The Subtle Virtues of Prohibiting Excessive Pricing by Dominant Firms

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Abstract

The aim of this paper is to show that the case against the prohibition of excessive pricing is far from being clear-cut, for reasons ignored by the current literature and case law. We show how, contrary to the conventional view in the literature and case law, excessive prices do not attract new entry, and therefore are not self-correcting. Moreover, in contrast to the conventional view, we show that the prohibition of excessive pricing may encourage, rather than discourage, entry. We also claim that the difficulty of implementation of a prohibition on excessive pricing could be addressed by focusing on a single reliable benchmark, such as substantial post-entry price cuts by dominant firms. We also show that the concern that the regulation of excessive prices will harm ex ante investment incentives is relevant only for cases in which (natural) entry barriers are high.

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The paper also shows how the prohibition of excessive pricing could be particularly important when the excessive price is that of an intermediate good, and it shows why fixed payments flowing to and from the buyer of the intermediate good should be excluded from the analysis of such excessive pricing. Finally, we show how certain cases of excessive pricing in the US could be dealt with as inter-temporal price discrimination under the Robinson Patman Act.

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1. Introduction

Excessive pricing by dominant firms is the ultimate evil antitrust laws are aimed at preventing. Still, U.S. antitrust law consistently holds that there is no antitrust claim against it, and even in the EC, where, supposedly, the law includes such a claim, against it,1 and even in the EC, where, supposedly, the law includes such a claim, 

1 See, e.g., 3 P.E. Areeda and H. Hovenkamp (1996), Antitrust Law, vol. III revised Ed, Little Brown and Co., Par. 720a, at 254-55; see also Chicago Professional Sports Ltd. v. NBA, 95 F.3d 593, 597 (7th Cir. 1996) (overturning a decision that the NBA's telecast fees were too high and noting that "the antitrust laws do not deputize district judges as
antitrust authorities are reluctant to attack excessive pricing, and there is great pressure in the EC to keep it that way, or even further reduce, or cancel, enforcement against excessive pricing.


According to Motta and De Strel, in forty years of practice, there were only 4 cases in which the European Commission found that pricing was excessive. See M Motta and A de Strel, “Exploitative and Exclusionary Excessive Prices in EU Law,” in CD Ehlermann and I Atanasiu (eds.), European Competition Law Annual 2003: What is an Abuse of Dominant Position? (Oxford, Hart Publishing, 2006), electronic copy available at http://www.iue.it/Personal/Motta/Papers/ExcessivePrices18122003.pdf at p. 12 (hereinafter: “M&D”). See also XXVIIth Commission Report on Competition Policy 1997, at para 77 (“The Commission in its decision-making practice does not normally control or condemn the high level of prices as such. Rather it examines the behavior of the dominant company designed to preserve its dominance, usually directly against competitors or new entrants who would normally bring about effective competition and the price level associated with it.”)


The opposition to the prohibition of excessive pricing is based mainly on three grounds:

The first ground concerns the prospects of new entry of firms into the market. In particular, it is said that the market force according to which excessive prices invite new entry would be handicapped if excessive pricing is prohibited. A related claim is that regulation of excessive pricing is often redundant because excessive prices would be competed away by new entry, invited by the excessive price. 5 Another related claim is

5 See Areeda and Hovenkamp, supra note 1 at Para. 720b: “[W]ile permitting the monopolist to charge its profit-maximizing price encourages new competition, forcing it to price at a judicially administered ‘competitive’ level would discourage entry and thus prolong the period of such pricing.” This argumentation is also adopted by U.S. case law. See, e.g., Berkey Photo, Inc., v. Eastman Kodak Co., 603 F.2d 263, 294 (2nd Cir., 1979) (“Indeed, although a monopolist may be expected to charge a somewhat higher price than would prevail in a competitive market, there is probably no better way for it to guarantee that its dominance will be challenged than by greedily extracting the highest price it can.”) See also Korah, supra note 4 at 113 (“The cost price approach ignores the function of pricing as a signal encouraging new entrants. If prices and profits are high, new firms may be attracted into the market over, at least, modest entry barriers.”); Whish, supra note 4 at 688-689 (“if normal market forces have their way, the fact that a monopolist is able to earn large profits should inevitably, in the absence of barriers to entry, attract new entrants to the market. In this case the extraction of monopoly profits will be self-deterring in the long run and can act as an important economic indicator to potential entrants to enter the market. If one accepts this view of the way that markets operate, one should accept with equanimity periods during which a firm earns monopoly profit: the market will in due course correct itself, and intervention by the competition authorities will have the effect of undesirably distorting this process.”); O&P, supra note 3 at page 626 (“… [W]hen entry is possible, any supra-competitive rents resulting from excessively high prices will be competed away by new entrants undercutting the incumbent. That is,
that, due to the prospects of new entry, dominant firms are expected to refrain from pricing excessively anyway, in order to deter entry.

The second ground is that a prohibition of excessive prices is difficult to implement in practice, due to the difficulty in measuring what an excessive price is.\textsuperscript{6} A related objection is a conceptual one: Antitrust laws intended to bring about lower prices excessive pricing will often be corrected by market forces and, therefore, will be short-lived and relatively harmless.” (see also id. at 636); M&D, supra note 2 at p. 15 (“exploitative practices are self-correcting because excessive prices will attract new entrants.”); Report by the Economic Advisory Group on Competition Policy, “An Economic Approach to Article 82,” July 2005, p. 11 (“… Such a policy intervention [against monopolistic pricing] drastically reduces, and may even forego the chance to protect consumers in the future by competition rather than policy intervention.”); For similar reasoning by the EU Commission, See The XXIV Report on Competition Policy (1994), point 77. Philip Lowe, Director General DG Competition ‘How different is EU anti-trust? A route map for advisors – An overview of EU competition law and policy on commercial practices’ [Speech] ABA 2003 Fall Meeting (Available online): (“we should continue to prosecute such practices where the abuse is not self correcting, namely in cases where entry barriers are high or even insuperable.”); The Office of Fair Trading Guidelines on Assessment of Individual Agreements and Conduct, OFT 414 para 2.13. (“The Director General will be mindful of the need not to interfere in natural market mechanisms where high prices will encourage new entry … and thereby increase competition. In such markets, excessive prices will be regarded as an abuse only where it is clear that high profits will not stimulate successful new entry within a reasonable period.”); See also Napp Pharmaceutical Holdings Ltd: “The Director considers that a price is excessive and an abuse … where it is clear that high profits will not stimulate successful new entry within a reasonable period.’ Decision of the Director General OFT CA98/2/2001 Napp Pharmaceutical Holdings Ltd.

\textsuperscript{6} See, e.g., O&P, supra note 3 at p. 627; See also R Whish, Competition Law (4\textsuperscript{th} edn., London, Butterworths, 2001) pp. 634-35.
and better products via the “invisible hand” of the competitive process and not to engage in price regulation, which is a task better suited for specific regulators of problematic markets, in which competition does not “work.”

The third ground is that the prohibition of excessive pricing might chill down firms’ incentive to innovate or invest ex ante.

The aim of this paper is to show that the case against the prohibition of excessive pricing is nevertheless far from being clear-cut, for reasons ignored by the current literature and case law. In particular, there are important considerations left out in the three above-mentioned grounds against the prohibition of excessive pricing. Then we show how the prohibition of excessive pricing could be particularly important in the case of an intermediate good priced excessively. We then continue to show how a prohibition of excessive pricing could be applied, in certain cases, even under current U.S. antitrust rules, by identifying significant post-entry price cuts as inter-temporal price discrimination and attacking them, in appropriate cases, under the Robinson Patman Act.

The rest of the paper is organized as follows.

In section 2, we show how, contrary to the conventional view portrayed above, the prohibition of excessive pricing may encourage, rather than discourage, entry. We also show how, contrary to the conventional view in the literature and case law about

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7 See, e.g., Berkey Photo, Inc v Eastman Kodak Co 603 F.2d 263, 294 (2d Cir. 1979) (“Judicial oversight of pricing policies would place the courts in a role akin to that of a public regulatory commission.”)


9 See the literature and case law cited supra note 5.
excessive pricing, excessive prices do not really attract new entry, and therefore are not self-correcting.

In section 3, we deal with the claim according to which the prohibition of excessive pricing is difficult to enforce, and turns antitrust courts and agencies into price regulators. Here we show that the prohibition of predatory pricing, which is still an integral part of antitrust doctrine both in the U.S and in the EU, is more difficult to enforce than the prohibition of excessive pricing. Furthermore, we show that short of giving up on the prohibition of excessive pricing altogether, antitrust could focus on particular cases, such as significant post-entry price-cuts, in which the prohibition is much easier to enforce.

In section 4, we propose a conceptual way to cope with the concern that the regulation of excessive prices will harm ex ante investment incentives. We show that this concern is relevant only for cases in which natural entry barriers are high.

In section 5, we show that the prohibition of excessive pricing could be particularly important when the excessive price is that of an intermediate good, and we show why fixed payments flowing to and from the buyer of the intermediate good should be excluded from the analysis of such excessive pricing.

Finally, in section 6, we show how certain cases of excessive pricing in the US could be dealt with as inter-temporal price discrimination under the Robinson Patman Act.
2. Excessive Pricing and Entry

The argument related to the relationship between entry and excessive pricing can be divided into three sub-arguments. First, that excessive price attracts new entry, and therefore should be feared less. Second, that due to the prospects of new entry into the market, dominant firms are less likely to engage in excessive pricing, because they do not wish to attract entry. Third, that entry into the market (whether or not attracted by excessive prices) will tend to dissipate excessive prices, so that they will be corrected anyway via entry, with no need for legal intervention. We shall explore these arguments in detail below. We will also show that in some instances the prohibition of excessive prices could actually make entry more likely.

a. Do excessive prices attract new entry and do the prospects of new entry prevent excessive pricing?

High prices, in and of themselves, do not necessarily attract new entry. If the entrant fears that post-entry prices will be too low to make entry profitable, given the fixed costs involved in entry, entry will not occur. After all, even if pre-entry prices are excessive, the dominant firm is often expected to react to new entry by severe price cuts. Therefore, it is not necessarily true that excessive pricing invites new entry, and if

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10 See, e.g., Jean Tirole, *The Theory of Industrial Organization* (1988) ch. 9, p. 368, who stresses, on a related point, that “[o]ne possibility is that the price of the established firm has commitment value. That is, the entrants expect the pre-entry price to prevail after entry. However, such a theory is not very convincing. Entry into many markets is a decision that covers a period of many months or years, whereas a price can often be changed within a few days or weeks.”
new entry is indeed deterred by potential entrants’ fear of low post-entry prices, excessive pricing is not expected to be eroded by the incumbent’s fear of new entry.

This is the case even where natural or legal entry barriers other than the fear of low post-entry prices seem to be low. The ultimate entry barrier in such cases is merely the fear of low post-entry prices. This entry barrier is particularly acute if the entrant perceives the incumbent to be more efficient or attractive to consumers than the potential entrant is (which is often the case, due to the advantages of incumbency; experience, economies of scale, brand recognition, consumer loyalty, and so forth).

Accordingly, if a potential entrant has sufficient information regarding the incumbent’s advantages, and particularly the incumbent’s marginal costs\(^{11}\) (or at least regarding the relation between the incumbent’s marginal costs and the entrant’s marginal costs) and the entrant perceives the incumbent to be more efficient than it is, it is unlikely to enter, even if the incumbent is pricing excessively. Conversely, if a potential entrant perceives the incumbent to be less efficient than it is, it is likely to enter (absent other entry barriers), but, again, not because of excessive pricing. Such an entrant would have entered regardless of the level of pre-entry prices. For that reason, when entrants have sufficient information about the relative efficiency (or advantages) of incumbents, it is the expected post-entry price and not the pre-entry price that affects the entrant’s decision whether to enter.

\(^{11}\) A firm’s marginal cost is its cost of supplying an additional unit.
As documented by the game-theoretic literature, at times, high prices may, in certain equilibria, invite new entry if they can credibly signal to uninformed new entrants that the dominant firm is inefficient. But as shall be explained in section (c) below, non-regulation of excessive prices could lessen the signaling virtue of pre-entry prices. In a nutshell, for a credible signal to be sent to uninformed potential entrants, it is not necessary that prices be excessive. All that is needed is that an inefficient incumbent charges a higher price than an efficient incumbent. This could also occur when excessive pricing is prohibited, as long as an inefficient incumbent is allowed to charge a higher price than an efficient incumbent. Accordingly, even when the signaling virtue of pre-entry prices is taken into account, it cannot be said that excessive prices will necessarily invite entry. In many instances, it could even be to the contrary; that more entry is expected if excessive pricing is prohibited than if excessive pricing is allowed.

Although the signaling virtue of pre-entry prices when entrants are not informed is rather complex, we believe it is essential to take a close look at this signaling mechanism in order to better understand the above-mentioned claim.

Let us first explain when pre-entry prices can signal to uninformed entrants whether the dominant firm is inefficient, thereby at times attracting entry. Suppose that an incumbent could be either “efficient” (i.e., with low marginal costs) or “inefficient” (i.e., with high marginal costs). Suppose further that an efficient incumbent’s monopoly

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price is $P_e$ and an inefficient incumbent’s monopoly price is $P_{i-e}$. It is well known that the monopoly price of a firm with higher marginal costs is higher than the monopoly price of a firm with lower marginal costs.\textsuperscript{13} That is, $P_e$ is lower than $P_{i-e}$. Suppose excessive pricing is permitted and there is a potential entrant for which entry is profitable if the incumbent is inefficient but unprofitable if the incumbent is efficient. Let us first assume that the entrant is “pessimistic,”; absent additional information or signals about whether the incumbent is efficient or not, it decides not to enter, just as the case would be had the entrant become aware that the incumbent is efficient.\textsuperscript{14} On the other hand, if the entrant becomes aware that the incumbent is inefficient, it does enter. If an efficient incumbent wishes to deter entry, it can set a price lower than its profit-maximizing price in order to signal to the potential entrant that the incumbent is indeed efficient. Such pricing is often

\textsuperscript{13} See, e.g., Tirole, id., at p. 66.

\textsuperscript{14} This pessimism could stem from the entrant placing a high enough probability on the possibility that the incumbent is efficient, and its factoring in of this probability with the costs of entry and expected profits after entry. This is a reasonable assumption when the costs of entry are substantial, so that a mistake on the part of the entrant is too costly, as facing an efficient incumbent would not allow him to recoup these costs of entry. We shall see below that this assumption regarding the entrant’s pessimism is not crucial for our result. It just helps us focus on the main point. Note that “pessimism” and “optimism” here are a function of the entrant’s prior beliefs about profitability of entry. The entrant could update these beliefs if the incumbent signals its efficiency via pre-entry pricing, or keep these beliefs unchanged if the incumbent does not signal its efficiency via pre-entry pricing. Also note that we are not assuming any kind of irrational behavior on the part of potential entrants. When it comes to profit-maximizing firms, we believe this to be a reasonable assumption.
called “limit pricing” – setting a price lower than the monopoly price in order to deter entry. Let us call this lower price $P_{\text{limit}}$.\(^{15}\)

In order for limit pricing to convey accurate information, however, the signal that it conveys must be credible. That is, the inefficient incumbent must not be able to disguise itself as an efficient incumbent by charging the limit price of $P_{\text{limit}}$, thereby trying to “fool” the entrant and deter its entry, despite it being profitable for the entrant to enter. $P_{\text{limit}}$, the limit price, has to be set by an efficient incumbent low enough so as to make such mimicking behavior on the part of an inefficient incumbent unprofitable. If such a limit price exists, then only an efficient incumbent would charge it, and the entrant could understand whether the incumbent is efficient or not by looking at the pre-entry price (this type of equilibrium is called a “separating equilibrium” in the literature). This is a particular case in which the high price of an inefficient incumbent that cannot disguise as an efficient incumbent does invite entry. Such a limit price does not always exist, however, since it might be that an inefficient incumbent does find it profitable to disguise as an efficient incumbent and charge the same limit price an efficient incumbent would be willing to charge.

\(^{15}\) In reality, there could be several potential entrants. The incumbent’s decision whether to signal its efficiency via the pre-entry price hinges on how the incumbent thinks such signaling will affect entrants’ behavior. For example, if the incumbent places a high enough probability on the possibility that most potential entrants are “pessimistic” in the above-mentioned sense (see id.) it will behave in the manner described in the accompanying text and following two paragraphs.
When an inefficient incumbent can mimic an efficient incumbent’s limit price (a type of equilibrium called a “pooling equilibrium” in the literature) entry will not occur in our example, due to the entrant’s fear that the incumbent might be efficient. This is while when an inefficient incumbent cannot mimic an efficient incumbent’s limit price (a “separating equilibrium”), entry will occur when the incumbent is inefficient. Accordingly, high prices (particularly the inefficient incumbent’s monopoly price) invite entry in a separating equilibrium, whereas in a pooling equilibrium, even if prices are well above the competitive level, they do not invite entry.

Even in a separating equilibrium, if the incumbent is efficient, it can charge the limit price, \( P_{\text{limit}} \), which could be well above competitive levels and excessive, and this price will deter entry, as the entrant becomes aware the incumbent is efficient and it fears that post-entry prices will be too low to justify the costs of entry. Hence, even when pre-entry prices have the ability to signal the incumbent’s efficiency, it is not necessarily the case that excessive pricing invites entry, because the type of prices that deter entry could also be “excessive” according to some pre-defined standard.\(^\text{16}\) All that can be said in this particular case is that prices that invite entry are even higher than those that deter it.

Note that we have assumed above that the entrant is “pessimistic,” i.e., that when it does not know whether the incumbent is efficient or not, it refrains from entering, due

\(^{16}\) In this subsection we are abstracting from problems of assessment of excessive price in order to focus on the question whether excessive prices are self-correcting. As noted, we acknowledge that in many cases it could be impossible to verify what an “excessive price” is in a particular circumstance.
to its prior beliefs about the profitability of entry. But the analysis is not substantially different under the opposite assumption, according to which the entrant is “optimistic” i.e., the assumption that that the entrant will enter even when it does not know whether the incumbent is efficient or not. This is because if the entrant is “optimistic,” in this sense, and the inefficient incumbent knows it, the inefficient incumbent understands that the entrant will enter even if the incumbent disguises as an efficient incumbent under a pooling equilibrium. It would therefore be a waste of profits for the inefficient incumbent to disguise in such a manner and it will simply charge its monopoly price, $P_{e}$. Similarly, if the incumbent is efficient, it would charge its own monopoly price, $P_{e}$, since there would be no benefit to charge a limit price: This monopoly price would be enough to credibly signal to the entrant that the incumbent is efficient, and then the entrant would not enter. But note that under this assumption it is not the inefficient incumbent’s excessive price that invites entry – entry occurs whether pre-entry prices are high or low, because the entrant is “optimistic” – (in the sense that if pre-entry prices fail to signal the incumbent’s efficiency, it enters). Recall that the entrant’s optimism here stems from its prior beliefs about the profitability of entry, and not from pre-entry prices. As noted, even if the inefficient incumbent would have disguised itself as an efficient one by charging the limit price, the entrant would not have believed the inefficient incumbent’s signal and would have entered anyway. When the incumbent is efficient, on the other hand, his pre

17 The entrant will be “optimistic” when it places a high enough probability on the possibility that the incumbent is inefficient so that, given the costs of entry and expected profits after entry, the entrant believes entry to be profitable.

18 That is, when an inefficient incumbent places a high probability on the possibility that most potential entrants are “optimistic” in the above-mentioned sense.
entry monopoly price deters entry, but this price is a monopoly price, and therefore could be excessive under some pre-defined standard. ¹⁹

To summarise this rather complex analysis, recall that we are interested in examining the claim that excessive prices invite entry (and are therefore self-correcting). We have seen that in a limited sense, only when potential entrants are not informed about the incumbent’s relative efficiency, and even then, only when a “separating equilibrium” exists, the “very” high price of an inefficient incumbent (who cannot disguise itself as being efficient) attracts entry.

Note however that the somewhat lower limit price of an efficient incumbent, that deters entry by credibly signaling that the incumbent is efficient, may well be excessive too, under some pre-defined standard, only less “excessive” than the pre-entry price of an inefficient incumbent. More importantly, as will be shown in sub-section (c) below, even if excessive pricing were prohibited, pre-entry prices could have equal, or even better, “entry-attracting” signaling value. Pre-entry prices need not be excessive in order for them to attract entry by signaling that the incumbent is inefficient. It is enough that inefficient incumbents charge different pre-entry prices than efficient ones.

¹⁹ See Tirole (n 10 above) at p. 371. If the incumbent is efficient, and it places a high probability on the entrant being “optimistic” it too will charge its monopoly price, Pₑ. This would be enough to signal the entrant that the incumbent is efficient, and deter entry, since, as shown in the text, an inefficient incumbent would charge a higher monopoly price, Pᵢₑ. Needless to say, this entry-deterring monopoly price may well be excessive.
The analysis above also shows that the prospects of new entry will not necessarily induce the dominant incumbent to refrain from excessive pricing. Our discussion revealed two scenarios in which the prospects of new entry induce the incumbent to engage in limit pricing in order to deter entry. Both occur when the new entrant is uninformed about the incumbent’s costs and is pessimistic enough to believe that there is a high enough probability that the incumbent might be efficient. The first occurs under the so-called “separating equilibrium,” provided that the incumbent is efficient relative to new entrants, and the second occurs under the so-called “pooling equilibrium,” in which whether the incumbent is efficient or not, it engages in limit pricing. This limit pricing, however, could constitute pricing well above the competitive level. Accordingly, not only are the circumstances under which limit pricing evolves limited, limit pricing itself does not necessarily mean that prices are not “excessive,” under some pre-defined standard.

It is interesting to note that when potential entrants are uninformed not only about the incumbent’s costs, but also about their own expected costs, at least one study has shown, under certain (admittedly, quite restrictive) assumptions, that excessive pricing by the incumbent could even deter entry. This is because such excessive pricing may signal to such uninformed entrants that the costs of operating in the market are high, thereby making entry less profitable.20

b. Do low entry barriers make the prohibition of excessive pricing necessarily redundant?

The analysis above has shown that in many circumstances excessive prices will not be self-correcting, because they would fail to attract new entry. A different claim against intervention could be that when entry barriers are low, excessive pricing will not last, because entry is expected to occur. That is, it is not that the excessive price attracts entry, but that entry will occur one way or another, and when it does, the dominant firm’s power to price excessively will wane. There is often a valid claim against the prohibition of excessive pricing in cases in which entry barriers are low. It should be stressed, however, that even when there are low entry barriers to a market, excessive pricing by a dominant firm in this market could be dangerous and may call for intervention. As we have seen in sub-section (a) above, an incumbent can deter entry by signaling (either rightfully or deceitfully) that it is efficient by engaging in limit pricing and charging a price below its monopoly price. This in itself acts as an entry barrier; the incumbent’s perceived efficiency relative to the new entrant, making entry unattractive to the entrant.

When no significant entry barriers exist, even the prospects of the dominant incumbent engaging in limit pricing disappear. The incumbent has nothing to lose, because it knows that its pricing behavior will have no effect on entry; entry might occur at any time. Such an incumbent might as well charge monopolistic prices for as long as it can. If it is lucky, such excessive prices and profits could persist for significant periods. Accordingly, if the competition agency shows that a dominant firm in a market with low entry barriers indeed priced excessively for several years, it seems wrong to let such a
dominant firm go without sanctions just because entry barriers are low. As noted, it is precisely these low entry barriers that could have induced the dominant firm to price so excessively, since limit pricing, when entry barriers are low, will not occur. To be sure, low entry barriers into a market do imply that excessive pricing that persisted for only short periods should not attract intervention in this market. Entry may occur shortly in such cases and excessive pricing could be dissipated even before the competition agency manages to bring and prove a case. Our point is that in cases in which the dominant firm’s dominance and pricing nevertheless persisted for long periods, low entry barriers do not justify non-intervention. On the contrary: deterring a dominant firm from pricing excessively for long periods is all the more important in such markets, since limit pricing will not occur.\(^{21}\) It could be claimed that if a dominant firm allegedly engaged in both erecting artificial entry barriers and excessive pricing, it is enough to prosecute it for the former. Note, however, that prosecuting the dominant firm only for erecting artificial entry barriers would not necessarily deter the dominant firm from engaging in these practices, since then it could maintain the excessive profits this practice enabled it to make.

One caveat is in place, however, once we acknowledge that significant post-entry price cuts are a good benchmark for examining an excessive pricing claim. If entry is

\(^{21}\) If indeed excessive pricing by a dominant firm persisted for a long period, and still natural entry barriers into the market are low, perhaps entry did not occur due to artificial barriers and exclusionary practices adopted by the dominant firm. Of course, such exclusionary practices could be attacked as abusive, notwithstanding the possible excessive pricing claim.
expected, although the incumbent charges monopoly prices before entry, at least it is
induced to price competitively after entry. If significant post-entry price cuts can support
a claim against the incumbent that it priced excessively before entry, it would be less
inclined to cut prices after entry. This is because such price cuts would help reveal the
fact that its prices were excessive before entry. Moreover, if the entrant knows this, it too
will charge relatively high prices, because it knows that the incumbent’s incentives to
engage in price wars are undermined.

This caveat need not be taken too far, however. This is because if entry barriers
into a market are low, there is no reason to assume that only one entrant will enter. If two
or more entrants enter the market, competition among the new entrants will drive prices
down to competitive levels, despite the incumbent’s reluctance to cut prices. In order to
be on the safe side, a competition agency could invoke such a post-entry price cut
benchmark only in cases in which more than one viable entrant entered the market.
Moreover, even if entry of only one entrant is expected, note that in order for post entry
price cuts by the incumbent to trigger an excessive pricing claim, the price cuts need to
be substantial enough, under some standard chosen by the competition agency.
Otherwise, the difference between pre and post entry prices will not be large enough to
justify a claim that prices before entry were excessive. This means that consumers might
enjoy relatively low post-entry prices even when only one entrant enters the market.22

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22 Suppose, for example, that the competition agency holds that a post-entry price cut of
“k” can trigger a claim according to which pre-entry prices were excessive by k. The
larger this “k” is set, the lower post entry prices are expected to be, even where only one
entrant exists, since the incumbent could cut prices by almost k, without triggering an
c. **Why the prohibition of excessive pricing might make entry more likely, and why it is not a good idea to require inefficient incumbents to price like efficient incumbents**

In sub-section (a) above we have seen how pre-entry prices could sometimes signal to uninformed entrants whether the incumbent is efficient. The analysis there examined the signaling virtue of pre-entry pricing assuming there is no prohibition of excessive pricing and that the incumbent can charge as high a price as it likes. One might claim that, in this subtle sense, it is a bad idea to prohibit excessive pricing, because when excessive pricing is allowed, substantially excessive pre-entry prices could at least sometimes signal that the incumbent is inefficient, thereby attracting entry. However, such a claim ignores the fact that even when excessive prices are prohibited (but still inefficient incumbents are allowed to charge higher prices than efficient incumbents) pre entry prices could have equal, or even better, signaling value. For signaling to take place, prices need not be excessive. All that is needed is that inefficient incumbents charge higher pre-entry prices than efficient incumbents.

It could be argued that if a potential entrant does not know the costs of the incumbent, how can the competition agency know them in order to determine whether prices are excessive or not. There could be two responses to such an argument. First, the competition agency is able to obtain information from the incumbent during its excessive pricing claim based on pre-entry prices. To be sure, absent other ways to show that pricing is excessive, a larger “k” would also mean that higher pre-entry prices will remain unchallenged.
investigation, whereas the potential entrant cannot access this information. Second, the problems of assessment may partly be alleviated, in a particular case, via the post-entry price cut benchmark we discussed above. That is, pre entry prices are deemed excessive when the incumbent cuts prices after entry by an amount exceeding a certain pre-defined threshold. The incumbent’s pre-entry excessive pricing is revealed only after entry, due to the incumbent’s significant post-entry price cuts.

To illustrate why the signaling value of pre entry prices could be equally large when excessive pricing is prohibited, let us turn to the case where excessive pricing is prohibited, so that the incumbent can charge no more than its marginal costs plus a “competitive” margin, k.\(^{23}\) What does such a prohibition do to the signaling virtue of pre-entry prices? Will an inefficient incumbent more often mimic the pre-entry price of an efficient incumbent, thereby keeping the entrant in the dark about the incumbent’s costs and possibly deterring entry, or will it more often stick to the higher pre-entry price it is allowed to charge, thereby inviting more entry by signaling to the entrant that it is inefficient? The answer depends on the particular circumstances of each case.

Suppose, for example, that an efficient incumbent’s marginal costs are \(C_e\) and an inefficient incumbent’s marginal costs are \(C_{i-e}\). Accordingly, under the prohibition of

\(^{23}\) Note that this type of prohibition of excessive pricing does not demand of an inefficient incumbent to charge a “competitive” price that an efficient incumbent would charge. Later on, we will also analyze the case in which prohibition of excessive pricing means that an inefficient incumbent must charge a price as low as a competitive efficient incumbent would charge.
excessive pricing assumed above, an efficient incumbent is allowed to charge $C_e+k$ and an inefficient incumbent is allowed to charge $C_i-e+k$. If the cost advantage of an efficient incumbent over an inefficient incumbent is greater than $k$ (the “competitive” profit margin the court will allow), an inefficient incumbent cannot mimic the price of an efficient incumbent (unless it is prepared to suffer substantial losses), because then it would have to price below its own marginal costs. In such a case, clearly, there will be no mimicking behavior by inefficient incumbents. Accordingly, there will be more entry under the prohibition of excessive prices than absent such a prohibition, because pre-entry prices will credibly signal the incumbent’s costs to the entrant.

On the other hand, if the cost advantage of an efficient incumbent over an inefficient incumbent is not greater than $k$, then there are two opposite effects on the willingness of an inefficient incumbent to mimic an efficient incumbent’s price. The inefficient incumbent’s decision whether to mimic an efficient incumbent’s price depends

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24 As noted earlier, we abstract here from problems of assessing these issues in order to focus on the question whether under non-prohibition of excessive pricing entry inducing signaling is better than under the prohibition of excessive pricing.

25 Even if the inefficient incumbent is willing to suffer such losses by pricing below its marginal costs, it would then be likely to be prosecuted for predatory pricing.

26 Note that if uninformed entrants place such a high probability on the incumbent being inefficient that they enter even when an inefficient incumbent mimics the pricing of an efficient one, there would be entry whether or not excessive pricing is prohibited. Hence, this case does not affect the comparison between the two regimes described in the text. The comparison is meaningful under the opposite assumption, according to which an uninformed entrant faced with such mimicking is pessimistic about the incumbent’s costs and decides not to enter.
on the sum of its pre entry and post entry profits when doing this. When excessive prices are prohibited, and a mimicking inefficient incumbent charges $C_e+k$ instead of $C_{i-e}+k$, it sacrifices less profits from mimicking than when excessive pricing is allowed. This is because when excessive pricing is allowed mimicking involves charging an efficient incumbent limit price instead of an inefficient incumbent’s monopoly price, which can be shown to involve a larger sacrifice of profits. In this sense, it is more profitable for the inefficient incumbent to mimic the price of an efficient incumbent when excessive pricing is prohibited. But on the other hand, when excessive pricing is prohibited, deterring entry is less profitable for the inefficient incumbent, since even when entry is deterred, the incumbent’s profits per unit which are limited to $k$. In this sense, when excessive pricing is prohibited, it is less profitable for the inefficient incumbent to mimic the price of an efficient incumbent. Accordingly the effect of prohibiting excessive prices on the signaling virtue of pre-entry prices is ambiguous. That is, thanks to the signaling virtue of pre-entry prices, there could be more signaling, and more entry, under the prohibition of excessive prices than under non-prohibition of excessive prices.

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27 We have assumed here, for simplicity, that the allowable profit margin is low enough so that in order to mimic an efficient incumbent’s pre-entry price, an inefficient incumbent simply charges the price an efficient incumbent is allowed to charge ($C_e+k$). Had $k$ been larger, an efficient incumbent could have engaged in limit pricing, charging less than $C_e+k$, in order to try and credibly reveal that it is efficient. This assumption does not affect the conclusions. See sub-section (a) above for more on the theory of limit pricing.

28 For the definition of the efficient incumbent’s limit price see sub-section (a) above.
The discussion above exposes an interesting policy implication. There is an important downside to “punishing” an inefficient dominant firm by requiring it to charge the competitive price of an efficient dominant firm. Some courts have ruled pricing by a dominant firm to be excessive even when the dominant firm’s price was only modestly above the dominant firm’s costs, but excessively above an efficient firm’s costs. The preceding analysis provides a policy reason to object to such a rule. This is because if an inefficient incumbent is forced to charge the competitive price of an efficient incumbent, the signaling virtue of pre-entry prices disappears and entry is deterred more often. Such a legal rule actually forces an inefficient incumbent to create a “pooling equilibrium” and mimic the pricing of an efficient incumbent. Without such a legal rule, the inefficient incumbent might have preferred to charge the higher price suitable to its higher costs, thereby signaling to potential entrants that it is inefficient and that entry could be profitable. This policy reason to object to the “efficient dominant firm” rule can be added to the extreme difficulty in the implementation of such a rule, demanding from the court or competition authority the ability to verify what the “competitive price” of a hypothetical efficient dominant firm actually is.


30 To illustrate the difficulty of implementing such a rule, note that the dominant firm is naturally engaged in high levels of production. Accordingly, the “efficient firm” benchmark should be calculated only according to an “efficient” firm with production levels as high as the dominant firm, since even an efficient firm might, in many
Finally, prohibition of excessive pricing can encourage entry in another way. Suppose that a leading benchmark for showing that the incumbent’s pre-entry prices were excessive is to show that there is an excessive difference between the incumbent’s pre-entry prices and its post-entry prices. That is, if an incumbent significantly cuts prices after entry has occurred, it faces a great risk of being prosecuted for pricing excessively before entry. This would discourage such an incumbent from aggressively cutting price after entry, and, accordingly, encourage new entry. That is, potential entrants would be less hesitant to enter under this regime, because they are less concerned about post-entry price cuts.  

31 Interestingly, in the US, Aaron Edlin proposed to ban severe post-entry price-cuts as predatory pricing, and he points out that one of the benefits of such a ban is that there will be more entry. See Aaron S. Edlin, Stopping Above-Cost Predatory Pricing, 111 Yale L.J. 941, 947 (2002). See also Einer Elhauge, Why Above-Cost Price Cuts To Drive Out Entrants Are Not Predatory—and the Implications for Defining Costs and Market Power, 112 Yale L. J. 681 (2003), for a critique of Edlin’s proposal. We show in the text that a similarly attractive outcome would result from prosecuting not the post-entry price cuts, but the pre-entry excessive price, which is revealed via the post-entry price cuts. We elaborate further on this issue in the text accompanying notes Error! Bookmark not defined.-Error! Bookmark not defined.
3. Difficulty of Assessment

It is true that the prohibition of excessive pricing, in a sense, turns competition agencies and courts into “price regulators”. However, the prohibition of excessive pricing has one important virtue over ongoing price regulation as it exists currently, for example, in certain public-utility markets. Such “ex ante” price regulation requires regulators to always expend the administrative costs of calculating what the correct price is. The ex post prohibition of excessive pricing, on the other hand, only requires competition agencies and courts to be prepared to expend these administrative costs if and when claims of excessive pricing are brought. If the prohibition deters dominant firms from pricing excessively, these costs need not actually be incurred.

It should be stressed that the prohibition of excessive pricing is not the only rule in competition law that turns courts and competition authorities into “price regulators” that need to determine what the “appropriate” price should be. Another such rule in competition law is the rule against predatory pricing. Whereas a ban on excessive pricing condemns a dominant firm’s price for being too high, a ban on predatory pricing condemns a dominant firm’s price for being too low.

According to current doctrine in the EU, the low prices of a dominant firm can be condemned as predatory if they are below Average Variable Costs (AVC). When prices are above AVC but below Average Total Costs (ATC) the conduct may be held abusive
when the undertaking intended to eliminate a competitor.\textsuperscript{32} In the U.S., predation is proved when the defendant’s price is below “an appropriate measure of cost” and it has a dangerous probability of recouping the losses it suffered during the predatory period in a later period.\textsuperscript{33} A host of difficulties can be identified in the measuring of costs in predation cases.\textsuperscript{34} These are notable when dealing with industries such as software industries or network markets, where variable costs are low.\textsuperscript{35} They also become apparent when attempting to determine costs born by multi-service or multi-product firms,\textsuperscript{36} or by applying different accounting methods to measure costs.\textsuperscript{37} The complexity of analysis is


\textsuperscript{34} As Philip Areeda & Donald F. Turner, Predatory Pricing and Related Practices Under Section 2 of the Sherman Act, 88 Harv. L. Rev. 697, 699-700 (1975) note, calculation of the correct measure of “cost” in order to inquire whether prices were predatory is notoriously difficult in application. See also Joseph F. Brodley, Proof of Efficiencies in Mergers and Joint Ventures, 64 Antitrust L.J. 575, 609 n.98 (1996); 3 Philip Areeda & Herbert Hovenkamp, Antitrust Law P 715.2a (Supp. 1995)), Edlin, (n 31 above) at note 87.

\textsuperscript{35} A practical example of the difficulty in establishing a viable benchmark for predation analysis may be found in the European Commission decision in Wanadoo Interactive COMP/38.233 Wanadoo Interactive; Upheld by the Court of First Instance in Case T-340/03 (January 2007).

\textsuperscript{36} See for example Napp Pharmaceuticals (2002) CompAR 13; also see generally O'Donoghue and Padilla (n 3 above) p. 615.

\textsuperscript{37} See Wanadoo Interactive, (n 35 above).
even greater in the US, where the determination of a predatory pricing claim requires assessment of recoupment.\textsuperscript{38}

These difficulties in measuring costs are not substantially different from those faced by the competition authority when measuring cost in excessive pricing cases. Arguably, since competition enforcers do not hesitate to consider complex cost structures in predation cases, an argument that difficulties of assessment are prohibitive in excessive pricing cases could lose at least some of its standing.

Still, the main difference between predatory and excessive pricing is that in excessive pricing analysis, the court or competition authority are required to move beyond the measurement of cost and determine the competitive price and whether the margin between this price and the price charged by the dominant undertaking is excessive. The unique difficulty in assessing excessive pricing is therefore attributed to the determination of excessiveness, rather than the assessment of cost. This determination is indeed challenging, not the least because, as we mention in section IV.III. below, the permissible degree of excessiveness could depend on whether the price-cost margin is justified by the need to stimulate valuable \textit{ex-ante} investment in a particular case.

\textsuperscript{38} Interestingly, a ban on excessive pricing would also reduce the threat of predatory pricing and other exclusionary practices to begin with. This is because there will be less fruits the dominant firm could gain from predatory pricing or from other exclusionary practices, as even if its competitors are excluded, and its dominance enhanced, it would not be allowed to use its market power to price excessively.
However, an array of possible benchmarks for assessing costs and excessiveness has been used by courts and competition agencies and has been evaluated in the literature. Such benchmarks could help alleviate difficulties in assessment in appropriate cases. Arguably, the larger the number of reliable benchmarks used, the better the competition authority or court could be in verifying whether an excessive pricing claim is correct.

One should not underestimate the complexity of adjudicating an excessive pricing claim. Yet it is questionable whether such complexity justifies a per-se exemption of excessive pricing. We would argue not. Such complexity should encourage a careful approach, allowing for a wide margin of profit before triggering intervention. It also justifies intervention only when reliable and tractable benchmarks are available.

It is arguable that difficulties in assessment may affect the choice of forum for reviewing excessive pricing claims. Recently, the English Court of Appeals questioned

39 See for example: General Motors v Commission (n 11 above); United Brands v Commission (n 11 above); British Post office v. Deutche Post AG (n 11 above); Case 30/87 Bodson v. Pompes Funebres [1988] ECR 2479; Napp Pharmaceuticals (n 1 above); See also the UK guidelines in OFT 414 a; Martin Graham, Anthony Steele, The Assessment of Profitability by Competition Authorities [1997] OFT research paper No. 10; Also note the Notice on the Application of the Competition Rules to Access Agreements in the Telecommunications Sector, OJ [1998] C265/2.

40 But note the argument by David S Evans and A Jorge Padilla that the use of several ambiguous tests even when mutually consistent is not more credible than the answer to one ambiguous test.
whether a private action involving claims of excessive pricing, which required the court to venture into complex economic analysis, may be more suitable for a specialist body equipped with the appropriate expertise and flexible powers. 41 That may indeed be the case. The complexity and costs of arguing an excessive pricing case could significantly reduce the ability and incentive of private claimants to pursue such claims.42 At the same time, the risk of populist decisions or inadequate out-of-court settlements may create over-deterrence of dominant firms. The more adequate forum may well be the public enforcer. It has the specialist expertise and capabilities to engage in the analysis and protect consumers in appropriate cases while considering the risk of over deterrence.

With respect to the benchmarks which may help alleviate difficulties in assessment of excessiveness, one potential benchmark that is particularly interesting is that of significant post-entry price cuts by the dominant firm. This benchmark is a useful conceptual tool which is free from severe problems of implementation.

According to this benchmark when a dominant firm significantly cuts its prices upon new entry into its market, it could be found to have priced excessively if the difference between the dominant firm’s pre-entry prices and post-entry prices exceeds

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41 Interesting in this respect is the England and Wales Court of Appeal decision in At the Races Limited v The British Horse Racing Limits and others Case: A3/2006/0126, 2007 EWCA Civ 38. (paragraphs 204-218)
some threshold, defined by the competition authority or court, the low post-entry prices persisted for a considerable period of time and the company could not objectively justify its pricing strategy. The reason we find this benchmark particularly interesting is that it seems that the dominant firm has relatively few excuses for significant post-entry price cuts other than pricing excessively before entry. It seems to be quite a coincidence that the same firm charges significantly different prices in the same market, where the sudden change in its pricing behavior occurred only after entry into its market. To be sure explanations for such behavior could exist in certain cases, but they could be claimed to be relatively rare.

One institutional reason to think that a competition agency might be less inclined to use this benchmark is that a competition agency may be more inclined to use its limited resources to attack dominant firms who are causing harm in the present, rather than in the past. The post-entry price cut benchmark is one where in the present the dominant firm is pricing competitively, after entry occurred. It seems more likely that this benchmark be used in jurisdictions that favor private class actions against dominant firms. Following a significant post entry price cut, a class action could be brought against the dominant firm on account of the excessive pricing in the years before entry. Nevertheless, we believe the use of this benchmark is important, for the sake of deterring dominant firms from pricing excessively in the first place.

43 For example, an excessive price difference could be justified by proof of a sudden drop in the dominant firm’s costs that for some reason occurred at the same time entry occurred.
As noted, using a post-entry price-cut benchmark for showing that pre-entry prices are excessive resembles Aaron Edlin’s proposal to condemn significant post entry price cuts as predatory pricing. Attacking the incumbent’s behavior on account of the pre-entry “excessive” price rather than the post-entry “predatory” price has several advantages, however. First, in Edlin’s proposal, the court needs to establish that the new entrant entered with a large enough capacity, in order to make sure that consumers enjoy the fruits of entry after it occurred. On the other hand, when the pre-entry price is attacked as excessive, such a determination is not required. It suffices that the incumbent was induced to significantly cut prices after entry in order to infer that it priced excessively before entry. Here the competition law claim focuses on the harm to consumer welfare before entry occurred.

Second, in Edlin’s proposal, the damages to be calculated in the suit are those of the entrant, harmed by post-entry price cuts. Such damages stem from lost sales. But the hypothetical lost sales of a new entrant could be difficult to assess. On the other hand, when the pre-entry price is attacked as excessive, the calculation of damages is more straightforward: damages equal the difference between the incumbent’s pre and post entry prices, multiplied by the number of units it sold under the pre-entry price.

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44 n 31 above.
45 Id.
46 Id at p. 967.
47 Admittedly, such a measure of damages is understated, in the sense that it does not grasp the harm to consumers who, due to the excessive price, refrained from buying the product.
Moreover, such damages seem to better reflect the social harm caused by the dominant firm’s behavior.

The virtues of application of an excessive pricing rule via proof of significant post-entry price cuts are similar to the virtues of Edlin’s proposal. First, the dominant firm will be deterred from pricing excessively in the first place. This is because it knows that if it does, it exposes itself to more entry. It exposes itself to more entry because entrants will know that it will be costly for the dominant firm to significantly price-cut after entry, since such price cuts expose the dominant firm to excessive pricing claims on account of the prices it charged before entry. In other words, such an excessive pricing claim induces the dominant firm to engage in “limit pricing”. If post entry profits and market share are attractive enough to the dominant firm, it will limit its pre-entry price, so that even if entry occurs, the dominant firm would not be deterred from price-cutting. Such post-entry price-cutting will not trigger an excessive pricing claim, because the difference between pre-entry prices and post entry prices would be too modest to be considered excessive.

The second virtue of an excessive pricing claim based on significant post entry price cuts is that if the dominant firm is tempted to charge high prices before entry, this, combined with the threat of an excessive pricing claim, could invite new entry, since the entrant knows that there is a constraint on the dominant firm’s ability to significantly cut prices after entry without triggering such a claim. Several potential entrants would not have entered the market absent such a prohibition of excessive pricing (e.g., because they
currently conceive the incumbent to be more efficient than they are), but they are induced
to enter thanks to the prohibition. To be sure, using a post-entry price cut benchmark to
reveal excessive pre-entry pricing also share’s some of the disadvantages of Edlin’s
proposal. First, if the incumbent hesitates to significantly cut prices after entry, post-entry
prices may be higher than without the prohibition: The incumbent would refrain from
significantly cutting prices so as not to expose itself to the claim that it priced excessively
before entry, and the entrant, for its part, would charge higher prices than absent the
prohibition, since it knows that the incumbent will refrain from significantly cutting
prices.\footnote{\label{foot:edlin}It should be also noted that under Edlin’s proposal, the incumbent could cut prices
later, once the new entrant becomes viable or has a large enough market share, so that in
this framework this particular disadvantage of high post-entry pricing is temporary. In
our framework, even if the incumbent cuts prices after the entrant becomes viable, this
exposes the incumbent’s excessive pre-entry prices, so that the incumbent might hesitate
to cut prices even in later periods. Hence this particular disadvantage is not temporary in
our framework.} As noted earlier, however, such a concern could be alleviated. In particular, if
more than one entrant enters the market, competition between the new entrants would
drive prices down, notwithstanding the incumbent’s reluctance to cut prices. Moreover,
the competition agency could define the appropriate size of the post-entry price cut that
triggers intervention (e.g., “k”) as high. The higher k is, the more the incumbent is
expected to lower prices after entry, since it could lower prices by slightly below k
without triggering intervention.\footnote{\label{foot:k}Note, however, that the larger “k” is (the permissible size of the post entry price cut)
the higher pre-entry prices could be without triggering intervention via this particular
benchmark.}
A second disadvantage of the post-entry price cut benchmark is that, although the use of this benchmark could attract entry, the entrants may be inefficient ones. Absent the prohibition of excessive pricing, implemented via the post-entry price cut benchmark, inefficient entrants would not have entered, out of the fear of low post-entry prices that do not allow them to make profits sufficient to recoup their costs of entry. However, at least from a consumer welfare point of view, competitive pricing, even with inefficient entrants, may be better than excessive pricing by an efficient incumbent. Moreover, new entrants attracted by the post-entry price cut benchmark may be inefficient at the outset, but become more efficient later on, as they gain experience and scale of production.

4. Chilling Effect on Investment

One of the major concerns regarding the prohibition of excessive pricing is that it will harm \textit{ex-ante} investment incentives. Such a concern either supports a “hands off” approach in cases in which the court or competition authority hold that prohibiting high profits would harm important \textit{ex-ante} investment incentives,\textsuperscript{50} or, at least justifies raising the level of prices that would be deemed excessive in such cases.\textsuperscript{51}

This concern is no doubt a valid one. We wish to stress, however, that it arises only in markets in which competition as envisioned by the competition laws fails to

\textsuperscript{50} See, e.g., M Motta and A de Streel (n 2 above) p. 16, who argue that when such investment considerations exist there should be no intervention against excessive pricing.

provide the desirable outcome. These are markets in which, had the dominant firm faced healthy competition enabling it to earn only competitive profits, it would not be induced to engage in presumably valuable investment. In such markets, regulation limiting entry of new competitors and expansion of small competitors could be welfare enhancing, as new entry of viable competitors or expansion of small competitors would erode the dominant firm’s supra competitive profits and again harm its *ex-ante* investment incentives.

These points could also imply how a court or competition authority should approach a dominant firm’s claim that its supra-competitive price is essential in order to stimulate welfare enhancing *ex-ante* investment. In particular, it must be the case that in the industry in question, the prospects of erosion of the dominant firm’s market power in the foreseeable future (particularly due to new entry or expansion of smaller firms) are small. Otherwise, the relatively high prospects of the dominant firm’s market power being eroded eliminate the dominant firm’s investment incentives anyway, because it cannot count on earning supra-competitive profits for a significant period. Such a dominant firm’s claim that its supra-competitive price is justified by *ex-ante* investment considerations would not be credible, because even if the supra-competitive price had been permitted by law, competition may well have eliminated it anyway.

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52 As M Motta and A de Streel (n 2 above, page 17) put it, in such cases competition is “for the market” rather than “in the market”. The claim in the text is that cases in which it is efficient not to have competition “in the market” are not the ideal cases envisioned by competition laws, which strive for healthy competition for and in the market.
Accordingly, a dominant firm may try to claim that its high prices are justified by *ex-ante* investment considerations only when entry barriers into its market are high. This is an interesting implication, as it stands in contrast to the general belief according to which high entry barriers should *strengthen* a case against excessive pricing. In the special case in which a dominant firm pleads the “*ex-ante* investment” justification, the opposite is true: absent high entry barriers, it could not have such a claim, as the prospects of new entry eliminate incentives to make ex ante investments anyway.

The rationale for a lenient approach toward dominant firms that are exposed to new entry is allegedly that the prospects of new entry can deter or erode excessive prices. But as we have shown in section IV.I(a) above, excessive prices, in and of themselves, do not always attract new entry nor do the prospects of new entry necessarily deter a dominant firm from pricing excessively. In fact, the contrary is often true. The dominant firms most prone to pricing excessively are those who face high prospects of new competition and are so inefficient that they are unable to disguise themselves as efficient incumbents by engaging in limit pricing. As shown in section IV.I(b) above, such firms have nothing to lose. Since they know they cannot deter new entry by lowering their price, they engage in excessive pricing to make the best of their dominance while it lasts. As we show in the current section, such firms are not only particularly prone to excessive pricing (and therefore should be deterred by law from engaging in it for long periods), but also

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53 The firm's dominance may have persisted thanks to artificial barriers it erected via exclusionary practices. Since such practices are generally forbidden, again, that dominant firm could not have counted on persistence of such practices when investing.
should be barred from pleading that their excessive pricing is justified by *ex-ante* investment considerations.\(^{54}\)

5. **Excessive pricing of intermediate goods.**

A special virtue of prohibiting excessive pricing arises when the dominant firm sells an intermediate good or service, purchased by other firms, who either resell the good or use it as an input in their business. When the marginal price, that is, the price per unit, the dominant firm charges for the intermediate good, is excessive, and, consequently, the marginal costs of its customers rise, they are compelled to raise the price they charge their customers. This ends up harming consumers at the end of the distribution chain.

Moreover, the dominant firm selling an intermediate good can use an excessive marginal price in order to soften competition among its customers. To illustrate, suppose the dominant firm is a supplier of a good selling to two retailers who in turn resell the good to end consumers. Suppose the retailers compete with each other over these end consumers. Even absent any kind of vertical restraint that eliminates or softens competition between the retailers, the supplier can compel them to charge a supra-competitive price from end consumers by raising the marginal price he charges them for the good. If the supplier has market power, he can raise the marginal price all the way up

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\(^{54}\) To be sure, the higher the probability that the firm’s dominance will be eroded in the near future, the higher its prices have to be in order to stimulate its *ex-ante* investment. As we know, however, in many markets, a dominant firm has an upper limit on its ability to raise prices, even when allowed to do so, because then too many consumers would stop buying the product. This is why if there is a high probability that the firm’s dominance will be eroded in the near future, its *ex-ante* investment claim seems dubious.
to the price maximizing the supplier’s profits. Although the retailers virtually compete with each other, they are competing with their hands tied behind their backs. Hence, prohibition of excessive pricing of an intermediate good might be necessary in order to give competition between the retailers a significant pro-consumer bite.

At times, the retailers themselves (and not only end consumers) suffer from the excessive marginal price of the intermediate good. In some occasions, however, retailers do not suffer from the excessive marginal price, since they are compensated via fixed payments they receive from the supplier. In particular, absent information problems and imperfections in the retailer-supplier contract, the supplier and retailers could maximize their joint profits notwithstanding “competition” between the retailers. To illustrate, suppose a monopolistic supplier sells to two competing retailers. The retail price that maximizes their joint profits is the retail price that a monopolistic supplier who resells the product to end consumers himself would charge (“the monopoly retail price”). The monopolistic supplier could use an excessive wholesale price to induce the retailers to charge end consumers a price as close as possible to the monopoly retail price.\footnote{The retail price in such a case might actually be higher than the monopoly retail price because of double marginalization, which will be discussed shortly.} Retailers could share the supplier’s monopolistic profits via fixed bonuses (that are independent of
the number of units sold) that the supplier could pay them.\textsuperscript{56} Since these fixed bonuses are not a function of the number of units retailers sell, they do not affect the retail price.\textsuperscript{57}

The foregoing analysis presents an important guideline for assessing an excessive pricing claim in the case of an intermediate good. Fixed payments flowing to or from the buyer should not matter. What needs to be excessive in order to bring such a claim is the marginal price. For example, as we have seen above, a monopolistic supplier can compel retailers to charge the monopoly retail price notwithstanding competition between them, by inflating the wholesale price. This monopoly price harms end consumers. It harms them equally when the supplier “compensates” the retailers with fixed bonuses by which he shares his monopolistic profits with the retailers, since these fixed bonuses do not affect the price retailers charge end consumers. Since antitrust laws are aimed at protecting competition and end-consumers, rather than competitors, there is an excessive pricing claim here, despite the fact that retailers may be content with the arrangement.

In the case above, the excessive wholesale price is actually used to induce retailers to charge the monopoly retail price, and retailers and the supplier benefit from this at the expense of end consumers. In such cases, retailers would not be expected to complain about the excessive wholesale price. Had a single retailer (say, retailer A) been able to secretly compel the supplier to lower the wholesale price he pays the supplier, \footnote{An ex ante calculation of the fixed bonuses requires the parties to have sufficient information about what profits the supplier expects to make via the excessive wholesale price.}

\footnote{Fixed payments paid or received by retailers cannot affect their pricing behavior, since such pricing behavior is affected only by retailers’ comparison between the marginal cost of supplying an additional unit and the marginal revenue from supplying it. See, e.g., Tirole, supra note 10 at 66.}
while the competing retailer (retailer B) continues to pay the excessive wholesale price, retailer A would benefit. This is because retailer A would gain a competitive advantage over retailer B. However, an excessive pricing claim is public, and if one retailer brings it, he knows that the other retailers would have similar claims as well. Hence it may not be worthwhile for a retailer to bring such a claim, because then all retailers would eventually pay lower wholesale prices, and the retail price would go down, below the monopoly retail price. In such a case, the supplier and retailers’ joint profits, which could be shared via the fixed bonuses, would diminish.

Accordingly, antitrust agencies, or end-consumers (where possible) should be sensitive to high retail prices, and investigate whether they originate from excessive wholesale prices charged by a dominant supplier, even when the retailers seem not to be complaining.

Similarly, fixed payments that retailers pay the supplier should be ignored in a claim of excessive pricing of the intermediate good. Fixed payments retailers pay the supplier, such as franchise fees, can be used to lower the wholesale price, and, eventually,

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the retail price end consumers pay. In particular, when both the supplier and retailer have market power, high wholesale prices raise the retailer’s marginal cost, and, on top of this, the retailer adds his own profit margin. This phenomenon, called “double marginalization,” causes the retail price to be above the retail price that a supplier integrated with the retailer would charge.

Since the retail price that such a vertically integrated firm would charge is the retail price that maximizes the supplier and retailer’s joint profits, even when not integrated, the supplier and retailer would strive to reach such a retail price. Short of vertical integration, they can often do so, at least partly, by the supplier agreeing to forego at least part of his profit margin and lowering the wholesale price, while creating or raising the fixed payment the retailer pays the supplier. Again, the fixed payment does not affect the retailer’s marginal costs, and hence it does not affect the retail price. Accordingly, the retailer cannot later claim that the “price” he is paying the supplier is excessive and take account, in such a claim, of the fixed franchise fee. This is because the franchise fee is used to lower the wholesale price, and, eventually, the retail price, and it is end consumers that antitrust laws strive to protect.59

Thus far we have shown that in the case of an intermediate good, it is the marginal price, the price affecting the buyer’s marginal costs, which needs to be excessive in order to bring a claim. In some cases, determining what the “marginal price” is could become tricky. For example, suppose a supplier sells his good to retailers A and B and he sets an excessive price for units 1 to 10 of the good, while units 11 to 20 are

59 Moreover, as noted, ex ante the retailer may well prefer the franchise fee arrangement, as it could lower the wholesale price and raise the supplier and retailer’s joint profits.
priced competitively. Again, since the aim is to protect end consumers, the question is how this pricing scheme affects the retailers’ marginal costs, and, consequently, their retail prices. Thus, if retailer A only buys up to 10 units and retailer B buys 20 units, it could be claimed that retailer A’s consumers were all harmed by the excessive prices charged for these units, while only some of retailer B’s consumers were harmed by it.\textsuperscript{60}

Until now we have assumed that the marginal price the dominant firm charges for its good affects its commercial customers’ marginal costs, and therefore affects the price they charge their own customers. The analysis changes when the price paid to the dominant firm does not affect its customers’ marginal costs at all. For example, the dominant firm could sell equipment to its customers, which constitute a fixed cost from their point of view, as this cost does not change as a function of the number of units they sell. Since rational firms do not pass on any portion of their fixed costs to their customers,\textsuperscript{61} even if the price for the equipment is excessive, end-consumers need not suffer (at least as long as the dominant firm’s customers are not driven out of the market or deterred from entering it due to the excessive costs of equipment). In such a case, however, it could be claimed that the relevant “victims” of excessive pricing are the

\textsuperscript{60} Determining the retailers’ and end-consumer’s damages for excessive pricing could be extremely difficult, since it would be hard to assess what portion of the excessive price was passed on to end consumers by the retailers and how the retailers’ profits were affected by such passing on of prices. These problems are avoided in a litigation examining only whether the prices charged for the intermediate good were excessive, regardless of how the damages were divided among retailers and end-consumers. Although such an approach may enable the plaintiff (be it end consumers or retailers) to enjoy a windfall, it would provide the appropriate deterrent effect.

\textsuperscript{61} See note 57 above.
buyers of the equipment. The same sort of distortions that the prohibition of excessive pricing aims to prevent arise with regard to these customers, including the allocative inefficiencies involved in many of these customers not buying equipment, or buying less of it, despite being able to derive from the equipment a surplus exceeding the cost to the dominant firm of supplying it.

6. Attacking excessive pricing in the US as inter-temporal price discrimination

As noted, under current U.S. case law, it is impossible to attack excessive pricing by a dominant firm, in and of itself. Once we acknowledge significant post-entry price cuts as an indication of pre-entry excessive pricing, however, we should also acknowledge that the divergence between pre-entry and post-entry prices constitutes inter-temporal price discrimination, in favor of post-entry consumers, and against pre-entry consumers. The wording of section 1(a) of the Robinson Patman Act is as follows:

“It shall be unlawful . . . to discriminate in price between different purchasers of commodities of like grade and quality, . . . where the effect of such discrimination may be substantially to lessen competition or tend to create a monopoly …”

Allegedly, at least one part of section 1(a)’s wording that could prevent application of the prohibition to inter-temporal price discrimination is that discrimination has to be “between different purchasers”. If pre-entry high prices and post-entry low prices are charged to the same purchasers, it could be claimed that the section does not apply. The section could be construed broadly, however, to mean that even if these pre-entry and

post-entry purchasers are the same people, they become “different purchasers” after entry. This is because after entry, market conditions cause pressure to treat these purchasers differently. We see no difference, in substance, between such a case and a case of discrimination between different customers in two different geographic markets, where one market is subject to competitive pressures and the other is not. Moreover, at least when the dominant firm sells to a large number of customers, or to households, it is very likely that its pre-entry customers are indeed different than its post-entry customers, making the section’s wording fit even according to a narrow interpretation.

In fact, the provisos of section 1(a) foresee the possibility of an inter-temporal price discrimination claim when they say that:

“Nothing herein contained shall prevent price changes from time to time where in response to changing conditions affecting the market for or the marketability of the goods concerned, such as but not limited to actual or imminent deterioration of perishable goods, obsolescence of seasonal goods, distress sales under court process, or sales in good faith in discontinuance of business in the goods concerned.”

Obviously, price-cutting after entry into a dominant firm’s market does not qualify for these provisos. Although, admittedly, this proviso had never been applied to inter-temporal price discrimination of the same purchasers, in our view, it portrays Congress’s anticipation that inter-temporal price discrimination could be captured by the prohibition.

Once we overcome the hurdle of the “different purchasers” requirement, the effects clause of the section, according to which price discrimination has to “substantially … lessen competition or tend to create a monopoly” could be met, in our view, by a
showing that pre-entry, consumers were harmed by excessive pricing. The price discrimination in favor of post-entry consumers is proof of the pre-entry price being excessive, and the price being excessive can be seen as a substantial lessening of competition. Harm to “competition” here is harm to the competitive outcome that is, supra-competitive pricing harming consumers. In addition even the competitive process is harmed, since the post-entry price cut, bringing about the inter-temporal price discrimination, could deter entry. As shown in sections 2.c and 3 above the prohibition of excessive pricing, when implemented with an inter-temporal price discrimination benchmark, helps lower entry barriers and invites new entry.63

One could claim, however, that although harm to competition may be present in this case, it is not because of the discrimination. The wording of section 1(a) suggests that there needs to be causality between the discrimination and the harm to competition, and here, allegedly, harm to competition would have occurred even if the post entry price would have been the same as the pre entry price and no discrimination had occurred. Nevertheless, the section could be interpreted in a less formalistic manner, by saying that it is the ability to engage in inter-temporal price discrimination that enabled the pre entry price to be so excessive. Had discrimination been forbidden, the pre-entry price would have been lower, because the incumbent firm would have lowered it, so as not to attract too many entrants, and to be able to compete with them effectively if they do enter.

63 In this sense, significant post entry price cuts constitute “primary line injury” under the Robinson Patman Act, that is, injury to competition and end consumers, rather than “secondary line injury” to the supplier’s commercial customer suffering a competitive disadvantage.
Another hurdle concerns some of the provisos of the Robinson Patman Act. Particularly notable is the proviso saying that "nothing herein contained shall prevent price changes from time to time where in response to changing conditions affecting the market for or the marketability of the goods concerned, such as but not limited to actual or imminent deterioration of perishable goods, obsolescence of seasonal goods, distress sales under court process, or sales in good faith in discontinuance of business in the goods concerned". However, again, we believe this proviso should be interpreted narrowly, so as not to apply to "changing conditions" that are caused by new entry into the market.

Another notable proviso is the “meeting competition defense,” allowing the defendant seller “in good faith to meet an equally low price of a competitor."64 Here we concur with Edlin,65 who claims that this proviso should not apply to primary line cases, in which the potential harm to competition is in the supplier’s market, but only to secondary and tertiary line cases, in which discrimination grants a competitive advantage to one of the supplier’s buyers over his other buyers, or similar injury further down the supplying chain.

7. Conclusion

This paper does not claim that excessive pricing should always be prohibited. For example, it acknowledges that at times, ex ante investment considerations could justify ex post excessive pricing, but, surprisingly, only in markets in which natural entry barriers

are high (also including markets in which ex ante investment created a natural and legitimate entry barrier). Our aim is more subtle and modest: To highlight important considerations in favor of the prohibition of excessive pricing that have been overlooked by the vast literature and case law on the subject. Accordingly, if a court or antitrust agency, be it in the EU or the US, is hesitating on whether to prohibit excessive pricing or not, this paper should assist it in at least making the correct considerations before reaching its decision.

In particular, we have shown how the conventional view in the literature, according to which excessive prices should not be feared because they invite new entry, is completely wrong. On the contrary, we have shown that the prohibition of excessive pricing could even make entry more likely. We also have shown how the difficulties of enforcement cannot justify a “hands off” approach to excessive pricing, but rather could justify exclusive reliance on a good benchmark, such as that of significant post-entry price cuts. Finally, we show how in the U.S. it is not doctrinally impossible to prohibit excessive pricing revealed by post-entry price cuts, since the Robinson Patman Act could be construed as condemning anticompetitive inter-temporal price discrimination.