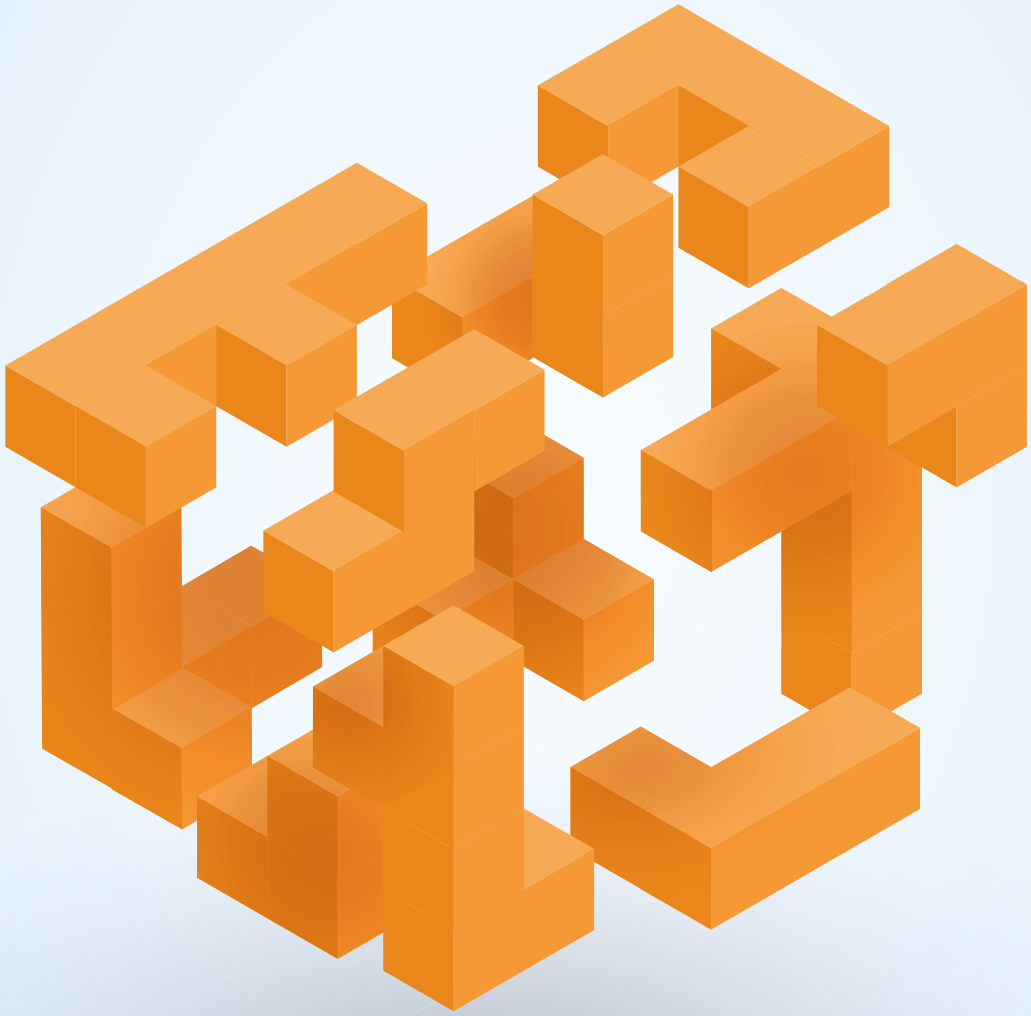
PREDATION AS A LEVERAGING ABUSE – FILLING THE GAP BETWEEN ECONOMIC THEORY AND ANTITRUST ENFORCEMENT?



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The conventional view of predation is that of a "one-market abuse," where profit sacrifice and recoupment necessarily take place on the same market. We argue that economic theory allows for a wider interpretation of predation as an exclusionary strategy, where the predatory attack may help a dominant undertaking to leverage its market power into other markets. Economic theory has long acknowledged this possibility, but case law on predation as a leveraging abuse is still scant, pointing to possible under-enforcement. We discuss the two examples we are aware of – *Napp* (UK) and *Qualcomm* (EU) – and identify conditions for predation to be a credible leveraging Theory of Harm.

I. INTRODUCTION

Predation as an exclusionary strategy is apparently simple and old, but still controversial. Simplicity comes from the temporal linearity of the exclusionary story. The predator engages in an initial phase of aggressive (below-cost) pricing to force its rivals to exit the market. In a later phase, after exit occurred, the predator can recoup its losses by charging high prices. There is a long-standing controversy among practitioners and economists on how likely and feasible predation is.

This article starts by briefly describing the recent historical divergence between Europe and the U.S. on the practical approach adopted towards predation cases. The main proposition we put forward is that there is another looming feature where the two main antitrust jurisdictions may have already started to diverge. The standard predation narrative developed in the case law, but also shared by many economists, is one of predation and recoupment in the same market.

In 2005, the European Economic Advisory Group ("EEAG") distinguished between "*three broad typologies of exclusion that differ in respect to the market position of the firms involved and in respect to the specific features that characterize the exclusionary effects: Exclusion within the same market, where an incumbent forces the exit or prevents the entry of a competitor, exclusion in an adjacent market where the dominant firm excludes producers active in markets different but related to its main market, and exclusion in a vertically related market, where exclusion takes places in different stages of the production process.*"[2] *Predation was squarely put into the box of "exclusion within the same market.*"

However, the economic literature already covers predation as a leveraging exclusionary strategy. Furthermore, already in 2001 with a UK case, *Napp*, and much more recently with the European Commission case *Qualcomm* (2019), authorities had explored predation cases with a wider theory of harm. Both cases can better be thought of as exclusionary strategies that have allowed a dominant company to leverage its market power from one market to another – or from one market segment into another market segment – where it faced an entry threat. In these cases, recoupment from a predatory strategy occurs in a market (or segment) other than the one where predation occurred. As there have not been any successful predatory complaints in the U.S. in the last three decades, this could be the next looming area of divergence between the two jurisdictions.

II. ECONOMICS OF PREDATION

Predation has long attracted the interest of economists. This is illustrated by the *Standard Oil* case, a historical and pioneering case that started after the enactment of the Sherman Act in the U.S. in 1890. Predation was one among the many anticompetitive practices the most famous monopolist of the turn of the 19th Century was accused of and condemned for in 1910. Surprisingly perhaps, the case is not yet settled. McGee's famous 1958 article argued that Standard Oil had not engaged in predation. He concluded that there was no evidence that it induced its competitors' exit or that its conduct reduced the value of its rivals thus facilitating their subsequent acquisition. This shift in conclusions is emblematic of economists embracing the Chicago school approach in the 50's.

While the Chicago School criticism that predation could not be a rational strategy was later confirmed, it was confined to situations when there is perfect information. When this is not the case, the predator can "fool" the prey into believing that it would be better off exiting the market. Several theories have been put forward to explain why predation may be a rational strategy. First, it can be successful if the predator is able to build a reputation for being tough which can then be used to extend the reputational effects of predation to other markets (Yamey, 1972; Posner, 1976; Scherer, 1980).[3]

Second, the predator can succeed in signaling that it has very low costs or that demand is too low to sustain an entrant (Milgrom & Roberts, 1982).[4] Third, the predator can exploit imperfect information in capital markets, so that the prey's decline in performance is misinterpreted by investors as inefficiency or underperformance. As a result, investors withdraw their financial support (Telser, 1966; Bolton & Scharfstein, 1990).[5] More recently, Fumagalli & Motta (2013) showed that a dominant firm that has already sunk some costs, by predating could deprive a

2 Report by the EEAG "An economic approach to Article 82," July 2005, page 17, available at https://ec.europa.eu/dgs/competition/economist/eagcp_july_21_05.pdf.

3 Yamey, B.S., (1972), "Predatory price cutting: Notes and Comments," Journal of Law and Economics, 15, 129-142; Posner, R.A., (1976), Antitrust Law: An Economic Perspective, Chicago University Press; Scherer, F.M., (1980), Industrial Market Structure and Economic Performance, Rand McNally & Co, U.S., Chicago

4 Milgrom, P. & Roberts, J., (1982), "Predation, reputation, and entry deterrence," Journal of Economic Theory, 27(2), 280-312.

5 Telser, L., (1966), "Cutthroat competition and the long-purse," Journal of Law and Economics, 9, 259-277; Bolton, P. & Scharfstein, D., (1990), "A theory of predation based on agency problems in financial contracting," American Economic Review, 80, 93-106.

more efficient entrant from enjoying the required economies of scale.[6] Critically, in none of these models, the predator needs to price below its short-run marginal cost to deter entry or induce exit.

III. CURRENTLY KNOWN DIFFERENCES IN VIEWS ACROSS THE ATLANTIC

In the U.S., more predation cases followed the historic Standard Oil case. However, as the Chicago School became the predominant guidance for judges, an increasing skepticism on the feasibility of predatory strategies took hold of U.S. antitrust. The strict interpretation of the recoupment test set by the Supreme Court in *Brooke* in 1993 – i.e. requiring evidence that there is a "*dangerous probability*" of (successful) recoupment and quantitative evidence that profits in the recoupment phase would more than offset all the losses incurred in the predatory phase - meant that no complainant has managed to bring a successful predation case in front of U.S. judges ever since.

The European Commission and national authorities came later to the predation enforcement saga, but quickly caught up. The *Akzo* case dates back only to 1985 compared to 1910 of *Standard Oil*. The European Commission found that Akzo, in reaction to entry by a competitor, had priced a few chemical products to selected customers below their respective Average Variable Costs ("AVC") over several years.

The European Courts in that case set the standard cost tests that are still applied today: "*first, […] prices below average variable costs must be considered prima facie abusive inasmuch as, in applying such prices, an undertaking in a dominant position is presumed to pursue no other economic objective save that of eliminating its competitors. Secondly, prices below average total costs but above average variable costs are to be considered abusive only where they are fixed in the context of a plan having the purpose of eliminating a competitor.*"[7] The first of these two tests, namely prices below AVC giving rise to a presumption of illegality, is akin to its U.S. counterpart, the Areeda-Turner test. However, the second test, where even prices above AVC, but below Average Total Cost ("ATC"), may be found abusive if embedded in evidence on intent, is a European peculiarity.

Several other cases followed in the last twenty years. The European Commission condemned the incumbent German postal operator (Deutsche Post, 2001) and the dominant French Internet provider (*Wanadoo*, 2003), both of which are cases of exclusion within the same market. Similarly, the UK Office of Fair Trading ("OFT") condemned similar behavior by a local bus incumbent (*Cardiff Bus*, 2008) and a local dominant Scottish newspaper (*Aberdeen Journal*, 2000). The latter was an *ante-litteram* two-sided market application. However, predation as a leveraging strategy first appeared in (*Napp*, 2001). More recently, the European Commission also joined in (*Qualcomm*, 2019).

The few cases of predation as a leveraging strategy differ markedly from the practitioners' conventional view of predation as a "one-market abuse," where both the profit sacrifice during the predation phase and the monopoly pricing during the recoupment phase occurred successively on one and the same market. The novelty lies in extending the concept of predatory conduct to settings where the predatory attack occurs on one market (or segment) in order to protect a different, yet related, market/segment, where entry may have occurred and where the predator can therefore recoup its losses, either subsequently or even simultaneously to the predatory pricing.

IV. PREDATION AS A LEVERAGING ABUSE IN ECONOMICS

Some of the economic models of predation clearly allow for profit sacrifice and recoupment to arise in different markets.[8] For instance, in the reputational predation models mentioned above, the reputation gained by the dominant undertaking as a "tough competitor" will unfold its entry-deterring effects on any market on which this incumbent is active (and can achieve sufficient market power to allow for recoupment) and not only on the market where the predatory episode occurred. The same can apply to the other predation mechanisms discussed.

In signaling models, one could imagine that the "signal" sent by an incumbent about being a very efficient (low-cost) seller would carry over to additional markets, provided that the production costs on that market are correlated with those of the market where the signaling through below-cost prices takes place. In financial predation models, the withdrawal of financial resources because of some predatory attack will make it impossible for the prey to remain in or enter any other market on which it would compete against the incumbent, not just the market on which the predatory attack occurred.

6 Fumagalli, C. & Motta, M., (2013), "A Simple Theory of Predation," The Journal of Law and Economics, 56(3), 595-631.

7 Case C-62/86, *AKZO v. Commission* (Court of Justice judgment of July 3, 1991), para. 72; Case C-333/94, *Tetra Pak v. Commission* (Court of Justice judgment of November 14, 1996), para. 41; Case C-202/07 P, *France Télécom v. Commission* (Court of Justice judgment of April 2, 2009), para. 109.

8 The term "market" in the economic sense as used here may also refer to "segments" of the same antitrust market when applied under competition policy, where the market definition applied in a particular case may give rise to a rather broad such entity with several discernable segments.

Analogously, the predation model by Fumagalli & Motta (2013) extends to a setting where the sunk cost that is incurred in entering one specific market is also needed for a different market in the future or simultaneously (rather than the same market). In a regulatory context where a price cap includes both contestable and non-contestable services in different markets, the predator can also simultaneously predate in the contestable and recoup in the non-contestable services (Crocioni & Ribas, forthcoming).[9]

Some economic models even pre-suppose the existence of two potentially separate markets for the predatory strategy to work. A case in point would be predation on a two-sided market, where the dominant undertaking sets predatory prices on one side of the market, while recouping instantaneously on the other side of the market, on those users who enjoy indirect network effects and are therefore locked into the platform serving all the users on the other side of the market (Vasconcelos, 2015; Amelio et al, 2020).[10]

V. RECENT EUROPEAN CASE LAW ON PREDATION AS A LEVERAGING ABUSE

The last 20 years have also witnessed the emergence of a couple of predation cases, both in the UK and the EU, where a leveraging strategy was at the heart of the theory of harm. Historically, the UK *Napp* case of 2001 was the first of this kind. It concerned sustained release morphine tablets and capsules (known as "MST"), which were sold both to hospitals (a price-sensitive segment consisting of 10–14 percent of all MST sales) and to the community segment, consisting of patients whose General Practitioner ("GP") prescribed MST to them, if needed.

According to the OFT, Napp had charged predatory prices to hospitals (with discounts exceeding 90 percent by 1996), while at the same time setting much higher prices in the less price-sensitive and larger community segment. Moreover, the OFT sustained that Napp would systematically match any discounts that Napp's competitor BIL initiated, thus selectively targeting its competitors' customers. The OFT considered both sets of prices as part of a single exclusionary strategy.

The rationale for Napp's conduct was that, once patients became acquainted with Napp's MST products while in hospital care, they would be more likely to request the prescription of the same drug (rather than the competitor's brand) after being released from the hospital and referred to their GP's care (this was referred to as the "follow-on" effect). In fact, Napp tried to build its defense based on this mechanism, by arguing that the discounts it granted on the hospital segment were "incrementally profitable" once the higher sales in the community segment were taken into account. In other words, by netting the profits from the segment on which recoupment occurred against the losses from the segment where the predatory attacks were carried out, the discount strategy became overall profitable.

On appeal, the CAT confirmed the OFT's decision. While accepting that a follow-on effect may exist, it did not accept Napp's justification for pricing below AVC because it was circular. Napp could earn high compensating margins in the community segment precisely because its discount policy in the hospital segment had hindered competition in the community segment. Likewise, the expectation of excessive margins on future sales or simultaneous sales on another (side of the) market cannot be a justification for current loss-making sales. The CAT agreed with the OFT on this point:

> *"…the net revenue test, as applied simplistically by Napp, provides no yardstick for distinguishing between what is legitimate, and what is abusive, behaviour on the part of a dominant undertaking. For instance, a monopolist driving away new entrants by predatory pricing is likely to maximize his net revenue by so doing, for example by avoiding loss of market share and erosion of prices in the profitable market where he holds a monopoly. Yet plainly such behaviour does not cease to be abusive merely because it is profitable for the monopolist to engage in it. In our judgment, therefore, a "net revenue approach" cannot, standing alone, constitute a defence to a charge of abuse by a dominant undertaking, unless it is accompanied by clear evidence that there was no intention or effect of foreclosing the market and impairing competition."* [11]
>
> *"To put the point another way, in most cases of predatory pricing, the predator is willing to forego short-term profits, in the hope of recouping its losses on subsequent, more profitable, sales. In some cases the recoupment may take the form of raising prices again once a competitor is eliminated; in other cases it may simply be that it is well worth the cost of short-term losses in order to protect the profits that flow from a large market share. As the Director submitted in the present*

9 Crocioni P. & Silos Ribas, M.;(2022),"Could ex ante Regulation Create Incentives for Anti-competitive Behaviour?" in Parcu, P.L., Monti, G. & Botta M. (eds.), Interaction of Competition and Regulation in Telecom, Energy and Pharma, Discussing Emerging Trends at the National and EU Level, Edward Elgar Publishing, (forthcoming).

10 Vasconcelos, H., (2015), "Is Exclusionary Pricing Anticompetitive in Two-Sided Markets?," International Journal of Industrial Organization, 40, 1-10; ; Amelio, A., Karlinger, L. & Valletti, T.,(2020), "Exclusionary Pricing in Two-Sided Markets," International Journal of Industrial Organization, Vol. 73: 102592.

11 CAT, Aberdeen Journals Limited II, Case No. 1009/1/1/02, 23 June 2003, available at http://www.catribunal.org.uk/files/JdgFinal2AJ230603.pdf, para. 259.

case, the fact that Napp's below-cost pricing in the hospital sector enables it to make money from 'follow-on' sales in the community sector merely signifies that the particular form of 'recoupment' available to Napp is more direct and more immediate than it is in other cases of predatory pricing." [12]

In essence, the *Napp* case is a good example of predation in the context of a leveraging theory of harm: Napp's plan was not to recoup the losses incurred on the hospital segment via future higher prices on that same segment (as the standard theory of harm of predation would suggest), but rather through higher prices on the community segment into which it leveraged its market power from the (abusively monopolized) hospital segment. In retrospect Napp's follow-on argument and evidence was indeed evidence that the exclusionary strategy was profitable and recoupment profits outweighed the predation costs!

A similar mechanism was also at play in the European Commission's Qualcomm (predation) decision of 2019.[13] The case concerned the market for "baseband" chipsets of the third generation – Universal Mobile Telecommunications System ("UMTS") chipsets – which were and are used in mobile devices (such as mobile phones, tablets, and "dongles") to enable calls and data exchange via the mobile network. During the relevant period (2009-2011), Qualcomm was the dominant developer and manufacturer of such UMTS baseband chipsets. A small British start-up called Icera had meanwhile developed a radically new chipset technology (so-called soft modems) that promised to achieve data rates on par with Qualcomm's top-tier chipsets, but at much lower upgrade costs.

Both chipset suppliers marketed their products to device makers that purchase baseband chipsets and integrate them into their mobile devices before selling them to mobile network operators ("MNOs") or wholesalers of electronic devices. Qualcomm was particularly concerned by Icera's threat because of the expected growth potential of chipsets with high data-rate capabilities due to the global take-up of smart mobile devices. While such capabilities were less relevant for feature phones, which represented the vast majority of mobile phones sold in 2009, they became increasingly important in smart phones which had started to replace the technologically inferior feature phones during the relevant period of this case.

Qualcomm's conduct during the investigated period was selective both in terms of the market segment and also the customers that were affected by predatory prices. First, Qualcomm's strategy focused on a small segment of the UMTS chipset market, called the "leading-edge segment," which comprised chipsets that offered advanced data rate performance. It was precisely in this segment that Icera had started to gain traction in 2008/2009 due to the software upgradability of its chipsets to leading-edge data rates; its smaller die size; and its competitive pricing.

Second, Qualcomm's strategy focused on the two strategically most important customers for leading-edge UMTS chipsets during the relevant period, namely Huawei and ZTE. These two customers were the main OEMs of "mobile broadband" ("MBB") devices (such as data cards or dongles) at the time. While the market for MBB devices was (and still is) relatively insignificant compared to the mobile phone market, the former was particularly important for the leading-edge chipsets that were supplied by Icera and Qualcomm. Indeed, Icera's entry strategy consisted of first gaining a foothold in MBB devices, before acquiring the full technological capabilities to also enter the much larger market segment for UMTS chipsets for smartphones.

The internal evidence revealed that Qualcomm's pricing strategy aimed at containing Icera's growth at the two key customers in the leading-edge segment, with the aim of protecting Qualcomm's dominance in the entire UMTS chipset market – and in particular its strong position in the high-volume segment of baseband chipsets for use in mobile phones. Thus, while only a small part of the wider UMTS chipset market was affected by below-cost pricing, and the resulting losses incurred by Qualcomm were relatively low, this selective and targeted predatory strategy had an adverse impact on a market segment that was multiple times as large and yielded monopoly profits that exceeded the incurred losses by a wide margin.

Moreover, during the investigated period, the first chipsets reading on the successor standard to UMTS, called "Long Term Evolution" ("LTE"), were being developed and sold. Qualcomm's conduct on the UMTS chipset market is likely to have slowed down Icera's capability to invest in R&D on LTE chipsets, thus considerably delaying Icera's entry on this new market (which had been scheduled for the end of 2011, but only occurred in February 2013) and relegating it to a niche presence there. Icera was acquired by semiconductor company Nvidia in May 2011, which decided to wind down Icera's modem operations in May 2015.

12 *Supra*, para 261.

13 See Case COMP/39.711 *Qualcomm* (predation) (Commission Decision of 18 July 2019), public version available at: https://ec.europa.eu/competition/antitrust/cases/dec_docs/39711/39711_4493_4.pdf. The decision is currently under appeal before the General Court. For a detailed account of the economic analysis in this case, see Karlinger et al (2020). Karlinger, L., Magos, D., Régibeau, P., and & Zenger, H., (2020), "Recent Developments at DG Competition: 2019/2020," Review of Industrial Organization, Vol. 57: 783–814, December 2020.

VI. POSSIBLE LEVERAGING PREDATION SCENARIOS

Building on the brief discussion on economic theory and the *Napp* and *Qualcomm* cases, there are several possible scenarios where predation as a credible leveraging theory of harm can arise. We have identified the following:

1. Predation on one segment of two co-existing market segments, or on one side of a two-sided market, with recoupment occurring on the other segment/side of the market (as in *Napp*). Recoupment will occur simultaneously with the predatory attacks, but in a different segment of the same or even in a different antitrust market. For this to be a credible theory of harm, it should be shown that these two segments/markets are linked with each other, either via demand or via shared fixed cost investments, so that it is sufficient for the incumbent to marginalize the entrant on one of these segments to achieve monopolization/consolidation of market power also of the other;

2. Predation in a small initial market (or segment), which is key for success in a subsequent, larger (or more profitable) market(s) or segment(s), where recoupment occurs, as in *Qualcomm* predation. Profit sacrifice and recoupment are then sequential (as in the standard predation theory of harm), but they arise in different antitrust markets (or segments). Again, the key condition for this to be a credible theory of harm is to show that successful entry in the "initial" market (or segment) is a prerequisite for entry in the subsequent market. Or conversely, that failure to succeed in the initial market will prejudice the rival's ability to succeed in the subsequent market(s) or segments. Such conditionality may be grounded in financial constraints under which the entrant operates (where cash-flows derived from sales in the initial market are critical to finance investment into the technologies needed to be present in future markets or segments), in reputational effects of being present in the initial market, and the like; and

3. Predation in an upstream market by a vertically integrated provider, creating barriers to entry in a downstream market. In this case, profit sacrifice and recoupment occur in separate but vertically related markets. Absent the creation of downstream entry barriers by the predatory behavior, lower upstream prices may feed into lower downstream prices benefitting rather than harming consumers. However, this may not be the case if, and when, predation forces exit upstream, and this also hampers the rivals' ability to compete effectively downstream. In this instance, this would allow the predator to recoup upstream losses simultaneously downstream.

VII. CONCLUSIONS

While in the U.S., the high threshold for bringing forward a successful predation cases meant that the behavior was rarely sanctioned, the European Commission and European national agencies have taken a more pro-active approach. Yet, even in the more "interventionist" Europe, very few cases of predation as a leveraging exclusionary strategy have been explored: *Napp* and *Qualcomm* are the only exceptions we know of.

Such cases are of course challenging, not least because of the applicable legal test. Under European case law there is no need to prove recoupment if the predator is found to be dominant. This is well tailored to the concept of predation as "*exclusion within the same market*." Dominance is sufficient to ensure that the predator can recoup when it succeeds in forcing exit of its rivals. After all, the predator, if successful, would strengthen its dominance.

Does the same approach work in a leveraging predation strategy case? We consider that there is no need to prove that the predator has become dominant in the market where recoupment occurs. We are also not arguing for a modification of the current legal standard for predation. However, given the specific circumstances of any given case, particular attention should be paid to any elements that may explain why predation in one market would allow the predator to gain a position of sufficient market power in another market to make recoupment possible.

In other words, not only pricing below cost in one market must be proven, but we suggest that, without prejudice to the legal standard as established in AKZO, the plausibility of a leveraging predatory behavior would be enhanced by convincing arguments and evidence that its behavior allows the predator to leverage market power in the market were recoupment is likely to unfold. In *Napp* this was the "follow-on" effect, while in *Qualcomm* it was the inability of its rival to compete in the entire UMTS chipset market due to Qualcomm's predatory behavior.

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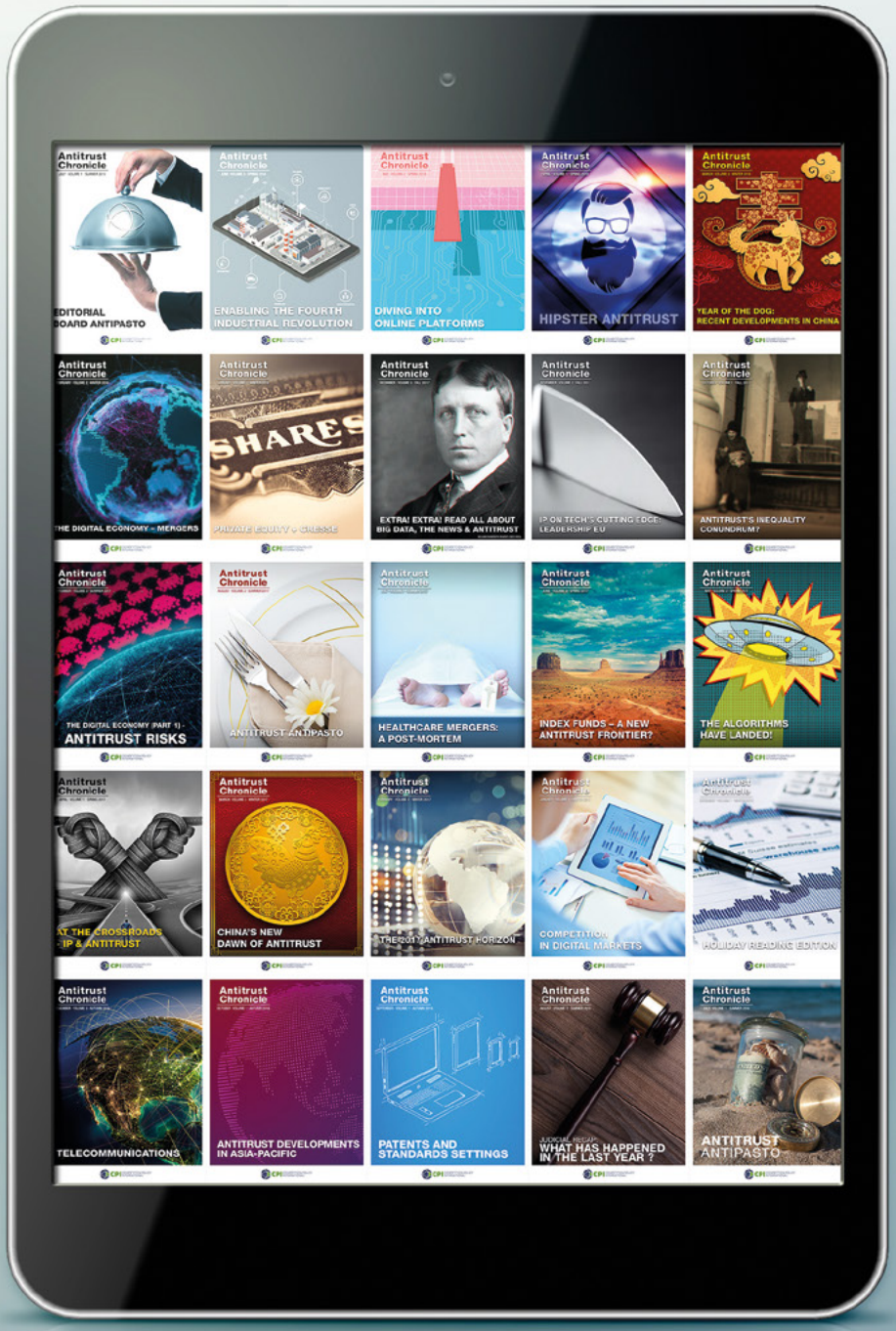


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