

# **The more economic approach to predatory pricing**

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### **Abstract**

The “more economic approach” was introduced to antitrust in order to achieve a more effect-based and theoretically grounded enforcement. However, related to predatory pricing it resulted in systematic over- and under-enforcement: Economic theory does not require dominance for predation to be a rational (and harmful) strategy while an ex ante dominant firm would often refrain from predation. Hence, within the current legal framework, a more effect-based and theoretically grounded antitrust enforcement with respect to predatory pricing will result in systematic over- and under-enforcement. Therefore, we suggest separating predatory pricing from exclusionary abuse of a dominant firm, both legally and analytically. Instead, predatory pricing should be analyzed along the same logic as a merger. In particular, we argue that three elements from merger control should be adopted: in absence of dominance, market share and/or turnover thresholds may serve as a de minimis rule; recoupment should be analyzed similarly to the competitive effect of a merger between the predator and its prey; and a stronger efficiency defense should be established.

## 1 Introduction

Low prices are the desired result of effective competition, which generally maximizes economic welfare and ensures high consumer rents. However, very low prices may also harm competition whenever they prevent an efficient firm from competing. Strategies which aim at eliminating competition by setting prices below the competitive level are known as predatory pricing. Especially (but not only) if prices of a firm (the predator) are significantly below cost, they may foreclose a competitor (the prey) from a market or prevent a competitive firm from market entry. Given the fine distinction between pro- and anti-competitively low prices, it is not surprising that predatory pricing has always been controversial: The academic literature (both economic and legal) as well as the antitrust community have experienced fierce debates. After all, low prices are a desired outcome of effective competition and therefore excessive enforcement could harm competition (O'Donoghue and Padilla, 2006).

At present, in most constituencies, competition law addresses predatory pricing. However, anti-trust authorities have pursued only very few cases so far. The Swiss Cartel Act, for example, explicitly mentions predatory pricing (Article 7 Paragraph 2 CartA<sup>1</sup>). But up to now, not a single case resulted in a conviction. Similarly, Art. 102 of the Treaty on the Functioning of the European Union (TFEU) allows the pursuit of predatory conduct, but there have been only few cases, especially concerning aggressive rebate schemes (see Section 3.5). Hence, there seems to be a gap between the law, its economic rationale and its enforcement.

This paper argues that legal requirements and economic reasoning are not compatible in the case of predatory pricing. In particular, when predatory pricing is pursued as an abuse by a dominant undertaking, a logic contradiction emerges: If a firm is already dominant, why should it pursue a predation strategy as marginal gains from additional market power are usually very small? In other words, predation is not a strategy predominately used by ex ante dominant firms, but rather a strategy to gain ex post dominance. Consequently, the current legal practice in Europe and other constituencies, which requires ex ante dominance to pursue predatory pricing, makes the prosecution of predatory pricing virtually impossible since it overlooks the basic economic rationale for predatory pricing. This inconsistency has become even more severe since the advance of the "more economic approach": In fact, the more accurate the economic assessment is, the less probable is a conviction of harmful predation within the current legal framework.

We therefore suggest a separation of predatory pricing from other exclusionary abuses, both legally and analytically. Instead, antitrust authorities should analyze predatory pricing along the same analytical framework as a merger, where a similar economic and business logic applies. In particular, we suggest that antitrust authorities should conduct the analysis of recoupment along the principles of merger control, as successful predation results in the same unilateral effects as a merger of the predator and the prey. Antitrust authorities therefore can

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<sup>1</sup> The Cartel Act considers "any under-cutting of prices or other conditions directed against a specific competitor" as unlawful.

use their well-established tools and methods from merger control to assess the harm of predatory pricing. Other elements from merger control are (1) the use of market share and/or turnover thresholds as *de minimis* rules and (2) an effective efficiency defense.

The remainder of this paper is structured as follows: First, we summarize the current economic theories of predation with special emphasis on the dominance criteria (section 2). In section 3, after presenting the most common legal frameworks to address predatory pricing, we demonstrate the logic contraction, which results from the currently advocated “more economic approach”. We then address the close link between predatory strategy and mergers (section 4), which leads to the proposal that anti-trust authorities align predatory pricing with merger control. Finally, in section 5 we propose a feasible framework to address predation.

## 2 The economics of predation

In the early days of antitrust enforcement, economic theories of predation relied on static, cost-based models. The powerful critique by the Chicago school in the 1950s and 1960s took the antitrust community by surprise. While economists found clear evidence for predation, they could not find a satisfying explanation with a model of rational predation (Edlin, 2012). Since then, the puzzle of predatory pricing has inspired a generation of economists. They use it as an example for the application for modern game theory, initiated by Selten’s Chain-Store Paradox (Selten, 1978). Their main insight was that predatory pricing can represent a rational strategy to foreclose competitors, but only if firms have imperfect and/or asymmetric information.

### 2.1 Economic theories

Modern economic theories commonly analyze predatory pricing as a dynamic process: They interpret predatory pricing as intertemporal price discrimination. In a first period, a firm (the predator), offers very low prices in order to foreclose actual competitors from the market or to prevent potential competitors from entering the market. Thereby, the predator deliberately accepts a loss in profit. In a second period, the preying firm recoups its losses from the first period by extracting monopoly rents due to the gained market power. Examples of modern approaches (using game theory and information economics) are financial market predation, reputation or signaling models.

The common denominator of rational models of predation is the significance of asymmetric and imperfect information.<sup>2</sup> In many settings, a successful predator has to fool his competitors and the market about his real strength, his cost structure or his reputation in financial markets. In other settings, a predator just attempts to distort information. In recent years, economists added another aspect to predatory pricing theory: Through the expectations of firms about the predation strategy’s success probability, predatory pricing involves a self-fulfilling character. To the question, whether predatory pricing is common, Edlin (2012) recently responded: “If business folk think so, it is.” Such effects usually appear in dynamic models with learning.

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<sup>2</sup> This literature is summarized in Motta (2004); see also: Kreps and Wilson (1982), Milgrom and Roberts (1982a), Milgrom and Roberts (1982b) and Holmström and Tirole (1997).

The main intuition is that with very low prices a rival learns less about the “real” market conditions, which is why it incurs a higher cost in the future.<sup>3</sup>

## 2.2 Economic theory and the dominance criterion

Most modern economic models of predation have in common that they do not require actual (measurable) ex ante dominance for rational and harmful predation. The market has to believe that a firm is strong enough to conduct a predatory strategy in order to gain monopoly profits in the future. Actual dominance would render such a predation strategy unnecessary as a firm could already enforce prices above the competitive level and marginal gains of additional market power are very small.

Furthermore, economic theory implies that the dominance criterion of predation is to some extent self-enforcing: If the market believes that a firm is strong enough to keep up a predatory strategy, the predator holds ex post a dominant position, which again leads to the profitability of predation. When starting predation, however, it is not necessary that the firm is able to raise prices significantly over the competitive level. Hence, the success of predation rather depends on ex post dominance, rather than ex ante dominance. In fact, under many circumstances, ex ante dominance would prevent a rational firm from choosing a predation strategy in the first place.

Currently, predation is only illegal for dominant firms. However, it is difficult to find circumstances in which predation is a rational strategy for a dominant firm. For most predation scenarios, economic theory dismisses dominance as requirement for a rational strategy, which is harmful to competition. The dominance criterion might be reasonable for practical reasons: Without the hurdle of dominance, there would be a high risk of jeopardizing healthy competition, especially in oligopolistic markets (see e.g., Motta, 2004, and Knieps, 2005). Hence, prohibiting below-cost pricing also for non-dominant firms would undermine the natural process of gaining market share through aggressive price setting. This might not only be lawful but also desired.

The most likely predation scenario by a dominant firm might occur in an industry with strong economies of scale and/or strong network effects. There, a dominant incumbent can pursue a predatory pricing strategy in order to prevent a more efficient competitor from growing and achieving sufficient economies of scale. Fumagalli and Motta (2013) present such a model of predatory pricing in the presence of scale economies. In this model, a mature incumbent firm (often a former state monopolist) undercuts prices in order to prevent a smaller but efficient competitor from achieving greater scale. In such a market, dominance of the predator is given by its strong incumbency status: Because of its incumbent legacy and large market share, dominance is usually beyond controversy. However, for predation to be rational, some part of the market has to be contestable, which might question actual dominance.

Another scenario in which the dominance condition does not destroy incentives for a rational predation strategy is predation occurring in another market than the one where exclusion is envisaged. Signaling and reputation models of predation entail an externality, since predation

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<sup>3</sup> Cabral and Riordan (1994) and Besanko et al. (2014).

does not only impact the market where it occurred and at the same time. For example, a reputation for toughness will affect most business segments of a firm and deters not only imminent but also future market entry. A similar argument applies to low-cost signals, especially if there are common costs for different markets. These scenarios can be analyzed within the traditional frameworks of market foreclosure.<sup>4</sup>

### 3 Antitrust enforcement of predatory pricing

Legal provisions to address predatory pricing are present in most antitrust legislations. In fact, for a long time, authorities considered predatory pricing as one of the most common anticompetitive conducts (Motta, 2004). Whereas the legal framework changed very little, the case law on predatory pricing shows strong variation resulting in very volatile enforcement rates over time.

#### 3.1 Legal frameworks

In the United States (US), predatory pricing has been of concern for almost a century. Section 2 of the Sherman Antitrust Act prohibits monopolization and attempted monopolization, which includes predatory pricing. After a long era of “populist” enforcement resulting in a conviction rate of over 75 percent (Bolton et al, 2000), in 1975 an article by Areeda and Turner (1975) radically changed the legal practice by introducing “meaningful and workable tests” based on average variable cost (AVC). A second change in the US predation practice emerged in the Brooke case in 1993. From then on, the authorities also had to prove that a predator could recoup its losses due to increased market power (Leslie, 2013). Such a proof turned out to be very difficult to establish within the anti-monopolization framework and success rates in predation cases dropped dramatically: there has not been a single verdict in a predation case since 1993.

EU antitrust law deals with predatory pricing within the framework of Art. 102 TFEU (former Art. 82 Treaty of the European Community; TEC) as abuse of a dominant undertaking. Hence, predatory pricing can only be subject to antitrust proceedings if a firm applies it to protect or strengthen its already dominant position.<sup>5</sup> Similarly, the Swiss Cartel Act (CartA) treats predatory pricing as an unlawful practice by a dominant undertaking (Art. 7 CartA), where the characterization of dominance is similar to EU law. In the EU, as well as in Switzerland, the legal framework follows the so-called special responsibility doctrine which restrains antitrust enforcement of exclusionary abuses to dominant firms.<sup>6</sup> These jurisdictions do not consider monopolization by a not yet dominant firm as an infringement of antitrust law. However, this is exactly the scenario that, according to economic theory, is the most harmful to competition.

#### 3.2 The “more economic approach”

Recently, European antitrust enforcement has gone through a major reform project by advocating a “more economic approach”. The underlying idea was to move antitrust enforcement

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<sup>4</sup> Rey and Tirole (2007).

<sup>5</sup> DC Competition (2005).

<sup>6</sup> A list of countries, which require ex ante dominance in order to address predatory pricing, is included in ICN (2008).

away from formalistic per se rules to an effect-based approach, promoting more flexible rules of reasons rooted in economic theory. In its guidance of 2009, the EU Commission (EC) requires a proof of sacrifice and anti-competitive foreclosure with regard to predatory pricing. Whereas in the past the legal framework had focused on cost-price comparisons and required the proof of an elimination intent of the predator, in the new, effect-based approach, it is still crucial to show that the predation strategy entails a sacrifice for the preying firm. However, the EC states that this does not solely refer to prices below a certain cost threshold; it should also be investigated “whether the allegedly predatory conduct led in the short term to net revenues lower than could have been expected from a reasonable alternative conduct”, i.e. whether there were more profitable alternative strategies.<sup>7</sup> Additionally, the EC recognizes that also less efficient competitors might restrict the pricing behavior of a dominant firm and therefore have to be taken into account when evaluating possible anti-competitive foreclosure.<sup>8</sup>

EU competition practice has also addressed the issue of recoupment. However, both, the EC and the Courts did regularly dismiss the need to prove potential recoupment. In its discussion paper on exclusionary abuses of 2005 (EC, 2005), the EC argues that dominance is already established as the requirement of Art 82 TEC (102 TFEU): Entry barriers are sufficiently high to presume the possibility to recoup. Therefore, without differentiation of ex ante and ex post dominance, recoupment is considered to be self-evident.<sup>9</sup>

### **3.3 The fallacy of the “more economic approach”**

There have been high hopes that the “more economic approach” to predatory pricing could help aligning legal requirements and economic theory. However, the opposite was the case. The problem is that as soon as a firm has taken up a dominant position, the economic rationale for pursuing a predatory pricing strategy most probably disappears; and if an economic rationally and harmful predatory pricing strategy can be established along the provisions of the “more economic approach”, the firm is most likely not dominant. In fact, as de La Mano and Durant (2005) point out, successful predation by an ex ante dominant firm might be less harmful to competition and consumers than predation by an ex ante non-dominant firm. The latter may permanently alter the market structure and increase prices substantially, whereas the former only results in negligible gains of market power. That is, the conduct with the strongest economic effect on competition cannot be pursued. This implies the risk of under-enforcement of competition policy.

Likewise, ex ante dominance not a good indicator for recoupment and hence successful predation either. This is where the EC (2005) fails to follow economic theory: Ex ante dominance is considered a sufficient proof for the possibility of recoupment and no further investigation of the economic effects on market structure and the possibility of recoupment is required. The courts embraced this principle, which is why in most predatory pricing cases the economic effects were not properly analyzed. However, a dominant firm might well compete on the

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<sup>7</sup> See para. 65 of the Commission’s Guidance.

<sup>8</sup> See para. 24 of the Commission’s Guidance.

<sup>9</sup> EC 2005; see also Knieps (2005).

merits without harmful predation. Renounce the analysis of recoupment may result in harmful over-enforcement of competition policy.

As a result, with the “more economic approach”, the pursuit of predatory pricing did not become better aligned with modern economic theory but made it rather unfeasible: as soon as dominance is established, the rationality of predation dissolves; likewise, when screening for harmful predation, most cases do not meet the dominance criterion. There is both, an inherent risk of under- and over-enforcement: Under-enforcement because harmful predation to acquire dominance cannot be addressed; over-enforcement, because the possibility to recoup and the underlying changes in market structure are not assessed properly.

### 3.4 Approaches to aligning economics and competition law

Throughout the history of predatory pricing, there have been several attempts to better align economic theory and competition law.

**Bolton et al. (2000):** In the aftermath of the Brooke ruling and a virtual lock-down of any antitrust procedures against predatory pricing, Bolton et al. (2000) launched a first major attempt to introduce modern economic theory into the legal practice. They tried to resolve the obvious tension between economic theory and antitrust enforcement by adding a strategic element to the analysis of predation. In particular, they proposed to support the legal proof of predatory pricing by identifying a rational and therefore credible explanation for predation. Courts, however, preferred a clear rule capable of re-establishing the credibility of antitrust enforcement against predatory pricing. Thus, they were not willing to adopt an even vaguer approach than an ex ante proof of the possibility of recoupment (Giocoli, 2010).

**Niblett et al. (2004):** In 2004, Niblett, Gans and King identified a gap in section 46 of the Australian Competition and Consumer Act.<sup>10</sup> Rather than relying on the criterion of static structural market power (e.g. market shares and scope of price setting), they suggested that courts should consider the dynamics of a market and therefore focus on, as they call it, “behavioral market power”. According to Niblett et al. (2004), behavioral market power enables a firm to “behave in a way that is detrimental to competition over the longer term” in order to alter the market structure and finally achieve structural market power. They claim that in some markets, it is not possible for firms to increase prices initially, but over time a (strong) firm can behave in a way that aims at changing market structures in its own favor. This “behavioral market power” results from an advantage that the preying firm has over its rivals, which enables it to engage in anti-competitive behavior. Such an advantage could come from a greater ability to cover losses over the period of predation or it could be related to asymmetric information. In 2007, the debate resulted in an adjustment of Australian competition law, which introduced a substantial share of the market rather than substantial market power as intervention threshold. This change, however, had very little effect until today and the Australian debate was not widely perceived abroad.

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<sup>10</sup> Also in an Australian context, Geoff (2003) pointed out the “whole in the net” of predatory pricing prohibition due to its link to market power.



**De la Mano and Durant (2005):** In the same year when the EC published its discussion paper on the application of Art. 82 TEC to exclusionary abuses, de la Mano and Durand, both members of the Chief Economist Team at the Directorate-General (DG) for Competition, challenged the EC's dealing with predatory pricing. They especially criticized the EC's reliance on cost-based rules, which they described as "utterly inappropriate when competition is largely driven by factors other than price". They propose a three-step structured rule of reason to assess predation based on 1) the proof of sacrificed profits, 2) the likelihood of elimination of rivals and, 3) the possibility to recoup initial sacrifices. In order to identify a sacrifice, De la Mano and Durant recommend two approaches: The first consists of proving whether the incremental cost of (alleged) predation is above incremental revenue. The second refers to the identification of more profitable strategies. Exclusion, however, should be made plausible relying on modern economic theories of rational predation. Finally, the possibility of recoupment should especially examine (re-) entry barriers, i.e. the post-predation competitive conditions. As for the condition of dominance, de la Mano and Durand (2005) make it clear that ex ante dominance is neither sufficient nor necessary for recoupment. Market conditions after predation are generally different from market conditions before predation and thus ex-ante dominance is not a good approximation for the ability of the predator to exercise increased market power post-exclusion. Predation often presents a much more attractive strategy for non-dominant firms, since they can hope to recoup losses by exploiting a dominant position in the future, whereas gains of predation for a dominant firm might be limited.

Even though their analysis touches upon many important points, de la Mano and Durand (2005) ignore the tension between a more refined economic approach and the legal requirement of dominance. They intend to heal the flaw of current practice simply by using more economics. The EC included some of their points in the 2009 guidance on the Commission's enforcement priorities in applying Art. 82 TEC, such as the consideration of less efficient competitors for the investigation of anti-competitive foreclosure. However, other crucial suggestions are still neglected. As a result, neither the introduction of modern economic theory nor an assessment of the dominance condition resulted.

### 3.5 Recent EU cases

We have argued in section 2.2 that there are mainly two scenarios for rational predation by a dominant firm: either a dominant firm leverages its market power from one market (where it is dominant) to another market; or an incumbent firm, deters market entry. In fact, all recent EU cases can be assigned to one of these categories.<sup>11</sup> It seems that any other category of predation is currently beyond the reach of European antitrust policy.<sup>12</sup>

**Wanadoo (2003):** The EC fined Wanadoo Interactive, a subsidiary of France Télécom, for predatory pricing of ADSL-based Internet services to residential users. The Commission perceived Wanadoo's pricing as eliminatory, since prices were below Average Variable Cost (AVC) until

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<sup>11</sup> There are no cases in Switzerland, even though the Swiss Cartel Act explicitly mentions predatory pricing as an unlawful practice by dominant undertaking. As already mentioned, there have not been any convictions in the US for predatory pricing since the Brooke ruling in 1993.

<sup>12</sup> For a summary of the empirical evidence for predation see Edlin (2012); for a summary of experimental results see Gomez et al. (2008).

October 2002 and afterwards below Average Total Cost (ATC). Besides a documented predatory intent, the EC examined the possibility of recouping the losses. The Commission concluded that a recoupment was plausible because of high entry barriers, as Wanadoo profited from a strong incumbency advantage and strong scale economies. Furthermore, the EC considered high margins after October 2002 as a direct evidence for recoupment (Alemanno and Ramondino, 2009).

**GlaxoSmithKline (2007):** The French Competition Council convicted the national subsidiary of GlaxoSmithKline, an England based pharmaceutical firm, for predatory pricing as it sold a generic antibiotic drug below purchasing prices from its own sister company. Even though the practice only affected a very small market, the Competition Council charged GlaxoSmithKline with a fine of EUR 10 million because it saw the price cut as part of a global intimidation plan aimed at sending a signal to generic manufacturers to discourage them from supplying hospitals. GlaxoSmithKline established a reputation of aggressive behavior in one (small) market in order to deter entry also in other markets where patent protection was about to expire. Also in this case, predation and recoupment did not occur in the same market.

**Intel (2009):** In 2009, the decision of the EC against Intel led to the highest fine so far (EUR 1 billion). By granting rebates for central processing units (CPUs) to major PC manufacturers and Europe's largest PC retailer (Media Saturn Holding), Intel drove prices below costs with the motivation to foreclose its only competitor in x86 CPUs (AMD) from the market. In the relevant geographic market, which the EC defined as worldwide, Intel clearly held a dominant position with a market share of more than 70 percent between 1997 and 2007, whereas incumbency advantages were further reinforced by an asymmetry in production facilities and by the time and cost required to expand capacity. The relevant market is characterized by strong economies of scale, due to – among other reasons – very high sunk costs. The EC applied an as-efficient-competitor test and found that even an equally efficient competitor would have been unable to compete against Intel's offerings.

**Post Danmark II (2015):** Between 2007 and 2008 the Danish postal incumbent Post Danmark offered rebates to its direct-mail customers, which led to the exclusion of its only rival, Bring Citymail. Already in 2012 Post Danmark had been accused of abusing its dominant position by charging targeted rates and rebates to specific customers. In the Post Danmark I case, the incumbent granted rebates to customers of its main competitor in the unaddressed mail sector. In contrast to this case, where the European Court of Justice (ECJ) relied on the as-efficient competitor test, the ECJ stated in the Post Danmark II case that the application of such a test was not necessary. There only has to be a certain probability for an anticompetitive effect of a rebate scheme. However, such an effect did not have to be observable. According to the ECJ, this probability was evident, as Post Danmark controlled 95 percent of the market at that time, and only 30 percent was contestable due to a statutory monopoly. Furthermore, the ECJ acknowledged that even a less-efficient competitor might have increased competition in a market characterized by high entry barriers and strong economies of scale.

#### **4 A proposition for a new “more economic approach”**

McGee (1958) was not the first but the most influential voice to draw the attention to a strong link between predation and mergers. This link is very intuitive, as the structural effects are

very similar. Ex post, the merged entity as well as the predator may be able to raise prices unilaterally. Hence, like a merger, successful predation results in “unilateral effects” and there is no reason to treat these two strategies differently if they produce essentially the same market outcome. The current legal practice against predatory pricing, in turn, is similar to examining a concentration only if one firm holds a dominant position in the relevant market ex ante.

Economically, mergers and predation are substitutes to gain a dominant position. This idea goes back to McGees’ (1958) original insight that rather than destroying profits by predatory pricing, rational firms would prefer to merge. However, an apparent willingness to avoid price wars and prefer take-overs instead, may induce additional entry in the market (Tirole, 1988). Hence, reputational considerations can make predation a superior strategy as it creates externalities in other markets and over a longer period. For example, an incumbent firm which expects substantial entry in its home market (for example due to changes in technology or regulation) may prefer a strategy to once aggressively deter entry and benefit from this reputation rather than buying every potential entrant. Mergers and predation can also complement each other if predatory pricing improves the condition of a take-over bid and deters future entry (Saloner 1987; see also Persson, 2004).

#### **4.1 Lessons from merger control**

Because predation and mergers follow a similar economic (and business) logic results in “unilateral effects” it makes sense to analyze predatory pricing much more in the spirit of a merger than an exclusionary abuse of a dominant firm. Like a merger, successful predation changes the market structure as the market shares of two firms are potentially combined into one firm. Recoupment is only possibly if the predator, in absence of the competitive constraint of the prey, can charge excessive prices. Therefore, a more feasible “more economic approach” to predation might consist in aligning it with merger control and dropping the ex ante dominance criteria.

An alignment of the enforcement of predatory pricing and merger control is quite subtle. In merger control, the likelihood of an impediment of competition has to be established based on economic reasoning, theoretical as well as empirical. Being forward looking, merger control by its very design, cannot provide final proof of a potential harm to competition. Furthermore, it cannot rely on a single criterion such as market shares. Rather, antitrust authorities have to establish the likelihood of harm by looking at all potential effects of a merger. This idea was also reinforced by the “more economic approach”, which led in Europe to the adoption of the SIEC-test (“significant impediment of effective competition”). Thereby merger control was separated from the dominance criteria, even though in most (but not all) cases a SIEC leads to dominance. Predatory pricing should be analyzed along the same economic principals, allowing an analysis of alleged predation for its global effect on competition, also accounting for specific market conditions and effects over several markets.

Besides the strategic similarities, there is also a strong procedural connection. Antitrust authorities usually evaluate the possibility of recoupment during the predation phase, when it is unclear whether a conduct is competitive or anti-competitive. Like in merger control, the authorities have to conduct an ex ante evaluation of potential restrictions of competition due

to an alternation of market structures. This requires estimations regarding future market structure and events, such as the possibility of market entry, the role of switching cost, sunk cost and network effects – all well-known concepts from merger control.<sup>13</sup> Hence, competition authorities could use their well-established tools and methods from merger control to assess the harm of predatory pricing.

In conclusion, the main advantage of an alignment of predatory pricing with merger control would be the focus on ex post dominance (when the abuse actually takes place) and alternation of market structure. In such a framework, an economic analysis of a predatory incident would not be in inherent discrepancy to the competition law as in most cases today and avoid the danger of systematic over- or under-enforcement. Ultimately, such an approach would require a change of legislation.<sup>14</sup> Accordingly, the special responsibility doctrine would have to be broadened to firms, which are able to alter the market structure and gain a dominant position. This responsibility is not new – at least for firms and competition authorities – as it concerns exactly those firms for which expansion by merger would be critical, too.

#### **4.2 Legal certainty**

Jurisdictions introduced the “more economic approach” with the aim of enhancing predictability and hence legal certainty. Critics of the “more economic approach” emphasize that it generally reduces legal certainty because by its nature it introduces the need for additional interpretation and consequently more leeway for competition authorities. Currently, due to the strong divergence of legal requirements and economic theory, legal certainty is jeopardized, and every new case seems to bring up new and sometimes changing criteria. Additionally, firms seem to perceive a false certainty that antitrust authorities pursue only predation which leverages market power between markets or predation in network industries with strong incumbents.

Our suggestion to align the analysis of predatory pricing with merger control is also founded in a “more economic approach”. However, the proposed procedural harmonization would enhance legal certainty, as firms and authorities are very accustomed to assess antitrust concerns in the case of a merger. All methods and principles are tailored to identify harmful concentration in a market, but also to prevent excessive intervention by the authority. They are usually well established and have been gradually adjusted over time to match the specific conditions of a constituency. Hence, a firm should be able to establish ad hoc whether there is a danger of antitrust proceedings against its pricing behavior.

### **5 A feasible framework for dealing with predatory pricing**

According to our argument, a feasible “more economic approach” to predatory pricing consists of aligning the analysis of predatory pricing and mergers. In assessing predatory pricing,

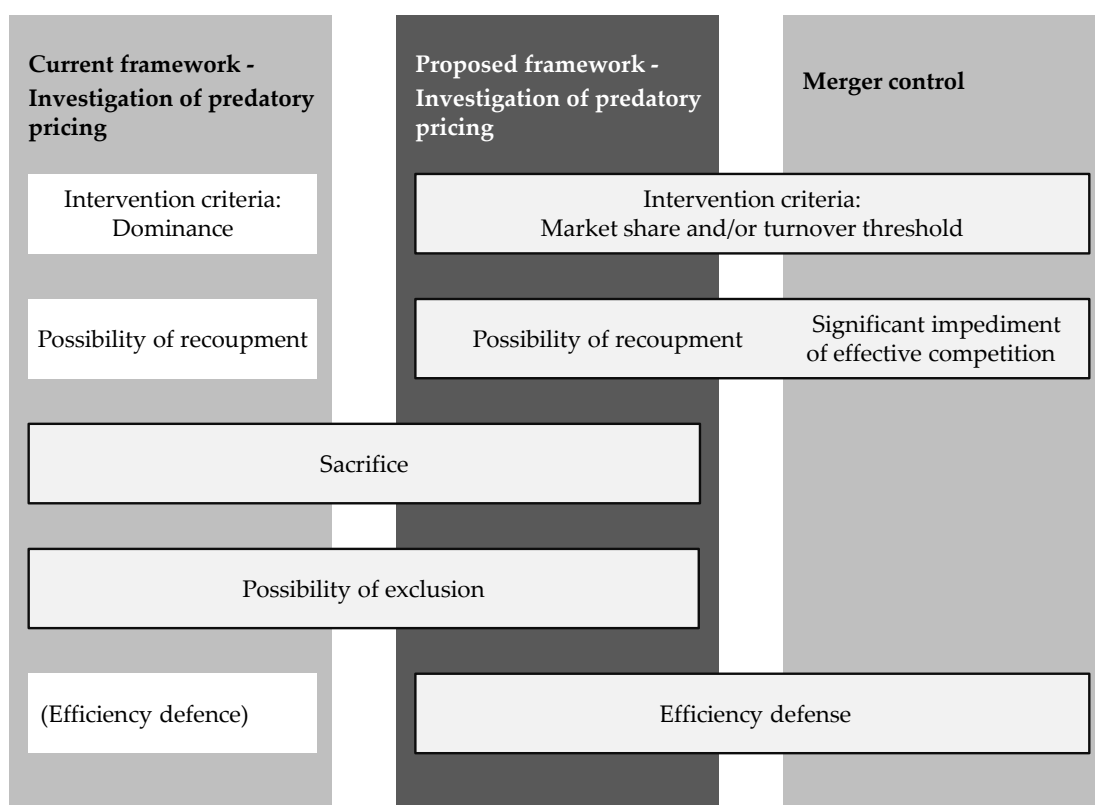
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<sup>13</sup> A procedural harmonization in the evaluation of recoupment along the principles of merger control could also be fruitful in an US-context, where no fundamental change in legislation would be necessary, but a more viable procedure than the plaintiff having to prove ex ante the potential for sufficient recoupment.

<sup>14</sup> The debate in Australia also resulted in an adjustment of the dominance criterion; see Section 46(1AA) Competition and Consumer Act.

the relevant question is whether or not successful predation can eliminate competition when the predator takes over a prey's market share. If yes, recoupment is possible and the negative effect for competition is apparent – irrespective of ex ante dominance. But abandoning the dominance condition might cause excessive intervention as it also serves as a screening device. Hence, there is a need for an alternative criterion. This could also be borrowed from merger control, where intervention thresholds are common. Even if merger control and predatory pricing do not necessary require the same thresholds, the basic concept of a market share and/or turnover threshold could apply. Finally, the fine distinction between competition on the merits and harmful predatory pricing requires a strong efficiency defense, which is again common in merger control. Together with the traditional criteria, i.e. potential foreclosure and sacrifice, these three elements from merger control create a feasible framework to pursue predatory pricing, which is in line with modern economics. Figure 1 shows the different building blocks of a feasible framework to pursue predatory pricing, being partially based on merger control.

**Figure 1: A feasible framework to deal with predatory pricing**



### 5.1 Elements borrowed from merger control

**Intervention criterion:** In the traditional assessment of exclusionary abuse, the dominance condition establishes a threshold in order to prevent excessive intervention and provide legal certainty for obviously non-dominant firms. For a consistent assessment of predatory pricing, the special responsibility doctrine must be extended to firms which have the potential to alter the market structure and to harm competition. Such an extension bears the danger of inflationary accusations and interventions.

In the absence of the dominance criterion, there is a need for a new threshold. In merger control, market-share and/or turnover thresholds are well-established criteria to assess the potential of a merger to harm competition. They constitute a proxy for a firm's overall strength and its potential to alter the market structure and significantly harm customers. Antitrust authorities could apply the same criterion to assess a firm's potential to conduct a strategy of harmful predatory pricing. In particular, the potential of a firm to alter the market structure depends on its capacity to keep low prices and endure the sacrifices for a certain period (i.e. to have deep pockets) as well as to manipulate the competitor's expectation about the true state of the market and/or its strength. Hence, similar turnover and market share thresholds could be used as a *de minimis* rule in cases of alleged predatory pricing.

Given the similar concerns in mergers and predatory pricing, the similar well-established thresholds may apply. Such thresholds would enable competition authorities to identify a firm's overall potential for harmful predation prior to the tedious analysis of a cost benchmark and the potential of foreclosure.

**Possibility of recoupment** is the main area for an alignment of predatory pricing and merger control, as similar unilateral effects and the possibility to impede competition have to be addressed. In case of suspected predatory pricing, the competition authority should follow a similar logic and procedure as in merger control. Would a merger of the predator and the prey cause any competition issues? If not, there is no predation case. If yes, the possibility of recoupment is evident.

Two scenarios can be distinguished. In the first scenario, a predator forecloses a competitor from the market. Recoupment will only succeed if the predator alters the market structure to gain a higher (monopolistic) rent in order to recoup earlier losses. In the second scenario, a predator prevents a competitor from entering the market. Like mergers, predation might serve the purpose of taking a potential competitor out of the market. Hence, a predator prevents an alternation of market structure and recoupment consists of retaining a monopolistic rent. In both cases, however, there are unilateral effects as compared to a competitive counterfactual.

Similar to merger control, recoupment requires an analysis of the future market structure. An intervention of an antitrust authority usually occurs (and should occur) in the earlier phase of sacrifice, when it is usually impossible to prove actual recoupment (as recognized in US case law). However, the potential of anticompetitive conduct in the future can be established. But the parallels go beyond a simple parallelism of effects and procedure. Actually, the whole analysis of recoupment can fall back on the procedure of merger control. Antitrust authorities can apply the definition of relevant markets and the use of market share as a proxy for potential harm to competition equally. An in-depth analysis of predatory pricing should also include an analysis of price elasticities, entry barriers, potential for new market entry as well as the assessment of the competitive constraint of an excluded firm – all of which are standard issues in merger control.

Antitrust authorities should also conduct a thorough analysis of *ex post* market structures favoring recoupment: In many markets, incumbent firms have significant structural advantages, e.g. through economies of scale or network effects. Predation is also more likely in

mature markets as rapid innovation and the emergence of new customer groups may jeopardize successful recoupment. Bidding markets are also prone to predatory strategies, as they are sufficiently clear and manageable. As a prey incurs a cost for each offer, repeatedly offering low prices may signal a low cost due to an efficient technology and/or a reputation to undercut prices in important cases. Ultimately, a predator aims at preventing potential competitors to submit an offer at all. In such a case, the potential of recoupment is obvious. In other cases, a predator may signal to compete rigorously in certain tenders, which enables a future recoupment of losses. Again, such structural issues are regularly addressed in merger control. Even in two sided markets (where low or even negative prices are common due to indirect network effects) merger control has the necessary tools to address competition concerns.

**Efficiency defense:** In cases of exclusionary abuse efficiency claims have had little practical impact so far (OECD, 2012). In merger control, however, efficiency claims are common. Given the fine line between predatory and non-predatory conduct and the wide range of situations in which allegedly predatory prices are actually efficient, efficiency defense should be an integral element of procedures against predatory conduct – very much like in merger control. Actually, two of very few cases in which the EC considered efficiency claims, already related to predatory pricing (Wanadoo and Intel). The ECJ followed this route in the Post Danmark I judgement.

## 5.2 Elements from current predatory pricing procedures

There are also areas where the analysis should follow a more traditional logic of predatory pricing.

**Potential foreclosure:** Before entering an in-depth investigation of sacrifice, competition authorities establish whether a strategy actually has the capability to foreclose an actual or potential competitor. According to its Guidelines (2009), the EC applies an equally efficient competitor analysis. The ECJ supported this practice in the Post Danmark I case 2012. Later, in Post Danmark II of 2015, the court regarded an equally efficient competitor test as one tool among others to assess rebate schemes in the context of predatory pricing.

The Post Danmark II judgement reflects the economists' reservation against a per se reliance on the as efficient competitor test. E.g. Fumagalli and Motta (2013) argue that competition authorities should consider the effect of economies of scale and network effects, which might prevent a technologically equally or even more efficient competitor to match very low prices. Sometimes it might therefore be appropriate to apply a reasonably efficient competitor test, as used for margin squeeze tests (see, e.g., EC, 2010). As the ECJ highlighted in the Post Danmark II case, sometimes even the presence of a less efficient competitor might intensify competitive pressure.

There may also be other structural differences, which render a simple comparison of a competitors' costs meaningless. The proof of potential foreclosure should therefore include a theory of rationality both of the predator applying a predatory strategy and the prey exiting or refraining from entering a market. For example, authorities should consider the effect on the prey's capacity to raise capital from financial markets or a predator's reputation across several

markets. Asymmetries between a predator and its prey with regard to information and capacities may be indicators for the potential for foreclosure. In view of the self-enforcing character of predation, also the overall appraisal of a predator's strength could be taken into account.

Together with the analysis of potential recoupment, the analysis of potential foreclosure should result in a consistent theory of harm based on a plausible causal relationship between the alleged exclusionary conduct and the potential of exclusion. Given the forward-looking character of both elements, an actual proof of foreclosure is not possible. Establishing a high probability should be sufficient. This again is very much in line with merger control, where only a high probability for the impediment of effective competition can be established *ex ante*.

**Sacrifice:** The proof of sacrifice is also essential to pursue predation. Ultimately, the authorities have to establish whether its incremental cost is higher than the incremental benefit from doing so (de la Mano and Durand, 2005). Especially, as markets with large economies of scales and network effects are especially vulnerable to predation strategies, the authorities also have to allocate cost, which is notoriously difficult. Sacrifice alongside with the possibility of foreclosure and recoupment are necessary conditions for predatory pricing. However, if jurisdictions establish the criteria of potential foreclosure and recoupment sufficiently, the question of sacrifice may lose its weight (De la Mano and Durand, 2005).

## 6 Conclusion

The dynamic nature of predatory pricing separates it from other exclusionary abuses. The intertemporal logic of predation, to bear losses first and recoup them later, requires a forward-looking analysis of market conditions, which is unique in the context of exclusionary abuses. We find that in many constituencies, the legal requirements to pursue predation and economic theory are not compatible. In particular, the pursuit of predatory pricing as an abuse by a dominant undertaking is misguided, as predation is usually not a rational strategy of an *ex ante* dominant firm but a strategy to gain *ex post* dominance. Hence, the current legal practice in Europe and other constituencies render a legal prosecution of predatory behavior virtually impossible since it overlooks the basic economic rationale for predatory pricing. This contradiction cannot be cured by pursuing a "more economic", i.e. effect-based approach within the current legal and procedural framework, as the effects of predation only take place after the market structure has been altered.

In order to address the fallacy of the "more economic approach", we suggest that the pursuit of predatory pricing should be aligned with merger control. First, like a merger, predatory pricing alters the market structure as the market shares of two firms are potentially combined to one firm. Second, authorities have to evaluate predatory pricing usually during the predation phase when its outcome is still uncertain.

Ultimately, jurisdictions should renounce the strict requirements of *ex ante* dominance. In many constituencies, especially in Europe, this would require a change of legislation. In particular, the dominance condition should be abandoned in favor of market share and/or turnover thresholds as a proxy for a firm's ability to keep up a predation strategy and alter the market structure. Otherwise, a "more economic" enforcement against predatory pricing has to fail short of identifying harmful cases. Additionally, authorities should align the pursuit of



predatory pricing with merger control procedurally. Especially, recoupment should be analyzed in line with a merger between the predator and the prey and a regular efficiency defense should be allowed. Together with the traditional elements of potential foreclosure and sacrifice, they form a consistent theory of harm and a framework for pursuing predatory pricing, which is in line with modern economics.

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