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Article

Prime Predator: Amazon and the Rationale of Below Average Variable Cost Pricing Strategies Among Negative-Cash Flow Firms

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ABSTRACT

American jurisprudence considers price predation a largely irrational, and therefore self-limiting, business strategy which is unlikely to lead to monopolization of an industry. This paper argues that the recent rise of the negative cash flow firm upends traditional assumptions. These types of firms can achieve greater market share through predatory pricing strategies that involve long-term below average variable cost prices. It also maintains that recoupment, an essential element of any predatory pricing scheme, can be achieved without a raise of prices post predation. By charging prices in the present reflecting future lower costs based on prospective technological and scale efficiencies, these firms are able to rationalize their predatory pricing practices to investors and shareholders. These observations lead to the conclusion that price predation is a rational strategy which can foreseeably lead to monopolization. This paper then moves on to examine the conduct of Amazon, the biggest negative cash flow firm in the world. It suggests that not only is it entirely rational for Amazon to engage in price predation and a long-term strategy of monopolization but that under current corporate disclosure rules such conduct would be virtually undetectable. The negative impact of this behavior is the elimination present and future competition.

KEYWORDS: Amazon, price-predation, negative-cash-flow, anti-competitive, Sherman Act, recoupment
JEL CLASSIFICATIONS: K210

I. INTRODUCTION

'Predatory Pricing' is a legal concept that refers to business strategies, which are designed to stifle competition within markets by driving prices below cost.[1]

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1 Areeda, P. E. and Turner, D. F. (1975) Predatory pricing and related practices under section 2 of the Sherman Act. *Harvard Law Review*, 88(4), 697, 698, 698–699, 699, 702 n. 18, 709.

In the economic context, this work argues that the current perception of recoupment is too limited and that it can occur without raising prices post-predation. In particular, it demonstrates that recoupment can be achieved in the post-predation stage by achieving greater technological or volume efficiencies that enable the attainment of a previously unattainable 'break-even threshold'. Accordingly, this article suggests that in certain circumstances, predatory pricing is a sound business decision with a high probability of successful recoupment.

In the legal context, this work seeks to emphasize that under the Sherman Act, a plaintiff must only establish an injury that resulted from a rival's below-cost pricing and demonstrate 'a dangerous probability' that the competitor will recoup his investment in implementing below-cost prices.[2] Legally, price predation is inherently injurious and the plaintiff does not have to demonstrate any implication of the act of predation upon consumer welfare.[3]

The second part of this work examines the mechanics and taxonomy of this type price predation and terms it as 'foundational' price predation. The last section of this work is an attempt to apply these theoretical insights to Amazon's current business strategy. First, it is argued that theoretically, it is entirely possible that Amazon is engaging in short-, medium-, or even long-term phases of below average variable cost (AVC) price predation as part of its overall expansion strategy. Secondly, the article maintains that if such predation occurs, it is subsidized by short- and medium-term borrowing. Thirdly, it argues that in the long run, recoupment will occur once Amazon achieves its 'break-even threshold' and that this type of recoupment will not necessitate any rise in average prices.

The last part of the work contains a proposed solution to the inherent limitation of current antitrust enforcement in detecting and deterring this particular type of price predation.

II. THE DEVELOPMENT OF CURRENT PREDATORY PRICING JURISPRUDENCE

In the second half of the 1970s, a growing body of work in the fields of law and economics addressed the subject of competitive markets and monopolies.[4] As part of this movement, in 1975, Areeda and Turner published an article that focused upon price predation strategies.[5] The article delineated the possible effects of predatory pricing from a microeconomic perspective and proposed a practical test that will enable courts and antitrust enforcers to determine if a given firm engaged in price predation in violation of the Sherman Act.[6] Since the article was published, all but the

2 Areeda, P. E. and Hovenkamp, H. *Antitrust law* (43A edn, Aspen Publishers 2015).

3 Areeda and Turner (n 1) 154.

4 Paul Joskow and Alvin Klevorik, 'A Framework for Analysing Predatory Pricing Policy' (1979) 89 Yale Law Journal 213; 'Quasi-Permanence of Price Reductions: A Policy for Prevention of Predatory Pricing' (1979) 89(1).

5 Areeda, P. E. and Turner, D. F. Predatory pricing and related practices under section 2 of the Sherman Act. *Harvard Law Review*, (1975) 88(4), 697, 698, 698–699, 699, 702 n. 18, 709.

6 ibid.

11th Circuit have adopted the test in one way or another, and the Supreme Court came to embrace the test at least in spirit.[7]

The test as proposed by Areeda and Turner is composed of two distinct prongs, which must be satisfied to demonstrate predation.[8]

Under the first prong, the plaintiff has to demonstrate that given the nature and condition of the market in which the alleged predator operates, it was rational for the alleged predator to predict that price predation would prove a profitable strategy. This is not a subjective test that requires evidence of the alleged predator's intent but rather an objective test that involves a demonstration of objective facts that rendered predation a viable business decision. To satisfy this objective test, the plaintiff must prove the likelihood of recoupment at the onset of the predation campaign. In other words, it must be contended that the present costs of predation at the beginning of predation would have been more than offset by the present value of anticipated future profits.[9]

Under the second prong of the test, the plaintiff needs to demonstrate that in a great share of its sales, the alleged predator's prices were below an applicable measure of cost. This measure of cost is less rigid and depends on the nature of the alleged predator's market. In some cases, the AVC will serve as an adequate measure, and in other cases that involve short-run price reduction, marginal costs will become a more reliable indicator.[10]

Shortly, after the publication of the Areeda and Turner article, Robert Bork published his antitrust magnum opus 'The Antitrust Paradox', which relied heavily upon the innovative work of the two.[11] However, unlike Areeda and Turner, who assumed that in some particular cases price predation was a rational business decision, Bork dismissed the feasibility of predatory pricing in any and all circumstances.[12] In fact, Bork deemed the entire practice as completely irrational and insisted that the reason for the lack of any palpable proof of price predation in the historical cases of antitrust stemmed from the fact that the practice, for practical reasons, was fundamentally financial suicide.[13] Bork did not challenge any of Areeda and Turner's insights and cited them approvingly, but despite this fact, his views on the possibility of recoupment as a result of predation were inherently divergent from their original theoretical observations. Most importantly, Bork defined Areeda and Turner's theoretical stage of recoupment as the stage in which a firm would raise its prices in the period that follows predation.[14] This narrow definition of recoupment effectively barred other potential strategies that might still ensure 'that the losses he [the predator] incurs in the predatory campaign will be exceeded by the profits to be earned after his rivals have been destroyed'.[15] And although Areeda and Turner did not articulate all of the

7 See <http://www.tinbergen.nl/wp-content/uploads/2014/05/AREEDA-TURNER-revised.pdf> accessed 20 July 2018.
8 ibid.
9 ibid.
10 ibid.
11 Robert Heron Bork, *Antitrust Paradox* (Free Press, 1978).
12 ibid.
13 ibid.
14 ibid.
15 See n 9.

ways in which recoupment can occur, it is clear that they did not construe the term as only encompassing raising prices after the goal of monopolization was achieved.

The first major Supreme Court decision that integrated some elements of the Areeda and Turner test was *Matsushita.*[16] In the decision, the Court determined that the plaintiff was unable to demonstrate that price predation was a rational decision given the nature of the market in question and that the probability of recoupment was non-existent. Notably, however, this was also the first time that the Court cited Bork's treatise approvingly on the matter as part of its decision. It can be said that the Court adopted the recoupment requirement from Areeda and Turner, but it also embraced Bork's unsubstantiated rhetoric regarding the overall likelihood of the phenomena in any and all markets.[17]

The tendency to emphasize the inherent irrationality of predation was further developed by Judge Easterbrook's 1989 decision in the *A.A. Poultry* case.[18] After listing the difficulties that arise from the attempt to demonstrate the relationship between costs and prices under the second prong of the Areeda–Turner test, Easterbrook concluded that a failure to satisfy the first prong of the test was sufficient to invalidate any alleged price predation. Easterbrook pointed to the inherited structure of the egg production business and concluded that the defendant would be unable to recoup even if it drove out its competitors since the defendant had no power to raise prices after the predation stage ended.[19] Essentially, this decision integrated the second unsubstantiated contribution of Bork to the analysis of price predation, namely, that recoupment must in any and all cases involve a rise in prices. The Supreme Court finally came to fully embrace Bork's and Easterbrook's interpretation of the Areeda–Turner test in its 1993 *Brooke Group* decision.[20] The Court in *Brooke* focused almost entirely on the recoupment requirement and stated that 'no evidence suggests that Brown & Williamson [the defendant] was likely to obtain the power to raise the prices for generic cigarettes above a competitive level, which is an indispensable aspect of Liggett's [alleged victim of predation] own proffered theory'.[21] Finally, in 2007, the Court affirmed its position in *Weyerhaeuser*, a case involving claims of predatory purchasing, by adopting the notion that predatory pricing claims must be dismissed in cases where predation does not make economic sense.[22]

During the years that followed the decision of the Supreme Court to adopt the Areeda–Turner test along with Bork's view of recoupment, many critics have pointed out the shortcomings of the test.

On the microeconomic front, scholars have pointed out the difficulty of administering the AVC and marginal costs test.[23] Also, practitioners have noted the general problem of classifying costs objectively.[24] Consequently, both academics and

16 ibid.
17 Christopher R Leslie, 'Predatory Pricing and Recoupment' (2013) 113 Colum. L. Rev. 1695.
18 A.A. Poultry Farms, Inc. v. Rose Acre Farms, Inc., 881 F.2d 1396 (7th Cir. 1989).
19 ibid.
20 *Brooke Group* (n 2).
21 ibid.
22 *Weyerhaeuser Co v Ross-Simmons Hardwood Lumber Co* (2007) 549 US 312.
23 See n 9.
24 William J Baumol, 'Predation and the Logic of the Average Variable Cost Test' (1996) 39(1) Journal of Law and Economics 49–72.

practitioners have devised alternative below-cost indicators such as Baumol's average avoidable costs test.[25]

On the policy front, critics pointed out that the test misses the forest for the trees and argued for a more 'holistic approach' that will take into consideration other elements of anticompetitive behaviour.[26] These critics view price as one of many factors that should be considered in determining predation. Additionally, some scholars have pointed out that the test cannot be adopted in markets that contain oligopolistic firms and cartelized markets.[27] And finally, scholars have pointed out that the Court of Justice of the European Union (CJEU) has decided to entirely dismiss the notion that recoupment was a necessary element of proving a *prima facie* case of price predation and suggested that American courts should follow suit. They advocate that the courts follow the CJEU holding in *France Telecom SA v Commission*:

> [I]t does not follow from the case-law of the Court that proof of the possibility of recoupment of losses suffered by the application, by an undertaking in a dominant position, of prices lower than a certain level of costs constitutes a necessary precondition to establishing that such a pricing policy is abusive. In particular, the Court has taken the opportunity to dispense with such proof in circumstances where the eliminatory intent of the undertaking at issue could be presumed in view of that undertaking's application of prices lower than average variable costs.

However, scholars have dedicated little attention to the way the courts came to construe the term recoupment itself. A notable exception in this context is Herbert Hovenkamp, who came to recognize that 'the recoupment requirement goes far beyond anything that Areeda and Turner advocated and imposed unreasonable burdens on plaintiffs, principally because it requires just the sort of speculation about the long run that the Supreme Court has been unwilling to accept in another context such as proof of causation or damages'.[28] Hovenkamp instead advocates that 'ordinary structural requirements for the monopolization offense should suffice'. He substantiates this position by suggesting that certain markets are 'conducive to predation', such as markets with high fixed costs.[29] Hovenkamp points to *Spirit Airlines,* which was decided by the 6th Circuit as a case study for a situation in which predation was entirely rational, and recoupment occurred '"within months" after the plaintiff had exited from the market'.[30]

Hovenkamp's contributions are important. They indicate that certain markets may induce predation and render recoupment possible. But Hovenkamp does not directly address the nature of recoupment itself. In other words, both Hovenkamp and Bork's more vocal critics essentially accept, albeit reluctantly, that recoupment can occur only via a rise in prices. To this date, no scholar in the field of antitrust has

25 ibid.
26 Christopher R. Leslie, *Predatory Pricing and Recoupment* (2013).
27 Richard A Posner, *Antitrust Law. An Economic Perspective* (University of Chicago Press 1976) 189.
28 See n 9.
29 ibid.
30 ibid.

openly questioned the assertion that recoupment occurs only when the predator raises his prices in the post-predation period.[31]

This work will attempt to articulate a theoretical scenario in which recoupment, defined as the offset of present costs of predation by the present value of anticipated future profits, can occur without raising prices.

III. A BROADER INTERPRETATION OF RECOUPMENT

As previously noted, it was Bork's limiting interpretation of the term recoupment that ultimately came to be understood as the term's sole acceptable construction. Only a rise in prices after predation qualified in his view as a business practice that harms both consumers and the competition. The second reason for this limitation was derived from Bork's rather practical assumption that only a rise in prices in the post-predation period will render predation itself economically sustainable and therefore rational.

To better understand the difference between the definition of recoupment under the original Areeda–Turner test and Bork's own understanding, the two definitions must be contrasted. Under the Areeda–Turner test, recoupment can be any corporate action that allows a firm to offset the losses it incurred during the predation period. The recoupment act itself does not need to be harmful to consumers. In other words, according to the Areeda–Turner test that harm does not flow from the act recoupment but rather from the entire practice of price predation that always does.

In contrast, Bork's view of recoupment was composed of two distinct elements. The first was similar to the one articulated in the Areeda–Turner test. But the second required that the act of recoupment harms itself would harm consumers by the rise in prices. According to Bork, predatory pricing is only harmful to consumers if, and only if, its recoupment phase will also be harmful to consumers.[32] It is clear from the short survey of the development of the law in the field that Bork's definition of recoupment came to be accepted as the only legitimate understanding of the concept. If on the other hand, one is to adopt Areeda and Turner's broader definition, it becomes clear that recoupment may occur without any increase in prices. In addition, this broader definition renders the entire practice of price predation harmful.

IV. FOUNDATIONAL PRICE PREDATION VERSUS TARGETED PRICE PREDATION

A broader definition of recoupment requires a broader consideration of corporate conduct, that is, of business practices that are foundational and beyond the scope of targeted or short-term corporate decision-making.

The *Spirit Airlines* case and the European *France Telecom* case can be considered as classic instances of targeted price predation, in which a firm engages in short-term predation with the implicit aim of confronting a 'target', whether it be a particular competitor or a given product market that is perceived as a specific threat to the firm. In *Spirit Airlines*, the specific target was a small airline with few resources.[33] In *France Telecom*, the specific target was to delay or sabotage the introduction of a

31 ibid.

32 Bork, Antitrust Paradox (1978).

33 Spirit Airlines, Inc. v. Northwest Airlines, Inc., 431 F.3d 917 (6th Cir. 2005).

specific product on to a market dominated by a limited group of potential competitors.[34] Both cases involved markets that according to scholars such as Hovenkamp are conducive to predation. Furthermore, cases that involve targeted predation also render the act of predation easier to detect since they involve concrete proactive business decisions that alter the firm's behaviour in ways that are perceivable by its competitors and regulators.[35] In terms of recoupment, targeted predation also generally involves short periods of predation that are followed by rapid recoupment, or through 'cross-subsidization' in narrow markets. For instance, in the case of *Spirit Airlines,* recoupment occurred within months after Northwest has exited the market.[36]

Perhaps paradoxically, the phenomena of targeted price predation do not truly undermine Bork's critique of the soundness of price predation strategies.[37] It might be true, as Bork's scholarly opponents have repeatedly pointed out, that price predation is a rational business practice in certain situations, but this narrow exception only reaffirms Bork's broad observation that predation is fundamentally financial suicide.[38] In other words, Bork's critics seem to tacitly agree with him that long-term systemic predation campaign is ultimately unsustainable and more harmful to the predator than its prey. Instead, they have carved out several narrow exceptions that could be seen as only bolstering Bork's general rule. They demonstrate that in certain situations the predator would be willing to sacrifice its own short term financial well-being in order to eliminate a competitor that might compromise its own well being in the long-run. Thus, it is possible to imagine that Bork and his followers would easily reconcile the narrow exception of targeted price predation with their general theory of predation. The exception affirms the notion that predation is a rare and short-term occurrence, which is readily detectable. Any broader or long-term predation is irrational, and is bound to lead to the firm's financial ruin. To conclude this point, while Bork's critics are correct to point out that the predation is harmful to consumers irrespective of recoupment, they have seemed to agree, albeit implicitly, with Bork that the phenomena itself are rare and limited in duration due to its 'self-destructive' nature.

Unlike Bork and, to a certain extent, his critics, this work argues that the corporate practice of long-term 'foundational' predation can be a viable one, and therefore rendered a rational business decision. It will be demonstrated that foundational predation requires a firm's strategic long-term decision to engage in below AVC predation and to design its entire business plan accordingly. In addition, this work suggests that such foundational predation might be a rather common phenomenon

34 Judgment of the Court (First Chamber) of 2 April 2009. France Télécom SA v Commission of the European Communities. Appeals - Abuse of dominant position - Market for services in high-speed Internet access - Predatory pricing - Recoupment of losses - Right to align. Case C-202/07 P. European Court Reports 2009 I-02369 ECLI identifier: ECLI:EU:C:2009:214.

35 A Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law (3d ed. 2008) P 727, at 84.

36 Spirit Airlines, Inc. v. Northwest Airlines, Inc., 431 F.3d 917 (6th Cir. 2005).

37 Bork, Paradox, at 149- see also Christopher R. Leslie, Trust, Distrust, and Antitrust, 82 Tex. L. Rev. 515, 619–22 (2004).

38 Leslie, Predatory Pricing and Recoupment (2013).

in the current global commercial landscape, and that these types of firms can be identified and defined according to a specific characteristic corporate taxonomy.

The taxonomy of foundational price predation

The taxonomy of firms that engage in 'foundational' price predation is distinct. In many aspects, these types of firms can be considered to be designed in order to sustain such conduct and to flourish in financial conditions that would ruin any traditional firm. It is hard to point to the first firm that was designed to accommodate such conduct, but it is clear that these types of firms represent a rather recent stage in the evolution of corporate entities.[39]

First, a firm that engages in long-term 'foundational' price predation must also be a firm that operates or operated in the past in a negative cash flow. Negative cash flow is an essential characteristic of these types of firms, which results from the fact that the firm's overall costs exceed its gross business income.

A firm that operates with a positive cash flow can still engage in predation, but it would be limited to instances of targeted predation, either via cross-subsidization or brief and limited acts of predation as mentioned in Section IV.

It is also crucial to note that a vast majority of firms that have a negative cash flow probably do not engage in foundational price predation. These firms simply have high fixed costs that are greater than their overall income. They do not engage in predation since their prices are higher than their AVC.

Rather, the problem is that firms that are 'foundational' price predators are hard to distinguish from legitimate, 'innocent', negative cash flow firms. But unlike the 'innocent' negative cash flow firms, the AVC of 'foundational' price predators is higher than their consumer prices. In other words, their negative cash flow results from engaging in price predation, and not only from other legitimate causes such as investment in crucial infrastructure.

Secondly, 'foundational' price predators tend to be long-term negative cash flow firms. As opposed to more traditional firms that might endure short or medium terms of negative cash flows in order to undergo substantial corporate restructuring, for instance, 'foundational' price predators clearly state that they intend to be long-term negative cash flow firms. In a way, these firms effectively signal to the public and their investors that they intend to be unprofitable for a rather long period either through informal corporate statements to the press or though official corporate filings.[40] As a result, these firms make a clear and public declaration that their investors or shareholders should not expect to receive any dividends for a foreseeable period, but that they will reap the benefits of their investment in the long run.

39 First mention of the term "negative cash flow" is found in Rate of return calculations as a measure of investment opportunities by JW Glanville - Journal of Petroleum Technology, 1957. First explicit mention of negative cash flow firms is found in "Credit rationing and capital accumulation" EF Buffie – Economica, 1991.

40 The effect of firms' financial disclosure strategies on stock prices Healy, Paul M; Palepu, Krishna G. Accounting Horizons; Sarasota Vol. 7, Iss. 1, (Mar 1993): 1. see also Jeffrey P. Bezos, Letter to Shareholders, AMAZON.COM, INC. (Mar. 30, 1998), http://media.corporate-ir.net/media_files/irol/97/97664/reports/Shareholderletter97.pdf [http://perma.cc/793G-YML7].

'Foundational' price predators are a new and dangerous kind of species in the corporate ecosystem.[41] Their unique corporate design allows them to aggressively attack existing businesses and markets or forge new markets that seemed economically unsustainable for traditional firms. Their unique capability to act in such an aggressive manner is derived from their ability to sustain long periods of below AVC prices and overall negative cash flow without the threat of creditor or shareholder retaliation or retribution.[42] In turn, both shareholders and investors are lured by the firm's aggressive behaviour and are willing to overlook short-term compensation if the firm is able to increase revenue by cannibalizing the market and overpowering its competitors. In fact, the shareholders (at times, perhaps mistakenly) consider such activities as actual evidence that the firm will become cash flow positive, but it does not *res ipsa* follow. As a result, the shareholders sanction this aggressive behaviour because they expect that the firm would eventually become cash flow positive once its revenue will finally exceed its costs.[43] Perhaps more implicitly, the sophisticated investors in the firm actually wait for the moment in which the firm will beat all of its competitors and become a de facto monopoly over a given market.[44]

The mechanics of foundational price predation

Once the broad theoretical background has been established, it is necessary to explain the 'foundational' price predators' *modus operandi.* In other words, it is essential to understand the mechanics by which these firms thrive and attempt to achieve their end goals in order to better detected and perhaps even regulate their activities. In order to do so, it will be useful to consider a hypothetical illustration of this predatory behaviour. In this scenario, the ratio of fixed costs to AVC is somewhat less relevant, and recoupment is achieved without any raise in consumer prices. The key element in this predation scheme is that the activity of the firm in Time 1 must be subsidized and sustained for a rather long span of time either by deep pockets, credit, or both.

'Foundational' price predator 'X' produces a single widget and its entire business is based upon it. During Time 1 'Foundational' price predator 'X' charges the price of $301 per widget although the actual cost of each widget it produces is significantly higher and stands at $1050 (AVC 1 is $1000 and fixed cost 1 is $50). This means that during Time 1, price predator 'X' is in fact losing $749 per widget sold. In addition, it is clear that price predator 'X' is operating in a negative cash flow, and that this negative cash flow is not derived from the firm's fixed costs which are low, but rather from its extremely high AVC. To summarize, in Time 1, price predator 'X' is engaged in price predation and overall is losing a lot of money.

But nonetheless, this pricing strategy is entirely rational if at Time 2, a period of time in the firm's future, the firm could manage to lower both its AVC and fixed costs below its current consumer price of $301. That is, if at Time 2 price predator

41 See note 41.

42 Enterprise Performance Management (EPM) and the Digital Revolution Gary Cokins First published: 17 April 2017 https://doi.org/10.1002/pfi.21698

43 ibid

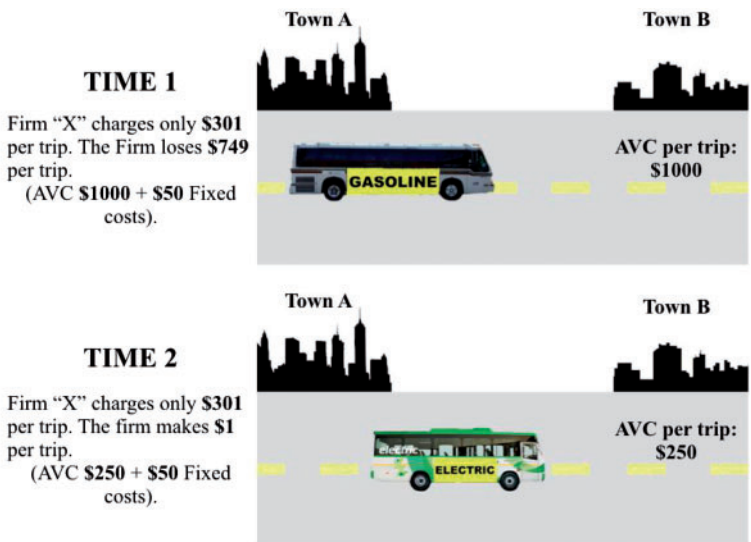
44 See example- https://www.bloomberg.com/news/articles/2018-04-16/let-s-get-real-about-netflix-s-cash-and-spending-numbers

'X' would be able to turn a profit on each widget it sells without increasing its Time 1 consumer price of $301.

As mentioned, the ratio of AVC to fixed cost is less relevant in this predation scheme. Instead, this ratio plays a significant role in determining the length of time that will elapse between the break-even point of the firm, that is, the time at which its AVC becomes lower than the consumer price, and achieving full recoupment. Thus, if the ratio of fixed costs is high at Time 1, the period of recoupment will be relatively short, and if the ratio of AVC costs is high, the period of recoupment will be longer.

The crucial factor in this predation scheme is that the 'foundational' price predator can predict with some degree of certainty, or alternatively, convince its investors and shareholders, that it will be able to lower its AVC costs at Time 2 to a level which is below its consumer prices. This can be achieved by the firm attaining greater qualitative efficiencies such as the transition from the operation of a fleet of buses that is fueled with gasoline to a fleet of electric buses. But greater AVC efficiencies can also be achieved by increasing the scale of the firm's operations, or by increased quantitative efficiencies, where AVC costs are divided among a greater number of consumers.

The illustration below demonstrates this scenario of below-AVC predation in a cash outflow firm:



If **Price** in TIME 1 > than **AVC+Fixed cost** of TIME 2, then **Price** in TIME 1 is *rational*.

No harm no foul?

Bork and many other notable scholars have insisted that the purpose of antitrust laws is to protect consumers and not competitors and this work seeks to affirm this notion as well.[45] In the context of price cuts, the contemporary trend is to welcome

45 Areeda and Hovenkamp 2015, paragraph 745.

price reductions, even if they harm competitors, since it is assumed that lower prices benefit consumers.[46] Therefore, one might jump to the conclusion that we should welcome the emergence of 'foundational' price predators because they introduce a new corporate *modus operandi* that challenges older and less efficient iterations of the corporation. But this rash conclusion is mistaken. Once again, we must examine the conduct and effects of such firms in a broader perspective. This broader perspective does not mean a broader conception of competition laws such as some progressive scholars might advocate, but rather by considering consumer welfare both in Time 1 and Time 2, that is, during predation and recoupment.

It is clear that at Time 1 consumers will undoubtedly benefit from 'foundational' price predator's ('X') conduct. By slashing prices below AVC 1, the consumer ends up paying less for the product than it actually costs to produce, a financial miracle. But it is also clear that at Time 2 the consumer will end up paying more than AVC 2. In light of mainstream antitrust scholarship, it must be concluded that there is simply no way to assure that even without an increase in the price of the widget, the price at Time 2 would be competitive and not supracompetitive given the fact that normal competition effects are locked out from asserting their natural downward effect upon prices.[47] That is, there is simply no assurance that a given price, even if it is extremely low in Time 1 will, in fact, be competitive in Time 2. In addition, the need to recoup the losses sustained in Time 1 guarantee that a constant pressure would be applied by the firm's investors and shareholders to keep prices in Time 2 high. That is due to the fact that in Time 2 the firm is cash flow positive and the price of the firm's shares already reflects this fact (for example, dividends are already reflected in the price of the share). In other words, in Time 2, the firm transforms from a foundational price predator into a less agile and more fragile conservative corporation that is concerned with maintaining its market share, or even worse, its monopoly power. In sum, while consumers might benefit from the conduct of firm in Time 1, there is a great danger that they will be severely harmed by it in Time 2.[48]

V. AMAZON AS A TEST CASE

According to Amazon's 2017 statement, the firm seems to operate with positive cash flow. Amazon's net cash used in operating activities totalled $18.434 billion in 2017, an overall impressive figure.[49] In the trailing 12 months, it recorded $8.05 billion in

46 BORK, at 7 ("[T]he only legitimate goal of antitrust is the maximization of consumer welfare."); id. at 405 ("The only goal that should guide interpretation of the antitrust laws is the welfare of consumers . . . . In judging consumer welfare, productive efficiency, the single most important factor contributing to that welfare, must be given due weight along with allocative efficiency."); see also Daniel A. Crane, The Tempting of Antitrust: Robert Bork and the Goals of Antitrust Policy, 79 ANTITRUST L.J. 835, 847 (2014) ("Bork's big move [was] his rejection of alternatives to efficiency or consumer welfare-oriented theories of antitrust enforcement. . ..").

47 Economic Analysis for Lawyers, Third Edition, The costs of monopolies: Deadweight Loss: Butler and Drahozal, pp. 417–419, Carolina Academic Press; Third edition (August 29, 2014).

48 Benefits of Competition and Indicators of Market Power, COUNCIL ECON. ADVISERS (Apr. 2016), http://www.whitehouse.gov/sites/default/files/page/files/20160414_cea_competition_issue_brief.pdf [http://perma.cc/9NMS-4U9L].

49 See <https://www.sec.gov/Archives/edgar/data/1018724/000101872418000005/amzn-20171231x10k.htm> accessed 21 June 2018.

free cash flow and $3.54 billion in free cash flow less lease principal repayments.[50] It is true that these figures are declining steadily from a peak of over $11 billion in late 2016, but nonetheless, they represent an overall encouraging outlook.[51] Free cash flows are utilized by firms to expand production, invest in research and development, acquire other firms, reduce the firm's outstanding debt, and pay dividends. In the case of Amazon, a positive cash flow indicates to investors that the company is increasing its revenue while decreasing its expenditures.[52] This, in turn, designates the potential future ability to generate cash and ultimately profits. Many analysts have pointed out that the price of Amazons stock is largely dependent on its statement of free cash flow, especially due to the fact that since its inception Amazon has not issued any dividends, but pledged to reinvest its profits back in the company.[53]

However, a deeper examination discloses a slightly different picture. Amazon utilizes existing loopholes in Generally Accepted Accounting Principles (GAAP) disclosure regulations to exclude a significant portion of its expenses.[54] If all of those expenses as detailed in its statements are accounted for, Amazon experienced a negative cash outflow of $1.461 billion in 2017.[55] A major cause of this overall negative cash flow is Amazon's ever-ballooning credit obligations that fund a substantial portion of the firm's activities. For example, Amazon's lease repayments alone totalled $200 million in 2017.[56]

A more holistic view of Amazon's credit obligations reveals that many of them are structured in the form of capital, finance, and operating leases.[57] As of 2018, Amazon gross capital lease obligations totalled $14.811 billion with an average maturity of three years and an imputed interest of $534 million or an annual interest rate of about 1.2 per cent.[58] Amazons gross finance lease obligations totalled $6.262 billion with an average maturity of 18 years and an imputed interest of $1.238 billion or an annual interest rate of about 1 per cent.[59] Operating lease obligations totalled 24.2 billion with an undisclosed average maturity but with rental expenses of $2.2 billion per year, which indicate an estimated interest rate of 1 per cent.[60] Amazon also has more traditional debt obligations totaling $40.9 billion that bear higher interests that vary with maturity ranging from 1.25 per cent to 5.8 per cent.[61]

The actual nature of Amazon's cash flow is not a widely known fact. Nonetheless, it is safe to assume that a vast majority of Amazon's creditors and contractual partners are fully aware of it.[62] However, it is certainly not clear that the Amazon's stock

50 ibid.
51 ibid.
52 See <https://hbr.org/2014/10/at-amazon-its-all-about-cash-flow> accessed 11 July 2018.
53 See <https://seekingalpha.com/article/2743335-understanding-how-amazons-use-of-capital-leases-over states-its-cash-flow-metrics> accessed 15 March 2018.
54 ibid.
55 See <https://www.fool.com/investing/2017/10/30/heavy-spending-drives-amazons-real-free-cash-flow.aspx> accessed 21 April 2018.
56 ibid.
57 See n 54.
58 See <https://www.sec.gov/Archives/edgar/data/1018724/000101872417000011/amzn-20161231x10k.htm> accessed 2 June 2018.
59 ibid.
60 ibid.
61 ibid.
62 See n 56.

price and market capitalization reflect this financial reality. Some analysts maintain that if this information were to be disclosed in a more straightforward matter, the stock would be trading at a significantly lower level.[63] Also, these analysts point out that Amazon lack of cash is also reflected in their compensation scheme. In addition, they suggest that Amazon's paid-in capital statements indicate that it is compensating its employees with both vested and outstanding shares, which are then reflected somewhat misleadingly in their negative working capital statement.[64]

This general lack of cash and the fact that Amazon operates with a cash outflow do not show that the firm is in any real financial quagmire.[65] Other major firms such as Tesla Inc. and Netflix Inc. at least for the time being, successfully operate within this type of credit environment.[66] However, Amazon's capital structure should be considered as the most innovative of all of the negative cash flow firms at least due to the fact that it disguises itself as being cash positive. The wide range of instruments that are utilized to raise capital and their unique hierarchal structure ensure relatively low-interest rates and produce extremely high overall capital efficiencies.[67] Amazon's diverse exposure to multiple markets is coupled with short credit cycles, an extremely low risk of insolvency and the ability to generate emergency liquidity in the form of stock dilution renders the extension of credit to the firm by creditors an extremely safe investment.[68] In this context, it is also interesting to note that the monetary policies that were enacted by following the financial crisis of 2008, in particular, very low-interest rates and quantitative easing have proven to be especially favourable to firms who operate with a high rate of credit exposure and overall negative cash flow.[69]

All of these realities contribute to the fact that Amazon's overall substantial exposure is not reflected in a meaningful sense in the actual price it pays for its capital or in the price of its publicly traded stock.[70] There is also little risk that this reality would alter in an unfavourable manner in the near future. Amazon relatively short credit cycles ensure against the risk of insolvency and systemic risks such as an economic downturn or rapid inflation. In addition, Amazon has no real risk of liquidity shortage because any such constraints are systemic and inherently low. As long as interest rates follow inflation, there is also the very little risk of significant liquidity mismatch.[71]

63 See n 54.

64 ibid.

65 George Allayannis and Abon Mozumdar, 'The Impact of Negative Cash Flow and Influential Observations on Investment–Cash Flow Sensitivity Estimates' (2004) 28 Journal of Banking & Finance 928.

66 See <https://www.fool.com/investing/2018/01/27/netflix-doesnt-care-about-its-free-cash-flow-and-n.aspx> accessed 11 July 2018.

67 See <https://seekingalpha.com/article/4110672-amazon-cash-machine> accessed 20 August 2018.

68 Dan Givoly and Carla Hayn, 'The Changing Time-Series Properties of Earnings, Cash Flows and Accruals: Has Financial Reporting Become More Conservative?' (2000) 29 Journal of Accounting and Economics 291.

69 Michael Joyce and others, The Financial Market Impact of Quantitative Easing (2010) Working Paper No 393/2010, Bank of England.

70 See n 54.

71 Douglas W Diamond, 'Debt Maturity Structure and Liquidity Risk' (1991) 106(3) The Quarterly Journal of Economics 714.

The long-term prospects of Amazon are less clear. The current valuation of Amazon relies largely upon the 'Castle in the Air' theory of investment. But even this type of investment merely seeks to predict the future concrete value of the firm. If it turns out that Amazon is unable to become sustainably profitable, its future might be questioned by the market.[72]

On the face of it, it is clear that Amazon is engaging in this particular financial strategy with the goal of leveraging its raised capital to enable rapid expansion and substantial internal investment. In abstract terms, this would mean that it is currently raising capital, or increasing its fixed costs, to expand its overall production volume or revenue in the future. As noted above, this strategy is only sustainable and potentially successful if the process of expansion in production volume also brings about a complimentary reduction in the firms relative to AVC or marginal costs. The long-term aim of this strategy is to reach a break-even threshold after which the firm will become profitable.[73]

But as opposed to long-term investors, Amazon's creditors have no reason to evaluate Amazon's overall grand strategy when they come to consider whether to extended capital to the firm. Since the majority of Amazon's borrowing is short-term in nature, these creditors must only assess whether Amazon will be able to pay its obligation and survive its next credit cycle.[74] They correctly assume that as long as Amazon will be able to successfully expand its production volume, lower its costs of borrowing or both, it will be possible to engage in another credit cycle. In short, it is clear that despite the fact that Amazon operates in negative cash flow, it has favourable and until this point in time unlimited access to cheap capital.[75]

As mentioned, when a firm operates in a negative cash flow environment, it has three major ways of using its raised capital. Ideally, raised capital will be used to lower the overall ratio of the firm's variable cost.[76] This will in turn accelerate or render feasible arrival at the 'break-even threshold' of the firm. Credit can also be utilized to refinance the firm's prior credit obligations.[77] This type of credit deployment will lower the firm's overall fixed costs and can compensate for the increase of other fixed costs. Finally, raised capital can be used to engage in sporadic below AVC predation. Again, this type of activity does not need to be fueled by a malevolent desire to drive out rivals, but rather to allow the firm to overcome impermanent increases in 'fixed costs' or to accelerate production volume that will lead to a reduction in AVC. As previously stated, below AVC predation is rational: (i) when a given volume of overall production results in a sharp increase in fixed costs that can only be sustained by a significant increase in production volume, or (ii) when the costs of

72 Steve Pincus and Rudolf E Kalman, 'Irregularity, Volatility, Risk, and Financial Market Time Series' (2004) Proceedings of the National Academy of Sciences of the USA, PNAS September 21, 2004 101 (38) 13709–13714.

73 Patricia M Dechow, 'Accounting Earnings and Cash Flows as Measures of Firm Performance: The Role of Accounting Accruals' (1994) 18 Journal of Accounting and Economics 7.

74 Diamond (n 72).

75 See <https://www.moodys.com/credit-ratings/Amazoncom-Inc-credit-rating-600042665> accessed 11 June 2018.

76 Niclas Andrén and Håkan Jankensgård, 'Wall of Cash: The Investment-Cash Flow Sensitivity When Capital Becomes Abundant' (2015) 50 Journal of Banking & Finance.

77 ibid.

below of AVC predation would be recouped in the future (even in the distant one) once a significant reduction in AVC will be achieved. Additionally, it is also beneficial when very short-term engagement will lead to long-term lower AVC costs.[78]

When examining Amazon, it becomes clear that the firm spends capital to lower the ratio of AVC costs as part of overall costs. In its statement, Amazon indicates that it seeks 'to reduce our variable costs per unit and work to leverage our fixed costs'.[79] This statement is rather self-explanatory and affirms the validity of the negative cash flow investment hypothesis. After listing some variable costs and a number of fixed costs, Amazon goes on to state how it seeks to lower its variable costs but only minimize additional growth in fixed costs.[80] In other words, Amazon affirms the notion that fixed costs can increase as long as it can lower its 'variable costs on a per unit basis' that in turn 'enable us to lower prices for customers'.[81] In short, it is clear that Amazon understands that its key to successes is to lower its ratio of AVC costs as part of its overall costs.[82]

It is also clear that Amazon is using credit to refinance its obligation in a method that is similar to the way in which an individual will refinance his mortgage when presented with more favourable financing opportunities.[83] Although there is not a direct statement that denotes that this is the case, the fact that the firm is operating in negative cash flow and has ongoing credit obligations indicates that that is the case.

It is, however, entirely unknown if Amazon has ever or is currently engaging in below AVC price predation. As mentioned, at least in theory, there are circumstances in which such behaviour is both rational and efficient. However, due to the nature of current disclosure laws and existing regulation, there is no data that will either vindicate or corroborate that Amazon engages in predation.[84] Currently, there are no rules or regulations that require any firm, let alone a firm that operates in a negative cash flow to disclose the firm's costs in an itemized or otherwise scrupulously accountable manner.[85] In the contemporary market, costs are the most closely guarded secret of any traded firm. Without vital data concerning actual costs, there is no real way to evaluate Amazon's costs to determine that it has never engaged in predation. This shortage of information is a systemic phenomenon and could be equally applied to any other firm that operates in a negative cash flow environment.

One can only hope that Amazon has obeyed the law and never sought or engaged in predation, even when it was more efficient to do so, but sadly there is no way to affirm this positive speculation.

Nevertheless, it is conceivable that the temptation to monopolize certain markets and the fact that such conduct is currently virtually undetectable might be encouraged or continues to encourage instances of price predation. It is superfluous to speculate as to whether such predation occurred or to attempt to identify individual

78 Allayannis and Mozumdar (n 66).
79 See n 59.
80 ibid.
81 ibid.
82 ibid.
83 ibid.
84 See n 68.
85 ibid.

markets that might be more susceptible to such activities. Many scholars have already articulated in theory potential instances of rational predation, and it is safe to assume that if predation occurred it transpired by those theories.[86] The only truly novel aspect that presents itself in firms such as Amazon is the fact that below AVC predation is practically indiscernible and that post-predation recoupment can occur without any real rise in average prices.

Why should one care?

In recent years, a growing wave of criticism of Amazon's business has appeared. It largely emanates from Amazon's well-established and ever-growing market position.[87] Amazon has a dominant presence in numerous markets, and it seems like it plans to expand to many more. In certain significant markets, such as eBooks, online retail, video services, and cloud services, it is the most or second most dominant actor.[88] Amazon's mere size is concerning to some, and its potential transformation into a monopolistic actor in certain markets is a growing concern to others.[89] Lately, many scholars and journalist came to question Amazon's actual business practices.[90] In fact, in the last year, the president himself also took to social media to suggest that Amazon is acting in some form or another of an anticompetitive manner.[91] A number of the company's critiques pointed out to certain aspects of Amazon's activities, which appear to amount to anticompetitive practice.[92] And yet, until now none have managed to establish that any of these activities stand in violation of current anticompetitive laws.[93]

On the other hands, many scholars sided with Amazon. They pointed out to the way in which the firm revitalized and shaken markets that experienced stagnation or where de facto under oligopolistic control.[94] Also, they claim that Amazon should not be chastised for merely being more efficient than its competitors and that everyone should welcome the substantial benefits that Amazon is providing to its consumers.[95]

This work will not enter into this debate. It may be argued that Amazon has a crippling effect upon the American society or economy, but it also can be claimed that Amazon is one of the greatest things that happened in the history of corporate America in recent decades. Nonetheless, the average American should be concerned if it turned out that Amazon achieved its position by engaging in illegal practices. This proposition could also be stated in more practical terms. On the one hand, if it is discovered that Amazon's dominance was attained by improving the firm's

86 Leslie (n 19).
87 Ben H Bagdikian, *The New Media Monopoly: A Completely Revised and Updated Edition* (20th edn Beacon Press 2014).
88 Lina M Khan, 'Amazon's Antitrust Paradox' (2017) 126 Yale Law Journal 710.
89 ibid.
90 ibid.
91 https://www.bloomberg.com/opinion/articles/2018-04-04/amazon-and-bezos-can-t-be-hurt-by-trump
92 John B Kirkwood, 'Collusion to Control a Powerful Customer: Amazon, E-Books, and Antitrust Policy' (2014) 69(1) Miami Law Review 38–39.
93 Khan (n 89).
94 ibid.
95 ibid.

corporate structure, capital efficacy, and by better exploiting existing gaps in the current GAAP requirements, then it can be argued that such innovation is welcomed. But if it appears that Amazon also employed some illegal means such as below AVC predation to achieve its market position, then this would be a cause for great concern.

Both Hovenkamp and Bork argued that any violation of the Sherman Act should be considered as an activity that necessarily harms consumers.[96] Their position on this matter is unambiguous and clear. Violations of the Sherman Act harm consumers because they effectively harm the ability of equally efficient competitors to continue to compete with the alleged violator over an extended term.[97] It is, therefore, necessary to develop some means of oversight that will allow the public to determine whether firms such as Amazon are engaging in such activities. In fact, Amazon and other firms that operate in a negative cash flow environment should welcome this form of enhanced oversight since it will ensure that their competitors do not compete against them in an illegal manner.

VI. CONCLUSION

Bigger firms are operating with ever greater amounts of long-term cash outflow. These cash outflow firms introduce a new business phenomenon in the field of antitrust. In particular, these firms challenge existing regulatory mechanisms that enable protection from predatory pricing business strategies. Currently, firms that operate with negative cash flow can potentially engage in below AVC predation without that activity ever being detected by other parties. Crucially, recoupment, a vital aspect of predation, can be realized when operating in a negative cash flow without raising prices. Instead, it is achieved when the firm crosses a break-even 'threshold' and transitions into a positive cash flow firm. As a result, regulators and competitors of firms that operate with cash outflow such as Amazon have currently no ability either to deter or determine the occurrence such predatory activities. This work advocates for the establishment of a regulatory framework that enables to 'level the playing field' by affording effective oversight over both traditional, cash flow positive firms as well as over non-traditional, cash flow negative firms. In addition, it calls for the establishment of viable framework under which a case might be brought against such firms by injured competitors.

96 Areeda and Hovencamp (n 4) 405.
97 ibid.