in buyer power requires that the buyer captures a greater share of the total surplus. We consider the appropriate treatment of buyer power under antitrust policy in this situation.\textsuperscript{12}

Under this model, a relevant question is whether an increase in buyer power that is due to the merger of two buyers should be treated as a merger-related efficiency and thus procompetitive or a merger-related harm and thus anticompetitive. Because this is a bargaining game, either outcome is possible.

The relevant question for efficiency versus anticompetitive effect is whether contract terms negotiated after the merger lead the buyer and seller to increase the total amount of surplus.\textsuperscript{13} Inderst and Shaffer (2007a) explain that, when negotiations are limited to \textit{linear tariffs}, an increase in buyer power manifests itself in lower prices to final consumers and thus in higher output, which thereby reduces deadweight loss (increases total surplus) and increases consumer surplus. In contrast, when negotiations are not restricted to linear tariffs, a buyer may negotiate higher slotting fees, for example, rather than lower per-unit prices, so that output in the downstream market may not be higher, final consumers may not enjoy lower prices, and there may not be increases in either total or consumer surplus.\textsuperscript{14} In general, if premerger supply was below the competitive level, it is true that a reduction in marginal price at all quantities will lead to greater output and greater surplus,\textsuperscript{15} but the fact that a buyer captures more of the surplus \textit{does not} imply that the relevant marginal price falls, that output is closer to the competitive level, or that total surplus has increased.

The contract negotiations may also lead to other contract terms that, a priori, could be either procompetitive or anticompetitive. Examples of nonprice contractual terms between buyers and suppliers include exclusivity requirements,\textsuperscript{16} supplier contributions for promotional expenses, supplier acceptance of the return of unused or unsold supplies from the buyer, long delays before payment is due, slotting allowances, and listing fees.\textsuperscript{17} Other contractual terms may produce nonlinear pricing schedules, such as volume rebates and most-favored-customer clauses.
Potential Efficiencies from an Increase in Buyer Power

A merger among buyers that creates or increases buyer power could result in efficiencies if buyers and sellers were not able to arrive at an efficient contract (in which marginal price equals marginal cost at the competitive level) premerger, but are able to do so (or at least come closer to doing so) postmerger. This might occur for several reasons. First, the merger could cause a reduction in transactions costs. It may simply be easier for a seller to work out, monitor, and enforce a single, efficient contract with one buyer than it was with multiple buyers. Second, if there is more surplus at stake in negotiations with a larger buyer, there may be a sufficient return to incentivize firms to pay the transactions cost to work out an optimal contract. Third, by combining the information possessed by multiple buyers and reducing the number of buyers that a seller must study, a buyer merger can solve the asymmetric information problems that might otherwise prevent the negotiation of optimal contracts.\textsuperscript{18}

Mergers among buyers may also generate efficiencies in other ways. Dobson and Chakraborty (2008, 336) observe that “retail buyer power may bring benefits to consumers when it spurs supplier competition and efficiency that allow for lower retail prices.” Kirkwood (2012) argues that a buyer merger may be procompetitive even because it allows the merging firms to achieve economies of scale, reduce transaction costs, or avoid duplication of facilities, or because it allows the merging firms to exercise negotiating power in a procompetitive manner by reducing supplier market power and thereby lowering their prices. The theoretical models of Inderst and Wey (2003, 2007, 2011) demonstrate that buyer power can spur dynamic efficiency by inducing suppliers to reduce their marginal costs.

Empirical evidence consistent with (but not necessarily proving) these procompetitive effects from buyer mergers comes from Fee and Thomas (2004), who find that horizontal buyer mergers during the period 1980–97 were followed by a deterioration in their suppliers’ margins, and from Bhattacharyya and Nain (2011), who find that horizontal mergers from the period 1984–2003 were followed by large price declines for the suppliers of the merging firms (as well as by an increased likelihood of a wave of mergers among those suppliers).

More generally, many of the contractual terms discussed above, which might result from negotiations where there is buyer power, can be procompetitive (although as noted below they can also create competitive harm). As the American Antitrust Institute (2008) explains, such contractual terms may generate efficiency benefits by solving free-rider problems, encouraging new investment, facilitating entry into new markets, allowing for different promotional strategies in different markets, achieving economies of scale in distribution or production, alleviating capital market imperfections, and allowing for uniformity and quality standardization.

\textsuperscript{18} Note that analogous arguments could be made in the case of a merger of suppliers. So an alternative statement of our conclusion is that, in markets characterized by bargaining between buyers and sellers, mergers of buyers or suppliers can create efficiencies if they enable the formation of contracts that are closer to the socially optimal ones.
22.2.2.3. Potential Competitive Harm from an Increase in Buyer Power

Competitive harm from an increase in buyer power other than that associated with monopsony power might occur if the new contractual terms result in less total surplus (albeit more for the buyer) than prior to the increase in buyer power. As the American Antitrust Institute (2008) explains, contractual terms negotiated in such contracts may generate negative welfare effects by restricting competition at either the buyer or supplier level. Dobson and Chakraborty (2008, 336) observe that "retail buyer power may harm consumer welfare when it restricts and distorts competition to the extent that it leads to reduced choice, quality, and innovation and/or higher prices for consumers."

Kirkwood (2012) describes five potential ways in which buyer mergers might cause harm to downstream competition. The five potential harms listed by Kirkwood are (1) raising rivals costs; (2) so-called waterbed effects (i.e., the merged firm extracts price cuts or other concessions from suppliers, who react by increasing prices to other buyers, which in turn allows the merged firm to raise its own prices in downstream markets); (3) higher downstream concentration as lower prices drive smaller buyers from the market; (4) reduced choice as smaller buyers are driven from the market; and (5) a merged firm that is less efficient due to lower prices. The issues raised by Kirkwood are generally vertical concerns where asymmetries in dealing with upstream suppliers disadvantage some (frequently smaller) downstream firms, which may soften competition and thus result in higher prices downstream. As with many vertical theories, it is not clear when these potential harms might arise or how common they are likely to be. Moreover, identifying instances where such effects may occur is likely to be very difficult.

For example, some of the discussion surrounding the failed AT&T/T-Mobile merger expressed concern that the combined firm—together with Verizon Wireless—would exert so much control over upstream wireless handset manufacturers that other wireless carriers, such as Sprint, would be disadvantaged. Of course, it is also possible that upstream handset manufacturers would have an increased incentive to work with smaller carriers such as Sprint in order to gain a more advantageous negotiating position vis-à-vis all wireless carriers and thus to offset any merger-related increase in buyer power. Hence, this example stresses the importance of evaluating such buyer power effects via the lens of bargaining theory and the need for empirical analysis to resolve these competing theories. (The authors worked on this transaction for ATT and T-Mobile.)

Kirkwood (2012) also argues that buyer mergers can cause harm to upstream competition in several ways. The potential harms included (1) reduced innovation upstream as suppliers have lower profits; (2) reduced product variety as suppliers reduce variety due to lower profits; (3) creation of upstream monopsony as the buyer concentrates its purchases in one supplier; (4) possible creation of future monopsony power if the supplier's selling power is reduced; and (5) coordinated behavior among suppliers in response to the exercise of buyer power. The evidence on the first two points is mixed. Peters (2000, p. 13) examines the German automobile industry and finds that "buyers' pressure on input prices reduces suppliers' innovation expenditures and their incentive to develop new products." However, Dobson and Chakraborty (2008) note that there is little evidence that consumers have been harmed due to buyer mergers with respect to innovation in the UK groceries market. Inderst and Wey (2011) analyze a bargaining model in which the presence of a large buyer spurs a supplier to invest in lowering its marginal cost. Inderst and Shaffer (2007b) and Chen (2006) conduct theoretical analyses of the effect of buyer power on product variety, and both find a welfare trade-off between lower consumer prices and reduced product diversity. However, Dobson and Chakraborty (2008) observe that there is little
Although most of the theories described thus far describe harms that may arise if powerful buyers use their power to the detriment of upstream suppliers, an alternative theory may be that powerful buyers may actually facilitate upstream market power, perhaps via upstream coordinated behavior. Consider an example. Imagine that a large buyer agrees not to buy low-priced products from entrants and thereby limits entry into an industry. As a result, the prices of those products are higher than they would otherwise be because the upstream industry participants enjoy some protection from entry. The large buyer is "paid off" for its efforts by being offered a low price for the products while the large buyer's rivals must pay the higher price. A closely related example may occur if there are powerful buyers in a standard setting organization (see, e.g., Gilbert 2011). Such buyers may be able to tell specific suppliers that they will support their preferred standard as long as those suppliers agree to provide products using that standard to the buyer at a low price, while withholding them or charging higher prices to other buyers including future entrants into the market.21

22.2.2.4. Approach Taken in the US Merger Guidelines

We have argued that "buyer power" should not be limited to classic monopsony power, but also should include negotiating power over price and nonprice contractual terms with suppliers (in situations where contracts are negotiated between buyers and sellers, neither of whom is a price taker). As noted, buyers may exercise negotiating power in both procompetitive and anticompetitive ways. Therefore, an analysis of a buyer merger that fails to take into account how the merger will affect the merged firm's negotiating power misses a potentially important competitive effect.

However, Kirkwood (2012) claims that, in conducting their analyses of buyer mergers, the DOJ and Federal Trade Commission (FTC) consider only the "buyer power as monopsony power" theory. In particular, the DOJ/FTC's Horizontal Merger Guidelines (HMG) adopt an approach to mergers between buyers that largely treats them as the evidence that consumers have been harmed due to buyer mergers with respect to product choice in the UK groceries market.

Kirkwood gives no evidence to establish the third and fourth points.

As to the fifth point, although there is some evidence that powerful buyers can induce coordination among suppliers, we note that such behavior itself would be subject to antitrust review and thus stopping a merger based on such concerns may not be warranted. Raper et al. (2000) examined the US leaf tobacco market, which had cigarette manufacturers with monopsony power on one side of the market and producers, which were organized as a cartel through a marketing quota program administered by the US Department of Agriculture, on the other. The authors note that cigarette manufacturers played a large role in determining national quota levels and argue that the marketing quota program did not protect leaf producers from the exertion of monopsony power by the cigarette manufacturers. More generally, Carstensen (2008) observes that numerous laws attempt to constrain how buyer power can be exercised in agricultural, labor, and retail markets. For a model of bilateral collusion, see Bloch and Ghosal (2000).

21 A similar example occurs when one of the merging buyers is vertically integrated with an upstream supplier, in which case the concern may be that the merged buyer will have increased ability to favor the affiliated upstream supplier to the detriment of other suppliers. For example, if two cable television operators—one of which also owns one or more television networks—merge the concern may be that the combined cable operator will have more ability to favor its affiliated programming to the detriment of competing television networks.
"mirror image" of mergers between sellers, explaining that the DOJ/FTC will use essentially the same framework for evaluating seller mergers when evaluating buyer mergers. The section of the HMG on buyer mergers (Section 12) does not even mention negotiating power (DOJ and FTC 2010, Section 12).\(^\text{22}\)

The economic literature discussed above suggests that, to the extent the HMG fail to consider negotiating power, the DOJ and FTC may be missing a potentially important competitive effect of buyer mergers. The economic literature suggests that it may be important for the DOJ/FTC to distinguish between buyer mergers that simply create monopsony power from those that create negotiating power in addition to monopsony power. There are many more avenues through which the latter type of mergers may be procompetitive. In practice, our experience is that the FTC and DOJ take the broader definition of market power among buyers into account.

Although there is general agreement in the economic literature that negotiating power can be an important competitive effect that should be considered in the evaluation of buyer mergers, there is sharp disagreement as to whether the tools used for evaluating mergers between sellers are inadequate or unsuitable, without some modification, for evaluating mergers between buyers. For example, Carstensen (2004) argues that, compared with sellers, buyers have different incentives to cheat on tacit coordination,\(^\text{23}\) have different opportunities to exercise market power,\(^\text{24}\) and face less deterrence to the exercise of market power. These differences, if significant, would have a number of consequences for the evaluation of buyer mergers.

However, there is not a general consensus as to this point of view—particularly as to whether buyer power is more likely at lower levels of share or concentration than seller power. For example, Schwartz (2004) claims that no systematic economic evidence shows that buyer power concerns arise at lower concentration levels than for seller power. Similarly, Scheelings and Wright (2006, 231) conclude: "There is little serious economic evidence that lower market shares are necessary for buyers to obtain market power." Indeed, some commentators reach the opposite conclusion. For example, Areeda and Hovenkamp (2006, pars. 981b, 982) point out that price fixing by buyers is observed much less frequently than price fixing by sellers, which is suggestive that concentration thresholds should be higher for buyer mergers than for selling mergers.

\(^\text{22}\) Regardless of how one may interpret the HMG, our experience is that the government agencies do consider the effect of increased bargaining power in their economic analysis of some cases.

\(^\text{23}\) According to this argument, the reason why buyers engaged in coordinated monopsony pricing may be less inclined to cheat on the tacitly coordinated price is that, by defecting from the tacitly coordinated price, the cheater pays a higher price for the input and thus is put at a competitive disadvantage relative to the buyers who do not cheat. In contrast, a seller who cheats on tacit coordination charges a lower price than its noncheating competitors charge and thus gains an advantage over them. However, an alternative point of view would be that, in either case, the cheater accepts slightly reduced margins in order to sell substantially more output, increasing total profits.

\(^\text{24}\) According to this argument, a retailer may need to control a smaller percentage of the total number of outlets in order to obtain better terms from suppliers than a seller would need to obtain higher prices from its customers.
The evaluation of buyer mergers may raise additional issues in some special situations. For example, there are numerous laws that attempt to constrain the exercise of buyer power in agricultural, labor, and retail markets. Examples include the Agricultural Marketing Agreements Act, minimum wage laws, and the Robinson-Patman Act. As Carstensen (2008, 275) points out, "Any comprehensive analysis of buyer power and the appropriate type and level of its regulation requires careful attention to the interaction between the kinds of conduct authorized or permitted by such regulations and the kinds of controls that antitrust law can provide" and, "Basically, antitrust is rarely if ever the sole basis on which effective, socially desirable competition policy can rely."

A second special situation concerns buying groups. The DOJ has publicly stated that it will not object to the creation of "buying groups" that account for up to 35% of the total volume of purchases in certain markets. Carstensen (2010a, 8) claims that this market share threshold is too high since buyer power in a buying group setting, just as in a buyer cartel setting, "can exist at lower levels of apparent concentration than is customarily assumed" and, more generally, he contends that "legitimate buying groups create significant competitive risks meriting stricter scrutiny of such organizations than they have traditionally been accorded."

A special type of buying group is the standard-setting organization (see, e.g., Sidak 2009; Gilbert 2011). As Skitol (2005, 728) observes, "Information technology standard-setting processes are one context in which carefully structured concerted buying power could be procompetitive and where clarification of antitrust implications would be highly desirable."

### Need for Empirical Analysis

It is clear that an increase in buyer power as a matter of theory can either have procompetitive or anticompetitive effects. Moreover, the empirical evidence on the effects of buyer concentration is mixed. For example, Bates and Santerre (2008) focus on contracting between health insurers and hospitals and find that higher health insurer concentration is associated with more hospital services, which they interpret as evidence that greater health insurer concentration results in increased "monopoly-busting" power rather than the greater exercise of monopsony power. Kelly and Gosman (2000) find that, as expected, buyer concentration reduces manufacturer profitability, but somewhat surprisingly, they find that this effect primarily occurs when the manufacturers' industry is competitive, not oligopolistic.

Given these uncertainties, how does one determine whether the increase in buyer power is likely to generate efficiencies or competitive harm? That is, how can one determine the likely effect of an increase in buyer power on the marginal price of a product? One can try to look at existing contracts, as well as company documents on how the merger may change those contracts, in order to ask directly whether the increase in buyer power is likely to lead more efficient contracts, including the use of nonlinear contracts that may permit the marginal price to be set at marginal cost. But forming a prediction of contractual changes is likely to be quite difficult in practice. Hence, we recommend strong emphasis on industry-specific empirical evidence (much as we
recommend the use of such evidence in seller mergers). In the remainder of this section, we propose some of the types of tests that might be used.

First and most basically, to the extent that there have been previous mergers between buyers in the industry, we would encourage strong reliance on the outcomes of these mergers. In particular, the effect of previous mergers on industry output (both input purchases and downstream output) is likely to be particularly informative. In particular, evidence of increased industry output that followed previous buyer mergers suggests important efficiencies from such mergers.

Absent previous buyer mergers, alternative sources of variation should be sought to test whether efficiencies are likely to exist as a result of a merger of buyers. One possibility arises from noting the analogy between the efficiencies being discussed here (for horizontal buyer mergers) and efficiencies commonly claimed in vertical mergers. In each case, the argument is that, premerger, buyers and sellers cannot arrive at optimal contracts (with marginal price equal to marginal cost at the competitive output) and that the merger can help to overcome these contractual difficulties. Hence, if there have been previous vertical mergers in the industry, evidence of improved outcomes (e.g., greater industry output) following these mergers supports the claim that there are important contractual inefficiencies to be overcome.

Alternatively, if there are certain buyers who do not participate in all geographies or product lines (or have lower share in certain geographies or product lines), then one could attempt to use cross-sectional variation to measure the effect of variation in the number (or market share) of buyers on marketplace outcomes. In this case, it will be important (and potentially quite difficult) to control for the other differences across regions or products or to use exogenous sources of variation in buyer counts as instruments.

22.3. ROLE OF BUYER POWER IN ASSESSMENT OF SUPPLIER MERGERS

In this section, we consider the argument that powerful buyers may be able to mitigate price effects from a merger of two upstream sellers. As an initial matter, we note that

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25 One example of such empirical analysis can be found in the FTC decision to approve the acquisition of Medco Health Solutions by Express Scripts, Inc. One concern raised in the investigation of this transaction was whether “the combined firm could exercise monopsony power, driving drug dispensing fees so low that they would threaten the important services offered by local pharmacies.” The FTC ultimately rejected this concern, at least in part because “the data reveal that there is little correlation between PBM [pharmacy benefit manager] size and the reimbursement rates paid to retail pharmacies.” (See Statement of the Federal Trade Commission Concerning the Proposed Acquisition of Medco Health by Express Scripts, Inc. FTC File No. 111-0210, April 2, 2012.) (Some of the authors have worked on transactions in this industry.)

26 The economic forces in this section are analogous to those in section 22.2. If buyers and sellers bargain with one another, it need not be the case that mergers of suppliers always reduce total surplus, as
it is far from certain that the presence of powerful buyers will prevent (or even reduce) the price effects that arise from a merger of two suppliers. It is certainly natural to expect that powerful buyers can command lower price levels than other buyers. However, what matters for merger analysis is the change in prices due to the merger. Economic theory indicates that powerful buyers are already likely fully utilizing their power premerger. From this starting point, a merger of suppliers (at least one leading to a significant increase in suppliers’ relative bargaining power) leaves all buyers, even powerful ones, with fewer options to use in negotiations and thus may lead to higher prices even in the presence of very powerful buyers.

Indeed, it is entirely possible that the presence of powerful buyers could lead to larger price effects from a merger of suppliers than would occur in the absence of powerful buyers. Consider the following simple example: There are only two sellers. Absent powerful buyers, the sellers recognize their mutual interdependence and set monopoly prices. Hence, a merger will have no effect. Now suppose powerful buyers can prevent monopoly pricing by playing the sellers off against each other (as is often claimed when buyer power is used as a merger defense). In this case, in the presence of powerful buyers, premerger pricing will be at duopoly levels, while postmerger pricing will be at monopoly levels. Hence, the presence of powerful buyers may increase the adverse pricing effects that flow from a merger. Though this is a specialized example, it illustrates that there is no theoretical necessity that the presence of powerful buyers must always lessen the price effects from a merger.

22.3.1. Conditions Where Power Buyers Can Prevent Anticompetitive Effects from a Supplier Merger

The economic literature as well as the horizontal merger guidelines of the United States, European Commission, the United Kingdom, and Canada, and the International Competition Network (ICN) Merger Guidelines Workbook discuss several necessary and/or sufficient conditions for powerful buyers to prevent anticompetitive effects from a supplier merger. Three necessary conditions appear to be generally agreed upon.

The first condition is that one or more of the buyers must have both the ability and the incentive to constrain an exercise of market power by the merged firm (DOJ and FTC 2010, 27, Section 8; Canada Competition Bureau 2011, 31–32, pars. 8.1–8.2). The “ability” condition is more likely to be satisfied if either (1) buyers can credibly threaten to switch to alternative sources of supply within a reasonable time frame, or (2) buyers can impose costs on the merged firm. In particular, the “ability” condition is more likely to be satisfied if buyers can (a) immediately switch to other suppliers; (b) credibly threaten to self-supply via vertical integration into the upstream market; (c) credibly threaten to induce expansion of one or more of the merged firm’s competitors or to sponsor entry by a potential supplier not currently in the market; (d) refuse to buy (or delay buying) other products produced by the merged firm; (e) refuse to purchase the merged firm’s products in other geographic markets where competitive conditions are different; or (f) impose costs on the merged firm by, for
example, giving its products less favorable retail placement (Competition Bureau Canada 2011, 31, par. 8.1; European Commission 2004, par. 6.5).

Notice that buyer size, by itself, is not on the list. Although size can be important in certain situations—for example, if a large buyer can provide enough sales to one supplier to immunize that supplier from any punishment following deviation from coordination, this can help to undermine the likelihood of coordination—the simple fact that a buyer accounts for a large fraction of the merged firm's sales of a product does not imply that the buyer has negotiating power. Indeed, some of the actions on the list are more likely to be feasible for small buyers (e.g., the ability to immediately switch suppliers), although others are certainly easier for large buyers (e.g., the ability to induce entry by offering the entrant a large volume of business).

27 Notice that some of the actions on the list, when taken by one buyer, are likely to benefit all buyers (e.g., the inducement of entry), while others benefit only certain buyers (e.g., switching suppliers or raising the costs of the merged firm) (Inderst and Shaffer 2007a, 20; UK Competition Commission and Office of Fair Trading 2010, par. 5.9.5).

Buyers must not only have the ability to constrain the merged firm's pricing, they must have the incentive as well. In other words, restraining supplier pricing must be more profitable than simply using whatever buyer power exists to negotiate a share of the merged firm's monopoly profits (Hovenkamp 2005, 544). The "incentive" condition is more likely to be satisfied if (1) buyers cannot pass-through any price increases downstream (ABA Section of Antitrust Law 2008, 219), and (2) actions by one buyer to constrain the exercise of market power by the merged firm (e.g., induce entry) do not produce benefits (e.g., lower price) that spill over to its competitors (European Commission 2004, par. 66). Evidence demonstrating that both parts of the "ability and incentive" condition are satisfied would include prior dealing between buyers and one

efficiencies (e.g., reduced transactions costs) resulting from the merger may lead to sufficiently improved contracts such that total surplus rises. However, in this section, we presuppose that, absent powerful buyers, the merger of sellers would lead to inefficiently higher prices and then ask whether powerful buyers can prevent this effect.

27 Indeed, Raskovich (2003) shows that if a buyer becomes large enough to be pivotal—meaning that without the business of that buyer a seller would shut down some or all of its operations—then the buyer may have less power to extract surplus from a supplier. The reason is that a buyer's ability to affect a supplier's decision about whether to operate or shut down implies that the supplier's fixed costs are at least partially marginal with respect to that buyer, whereas they would be sunk for smaller, nonpivotal buyers. Hence, the supplier effectively "charges" the buyer for some or all of its fixed costs and thus may not be willing to give the buyer as much surplus in negotiation. Put differently, large buyers may have to "cover" more of the fixed costs that are common to serving all buyers.

28 See UK Competition Commission and Office of Fair Trading (2010, par. 5.9.5). However, although excess capacity in the upstream industry facilitates switching by sufficiently small buyers, if there is also a fixed cost to switching, then small buyers will not necessarily find it less costly to switch suppliers than large buyers will. See Inderst and Shaffer (2007, p. 9, note 20).

29 Indeed, the combination of powerful buyers and likely entrants may make for a much more powerful line of argument against merger-related price increases than either condition would make on its own. Powerful buyers may be able to facilitate entry (or at least credibly threaten to do so) that otherwise would not occur, and the existence of likely entrants may give powerful buyers a credible threat to use in negotiations.
or more of the merger parties that show the strength of the former's bargaining power (Competition Bureau Canada 2011, 31, par. 8.2).

As one example, for many mergers involving grocery products, retailers could theoretically provide a constraint on pricing. Sales of many grocery products are heavily concentrated in a relatively small number of retailers (with Walmart often comprising a very high percentage of sales). If several large retailers threatened to discontinue a product following an announced price increase, this might make a price increase unprofitable, where it would not be absent this threat. The question then becomes whether such a threat is credible—that is, would the retailer be able to discontinue the brands at issue without risking losing consumer traffic that would make the price increase unprofitable. The answer will in turn depend on what other options are available (including its own private label), how strong is the brand, and whether the product is an important consumer draw. A retailer might have less credibility threatening to discontinue Coca-Cola, for example, than a brand of dried pasta. Another issue is whether the retailer has the incentive to exercise its buyer power. If the retailer just passes along the price increase (and faces a relatively inelastic demand curve), then it has less incentive to try to maintain lower prices.

Thus, assessing whether retailers might provide an additional competitive constraint in consumer products mergers depends on the specific nature of the products at issue and the primary retailers selling the products. In many cases, the FTC and DOJ do not consider retailers as being able or willing to constrain the postmerger pricing of consumer products manufacturers. However, in some cases, the constraint can be important. For example, if the merger involves one large brand and a small brand, there may be little merger-induced change in incentives for pricing of the large brand but a large change for the small brand. However, a price increase on the small brand may threaten its distribution, and if there are other brands that could replace the small brand, this might make the price increase unprofitable.

The second necessary condition is that buyer negotiating power must not be limited to offsetting the adverse effect of the merger for a strict subset of customers (e.g., only the large buyer), but rather must constrain the merged firm’s pricing either to all buyers or make the potential competitive harm small enough to be offset from the efficiencies from the transaction (DOJ and FTC 2010, 27, Section 8; European Commission 2004, par. 6.7; ICN 2006, 42). This condition is more likely to be satisfied if (1) there are no bilateral negotiations between customers and suppliers, (2) the market price of the input is transparent to all suppliers and customers, or (3) there are enough large buyers that even if only the large buyers survive, competition will remain intense enough to protect consumers (UK Competition Commission and Office of Fair Trading 2010, par. 5.9.7). We note that this condition may conflict with the “no spillover” incentive condition just mentioned.

The third necessary condition is that countervailing buyer power must remain effective following the merger (European Commission 2004, par. 6.7; UK Competition Commission and Office of Fair Trading 2010, par. 5.9.8; ICN 2006, 42). This condition may not be satisfied for a merger of suppliers X and Y if, for example, a buyer who
historically had negotiating power in individual negotiations with X and Y because it could credibly threaten to shift purchases to the other, cannot find an alternative supplier Z to whom it can credibly threaten to shift purchases after the merger (Competition Bureau Canada 2011, 31–32, par. 8.2).

Two other necessary conditions are sometimes mentioned in the literature but are not as widely accepted. One is that there must be no evidence that the merging firms' industry has been historically prone to coordinated behavior (ABA Section of Antitrust Law 2008, 218). The other, advocated by Hovenkamp (1991, 1370), is that the buyer market must be competitive. The latter is especially controversial and, in fact, is inconsistent with the sufficient condition advocated by Campbell (2007) discussed below.

Several sufficient conditions for the presence of powerful buyers to prevent the adverse effects of a merger of suppliers have been suggested in the literature, but none is generally accepted. One possible sufficient condition is if each buyer has the ability and the incentive to constrain an exercise of market power by the merged firm: However, such a condition is likely to be extremely difficult to establish in practice.

Campbell (2007) argues that a sufficient condition for permitting a merger to monopoly on the sell side is when the buy-side market consists of a single firm (i.e., a monopsonist). His argument is that bilateral monopoly yields the efficient (i.e., competitive) output level and thus, given the existence of a monopsony on the buy side, the optimal market structure for the sell side is a monopoly. Note that Campbell's sufficient condition is logically inconsistent with Hovenkamp's necessary condition that the buyer market be competitive. Campbell's argument has been criticized by Baker, Farrell, and Shapiro (2008), who counter that modern economic theory routinely finds that bilateral negotiations often do not yield efficient outcomes.

Another possible sufficient condition is the presence of "disruptive" buyers. Indeed, George Stigler, in his seminal paper "A Theory of Oligopoly," assigns a special role to large buyers for their ability to disrupt a cartel (Stigler 1964). However, one problem with implementing this ideal is in verifying the existence of such buyers prior to merger consummation (large size is sometimes viewed as a proxy) (Dick 1996). In addition, the presence of "disruptive" buyers will not necessarily benefit other buyers, as a disruptive buyer may not have the incentive to curb coordinated seller effects on other buyers.

Even given the necessary and sufficient conditions just identified, some argue that there are problems in incorporating buyer-negotiating power as a mitigating factor in a merger of sellers and thus the role of buyer power in seller mergers should be limited. There is not, however, general agreement on this point and merger guidelines from most antitrust authorities internationally take into account the potential mitigating effect of buyer power. Areeda and Hovenkamp (2006) argue that the measurement of buyer power poses intractable problems except in those circumstances where buyer power is so significant that sellers clearly are forced to behave competitively. Kirkwood (2012) counters that this measurement issue is overstated because it can be addressed by examining
the tactics available to each buyer to exert leverage over its suppliers and investigating whether those tactics would continue to be available and effective after the merger.\textsuperscript{30}

Areeda and Hovenkamp (2006) also argue that powerful buyers may find it more profitable to share in the merged firm’s excess profits than in negotiating a price closer to the competitive level (consistent with the point made above that powerful buyers may actually help to facilitate the upstream exercise of market power).\textsuperscript{31} This possibility is also covered by the “incentive” necessary condition discussed above and thus is part of the analysis of whether buyer power should be considered a mitigating factor.

22.3.2. Effect on Small Buyers

Even if evidence indicates that powerful buyers can protect themselves against merger-related price effects, there may still be effects on smaller buyers (Carlton and Israel 2011, 135). An important question for antitrust policy to grapple with is whether to be concerned about the price increases on smaller buyers—even if those price increases drive the small buyer out of business—as long as large buyers survive and compete.

We propose the following high-level answer to this question: If there exists a reasonably large number of large buyers, such that the downstream market would remain competitive even without price constraints from the smaller buyers, then there is little cause for concern. Although small buyers may be harmed, total (and consumer) surplus will not diminish. However, there is cause for concern if competition among the larger buyers is imperfect, such that an increase in costs for the smaller buyers would create a “pricing umbrella” for larger buyers to raise prices to end consumers.

Although this general framework should serve as the guide to antitrust policy, it may be difficult to determine how competitive the market would be if only large buyers survived. More generally, it is likely to be difficult, as a matter of theory, to determine the extent to which differential cost changes on small and large buyers will affect downstream prices. Hence, appropriate empirical tests are called for. One fruitful test may be to examine situations in which differential cost changes (perhaps due to different production locations, differential effects of exchange rates, etc.) have affected different firms and to study the ultimate effect on downstream prices.

22.3.3. Need for Empirical Analysis

The factors listed above, which determine whether powerful buyers will or will not offset price increases following mergers of suppliers, are not primarily about the size of buyers

\textsuperscript{30} Similarly, the US Horizontal Merger Guidelines explain that the DOJ and FTC will examine the choices available to powerful buyers and how those choices would likely change due to the merger. See DOJ and FTC (2010, p. 27, Section 8).

\textsuperscript{31} Kirkwood (2012) concedes that this may occur in some cases, but in most cases it does not.
(or other easy-to-observe metrics of buyer power) but rather about specific institutional
details with regard to the nature of bargaining between buyers and sellers. As such, the
extent to which powerful buyers can offset potential merger effects may be very hard
to intuit from theoretical analyses or easy-to-observe industry or firm characteristics.
Hence, determining whether the existence of powerful buyers mitigates competitive
harms from a merger of suppliers calls for empirical analysis.

Several types of empirical evidence are likely to be informative about whether merg-
ers of suppliers are or are not likely to have price effects in the presence of powerful
buyers. Most basically, to the extent that there have been previous mergers between
sellers in the industry—at times when the mix of buyers was similar to today—we would
encourage that strong reliance be placed on the outcomes of these mergers, both for
input prices and for downstream prices, as these outcomes capture the relevant aspects
of the underlying game. It may also be informative to study mergers in similar indus-
tries, or in the same industry in other geographic areas, if those alternative markets fea-
ture buyers who are positioned similarly to those in the market in question.

If no relevant prior mergers exist, alternative sources of variation should be sought
to test whether the presence of powerful buyers will mitigate or eliminate merger price
effects. If there are certain sellers who are not active in certain geographies, product
lines, and so on, then the effect of variation in seller count (or market share) on prices
may be highly informative in ascertaining whether buyer power matters. To draw infer-
ences from such cross-sectional variation, however, requires that sufficient controls are
available for the other differences across regions and products or that there are sources
of exogenous variation in seller counts that can be used as instruments.

Other less direct tests of efficiencies from merger may also be possible. For example, if
most buyers (and especially powerful buyers) negotiate with all available suppliers when
making purchase decisions, this indicates that it is helpful to negotiate with the full set of
sellers and thus that supplier mergers are more likely to have significant pricing effects.
However, if many buyers negotiate with only a subset of suppliers, this may indicate that
not all suppliers are required to obtain competitive prices and thus reduce concerns over
merger-related harms.

Alternatively, note that, according to standard bargaining models, changing the num-
ber of sellers matters to the extent that it affects the outside options that are available
to a buyer during negotiations with a given seller. Hence, evidence on other how other
factors that affect buyers’ outside options (e.g., the ability to use substitute production
processes that do not require the input in question or availability of in-house sources of
supply) affect prices may allow the calibration of a model of bargaining effects, which
could then be applied to the specific supplier merger at issue.

32 In addition to the empirical tests described here, it may also be informative to ask buyers for their
views of the merger, although the reasons for the buyers favoring or disfavoring a transaction must be
considered. For example, buyers that are relatively advantaged by the merger might favor the transaction
even if prices rise because their profits will increase.
22.4. Conclusion

Despite the relative lack of attention that is paid to the topic of powerful buyers in the Horizontal Merger Guidelines, the role of powerful buyers raises thorny questions for merger review. Such questions include the extent to which mergers of buyers can lead to more efficient contracts with suppliers versus anticompetitive harm and the extent to which the presence of powerful buyers can offset higher prices from supplier mergers. The difficulties arise from the fact that answers to these questions turn on specific details of underlying bargaining games, which are hard to observe in practice. Hence, answers to these questions will depend on empirical tests applied to the specific industries and firms in question.

In this chapter, we have suggested the types of empirical tests that may be most fruitful. We hope that subsequent literature will continue to analyze these complex issues, develop appropriate empirical tests, discuss methodological issues with the implementation of the tests, and present results for specific mergers in a range of industries.

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