

**THE WATERBED EFFECT:
WHERE BUYING AND SELLING POWER
COME TOGETHER**

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This Paper considers the competition effects of differential buyer power. The central question addressed is whether the increasing buying power of big retail chains can harm competition to the extent that it makes consumers worse off. This possibility runs counter to the often-made presumption that increasing retail-buyer power serves to countervail supplier power, allowing retailers to obtain increased discounts that are then (at least in part) passed on to consumers through lower retail prices. However, with retailers differing in their ability to exercise buyer power, there is the possibility of a “waterbed effect,” whereby better terms for more powerful buyers lead to a worsening of the terms of supply for less powerful buyers, which in turn may lessen downstream (i.e., retail) competition and harm consumer welfare. This Paper offers guidance on the market mechanisms and precise circumstances that may give rise to such a waterbed effect and the extent to which this may distort downstream competition and impact on consumers.

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INTRODUCTION

Over recent decades, large parts of the retailing industry have undergone fundamental transformations with a common process toward consolidation and increased market concentration. These developments have had the effect of shifting power away from suppliers and toward the major retailers, which are increasingly prevalent and even dominant in their respective retail sectors. In the process, these retailers have wrestled control of the supply chain away from producers through the use of data-driven, demand-pull, continuous-replenishment systems backed up by sophisticated logistical and information-technology support. In turn, this has enabled the major retailers to efficiently manage and stock tens of thousands of items in ever-larger outlets and with ever-greater store numbers. For fast-moving consumer goods, households turn increasingly to such “hypermarkets” or “big-box” stores for extended one-stop-shopping trips, instead of frequenting different shops for different product categories. Large retailers have also increasingly built up their own private labels, thereby strengthening their own brand franchise with consumers while weakening that of producer brands. These combined developments have afforded major retailers the possibility of simultaneously enjoying both buyer power and seller power, thereby potentially controlling the means to grow and extend their market reach.

By concentrating market and bargaining power in the hands of a steadily shrinking and increasingly internationally active number of large retailers, the evolution of the retailing industry has thus gone full circle over the last century: from the rise of department stores and chain grocery stores early in the twentieth century, which realized large efficiency gains from integrating backwards into wholesaling and manufacturing, through the heyday of established national brands in the second half of the twentieth century. It is therefore ironic that while the growing power of retailers such as the Atlantic and Pacific Tea Company prompted legislative action through the enactment of the Robinson-Patman Act, which was aimed at leveling the playing field among retailers as well as shoring up the position of suppliers,¹ the act may now have seen its final hour at a time when retail giants such as Wal-Mart exert increasing power over their suppliers. The Antitrust

1. F.M. SCHERER & DAVID ROSS, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* 508–10 (3d ed. 1990).

Modernization Committee (AMC) recommended repealing it “in its entirety.”²

This Paper has a more modest objective than either supporting the position to repeal the Robinson-Patman Act or siding with those who propose merely a reform.³ The primary objective is to throw more light on what seems to be a hitherto somewhat-neglected aspect of the exercise of *differential* buyer power: the possibility that through a “waterbed effect” better supply terms for powerful buyers can lead to a worsening of the terms of supply for smaller or otherwise-less-powerful buyers, which might then have an adverse consequence for consumers if downstream competition is lessened.⁴

This Paper lays out in detail how such a waterbed effect could arise and what could be its likely consequences for competition and ultimately consumer welfare. Such a rebalancing of the terms of supply has the potential to hasten and amplify possible negative long-run implications that can arise from price discrimination among buyers. Buyers who find themselves on the wrong side of this mechanism may be caught in a vicious circle of seeing their business shrink, their purchasing prices increase, and their margins erode, which may ultimately cause them to exit the market. What is more, if a waterbed effect were sufficiently strong, it may, at least in principle, also lead to lower consumer welfare, even in the short run, through an increase in retail prices.

This Paper also argues, however, that a waterbed effect should only be expected to arise under specific circumstances. By also delineating conditions under which the opposite outcome could arise, namely, that discounts to one buyer make further discounts to other buyers more likely (so-called countervailing or antiwaterbed effects), this Paper provides further guidance toward identifying more closely the circumstances under which consumer harm from the exercise of differential buyer power becomes more likely through the working of a waterbed effect.

Overall, the analysis of a waterbed effect provides an illustration of why it is important to consider jointly both the vertical and horizontal dimension when dealing with potential harm from price discrimination in intermediate markets. Taking rivals’ terms of trade as

2. See DEBORAH A. GARZA ET AL., ANTITRUST MODERNIZATION COMMISSION REPORT AND RECOMMENDATIONS 20 (2007), available at http://www.amc.gov/report_recommendation/amc_final_report.pdf.

3. See AM. ANTITRUST INST., THE ROBINSON-PATMAN ACT SHOULD BE REFORMED, NOT REPEALED (2005), available at http://www.amc.gov/public_studies_fr28902/Robinson-Patman_pdf/AAI_R_P_ACT.pdf.

4. See Albert A. Foer, *Mr. Magoo Visits Wal-Mart: Finding the Right Lens for Antitrust*, 39 CONN. L. REV. 1307, 1326–27 (2007).

being constant, if a larger and more powerful buyer were to pass some of its additionally obtained discounts to consumers, then these consumers should benefit at least in the short run. However, this picture remains incomplete so long as it neglects to consider the horizontal dimension, namely, how differential buyer power affects the competitive position of different buyers. By making already-powerful buyers still more competitive at the retail level, smaller or otherwise-less-powerful buyers will further lose market share. To the extent that this erodes their own bargaining power vis-à-vis suppliers, the smaller buyers' terms of trade may deteriorate. Hence, it is only by going full circle, namely, from the vertical relationship with the powerful buyer through horizontal competition on the retail level back to the vertical relationship with weaker buyers, that the market can expect to capture fully the implications of price discrimination on wholesale prices and thus ultimately retail prices.

Before moving on, it should be noted that it is clearly not the purpose of this Paper to challenge the many arguments that have been brought forward, both by antitrust practitioners and academics, against the prohibition of price discrimination. As is widely recognized, next to possibly creating large compliance costs, reducing pricing-flexibility provisions, such as those by the Robinson-Patman Act, may serve to stifle competitive vigor to the detriment of consumers. Moreover, the identification of competitive harm from price discrimination is clearly not equivalent to identifying an appropriate remedy, such as an outright prohibition of price discrimination. This Paper recognizes that any proposed remedy that has the protection of competitors as its main effect or as a side effect may fall short of delivering on the main aim of antitrust policy, which must lie clearly in the protection of a vigorous competitive process to ensure that efficiencies are created and ultimately transferred to consumers.

I. THE EFFECTS OF BUYER POWER: SOME INITIAL NOTES

Buyer power exercised by withholding demand can be detrimental to economic welfare when it serves to reduce the prevailing market price for the respective good or service. Such an exercise of (monopsonistic) buyer power is symmetric to the more standard exercise of (monopolistic) seller power through withholding supply. In either case, consumers can ultimately be harmed when lower quantities feed through to higher final prices.⁵ Yet buyer power can also be

5. More precisely, this welfare loss applies respectively when the monopsonist can exploit an upward-sloping supply curve or the monopolist can exploit a downward-sloping demand curve. Here the exercise of monopsony power has the

exercised without restricting quantity when it involves the firm bargaining for discounts from its suppliers. If the intention of the firm is then not to reduce quantity but in fact to buy and sell more, can there be detriment to consumers?

It is common to think of powerful buyers as the consumers' champions, using their buying muscle to negotiate discounts from suppliers and passing them on to consumers in the form of lower prices. In fact, the whole notion of countervailing buyer power as a defense in merger cases rests on such a picture of powerful buyers rising up to seller power, instead of conspiring with equally powerful suppliers to the ultimate detriment of consumers.⁶

However, an appropriate consideration of the implications of buyer power cannot stop at the vertical dimension, that is, considering only a buyer's power relative to its suppliers. What is of equal importance is how a given buyer's power vis-à-vis suppliers' power compares with that of competing buyers. It is this joint consideration of vertical and horizontal interactions that is fundamental to grasp when determining the ultimate effects on consumers. As an already-powerful buyer obtains further advantages, be it through additional promotional allowances or through additional per-unit discounts, this will alter the competitive landscape at the respective retail level. To the extent that the more powerful buyer passes through some of the obtained advantages into a more attractive offering to consumers, it will take away market share from other buyers.

How will such differential buyer power affect the competitive process and thus ultimately consumers? If the lower retail prices of more powerful buyers also force weaker rivals to cut their prices, then, at least in the short run, all consumers should benefit from lower prices. Those coming to the defense of the Robinson-Patman Act, at

immediate effect of reducing producer surplus (rather than consumer surplus as with monopoly power) but may have detrimental knock-on consequences for consumers where the reduced quantity causes final prices to rise and/or longer-term effects arise from a loss of product variety or quality when demand withholding causes producers to underinvest or exit the market. However, competitive harm could conceivably also arise in such settings by the opposite strategy, namely, of overbuying to raise rivals' costs, provided that this is used effectively as a predatory strategy. See Steven C. Salop, *Anticompetitive Overbuying by Power Buyers*, 72 ANTITRUST L.J. 669 (2005).

6. The most prominent exposition of the idea that powerful retailers act as agents of consumers is undoubtedly JOHN KENNETH GALBRAITH, *AMERICAN CAPITALISM: THE CONCEPT OF COUNTERVAILING POWER* (1952). On the conflicting notion of "coalescing power," see Walter Adams, *Competition, Monopoly and Countervailing Power*, 67 Q.J. ECON 469 (1953). On the operation of these opposing forces, see Paul W. Dobson, *Competing, Countervailing, and Coalescing Forces: The Economics of Intra- and Inter-business System Competition*, 51 ANTITRUST BULL. 175 (2006).

least in a modified version, would, though, be concerned that consumers could lose out in the long run.⁷ Buyers who are put at a competitive disadvantage could respond by cutting back on the depth or breadth of their offering or, if their margins are squeezed sufficiently, ultimately exiting the industry.⁸ If size is a key determinant of buyer power, then buyer power could also constitute a barrier to entry in that firms that enter at anything but a very large scale would find themselves at too much of a competitive disadvantage compared to the large incumbents.⁹

Importantly, these arguments left the terms of trade of competing buyers unchanged. Specifically, as one buyer obtains additional discounts, then the other buyers' terms of trade were taken as not being affected. However, it is not clear a priori why the improved ability of one buyer to negotiate discounts from suppliers should not have any ramifications for the suppliers' treatment of other buyers. As we argue shortly, taking potential knock-on effects into account can be crucial for two reasons. First, this may amplify or dampen any positive or negative effects that the creation and exercise of differential buyer power has on the competitive outcome. Second, through this channel, the effect of buyer power on retail prices and consumer surplus may even be reversed.

One possibility is that the presence of a powerful buyer also improves the purchasing conditions of all other buyers. If this were the case and all buyers could thereby negotiate greater discounts, then consumers may indeed benefit from overall lower prices when competition allows these discounts to be passed on in the form of lower consumer prices, that is, buyer power acting as socially beneficial countervailing power. Further, this Paper explores several reasons why such a positive spillover effect could occur.

Nevertheless, this is only one possibility. If, in contrast, the discounts to one or a few buyers were to put other buyers in a worse

7. See, e.g., AM. ANTITRUST INST., *supra* note 3, at 13–14.

8. Other arguments have also been made for why price discrimination on the wholesale level can harm consumers in the long run. For instance, it has been argued that a large buyer's advantage in terms of purchasing conditions would shield it from effective competition, which could then stifle incentives to stay efficient or to improve its offering to consumers. See, e.g., *id.* at 14. On the other hand, however, if buyer power were obtained through size and growth, then the more advantageous terms of trade that go with it can provide additional incentives to grow in the first place by reducing its own costs or improving service and quality.

9. Such an argument was used prominently by the European Commission in a merger case involving two major retail groups in Finland, where it argued that the unmatched discounts of the merged firm would make new entry more difficult and would thus be conducive toward creating a dominant position. *Kesko/Tuko*, 1997 O.J. (L 110) 53.

bargaining position to the extent of them paying even-higher prices (e.g., premiums rather than discounts) then the knock-on consequence could be higher retail prices and dampened competition. This latter case is an instance of a waterbed effect—where differential buyer power means that some buyers gain at both the relative and absolute expense of other buyers. The circumstances and likelihood of this waterbed effect arising and its implications for consumer welfare are the central concerns of this Paper.¹⁰

The term *waterbed effect* for such a rebalancing due to the exercise of differential buyer power has been recently used, in particular, by the United Kingdom's Competition Commission in its repeated inquiries into the grocery market.¹¹ As this Paper explores, a key and distinct implication of a waterbed effect is that even if all buyers stay in the market and do not adjust the range, depth, or quality of their downstream offerings, then consumers could still be harmed when suppliers practice price discrimination by giving additional discounts to some buyers. What is more, the presence of a waterbed effect can further distort competition by giving a powerful buyer now a two-fold advantage, namely, through more advantageous terms for itself and through higher purchasing costs for its rivals. What then becomes a virtuous circle for the strong buyer ends up as a vicious circle for its weaker competitors.¹²

10. Besides offering one buyer better terms of trade in the form of lower prices or additional trade support, suppliers could also differentiate in a number of other dimensions, such as preferential treatment during supply shortages. The U.K.'s Competition Commission has recently published initial findings that indicate that suppliers may respond to the demand for better service by one buyer through reducing service at other buyers, which points to the possibility of a "nonprice" waterbed effect. See COMPETITION COMM'N, GROCERY MARKET INVESTIGATION: STATEMENT OF ISSUES 5 (2006), available at http://www.competition-commission.org.uk/inquiries/ref2006/grocery/pdf/issues_statement.pdf.

11. The use of the term seems to be gaining ground. For instance, Albert A. Foer, president of the AAI, recently noted, "The key to competition analysis of Buyer Power may be what is becoming known as 'the waterbed effect.'" Foer, *supra* note 4, at 1326. The term *waterbed effect* has also been used in other areas to describe different types of rebalancing effects, for example, to describe the effect that a regulated reduction in mobile-termination rates may have on the (unregulated) rates charged for other retail-mobile services. See, e.g., Mark Armstrong & Julian Wright, *Mobile Call Termination* (ELSE, Working Paper No. 255, 2007), available at <http://else.econ.ucl.ac.uk/papers/uploaded/255.pdf>.

12. See, e.g., Paul W. Dobson, *Exploiting Buyer Power: Lessons from the British Grocery Trade*, 72 ANTITRUST L.J. 529, 561 (2005); Foer, *supra* note 4, at 1326-27.

II. SETTING THE STAGE:
HOW SOME BUYERS OBTAIN DISCOUNTS (AND OTHERS NOT)

This Paper frames buyer power as bargaining power. As previously noted, if instead the interaction between buyers and suppliers were more adequately described as a market where, in particular, demand and supply are balanced through some market-clearing price, then buyer power would be more adequately equated to monopsony power. Specifically, large buyers would then tend to exert power at the upstream market through strategically withholding demand. However, the situations with which this Paper is more concerned are those where, in contrast to the presumption of such a market interface, contracts are bilaterally negotiated between trading parties. In such an environment, there could be substantial variations in the average prices paid by different buyers. Buyer power may then manifest itself precisely through the size of individually negotiated discounts.

Consequently, in such an environment, the appropriate tool with which economists analyze the factors that drive differential buyer power is that of bargaining theory. Recently, economic theory has made substantial inroads into applying bargaining theory to questions of antitrust and, in particular, to those of buyer power.¹³ Conceptually, what complicates the analysis is that both competition among suppliers as well as that among buyers must be taken into account, as well as the potential that one buyer may purchase from several suppliers and vice versa. Nevertheless, even a consideration of the most basic setting, which this Paper briefly explores next, offers simple insights into what could be potential levers of buyer power.

For an illustration, consider a supplier S and a buyer B and suppose that when coming to an agreement they can jointly realize combined profits of amount z . Either side will have a stronger position in the negotiations if it has a more favorable alternative at hand. For instance, B could start negotiations with another supplier. Likewise, S could start searching for different distribution channels for its good. The profits from these alternatives are denoted by v_S for S and by v_B for B. The economics literature on bargaining refers to these values as the respective breakdown or outside-option payoffs. What is thus jointly at stake for the two parties is the difference between the joint (gross) profits, z , and what they could realize when walking away from the

13. For a recent overview, see Roman Inderst & Nicola Mazzarotto, *Buyer Power in Distribution*, in ISSUES IN COMPETITION LAW AND POLICY (W.D. Collins ed., forthcoming 2008) available at http://personal.lse.ac.uk/inderst/buyerpower_in_distribution_chapter.pdf.

negotiations (i.e., $z - v_S - v_B$). Negotiations are thus essentially over how to split this pie. If it is split equally, then B's overall payoff equals the sum of v_B plus one half of $z - v_S - v_B$. It is then easy to determine B's share of the joint profits, z . This becomes one half plus $(v_B - v_S)/(2 \times z)$. Hence, if both sides have equally attractive alternative options, then joint profits are also split equally. However, if the alternative option of, say, B becomes more attractive such that now $v_B - v_S > 0$, then B's share of joint profits increases at the expense of S's share.

It is a common misperception that a buyer's size would per se constitute buyer power. If size only scales up what is at stake in negotiations (e.g., as obtained formally by simply multiplying by some factor larger than one all the variables in the previous illustration), then this will not affect how the (now larger) pie is shared. This observation should, however, not suggest that size could not be a powerful lever of buyer power.

Larger buyers may more credibly threaten to search for alternative supply options, especially if this involves large fixed costs, which they can then spread over more units. In particular, only sufficiently large buyers may be in a position to attract entry of new suppliers by precommitting some of their purchases. Size could also make it profitable to employ more experienced negotiators or to invest in more competitive procurement methods such as auctions.

In retailing, a larger overall size of the respective retailer may also come with an expansion of the retailer's overall range. If the retailer then delists a particular good following failure to come to an agreement, then this may have a smaller impact on its profits as, for instance, the competing products on the shelf may capture some of the lost sales. This should not, however, imply that large, one-stop retailers quasi-mechanically derive buyer power from the fact that each individual supplier only accounts for a small fraction of their total sales. Though there are different reasons for why the rise of one-stop shopping may have increased retailers' bargaining power, care must be taken when using such percentage figures for a measure of buyer power. Generally, what constitutes bargaining power is not so much the percentage of current business that a buyer or seller would lose but whether the respective party can find equally attractive opportunities to buy or sell to replace that which has been lost.¹⁴

That being said, once a buyer accounts for a sufficiently large fraction of a supplier's overall business, this may lead to a more-than-proportional reduction in the value of the supplier's profits outside a relationship with the particular buyer. Such economic dependency may,

14. *Id.* at 2–11.

at least if the dependency is substantial and suppliers are financially fragile, be due to the fact that losing the particular buyer's business could undermine a supplier's economic viability.¹⁵ Even absent financial dependency, there may clearly be circumstances under which a larger buyer can inflict a more-than-proportional loss on a supplier when withdrawing its business. For instance, in *United States v. Aetna Inc.*,¹⁶ it was argued that a physician's prospective loss from having to replace patients might increase more than proportionally with the number of patients that must be replaced.¹⁷ Moreover, a retailer may exert larger power if its size allows it to control (as a gatekeeper) access to a substantial fraction of a supplier's potential market.¹⁸

Provided that a particular buyer is treated in a more preferential manner, be it due to its size or for other reasons, then there are many ways in which a supplier could cede more profits to that buyer. For instance, in retailing, the supplier could agree to fund more promotional activities or make other financial contributions (such as requested charitable donations or payments for placing advertisements in a retailer's own magazine, possibly at a price that far exceeds their value to the supplier) or make lump-sum payments for listing fees or slotting allowances. The supplier and the retailer may also agree on additional volume-based discounts or, most simply, on a lower-invoiced price per unit or case.

In practice, casual evidence suggests not only that bilateral supply contracts take on widely different forms even in the same industry but

15. The European Commission established in a recent merger case in the grocery industry that a supplier whose business with the two merging chains accounted for more than 22 percent of revenues was to be considered "economically dependent" on them, as survey evidence indicated that this was the most suppliers could afford to lose without a serious danger of them being driven bankrupt. See *Rewe/Meinl*, 1999 O.J. (L274), available at http://ec.europa.eu/comm/competition/mergers/cases/decisions/m1221_19990203_600_en.pdf (English version).

16. *United States v. Aetna Inc.*, 1999-2 Trade Cas. 86,369, 86,380; see Marius Schwartz, Economics Dir. of Enforcement, Antitrust Div., U.S. Dept. of Justice, Address at the 5th Annual Health Care Antitrust Forum Northwestern University School of Law: Buyer Power Concerns and the *Aetna-Prudential* Merger (Oct. 20, 1999), available at <http://www.usdoj.gov/atr/public/speeches/3924.htm>.

17. That is, the cost to a physician of replacing, say, 30 percent of his patients is then likely to be more than twice that of replacing only 15 percent of them.

18. It has been argued that for national mass marketers to lose access to even a relatively small fraction of the national market may be extremely damaging as it undermines the impact of nationwide advertising campaigns and may antagonize consumers who expect to find the advertised product in all main outlets. See Peter C. Carstensen, Young-Bascom Professor of Law, Univ. of Wis. Law School, Statement at the Antitrust Division and the FTC Workshop on Merger Enforcement: Buyer Power and Merger Analysis—The Need for Different Metrics 28–29 (Feb. 17, 2004), available at <http://www.ftc.gov/bc/mergerenforce/presentations/040217carstensen.pdf>.

also that more powerful buyers receive better terms of trade in different ways. In the long run, it may be less important whether a powerful retailer obtains a lower per-unit price or, instead, is paid a higher slotting allowance or other lump-sum fee.¹⁹ However, in the short run the resulting impact on retail prices (i.e., the extent to which there is a pass-through of the buyer's better terms to consumers) should be higher the more the buyer's *marginal* wholesale price is affected. Conceptually, this would hold in particular in the case where negotiations are over simple linear contracts that prescribe a constant per-unit purchasing price.²⁰ Here, the supply chain would be characterized by successive markups. By reducing the markup that can be commanded by the next-higher level up the chain, the exercise of buyer power would also then tend to reduce final prices.

As a final note, the extent of pass-through (i.e., what proportion of a discount is passed on to final consumers) should also depend on the prevailing competition in the downstream market. For many specifications of demand, economic theory shows that a more competitive downstream market gives rise to a higher pass-through rate. Only with perfectly elastic demand, say, where the relevant market is the world market, would the pass-through rate necessarily be zero, since any individual firm acts as a mere price taker.²¹ Importantly, even though the downstream market would then be perfectly competitive, this need not imply that buyers are equally fierce competitors at the upstream market, that is, vis-à-vis suppliers, since the upstream sector could be geographically segmented due to limited transportability or storability of the respective input (e.g., as might apply with perishable agricultural produce).

III. THEORIES OF THE WATERBED EFFECT

If large or otherwise-more-powerful buyers obtain discounts that are to some extent passed on to consumers, their more competitive

19. Akin to the treatment of a reduction in fixed costs, it would be argued that in the long run this would improve the competitive position of the respective firm, even though it may not be immediately reflected in more competitive prices.

20. Many forms of individually negotiated discounts should fit this picture even though they appear to be more lump sum in nature. For instance, the anticipation of year-end rebates or other retrospective performance-based discounts should clearly affect a retailer's optimal pricing policy, especially when demand, and thereby anticipated sales volume, can be accurately predicted.

21. In *United States v. Cargill, Inc.*, which concerned the merger of two major grain traders, the United States Department of Justice did not allege harm on the selling side, since grain prices to national processors are determined in world markets. See *United States v. Cargill, Inc.*, 2000-2 Trade Cas. 88,206, 88207. Nevertheless, action was taken due to alleged harm to farmers or other grain suppliers.

position should allow them to gain market share at the expense of their rivals. This Part discusses whether buyers' differential competitive positions could drift even further apart through a worsening of the terms of supply to smaller or otherwise-less-powerful buyers—a waterbed effect. A distinct implication of such a waterbed effect is that it could induce consumer harm even without a further consolidation among buyers and even if the quality and range of firms' offerings remains unchanged as well.

At first, it is not obvious at all how a waterbed effect should work, that is, how such a rebalancing of the terms of supply could occur. One relatively mechanical view of a waterbed effect holds that as one buyer obtains a discount and thereby reduces a supplier's profitability, other buyers will have to make good for this because otherwise the supplier will no longer be able to break even. This argument has some intuitive appeal and is frequently encountered when talking to both buyers and sellers in the marketplace. Still, from an economic perspective it is not entirely satisfying. This is the case since the argument does not explain precisely why the supplier should now be *able* to command a higher price from some buyers while this was seemingly not feasible beforehand. Put bluntly, just because a supplier gives a discount or other concession to one retailer does not mean that it will be in a stronger position to extract better terms from other retailers.²²

What is more, when taking such a mechanical perspective toward the rebalancing of terms of supply, an underlying assumption seems to be that suppliers just cover their costs and, were it not for the increase in purchasing prices for other buyers, would otherwise have to leave the market. In this case, though, it is not obvious why suppliers should be in a position to price discriminate between buyers in the first place. If suppliers just manage to break even due to a lack of market power, say, because they are only marginally differentiated and there is sufficient free capacity in the industry, then there will be little scope to price discriminate between buyers.

This is not to say that such instant rebalancing waterbed effects are completely unfeasible. Lack of foresight or a short-term focus might lead to such behavior, such as where a supplier has a view wedded to obtaining a set average margin or is desperate to cover its existing fixed costs.²³ Also, where a powerful retailer requires year-on-year margin improvements combined with guaranteed margin support (allowing it to

22. Indeed, we might even expect the reverse, as other retailers are likely to fight hard to obtain similar benefits or face being placed in a competitive disadvantage in the retail market. See *infra* Part IV for a discussion of countervailing antiwaterbed effects.

23. See Foer, *supra* note 4, at 1326.

match price cuts by another retailer), then the supplier may find it easier to fund these requirements if it sets higher prices to other retailers in order to dampen retail-price competition. Specifically, the supplier serves as a means by which the powerful retailer can raise its rivals' costs and thereby stifle retail competition to its further advantage.

Indeed, there is empirical support, albeit limited, for suppliers immediately seeking to compensate for providing better terms to large customers by giving poorer terms to smaller customers. For instance, a recent survey of grocery suppliers in the United Kingdom found that 7 percent of suppliers "agree" or "strongly agree" that if a larger customer negotiates a lower price, the seller increases prices to smaller customers. Yet suppliers appear more willing to admit to other compensating effects. For instance, from the same survey, 40 percent of suppliers indicated that if a larger customer increases demand at short notice then the suppliers would do so at the expense of not supplying smaller customers. With a supply shortage, 49 percent of suppliers indicated that they would supply a larger customer at the cost of not supplying smaller customers. Also, in regard to nonprice aspects, if a larger customer demands better or additional services, 21 percent of suppliers indicated that service to smaller customers would become worse as a result.²⁴

Nevertheless, in what follows, this Paper focuses on more logically consistent arguments that rely on waterbed effects arising from and then extending changes in market structures—where powerful retailers grow at the expense of less powerful retailers. Specifically, this Paper distinguishes broadly between two theories of a waterbed effect that arise through the behavior of rational, informed economic agents. To show this, this Paper carefully works through the economics in each case. This provides more detail on the market conditions under which a waterbed effect can be expected to arise and the conditions under which this is less likely. The economics of the underlying argument will also help to clarify when a waterbed effect should be expected to be stronger and, what is more, to result ultimately in consumer harm.

The first approach considers how relative bargaining positions develop in response to an adjustment of the upstream market structure triggered by the emergence of a major retailer exercising buyer power. The second approach, rather than relying on an upstream adjustment, looks at how shifts in retail-market shares create and then extend

24. GfK, RESEARCH ON SUPPLIERS TO THE UK GROCERY MARKET: A REPORT FOR THE COMPETITION COMMISSION 28–29 (2007), available at http://www.competition-commission.org.uk/inquiries/ref2006/grocery/pdf/uk_grocery_market.pdf.

differential buyer power and in the process put small retailers at an increasingly competitive disadvantage relative to major retailers. As will become clear, these two theories are not mutually exclusive. In fact, the respective mechanisms can be thought of being mutually reinforcing where they are both present, driving retail consolidation and, in the process, amplifying both mechanisms. In the formal economic models underlying these results, all adjustments take place simultaneously to establish a new equilibrium situation. However, in a dynamic sense, this provides a theoretical basis for why differential buyer power might allow major retailers to enter and benefit from a virtuous circle of growth (where retailer buyer and seller power reinforce each other to extend competitive advantage), while smaller retailers are caught in a contrasting vicious circle of decline (where a loss of market share leads to worse terms being obtained, extending competitive disadvantage, resulting in a further loss of market share, and so on).

A. A Waterbed Effect Working through an Adjustment of the Upstream Market

Taking the example of retailing, suppose that one retailer grows both in size and market share either organically through a more competitive offering to consumers or through acquisitions. As discussed in Part II, this may put the retailer in a position where it is able to extract further discounts or otherwise-better terms from suppliers. The first part of the argument that supports a waterbed effect is that this may now trigger an adjustment in the upstream-market structure.

What triggers a consolidation among suppliers is the increasing pressure on their margins by the powerful retailer. In the bargaining framework, a given supplier's share of the joint profits that it realizes with any given buyer depends on how credible and profitable it is for either side to substitute away; the supplier would channel more of its sales through different retailers while the retailer would scale back or fully delist the supplier's products and, instead, sell more of the rival suppliers' products. The more suppliers there are in the marketplace offering goods that are closer substitutes and having sufficient spare capacity to scale-up business with any retailer, the harder it is for an individual retailer to bargain with any given supplier—and, in the language of the bargaining framework, the more valuable is the retailer's outside option. In a market where large buyers can wield buying power due to their size and where it is easy to find a substitute for any given supplier, suppliers' margins would thus be squeezed in two ways.

Taking an oligopolistic upstream industry where suppliers hold some market power, albeit potentially to a different degree depending on the differentiation of their products, and holding the market structure constant, there will be a point at which, as suppliers' margins are squeezed even further through the exercise of buyer power, continuing operations may no longer be profitable for all suppliers.²⁵ Likewise, in an industry that exhibits barriers to entry but where new-product development and technological or organizational advances continue to create a market space for newcomers, by reducing suppliers' future expected profits, the exercise of buyer power may lead to less entry than what would have been otherwise observed.²⁶ For the present argument, it proves to be inconsequential whether a consolidation in the upstream industry is brought about by reduced entry or by exit as well as mergers among existing suppliers. As fewer suppliers enter or as some drop out or merge with competitors, this leads to a more concentrated and thus less competitive market, which restores the profitability of those suppliers who are still present. In fact, the fewer suppliers can now each take a larger share of the market. And given that more differentiation and potentially less capacity should then make it harder for retailers to substitute any given supplier, less competition

25. This may beg the question why a powerful buyer would demand a concession so severe that it would reduce a supplier's willingness to remain in the industry or to invest in future capacity or product development. Normally, the exit of a supplier or a reduction in its investment would hurt a big buyer as well as its smaller rivals. As this Paper's discussant, Jack Kirkwood, has suggested, there may be two reasons that explain such apparently self-defeating behavior. First, the buyer might not believe the supplier's claims that the concession would cause dire consequences (i.e., an information asymmetry explanation). Second, the buyer might demand the concession anyway because, if it did not, its large rivals would do so (i.e., a prisoners'-dilemma explanation). For further discussion, see John B. Kirkwood, *Buyer Power and Exclusionary Conduct: Should Brooke Group Set the Standards for Buyer-Induced Price Discrimination and Predatory Bidding?*, 72 ANTITRUST L.J. 625, 650 n.75 (2005). There could also be a third reason: the big retailer may find it useful to eliminate a supplier where it has more ready and relatively lower-cost alternatives than do smaller retailers (i.e., a raising-rivals'-costs explanation). Indeed, this might be seen as an additional bonus from squeezing suppliers if the big buyer's rivals' terms become worse. As such, the emergence of any waterbed effect may be no accident—a strategic buyer can ensure that differential buyer power is made to work to its advantage both in a vertical sense (i.e., improving its purchasing terms in an absolute sense) and in a horizontal sense (i.e., improving its purchasing terms relative to its rival retailers' terms).

26. A notable exception could be when a single buyer becomes so powerful in terms of market share that it is willing to sponsor new entry through sharing some of the associated fixed costs and through precommitting some of its future business. If the new entrant were tied to the buyer through an exclusive agreement, for example, with respect to the production of private labels, the logic of the current argument would still hold since other buyers would benefit less from such entry.

allows suppliers to raise prices. In bargaining terminology, consolidation in the upstream market should tend to reduce the value of buyers' outside options.

The overall effect on small or otherwise-less-powerful retailers and the overall effect on large retailers, whose growing buyer power triggered the upstream consolidation in the first place, are now markedly different. For the former, the terms of supply will deteriorate. This holds remarkably true not just for retailers that are in direct competition with their more powerful rivals. In fact, according to the present theory of a waterbed effect, all retailers that source from the now-more-consolidated upstream industry would be affected. This outcome is markedly different from the second approach, where only downstream competitors are harmed.

Unless the adjustment of the upstream-market structure has a disproportionate effect, for the large retailers the expectation is that the increase in their buyer power, which triggered the consolidation among suppliers, still results in better purchasing terms. The overall effect is thus both an improvement of purchasing terms for these increasingly powerful buyers and a worsening of conditions for all other buyers, not just in a relative sense but in an absolute sense as well.²⁷

B. A Waterbed Effect Working through a Shift in Retail-Market Shares

While the previously discussed theory of a waterbed effect relied crucially on an adjustment of the upstream market, this is not the case in the (more static) theory that this Section expounds. Instead, this theory relies on a shift in market share away from smaller and less powerful buyers toward larger and more powerful buyers.

27. Importantly, this Paper does not assert that small retailers necessarily operate without any power (and as such are merely price takers in both procurement and retail markets). Rather, this Paper sees them as being differentiated to some, albeit small, degree (perhaps due to location or accessibility/convenience reasons). However, the differential buying advantage of the large retailer is sufficient such that if the discounts that it obtains are reflected in its retail prices, then this will endanger the existence of some, if not eventually all, of these small retailers (i.e., to the extent that their little differentiation advantage is not overwhelmed by their substantial cost disadvantage compared to the large retailer). Clearly, if these small retailers could club together in a buying alliance, then this may help their bargaining position (but there are usually antitrust restrictions on the extent to which such horizontal agreements are allowed). In the absence of effective buying groups, what might be expected is that, facing a significant buying disadvantage, small retailers adjust their retail offer (through product mix and marketing strategy) to focus increasingly on price-inelastic consumers (e.g., more interested in the nature of the retail offer rather than simply prices). As Peter Carstensen has suggested, this would also be consistent with the observation that the overall number of small retailers is declining, but some survive when they differentiate themselves sufficiently.

The shift in market shares arises initially from a more competitive offering of a particular retailer, such as providing greater convenience, a wider range of goods, and/or lower prices. While the more competitive offering may also expand the whole market, some of the retailer's additional sales are at the expense of its rivals. The latter may be less so if the retailer improves its offering in nonprice dimensions, such as quality or availability. Instead, while also depending on the elasticity of overall demand and the extent of competition, it might be expected that additional sales gained through lowering retail prices would more likely be directly at the expense of rivals. The extent to which this is the case will be important in the following theory of a waterbed effect.

To be specific, take again as a starting point a retailer growing through acquisitions. As noted earlier, this may then enhance its bargaining power vis-à-vis suppliers, leading to further discounts that are, to some extent, passed on to consumers (either in lower prices or better services). These changes may trigger a further round of market-share adjustments, leading now to both a deterioration of the smaller retailers' purchasing conditions and a further improvement of the larger retailers' conditions.²⁸

The mechanism through which these adjustments work is straightforward. The larger retailer can now lever its discounts into lower retail prices and/or better services and thereby obtain a larger share of the final market. To the extent that this comes at the expense of smaller retailers, their market share and overall volume should accordingly decline. The resulting change in the purchasing conditions of smaller retailers now mirrors that of the larger retailers' conditions. However, whereas the latter can enjoy additional, size-related discounts, the former lose volume and should then receive less advantageous terms—a waterbed effect.²⁹ As these changes in wholesale

28. On respective incentives for increasing market shares for large and small retailers and resulting implications for differential buyer power on retail concentration, see Roman Inderst, *Leveraging Buyer Power*, 25 INT'L J. INDUS. ORG. 908 (2007).

29. At this point it is worthwhile to recall (*cf. supra* Part III) that, in general, there are different channels through which a retailer's size, be it in terms of overall volume or share of the overall market or relative to the supplier's overall business, can generate discounts. However, two recent theoretical contributions formally derive a waterbed effect using the buyer's size as determining the value of his outside option. This is the case either as a buyer's larger business is more attractive for alternative suppliers, which have to incur fixed costs of entering the market or serving a particular buyer, or as the buyer can spread over a larger volume any of its own costs that must be incurred when switching suppliers. See Roman Inderst & Tommaso M. Valletti, Buyer Power and the "Waterbed Effect," (Jan. 2007), available at <http://www3.imperial.ac.uk/portal/pls/portal/live/docs/1/7799702.PDF> (discussing the former); Adrian Majumdar, Waterbed Effects, "Gatekeepers" and Buyer Mergers

prices will again be reflected in their different competitive positions, this would then trigger yet another round of adjustments, leading to still-lower wholesale prices for the larger retailer and still-higher wholesale prices for smaller rivals.³⁰

Importantly, the presently discussed theory of a waterbed effect relies crucially on the fact that buyers are also competitors in the retail market. Hence, the waterbed effect relies on the interaction of buyer and seller power. When focusing only on one of the two markets, either the retail market or the upstream market where retailers are buyers, the waterbed effect would fail to be captured (due to the absence of the two forms of power interacting). Also, the previous discussion leads to a number of implications that may guide practitioners on when a waterbed effect should be weaker or stronger.

Differential buyer power leads to retailers obtaining different terms from suppliers, whereby the extent of discounts can be expected to relate to size or market share in a given industry. The waterbed effect should, *ceteris paribus*, be stronger the steeper the relationship is between size and discounts. This follows since the steeper this relationship is, the more pronounced the worsening of supply terms that smaller retailers face through an additional loss in market share would be.

Even so, the relationship between different measures of size and buyers' individual discounts may be highly nonlinear. For instance, if the main reason why large buyers can extract better terms from particular suppliers is that without their business suppliers must fear for their economic viability, then this may give rise to a threshold around which suppliers' economic dependency could markedly increase.³¹ Still,

(Dec. 4, 2006), *available at* <http://else.econ.ucl.ac.uk/conferences/supermarket/maj.pdf> (discussing the latter).

30. To be clear, this argument does not necessarily imply the creation of a cycle that would invariably squeeze out smaller retailers and thereby inevitably lead to monopoly. In the formal analysis that underlies this argument, all these changes proceed simultaneously, leading to a new equilibrium configuration. Nevertheless, the economic analysis does provide some formal theoretical support for why virtuous circles for large retailers and contrasting vicious circles for small retailers might operate, which if not implying an eventual monopoly outcome might certainly favor a natural-oligopoly outcome where retailers take differentiated positions. For some evidence on supermarkets' natural oligopoly tendency, see Paul B. Ellickson, *Does Sutton Apply to Supermarkets?*, 38 *RAND J. ECON.* 43 (2007); Paul B. Ellickson, *Supermarkets as a Natural Oligopoly* (Duke Econ., Working Paper No. 05-04, 2004), *available at* <http://www.econ.duke.edu/%7Epaule/SupermarketsAsNO.pdf>.

31. For example, the European Commission in its *Rewe/Meinl* and *Carrefour/Promodès* merger-case decisions observed the possibility of "spiral effects" (where volume-related discounts drive retail concentration) and suppliers becoming economically dependent once a retail buyer's market share exceeded a critical level (a so-called "threat point") whereby the loss of its custom could drive suppliers to

in other cases, the waterbed effect may grow steadily stronger the more market shares are already asymmetric.³² Here, the characteristics of the particular industry should play a crucial role in determining through which precise channels buyer power can be exercised. Notwithstanding this qualification, the previous arguments suggest that the larger the existing differences in wholesale prices, the larger the waterbed effect. This insight is further reinforced by the previous observation that the degree of price discrimination that suppliers can practice depends on suppliers' market power. But as suppliers enjoy more market power, they should also be able to exploit, to a larger extent, any deterioration in a retailer's position due to a loss in volume.³³

Finally, recall again the previous observation that, according to the presently analyzed theory, the waterbed effect should also be stronger the more a buyer grows at the expense of its weaker rivals. In retailing, the degree to which the catchment areas of different retailers' stores overlap could thus also provide an indication of the possible extent of a waterbed effect. If the overlap were larger, then a retailer's own sales should be more adversely affected by a more competitive offering of its rival, leading thus to a loss in purchasing volume and, through the waterbed effect, a deterioration of the retailer's terms of trade.

This begs two key empirical questions. Do big buyers enjoy significantly better terms than smaller retailers (beyond that justified by economies of scale)? If so, has this allowed big buyers to increase their market share at the expense of smaller buyers? Again, the evidence from the U.K. grocery-retail sector is interesting. On the first question, the evidence reported by the Competition Commission in 2000 in its *Supermarkets* inquiry showed that the largest grocery retail chains may enjoy significantly lower prices than smaller chains, where the average supply-price differential can exceed 10 percent for purchasing the same

bankruptcy, which the Commission held to be a market share of 22 percent of the relevant market. See *Rewe/Meinl*, 1999 O.J. (L274); *Carrefour/Promodès*, 2000, O.J. (C164/5), available at http://ec.europa.eu/comm/competition/mergers/cases/decisions/m1684_20000125_230_fr.pdf (French version).

32. This is the case in Inderst & Valletti, *supra* note 29. As equilibrium wholesale and retail prices must be determined simultaneously in any formal model, the particular nonlinearities should, however, be highly sensitive to the chosen specification.

33. This is again the case in Inderst & Valletti, *supra* note 29, where a given supplier's (market) power is expressed by the loss of profits that a retailer incurs when switching instead to its next-best alternative, that is, another supplier in the same category or a reallocation of shelf space to a different category. It is shown there that the more the supplier is differentiated and the more a retailer thus appears to be locked in, the larger the impact on the wholesale price as the retailer's size changes. However, this holds only as long as the supplier's market power is not too large so that retailers still have a viable alternative.

goods and with a very clear correspondence between market share and the level of discounts.³⁴ The Competition Commission concluded that lower prices were attributable to the exercise of buyer power rather than to operating-cost differences (i.e., they were not cost justified), stating that “the major buyers, and indeed many of the other main parties, are large enough to achieve most of the cost savings associated with large orders” and that “operating cost differences will not have played a material part in the price differences achieved by them.”³⁵ On the second question, the strengthening market position of the leading chains has led to further analysis of the market by the Competition Commission in 2003 (in its *Safeway* merger inquiry³⁶), by the Office of Fair Trading in 2006,³⁷ and a two-year inquiry begun in May 2006 by the Competition Commission covering the whole sector.³⁸ Over this period, the largest chains (the so-called Big 4) have increased their combined share of the market and collectively exhibited faster like-for-like growth in sales compared to their smaller rivals.

C. The Potential for Competitive Harm

As previously mentioned, the two identified channels through which a waterbed effect could work are by no means mutually exclusive. In fact, if a waterbed effect works also through an adjustment in the upstream market, which erodes the value of buyers’ outside options in their negotiations with individual suppliers, then this dynamic effect reinforces and amplifies the more immediate (static) effect working through a shift in volume away from smaller and otherwise-less-powerful buyers. In addition, as discussed later, there can also be additional channels through which a waterbed effect can

34. COMPETITION COMM’N, SUPERMARKETS: A REPORT ON THE SUPPLY OF GROCERIES FROM MULTIPLE STORES IN THE UNITED KINGDOM (2000), *available at* http://www.competition-commission.org.uk/rep_pub/reports/2000/446super.htm#full. For a summary of this evidence, see Dobson, *supra* note 12.

35. COMPETITION COMM’N, *supra* note 34, at 96.

36. COMPETITION COMM’N, SAFEWAY PLC AND ASDA GROUP LIMITED (OWNED BY WAL-MART STORES INC); WM MORRISON SUPERMARKETS PLC; J SAINSBURY PLC; AND TESCO PLC: A REPORT ON THE MERGERS IN CONTEMPLATION 248 (2003), *available at* http://www.competition-commission.org.uk/rep_pub/reports/2003/481safeway.htm# (noting that the price advantage of the market leader, Tesco, had “widened somewhat” as its market share increased).

37. OFFICE OF FAIR TRADING, THE GROCERY MARKET: THE OFT’S REASONS FOR MAKING A REFERENCE TO THE COMPETITION COMMISSION (2006), *available at* http://www.offt.gov.uk/shared_offt/reports/comp_policy/oft845.pdf.

38. *See* COMPETITION COMM’N, THE SUPPLY OF GROCERIES IN THE UK MARKET INVESTIGATION (2007), *available at* http://www.competition-commission.org.uk/inquiries/ref2006/grocery/prov_findings/prov_find_report.pdf.

work. Irrespective of which channel becomes more or less important, in all cases those buyers that are adversely affected through it will see their competitive position being eroded more quickly and more substantially than would be the case without a waterbed effect.

Were smaller buyers' profits to become sufficiently squeezed, then they may choose to exit the market or, if feasible, cut back or adapt their offering to avoid head-on competition with their larger rivals. In this situation although increased competition from larger rivals may bring down all retail prices and thereby benefit consumers in the short run, in the long run prices may rise following a shakeout in the retail market. If discounts enjoyed through volume purchases are sufficiently important, then this is likely to deter any small-scale entry. Yet large-scale entry may be difficult where institutional and other restrictions are present, such as in countries where local-planning rules seriously restrict the development of new land for retailing. Accordingly, this shakeout might not lead to any significant new entry.³⁹

A waterbed effect may thus amplify and hasten such possible tendencies toward monopolization or at least market control in the hands of a very few well-positioned retailers. What is more, the effect of a waterbed effect may still be stronger as it could also affect firms' strategic incentives. If the growth in a buyer's size and market share not only creates additional discounts but also harms rivals through a worsening of their terms of supply, then firms may be tempted to engage in strategies that undermine smaller rivals' sustainability in the long run. In retailing, large multistore retailers may try to resort to micromarketing techniques, targeting the sales of weaker local rivals through local promotions and a judicious choice of their local offering.⁴⁰

Furthermore, it is conceivable that if a waterbed effect were particularly acute, then consumers might also on average be negatively affected even in the short run. Clearly, if larger buyers were to obtain a discount but the terms of supply of all their rivals were not affected, then in the short run it should be expected that retail prices would

39. However, this should not imply that there could not be new competition from different retail formats such as Internet shopping.

40. In the case where large multistore retailers that offer their customers a one-stop-shopping experience compete also with local convenience stores, below-cost pricing on a selected range of known-value items may have such an effect. Given that for retailers there is clearly also a valid business rationale for selected below-cost pricing and given that it typically only affects a small set of products, it is should be hard or even impossible to prosecute such behavior under provisions that target predatory pricing more generally. See PAUL W. DOBSON, MICRO-MARKETING AND DISCRIMINATORY PRACTICES IN UK GROCERY RETAILING (2006) available at http://www.competition-commission.org.uk/inquiries/ref2006/grocery/pdf/main_party_submissions_acs_micro_marketing.pdf.

decrease. Through competition, this should also apply to those buyers that do not benefit from more beneficial terms of supply.⁴¹ However, if the waterbed effect is sufficiently strong, then this conclusion can be reversed. More precisely, as these buyers' own supply prices increase through a waterbed effect, then two competing forces are at work. On the one hand, they would want to pass on some of their higher costs to consumers. On the other hand, increased competition by the more powerful buyer provides incentives to lower prices as well. Which of these two forces dominates is a priori ambiguous. The larger the waterbed effect, though, the more likely it is that prices increase at those buyers that are adversely affected through a waterbed effect. Moreover, the rise in prices might be so substantial that in terms of average consumer prices it outweighs the fall in retail prices at the larger buyers. The observations derived in the previous Part, when a waterbed effect should be stronger, provide a guide to when consumer harm even in the short run is more or less likely.

On a final note, while this Paper has so far focused attention on the short- or long-run impact on prices, the exercise of buyer power may also affect in other ways the efficient operation of the retail market. Non-cost-justified discounts to particular buyers can lead to allocative distortions. In retailing, consumers may end up shopping at more distant outlets that are owned by large multistore retailers instead of shopping more locally where small local retailers to exit the market. Also, to the extent that retail consolidation is driven by the quest for more buyer power, it could lead to a reduction in variety, since the range of products offered at different outlets becomes more uniform so as to generate sufficient volume. Moreover, a waterbed effect may distort investment decisions. Shielded from effective competition through advantageous purchasing conditions, large buyers could hold back some investments that they would otherwise have made and may, more generally, become more complacent and less efficient. Equally, some investments may instead be undertaken with the explicit purpose of undermining rivals' market share and growth if this could be expected to lead to a further worsening of their terms of supply in the future and thereby offer an additional competitive advantage for the larger buyer.

41. Buyer groups that only bundle orders from their members may not be competitive enough as they have little commitment power when it comes to negotiations with suppliers. For instance, a supplier may be less willing to fund a particular promotion if the buyer group can neither guarantee fixed shelf space nor the realization of sales targets as the respective decisions are taken at the store level.

IV. COUNTERVAILING EFFECTS

A waterbed effect is only one possibility. The discussion of the theories in the previous Part delineates more closely conditions for when it is more likely to arise and to be strong. This Part enriches the picture by discussing instances when even the opposite of a waterbed effect may arise, namely, that discounts to one buyer make further discounts to other buyers more likely. A closer understanding of when such countervailing or antiwaterbed effects could also arise may give practitioners more guidance toward identifying the specific conditions for when the potential for consumer harm through a waterbed effect is then still present.

Suppliers typically are very secretive about what discounts they give to different buyers. One reason is the fear that once it becomes known that one buyer has negotiated a larger discount, then this can undermine a supplier's bargaining position vis-à-vis competing buyers. Indeed economic theory also provides some support for this fear by suppliers. This follows from the observation that a discount to one retailer lowers the costs of additional concessions to rivals through the following mechanism. Generally, as one buyer obtains a discount it at least partly passes it on, then this not only expands the supplier's total sales volume but also shifts some of its sales away from other buyers and toward the buyer who obtained the discount. The key insight is that a reduction of sales to a particular buyer is now less costly to the supplier if this buyer had already been granted a large discount. Consequently, if it becomes known that the supplier granted a discount to one retailer, a rival retailer could reasonably argue that granting it a similar concession was now less costly to the supplier, given that by taking away market share from the first retailer, the supplier was bound to lose less due to his already-lower margin with this retailer.⁴²

Such a "me-too" effect should be stronger the more equal are buyers in negotiating with the supplier. In contrast, where a buyer is less powerful than rivals then the waterbed effect may dominate. This reinforces this Paper's former insight that the waterbed effect should be stronger the smaller and more squeezed a buyer already is compared to its larger rivals. In other words, in a broadly symmetric retail oligopoly, waterbed effects may be less likely to occur compared to situations where there is a dominant firm/group facing a competitive

42. For related analysis examining countervailing power effects, see Paul W. Dobson & Michael Waterson, *Countervailing Power and Consumer Prices*, 107 *ECON. J.* 418 (1997); Paul W. Dobson & Michael Waterson, *The Competition Effects of Industry-Wide Vertical Price Fixing in Bilateral Oligopoly*, 25 *INT'L J. INDUS. ORG.* 935 (2007).

fringe or an asymmetric oligopoly with significantly skewed market positions.

Still another possibility is that suppliers choose to grant weak buyers better terms to keep them active in the market. More precisely, instead of further turning the screw on smaller buyers as their larger rivals demand greater discounts, suppliers may jointly be better off by instead still keeping them competitive (to ensure that they retain alternative channels to access consumers and thereby protect their long-term bargaining position).⁴³

Finally, the presence of a powerful buyer, in particular if buyer power derives from volume, may also make supplier collusion less likely and less effective. With a large order up for grabs, suppliers may be more tempted to undercut any collusive regime and offer the large buyer a discount. To the extent that this generally destabilizes supplier collusion, smaller buyers would also benefit.⁴⁴

CONCLUSION

The discussion of a potential waterbed effect illustrates clearly that the analysis of buyer power and price discrimination in intermediate markets must be based on a careful case-by-case analysis of the interaction of horizontal and vertical effects. This would go amiss when the treatment of buyer power is taken too lightly as being “simply market power on the buyer side of a market.”⁴⁵

More generally, this raises the question of the adequate treatment of buyer power or, put differently, whether buyer power needs to be given special consideration. While this Paper acknowledges that for buyer power no different set of economic principles applies than for seller power, it also recognizes that there are some elements of buyer power that deserve special consideration.

First, what metric shall be used to define buyer power and how would this, if at all, be comparable to the definition of seller power? The brief analysis of what constitutes buyer power already suggests that no single metric may be entirely appropriate or sufficient and that,

43. Unless the supply side is relatively concentrated, however, any individual supplier would not want to sacrifice short-term profits in order to provide a public good in preserving a competitive downstream market (i.e., a free-rider problem may arise whereby good intentions are not delivered in actions).

44. For a formalization of this argument, see Christopher M. Snyder, *A Dynamic Theory of Countervailing Power*, 27 *RAND J. ECON.* 747 (1996).

45. Richard Scheelings & Joshua Wright, “*Sui Generis*”? *An Antitrust Analysis of Buyer Power in the United States and European Union 2* (George Mason University School of Law, Law and Economics Working Paper Series, Working Paper No. 05-30, 2005), available at <http://www.law.gmu.edu/faculty/papers/docs/05-30.pdf>.

already with respect to size, different metrics should be applied. These may include the buyer's share of a particular supplier's total business, the buyer's share of the overall market, or the buyer's control over some (geographic) markets where it can act as a gatekeeper due to the absence of local competition. Also in line with the focus of this Paper, some of the harm that could follow from the exercise of buyer power arises from the difference in buyers' bargaining power. To investigate these concerns, an appropriate metric would not only have to capture the absolute, or aggregate, level of buyer power but also its "skewness," that is, the extent to which its distribution is biased to only one or a few particularly large and powerful buyers.

Next, some of the applied metrics suggest that a buyer that is still relatively small in relation to both the retail market and the respective upstream market (e.g., the respective supplied-product category) could still yield substantial buyer power over individual suppliers. Depending on the circumstances, however, in marked contrast to the exercise of seller power, which typically fails to deliver benefits to consumers, the net effect from the exercise of buyer power is far more ambiguous. Consequently, instead of trying to apply generally some metric with a set threshold in mind, the metric should be linked to the respective theories of harm that are applicable under the given circumstances.⁴⁶

While the exercise of seller power raises immediate suspicion that it will likely have an adverse impact on consumers through higher prices, equating buyer power with lower retail prices and higher consumer surplus should not be automatic. As this Paper discusses, the possibility of a waterbed effect provides an example where consumers could be harmed when retail competition is sufficiently distorted as a consequence of differential buyer power. Furthermore, as Part III.A illustrates, buyer power may also affect supplier competition, potentially driving upstream consolidation. Yet, at a more general level, the exercise of buyer power may affect suppliers' incentives to invest and innovate.⁴⁷ In practical terms, it may be asked whether by adhering too narrowly to the application of a consumer standard there is risk in ignoring more long-term consequences of the exercise of buyer power, working through the impact on suppliers. Here, antitrust authorities could consider more broadly the objective to safeguard a

46. For a discussion of some of these issues, see Roger G. Noll, "Buyer Power" and *Economic Policy*, 72 ANTITRUST L.J. 589 (2005).

47. This Paper does not, however, advocate equating too mechanically lower profits for suppliers with lower investment incentives. For instance, at least in the short run, it is suppliers' incremental profit and not their overall level of profit that is likely to be the overriding consideration in their incremental investment decisions.

competitive market structure, not only along the horizontal, but also along the vertical dimension.⁴⁸

A number of countries have developed policies to tackle specific aspects of buyer power. For instance, economic-dependency laws apply in France, Germany, and other European countries, ostensibly to protect vulnerable parties against opportunistic behavior by powerful trading parties. To the extent that such laws could effectively constrain selected discounts to powerful buyers, they could also rein in the exercise of differential buyer power. However, such provisions would typically only apply with respect to small- and medium-sized suppliers. Also, the respective buyers would have to be large in terms of a supplier's total business. Larger manufacturers, such as big multinational-brand producers, should then typically not be covered unless there exists more general provisions, as with the Robinson-Patman Act, that restrict price discrimination in intermediary markets. However, if such provisions were absent or were rescinded, then antitrust authorities may have largely to confine their attention to cases where the exercise of buyer power would reinforce and consolidate seller power at the retail market.⁴⁹ The problem with this approach is that a buyer (or a group of buyers) could wield substantial buyer power already at levels of size and market share considerably below those that are needed to establish seller power in the final market.⁵⁰ The concern must then be that once differential buyer power is established, a process toward retailer concentration may be set in motion that later may be difficult to address. In such circumstances, policy makers and antitrust authorities should, while still wishing to see efficiencies achieved, seek to make sure that the playing field does not become too tilted and that

48. On a related note, see Marius Schwartz, Professor of Econ., Georgetown Univ., Comments at DOJ/FTC Workshop on Merger Enforcement: Should Antitrust Assess Buyer Market Power Differently than Seller Market Power? (Feb. 17, 2004), available at <http://www.usdoj.gov/atr/public/workshops/docs/202607.pdf>.

49. Even in countries, such as the U.K. and Australia, where a regulated code of practice operates for retailers dealing with suppliers, the measures are generally not concerned with price negotiation but rather about curbing exploitative or directly anticompetitive buying and trading practices, and, as such, they can still allow for the exercise of differential buyer power.

50. For instance, the U.K. Competition Commission in its 2000 *Supermarkets* inquiry determined that 8 percent of the relevant market could afford sufficient buyer power to distort competition. COMPETITION COMM'N, *supra* note 34, ¶ 1.10. The European Commission determined in its decision on the Rewe/Meinl merger that a supplier is in a position of "economic dependence" when the buyer accounts for more than a 22 percent market share and, as such, buyer power may distort competition. See *Rewe/Meinl*, 1999 O.J. (L274), ¶ 110. Both market-share levels are distinctly below those typically associated with concern over unilateral effects or dominant-firm behavior on the selling side (which may be 40 percent or more).

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effective competition prevails among buyers to the ultimate benefit of consumers.