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Working Party No. 2 on Competition and Regulation

MARGIN SQUEEZE

-- United States --

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The attached document is submitted to Working Party No. 2 of the Competition Committee FOR DISCUSSION under item III of the agenda at its forthcoming meeting on 19 October 2009.

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1. This note discusses "margin squeeze" (also called "price squeeze") as a theory of liability under the competition laws of the United States. A margin squeeze can occur when an upstream firm sells an input for which there are no good economic substitutes to firms against which the upstream firm also competes in the downstream market. A common example is a vertically integrated firm that engages in both wholesale and retail sales, who has market power at the wholesale level, and competes with nonintegrated rivals at the retail level. A margin squeeze arises where the margin between the downstream retail price and the wholesale price charged for an input is too small to allow a firm to survive as a retail competitor.

2. This note is divided into three parts. The first part discusses current case law in the United States that addresses whether or not margin squeeze is a recognized theory of antitrust liability. It discusses the US Supreme Court's rejection of price-squeezes as stand-alone claims in the absence of an antitrust duty to deal and its decision that most such complaints must be brought as predatory pricing claims. Part II discusses the economics of margin squeezes. Part III concludes and discusses open questions for margin squeezes under US law.

1. Margin squeeze as a theory of liability under the U.S. antitrust laws

3. In the United States, the law on margin squeeze claims has been evolving, with some questions settled and others left open under current antitrust doctrine. The US Supreme Court has specifically addressed only margin squeezes by an integrated firm that has no duty under antitrust law to deal with its downstream rivals. The Court ruled that in such cases US antitrust law does not recognize margin squeezes as a standalone form of anticompetitive abuse.[1] The Supreme Court has not found an antitrust duty to deal since its decision in *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*,[2] and it is uncertain after the Court's decision in *Verizon Communications, Inc. v. Law Offices of Curtis V. Trinko* (*Trinko*)[3] under what additional circumstances it would find such a duty to exist. That said, unilateral refusals to deal are not legal *per se*, and under some circumstances can lead to antitrust liability. The Supreme Court has not ruled on whether a separate margin squeeze doctrine is recognized where there is a duty to deal in the upstream product. In cases where there is a duty to deal, there is an open question as to whether margin squeezes are or should be recognized as a distinct form of anticompetitive conduct under US law. We will return to this question later in this section.

1.1 linkLine and margin squeezes by integrated firms with no duty to deal

4. Although some lower courts and enforcement agencies in the past have more broadly recognized margin squeeze as a theory of harm, in February of 2009 the Supreme Court held in *Pacific Bell Co. v. linkLine* ("*linkLine*") that, when an integrated firm can legally refuse to deal in the upstream product, a margin squeeze complaint may not be brought under Section 2 of the Sherman Act.[4] In reaching that conclusion, the Court built on its 2004 decision in *Trinko* and held that absence of a duty to deal at all precluded an inquiry into the prices at which a firm chose to deal.

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[1] Pacific Bell Tel. Co. v. linkLine, 555 U.S. ___ (2009).

[2] 472 U.S. 585, 608-611 (1985).

[3] 540 U.S. 398 (2004).

[4] 555 U.S. ___ (2009).

5. The facts in *linkLine* were as follows: four independent Internet service providers were competing with AT&T[5] in the provision of digital subscriber line (DSL) service to retail broadband customers in California. AT&T owns infrastructure and facilities that its rivals needed in order economically to provide competing DSL service, including lines that connect homes and businesses to the telephone network. Pursuant to conditions imposed by the Federal Communications Commission (FCC), AT&T was obligated to provide "wholesale DSL transport services" to independent firms at a price no greater than the retail price of AT&T's DSL service.[6] The independent retailers sued AT&T for monopolizing the DSL market by refusing to deal with the plaintiffs, denying the plaintiffs access to essential facilities, and engaging in a margin squeeze. Specifically, the independent retailers argued that "AT&T squeezed their profit margins by setting a high wholesale price for DSL transport and a low retail price for DSL Internet service."[7] AT&T's conduct allegedly "exclude[d] and unreasonably impede[d] competition," thus allowing the company to "preserve and maintain its monopoly control of DSL access to the Internet."[8]

6. The Court found that in order to prove cognizable harm from a margin squeeze where the defendant has no duty to deal with rivals under Section 2 of the Sherman Act, the plaintiff must show that the retail price at which the defendant sold in competition with the plaintiff was predatory as defined by the Supreme Court's precedent. The Court declined to create any independent doctrine for margin squeezes.

7. Price-squeeze claims have long been part of the Section 2 doctrine,[9] and price-squeeze theory was embraced by Judge Learned Hand in the Second Circuit's seminal opinion in the *Alcoa* case over sixty years ago.[10] In that case, Alcoa was a monopolist in the market for aluminum ingot, which is used to produce aluminum sheet. It also sold ingot to downstream rivals that produced aluminum sheet. In *Alcoa,* the defendant and the plaintiffs competed for retail customers, but plaintiffs alleged that the defendant enjoyed monopoly power over an essential input and had set wholesale prices for that input so high that plaintiffs could not profitably compete downstream.[11]

8. The gravamen of the margin squeeze found in *Alcoa* was that the downstream competitors could not make a "living profit" because they were squeezed between Alcoa's high price for ingot and its low price for sheet.[12] In *Alcoa*, the court took the price of Alcoa's ingot and its 'rolling' costs as a fair measure of costs and compared those costs to Alcoa's sheet prices.[13] It found that the margin was negative in many instances (that is, the costs exceeded the price) and only barely positive in other instances (by a few pennies).[14] The rivals' costs of the ingot plus the process of rolling it into sheet were greater than Alcoa's own retail price for aluminum sheet. The court held that Alcoa was unlawfully using its monopoly power to price its wholesale ingot "unfairly" high and its retail sheet unreasonably low.

5 The defendants in linkLine consisted of several corporate entities whose names and structures changed throughout the linkLine litigation. Like the Supreme Court, we refer to the defendants collectively as "AT&T", for simplicity.

6 Id. at 2.

7 Id. at 3.

8 Id.

9 See Pet. App. 8a-9a.

10 United States v. Aluminum Co. of America, 148 F.2d 416 (2d Cir. 1945).

11 Compare linkLine, 503 F.3d at 879, with Alcoa, 148 F.2d at 437-38.

12 Brief at 13.

13 Alcoa, 148 F.2d at 437.

14 Id.

9. *Alcoa* was not the last word in margin squeezes before *linkLine*. A number of courts after *Alcoa* recognized that price-squeeze allegations may support liability under Section 2.[15] The First Circuit in *Town of Concord* rejected a price squeeze claim where the defendant's prices were fully regulated at both the wholesale and retail levels.[16] In so doing, however, the court did identify several respects in which a margin squeeze may have anticompetitive effects in an unregulated industry. Even accepting the economic argument that "there is but one maximum monopoly profit to be gained from the sale of an end-product,"[17] the First Circuit pointed to at least two arguments for not permitting the extension of monopoly power to a second industry level: entrenching the monopoly in the upstream market, and eliminating non-price competition in the downstream market.[18] As to the first scenario, a monopolist in the upstream market can raise the costs of entry into that market by extending its dominance to the downstream market. A prospective upstream new entrant will thus be deterred not only by the pre-existing entry barriers but also by the prospect of having to compete on unequal terms with the incumbent because of the latter's control over the downstream market. "And insofar as the monopolist previously set prices cautiously to avoid attracting a competitive challenge, the added security of a two-level monopoly could even lead that monopolist to raise its prices."[19] Likewise, even assuming no price effects from eliminating the downstream competition of an integrated monopolist, non-price competition in areas like quality and service can also be harmed by reducing the incentives for the monopolist to develop better products and more efficient means of production, and by eliminating the possibility of an independent downstream actor challenging the monopolist by developing better and more efficient downstream products.[20]

10. The *linkLine* Court's holding that, absent a duty to deal in the upstream product, margin squeeze does not constitute a valid claim under the Sherman Act relied partly on the Court's statement in *Trinko* that "if a firm has no antitrust duty to deal with its competitors at wholesale, it certainly has no duty to deal under terms and conditions that the rivals find commercially advantageous."[21] Applying this reasoning to the margin squeeze context, the Court ruled that in the absence of an antitrust duty to deal, there is no violation of competition law if an upstream monopolist uses its power in the wholesale market to prevent rival firms from competing effectively in the retail market,[22] unless a plaintiff can show that prices in the retail market are predatory under the standards of *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*[23] While the Supreme Court in *linkLine* did not explicitly overrule *Alcoa*, it noted that "[g]iven developments in economic theory and antitrust jurisprudence since *Alcoa*, we find our recent decisions in *Trinko* and *Brooke Group* more pertinent to the question before us."[24]

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15 See, e.g., Covad Communications Corp. v. BellSouth Corp. 374 F. 3d 1044 (11th Cir. 2004).

16 Town of Concord v. Boston Edison Co., 915 F.2d 17 (1st Cir. 1990) (Breyer, C.J.) (holding that a price squeeze in which the defendant's prices are regulated at both the primary and secondary levels does not ordinarily violate Section 2 of the Sherman Act). See also linkLine at 2 (Breyer, C.J. concurring) ("When a regulatory structure exists to deter and remedy anticompetitive harm, the costs of antitrust enforcement are likely to be greater than the benefits.").

17 Id. at 23 (citing 3 P. Areeda & D. Turner, Antitrust Law ¶725b, at 199 (1978)).

18 Id. at 23-24.

19 Id. at 24 (citing Areeda & Turner ¶725h, at 204-08; William G. Shepard, Potential Competition Versus Actual Competition, 42 ADMN. L. REV.5-34 (1990)).

20 See id. (citing Areeda & Turner).

21 LinkLine at 9.

22 Id. at 10.

23 509 U.S. 209 (1993).

24 LinkLine footnote 3.

11. Turning specifically to the predatory pricing issue, the *linkLine* Court cautioned that impositions of antitrust liability for prices that are too low are "especially costly, because they chill the very conduct the antitrust laws are designed to protect."[25] Thus, U.S. competition law sets a very high standard for finding that prices are too low or predatory. These standards, as set out in *Brooke Group*, are: (1) "the prices complained of are below an appropriate measure of its rival's [the alleged predator's] costs;" and (2) "there is a 'dangerous probability' that the defendant will be able to recoup its 'investment' in below-cost prices."[26]

12. The *linkLine* Court added that "[i]nstitutional concerns also counsel against recognition of [price squeeze] claims" that hold firms liable for failure to leave their rivals a "fair" or "adequate" margin between wholesale and retail prices.[27] Said the Court, "[i]t is difficult enough for courts to identify and remedy an alleged anticompetitive practice at one level, . . . [r]ecognizing price-squeeze claims would require courts simultaneously to police both the wholesale and retail prices to ensure that rival firms are not being squeezed. And courts would be aiming at a moving target, since it is the interaction between these two prices that may result in a squeeze."[28] The Court recognized that firms rely on "safe harbors" in making pricing decisions. The absence of such safe harbors may cause firms to avoid price cutting, which is the essence of competition and benefits consumers. *Brooke Group* sets a safe harbor – a firm will not be liable for predatory pricing if its retail price is above its cost.

13. The *linkLine* Court also rejected a "transfer price test" that would find an unlawful margin squeeze if the upstream monopolist could not make a profit by selling at its retail prices if it purchased inputs at its own wholesale rates. The Court reasoned that "[a]n upstream monopolist with no duty to deal is free to charge whatever wholesale price it would like; antitrust law does not forbid lawfully obtained monopolies from charging monopoly prices."[29] After *linkLine*, absent a duty to deal a margin squeeze claim cannot be upheld where the defendant's retail price remains above cost or otherwise non-predatory within the meaning of *Brooke Group*.

1.2 Margin squeeze by a defendant who cannot unilaterally refuse to deal with rivals

14. Under certain circumstances, US courts have recognized that a firm's refusal to deal with competitors is illegal under antitrust law.[30] While the *Trinko* Court circumscribed the kinds of cases in which antitrust law recognizes a duty to deal, it did not overrule precedent establishing such duties under Section 2 of the Sherman Act. Given that an outright refusal to deal would be illegal in certain cases, what would happen if an integrated firm with a duty to deal did not refuse to deal at the wholesale level but instead dealt only at a high enough price to place the purchaser in a price squeeze?

15. One possible approach to such a situation is to treat the high wholesale price as a constructive refusal to deal. Such a theory, however, would face many hurdles and is in considerable tension with the holdings of *Trinko* and *linkLine*. The drawback of this approach is two-fold. First, a court must determine what price is so high that it amounts to a refusal to deal. While there are certain measures one could use—

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25 Matsushita Elec. Industrial Co. v Zenith Radio, 475 U.S. 574 (1986).

26 Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 222-224.

27 LinkLine at 12.

28 Id. at 13.

29 Id. at 14.

30 See, e.g., Lorain Journal Co. v. United States, 342 U.S. 143 (1951); United States v. Otter Tail Power Co., 410 U.S. 366 (1973); MCI Commc'ns Corp. v. AT&T Co., 708 F.2d 1081 (7th Cir. 1983), cert. denied, AT&T Corp. v. MCI Commc'ns Corp., 464 U.S. 891 (1983).

for example price in excess of the price at which the monopolist would maximize its wholesale profits—the question is complicated and the measurement difficult to accomplish. Second, once a court determines the price was so high as to amount to a refusal to deal, it must decide how much lower the price should be and then enforce remedy of making sure the wholesale price does not rise above that level.

16. Allowing the price squeeze to be treated as a distinct form of abuse where the upstream refusal to deal would be illegal might have an advantage as an alternative approach. Instead of having to decide whether the wholesale price was so high as to constitute constructive refusal to supply the upstream input and then having to decide on a price at which the defendant must deal, the court could allow the defendant to set any wholesale price it wants but with the knowledge that the wholesale price it charges to others will be attributed to the defendant's own costs in the downstream retail market. The Supreme Court of course rejected such an attribution approach in *linkLine* and was skeptical of a standalone margin squeeze doctrine.[31] Much of the economic analysis underlying concerns about a standalone margin squeeze doctrine in the *linkLine* context might apply in cases where there is an upstream duty to deal. It is to that economic analysis that we turn next.

2. Economic analysis of margin squeezes

17. In this section the US addresses three questions raised in the Secretariat's request for country contributions for the Roundtable on Margin Squeeze: "(a) whether or not existing forms of abuse of dominance can adequately control all of the anticompetitive concerns arising from margin squeezes; (b) if not, what modifications or extensions of existing competition law principles might be necessary; and (c) whether there is a danger, in separately identifying margin squeeze as a stand-alone form of abuse, that some behavior that is, in fact, pro-competitive will be deterred, or a risk that downstream firms will engage in 'abuse shopping' to stifle potentially competitive discounting by their integrated rival."

18. In summary, we conclude: (a) depending on the formulation of predatory-pricing doctrine, the anticompetitive concerns arising from margin squeezes could be addressable without making margin squeeze a separate avenue of inquiry in an abuse of dominance case; (b) in most cases, existing competition law principles are adequate to formulate antitrust law that controls the potential harms to competition associated with margin squeezes; (c) to treat a margin squeeze as a separate antitrust abuse could risk deterrence of pro-competitive behavior by enabling firms to seek redress for unavoidable by-products of certain efficient conduct.

19. The risk of deterring pro-competitive conduct arises because efficient, consumer-welfare enhancing vertical integration in the presence of pre-existing market power is efficient precisely because it reduces downstream margins that consumers would otherwise pay. Those reduced margins in turn may squeeze nonintegrated downstream rivals. In antitrust terminology, the reduction in downstream margins may harm competitors, but not competition. Forcing an integrated firm to increase its downstream margin (or avoid reducing it) usually results in a loss in savings through higher prices and lower consumer welfare. Because the objective of US antitrust policy is to protect competition rather than competitors, plaintiffs are required to demonstrate not just that they are harmed by low retail prices, but that consumers and the competitive process are harmed as well. To the extent those instances in which a margin squeeze may be associated with anticompetitive effects can be captured through existing predation and refusal-to-deal doctrine, margin squeeze as a standalone antitrust doctrine would be redundant and potentially costly.

[31] LinkLine at 15 ("The problem, however, is that amici have not identified any independent competitive harm caused by price squeezes above and beyond the harm that would result from a duty-to-deal violation at the wholesale level or predatory pricing at the retail level . . . [T]o the extent a monopolist violates one of these doctrines, the plaintiffs have a remedy under existing law.").

20. We say "to the extent" in the above paragraph because in the event that predatory pricing doctrine either over-protects price-cutting firms or under-protects consumers, those errors will be compounded by forcing margin-squeeze cases into the predatory pricing box. To the extent doctrine allows pricing too easily to be categorized as "predatory," even when it benefits consumers, efficient vertical integration that reduces downstream margins may be inefficiently proscribed. On the other hand, where inefficient predatory pricing that maintains monopoly and over time harms consumers escapes antitrust doctrine, harmful margin squeezes will similarly escape scrutiny in the absence of a better, standalone cause of action for margin squeezes. In principle, the cleaner way to resolve any such problems is directly through a reformulation of predatory pricing doctrine.

21. The remainder of this part is organized as follows. Part A reviews the economics of a margin squeeze, which we use to answer question (c), above. Part B then discusses examples in which a margin squeeze may be used anticompetitively and explains how existing areas of the antitrust law can be used to treat margin squeeze in these cases.

2.1. The economics of a margin squeeze

22. A margin squeeze can only arise when an upstream supplier of an input is vertically integrated into a downstream market for a good or service that is produced using that input. The effects of a margin squeeze are therefore inextricably linked to the effects of vertical integration.

23. It is helpful to consider a simple environment in which an upstream firm sells an input used in fixed proportions by downstream firms to produce a final product. Internet service, the product at issue in *linkLine* is a good example; it requires one unit of content "transport" (the upstream product) to deliver one unit of the access service to retail subscribers (downstream product).[32] Assume the upstream firm that owns the transport infrastructure has upstream market power. For simplicity, we will assume that it is a monopolist, though the ideas in this note are also relevant whenever the upstream firm has substantial market power.

24. For the purposes of this section, we define a margin squeeze as a situation in which the downstream rival is as efficient as the monopolist but cannot remain in business without the monopolist's input. For example, suppose hypothetically that the unit cost of producing internet transport service is $1, the cost of producing each unit of retail internet service is $3, the wholesale price of transport is $4, and the retail price of internet service is $6. Under these assumptions, a nonintegrated downstream firm's margin would be retail price - wholesale price - downstream unit cost, or 6 - 4 - 3 = -1. An integrated firm's margin would be retail price - upstream unit cost - downstream unit cost, or 6 - 1 - 3 = 2. In this hypothetical example, the nonintegrated downstream firm's margin is less than that of an equally efficient vertically integrated firm and the nonintegrated firm's margin is "squeezed" to the level that it exits the market. If the wholesale price were equal to the upstream unit cost, then there would be no margin squeeze, as both the integrated and nonintegrated firms would have margins of $2.

2.1.1 Margin squeeze in an unregulated environment

25. In the absence of regulation, economic analysis has identified two efficiency motivations for an upstream firm with market power to integrate forward into a downstream market in which the input is used

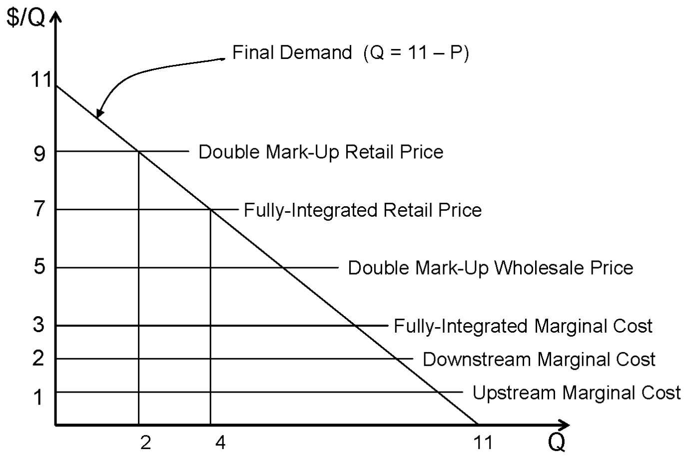
32 Internet service was the subject of margin squeeze claims in the recent AT&T/linkLine case in the U.S. Technically, internet transport and service can move in variable proportions by adjusting the speed of service. The presence of variable proportions does not alter the conclusions of this paper.

in a fixed proportion to output: (1) the elimination of double marginalization;[33] and (2) production cost savings or quality enhancement.[34] In addition, another motivation might be to reduce problems with coordinating decisions and planning at two levels.

26. As to the first of these motivations, it is well known that when firms at both the upstream and downstream levels of a chain of production have some degree of market power, a pricing distortion known as "double marginalization" may arise. In considering what price maximizes its own profit, each firm may fail to account for the negative effect on the demand and profit of the firm at the other, complementary level of production. The effect may be a total price above that which would be set by a single vertically integrated firm. This vertical externality can provide an efficient motivation for an upstream monopolist to vertically integrate.

27. An example of the effects of double marginalization is illustrated in Figure 1 and the associated chart.[35] Suppose initially that the upstream and downstream markets are monopolized by separate firms. The profit-maximizing wholesale price is then $5, and the downstream firm marks the retail price up to $9. There is double marginalization, as both firms have positive margins ($4 for the upstream firm and $2 for the downstream firm). Thus, the retail price of $9 will exceed the price a vertically integrated firm would charge.

Figure 1: Example of Pro-Competitive Margin Squeezes



	Wholesale Price	Retail Price	Output
Downstream monopoly			
No integration:	5	9	2
Integration/margin squeeze:	5	7	4
Downstream competition			
No Integration:	4	7	4
Integration with $1 retail cost savings & margin squeeze:	> 4.50	6.50	4.5

33 It is well known that nonlinear pricing is sometimes a way to overcome double marginalization without vertically integrating. When this is the case, cost savings or quality enhancement may still motivate vertical integration. On the other hand, nonlinear pricing may not be a perfect instrument, e.g., when retailers are risk averse or manufacturer decisions are subject to moral hazard.

34 We are ignoring issues relating to horizontal product differentiation (i.e., situations in which brand A is preferred by some consumers and brand B is preferred by others).

35 Formally, demand is Q = 11 – P, the marginal cost of the upstream component is $1, and the marginal cost of the downstream component is $2. Under these assumptions, the fully integrated monopoly price is $7. Under successive monopoly, the wholesale price is $5, and the retail price is $9.

28. The upstream firm can eliminate double-marginalization by integrating forward and competing in the downstream market, eliminating the downstream margin. In particular, the profit-maximizing price for a vertically integrated firm in this example is $7. By integrating forward and charging the nonintegrated firm a wholesale price of $5, the upstream firm can induce the fully integrated price of $7. The nonintegrated firm cannot charge more than $7 because it competes with integrated firm, which also charges $7. It cannot charge less because its unit cost is $7 (the wholesale price of $5 plus the downstream unit cost of $2). Note that vertical integration results in a margin squeeze. However, vertical integration in this example reduces price from $9 to $7, increasing output from 2 units to 4 units.

29. Reducing the profit margin of independent, downstream retailers can help mitigate the vertical externality from double marginalization and result in lower retail prices and greater total output. Ideally, these efficiencies would not be prevented by an antitrust doctrine recognizing margin-squeeze claims. And, many margin reductions that occur through efficient vertical integration will not cause the downstream firm to exit or otherwise impede its ability to compete. Pricing efficiencies pursuant to vertical integration should not be equated with margin squeezes. The challenge is to identify when the margin reduction is both large enough to exclude competitors (or impede their ability to compete) without inappropriately preventing efficient pricing that benefits consumers.

30. The policy risk in recognizing stand-alone margin squeeze claims is that it may be difficult to achieve the sorting just described. If the integrated firm is compelled (*e.g.*, by an antitrust enforcement action) to increase the nonintegrated firm's margin, it may decide not to integrate in cases where integration would be efficient. In this case, double marginalization remains and prices are higher. Alternatively, the firm may integrate, but raise its rivals' margins by charging higher prices at retail. The firm may also attempt to mitigate double marginalization through a less efficient means. In all three cases, a policy aimed at eliminating potential margin squeezes could lead to higher prices for consumers and lower welfare.

31. When the downstream market is competitive and no markups are set at that level, the double margin problem does not exist. However, absent the anticompetitive factors identified in *Town of Concord*, the upstream firm cannot increase its profits by integrating into the downstream market unless it can offer a lower cost or higher quality product than existing downstream firms. For example, suppose integration lowers the downstream unit cost to $1, while the nonintegrated downstream firms still have unit costs of $2. In this case, the profit-maximizing price of an integrated firm falls from $7 to $6.50. By integrating forward and charging downstream firms more than $4.50, the integrated firm will drive inefficient firms out of the market, allowing it to charge the fully-integrated price of $6.50. In this case, integration lowers the retail price from $7 to $6.50, raises output from 4 units to 4.5 units, and raises consumer and total welfare. At a wholesale price above $4.50 and a retail price of $6.50, however, the nonintegrated retailer's margin is negative and it will exit the market. However, it is this margin squeeze that allows the integrated firm to sell its lower-cost product.[36] Moreover, the sales occur at a price that is no higher than the price that prevails in the absence of integration. Put differently, setting a wholesale price high enough to permit even inefficient firms to survive will result in higher prices and lower output for final consumers.[37]

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36 A similar argument would hold if vertical integration enhanced quality by increasing consumers' willingness to pay for each unit by $1. Vertical integration would then reduce the "quality-adjusted" price from $7 to $6.50 in this example.

37 There is also a question as to why, if other downstream firms were equally or more efficient at retail than is the monopolist, the monopolist would find it more profitable to squeeze them out of business than to set a wholesale price and have them provide efficient services downstream. Possible reasons are discussed in Section B below.

32. The purpose of the above examples is not to argue that there is some theorem or formula by which vertical integration and any associated margin squeezes are always efficient and pro-competitive. Instead, the point is to show that when an upstream firm vertically integrates to eliminate double margins, introduce new products, or engage in more efficient retailing, reduction in margins of downstream competitors is an inextricable by-product of the process. This efficient reduction in downstream margins can sometimes be substantial enough to cause non-integrated firms to exit the market. Such exit may also, however, be anticompetitively motivated. The difficulty is in separating the efficient from anticompetitive exclusions. Rules that would introduce antitrust liability for margin squeezes prevent the anticompetitive exclusions but carry the real risk of impeding efficient activity; emphasis on that risk has been the motivating force in US Supreme Court treatment of margin squeeze claims to date.

2.1.2 Margin Squeeze in a Regulated Environment

33. Suppose the upstream firm is required by regulation to charge a wholesale price below what it might otherwise find to be most profitable. In such cases, the firm has a profit incentive to engage in so-called "regulator evasion" and may be able to do so in a variety of subtle ways. The firm might, for example, degrade the quality of service it provides to independent downstream rivals, thereby driving out independent retailers and monopolizing the unregulated retail market (and setting monopoly prices there). In effect, the margin being provided on the degraded input would be too low to permit effective competition downstream. .

34. Second, regulation might allow the monopolist to charge wholesale prices exceeding its upstream marginal costs. When this occurs, the integrated firm would effectively have a cost advantage over nonintegrated rivals in the downstream market because rivals would pay the wholesale price for the input while the integrated firm would impute the true cost of the input to itself. It is possible that downstream rivals would exit as a result. However, this would not necessarily imply that the monopolist was attempting to drive the rivals from the market in order to raise downstream prices later. In fact, recent economics literature shows that an increase in the regulated wholesale price typically reduces the integrated firm's incentive to engage in predation in the downstream market.[38] The reasoning is straightforward: the greater the wholesale margin of the integrated firm, the greater the upstream profit it loses when it drives rivals out of the downstream market. So higher wholesale prices actually discourage using a margin squeeze to drive downstream rivals out of the market.[39]

35. It is worth emphasizing that imperfect (above marginal cost) wholesale price regulation preserves the incentives for forward integration discussed earlier in this note. If there is market power in the downstream market, the upstream firm will have an incentive to integrate forward to reduce the downstream price, increase the quantity it sells at the regulated wholesale price, and increase its profits in the upstream market. The upstream firm also benefits from integration if it can produce at lower cost or offer a higher quality product than downstream rivals, as this would also increase the quantity it sells and increase the profit it earns at the regulated wholesale price. Both of these welfare-enhancing motivations for vertical integration lead to efficiencies precisely because they reduce downstream margins.

2.2 Implications for the antitrust treatment of margin squeezes

36. The basic model, with a downstream market that employs the integrated firm's upstream component in fixed proportions with output, implies that an integrated firm would not raise its profits by using a margin squeeze to exclude equally or more efficient downstream competitors.

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38 See, e.g., Biglaiser and DeGraba (2001).

39 Biglaiser & DeGraba allow for product differentiation in the downstream market, but their results hold when the degree of product differentiation is arbitrarily small.

37. If the integrated and nonintegrated downstream rivals sell differentiated products, the incentive to use a margin squeeze to monopolize the downstream market is even lower. The presence of a differentiated competitor increases the derived demand for the upstream component of the integrated firm's product. Excluding such competitors reduces the integrated firm's profits.[40]

38. If the integrated firm is more efficient than downstream rivals, then inefficient rivals may be forced to exit. However, in such cases, a margin squeeze is not anticompetitive, as it lowers costs and may reduce the retail price.[41]

39. The above examples suggest that margin squeezes are often the consequence of the integrated firm being more efficient in the downstream market than its competitors or that the integrated firm is reducing the harmful effects of market power at the downstream level (*i.e.* double margins). The above models do not capture dynamic or non-price effects of downstream competition, nor do they consider scenarios in which a firm with monopoly power over an input may be able to profitably squeeze out its rivals and monopolize additional markets. Despite the efficiency-enhancing examples presented above, there are ways in which a firm can use margin squeezes as an anticompetitive strategy. We next discuss three such examples and explain how they can be treated with existing antitrust doctrine.

2.2.1 Predatory pricing in regulated environments

40. A vertically integrated firm that is regulated in the upstream market may, as discussed above, have incentives to engage in predatory pricing in the downstream market, if regulation constrains the wholesale price to below the monopoly level. The integrated firm may have incentives to engage in predatory pricing, but this behavior could be treated via standard predation doctrine.[42] As already discussed, to the extent predation doctrine is well formulated to protect aggressive pricing while preventing anticompetitive exclusion, no separate margin squeeze doctrine is necessary in this setting.

41. If regulation is imperfect and the wholesale price exceeds upstream unit cost, then there will be a margin differential in the downstream market because the integrated firm's upstream costs will be lower than those of a nonintegrated downstream firm paying the regulated wholesale price. The potential margin squeeze that arises is not anticompetitive in and of itself, however. If the downstream firm is not excluded from the market, the margin squeeze lowers the retail price for any given wholesale price. The integrated firm may, however, attempt to exclude downstream rivals by engaging in predatory pricing.

42. As discussed earlier in this note, the antitrust treatment of predatory pricing in the U.S. is governed by *Brooke Group*, which requires the plaintiff to show 1) that the alleged predator has set prices below an "appropriate measure" of cost, incurring losses over the period of predation, and 2) that the losses can likely be recouped after the targeted rival exits the market. This standard can be applied to downstream predatory behavior by a regulated, integrated firm. To the extent the *Brooke Group* test protects competitive price cutting and prevents anticompetitive harm, it will protect against inefficient margin squeezes by the regulated firm.

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40 The logic is analogous to that in Whinston (1990) for why a monopolist over product A would not tie it with a complementary product B simply to exclude a differentiated rival supplier of B from the market in which A also sells B. The monopolist can always do better selling to the rival supplier of B because it enhances the demand for its monopolized product A.

41 Similarly, the integrated firm may have an incentive to use a margin squeeze to exclude rivals if it costs less to transfer the upstream product internally than to sell it to downstream rivals.

42 As noted earlier, the regulated firm may evade regulation by degrading the quality of the input sold to nonintegrated rivals.

2.2.2 Exclusion for monopoly maintenance or extension

43. While an integrated monopolist does not usually have an incentive to employ a margin squeeze to monopolize the downstream market, it may benefit from excluding downstream firms if doing so helps maintain its upstream monopoly. For example, if there are economies of scale in upstream production, or economies of scope in the production of the upstream and downstream components, then a nonintegrated rival may be in a position to enter the upstream market only if it also has a downstream presence. Alternatively, a third party may be in a position to enter the upstream market but find that it is too costly to enter both markets simultaneously. In either case, an integrated firm with upstream market power may have an incentive to use a margin squeeze to drive downstream rivals out in order to preserve its upstream monopoly.

44. In the conduct just described, there is an analogy with the use of tying to maintain monopoly (Whinston, 1990; Carlton and Waldman, 2002). Analytically, a margin squeeze that drives downstream firms out of the market is equivalent to tying the upstream and downstream components of the product.

45. There is another possible, anticompetitive motivation for a margin squeeze that is closely related to ideas in the antitrust treatment of tying and exclusive dealing. Suppose the integrated firm's downstream unit competes in other markets in which it does not have market power over the upstream input. If the downstream market is subject to economies of scale in production, a margin squeeze that drives a nonintegrated firm out of one market may cause it to exit or otherwise raise its incremental costs, thereby enhancing the integrated firm's market power in other downstream markets.[43]

3. Conclusions

46. The purpose of this note has been to address the questions set out by the request for country contributions for the Roundtable on Margin Squeeze. We began by addressing the legal environment in the US, explaining that since the Supreme Court's decision this past year in *linkLine*, the Sherman Act does not recognize margin squeeze as a standalone theory of harm in monopolization cases where there is no duty to deal upstream. There remains an unresolved question of how margin squeezes will be treated in the US in cases where antitrust law would impose a duty to deal with rivals on the upstream monopolist. In the majority of cases, however, plaintiffs will have to bring margin squeeze cases as predatory pricing claims.

47. We turned next to the three economic questions on which the Secretariat invited us to comment: "(a) whether or not existing forms of abuse of dominance can adequately control all of the anticompetitive concerns arising from margin squeezes; (b) if not, what modifications or extensions of existing competition law principles might be necessary; and (c) whether there is a danger, in separately identifying margin squeeze as a stand-alone form of abuse, that some behavior that is, in fact, pro-competitive will be deterred, or a risk that downstream firms will engage in 'abuse shopping' to stifle potentially competitive discounting by their integrated rival."

48. Starting with question (c), we have shown that a margin squeeze can be an inevitable consequence of efficient, price-reducing, and consumer (and total) welfare-enhancing vertical integration. Imposing liability for margin squeezes risks discouraging efficient vertical integration and/or making integration less efficient. It would amount to protecting competitors at the expense of consumers. This

[43] The most direct analogy is with the use of exclusive dealing in one market to enhance a firm's market power in other markets. See, e.g., Bernheim and Whinston (1998). Whinston's (1990) analysis of tying complementary products when the tied good has alternative uses that do not require the monopoly component is also similar.

risk does not, however, arise because margin squeezes can never occur in an inefficient or anticompetitive manner; it arises because such harms are rare and hard to distinguish from beneficial conduct, thus warranting caution by the courts and a rigorous showing by plaintiffs.

49. As mentioned earlier and as should be clear from the economic analysis of margin squeeze presented above, margin squeeze claims implicate two pre-existing areas of antitrust doctrine: predatory pricing and unilateral duties to deal. Under US law as established in *linkLine*, in the absence of a duty for the defendant to deal with the plaintiff in the wholesale market no margin squeeze claim can be made absent proof of the predatory pricing elements the Court established in *Brooke Group*. So long as predatory pricing standards ensure that defendants do not price in a way that will eventually harm consumers in the downstream market, holding margin squeezes to a less rigorous, standalone liability standard risks inefficient protection of competitors, to the detriment of consumers.

50. Because in *linkLine* the Court did not formally decide whether margin squeezes should be recognized in those uncommon cases in which antitrust law would impose a unilateral duty to deal on an upstream monopolist, there remains an open question about the US standard for margin-squeeze behavior in cases where a pure refusal to deal in the upstream market might be illegal. Existing doctrine does not foreclose a specific price-cost test (for example, with attribution of wholesale prices to retail costs) or a standalone margin squeeze claim in such cases. The *linkLine* decision suggests the Court will be generally skeptical of such arguments, and the US takes no position on such an approach in this note. As things currently stand under US law, the Supreme Court has directly addressed margin squeezes as standalone claims where there is no duty to deal at wholesale and has ruled that in such cases plaintiffs complaining of margin squeezes must bring their cases as predatory pricing claims under the predation standards the Court established in *Brooke Group.*

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