RUMMAGING THROUGH THE BOTTOM OF PANDORA'S BOX: FUNDING PREDATORY PRICING THROUGH CONTEMPORANEOUS RECOUPMENT

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ABSTRACT

Predatory pricing doctrine is currently a dead area of the law. To proceed beyond summary judgment, a plaintiff must prove that the predation created a "dangerous probability" of supracompetitive pricing as the mechanism for recouping the losses "invested" in the predation. This requires proof that the predator sold products below its average variable cost and raised an entry barrier that ultimately enabled the recoupment of profits at some later time. We offer an alternative to this two-phased recoupment model. In this paper we show that a multiproduct retailer can target loss-leading behavior in a market segment to punish or eliminate specific rivals with less product diversity. In the process the retailer increases the foot traffic into its store and hence increases the sales of other products such that it recoups some or all of the predation losses contemporaneously. We demonstrate the significant, long-term inefficiency of predation funded through contemporaneous recoupment and discuss how existing predation law must adapt to accommodate its possibility. We offer straightforward tests to detect the presence of recoupment through contemporaneous means or through the combination of contemporaneous recoupment and traditional recoupment through supracompetitive pricing. The potential for contemporaneous recoupment, at a minimum, increases the "dangerous probability" that supracompetitive pricing will provide the funds needed to make the predation possible. For multiproduct defendants, this possibility raises an issue of fact that should allow the case to proceed beyond summary judgment.

I. INTRODUCTION

"An economist is someone who sees something happen and wonders whether it would work in theory." - Ronald Reagan

UNDER current legal doctrine, predatory pricing claims are essentially dead upon filing. The combination of Supreme Court decisions in *Matsushita Electric Industrial Co. v. Zenith Radio Corp.*[1] and *Brooke Group, Ltd. v. Brown & Williamson Tobacco Corp.*[2] effectively foreclosed the possibility that such claims can survive summary judgment absent a demonstration that the predation will ultimately lead to supracompetitive pricing at a level and over a period sufficient to recoup the losses incurred during the predation.[3] These rulings grew from seeds sown by scholars affiliated most notably with the Chicago School,[4] who characterized predation as "an irrational strategy for attempting to gain or maintain a monopoly position and that it is, therefore, unlikely to be adopted in practice."[5] Given the presumptively low likelihood that a predatory scheme could be successful, the courts have adopted the position that concerns of predation are generally foolish because failed predations benefit consumers through lower prices.[6] However, inherent in this conclusion is a flawed premise: recoupment must derive from supracompetitive pricing as enabled through the exercise of market power acquired through the predatory act of pricing below cost.[7]

We demonstrate that the act of predation requires no market power in any traditional sense, but rather the ability and willingness of the predator to oversupply the market and sell its goods at a loss. As the courts in *Matsushita*

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1   Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp., 475 U.S. 574 (1986).

2   Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209 (1993).

3   *See id.* at 225-26. Note that the Court explicitly recommended summary judgment if a plaintiff cannot demonstrate that the alleged predator could benefit from the predation. *Id.* at 226.

4   *See generally* John McGee, *Predatory Price Cutting: The Standard Oil (N.J.) Case*, 1 J.L. & ECON. 137 (1958); ROBERT H. BORK, THE ANTITRUST PARADOX (1978); Frank Easterbrook, *Predatory Strategies and Counterstrategies*, 48 U. CHI. L. REV. 263 (1981).

5   Paul Milgrom & John Roberts, *Predation, Reputation and Entry Deterrence*, 27 J. ECON. THEORY 280, 280 (1982) (proponents of the "predation by reputation" theory). *See also* Kenneth G. Elzinga & David E. Mills, *Predatory Pricing and Strategic Theory*, 89 GEO. L.J. 2475, 2476 (2001).

6   *See Brooke Group*, 509 U.S. at 224 ("Although unsuccessful predatory pricing may encourage some inefficient substitution toward the product being sold at less than its cost, unsuccessful predation is in general a boon to consumers.").

7   *See id.* at 225-26.

and *Brooke Group* observed, no rational seller would attempt to engage in predatory pricing without a recoupment strategy.[8] However, existing predatory pricing law assumes that the only possible mechanism for the recoupment of predation losses is the charging of supracompetitive prices subsequent to the predation as enabled through the erection of an entry barrier that yields market power. Although this two-phased approach to predation is certainly possible, it is myopic to assume that it is the *only* mechanism through which a predator could recoup the losses incurred through below-cost pricing. Indeed, as we will demonstrate herein, a predator can also recoup its losses fully without market power and without ever raising its prices above competitive levels.

In this paper we propose a different mechanism through which a predator can recover its losses—a theory which we refer to as *contemporaneous recoupment*.[9] This mechanism works based on the principle that a multiproduct

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8　*Id.* at 224 (quoting *Matsushita*, 475 U.S. at 588-89).

9　We chose this term to distinguish our analysis from unsuccessful theories as to the leveraging of market power in one market to act predatorily in another, a phenomenon asserted in the district court phase of *Brooke Group* as "simultaneous recoupment." *See* Liggett Group, Inc. v. Brown & Williamson Tobacco Corp., 748 F. Supp. 344, 357 (M.D.N.C. 1990). *See generally* Kenneth G. Elzinga & David E. Mills, *Trumping the Areeda-Turner Test: The Recoupment Standard in Brooke Group*, 62 ANTITRUST L.J. 559 (1994); Donald J. Boudreaux, Kenneth G. Elzinga & David E. Mills, *The Supreme Court's Predation Odyssey: From Fruit Pies to Cigarettes*, 4 S. CT. ECON. REV. 57, 85 (1995); Wesley A. Cann, Jr., *Internationalizing Our Views Toward Recoupment and Market Power: Attacking the Antidumping/Antitrust Dichotomy Through WTO-Consistent Global Welfare Theory*, 17 U. PA. J. INT'L ECON. L. 69 (1996); Note, *Rethinking the 1916 Antidumping Act*, 110 HARV. L. REV. 1555 (1997); David S. Evans, *The Antitrust Economics of Multi-Sided Platform Markets*, 20 YALE J. ON REG. 325, 328 (2003). This leveraging theory was also unsuccessfully argued by the U.S. Department of Justice in its case against Microsoft, as well as at least one case involving a state's antitrust statute. *See* United States v. Microsoft Corp., 253 F.3d 34, 74-75 n.21 (D.C. Cir. 2001); Martello v. Blue Cross and Blue Shield of Maryland, Inc., 143 Md. App. 462, 482 (Md. Spec. App. 1997); DAVID I. ROSENBAUM & JOHN P. LENICH, *Market Power and Simultaneous Recoupment in the Maryland: Medical Electronic Claim Submission Market*, *in* MEASURING MARKET POWER 79 (2002). William H. Page, *Microsoft and the Limits of Antitrust*, 9-11 (2009), *available at* SSRN: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1501079. Our approach differs from these previous efforts because our predation mechanism does not rely upon the use of market power for recoupment and does not assume a relationship (save proximity) between the goods sold below cost and the goods used to recoup the investment in the predation. As such, our work more closely aligns with the literature concerning loss leadership, including the only article we are aware of that uses the term "contemporaneous recoupment." *See* Samuel L. Perkins, Charles F. Phillips, Jr. & Geoffrey B. Schwartz, *A Place for Fair Competition Acts in Motor Fuel Marketing*, 26 N. KY. L. REV. 211, 217-18 (1999). *See also* Norman W. Hawker, *Wal-Mart and the Divergence of State*

seller can lower the prices of a targeted segment of its products below cost to eliminate a rival while simultaneously covering these losses through the sales of other products as enabled through increased churn.[10] We will demonstrate that empirically provable bright line tests differentiate our theory from efficient behavior, such as bundled sales or loss leading,[11] and show that our theory remains consistent with current antitrust principles. Moreover, our theory can adapt either to replace or append existing predation law and its requirement of demonstrating supracompetitive pricing. Using an example of a hypothetical multiproduct retailer we call the "Box," we demonstrate that this mechanism requires no market power to execute and can be completely self-funding.[12] Ironically, the ability of a predator to mount a sustained predation through the availability of funds recouped contemporaneously increases the likelihood that a meaningful barrier to entry will arise from the predation, thus increasing the chance that the scenario anticipated under traditional predation law will arise.[13]

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 and Federal Predatory Pricing Law, 15 J. PUB. POL'Y & MARKETING 141, 144 (1996) (touches on the linkage between loss leading and predation). However, our presentation is unique in demonstrating recoupment in the absence of market power.

10 In this paper, we use the term "churn" to describe the number of customers served by a business on a daily basis. This specific definition suits the purpose of the example we present in Section III but does not preclude the extension of the framework we propose to other contexts.

11 Note that in the context of a multiproduct retailer, the concepts of loss leading, predation and bundling may seem blurred. However, as we will discuss herein, critical differences exist. A predator may take competitive behavior, such as the use of a few loss-leading products, and broaden and deepen its below-cost sales across an increasingly targeted product set until it sells the product segment offered by a competitor at a price below cost. Moreover, unlike bundled products, the discounts on the products used to loss lead and/or trigger the predation are available to consumers *without a requirement for purchasing other products*. *Cf.* Barry J. Nalebuff, *Bundling as an Entry Barrier*, 119 Q.J. ECON. 159, 167 (2004); Perkins, *supra* note 9 at 217.

12 The ability to raise prices to supracompetitive levels constitutes market power. In our example we assume that the Box does not have this ability for any of its products before or during the predation. Similarly, we do not assume that the goods within the Box have any complementarities but for their proximity. The Box may obtain market power subsequent to the predation, but this is only relevant if traditional recoupment is also necessary. *Cf.* Barry Nalebuff, *Exclusionary Bundling*, 50 ANTITRUST BULL. 321, 339 (2005) (positing that theory of "bundling" relies on the leveraging of market power across products to derive profitability).

13 In contrast to the existing literature cited *supra* note 9, the model we present herein demonstrates that the accumulation of market power from the predation provides an ancillary recoupment mechanism that is unnecessary to the success of a predatory scheme funded through contemporaneous recoupment. Nevertheless, the compounding of any

Using an economic framework of loss-based opportunism, we demonstrate that the predator causes a net harm to accrue to the marketplace due to the allocative inefficiency caused by its continual oversupply of products. Moreover, because the predator has some optionality as to the amount of "pain" it imposes on rivals, we demonstrate that the predator can eliminate rivals that are *more efficient* in their product segment, but that are simply unable to benefit from higher churn due to less product diversity. The two-phased recoupment model adopted in *Matsushita*, *Brooke Group*, and subsequent decisions ignores this possibility and ignores the possibility that a single-phase recoupment scheme could partly or fully recover predation losses.[14] We contend that if contemporaneous recoupment is possible for all or part of the loss from predation, an issue of fact exists concerning the extent to which the contemporaneous recoupment raised the likelihood of a successful predation. This may require a change in the law to allow for the admission of evidence as to whether recoupment can occur in a single phase and without market power. Conversely, if the law does not change, courts should nevertheless consider evidence of contemporaneous recoupment under the existing standard to the extent that it contributes to the erection of an entry barrier and affects the need and ability of the predator to charge supracompetitive prices following the price war.

We organize the paper as follows. Section I provides a brief summary of the current law concerning predatory pricing. Section II introduces the idea of contemporaneous recoupment within an economic framework designed to explain loss-based opportunism. Section III demonstrates that predation enabled by contemporaneous recoupment is a viable strategy by using an example based on a multiproduct "Box" superstore. Section IV proves the allocative inefficiency caused by a contemporaneously funded predation and considers the effect such behavior could have on competition. Section V discusses options to reconcile existing predation law with the potential for contemporaneous recoupment. Section VI proposes bright line tests to identify the presence of contemporaneous recoupment and to use such evidence, if necessary, as proof of predatory intent. The paper concludes by demonstrating the logical fallacy that will continue in the current law should this theory of contemporaneous recoupment remain ignored.

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sources of recoupment (contemporaneous or traditional) will tend to make the predation more likely to succeed.

14 *Cf.* Rosenbaum, *supra* note 9 at 85-86 ("We do not agree that recoupment in the classical sense is necessary to support a claim of monopolization or attempted monopolization based on predatory pricing. But we will leave that matter for another day.").

II. A BRIEF HISTORY OF PREDATORY PRICING LAW

Until the 1980s the courts considered predatory pricing under the standards set by the Supreme Court in *Utah Pie Co. v. Continental Baking Co.*[15] *Utah Pie* held that below-cost pricing and radical price reduction were sufficient to prove predatory intent as a primary-line injury claim under the Robinson-Patman Act, an amendment to Section 2 of the Clayton Act, which outlawed price discrimination "where the effect of such discrimination may be substantially to lessen competition."[16] Because Robinson-Patman covered a broad range of predatory conduct, the Court did not consider the case under the monopolization standard of Section 2 of the Sherman Antitrust Act.[17] A finding of predatory intent played a strong role in the Court's determining "the likelihood of injury to competition" in that case.[18]

In the 1980s predatory pricing law began to undergo radical changes that would severely undermine the doctrine. Following the theories of Judges Robert Bork and Frank Easterbrook and other Chicago School of Economics theorists, the Supreme Court in *Matsushita* enshrined a two-phased view of predatory pricing into law:

> A predatory pricing conspiracy is by nature speculative. Any agreement to price below the competitive level requires the conspirators to forgo profits that free competition would offer them. The forgone profits may be considered an investment in the future. For the investment to be rational, the conspirators must have a reasonable expectation of recovering, in the form of later monopoly profits, more than the losses suffered.[19]

In 1993, the Supreme Court in *Brooke Group* took *Masushita's* economic reasoning further by requiring a predatory pricing plaintiff to demonstrate prices below an appropriate measure of costs and further to show

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15 Utah Pie Co. v. Continental Baking Co., 386 U.S. 685 (1967).
16 Robinson-Patman Act, 15 U.S.C. § 13(a) (2006).
17 Sherman Act, 15 U.S.C. § 2 (2006). *See Utah Pie*, 386 U.S. at 706 (Stewart, J., dissenting) (criticizing the majority for protecting Utah Pie Co.'s monopolistic position by prohibiting price cutting by a competitor).
18 *Utah Pie*, 386 U.S. at 702.
19 *Matsushita*, 475 U.S. 574 at 588-89.

recoupment of the losses incurred during the predation.[20]   The Court reasoned that without recoupment, "predatory pricing produces lower aggregate prices in the market, and consumer welfare is enhanced."[21] To prevail, a plaintiff would need to demonstrate that recoupment of losses either occurred or is likely to occur through supracompetitive profits resulting from the actual or potential use of market power acquired during the predation:

> The plaintiff must demonstrate that there is a likelihood that the predatory scheme alleged would cause a rise in prices above a competitive level that would be sufficient to compensate for the amounts expended on the predation, including the time value of the money invested in it. . . . "[I]n order to recoup their losses, [predators] must obtain enough market power to set higher than competitive prices, and then must sustain those prices long enough to earn in excess profits what they earlier gave up in below-cost prices."[22]

Later cases labeled the first phase of a predatory pricing scheme as the "price war," during which the predator intentionally prices a product below cost to drive out of business or discipline its competitors.[23]   The second phase is then the "recoupment phase," wherein the predator uses its market power acquired during the price war to set supracompetitive prices to recover its "investment" in below-cost prices.[24]

Despite recognizing that Sherman Act § 2 required a plaintiff to show "a dangerous probability" of monopolization, while Robinson-Patman required only a "substantial probability of an injury to competition," *Brooke Group* also eliminated most statutorily based distinctions in predatory pricing claims under the two statutes:

> [W]hatever additional flexibility the Robinson-Patman Act standard may imply, the essence of the claim under [the Robinson-Patman or Sherman Acts] is the same: A business rival has priced its products in an unfair manner with an object to eliminate or retard competition

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20   *Brooke Group*, 509 U.S. at 222-24.

21   *Id.* at 224.

22   *Id.* at 225-26 (quoting *Matsushita*, 475 U.S. at 590-91).

23   Rebel Oil Co., Inc. v. Atlantic Richfield Co., 51 F.3d 1421, 1433 (9th Cir. 1995).

24   *Id.* at 1434.

and thereby gain and exercise control over prices in the relevant market.[25]

Brooke Group also emphasized that summary judgment would be appropriate where market structure showed that recoupment was unlikely.[26] Later courts applying the *Brooke Group* test have held that to demonstrate a "dangerous probability" of recoupment through market power, a plaintiff must show that strong barriers to entry exist which prohibit "challeng[ing] the predator's high price" charged during the recoupment phase.[27] The resulting compound requirement—that plaintiffs prove that the price war generated an exclusionary entry barrier, which enabled the "dangerous probability" of recoupment through supracompetitive prices—effectively rendered predatory pricing claims untenable.

In the years before and after *Brooke Group*, a number of scholars formed what became known as the Post-Chicago School, a group which mounted an academic challenge to the Chicago School theories underlying *Brooke Group* and *Matsushita*. The Post-Chicago scholars argued that more modern economics, particularly game theory, demonstrated that predatory pricing was a rational business strategy. The Post-Chicago School posited four major circumstances in which predatory pricing was rational: (1) if a predator could exploit imperfections in capital markets to alienate a target from its investors, (2) if predatory pricing was an effective strategy to block competitors from performing market testing, (3) if a predator could use predatory pricing to suggest falsely that it had achieved lower costs and thereby encourage competitors to exit the market, and (4) if predatory pricing could create a reputation for predation that would insulate the predator from competition and serve as a barrier to entry.[28]

The most successful of these theories was the reputation for predation argument, which nevertheless failed during summary judgment. In *United*

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25 *Brooke Group*, 509 U.S. at 222.
26 *Id.* at 226 ("In certain situations—for example, where the market is highly diffuse and competitive, or where new entry is easy, or the defendant lacks adequate excess capacity to absorb the market shares of his rivals and cannot quickly create or purchase new capacity—summary disposition of the case is appropriate.").
27 *Rebel Oil*, 51 F.3d at 1439.
28 *See generally* Patrick Bolton, Joseph F. Brodley, & Michael H. Riordan, *Predatory Pricing: Strategic Theory and Legal Policy*, 88 GEO. L.J. 2239 (2000); Walter Adams & James W. Brock, *Predation, "Rationality," and Judicial Somnambulance,* 64 U. CIN. L. REV. 811 (1996); Jonathan B. Baker, *Predatory Pricing after Brooke Group: an Economic Perspective*, 62 ANTITRUST L.J. 585 (1994); Milgrom, *supra* note 5.

States v. AMR Corp., the Department of Justice brought a predatory pricing action against American Airlines for its pricing at its Dallas-Fort Worth hub.[29] The court granted summary judgment to American Airlines and rejected the government's argument that reputation for predation was a viable predatory pricing theory:

> The government's theory of liability by reputation is not the law, and should not be. A fundamental principle of antitrust law is that it be capable of effective and accurate administration, and not chill the competition it seeks to foster. The government's reputational liability approach would violate this principle, permitting claims of predation based solely upon the subjective and unverifiable complaints of a defendant's competitors.[30]

The theory, sometimes put forth as a form of strategic entry deterrence, did not fare much better in other courts.[31]

AMR Corp. decisively rejected Post-Chicago recoupment theories as too complicated to apply in the real world: "The government's broad-based claims of predation by (subjectively-felt) reputation offer no principled basis for distinguishing between a reputation for predation, and a reputation for lawfully vigorous competition."[32] Because the Post-Chicago theories have yet to establish a threshold for distinguishing between legitimate and predatory behavior, the failure of the theories to create viable predatory pricing claims is unsurprising given that the Supreme Court has "repeatedly emphasized the importance of clear rules in antitrust law."[33] As we will discuss in Section VI, our model of contemporaneous recoupment avoids this pitfall by supplying

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29   United States v. AMR Corp., 140 F. Supp.2d 1141 (D. Kan. 2001).

30   *Id.* at 1218. On appeal the Tenth Circuit affirmed the district court's judgment because the government failed to demonstrate that the defendant had priced below cost and declined to reach the issue of recoupment. United States v. AMR Corp., 335 F.3d 1109, 1120-21 (10th Cir. 2003).

31   *See* Advo, Inc. v. Philadelphia Newspapers, Inc., 51 F.3d 1191, 1196 n.4, 1202 (3d Cir. 1995) (rejecting strategic entry deterrence as a barrier to entry and affirming summary judgment while accepting as a counterfactual hypothetical that "[p]redation makes economic sense" in situations where a chain store cuts prices in a few stores but seeks to recoup losses in a number of stores by causing rivals to exit or compete less aggressively); Traffic Scan Network, Inc. v. Winston, Civ.A. No. 92-2243, 1995 WL 317307 (E.D. La. May 24, 1995) (stating that strategic entry deterrence could not constitute a barrier to entry and relying on *Advo*).

32   *AMR Corp.*, 140 F. Supp. 2d at 1215.

33   Pac. Bell Tel. Co. v. Linkline Commc'n, Inc., 129 S. Ct. 1109, 1120-21 (2009).

bright line tests to distinguish predatory behavior from that associated with legitimate competition.

Contrary to the Post-Chicago School's attempt to limit *Brooke Group*, the trend has been to expand the scope of the decision. In 2007 the Supreme Court held that predatory bidding must also meet the *Brooke Group* test and reaffirmed its basic two-phase model of predatory pricing.[34] That same year, the Ninth Circuit extended *Brooke Group* to the analysis of bundled discounts,[35] rejecting a Third Circuit decision[36] that declined to apply *Brooke Group* in that circumstance.[37] Three years ago, the Supreme Court held that price squeeze claims[38] no longer constitute an independent antitrust claim because they conflict with the *Brooke Group* predatory pricing standard.[39] As the Court acknowledged, price squeeze claims had a long history dating back to Judge Learned Hand's opinion in the 1945 *Alcoa* decision.[40] From a practical perspective *Brooke Group* and the Chicago School theories underlying it have proven fatal to predatory pricing actions and are now negatively impacting the viability of a number of other arguably similar claims.

The framework of loss-based opportunism we propose herein provides bright line tests to distinguish legitimate, pro-competitive behavior from anticompetitive behavior in these types of cases. We will demonstrate that the recoupment model specified in *Brooke Group* is myopic in allowing predatory behavior unless a plaintiff demonstrates an exclusory effect through the gain of market power and resulting supracompetitive price. It is true that consumers benefit from behavior that results in low prices (e.g., loss leading, bundled sales, loyalty discounts) and that societal welfare benefits from lower prices enabled through enhanced production efficiencies. However, the

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34 Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co., 549 U.S. 312, 322 (2007) ("both claims logically require firms to incur short-term losses on the chance that they might reap supracompetitive profits in the future").

35 Cascade Health Solutions v. PeaceHealth, 502 F.3d 895, 911-12 (9th Cir. 2007), *reprinted as amended by* 515 F.3d 883 (9th Cir. 2008).

36 LePage's Inc. v. 3M, 324 F.3d 141, 147-52 (3d Cir. 2003) (en banc), *cert. denied*, 124 S. Ct. 2932 (2004) (holding that a bundled discount may be exclusory even if a plaintiff does not prove that the seller has sold any bundled items below cost).

37 *Cascade Health Solutions*, 502 F.3d at 908-09. The Supreme Court has yet to reconcile the conflict between the decisions of the Ninth Circuit and the Third Circuit.

38 A price squeeze occurs when "[a] firm with market power in the upstream market [squeezes] its downstream competitors by raising the wholesale price of inputs while cutting its own retail prices." *Linkline Commc'n, Inc.*, 129 S. Ct. at 1118.

39 *Id.* at 1122-23.

40 *Id.* at 1120 n.3 (citing United States v. Aluminum Co. of America, 148 F.2d 416 (2d Cir. 1945)).

Brooke Group standard ignores that the price war phase of the predation creates a net loss of societal welfare because the combined losses of the predator and of other sellers in the market must exceed the relative gain to buyers. If the predator partly or completely funds the predatory scheme contemporaneously, the predator can extend the price war indefinitely, thereby compounding this net societal welfare loss. We will also demonstrate that the self-funding nature of this type of predation allows the predator to drop its prices below those of *more efficient competitors*, driving them out of business and reducing the long-term efficiency of the market.

These problems call into question the efficacy of the current *Brook Group* standard. If a plaintiff can demonstrate that the predation is already fully funded by contemporaneous recoupment, requiring additional proof of a dangerous probability of supracompetitive prices resulting from market power gained during the price war phase is absurd. This is not to say that traditional recoupment is irrelevant. If the plaintiff can prove that the predator partly funds its predation contemporaneously, supracompetitive prices could provide the remaining funds needed to recoup fully the predation losses. We will also show that the ability of a predator to execute a contemporaneous recoupment scheme erects a formidable barrier to entry that may enable supracompetitive pricing, thus meeting the existing *Brooke Group* standard under either Robinson-Patman or Sherman Act § 2.

III. THE FRAMEWORK OF LOSS-BASED OPPORTUNISM AND CONTEMPORANEOUS RECOUPMENT

In this paper we employ a framework of loss-based opportunism that explains the economic decision to lose money intentionally in one market to trigger a simultaneous benefit in one or more related, targeted markets.[41] This framework operates using the principle that the losses associated with the predator's uneconomic behavior produce an immediate effect that generates revenues across a broader range of otherwise unrelated products, making the net value of the scheme profitable.[42] Although the decision to execute this

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41 *See generally* Shaun Ledgerwood & Paul Carpenter, *A Framework for Analyzing Market Manipulation* (2012), *available at* SSRN: http://ssrn.com/abstract=1811764; Shaun Ledgerwood, *Screens for the Detection of Manipulative Intent* (2010), *available at* SSRN: http://ssrn.com/abstract=1728473.

42 In contrast to many of the analyses that concern bundled sales or tied products, this presentation assumes no innate complementarities across the products in the triggering and targeted markets but for their proximity in a "one-stop shopping" format. However,

plan in aggregate is easy to explain, separation of the analyses of the economic cost of the trigger (the price war) from the evaluation of benefits obtained in the target (recoupment) reveals the *Brooke Group* standard's erroneous assumption that the nexus between the two phases must involve market power. This spurious tie between uneconomic behavior and market power hints at why the analysis of predation differs from that associated with other antitrust actions and why the tools traditionally used to evaluate market power are not necessarily geared to explain the linkage between specific predatory behavior and the outcomes that it could produce.

The framework we use evaluates intentional uneconomic behavior used to trigger a broader profitable scheme. The framework's analysis begins in a manner consistent with more traditional analyses of predatory pricing by looking for evidence that the alleged predator lowered its price below cost as the mechanism for triggering a price war that ultimately provides a means for recoupment. However, the framework shows that this price movement occurs because the predator is willing to force the triggering market to *overproduce* relative to competitive levels. The predator must be able to supply the excess physical product needed to sustain this overproduction, thereby driving and maintaining prices sufficiently below its average variable costs such that the predation damages or drives out of business other sellers in the triggering market.[43] Contrast this with the tools used for more traditional competitive analyses that focus on the exercise of market power through the *withholding* of output from the market. By changing the analysis of predatory behavior from a market power focus to one of evaluating oversupply, our

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some recent empirical research asserts that multiproduct retailers have scale economies that can interact with consumer gains from one-stop shopping to generate complementarities between a retailer's economies of scale and scope. *See* Emek Basker, Shawn D. Klimek & Van H. Pham, *Supersize It: The Growth of Retail Chains and the Rise of the "Big Box" Retail Format*, 26-27 (2010), *available at* SSRN: http://ssrn.com/abstract=1240860. Such complementarities do not equate to bundling or tied sales because there is no requirement for a consumer to purchase non-discounted items to receive the discounts that trigger the predation and the mix of products purchased will vary significantly across consumers.

43   This is consistent with the often-cited Areeda-Turner test that courts and scholars have generally accepted as the threshold for evaluating predatory behavior. *See* Phillip Areeda & Donald F. Turner, *Predatory Pricing and Related Practices under Section 2 of the Sherman Act*, 88 HARV. L. REV. 697, 718 (1975) (proposing the below-cost sales Areeda-Turner test); *Brooke Group*, 509 U.S. at 225 (endorsing Areeda-Turner test); *Cascade Health Solutions,* 502 F.3d at 920-21 (same). *Cf. generally* William J. Baumol, *Predation and the Logic of the Average Variable Cost Test*, 39 J.L. & Econ. 49 (1996); Oliver E. Williamson, *Predatory Pricing: A Strategic and Welfare Analysis*, 87 YALE L.J. 284 (1977); Aaron S. Edlin, *Stopping Above-Cost Predatory Pricing*, 111 YALE L.J. 941 (2001).

loss-based framework provides a better analytic approach for evaluating predation cases and similar acts, such as dumping.[44]

Figure 1: The Residual Demand for the Predator's Product
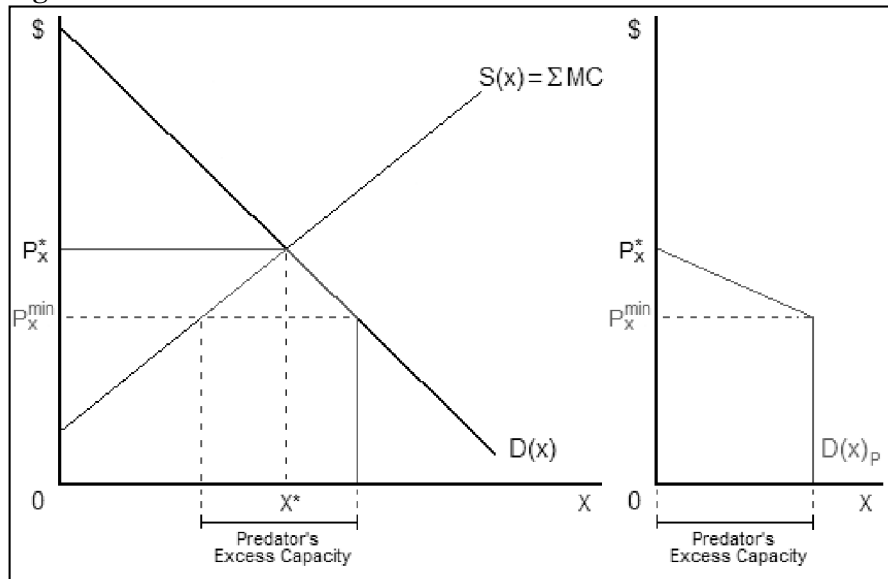
Consider the predator's pricing decision in the otherwise competitive market shown above in Figure 1. Consistent with competition, the quantity demanded of the predator's product at or above the competitive equilibrium price Px^* is zero. However, if the predator drops its price below the competitive price, it will face the residual market demand curve to the extent

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44 The linkage of predation to excess capacity is not new, but previous analyses generally examined excess capacity only from the context of a predator's ability to recoup losses, not as the mechanism that triggers the predation. *See Brooke Group*, 509 U.S. at 226 (predator must possess sufficient excess capacity to absorb the market share of rivals following their exit from the market); Marvin B. Lieberman, *Excess Capacity as a Barrier to Entry: An Empirical Appraisal*, 35 J. IND. ECON. 607, 608 (1987) (excess capacity used as a barrier to new entry); Areeda, *supra* note 43 at 719 (predatory investment cannot be distinguished from the innocent building of excess capacity). *But see* Areeda, *supra* note 43 at 710-11 (firm using marginal cost pricing can use excess capacity to destroy an equally efficient rival). *Brooke Group* also considered the use of excess capacity to suppress prices as a method to discipline rival firms in the context of cartels. *See Brooke Group*, 509 U.S. at 238. If used for predation, "dumping" involves the same concepts discussed herein, applied on an international scale. *See* James D. Reitzes, *Antidumping Policy*, 34 INT'L ECON. REV. 745, 759 n.35 (1993) (antidumping laws justifiable given predation).

it can supply the market shortage created by the lower price.[45] As shown in the rightward diagram of Figure 1, the predator's residual demand increases as the price falls below *Px** and the shortage left from the other seller grows.[46] Once the predator reaches the limits of its deliverable excess capacity at the associated minimum price $P_X^{\min}$, its demand will become vertical because it cannot supply any more product to the market. The predator's residual demand curve *D(x)$_p$* is therefore "kinked," meaning the predator could feasibly lower and hold the market price below the competitive price *Px**, down to a minimum price $P_X^{\min}$, accumulating a loss that grows exponentially worse as the price reduction associated with the predation increases.[47]

Assuming the predator has the ability to hold prices lower, the question next becomes one of recoupment, which can vary in timing, mechanism, and amount. For a plaintiff to succeed, *Brooke Group* requires proof that the predator has or had a dangerous probability of *fully* recouping its losses *through the exercise of market power to raise prices* to supracompetitive levels *following* the predation.[48] By comparison, we contend and will prove that a predator can *fully* fund a predation *without market power* and *during the price war* phase. Some recent cases and literature have touched on this concept. For example the court in *Cascade Health Solutions* noted that a multiproduct seller can spread losses within a bundle of products while profitably selling the bundle as a whole to exclude sellers that offer fewer products.[49] However, none to our

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45   This is a residual demand curve because the quantity the predator must supply to the market to hold the price below the competitive equilibrium is equal to the shortage (i.e., the difference between the quantity demanded and quantity supplied) left after the remaining sellers in the market choose their quantity supplied at each price.

46   Assume the predator has 400 units of excess capacity that it can sustainably dump into the market with a competitive equilibrium price of $10 and quantity demanded equaling quantity supplied at 1,000 units traded. The demand for the predator's excess capacity is the shortage left as the price falls below $10 and thus is a residual demand. For example at a price of $9, quantity demanded may increase to 1,100 units while quantity supplied falls to 900. The predator's residual demand is then 200 units. If the price falls to $8, the quantity demanded may increase to 1,200 units while the quantity supplied falls to 800, leaving a residual demand equal to the predator's excess capacity of 400 units. The predator can therefore dump up to 400 units into the market and depress the market price by up to $2.

47   Lowering its price below this minimum does not benefit the predator because the shortage created would allow rival firms to serve the market at the minimum market price, thus enhancing the predator's loss with no concomitant damage caused to its rivals.

48   *Brooke Group,* 509 U.S. at 224-26.

49   *See Cascade Health Solutions,* 502 F.3d at 907 ("bundled discounts, while potentially pro-competitive by offering bargains to consumers, can also pose the threat of anticompetitive impact by excluding less diversified but more efficient producers"). *See also* Nalebuff, *supra*

knowledge has linked the recoupment of predation losses to the contemporaneous sale of wholly unrelated products, nor has anyone considered that such recoupment can occur in the absence of market power and the resultant charging of supracompetitive prices.[50]

If the full funding of a predation through contemporaneous recoupment is possible as an economic phenomenon and a legal theory, requirements to prove other recoupment mechanisms are unnecessarily duplicative. However, this does not preclude the possibility that a predator might combine multiple recoupment strategies as part of a single scheme. A protracted and self-funding predation sustained by contemporaneous recoupment could present a significant and credible entry barrier to potential entrants with no associated risk of losses to the predator, a situation that would allow the predator to charge supracompetitive prices in the long run.[51] The contemporaneous recoupment mechanism described by our framework could also provide *partial* funding to *assist* a traditional recoupment strategy through supracompetitive pricing. As we will discuss in the next sections, this possibility could provide parties injured by a predatory scheme with an additional basis for asserting such claims under the current *Brooke Group* standard.

IV. AN EXAMPLE OF GROCERY PREDATION BY A MULTIPRODUCT SUPERSTORE

In this section we adapt the model of loss-based opportunism discussed above to the analysis of predatory pricing. Our goal is to demonstrate that a predator can fund its predation though recoupment that occurs contemporaneously without the need for supracompetitive pricing after the

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note 12 at 365 (2005) (bundled products priced at or above cost can still be exclusory to single product sellers).

50   The literature dealing with predation, tied sales, and bundled discounts has commonly treated the risk of such behavior as the creation of market power ultimately leading to supracompetitive prices in the triggering or targeted markets. *See supra* notes 9, 12, 43, and 44. *See also* Zhijun Chen & Patrick Rey, *Loss Leading as an Exploitative Practice*, 5-6 (2010), *available at* http://idei.fr/doc/wp/2011/losspr.pdf (aggressive loss leading can benefit the predator through the ability to charge supracompetitive prices on other products). We discuss the reconciliation of our theory of contemporaneous recoupment with existing predation theory's reliance upon market power in Section V.

51   This observation may breathe new life into the previously discussed "reputation for predation" theory posited by the Post-Chicago School and unsuccessfully argued in *AMR Corp.*

predation. We accomplish this by presenting an example of a hypothetical predation executed by a "Box" store against a price-competitive rival that sells a subset of the Box's total products. The example demonstrates that the Box can recoup its losses through its ability to increase its churned sales across a range of products that extends beyond those used to trigger the predation. We also discuss the compatibility of our model with the practice of loss leadership and show that the increasingly aggressive use of loss leaders ultimately crosses the line from loss leading into predatory pricing. Discussion of the appropriate placement of this line and our corresponding test for predatory pricing using contemporaneous recoupment occurs in Section VI.

A. A Grocery Market under Conditions of "Normal" and "Distressed" Competition

Consider the following hypothetical: A "Box" superstore sells a full line of grocery products in addition to a wide variety of product lines for other retail merchandise.[52] The standard business model of the Box is to maintain an image of one-stop shopping for most consumer needs bolstered by low costs and resulting low, competitive prices.[53] The Box supports this competitive model by strong and continual efforts to cross-check the pricing

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52 We constructed this hypothetical with details rich enough to expose many possible aspects of a predation, including the eventual charging of supracompetitive prices. However, the predation framework we propose can operate with many of these elements altered or removed. As long as a multiproduct actor (1) makes use of a predatory trigger to raise profits from the volume of other items bought and sold and (2) the behavior satisfies the screens discussed in Section VI, a fact issue will exist as to whether a predation occurred.

53 The literature concerning the competitiveness of the "Every Day Low Price" ("EDLP") format is deep and is rooted in foundational research in informational economics and marketing. *See*, *e.g.*, Steven Salop & Joseph Stiglitz, *The Theory of Sales: A Simple Model of Equilibrium Price Dispersion with Identical Agents*, 72 AM. ECON. REV. 1121 (1982); Rajiv Lal & Ram Rao, *Supermarket Competition: The Case of Every Day Low Pricing*, 16 Marketing Sci. 60 (1997); Teck H. Ho, Christopher S. Tang & David R. Bell, *Rational Shopping Behavior and the Option Value of Variable Pricing*, 44 MGMT. SCI. 145 (1998); Vishal Singh, Karsten Hansen & Robert Blattberg, *Market Entry and Consumer Behavior: An Investigation of a Wal-Mart Supercenter*, 25 MARKETING SCI. 457 (2006); Paul Ellickson & Sanjog Misra, *Supermarket Pricing Strategies*, 27 MARKETING SCI. 811 (2008); Raymond G. Sin, Ramnath K. Chellappa & Sivaramakrishnan Siddarth, *Strategic Implementation of "Everyday Low Price" in Electronic Markets: A Study of Airline Pricing on the Internet* (2009), *available at* SSRN: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=989849; Paul B. Ellickson, Sanjog Misra & Harikesh S. Nair, *Repositioning Dynamics and Pricing Strategy* (2011), *available at* SSRN: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1761599.

of proximately located rivals on identical and similar stock-keeping units (SKUs) and by maintaining a slight pricing advantage across all such SKUs. When no competitors exist for a particular SKU or its close substitutes, the Box raises the price to a level perceived to maintain the Box's overall perception as a cost-based provider and, potentially, to deter entry as a limit price.[54]

Assume that the average Box customer has a budget of $200 available for each shopping trip and typically spends $100 on groceries and $100 on other merchandise. If the average variable cost of goods sold is $80 for the groceries and $70 for the general merchandise, the Box's total expected profit is $50 per customer per visit.[55] On average the Box expects a churn of 1,000 customers per day and hence a daily total profit of $50,000. This level of profitability is typical for the Box given "normal" competitive conditions in the presence of rivals with normal pricing structures. Other grocery stores coexist in this market with the Box and generally compete on the basis of qualitative elements other than price, such as fresher products, better customer service, or a more pleasant shopping experience. A spectrum of such rivals exists with some stressing price competitiveness and others presenting a more luxurious or niche image.[56]

Next, assume that a new deep-discount grocer opens a store in the service territory of the Box offering prices 10% less than those under "normal" competition. This has two negative effects on the Box. First, in price matching this new rival the Box will lower its grocery prices 10%, such that it makes $10 less in grocery revenues per customer.[57] Second, even with

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54 Limit pricing refers to the strategic setting of a supracompetitive price at a level sufficiently low to make entry unattractive to potential rivals. *See* Joe Bain, *A Note on Pricing in Monopoly and Oligopoly*, 39 AM. ECON. REV. 448, 454 (1949). In this paper we demonstrate that contemporaneous recoupment allows for a predator to self-fund a predatory scheme over time, a situation which can potentially create a barrier to entry through the establishment of a reputation based on a sustainable predation. *See* Perkins, *supra* note 9 at 218; Rosenbaum, *supra* note 9 at 95-96. In such event the exclusory nature of the predation allows the Box to set an EDLP using a limit price strategy.

55 As a convention this example uses the term "profit" relative to the Box's average variable cost to retain consistency with the Areeda-Turner test. This profit is sufficient to cover the Box's fixed costs and opportunity costs associated with the current output and competitive conditions.

56 This is common in the supermarket industry with some sellers tending toward an EDLP format across all SKUs and others using a promotional, loss-leading approach across a limited number of SKUs. *See* Stephan Hoch, Xavier Dreze & Mary Purk, *EDLP, Hi-Lo, and Margin Arithmetic*, 58 J. MARKETING 16, 16-17 (1994); Ellickson, *supra* note 53 at 2-3.

57 This assumes no change in the customers' consumption patterns and hence for the moment ignores that the customers could use their $10 savings for the purchase of other

price matching, the Box will lose some customers to the rival, such that its daily churn will decline, assume to 900 customers per day. As a result of this new competition, the Box's per customer profit falls to $40, and its total daily profit declines to $36,000. This "distressed" competitive result is a new equilibrium that will persist if the Box adheres to its historical pricing model.[58]

B. Characterization of the Price Reduction Decision Based on Churn

Assume the Box now considers the decision to lower the prices of its grocery SKUs to attack this new rival. For every dollar (*D*) it lowers its grocery revenues below the competitive level of $90 per customer, its profit per customer will fall by one dollar but its churn will increase as lost customers return and new customers arrive. We assume that on entering the Box these customers succumb to the convenience of the one-stop-shopping model and spend in a manner consistent with the average Box consumer. Assuming initially that the Box has no market power and thus has no possibility of recoupment through traditional mechanisms,[59] the Box's pricing decision reduces to evaluating the lost per-customer revenues caused by a given price drop versus the corresponding increase in churn above the current 900 customers. If the resulting profits equal or exceed the current $36,000, the potential exists for predatory behavior.[60]

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items inside the Box. Later in this section, we will consider the impact that expenditures of customer savings inside the Box may have on the predation's profitability.

58 As with the "normal" competitive state, the "distressed" competition example measures "profit" relative to average variable cost. The attentive reader may question how two such drastically different profit levels could arise from two alternative "competitive" scenarios wherein zero economic profits are usually assumed. As we discuss later in Subsection E, limit pricing enabled by the Box's ability to recoup its predation losses contemporaneously ultimately explains the profitability of the "normal" competitive state.

59 Note that as a conservative proposition this presentation assumes that the Box has no market power with respect to any individual SKU sold within its walls, nor does it possess market power through its ability to sell multiple, otherwise unrelated, products in close proximity. Therefore, any recoupment that occurs must then derive from contemporaneous means since supracompetitive pricing is impossible. *Cf.* Basker, *supra* note 42 at 2 (multiproduct retailers have scale economies that interact with consumer gains from one-stop shopping to generate complementarities between a retailer's economies of scale and scope). *See* Nalebuff, *supra* note 12 at 322 (distinguishing bundling and tying from predation).

60 Although scholars have done empirical testing of this type of break-even analysis, none to our knowledge has done so in the context of lowering the prices of one category of goods below cost to induce the sales of another. *See* Hoch, *supra* note 56 at 22-23; Rosenbaum, *supra* note 9 at 104-13.

A simple way to characterize this decision-making process is to calculate the churn needed for the Box to break even for any given dollar reduction in grocery revenues (*D*). Based on the discussion above, the daily per-customer grocery profit will equal the current revenues ($90), less the cost of goods sold ($80), and less the Box's revenue reduction to attack its new rival (*D*). This will be added to the per-customer profits from merchandise sales ($100 in revenues less $70 in costs) to arrive at the total daily profit per customer. Multiplying this sum by the daily churn of customers, measured as a percentage increase (*R*) above the 900 current patrons, provides a total profitability valuation. Lower grocery prices are profitable if this value equals or exceeds the Box's current profits of $36,000 per day under distressed competition.

Expressing this decision in an equation simplifies to a profitability criterion:

$$[(\$90 - D - \$80) + (\$100 - \$70)] \cdot [900R] \geq \$36,000$$

$$\Rightarrow (40 - D)R \geq 40 \qquad \Rightarrow R \geq \frac{40}{40-D} \qquad \text{Equation (1)}$$

Therefore, if the Box were to lower its grocery prices to the point that its revenues decreased by $10 per customer per day, the churn needed to recoup these revenues contemporaneously and break even is 133% of the current 900 customers per day, or 1,200 customers. The Box can execute this strategy without raising the prices of the other non-grocery merchandise sold if it has sufficient excess capacity to serve the associated higher number of customers.[61]

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61 We assume the Box uses the accounting profits derived from the sales of non-grocery merchandise above the distressed competitive levels to offset losses incurred from the predation. Capturing this margin does not indicate supracompetitive pricing resulting from market power but does assume greater-than-normal sales at competitive prices through higher churn. For simplicity we also assume that these added sales inure no added costs to the Box beyond the average variable costs typical of all units sold.

Figure 2: The Break-Even Frontier
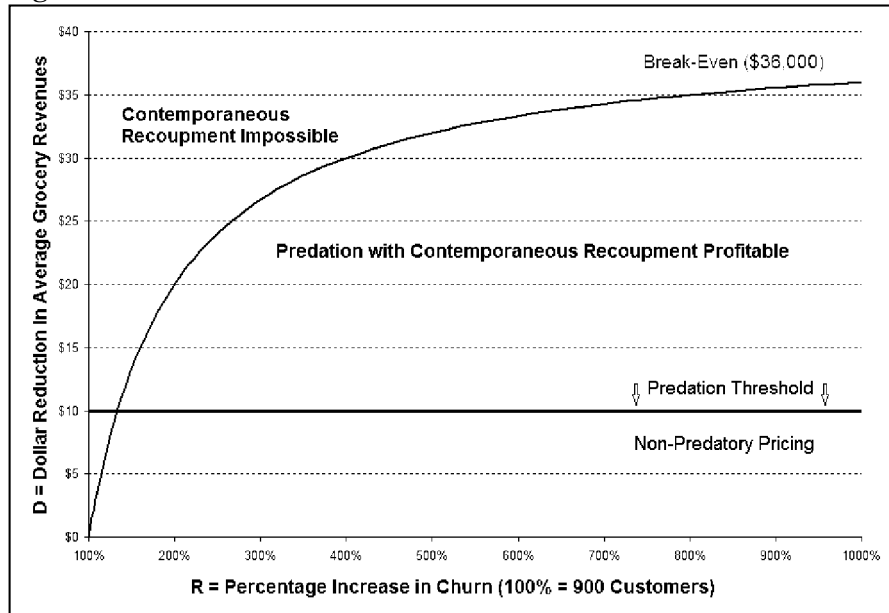
Figure 2 is a graph of this profitability criterion. Solving Equation (1) for equality defines a break-even frontier within which the Box can profitably cut its grocery revenues below those associated with distressed competition. Note that intentionally lowering its grocery revenues does not necessarily mean that the Box is engaging in predatory behavior in its grocery segment. For example, consider the cumulative effect of the Box sequentially using a loss-leading strategy for an increasing number of grocery SKUs. If these price cuts result in a cumulative drop in revenues less than or equal to $10, the Box's grocery segment is not priced as a whole below average variable cost and thus does not cross the threshold that delineates predatory pricing. However, the targeted use of otherwise legitimate competitive behavior, including the use of loss leaders in pricing multiple SKUs below cost, can rise in magnitude and frequency to the point that the result violates the Areeda-Turner test and thus crosses the line into predation.[62]

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62   As discussed previously, this approach is entirely consistent with the Areeda-Turner test as anticipated for evaluating the predator's behavior during the price war phase of the predation under *Brooke Group*. We discuss the bright line tests for the presence of contemporaneous recoupment in Section VI.

Selling a broad range of products that benefit from the predation enables the continuum of predatory behavior represented in Figure 2.[63] The Box has this ability because it can sell other merchandise to customers that are attracted into the store by low grocery prices. While the Box's ability to combine grocery and merchandise categories within the one-stop shopping model may create synergisms,[64] the exploitation of these relationships allows the predator to recoup its losses in the grocery segment contemporaneously through higher churn and without the need of raising the prices of any products. An upper limit for the break-even frontier in Figure 2 exists because a drop in grocery revenues of more than $40 would make it impossible for the predatory behavior to break even through contemporaneous recoupment irrespective of the higher induced churn.[65] The frontier also reflects the principle of diminishing returns as breaking even becomes exponentially more difficult to achieve given increasingly aggressive predatory behavior.

C. The Effect of Savings and Other Recoupment Sources on the Break-Even Curve

The break-even frontier shown in Figure 2 assumes that the customers spend the money saved through lower grocery prices, relative to their initial $200 budget, outside the Box. As the customers are already in the store, however, they may take advantage of the Box's one-stop shopping paradigm and choose to spend some or all of their savings on groceries, merchandise, or some combination thereof. Figure 3 adds bands around the original break-even frontier to show the bounds of this effect. If consumers spend all saved money on groceries, the Box will lose money on these sales if it uses a predatory strategy. Figure 3 demonstrates this by a downward shift of the

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63 This observation is consistent with the similar concept that access to greater financial resources better enables anticompetitive behavior. *See* Ledgerwood, *A Framework for Analyzing Market Manipulation*, *supra* note 41 at 39-42; Ledgerwood, *Screens for the Detection of Manipulative Intent*, *supra* note 41, at 14-16; Lester G. Tesler, *Cutthroat Competition and the Long Purse*, 9 J.L. & ECON. 259, 270 (1966) (capital requirements play a key role in the creation and maintenance of monopoly returns).

64 *See* Basker, *supra* note 42 at 1-2 (multiproduct complementarities enhance efficiency of scale and scope for retail superstores).

65 This is because the losses then exceed any gains from the non-grocery sales such that the scheme cannot succeed. The profitability criterion in Equation (1) also demonstrates this result. As the drop in revenues *(D)* approaches $40, the required increase in churn needed for the Box to break even approaches infinity.

break-even frontier, indicating that a specific predatory strategy (i.e., D = $20)
will become more difficult to execute profitably, requiring an increase in the
churn rate above the 200% baseline framed by the original break-even
function as defined by Equation (1). By comparison, if consumers spend all
their savings on merchandise, the Box will make additional money on these
sales, thus bolstering its ability to recoup losses contemporaneously. Figure 3
demonstrates this upward shift in the break-even frontier, a movement which
indicates that a lower churn rate will support a given predatory strategy.

Figure 3: The Break-Even Frontier if Savings are Spent in the Box
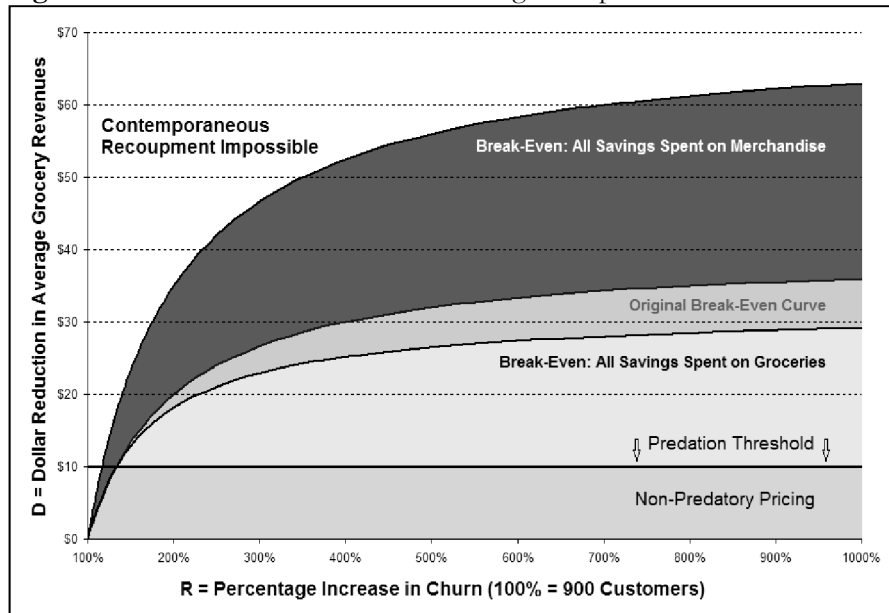
Because the demand for grocery items is relatively price inelastic,[66]
customers will likely spend a greater proportion of their post-predation
savings on general merchandise than on groceries. The net effect of intra-Box
expenditures of customer savings would cause an upward shift of the break-

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66   The inelasticity of per-customer demand for groceries heightens the appeal of predation
     using such products. Because factors such as spoilage prevent individual customers from
     drastically increasing their grocery purchases from each store visit, the Box will experience
     more limited losses than with other products. *See* Hoch, *supra* note 56 at 20-21 (containing
     further discussion including empirical testing of the price elasticities of demand for
     supermarkets using EDLP and discounting formats).

even frontier, indicating that contemporaneous recoupment is more likely to be a viable stand-alone predation mechanism. Other factors, discussed below, could also shift the break-even frontier, including the availability of traditional recoupment through supracompetitive pricing in the long run. These factors enhance the likelihood for successful predation by reducing the churn required for the scheme to succeed.[67]

D. The Profitability of Predation Funded through Contemporaneous Recoupment

The price the Box should set for maximizing its profits will depend upon the responsiveness of its churn to a drop in price.[68] For example, assume the Box determines that for every dollar it reduces its per-customer revenue below the distressed competitive level, there will be a 5% cumulative increase in churn based on the 900 current customers. Figure 4 below plots this relationship against the break-even frontier presented in Figure 2.

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67 The empirical analysis performed by Hoch et al., *id.* at 23-24, suggests that the likelihood of inducing a high increase in supermarket churn is unlikely at best, especially within an EDLP format. However, this study did not consider that the predator could use the price drop in groceries to incent increased sales of other non-grocery merchandise. This is a critical distinction from the analysis presented herein because the ability to churn across a broader set of products both enables and heightens the benefits from grocery segment predation.

68 Specifically, the Box's profit $= \pi$, and:

$$\pi = [(\$90 - D - \$80) + (\$100 - \$70)] \cdot [900R] = 36{,}000R - 900DR$$

so profit maximization occurs where:

$$\frac{\partial \pi}{\partial D} = 36{,}000\frac{\partial R}{\partial D} - 900R - 900D\frac{\partial R}{\partial D} = 0$$

$$\Rightarrow (40 - D)\frac{\partial R}{\partial D} = R \qquad\qquad \Rightarrow \frac{\partial R}{\partial D} = \frac{R}{40-D} \qquad\qquad \text{Equation (2)}$$

Figure 4: Profitability of a Price Lowering Strategy
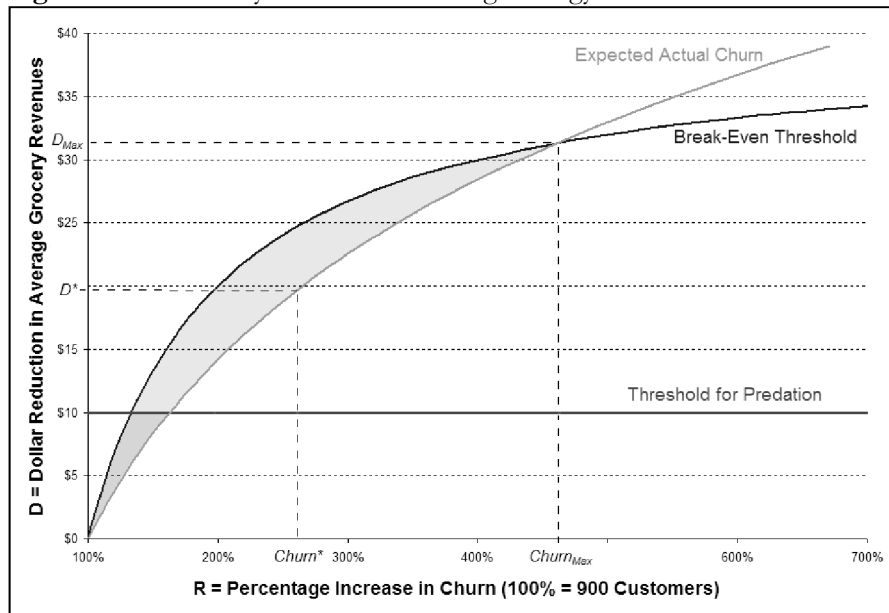
The existence of a "lens" inside the frontier demonstrates that the Box can profitably lower its grocery prices because the expected increase in churn is more than sufficient to recover the lower per-customer revenue. Figure 4 illustrates that this lens presents a range of potential discounts, giving the Box discretion as to the level it chooses. The profit maximizing discount arises at $D^* = \$19.50$, which corresponds with an increase in churn of about 259% and results in profits of about $47,783. Similarly, the firm could choose to optimize this value for other considerations, such as maximizing the predatory effect that is possible without incurring a loss.[69] Greater depth of the lens for any given level of discount gives the Box greater cushion if the expected churn does not materialize.

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69   The maximum amount of "pain" the predator can inflict on the market without incurring a loss occurs at D_{Max} of about $31.33 with an associated *Churn$_{Max}$* of about 461%. Note that the "Expected Actual Churn" function would take account of factors that are endemic to serving this higher demand, including the physical limitations of the Box's excess capacity to sell at such high volumes. At some point this curve will become vertical given the physical limits of the Box's excess capacity available to serve the increased churn.

Consistent with the discussion regarding Figure 1 in Section II, the predator needs no market power to execute this scheme because it faces no competition to prevent it from lowering its grocery prices below cost. However, it must have sufficient excess capacity to serve the entirety of the residual market demand created by the shortage left as other firms reduce output in reaction to the lower market price. Outside our Box hypothetical, this potential exists for any circumstance where the predator can overproduce to create targeted losses in one or more product segments to the greater benefit of a broader set of products. The concept of a predatory equilibrium is portable to circumstances where full contemporaneous recoupment is not possible (*i.e.*, no "lens" exists), but a loss-minimizing optimization exists such that the predator minimizes its need for alternative recoupment—a possibility we discuss next.

E. Contemporaneous Recoupment Combined with Supracompetitive Prices

Demonstration of actual contemporaneous recoupment of all losses associated with a predation eliminates the need to prove potential recoupment through supracompetitive pricing. However, the ability to recoup losses contemporaneously does not *preclude* a predator from seeking additional profits from supracompetitive pricing. Consider the initial equilibrium of the Box in the "normal" competitive state that yielded $50,000 per day. Only after the entry of the discount grocer did the Box experience the "distressed" competitive state yielding $36,000 per day and react by using predation to increase its profits to $47,783 per day. If the predation eliminates the discount grocer, the Box could raise its prices back to "normal" levels or higher if other rivals also fail.[70] Because the Box has demonstrated to potential entrants that it can profitably sustain a predatory stance, it has erected an entry barrier that allows the charging of supracompetitive prices, an outcome which satisfies even the stringent requirements articulated in *Rebel Oil*.[71]

The possibility that a predator can combine contemporaneous recoupment with recoupment from supracompetitive pricing adds a layer of complexity to the analysis of predation. Suppose the predator can recover

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70 This outcome would be consistent with the findings of Ellickson, Misra & Nair who note that the entry of a strong EDLP rival into a market will generally cause incumbents to exit with a greater attrition rate experienced by firms that do not sell in an EDLP format. *See* Ellickson, *supra* note 53 at 25.

71 *See Rebel Oil*, 51 F.3d at 1433.

only a portion of its predation losses through contemporaneous means. This will reduce, but not eliminate, the need for additional recoupment from supracompetitive pricing. The "dangerous probability" of successful recoupment through supracompetitive prices must then increase as the portion of the predation loss funded by contemporaneous recoupment increases. As we discuss in the next section, access to full or partial recoupment can therefore incentivize predatory behavior and may negatively impact societal welfare.

V. THE EFFECT OF CONTEMPORANEOUS RECOUPMENT ON EFFICIENCY AND COMPETITION

In this section we consider the efficiency concerns of predation with contemporaneous recoupment. As compared to the two-phased recoupment mechanism first envisioned by *Matsushita*, consisting of the price war and subsequent recoupment phase, our framework allows for recoupment to occur contemporaneously during the price war and therefore in only one phase. To increase the comparability of contemporaneous recoupment to existing legal precedent, we separate our discussion of the efficiency concerns arising during the predation from the post-predation efficiency issues raised by this behavior. Although the majority of our discussion focuses on efficiency concerns in the market that triggers the predation, we also consider the predation's effect on the targeted markets. We close this section by differentiating the contemporaneous recoupment paradigm from existing theories of loss leadership and bundling.

A. Efficiency Considerations during the Price War Phase

The hallmark of a predation scheme is to reduce the price in the triggering market to a level below that which could exist given normal competitive operations, usually represented as a price below average variable cost.[72] Figure 5 shows the effect of predatory behavior in an otherwise competitive market by graphically representing the average weighted price of goods sold (Px) on the vertical axis and the total quantity of those goods sold (X) on the horizontal axis. Absent predation, this market clears at the

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72 Note that average variable cost is equal to the weighted average of the marginal unit costs of all goods sold. Therefore, the presentation shown in Figure 5 is fully consistent with the Areeda-Turner test traditionally used in predatory pricing cases.

competitive equilibrium "*a*," at the price *Px**, and quantity traded *X**. If the predator has sufficient excess capacity, it can lower its average price to P_X^P, resulting in an equilibrium "*c*," corresponding with a higher quantity traded *Xp*. The higher churn arises as the predator supplies the quantity (*Xp – Xr*) to the market with competitors left to sell the remaining units *Xr*.

Figure 5: Welfare Loss in the Triggering Market During the Predation
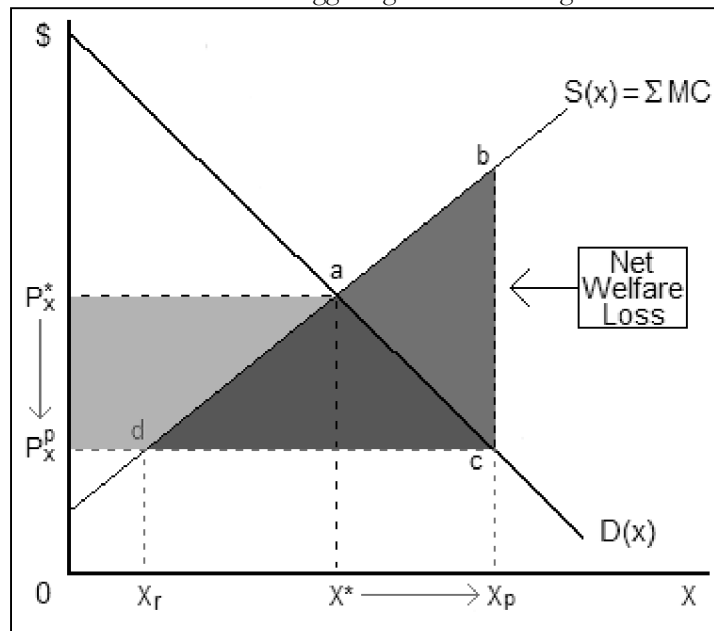
The societal welfare effects of this behavior in the triggering market are predictable assuming demand is downward sloping. As prices fall and the consumer surplus increases by the area *Px**, *a*, *c*, P_X^P, buyers are thrilled.[73] However, the losses incurred by the predator (shown by the area *b*, *c*, *d*) and by its competitors (shown by the area *Px**, *a*, *d*, P_X^P) more than offset the

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73   Consumer surplus is the difference between the price consumers are willing to pay for goods (shown by the demand curve) and the amount that they actually have to pay, i.e., the market price. In Figure 5 the triangular area above the competitive price *Px** and below the demand curve over the range of output from *X* = 0 to *X* = *X** shows the initial consumer surplus. Once the predator lowers the market price to *Px^P*, consumers get more of the good at a lower price thus expanding the size of the consumer surplus triangle by an amount equal to the area *Px*, a, c, Px^P*.

gains to the buyers.[74] The aggregate effect of the predation therefore *must* result in a societal welfare loss in the triggering market shown by the triangle *a*, *b*, *c*.[75] This *allocative inefficiency* results from the oversupply of products, *Xp*, to the market relative to the competitive output, *X**, and represents a true monetary loss that the predator willingly incurs in the triggering market that consumers do not recover.

Although "allocative inefficiency" sounds somewhat difficult to measure, it corresponds to an actual monetary loss. Every unit the predator induces consumers to buy beyond the competitive output *X** is produced at a higher cost than is recovered in revenues at the predatory price P_X^P, with losses growing exponentially worse as the predator oversupplies more and more units. Consider the example of the Box discussed in Figure 4 of Section III. If the Box chose the profit maximizing response to the "distressed" competitive state, it would lower its grocery prices such that average daily grocery revenues per customer would be $9.50 below its cost of goods sold. This predation increases the Box's churn by about 259%, which corresponds to about 2,331 customers. The Box willingly loses $9.50 across 2,331 customers, or over $22,143 *per day,* and imposes this loss upon society in pursuit of its predatory strategy.[76]

The allocative inefficiency resulting from predatory pricing is particularly troubling when combined with contemporaneous recoupment because the duration of the price war is potentially unlimited. In *Brooke Group* the Court found that the benefits to consumers of lower prices in predatory schemes that failed the traditional recoupment test outweighed the resulting allocative

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74   The producer surplus from trade is the difference between the price sellers receive for their goods and the cost of producing those goods, i.e., profit. In Figure 5 the initial producer surplus equals the triangular area below the competitive price *Px** and above the supply curve over the range of output from *X* = 0 to *X* = *X**. Once the predator lowers the market price to *Px^P*, other sellers cut production to *Xr* to avoid losses, giving up the gains they would otherwise receive under non-predatory competition shown by the area *Px*, a, d, Px^P*. The predator then sells all units above *Xr* produced from its excess capacity at a loss, shown by the area *b, c, d.*

75   The gains to consumers offsets the entire welfare loss to other sellers but only part of the predator's loss (area *a, d, c*), a situation which results in a net welfare loss to society equal to the area *a, b, c.*

76   Note that rounding error causes slight differences in the predatory equilibrium of Section III. As we discuss later in this section, such losses induce the sales of other merchandise in the store, an outcome which can have both pro-competitive effects such as loss leading and anticompetitive effects such as predation. However, these results do not alter the fact that the behavior that triggers the scheme inflicts a welfare loss to society on a stand-alone basis.

inefficiency costs.[77] *Brooke Group*—and the handful of cases that followed which touched on the issue of allocative efficiency—did not consider the possibility of contemporaneous recoupment enabling an unending price war; this omission raises doubt as to whether the courts in these cases struck the correct balance when considering the negative net consequences of the potential allocative inefficiency caused by predatory pricing.[78]

Because contemporaneous recoupment is self-funding, the "self-deterring" nature of predation relied upon by the court in *Matsushita* is inapplicable because the predator does not need to incur losses today to pursue speculative gains in the future.[79] The decisions rendered in *Matsushita*, *Brooke Group*, and other cases considered *unsuccessful* predations—schemes without a dangerous probability of recouping losses. These courts therefore did not consider the protracted societal losses attendant with the continuing allocative inefficiency associated with a sustainable, *successful* price war. Because the possibility of contemporaneous recoupment *must exist* for a multiproduct predator, we contend that current law *must* adapt to reconsider the calculus of allocative losses posed by single-phase predations.[80]

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77 *Brooke Group*, 509 U.S. at 224. ("Recoupment is the ultimate object of an unlawful predatory pricing scheme; it is the means by which a predator profits from predation. Without it, predatory pricing produces lower aggregate prices in the market, and consumer welfare is enhanced. Although unsuccessful predatory pricing may encourage some inefficient substitution toward the product being sold at less than its cost, unsuccessful predation is generally a boon to consumers."). *See also* Bailey v. Allgas, Inc., 284 F.3d 1237, 1245 (11th Cir. 2002) (summarizing *Brooke Group* as holding that "[p]rice discrimination that is unaccompanied by an ability to recoup losses serves to benefit, rather than injure, consumers"); *Rebel Oil*, 51 F.3d at 1433 (citing *Brooke Group* as holding that allocative inefficiency is not anticompetitive in itself because it brings lower prices to the market and holding that "an act is deemed *anticompetitive* under the Sherman Act only when it harms both allocative efficiency *and* raises the prices of goods above competitive levels or diminishes their quality").

78 In *Cascade Health Solutions*, 502 F.3d at 915, the Ninth Circuit noted that *Brooke Group* was based on a cost-benefit determination rather than a determination of whether harm to competition had actually occurred: "as commentators have pointed out, *Brooke Group*'s safe harbor for above-cost discounting in the single product discount context is not based on a theory that above-cost pricing strategies can never be anticompetitive, but rather on a cost-benefit rejection of a more nuanced rule."

79 *See Matsushita*, 475 U.S. at 595 ("economic realities tend to make predatory pricing conspiracies self-deterring: unlike most other conduct that violates the antitrust laws, failed predatory pricing schemes are costly to the predators").

80 Both *Brooke Group* and *Rebel Oil* recognize the negative consequences of allocative inefficiency. *See Brooke Group*, 509 U.S. at 224; *Rebel Oil*, 51 F.3d at 1433 ("Consumer welfare is maximized when economic resources are allocated to their best use, and when consumers are assured competitive price and quality.") (citation omitted). However, *Rebel Oil* would reject evidence of allocative efficiency unless accompanied by supracompetitive

The sustainability of a predation funded by contemporaneous recoupment also brings into question the viability of competition after the scheme ends. As the Box example discussed in Section III shows, a predator can find a profit maximizing equilibrium relative to the "distressed" competitive state that includes the predation. Rivals whose business models depend in whole or in part upon price competitiveness face the choice of perpetually absorbing losses or shutting down for an indeterminate period of time.[81] As neither of these options is likely to be practical, firms with cost structures above the predatory equilibrium and whose business models are insufficiently unique to retain customers through non-price competition have little hope of withstanding the situation. Furthermore, any price-based competitors with inventory limited to products in the triggering market may not be able to compete *even if their cost structure is more efficient than that of the predator.*[82] Contemporaneous recoupment magnifies this problem because the predator has the ability to choose the relative "pain" it inflicts upon its rivals.

But what if the Box were to choose to retain its predatory pricing regime in the long run? It would then enjoy profits at or above those of the "distressed" competitive state, while a broader set of consumers induced through higher churn would obtain groceries at lower prices and in a format they apparently find preferable on a value-weighted basis to those of the smaller, failed firms. Furthermore, the continuing predation exposes consumers to the one-stop-shopping model and potentially increases inter- and intra-brand competition and choice in the markets for the other merchandise sold by the Box.[83] Given such large consumer benefits, how

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prices. *Rebel Oil*, 51 F.3d at 1433. This misconstrues the cost-benefit calculus articulated in *Brooke Group* that rejects such arguments only if recoupment is *unlikely*. *Brooke Group*, 509 U.S. at 224. Thus, although *Brooke Group* did not directly consider allocative inefficiency when a predator can contemporaneously recoup its losses during the price war phase, it also did not specifically preclude such analyses.

81 *See generally* Thomas J. DiLorenzo, *The Myth of Predatory Pricing*, Cato Inst., Pol'y Analysis 169 (1992), available at http://www.cato.org/pubs/pas/pa-169.html (discussing options theoretically available to firms collaterally affected by the predation).

82 As discussed *supra* note 49, the elimination of more efficient rivals can also occur using bundled goods. However, our example differs from the bundled goods case because consumers of the Box face no requirement to buy non-discounted items to enjoy the discount on the items used as the predation's trigger. This distinction is significant because it validates our assertion that a predator needs no market power to execute a predation funded contemporaneously.

83 As considered in relation to vertical restraints of trade, "[i]nterbrand competition is the competition among the manufacturers of the same generic product…. In contrast, intrabrand competition is the competition between the distributors . . . of the product of a particular manufacturer." Continental T.V. v. GTE Sylvania, 433 U.S. 36, 52 n.19 (1977).

does a predator maintaining its prices below cost in perpetuity harm competition?

Figure 5 illustrates that the inefficiency presented by a sustained predation lies not with consumers, who indisputably benefit from such behavior, but from the *harms to competition and to society* caused by the predation.[84] As the predation persists, it diminishes or destroys the value of existing and potentially more efficient sellers. This harm *must* exceed the welfare benefits to consumers for as long as the predation lasts because the allocative efficiency of the market declines as the predation forces the overproduction of goods in the triggering market. This is far more concerning when accompanied by contemporaneous recoupment because the "success" incents continuation of the predatory behavior indefinitely and with it, the indefinite perpetuation of the associated societal welfare loss.

B. Efficiency Considerations after the Predation (Traditional Recoupment)

Upon the conclusion of the price war phase, the question becomes whether the elimination of rivals in the triggering market may allow the predator to raise prices in the long run and thus tap the traditional source of recoupment contemplated in *Brooke Group*. In such event, concerns of lost allocative efficiency no longer derive from an *overproduction* of the goods but from an *underproduction* resulting from the intentional withholding of output from the market. Market power, obtained through the erection of an entry barrier derived from the price war as prolonged by contemporaneous recoupment, potentiates this outcome and could result in a significant reduction in consumer and societal welfare below competitive levels.

Consider the example of the Box. Because the predator self-funded its predation, the elimination of the deep-discount grocer ultimately allows the predator to destroy the foundation for its "distress" and to raise prices back to "normal" competitive levels in the long run.[85] This higher price level may

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84   As the *Brooke Group* Court made clear the recoupment requirement derives from the need for predatory pricing to harm competition: "That below-cost pricing may impose painful losses on its target is of no moment to the antitrust laws if competition is not injured: It is axiomatic that the antitrust laws were passed for 'the protection of *competition*, not *competitors*.'" *Brooke Group*, 509 U.S. at 224 (quoting Brown Shoe Co. v. United States, 370 U.S. 294, 320 (1962)).

85   A return to the $50,000 profit per day associated with the "normal" competitive state would reflect pricing that is supracompetitive relative to either the $36,000 profit per day of the "distressed" competitive state or the $47,783 profit per day of the predatory state.

represent limit entry pricing, made possible because the Box wields the credible threat of a sustainable predation profitably funded through contemporaneous recoupment.[86] Such a threat presents a barrier to entry in the grocery market because a rational potential entrant would be unwilling to invest the capital and startup costs needed for entry given knowledge that the Box could perpetually prevent or seriously impinge all hope of profitability. The Box's ability to raise prices above cost in the long run would then demonstrate its ability to recoup any remaining losses incurred during its predation, an outcome indicative of the exercise of market power anticipated in *Brooke Group*, *Rebel Oil*, and their associated family of cases.

With less certainty, a sustained predatory scheme could cause harm in the markets for other merchandise because the predator's higher churn could reduce profitability or foreclose other business opportunities in these other markets.[87] The resulting failure of some competitors could then raise similar concerns to those discussed regarding the triggering market. However, the predation also brings certain efficiencies to these markets because the predator's broader model acts as a loss-leadership mechanism that increases consumer choice by exposing new customers to its product offerings and to the benefits of its shopping model. Moreover, as the Box example suggests, the predator can accomplish this *without ever raising the prices charged for these other products*. This again raises the issue of whether our framework conflicts with existing case precedent that specifically contemplates the use of supracompetitive pricing enabled by market power. As we will discuss in Sections V and VI, the possibility that a claimant could combine theories of recoupment may provide opportunities to raise contemporaneous recoupment issues even within the confines of the *Brooke Group* standard.

C. Predation Distinguished from Loss Leadership[88]

Consider the following progression: A farmer's market maintains its price for oranges below cost to benefit the sales of other produce, driving out of business smaller orange stands with less product diversity. A discount

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86   The supracompetitive premium the Box can charge above the "distressed" competitive state is ultimately constrained by the surviving grocers that compete with the Box based upon qualitatively superior non-price characteristics.

87   *See* Chen, *supra* note 50 at 5 (aggressive loss leading can benefit the predator through the ability to charge supracompetitive prices on other products).

88   A few prior discussions have touched upon the distinction between these concepts. *See id.;* Perkins, *supra* note 9 at 218; Hawker, *supra* note 9 at 143-44.

supermarket grocer sustains the average price of its produce below cost, driving the farmer's market out of business. A Box store lowers its grocery prices below cost to drive out of business the discount supermarket grocer. From one completely defensible perspective, every link in this chain of events typifies effective competition. Continued survival is enabled through profit maximizing loss leadership as the reward for superior economies of scale and scope. The ordering and presentation of these examples, however, raise three important distinctions.

First, as the scope of the loss-leading behavior expands, the allocative inefficiency associated with the behavior will grow worse. This is a natural adjunct to the allocative inefficiency that results from the price war's extension over a longer period of time. If the predator oversells each good offered below cost relative to competitive levels through sales from its excess capacity, the addition of each SKU to the predation trigger must add to the overall allocative inefficiency created by the scheme. This is true irrespective of the profits produced through the corresponding increased churn, although as discussed previously, greater profitability may ultimately incentivize a more severe price war.

Second, as the size of the rival eliminated by the predation increases, the net societal welfare loss caused by the rival's destruction is likely to increase. This occurs because other firms must meet greater capital requirements to attain the scale economies required to compete effectively with a predator, an outcome which raises the sunk costs associated with market entry.[89] All other things being constant, the increase in sunk costs should reduce the number of firms that remain to compete directly with the predator, allowing for less robust competition and potentially supracompetitive prices once the price war abates.[90] As the progression moves from the fruit stand to the discount supermarket, it becomes increasingly likely that the anticompetitive injury extends not only to the predator's targeted competitors, but also to competition generally.

Third, an increasing note of predatory intent runs through the examples: the objective of the farmer's market is consistent with loss leading; the objective of the discount supermarket is unstated; and the expressed intent of the Box is to eliminate its rival. The *Brooke Group* standard does not require

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89   *See* Tesler, *supra* note 63 at 270.

90   The raising of a rival's sunk costs is a theory of "non-price predation" that has received significant attention in economics literature but met with limited success in the courts. *See* Steven C. Salop & David T. Scheffman, *Raising Rival's Costs*, 73 AM. ECON. REV. 267 (1983).

proof of anticompetitive intent for supporting predation claims.[91] However, proof of predatory intent was an essential element of the claim under the prior *Utah Pie* precedent and might again be relevant for predation claims based on the principles of contemporaneous recoupment.

Despite these concerns some efficient markets proponents may seize upon the Box example to assert that the Box's ability to raise its profits above the "distressed" competitive level through predation is a legitimate exercise of the efficiencies brought by economies of scale and scope. From this perspective the progression described above is nothing more than a series of acts of loss leadership performed across an increasingly broad product range, a situation which is indistinguishable legally and economically from a continuum of loss-leading behavior that could involve only a few SKUs or thousands of products in a targeted product segment. For these proponents, the fact that the predation could be profit maximizing on a stand-alone basis only heightens the perceived legitimacy of its behavior, exemplified in Section III by the Box's ability to increase its profitability relative to the distressed competitive state through the predation.

In the market for any of the goods sold, the Box was not shown to have had market power in any traditional sense, much less to have abused such power. While the Box's behavior clearly harmed some individual competitors, the predation ultimately led to prices ostensibly no higher than those associated with the original "normal" market equilibrium in the long term and benefitted consumers significantly during its execution through greater availability of products at lower prices. As is the hope for all loss-leading strategies, the Box exposed new consumers to its other merchandise with the convenience of one-stop shopping and at prices the Box never raised during the plan's execution.

These points resonate relative to the "normal" competitive state that predates the entry of the discount grocer, but fail if considered against the "distressed" competitive state that the predator disrupted through its predation. Considering efficiency arguments relative to the "distressed" competitive state lays bare the friction between competing definitions of "efficiency" in play when defining the boundaries of loss-leading versus predatory behavior. If the promotion of scale economies is of paramount

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91   *See* Jonathan M. Jacobson, *Antitrust Law Developments (Sixth)*, ABA Sec. of Antitrust L. 500-01 (2007). ("In *Brooke Group*, the Supreme Court confirmed and extended the trend toward an objective predatory pricing standard . . . . The Court made it clear that liability in a predatory pricing case may not be founded solely on the basis of subjective intent.").

societal importance, one can justify all loss leading recouped through contemporaneous or other means as a benefit of size, effectively meaning that there is no predation. Conversely, if the maximization of allocative efficiency and the protection of smaller businesses with potentially more efficient cost structures are overriding considerations, the law would forbid all loss-leading behavior. Because the associated competing efficiencies both hold merit, we proceed assuming that neither of these two extremes is desirable. An optimal compromise between these polar outcomes would provide an objective and transparent method to distinguish legitimate competitive behavior, such as loss leading, from anticompetitive behavior, such as predation. In Section VI we propose bright line tests for contemporaneous recoupment that we believe strike the right balance between these competing concerns.

D. Predation, Bundled Sales, Market Power, and Efficiency

Recent decisions evaluating bundled sale discounts displayed a willingness by courts to address some of the efficiency issues raised by more complex predatory schemes. Bundled sales involve the offering of multiple products at a discount not available if the buyer purchases the items in the bundle separately.[92] The Third Circuit's opinion in *LePage's Inc. v. 3M* recognized that a seller could use such programs to leverage monopoly power in one market to expand market share in a different competitive market.[93] However, the court did not require that the bundled sale include a below-cost pricing element for the claim to succeed. A subsequent decision by the Ninth Circuit in *Cascade Health Solutions* adopted a "discount-attribution" test in which the court applied all costs and rebates applicable to the bundled products to the

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92 Note that this differs from the cross-market predation scheme associated with contemporaneous recoupment because the buyer can purchase the items used to trigger the predation at the full discount without any requirements to buy other items. Bundled discounts also differ from tying contracts because the buyer can purchase the goods in the bundle separately although without the accompanying bundled discount. Given their commonalities, scholars have considered bundled discounts to have similarities to both tying and predatory pricing. *See Cascade Health Solutions*, 502 F.3d at 910. *See also* John Simpson & Abraham Wickelgren, *Bundled Discounts, Leverage Theory and Downstream Competition*, 9 AM. L. & ECON. REV. 370 (2007) (tying contracts used to leverage monopoly power into downstream markets).

93 *See LePage's Inc.*, 324 F.3d at 159-63. Scholars have expressed concern that above-cost discounts can extend market power into otherwise competitive markets. *See* Edlin, *supra* note 43 at 945; Nalebuff, *supra* note 12 at 335; Jeffrey A. Jaeckel, *LePage's, Cascade Health Solutions, and a Bundle of Confusion: What is a Discounter to Do?*, 24 ANTITRUST 46, 47-48 (2010).

price of the competitive product with the resulting price compared to the defendant's incremental cost.[94] The court reasoned that "[t]his standard makes the defendant's bundled discounts legal unless the discounts have the potential to exclude a *hypothetical* equally efficient producer of the competitive product."[95] The discount-attribution test supports our contemporaneous recoupment framework because the court's reasoning is consistent with our perspective that a predator driving an equally or more efficient producer out of business by predatory pricing or similar practices damages competition regardless of whether supracompetitive prices ultimately result.

The *Cascade Health Solutions* court also recognized that a predatory scheme involving multiple products raises additional concerns not present in single product schemes:

> [B]undled discounts present one potential threat to consumer welfare that single product discounts do not: A competitor who produces fewer products than the defendant but produces the competitive product at or below the defendant's cost to produce that product may nevertheless be excluded from the market because the competitor cannot match the discount the defendant offers over its numerous product lines.[96]

This observation supports our point that a predatory pricing scheme funded by contemporaneous recoupment may drive smaller competitors that are *more efficient* than the predator out of the market because small firms cannot recoup losses through higher churn across a broader product set. The court also chose not to add a recoupment requirement to the analysis of bundled sales because *it perceived that a multiproduct seller could exclude a single product seller without incurring any losses to recoup.*[97] Although different in the requirement of a contractual linkage between products and the use of market power in execution, the functional outcome of a bundled discount is similar to that of a contemporaneous recoupment scheme.

The *Cascade Health Solutions* decision is encouraging in that it demonstrates a willingness on the part of some courts to undertake the rigorous analysis

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94 *Cascade Health Solutions*, 502 F.3d at 918. The Antitrust Modernization Commission proposed a functionally similar test in its *2007 Report and Recommendations*, available at http://govinfo.library.unt.edu/ amc/report_recommendation/amc_final_report.pdf.

95 *Cascade Health Solutions*, 502 F.3d at 916.

96 *Id.* at 914.

97 *Id.* at 921 n.21.

necessary to craft appropriate rules for more nuanced predatory strategies that do not fit the traditional predatory pricing model enshrined in *Brooke Group* and *Matsushita*. A court considering contemporaneous recoupment should consider two common elements shared with *Cascade Health Solutions*. First, predatory schemes that rely on multiple markets to recoup losses do not require a predator to suffer losses today in the hope of obtaining speculative profits in the future. Second, predatory tactics that do not entail an immediate sacrifice of profits and do not involve the charging of supracompetitive prices can seriously impair market efficiency. Unfortunately, because *Cascade Health Solutions* considered these issues under the auspices of a market power analysis under Sherman Act § 2, the case is of limited value in reconciling existing predatory pricing law with our framework in that a contemporaneous recoupment scheme does not require market power to execute.

Analyses that focus on measuring market power are ill-equipped to detect and explain predatory behavior because they distract focus from evaluating the relative efficiency of the predation trigger (i.e., selling goods at prices below cost as enabled by the overproduction of the good) by focusing on long-term efficiency issues that may be superfluous (i.e., supracompetitive prices, as enabled through the withholding of production). Although the decision in *Cascade Health Solutions* addresses issues similar to those we consider herein, the fundamental assertion that a defendant holding market power for one product is using that market power to derive benefit in a different market through the bundled discount lies at its core. By comparison our framework assumes that the predator has no market power over any of the products sold and that no intrinsic complementarities, other than proximity, exist between the products that trigger the predation and the products used to recoup its losses. We are not aware of any case that has attempted to reconcile a contemporaneous recoupment theory with existing predation law in the absence of market power. This is our aim in Section VI.

VI. RECONCILING CONTEMPORANEOUS RECOUPMENT WITH EXISTING PREDATION DOCTRINE

Because the predation framework used in *Brooke Group* requires proof of the exercise of market power resulting in supracompetitive pricing following the predation,[98] the plaintiff must demonstrate that the defendant acquired market power during the price war phase, such that the defendant has a

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98   *Brooke Group*, 509 U.S. at 225-26.

"dangerous probability" of recouping its losses invested in the predation through subsequent supracompetitive pricing during the recoupment phase.[99] By comparison the mechanism of contemporaneous recoupment provides for partial or complete recoupment during the price war and without the need of market power. In this section we consider the legal relevance of these differences to ascertain both the need for adapting existing predation law to our model and the relevance of our model to the existing state of the law. We first consider the market power standard of *Brooke Group* and discuss the potential for contemporaneous recoupment claims to meet or circumvent this standard. We follow with a discussion as to how the *Brooke Group* standard could adapt to accommodate predation claims based on contemporaneous recoupment or, alternatively, how evidence of contemporaneous recoupment could bolster traditional recoupment claims through evidence of partial funding by contemporaneous means.

A. Characterization of the Proof of Market Power Required by *Brooke Group*

Under *Brooke Group* a plaintiff may demonstrate market power using (1) direct evidence of an injurious exercise of market power in fact or (2) proof of market structural factors indicating that the defendant has a dangerous probability of recoupment through supracompetitive prices.[100] Using the first method "the plaintiff puts forth evidence of restricted output and supracompetitive prices, that is direct proof of the injury to competition which a competitor with market power may inflict, and thus, of the actual exercise of market power."[101] Lacking direct evidence, plaintiffs generally proceed using the second or circumstantial method, which *Rebel Oil* held to contain three steps: "(1) define the relevant market, (2) show that the defendant owns a dominant share of that market, and (3) show that there are significant barriers to entry and show that existing competitors lack the capacity to increase their output in the short run."[102] Neither the direct nor circumstantial method contemplates that recoupment can occur without supracompetitive prices, an outcome that is both a cause and effect of the

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99 *Id.* at 222-24 (providing "reasonable possibility" as the Robinson-Patman Act standard and "dangerous probability" as the standard under the Sherman Act).

100 *Id.* at 232-33; *Rebel Oil*, 51 F.3d at 1434.

101 *Rebel Oil*, 51 F.3d at 1434.

102 *Id. See also Bailey*, 284 F.3d at 1245-56 (applying *Rebel Oil* circumstantial method of determining if defendant had market power).

two-phase predatory pricing model. Because contemporaneous recoupment can operate without an exercise of market power, requiring proof thereof would serve no purpose. Nevertheless, failure to demonstrate supracompetitive pricing may preclude contemporary recoupment actions under Sherman Act § 2 and necessitate reliance on the broader language of Robinson-Patman for single period claims to proceed.

1. *Contemporaneous Recoupment and the Direct Evidence Test*

It is uncertain if proof of contemporaneous recoupment could satisfy the direct evidence test under existing doctrine. Courts have not been receptive in the handful of cases that touched on the issue of whether recoupment can occur in a market other than the one in which the predation occurred.[103] Plaintiffs in these cases argued that a predator could recover predation losses through the exercise of market power in a related market.[104]   The courts found that such schemes were economically irrational because they require the predator to forego profits in the predation market when existing market power in the recoupment market already allows for supracompetitive prices.[105] This criticism is inapplicable to our framework. The predation scenarios faced by the courts in these cases failed because the leveraging of market power did not provide a nexus between the otherwise independent predation and recoupment markets.[106] By comparison, the mechanism for

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103 *See* Rockbit Indus. U.S.A., Inc. v. Baker Hughes, Inc., 802 F. Supp. 1544, 1552 (S.D. Tex. 1991). *Cf. Matsushita*, 475 U.S. at 593 (holding that although supracompetitive profits in one market gave a potential predator the means to fund the predation in another market, the predator had no motive to engage in predatory pricing unless it could recoup the losses incurred in the predation market); *Advo, Inc.*, 51 F.3d at 1203 (same); North Carolina Elec. Membership Corp. v. Carolina Power & Light Co., 780 F. Supp. 322, 337 (M.D.N.C. 1991) (same). In *Martello*, 143 Md. App. at 482, the plaintiff argued that an electronic medical claims submission company was pricing below cost by not charging doctors for the service but charging a supracompetitive price to the insurance company receiving the claims. The court characterized this two-sided market structure where prices could be charged to either or both parties using the service as being a complaint about an "allocation of price, rather than the price itself" and rejected the claim because the prices could not be below cost and supracompetitive at the same time. *Id.*

104 *Rockbit Indus. U.S.A., Inc.*, 802 F. Supp. at 1552.

105 *Id.*

106 Two cases came closer to articulating the dependency of recoupment in a targeted market to the setting of predatory prices in a triggering market, albeit in the context of creating or maintaining monopoly power. In the district court phase of *Brooke Group*, the plaintiff offered a theory of simultaneous recoupment whereby the defendant allegedly recouped predatory losses incurred in the generic cigarette market by limiting consumers' ability to

contemporaneous recoupment directly links the triggering and targeted markets though higher churn. Although this distinction may not circumvent the need to prove market power in the triggering market under existing predation doctrine, it suggests that raising the issue of the viability of contemporaneous recoupment to fund a single-phase predation would present a case of first impression before the federal courts.

2. *Contemporaneous Recoupment and the Circumstantial Evidence Test*

Applying the *Rebel Oil* circumstantial method of demonstrating market power would require a plaintiff to define the market, prove the defendant had a dominant share of that market, prove that entry barriers exist in that market, and show that other existing sellers lack the excess capacity to serve that market in the short run. This presents a very difficult set of obstacles for a contemporaneous recoupment claim because three of the four elements are unnecessary conditions for the success of a contemporaneous recoupment scheme. High market share is relevant if recoupment depends on market power to enable supracompetitive pricing,[107] but is irrelevant if recoupment occurs contemporaneously as a result of the predator's ability to generate profits across a broader product set through increased churn. Similarly, it is possible a self-funding predation could erect a barrier to entry in the triggering market and hence allow the predator to raise prices to supracompetitive levels subsequent to the price war. However, in the context of contemporaneous recoupment, the entry barrier is a result of, as opposed to a predicate for, the predation's success. If a plaintiff were able to introduce evidence of supracompetitive prices, this would be direct evidence of the

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switch from branded cigarettes, a product it also sold. The district court rejected this theory by finding that the plaintiff failed to prove supracompetitive prices in the branded market and also failed to prove that the defendant's alleged predatory pricing mechanism of providing its wholesalers with rebates did not result in lower list prices for generic cigarettes and increase consumers' defection from the branded market. *Liggett Group, Inc.*, 748 F. Supp. at 357. Similarly, in the district court phase of the U.S. Department of Justice antitrust action against Microsoft, the government pled that Microsoft could recoup its losses incurred by giving away Internet Explorer through its sales of its Windows operating system over which it was alleged to have a monopoly. *See Microsoft Corp.*, 253 F.3d at 74-75 n.21. In making this claim in the district court, the government argued that networking effects in technology products would improve Microsoft's ability to recoup its losses incurred by giving away Internet Explorer. *See* Page, *supra* note 9 at 8-9.

107 As a point of reference, courts have set the threshold for dominant market share at 50% for monopolization claims under Sherman Act § 2 and as low as 30% for attempted monopolization claims. *Rebel Oil*, 51 F.3d at 1438; *Bailey*, 284 F.3d at 1250.

erection of an entry barrier and an injurious exercise of market power in fact that would fit the traditional paradigm anticipated by the court in *Brooke Group*.

Predation funded by contemporaneous recoupment destroys any incentive other market participants have to "increase their output in the short run."[108] Although this is not identical to proving that existing sellers lack the capacity to increase output as articulated in *Rebel Oil*, the amount of capacity available to increase production is irrelevant if there is no incentive to deploy that capacity. Faced with a predator selling below cost while contemporaneously recouping its losses through increased churn, no rational rival would deploy its spare capacity to lower prices further and to increase its own losses unless it also has the ability to deploy a contemporaneous recoupment scheme. In actuality, because contemporaneous recoupment can sustain a predation indefinitely, the rational response of the predation victim would be to shut down temporarily or to exit the market entirely—the exact opposite of deploying spare capacity.

3. Contemporaneous Recoupment Eliminates the Need for Market Power Analyses

Following the reasoning in *Matsushita*, *Brooke Group* requires that a plaintiff prove the supracompetitive prices captured in the recoupment phase be the result of market power gained in the price war phase: "'[i]n order to recoup their losses, [predators] must obtain enough market power to set higher than competitive prices, and then must sustain those prices long enough to earn in excess profits what they earlier gave up in below-cost prices.'"[109] However, neither the act of selling below cost nor the opportunistic exploitation of increased churn resulting from those predatory sales requires market power. The contemporaneous recoupment scheme works because the predator is able to combine these attributes into a single phase using the price war to generate recoupment concomitantly through higher churn.

The courts' focus on market power illustrates that they have misunderstood the problem of predatory pricing to be a withholding of supply to raise prices rather than an oversupply to lower prices below cost. As

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[108] *See Rebel Oil*, 51 F.3d at 1434 (requiring the demonstration of barriers to entry and proof of the inability of rival sellers to "increase their output in the short run").

[109] *Brooke Group*, 509 U.S. at 226 (quoting *Matsushita*, 475 U.S. at 590-91) (insertions in original).

such, requiring a plaintiff to demonstrate that a defendant holds market power presents an unnecessary hurdle to predation claims if potential exists for contemporaneous recoupment. As we discussed in Section III, the ability to recoup predatory losses contemporaneously is unrelated to market power unless a predator needs to fund a portion of the loss through other recoupment mechanisms, particularly supracompetitive pricing. Therefore, courts should relax the requirement to prove market power when contemporaneous recoupment applies, with no such showing needed if the plaintiff can demonstrate that contemporaneous recoupment is sufficient to recoup the entire predatory loss.

The mere possibility of contemporaneous recoupment suggests that the Court's formulation in *Brooke Group* and *Matsushita* that "predatory pricing schemes are rarely tried, and even more rarely successful" may be incorrect.[110] Single-phase predatory pricing schemes should be a matter of great concern for courts adhering to *Brooke Group*'s principles because they are not self-deterring and defy the traditional attributes associated with anticompetitive behavior—most notably, the exercise of market power. Moreover, as we discussed in Sections III and IV, because a predator may recoup its losses entirely during the price war phase, the strategy can be self-sustaining on an ongoing basis while producing substantial allocative inefficiency and raising a significant barrier to entry. Predation with contemporaneous recoupment is likely a very appealing strategy to a predator because it offers the chance to recoup losses both during the price war and in the traditional recoupment phase through supracompetitive prices.

B. Reconciliation of Existing Predation Case Law with Contemporaneous Recoupment

Given the incongruities between our theory of contemporaneous recoupment and the existing predatory pricing law's requirement of recoupment through supracompetitive pricing, we offer three possible methods for reconciliation. First, bypass the supracompetitive pricing requirement by asserting that Robinson-Patman allows for a predation claim separate and distinct from that perceived in *Brooke Group*. Second, assuming a distinct claim is not possible, alter or overrule *Brooke Group* to accommodate contemporaneous recoupment claims. Third, if neither of these options is viable, adapt the existing law to recognize contemporaneous recoupment as a

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110 *Brooke Group*, 509 U.S. at 226 (quoting *Matsushita*, 475 U.S. at 589).

means to enhance supracompetitive pricing in fully funding a predation. Any of these three methods will allow for the use of the bright line tests for full or partial contemporaneous recoupment that we discuss in Section VI. As a result, whichever method of reconciliation the court chooses will provide clear guidance such that consistent application is possible without chilling legitimate competitive behavior such as vigorous price cutting or loss leading.

1. Robinson-Patman Should Allow Contemporaneous Recoupment Claims to Proceed

Differences between Sherman Act § 2 and Robinson-Patman exist and are relevant to how the courts should consider a contemporaneous recoupment scheme. Although the Supreme Court in *Brooke Group* held that the "essence" of the claims under both statutes is the same, it also recognized that differences exist on the issue of market power.[111] Cases brought under Sherman Act § 2 will inherently involve determination of the defendant's market power and ability to charge supracompetitive prices.[112] Conversely, the Court recognized that Robinson-Patman sweeps more broadly, stating that "competitive injury under [Robinson-Patman] must extend beyond the monopoly setting."[113]

As an example of how the market power requirement differs by statute, the *Brooke Group* and *Rebel Oil* courts cited "oligopolistic price coordination," where sellers punish rivals by lowering prices until they impinge profitable operations.[114] Such cases may not be actionable under Sherman Act § 2 due to a lack of market power, but may be actionable under Robinson-Patman. As we discussed in Section III, a self-funding predation can punish or drive rivals from the market without market power, shown by the Box's response to distressed competition. Because predation with contemporaneous recoupment and recoupment through oligopolistic price coordination satisfy the elements of below-cost pricing and the recoupment of losses without market power, both should be actionable under Robinson-Patman as lessening competition.[115]

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111 *Brooke Group*, 509 U.S. at 222, 229-30.

112 The threshold used for this determination may vary depending on whether the offense is attempted or actual monopolization. *See Rebel Oil*, 51 F.3d at 1438.

113 *Brooke Group,* 509 U.S. at 229.

114 *Id.* at 229-30; *Rebel Oil*, 51 F.3d at 1447.

115 *Brooke Group*, 509 U.S. at 222 ("business rival has priced its products in an unfair manner with an object to eliminate or retard competition"). A claim under Robinson-Patman would additionally require a plaintiff to show that the defendant engaged in price discrimination for at least two sales of the same product. A plaintiff should be able to

2. *Removal of the Supracompetitive Pricing Requirement from* Brooke Group

The simplest and most logical way to accommodate the contemporaneous recoupment model within current predatory pricing doctrine would be to remove the requirement that a plaintiff must demonstrate recoupment through supracompetitive prices when it can prove a single-phase recoupment. This modified *Brooke Group* test would retain the two fundamental requirements, below-cost pricing and recoupment, but would allow claims to proceed under Robinson-Patman when a plaintiff alleges single-phase recoupment. For traditional two-phase claims of predatory pricing, including those where partial contemporaneous recoupment is possible, the test would continue to require a plaintiff to demonstrate that the predator gained sufficient market power to create a dangerous probability of recoupment through supracompetitive pricing.

Modifying the *Brooke Group* test in this manner serves the fundamental goal articulated by the Court in *Matsushita*. *Matsushita* rejected the plaintiff's predatory pricing claim because the scheme, for which there was no direct evidence of intent, made "no economic sense" and thus lacked a motive.[116] As the Box example in Section III shows, predatory pricing is not irrational if the predator can recover the lost profits contemporaneously. Unlike the claim rejected in *Matsushita*, a predatory pricing scheme that allows for contemporaneous recoupment is not "by nature speculative" and does not require "the conspirators to forego profits that free competition would offer them."[117] Inconsistent with the Chicago School theories invoked in *Matsushita*, the success of the predation in our Box hypothetical does not require the

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meet this easily by offering evidence of sales before and during the predation or of sales not below cost from the Box's stores not involved in the predation if such stores exist. Other than the need to satisfy Sherman Act § 2, a showing of market power is superfluous if the plaintiff can already demonstrate that the predator fully recouped its losses. Requiring that a plaintiff also show market power would elevate legal form over economic substance but may, nevertheless, be necessary given the strong condemnation of the Robinson-Patman Act by some scholars. *See* Bork, *supra* note 4, at 382 (referring to the Robinson-Patman Act as "the misshapen progeny of intolerable draftsmanship coupled to wholly mistaken economic theory"). Alternatively, a plaintiff could claim the predation violates a state below-cost sales statute and thus creates a restraint of trade in violation of Sherman Act § 1, 15 U.S.C. § 1 (2006). *See generally* Jeremy D. Oller, *State Sales Below Cost Laws: Hunting Sheep in Wolves Clothing*, 37 J. OF ECON. 1, 4 (2011) (summarizing state below-cost laws); Perkins, *supra* note 9.

116 *Matsushita*, 475 U.S. at 587.
117 *Id.* at 589.

defendant to endure definite short run losses and could conceivably allow the defendant to recoup its losses without fully neutralizing the competition.[118]

The supracompetitive price requirement articulated in *Brooke Group* ultimately derives from the need of a two-phased predatory pricing scheme to be economically rational, as articulated in *Matsushita*.[119] As the Fifth Circuit observed, the recoupment "inquiry is really into the economic rationality of the challenged conduct."[120] One cannot argue that our Box hypothetical fails the rational economic motive test or that it is an unrealistic theory of predation.[121] Therefore, the core principle articulated in *Matsushita* of requiring that a claim with ambiguous evidence of intent to make "economic sense" supports the modification to predatory pricing law that we suggest.[122]

3. *Using Contemporaneous Recoupment under the Existing* Brooke Group *Standard*

If courts prove unwilling to overturn the aspects of *Brooke Group* we suggest, a plaintiff should nevertheless be able to use our contemporaneous recoupment framework. Nothing in the current *Brooke Group* standard bars the use of evidence of contemporaneous recoupment to supplement supracompetitive price recoupment. Using contemporaneous recoupment in this manner is consistent with the analysis required if a predator only partially funds the predation through contemporaneous means. Requiring a plaintiff who can demonstrate full contemporaneous recoupment also to establish a dangerous probability of supracompetitive prices serves no purpose. However, such proof may be practically necessary given the Supreme Court's hostility to predatory pricing law since *Matsushita.*

Our contemporaneous recoupment framework can accommodate a continuing requirement to prove recoupment through supracompetitive pricing. In proving the existence of market power as required by *Brooke Group*, the contemporaneous recoupment model could constitute direct evidence of

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118 *See id.* at 588-89. *See also AMR Corp.*, 335 F.3d at 114 ("[Chicago School] [c]ommentators viewed below-cost pricing as irrational largely because of the uncertainty of recouping losses through later price increases. In order for a predatory pricing scheme to be successful, two future events had to take place: first, the victim of the alleged predation would have to exit and second, the predator would have to generate profits in excess of its initial losses.").

119 *Matsushita*, 475 U.S. at 587.

120 Stearns Airport Equip. Co. v. FMC Corp., 170 F.3d 518, 528 (5th Cir. 1999).

121 *See Matsushita*, 475 U.S. at 588-89 (emphasizing the need for an alleged predation to be rational and realistic).

122 *Id.* at 587.

an injurious exercise of market power in fact by identifying an additional funding source for recouping profits, particularly if supracompetitive prices follow a return to the "normal" competitive state upon the elimination of the competitor that caused the "distressed" competitive state.[123] Direct evidence of actual recoupment is certain and, hence, preferable to circumstantial evidence of a dangerous probability of future recoupment. Access to direct funding increases the likelihood that the predator could recoup its total investment in below-cost prices through supracompetitive pricing. Access to these funds also increases that predator's ability to sustain the predation, potentially raising a powerful entry barrier that makes supracompetitive pricing much more likely.   Because evidence of contemporaneous recoupment is germane to the probability of future recoupment, we contend that courts *must* allow a plaintiff to provide evidence of partial recoupment by contemporaneous means as a compliment to proving recoupment obtained by supracompetitive prices.

In Section VI we propose bright line tests for a combined recoupment strategy involving contemporaneous recoupment and supracompetitive pricing. If the sum of the amounts recouped contemporaneously and through supracompetitive prices are greater than or equal to the losses the defendant invested in the predation, the plaintiff fulfills the recoupment requirement. This should satisfy the *Brooke Group* standard that "[t]he plaintiff must demonstrate that there is a likelihood that the predatory scheme alleged would cause a rise in prices above a competitive level that would be sufficient to compensate for the amounts expended on the predation"[124] and, hence, should make the predation partly funded through contemporaneous recoupment actionable under Sherman Act § 2.

4. Contemporaneous Recoupment Claims Do Not Chill Legitimate Price Cutting

A key concern of the Supreme Court in *Brooke Group* and *Matsushita* was that prohibitions against predatory pricing create a substantial risk of chilling legitimate price cutting and thus thwart a key benefit of effective, vigorous competition.[125] This concern does not apply to our contemporaneous recoupment framework because we retain the requirement that a plaintiff demonstrate the recoupment of predation losses, albeit through a different

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123 *Brooke Group*, 509 U.S. at 232–233.

124 *Id.* at 225.

125 *Id.* at 226; *Matsushita*, 475 U.S. at 594.

mechanism. Furthermore, as we discuss in Section VI, the conservative assumptions used for the initial predation tests we propose require proof that the alleged predator's sales are below average variable cost *across the basket of all products sold by the plaintiff*, a requirement that provides defendants a substantial safe harbor against predatory pricing claims.[126] Finally, because contemporaneous recoupment claims will rely on a plaintiff using actual historical data to demonstrate contemporaneous recoupment of losses through increased churn, the risk of "mistaken inferences" chilling legitimate price cutting[127] is manageable.

VII. DEFINING THE THRESHOLD OF PREDATORY BEHAVIOR USING CONTEMPORANEOUS RECOUPMENT

The detection of predatory behavior enabled by contemporaneous recoupment should be a straightforward exercise, requiring little more than a targeted inspection of profits proximate to the predation. We offer the tests herein for this purpose and to satisfy simultaneously the burden of proof and economic logic required for standing in antitrust litigation.[128] Consistent with the discussion in Section V concerning the interaction of existing predation law with contemporaneous recoupment, we offer three tests: (1) a "strong" test, where contemporaneous recoupment fully funds the predation; (2) a "weak" test, where contemporaneous recoupment funds a portion of the predation; and (3) a "traditional" test, which tests for recoupment through supracompetitive pricing. We demonstrate that full recoupment occurs if a suspected predator fails either the "strong" test or a combination of the "weak" and "traditional" tests sufficient to recoup the total losses invested in the predation. We also provide numeric examples of how to apply these tests given the "data" provided by the Box example of Section III, the efficacy of which later research could empirically verify.

The data required for these tests should be readily available from the alleged predator: total units sold, the price of each unit sold, and the unit cost

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See Linkline Commc'n, Inc., 129 S. Ct. at 1121 (emphasizing the importance of safe harbors from predatory pricing claims).

127 *See Brooke Group*, 509 U.S. at 226 (warning against the dangers of mistaken inferences chilling legitimate price cutting); *Matsushita*, 475 U.S. at 594 (same).

128 *See* Atl. Richfield Co. v. USA Petroleum Co., 495 U.S. 328, 351-52 (1990) (Stevens, J., dissenting); Cargill, Inc. v. Monfort of Colo., Inc., 470 U.S. 104, 121-22 (1986); Ill. Brick Co. v. Illinois, 431 U.S. 720, 736-37 (1977); Brunswick Corp. v. Peublo Bowl-O-Mat, Inc., 429 U.S. 477, 488-89 (1977).

of each unit sold. Records from the periods before, during, and after the predation should allow for comparison of profits across segments and periods. The Box hypothetical provided examples of such data with average profit per day derived from the Box's grocery and non-grocery segments. We summarize this data below in Table 1. We initially proceed by defining the product and geographic dimensions of the relevant market in a manner that is consistent with an alleged predator's defense.[129] The relevant product market for evaluating losses from the predation trigger is then the subset of goods sold by the plaintiff, expanded to include additional substitute products offered by the alleged predator.[130] In the Box example this is the grocery segment used to execute the predation. The relevant product market for evaluating recoupment is the total product set offered by the alleged predator. As the Box example shows, the churn across these units determines the profitability of the scheme. The relevant geographic market for all tests we propose is the service territory of the alleged predator, as evidenced by its total sales data proximate to the event.[131]

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129 The logic of this assumption is to demonstrate that conditions favorable to the alleged predator do not exclude the *possibility* that contemporaneous recoupment funds the predation in whole or in part. If this is the case, we contend that a court *must* consider the possibility of contemporaneous recoupment as an issue for the finder of fact and inappropriate for resolution by summary judgment. Our tests also provide "clear rules" for the determination of safe harbors and suspicious behavior as articulated in *Linkline Commc'n, Inc.,* 129 S. Ct. at 1120-21. *Cf.* Rosenbaum, *supra* note 9 at 104-13 (stylized theoretical model used to show "simultaneous recoupment" in a two-sided market for a single service).

130 If a predator prices a subset of the plaintiff's products below cost but otherwise makes money across the broader set of products matched against those sold by the plaintiff, the predator's behavior would pass the Areeda-Turner test as a legitimate act of loss leading. This would demonstrate the superior efficiency of the predator, causing the predation claim to fail. Inclusion of the alleged predator's substitute brand(s) is necessary to catch behavior that might avoid direct predation in head-to-head competition, but effectively executes the predation by pricing other substitute brands below cost.

131 This is because the predation losses and recoupment across all sales made by the alleged predator could affect customers both within and outside of the plaintiff's service territory. However, if the alleged predator can price discriminate specifically against the plaintiff's customers, the size of the relevant geographic market would need to contract accordingly.

State	Groceries			Merchandise			Total Profit Per Customer
	Revenue	COGS	Profit	Revenue	COGS	Profit	
A	$100.00	$80.00	$20.00	$100.00	$70.00	$30.00	$50.00
B	$90.00	$80.00	$10.00	$100.00	$70.00	$30.00	$40.00
C	$70.50	$80.00	-$9.50	$100.00	$70.00	$30.00	$20.50
D	$100.00	$80.00	$20.00	$100.00	$70.00	$30.00	$50.00

Table 1: Summary of Per-Customer Data from the Box Example

    State A = "Normal"*

    State B = "Distressed"*

    State C = During Predation

    State D = After Predation

*   The "Normal" and "Distressed" competitive states exist pre-predation with a return to "Normal" prices if the predation raises a barrier to entry. The "Normal" competitive state, therefore, reflects supracompetitive pricing.

After defining these elements and gathering the data, a plaintiff would aggregate the total unit profits of the alleged predator in each period across (1) all products sold and (2) products sold only in the triggering market for the time periods before, during, and if relevant, after the predation. A plaintiff must satisfy the Areeda-Turner test to prove that below-cost pricing occurred in the market that triggered the predation, a demonstration requiring a comparison of the unit cost of the triggering goods sold versus their average sales price to determine if the predator sold the basket at a loss during the time of the alleged predation. For illustrative purposes Table 1 shows the negative per-customer grocery profits from our Box hypothetical and demonstrates that the Box was willing to lose $9.50 on each customer to execute the predation.[132] If the plaintiff proves the defendant priced the set of products associated with the predatory trigger below cost, the issue of recoupment, contemporaneous or otherwise, comes into play.

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132 Recall from Section III that the Box's actions are predatory for any revenue discount that would reduce the per-customer grocery revenues below the $80 cost of goods sold. In addition to satisfying the Areeda-Turner test, this analysis is consistent with the discount-attribution test endorsed by the Antitrust Modernization Commission and adopted by the Ninth Circuit in *Cascade Health Solutions*, 502 F.3d 895, 918 (5th Cir. 2007).

A. The "Strong" Test for Contemporaneous Recoupment

Testing for full contemporaneous recoupment of losses requires answering one question: *did the profits of the alleged predator across all products sold increase or stay constant during the predation periods compared to prior periods?* If the answer is "yes," the defendant may be contemporaneously recouping its predation losses, indicating that it is able either to raise its prices for non-trigger products sufficiently to offset the losses from predation or to offset those losses through higher churn. The first case implies the predator wields market power over the non-triggering units, a situation that is outside the scope of our assumptions, but should be distinguishable in the data. The second case verifies that the predator is recovering its losses through higher churn, as exemplified by data from the Box example provided below in Table 2.

State	Per-Customer Profits			Number of Customers	Total Profit Per Day
	Groceries	Merchandise	Total		
A	$20.00	$30.00	$50.00	1,000	50,000
B	$10.00	$30.00	$40.00	900	36,000
C	-$9.50	$30.00	$20.50	2,331[b]	47,783[b]
D	$20.00	$30.00	$50.00	1,000	50,000

Table 2: Summary of Per-Customer Data from the Box Example

     State A = "Normal"[a]

     State B = "Distressed"[a]

     State C = During Predation

     State D = After Predation

[a]   The "Normal" and "Distressed" competitive states exist pre-predation with a return to "Normal" prices if the predation raises a barrier to entry. The "Normal" competitive state, therefore, reflects supracompetitive pricing.

[b]   These are rounded values that reflect the Box's expected profit maximizing equilibrium shown in Figure 4.

Comparison of the data before and during the predation verify that per-customer profits on the non-grocery items sold by the Box did not change, but that a roughly 259% increase in churn is responsible for increasing the Box's total daily profits to about $11,783 above those experienced in the "distressed" competitive state. This verifies that the Box is more than recouping the daily loss of over $22,143 ($9.50 times 2,331 customers) incurred in its grocery segment during the predation, a situation which suggests that the Box will maintain the predation for as long as the threat of lower profits associated with the "distressed" competitive state remains.

Although consumers benefit from this behavior, the discussion in Section IV demonstrates that the predation damages societal welfare because the overproduction of groceries causes a loss of allocative efficiency. Figure 5 shows that the value of this efficiency loss equals the predator's loss in the triggering market, in this case about $22,143 per day, for every day the predation runs. Further inefficiency will accrue if the predation drives firms that are as efficient as or more efficient than the predator out of business because of their inability to compete with the artificially low grocery prices set by the predator, as funded through contemporaneous recoupment.

We offer this "strong" test to prove that not only is such a strategy possible, but that a plaintiff could prove contemporaneous recoupment without ever demonstrating that the predator might ultimately engage in supracompetitive pricing. Consistent with our analysis in Section V, a plaintiff could raise a contemporaneous recoupment claim as a stand-alone theory of predation that falls outside the rubric of existing doctrine under *Brooke Group* or could use the claim as a means of challenging that doctrine altogether. However, as we also discuss, a predator could use a contemporaneous recoupment mechanism in combination with supracompetitive pricing to facilitate a more traditional predatory scheme. Therefore, even if the strong test "passes" a scheme that does not recoup the full loss of a predation contemporaneously, further inquiry is necessary to determine if full recoupment occurs when enhanced by supracompetitive pricing.

B. The "Weak" Test for Contemporaneous Recoupment

By definition partial contemporaneous recoupment occurs if there is some recoupment of losses through increased churn, but not enough to recover fully the predator's "investment" in losses incurred in the price war. Testing for this scenario requires a comparison of the loss in the predation trigger relative to the overall profitability of the Box across all products during the predation. To demonstrate this principle, Table 3 alters the Box scenario to represent a case where the predation fails to generate sufficient churn to recoup fully the grocery losses incurred to trigger the predation. Table 3 also adds a column that reports the total daily profits associated with the Box's daily grocery sales.

State	Per-Customer Profits			Number of Customers	Total Per Day	Grocery Per Day
	Groceries	Merchandise	Total			
A	$20.00	$30.00	$50.00	1,000	$50,000	$20,000
B	$10.00	$30.00	$40.00	900	$36,000	$9,000
C	-$9.50	$30.00	$20.50	1,500[b]	$30,750[b]	-$14,250
D	$20.00	$30.00	$50.00	1,000	$50,000	$20,000

Table 3: The Box Example Adapted to Partial Contemporaneous
Recoupment

State A = "Normal"[a]

State B = "Distressed"[a]

State C = During Predation

State D = After Predation

[a]   The "Normal" and "Distressed" competitive states exist pre-predation with a return to "Normal" prices if the predation raises a barrier to entry. The "Normal" competitive state, therefore, reflects supracompetitive pricing.

[b]   These values are specifically chosen to assure that the break-even criterion of Equation (1) is not met for this example.

Comparison of the last three columns of Table 3 before and during the predation demonstrate three points: (1) the predation increased churn by 600 customers potentiating the predator's contemporaneous recoupment of at least a portion of the predation's loss; (2) the Box's total daily loss from the predation relative to the "distressed" competitive state is $5,250 ($36,000 - $30,750); and (3) the Box's opportunity loss in its grocery segment (again, relative to the "distressed" competitive state) is $23,250 ($9,000 +$14,250). Because groceries lost $23,250, but the total store lost only $5,250, contemporaneous recoupment funded the difference of $18,000, a figure which is equal to the higher churn of 600 multiplied by the $30 profit per customer earned on non-grocery merchandise.

This demonstration raises an essential point with respect to the future analysis of predatory pricing: a multiproduct retailer using a portion of its product set to trigger a predation can *always* recoup at least some of its losses through higher churn if the average profit per customer across all products is positive—a conclusion supported by the logic of loss leading. Therefore, a material issue of fact *must* arise concerning the potential for contemporaneous recoupment in all predation cases involving multiproduct defendants that sell products outside the set that triggers the predation and that could benefit from higher churn. If such sales exist, at a minimum, they increase the dangerous probability that the predation erects an entry barrier and, thus, may lead to future supracompetitive pricing. In these circumstances, a court *must* consider the potential that contemporaneous recoupment assisted the funding

of a predation scheme, even if only to evaluate the extent to which it assisted a traditional recoupment scheme as anticipated in *Brooke Group.*

C. Testing for Supracompetitive Prices in the Triggering Market

As we discuss in Section V, to prove that a predator had the ability to recoup its losses by charging supracompetitive prices, a plaintiff must show either (1) the actual exercise of market power resulting in increased prices or (2) circumstantial evidence of a dangerous probability thereof, including proof that the predation erected an entry barrier in the triggering market. The data above in Tables 1 through 3 provide direct evidence that the Box raised prices to supracompetitive levels following the predation, as shown by the return to the "normal" competitive state with associated higher profit on groceries ($20 per customer) than was possible under "distressed" competition and its associated profits ($10 per customer). However, this outcome raises a question that runs both to the credibility of the Box example and to the foundational logic of *Matsushita* and *Brooke Group.* If initial pricing at the "normal" competitive level did not deter the entry of the deep-discount grocer into the Box's territory and did not ward off the distressed competitive state, why should the predator now believe it has the luxury to once again raise prices to "normal" levels without inviting yet another rival into the market?

The answer may be that the predation raised a barrier to entry in the triggering markets that did not previously exist. The requirement that a plaintiff demonstrate this barrier to entry has thwarted predation cases since *Brooke Group.* However, the potential for contemporaneous recoupment provides two new and unique bases upon which to support predation claims. First, assuming a predator funds its scheme fully or mostly contemporaneously, the ability of an incumbent to maintain the predation for a protracted period of time, or perhaps indefinitely, presents a daunting prospect for potential entrants into the triggering market(s). Once a predator demonstrates this ability, as the Box did following its predation, new entrants must reevaluate the higher risks associated with entry.[133] Second, if the predator can contemporaneously fund any portion of the predation loss, the predator can maximize the pain felt by new entrants while partially insulating

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133 *See* the discussion *supra* notes 81 and 82.

itself using higher sales of other items purchased through increased churn.[134] The demonstrated ability of a predator to reduce the profitability of its rivals may also deter potential entrants with significant overlap to the predator's non-trigger product set from entering the market.

D. Contemporaneous Recoupment and Predatory Intent

One of the perceived benefits of *Brooke Group*'s legacy is the movement of the analysis of predation cases toward the issue of recoupment and away from the issue of predatory intent.[135] The tests we propose above for the proof of contemporaneous recoupment would further this goal, as they too focus on proof of recoupment. However, prior precedent under *Utah Pie* required proof of predatory intent as an essential requirement of the claim and may still have some relevance.[136] Using the tests we propose to define a bright line standard for separating predatory intent from a continuum of loss leadership may seem specious, but finding such a line could assist predation claims based on contemporaneous recoupment if courts deem them to fall outside the strict definition of the *Brooke Group* precedent.

The question then arises as to where we draw the line. Ideally, the threshold established would be objective, transparent, mindful of the economic issues discussed herein, and consistent with the existing legal precedents' core principles. The case of full recoupment shown through contemporaneous funding meets this standard. As discussed in Section IV, the harm from predation occurs in the triggering markets where the predator oversells goods and worsens as the predation extends over time. Because

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134 Recall that the Box held the ability to break even through a large range of potential discounts and could choose to forego greater recoupment to increase the pain inflicted. *See supra* Figure 4 and related discussion.

135 *See* Easterbrook, *supra* note 4, at 280-81; Harold Demsetz, *Barriers to Entry*, 72 AM. ECON. REV. 47, 54 (1982).

136 *See* JACOBSON, *supra* note 91, at 500 n. 133 (stating *Brooke Group* did not explicitly overrule *Utah Pie* although a later First Circuit decision found that *Brooke Group* "implicitly overruled" the decision). In fact, a number of courts have held that *Matsushita*'s "economic sense" test applies only when a court is considering what inferences ambiguous circumstantial evidence will support and does not apply when there is direct or strong circumstantial evidence of intent. *See* Rossi v. Standard Roofing, Inc., 156 F.3d 452, 466 (3d Cir. 1998); Petruzzi's IGA Supermarkets, Inc. v. Darling-Delaware Co., 998 F.2d 1224, 1231 (3d Cir. 1993); Consol. Credit Agency v. Equifax, Inc., No. CV 03-01229 CAS (CWx), 2004 WL 5644363, at *13 (C.D. Cal. Aug. 5, 2004); SEC v. Saul, No. 90 C 2633, 1991 WL 133738, at *2 (N.D. Ill. July 12, 1991); Power Conversion, Inc. v. Saft Am., Inc, 672 F. Supp. 224, 227 (D. Md. 1987).

contemporaneous recoupment supports the temporal extension of a predation, greater recoupment is likely to support more protracted predations. Full contemporaneous recoupment is indicative of successful predation and allows the predation to continue indefinitely. Similarly, if a combination of the weak test for contemporaneous recoupment and the supracompetitive pricing test demonstrates that the predator has fully recouped its losses, the predator has again crossed the line, this time under the existing *Brooke Group* standard as adapted to consider evidence of contemporaneous recoupment.

What if a plaintiff demonstrates partial contemporaneous recoupment without sufficient evidence of supracompetitive pricing to support full recoupment? Should courts consider the weak test on a stand-alone basis? The weak test may provide relevant evidence as to the "dangerous probability" of a successful recoupment and, hence, may raise a reasonable issue of material fact as to whether the behavior tested is predatory.[137] Although this is not dispositive proof of predatory intent, it may inform a trier-of-fact as to whether such funding contributed to the "dangerous probability" of recoupment anticipated in *Brooke Group*.[138] Indeed, even if a court allows evidence of contemporaneous recoupment only in support of traditional recoupment claims under the existing *Brooke Group* standard, an evaluation of the merits of any alleged predation should consider the potential of contemporaneous recoupment if such funding is reasonably possible.[139]

In practice the prospect of contemporaneous recoupment may require a reevaluation of the assumptions used to define the product market. For example, a niche producer may sell many items in common with the predator while relying on foot traffic generated thereby to provide superior service and better variety in specific products. If the predator were to lower prices strategically below cost on a few of these key items, it could conceivably create great difficulties for the niche firm while remaining profitable relative to its average variable cost across the basket of common goods sold.[140] In

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137 *See Brooke Group*, 509 U.S. at 222.

138 *Id.*

139 As the proportion of contemporaneous recoupment relative to predation losses approaches 100%, the likelihood of mounting a successful predation scheme should increase. Note that this possibility is not analogous to the concept of "cheap exclusion" because the gross predation losses prior to any form of recoupment, contemporaneous or otherwise, can be substantial. *See* Susan A. Creighton, D. Bruce Hoffman, Thomas G. Krattenmaker & Ernest A. Nagata, *Cheap Exclusion*, 72 ANTITRUST L. J. 975, 977 (2005) ("cheap exclusion" distinguished from "expensive" exclusionary behavior like predation).

140 Some scholars have addressed the relative merits of relaxing the Areeda-Turner test in such circumstances. *See* Baumol, *supra* note 43 at 49; Edlin, *supra* note 43 at 943.

such an event, one could argue that a material issue of fact exists as to the "predatory intent," such that the definition of the relevant product market should narrow. However, this would blur the bright line nature of the tests for full recoupment that we articulated and may cause the flood of concerns raised by the courts, which has been responsible for killing predatory pricing cases over the past two decades, to resurface.

VIII. CONCLUSION

In this paper, we have put forth a theory of a funding mechanism for predatory pricing based on the concept of contemporaneous recoupment. This is an extension of the well-known practice of loss leading, where a multi-product seller offers some products below cost in proximity to other normally priced products, in the hope that the higher churn induced by the below-cost items will cause an increase in sales and greater profits across all goods sold. However, if the seller targets the loss-leading strategy to specific products sold by a rival and if the breadth and depth of its price cuts are sufficiently large so as to generate losses across the product segment that corresponds to the rival's total product offering, the seller has crossed the line from loss leading into predation based on the Areeda-Turner test. Under the *Brooke Group* standard, this raises the issue of recoupment. Whereas existing law concerning predatory pricing demands that recoupment derive from supracompetitive pricing subsequent to the predation, our theory posits that a predator may recoup some or all of the losses "invested" in the predation contemporaneously through higher churn. Indeed, we assert that some such recoupment is not only possible, but in fact likely because the predation is nothing more than an extreme example of loss-leading behavior.

Because contemporaneous recoupment can occur, it contributes to the dangerous probability that the predator will fully recoup its predation losses. Therefore, courts *must* consider evidence of contemporaneous recoupment under the existing *Brooke Group* standard as an issue of fact in any action for predatory pricing involving a multiproduct defendant. As the amount of the predation's contemporaneous funding increases as a percentage of the total loss "invested," the need to prove additional recoupment by supracompetitive pricing should decline. But what if contemporaneous recoupment covers *all* of the predation loss such that supracompetitive pricing is unnecessary? Strict adherence to the *Brooke Group* standard creates a legal fallacy wherein proof of contemporaneous recoupment funding up to 99% of a predation loss increases the dangerous probability of successful recoupment, but proof of

100% of contemporaneous funding precludes a claim. This is an absurd result that demonstrates the need to alter the *Brooke Group* standard as we have herein suggested.

The inefficiencies created by an unchecked, self-funded predation are substantial. Allocative inefficiency derives from the continual oversupply of the goods used to trigger the predation as measured by the accrued sum of the predator's losses incurred on those units. Further inefficiency may arise as the predation continues and drives targeted rivals—perhaps including those with equivalent or lower costs in their product offerings—out of business. This outcome results purely from those targeted rivals' inability to churn sales across a broader product offering. Finally, if the predation ultimately erects the barriers to entry specifically contemplated by *Brooke Group*, market efficiency will further decline due to economic withholding, as evidenced by supracompetitive prices. On a macroeconomic level, a legal rule that encourages a predatory scheme to oversupply and undersupply markets and to divert profits away from efficient producers towards inefficient ones is a formula for severe harm to competition—and ultimately to consumers. Therefore, we submit that the current *per se* rule that consumer welfare is not harmed absent proof of supracompetitive prices is inappropriate for successful predatory schemes that rely on contemporaneous recoupment in whole or in part.

We offer the "strong" and "weak" tests for contemporaneous recoupment as a means for courts to evaluate the existence and extent of contemporaneous recoupment in cases where such funding is possible. These are empirically provable bright-line tests performable with relative ease and transparency using data that should be readily available and easily verifiable. Unlike the post-Chicago School theories of predation, which would substantially alter the existing *Brooke Group* standard, the tests we propose would provide a meaningful basis for distinguishing between legitimate and predatory behavior and would provide "clear rules"[141] to replace or append the existing doctrine. However, should existing legal precedent be immovable, our proposed tests can provide indicia of predatory intent under a standard similar to that of prior precedent in *Utah Pie*. In any event, market power concerns are at best ancillary in the presence of contemporaneous recoupment because the predator does not need to raise prices to supracompetitive levels for the predation to succeed. This differentiates our

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141 *Linkline Commc'n, Inc.*, 129 S. Ct. 1109, 1120-21.

concept and tests from other predation-related theories, including bundled sales, tied contracts, and theories related to raising rivals' costs.