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Giocoli, Nicola

University of Pisa, Department of Economics

31 May 2012

Online at https://mpra.ub.uni-muenchen.de/39244/
MPRA Paper No. 39244, posted 05 Jun 2012 15:10 UTC

Old Lady charm:

explaining the persistent appeal of Chicago antitrust

Nicola Giocoli*

University of Pisa

The paper deals with the mysterious persistence of the Chicago approach as the main analytical engine driving antitrust enforcement in the US. While the approach has been almost completely replaced in contemporary industrial economics by the so-called Post-Chicago view, with its superior game-theoretic toolbox, Chicago arguments still permeate antitrust case law at all judicial level, including the Supreme Court's. Chicago rise to dominance in US courtrooms has allegedly been due to the superiority of its economic analysis. It is thus legitimate to ask why the analytical edge of the Post-Chicago approach has failed to produce the same outcome. Answering this kind of questions is crucial to understand how economists persuade, i.e., how economic arguments may be accepted and applied by policy- or law-makers. The paper offers a series of explanations, most of which inspired by the chapters in Robert Pitofsky's collection *How the Chicago School Overshot the Mark* (OUP 2008). It is argued that none of these answers is completely exhaustive, though each may account for a bit of the story.

This version: May 30, 2012

Word count: 15,606

JEL Codes: B21; K21; L41; L42

* E-mail: giocoli@mail.jus.unipi.it . The financial support of INET Grant "Free from what? Evolving notions of 'market freedom' in the history and contemporary practice of US antitrust law and economics" is gratefully acknowledged.

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Introduction

Assume you have a policy whose main prescriptions reside upon weak theoretical foundations, if any at all. Assume a new theory comes, showing the limits of the previous approach and wiping off its prescriptions. In a field where empirical analysis may offer little help to disentangle theoretical puzzles or select the best policy actions, the event would be interpreted as a sign of undisputable progress. The new theory would be welcomed by policy enforcers who would base their policies upon it. Assume now a third approach arises, capable of demolishing several of the theoretical results of the second one and even of rescuing many of the prescriptions of the earliest theory by providing them with rigorous analytical underpinnings. You would expect that, much as it happened before, enforcers would embrace the newest alternative and revive their old policies. You would be really surprised to see that the policy-revision mechanism that worked so well from stage one to stage two failed to work from stage two to stage three. Such a puzzling failure is the subject of the present paper, that is to say, the puzzle of the persistent dominance of the Chicago approach in US antitrust enforcement.

Most commentators agree that credit for the success of the Chicago school in the field of antitrust law must be given to the superiority of its economics. Starting from the late 1970s, and thanks to works such as Posner 1976 and Bork 1978, Chicago has revolutionized antitrust law and economics (ALE). Its theoretical insights and policy prescriptions have prevailed over the loose patterns of economic reasoning underlying post-WWII enforcement. The new approach has been eventually endorsed by US courts, first and foremost the Supreme Court – an endorsement which is still unfettered today.

However, modern economic literature, especially the game-theoretic, so-called Post-Chicago approach to industrial economics, has showed that several Chicago claims, in both theory and policy, are at best only partially correct and, sometimes, utterly wrong. In particular, Post-Chicago scholars have argued that Chicago solutions to antitrust problems often fail to warrant the promised efficiency. Yet, surprisingly enough, Chicago-style ALE still dominates case law. Like an old lady whose allure defies age and physical decay, Chicago's charm looks almost intact among US antitrust enforcers.

How to explain the enduring fascination of the Chicago approach? If Chicago victory in the late 1970s was really due to its theoretical superiority – to Chicago scholars' ability to prove that "the US antitrust emperor had no proper theoretical clothes" (Schmalensee 2008, 23) – why has the demonstration that new theoretical clothes do exist which would better fit the emperor's needs failed to meet the same success? Out of the metaphor, how can a theory which is known to be imperfect, outmoded and a possible cause of negative welfare outcomes still be largely perceived by US judges and courts as the only usable version of antitrust economics? Why is its "superior", up-to-date alternative – with its pro-efficiency prescriptions against the abuses of market power – almost totally neglected? In short, why Post-Chicago analysis has been able to win the day in classrooms, but not in courtrooms?

It is beyond the limits of a single paper to provide full answers to these questions. The literature on the Chicago versus Post-Chicago controversy is huge.[1] What I aim to do here is simply to use the essays in one of the most recent, and most exhaustive, contributions to the debate – *How the Chicago School Overshot the Mark*, edited by Robert Pitofsky (Oxford UP, 2008) – as a benchmark to discuss some of the answers available in the literature. The goal of Pitofsky's volume is to explain Chicago success in ALE, as well as to highlight the limits and dangers of its persistence. The book does not directly deal with Chicago mysterious resilience vis-à-vis the Post-Chicago challenge. But the answers it provides to account for its success may well be applied to this purpose. They range from the weight of normative judgments and ideology to the emphasis on the administrability of legal rules, from the judges' and jurors' troubled relationship with up-to-date economic theory to the sheer negation that Chicago ever achieved a complete triumph.

As it turns out, none of these answers – plus a few more which do not feature in the book, but are also discussed here – is totally satisfactory, though each of them contains more than one grain of truth. The secret of why the Old Chicago Lady still attracts flocks of legal admirers still awaits full disclosure.

[1] See for instance Cucinotta et al. 2002.

§1. Accounting for Chicago triumph

Several chapters in Pitofsky's volume deal with the well-known, and amply investigated, story of how the Chicago School conquered the hearts and mind of US antitrust enforcers. The common starting point is the post-WWII status quo: "Highly interventionist, concerned as much (or more) with the well-being of small entrepreneurs as with efficiency, antitrust doctrine was a reflection of its times. […] It was easy to ignore concerns over efficacy and to adopt policies focused on protecting and rewarding small enterprises. This highly interventionist antitrust policy was a luxury [the US postwar economy] could afford." (Kauper 2008, 43). It was in this setting that Circuit Courts and the Supreme Court intervened with the proactive antitrust policy epitomized by a list of famous decisions (*Alcoa*, *Topco*, *Albrecht*, *Schwinn*, *Brown Shoe*, *Von's Grocery*, *Utah Pie*). Most authors in the volume agree that these decisions, when evaluated from the modern, efficiency-based perspective of ALE, look like a horror list.

The first chapter, by prominent industrial economist Richard Schmalensee, criticizes the wobbling foundations of the Supreme Court's postwar activism. First of all, the Court misrepresented the legislative intent behind the Sherman Act. The idea, expressed by Chief Justice Warren in *Brown Shoe*, that the Act aimed at promoting competition "through the protection of viable, small, locally owned business" and that to this aim the Congress willingly accepted the "occasional higher costs and prices" that might result from "the maintenance of fragmented industries and markets", is probably unfounded. As several commentators acknowledged, no clear evidence of this legislative intent can actually be found in Congressional records.

The Court also embraced several doctrines which can hardly be justified from a modern viewpoint. I'll mention three of them: the deconcentration doctrine (according to which the causal relation went from business size to business profits, thereby justifying the "no-fault" legislative proposals to break up the market leaders to reduce concentration and enhance competition), the *Alcoa* doctrine (according to which, by Justice Learned Hand's *Alcoa* dictum, "efficiency at the top is bad",[2] because highly productive firms tend to become dominant in their markets undermining allocative efficiency), the inhospitality doctrine (according to which antitrust law disliked non-standard contracting practices, such as territorial restraints or tying arrangements, that deviate from the textbook description of perfectly competitive behavior). Doctrines like these led the Court to establish a score of per se rules, by which several business practices, such as RPM, tying,

[2] See *United States v. Aluminium Co. of America*, 148 F.2d 416 (2nd Cir. 1945).

or horizontal agreements, were declared automatically unlawful without any elaborate inquiry into their purpose or effect.

As Schmalensee points out, the Court's attitude revealed an engineering view of the firm and a focus on the form, rather than the effect, of business practices. According to the engineering view, the main, possibly the only, reason for intra-industry differences in cost and productive efficiency is difference in production scale. An industry-specific minimum efficient scale of production is assumed to exist, beyond which the long-run average cost curve tends to be flat. Deconcentration proposals that leave scale economies unaffected have therefore no apparent counter-effects. What this view left out were the other possible sources of productive efficiency beyond sheer size (say, managerial skills or high functional specialization). Chicago took a broader perspective, where the best measure of a firm's efficiency is its market success: "Efficiency is at bottom a value concept, not a description of mechanical or engineering operation" (Bork 1978, 105). The Court's focus on form, rather than effect, was simply in tune with the judicial penchant for per se rules characterizing the postwar era of antitrust enforcement.[3]

What was the origin of the Court's attitude? The large literature on the pre-Chicago era of ALE has converged on the claim that post-WWII judicial activism against market power stemmed from the combination of so-called Modern Populism with the structural approach to industrial economics. A cornerstone of the Modern Populist approach was that antitrust courts should employ an array of interpretive tools. Beyond economics, the list included social and political concerns, such as fairness in the marketplace, the protection of small businesses and the fear of big business's political power. Modern Populists believed that an antitrust enforcement policy which ignored even some of these concerns would betray Congressional will and would be out of touch with the political consensus supporting it.[4]

The leading approach in post-WWII industrial economics was the so-called structure-conduct-performance (SCP) approach. Originally developed by Harvard economists Edward Mason and Joe Bain, SCP predicted anticompetitive outcomes as an inevitable consequence of non-perfectly competitive market structures. The approach dominated industrial economics from the late 1930s to the early 1970s. By emphasizing market shares and their effects on market structure, several

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[3] The alternative, rule of reason approach, requires the court to examine all the circumstances surrounding the practice under scrutiny in the specific case, including possible justifications for the practice and the existence of less anti-competitive alternatives. This in order to strike a balance as to whether the conduct is pro- or anti-competitive.
[4] See e.g. Jacobs 1995, 220.

decisions, especially during the 1960s, testify the Supreme Court's embrace of SCP.[5] Adopting a specific, though idiosyncratic, economic approach was a clear improvement with respect to the a-theoretical, or just loosely theoretical, kind of analysis which had traditionally characterized antitrust enforcement in earlier periods. Moreover, SCP prescriptions fit nicely with the Court's populist penchant. The inevitable outcome of the combination was the above-mentioned horror list, and the increasing dissatisfaction at all levels (academic, business, political, even popular) with the way US courts were administering antitrust law.

The cure came from Chicago. In his contribution to Pitofsky's volume, Thomas Kauper lists the key assumptions of the Chicago School which are now taken as common knowledge within American ALE. The list supports Kauper's claim that one of most appealing features of the Chicago school was the completeness of its proposal (Kauper 2008, 46-47). On top of the list features Chicago's claim that antitrust is a branch of economic policy, therefore it must be governed by economic analysis, in particular by basic price theory. This claim – the so-called "sole value" thesis – has two remarkable consequences. First, that other concerns, such as fairness, or the plight of small businesses, or the balancing of power, are simply irrelevant. Second, that the sole value to be pursued by price-theoretic antitrust must be a specific kind of economic value, namely, efficiency, in both allocative and productive terms. The focus of antitrust must be efficiency – or, as it is often said, though not without controversy, consumer welfare.[6]

If efficiency is to be the sole yardstick, then another central thesis of the Chicago School is that competitive harm consists of adverse price and output effects. Absent these effects, courts should sanction any business practice. As a corollary, very little room should be left to per se rules, their usefulness being confined to cases where a given conduct has really no plausible efficiency defense. A third Chicago cornerstone is faith in freedom of entry – a "virtual trump card", as Kauper calls it, which may always be played to downplay antitrust concerns. Basic Chicago theses are also the idea that vertical restraints, including integration, are almost always pro-efficiency and the notion that only one monopoly profit may be earned, so leveraging cannot double it. According to Kauper, "[t]hese are simple propositions that are now virtually givens in antitrust…

[5] Even the 1968 Merger Guidelines – issued by the US Department of Justice – clearly mirrored SCP philosophy. The Guidelines had been preceded by a series of SCP-inspired merger decisions by the Supreme Court (*Philadelphia National Bank*, *Continental Can*, *Pabst*, etc.).

[6] The controversy refers to the two possible measures of allocative efficiency: consumer welfare or total welfare (i.e. the sum of consumer and producer welfare). Often the former is only nominally pursued by enforcers, their implicit goal being actually the latter. Consistently privileging consumer welfare might indeed bring surprising consequences for Chicago-based antitrust. The chapter by Kirkwood and Lande shows what a true consumer protection standard – focusing on the issue of avoiding welfare transfers from consumers to firms – would entail for some well-known Chicago doctrines. According to the authors, that standard would more faithfully capture the legislative intent behind the Sherman Act (Kirkwood & Lande 2008). Also see Lande 1989.

[…] Debate today is over possible exceptions to such basic propositions. We are far too removed in time to realize how dramatic each of these propositions was…" (ibid., 47).

The single most important thesis is of course the first one. Eleanor Fox's polemic paper in Pitofsky's collection challenges the efficiency yardstick. By replacing the idea that antitrust is for competition with the idea that antitrust is for efficiency, the Chicago School has created what she calls the efficiency paradox (Fox 2008, 77). Chicago-style ALE is said to place excessive trust in the efficiency produced by dominant firm strategies and vertical relationships, as well as in the possibility of free entry. Thus, the approach ends up protecting monopoly or oligopoly and suppressing innovative challenges, eventually stifling that very efficiency it was supposed to enhance. The paradox is even more serious in high-tech industries and intellectual property markets, where the natural drift toward single-firm dominance, caused by the joint action of patents, copyrights and network effects, is furthered by Chicago complacency towards monopoly power. Fox's efficiency paradox is perhaps the strongest argument in Pitofsky's volume to support the title page claim that "the Chicago school has overshot the mark", i.e., that it has gone much too far in promoting its peculiar "sole value" methodology.

Fox also laments the replacement of the traditional legal view of competition as a dynamic process ("competition as rivalry") with the price-theoretic idea of competition as a static situation characterized by a given welfare outcome ("competition as efficiency"): "For nearly 100 years, US antitrust law stood against power. US antitrust law was for competition, not centrally for efficiency, although efficiency was an expected by-product" (ibid., 88). Chicago's intervention led to a new view: "Since 1980, US courts have retreated from the tradition of protecting the competition process (rivalry) and the openness of markets. They have shifted to a different inquiry: Will the outcome of a particular merger or conduct be inefficient by inducing the aggregate of all producers to reduce the total amount of goods they produce (i.e., will it lower market output)?" (ibid., 79). The outcome-based paradigm of the Chicago School was intended to minimize antitrust law, constraining its range to policing inefficient outcomes. Chicago instructed courts to consider inefficient only those practices whose *unique* business rationale could be found in blocking or hampering a rival's actual or potential competition. Hence the existence of an efficiency justification would almost automatically legitimize any practice, regardless of its potential anti-competitive effects. Chicago's deep, though untested, faith in the self-correcting ability of the market (market efficiency presumption) is at stake here.[7]

As I show below, Fox's reading of the rise of the Chicago school somehow betrays what actually happened to American ALE in the last quarter of the 20th century. Moreover her approach brings to a dead alley in terms of the effective ability to modify the current enforcement patterns of antitrust law.

§2. Three exemplary Chicago stories: predatory pricing, single monopoly profit and RPM

Parts 3 to 6 of Pitofsky's volume comprise 7 chapters dealing with different aspects of contemporary ALE and examining the specific contribution of the Chicago School and the Post-Chicago reaction. The chapters follow a common format. For any given antitrust violation, they start from the pre-Chicago law enforcement pattern, then highlight how Chicago improved upon it by refocusing courts' efforts towards the efficiency yardstick, then demonstrate the potential inefficiency caused by following Chicago and, finally, how antitrust enforcers might improve their records by applying the lessons of the most recent economic literature (so-called Post-Chicago approach). Exemplary chapters in this regard are Steven Salop's on exclusionary practices, like predatory pricing (PP), tying or vertical integration, and Warren Grimes's and Marina Lao's, both dealing with RPM and free riding. These practices will therefore be used as a benchmark to sketch the Chicago contribution to ALE and (in the next §) the Post-Chicago critique.

2.1 Predatory pricing

Among the various antitrust offenses which may be attributed to a dominant firm, that of cutting prices with the goal of eliminating its rivals is one of the most serious, but also of the most debatable. Generally speaking, a predatory strategy works by pushing price to such a low level that survival on the marketplace becomes impossible for the predator's competitors which are forced to exit. At first glance, this kind of behavior looks unfair and deserving condemnation, especially when the predator is a big, multi-market firm, endowed with a substantial degree of market power and the capability to withstand the losses suffered during the price war, and the preys are small, local businesses. The practice has been disallowed under two different antitrust

[7] Fox also compares Chicago's sole concern with efficiency with the broader array of values (openness, rivalry and a competitive structure of markets) characterizing the enforcement of antitrust law in the European Union (ibid., 86).

statutes, i.e., either §2 of the 1890 Sherman Act, which condemns monopolization, or the 1914 Clayton Act, as amended by the 1936 Robinson-Patman Act, which prohibits anti-competitive price differentiation.

For most of the 20th century the two basic ingredients of any allegation of predatory behavior under US antitrust law have been the existence of the structural requirement of market power and the intention of unfairly exploiting a price reduction to increase or consolidate that power. Market power and predatory intent were the necessary features antitrust courts had to detect in order to validate an accusation of predatory behavior. Starting from the famous 1911 *Standard Oil* case,[8] courts went on for decades inferring predation from dubious proofs of market power and exclusionary intent. If both requirements were met, a per se prohibition applied, causing the automatic condemnation of the alleged predator. The doctrine was harshly criticized by the Chicago school and was eventually abandoned following two Supreme Court decisions which were openly influenced by Chicago views.

The exact meaning of the expression "too low prices" has always been difficult to establish. "Too low" with respect to what? The predator's profit-maximizing price? The predator's costs? The prey's costs? What about consumers, who surely benefit from a price war? How can the competitive practice *par excellence*, the reduction of market price, ever be considered anti-competitive and unlawful? Punishing a firm because its price is "too low" would look like condemning the essence of competition itself. These were the attacking lines that Chicago exploited since the late 1950s (McGee 1958) to challenge the received PP doctrine.

In *Matsushita*[9] the Supreme Court endorsed for the first time the principle that a charge of predatory behavior had to be supported by evidence on the relationship between the defendant's price and cost. Moreover, as a second requirement, the plaintiff had to show if and how the predator, after excluding its rival(s), could make up for the sacrifice of short-term profits suffered during the predatory phase. The so-called *recoupment test* would become a few years later the hallmark of the epoch-making *Brooke* decision. The Court claimed that basic price theory makes predatory strategies implausible: they are unlikely to work and especially costly when failing, hence the Chicago-style mantra that "…predatory pricing schemes are rarely tried, and even more rarely successful." (*Matsushita*, at 589).

[8] *Standard Oil Co. of New Jersey v. United States*, 221 U.S. 1 (1911).
[9] *Matsushita Elec. Indus. Co v. Zenith Radio Corp.*, 475 US 574 (1986).

In *Brooke*[10] the Court explicitly declared that plaintiffs in a PP case must demonstrate not only that the defendant has a genuine possibility of preying upon the rival, by either forcing its exit or disciplining it, but also that the defendant has a strong prospect of recouping the losses suffered during predation. Below-cost pricing is just a necessary, but not a sufficient condition for monopolization. Plaintiffs must also prove that the predator will afterwards be able to raise the price above the competitive level *and* that this will compensate him for the losses during the predatory phase. It follows that after 1993 PP defendants can prevail in summary judgment by winning in either the recoupment or the price-cost section of the so-called *Brooke* test. Not surprisingly, no plaintiff has prevailed in a PP case at federal level ever since.

With *Brooke* the Supreme Court fully disclosed its own views about PP. The strong skepticism about the robustness of predation claims merged with a repeal of the Court's earlier view of competition as so fragile a process that it had to be protected even from price reductions, when made by big firms. Not even the observation of below-cost pricing, combined with the *theoretical* possibility of recouping, should be considered sufficient to validate an accusation of predatory behavior, absent the proof of the *actual* likelihood of sustained supra-competitive pricing and recoupment. *Brooke* explicitly rejected the notion that the mere theoretical possibility of welfare harm could provide a basis for antitrust liability (Kobayashi 2010, 44). No surprise then that the *Brooke* doctrine has since become paradigmatic for all instances of exclusionary conducts. Antitrust courts dealing with exclusionary cases are expected to evaluate whether the defendant's price exceeds its cost and, if it doesn't, whether the defendant will likely be able to recoup its losses by enjoying durable market power in the future (Salop 2008, 143). In short, *Brooke* has set a standard whose influence on American ALE goes well beyond PP.

2.2 The single monopoly profit doctrine

Until the mid-1970s, US antitrust enforcers customarily claimed that vertical integration and tying allowed a monopolist in one product to leverage its monopoly and achieve a second monopoly in another – either downstream or tied product – market. The monopolist could in fact just refuse to sell the input to its rivals or charge a high price for its product. As a consequence, antitrust should adopt a very restrictive approach against these practices.

The Chicago School (see e.g. Bowman 1957) countered the received view claiming that such leverage could not occur because there is only a "single monopoly profit" which can be extracted

[10] *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 US 209 (1993).

by the monopolist – hence the acronym SMP for this doctrine. Believing that a firm may leverage its marker power by vertical integration or tying into another monopoly in a second market would be contrary to basic price theory. Absent any monopolistic rationale, vertical integration or tying must therefore be motivated by efficiency concerns. If no additional market power may be obtained by these practices, their only rational explanation is that firms undertake them to achieve efficiency gains. Given that the latter are precisely what antitrust law aims to promote and protect, the policy implication of Chicago SMP doctrine is clear (see e.g. Salop 2008, 145): antitrust enforcers should reverse their negative view of vertical integration and tying and look at these practices with a much more benign attitude, if not straightly sanction them.

Admittedly, in this area the success of the Chicago school has been far from complete. While the SMP doctrine has become popular among ALE scholars, the Supreme Court stuck to its consolidated doctrine.[11] This consists of a quasi-per se rule that makes tying based on market power illegal, unless the defendant can prove offsetting efficiencies. The doctrine explicitly rejects a traditional rule-of-reason approach that would require proving a substantial foreclosure share or effect on the tied product (see Elhauge 2009, 400). However, as the Court is still progressing in its Chicago-based demolition of consolidated antitrust doctrines (see next sub-§), it may be expected that, armed with price theory, it will eventually modify its views on tying and overrule the quasi-per se rule.

2.3 RPM and the free riding argument

In *Dr. Miles*, one of its most famous antitrust decisions,[12] the Supreme Court declared minimum resale price maintenance (RPM) illegal per se, i.e., without regard to the seller's market power, purpose, or effect. For almost fifty years RPM was considered the quintessential antitrust violation.

In 1960 another prominent member of the Chicago School, Lester Telser, offered an alternative explanation of why a manufacturer would require its dealers not to sell below a minimum price (Telser 1960). The idea was that manufacturers fix the minimum retail prices at a supra-competitive level in order to guarantee higher margins for retailers and thus induce them to provide costly services (like advertising, repair service or sales assistance) which would increase the manufacturer's sales. If retailers were able to compete on price, those services would never be provided because discount stores would free ride on the services provided by high-end stores and

[11] See e.g. *Eastman Kodak Co. v. Image Technical Services, Inc.*, 504 U.S. 451 (1992).
[12] *Dr. Miles Medical Co. v. John D. Park & Sons*, 220 U.S. 373 (1911).

would sell the good at a lower price. Efficiency dictates that such a free riding on the provision of valuable and costly services be prevented by manufacturers. RPM is an effective way to neutralize free riding by inhibiting intrabrand price competition. But if RPM is a pro-efficiency practice, then antitrust courts should revise the *Dr. Miles* doctrine. Another Chicago champion, Richard Posner, famously pushed the argument to the limit, suggesting that, because of free riding problems, RPM should be made per se *legal* (Posner 1981).

After almost two decades the free riding explanation of RPM was eventually endorsed by the Supreme Court in *Sylvania*.[13] Following Telser, the Court recognized vertical restrictions (such as exclusive dealer territories) as an efficient way to promote interbrand competition because they allow manufacturers to fully exploit their distributional efficiencies. *Sylvania* was a historic decision under many respects, including the circumstance that it was the first Supreme Court's decision which openly embraced Chicago ALE.

Yet, *Sylvania* dealt with non-price vertical restraints. It took another thirty years, i.e., until *Leegin*,[14] for the Court to eventually overrule *Dr. Miles* and place RPM within the boundaries of the rule of reason. According to Marina Lao, in *Leegin* the Court expanded so much the free riding argument that it seemingly embraced the hyper-Chicago view that any per se rule is always inappropriate for any class of conduct for which pro-competitive benefits are merely possible (Lao 2008, 197-8). In short, whenever a possible world exists where the given conduct may have pro-competitive effects, this suffices for the *Leegin* Court to exclude the conduct from the realm of per se unlawfulness.[15] Not surprisingly, in his contribution to Pitosfky's collection, Warren Grimes identifies the three decades separating *Sylvania* from *Leegin* as the time span – from origin to zenith – of Chicago rise in US antitrust case law (Grimes 2008, 181).

§3. The Post-Chicago challenge

Each of the Chicago arguments examined in §2 has been challenged – and sometimes dismissed – by the game-theoretic reasoning of the so-called Post-Chicago approach. The approach originated in the effort by several industrial economists to overcome the limitations of basic price theory by devising a theory capable of encompassing a wider array of business practices. Indeed, most of

[13] *Continental T.V., Inc. v. GTE Sylvania, Inc.*, 433 U.S. 36 (1977).
[14] *Leegin Creative Leather Products v PSKS, Inc.*, 127 S.Ct. 2705 (2007).
[15] The principle was already in *Matsushita*, a PP decision. The Court would decide for the defendant even in front of a plausible inference of antitrust violation whenever a pro-competitive explanation exists of the same behavior. See Levin 2005.

practices targeted by antitrust cases defied the often simplistic methods of Chicago economics. Though Pitofsky's volume does not provide a general analysis of the Post-Chicago challenge, it hosts a series of chapters where the Post-Chicago view is applied to elucidate the antitrust implications of a score of common business practices.

3.1 Exclusionary behavior: strategic models and RRC

The chapter by Steven Salop is perhaps the most important in this respect. Apart from its specific content, the chapter highlights the essence of the Post-Chicago approach: take the standard price-theoretic view; show the limits of its analysis and, as a consequence, of its policy prescriptions; then illustrate the broader perspective and better explanatory power of the game-theoretic view; finally, draw the antitrust implications of the new perspective.

Salop's chapter is about exclusionary strategies, first among them predatory pricing. As already said, PP occupies a special place in ALE because it epitomizes the main challenge facing antitrust enforcers. Moreover, being a practice that necessarily entails a dynamic framework, PP brings to the forefront the limitations of the static approach of basic price theory. Hence, it is not casual that the earliest applications of *modern* game theory to industrial economics – where "modern" should be read as synonymous of Bayesian games under less than perfect information – came in the early 1980s in the twin fields of limit and predatory pricing.[16] A flood of strategic literature followed the pioneering works, so much so that already at the end of the 1980s the entire field of IO had been re-designed in terms of game-theoretic tools and methods.[17]

In the case of PP, the common idea of Post-Chicago models is that a firm endowed with market power may exploit the existence of less than perfect information to try to discourage a competitor from entering, or remaining in, the market by manipulating its beliefs. When a firm considers entering a market, it must base its decision on its expectations of post-entry profits. This depends on whether the incumbent responds aggressively and, if so, on the intensity of the aggressive response (say, how much will the price fall following entry?). Hence, the potential entrant's expectations are crucial in determining its entry decision. But the incumbent can, by its actions, influence these expectations. While it would be impossible to manipulate a rival's beliefs under the perfect information setup of price-theoretic models, the addition of even a small amount of either asymmetric or incomplete information makes the trick. For example, by responding aggressively to entry, a predator may be able to convince that specific entrant, or any other future

[16] Milgrom & Roberts 1982a, 1982b; Kreps & Wilson 1982

[17] See the state-of-the-art presentation of the field in Tirole 1988 and Schmalensee & Willig (eds.) 1989.

entrant, that entry into that market is unprofitable. It follows that predation does not even have to "kill" the competitor in order to achieve its goal of affecting the rivals' expectations and thus be a profitable strategy; in the case of a multi-market incumbent, it is not even necessary that the incumbent directly profits from its price-cutting in the contested market. Contrary to the Chicago view, if the incumbent does succeed to drive a competitor out of the market, new entry will *not* inevitably follow as soon as the incumbent raises its price to reap the benefits of its success, because it is now possible that other potential entrants – having witnessed the poor lot of their predecessor – will no longer expect to earn a post-entry profit.

This way of reasoning cannot be encompassed by the *Brooke* test (see above, §2.1), whose second prong only emphasizes the possibility of recoupment by the predator, assessed in terms of the actual existence of entry barriers for new rivals. Following Chicago, this doctrine does not allow for the possibility that predatory behavior may itself have created a barrier in the potential rivals' *mind*, leading them to believe that their entry would always be met by the predator's price cut. Moreover, the *Brooke* test – which, as we know, has been extended in American ALE to cover every kind of exclusionary practice by dominant firms – does not include the possibility that the exclusionary strategy may not consist of a price cut, but rather of some strategic action aimed at raising the rivals' production cost. It is the latter approach – so-called "raising rivals' cost" (RCC)[18] – which Salop's chapter focuses on.

RRC involves a conduct by a firm aimed at raising its competitors' costs with the purpose and effect of causing them to either increase their prices or reduce their output, thereby enabling the excluding firm to earn a profit by setting a supra-competitive price (Salop 2008, 143). The RRC paradigm is alternative to the *Brooke* test, as well as to the whole PP literature. It draws attention upon a kind of conduct which is more likely to negatively affect consumers. Thus, according to Salop, ALE should be more concerned with RRC behavior than with PP.

Several reasons exists why RRC is more likely to harm consumers than PP. Each may best be appreciated by comparing it with the Chicago story underlying the *Brooke* test. For example, RRC does not necessarily require an initial profit sacrifice and a later recoupment because the latter often takes place simultaneously with the RRC conduct. The conduct itself is not even necessarily costly to the firm undertaking it. The rivals' exit from the market is not a condition for the success of the RRC strategy. Above all, RRC brings no short-run benefit to consumers, but only immediate, and persistent, harm. If we take as a sign of a theory's superiority over another its greater

[18] Krattenmaker & Salop 1986.

explanatory power and higher generality, then RRC is an instance of a Post-Chicago theory which is clearly superior to its Chicago (and pre-Chicago) counterpart(s). No doubts for Salop: US courts should definitely embrace RRC as the basic paradigm to police exclusionary behavior.[19]

3.2 Single monopoly profit as a very special case

Still in Salop's chapter we find a scathing review of another Chicago favorite, SMP theory. "As a matter of formal economic theory", Salop writes (2008, 145), "the SMP theory is valid under a certain combination of market conditions that are not very general: (1) the monopolist has a durable and unregulated monopoly; (2) the products are consumed in fixed proportions; (3) all consumers have identical preferences; and (4) there are no efficiencies of integration. When at least one of these conditions fails to occur, there is economic motive for tying or vertical integration". The latter sentence means that profit may raise as a consequence of the practice, and thus that there is "more than one profit" to be gained. Profit may well increase for either pro-competitive or anti-competitive reasons, but the fact remains that the failure of SMP to have general validity beyond the limiting case when all the four assumptions are valid bears witness to the necessity to subject the leverage practices to a rule of reason scrutiny, away from the de facto lawfulness upheld by Chicago scholars.

Also Elhauge(2009, 404) notes that, while stylized assumptions may well produce the somehow counterintuitive conclusion that practices like tying and bundled discounts cannot increase monopoly profits, and thus must bear an efficiency explanation, under more realistic assumptions economics shows that the opposite is true. With a substantial tied foreclosure share, tying can increase market power, prices, and profits in both the tied and tying markets. Even without a substantial foreclosure share, ties by firms with tying market power generally harm consumers and welfare, absent efficiencies.

What we have here is an instance of a phenomenon that we will meet even more clearly in the next sub-section. One of the main strengths of Chicago ALE is the alleged higher realism and easier applicability of its analysis. The standard view is that basic price theory, based as it is on fundamental economic principles, offers a much more robust set of results than, say, any game-theoretic model which is inevitably founded upon very specific assumptions about firms' beliefs. The different robustness of the two approaches is highlighted by the case of PP. The main reason why the Post-Chicago models of predation never managed to find hearing in US courts is the

[19] Salop also remarks that the roots of the RRC view may be traced in the works of the founding fathers of the Chicago school of ALE: see Salop 2008, 144.

highly idiosyncratic character of their underlying assumptions (about, say, how a predator's strategy may affect the prey's beliefs). By taking proper account of these assumptions, one realizes how models of this kind are just "an endless collection of special cases" of little, if any, utility to case law (Peltzman 1991, 206; also see Giocoli 2012). On the contrary, the basic Chicago story of PP, as embodied by the *Brooke* test, rests upon the robust generalizations of standard price theory. Hence, it looks like an excellent, plug-and-play courtroom tool.

The point is that in the case of the SMP theory the situation seems reversed. It is the Chicago story – dependent as it is on the validity of the four *ad hoc* assumptions – that looks like a special case. Market reality seems best captured by the myriad of real instances of tying or vertical integration which, some way or the other, do not overlap with the ideal setup required for the validity of the SMP argument. But if SMP is just a special case, then the pragmatic edge does not lie anymore with Chicago. The "plug-and-play" magic of Chicago ALE would not work here. As a matter of sheer realism, the edge seems to reside with the Post-Chicago view. This phenomenon is even more apparent in the case of the free riding rationale for RPM.

3.3 Has the free riding argument been overemphasized?

In the chapters authored by Warren Grimes and Marina Lao, Post-Chicago industrial economics is employed to support the view that the free riding argument in defense of RPM is either a pretext (Grimes) or an overstated and unconvincing thesis (Lao).

According to Grimes, post-*Sylvania* case law and modern economics show that a manufacturer's desire to limit free riding by its dealers cannot provide an all-purpose justification for vertical restraints (Grimes 2008, 195). Downstream restraints that restrict distribution – like, say, exclusive dealer territories – may effectively limit free riding by opportunistic dealers; yet, their rationale is not in curbing free riding, but rather in promoting a dealer's efficient investment. In other words, the restraint's real goal is investment promotion, not opportunism busting. This also explains why it is harder to justify tougher restraints like RPM: if free riding were the real motivation for RPM, there might be less anti-competitive alternative, such as contractually enforced promotion allowances, to prevent dealers' opportunism. Hence, recent case law, including the pro-RPM *Leegin* decision, which simply repeats the *Sylvania* free riding doctrine, looks like a purely deductive extension of Telser's "unsubstantiated theory" (ibid.). This law should be corrected.

The point is made even more forcefully in Lao's chapter. First of all, free riding is identified as ubiquitous in the marketplace. But opportunistic behavior is not, in general, unlawful. Why should protection against it in the case of distribution channels deserve an exemption from basic antitrust rules? Moreover, the free riding argument epitomizes the purely deductive, “is it possible that?” kind of theorizing that the Chicago School has always made a point of honor to demolish. Arguments of this kind underlie for example game-theoretic models of PP (see above). It is not casual that in penning his *Leegin* dissent Justice Stephen Breyer repeated the point he had raised years before against too far-fetched predatory stories.

According to Breyer, while it is correct that RPM may sometimes, as envisaged by the Chicago school, bring pro-efficiency effects, in the absence of empirical evidence demonstrating how often these benefits occur, it becomes impossible “to separate the beneficial sheep from the antitrust goats”. And again: “One can easily imagine a dealer who refuses to provide important presale services … lest customers [free ride] … But does it happen often?” (quoted by Lao 2008, 199 and 209). Compare these statements with those written by then-judge Breyer in a PP case: “Although antitrust benefits from the insights and rigor of economic theory, it is a legal regime that must account for the practicalities of administering law: unlike economics, law is an administrative system […] We do not want to risk sacrificing the ‘bird in hand’ of above-cost price cut benefiting consumers for the ‘bird in the bush’ of future low prices” (*Barry Wright v. ITT Grinnell Corp*., 1st Circuit, 1983). Zoological similitudes apart, Breyer seems remarkably consistent in his views of what counts as a proper economic argument in an antitrust court. The same cannot be said about the Chicago school.

The free riding argument takes it for granted that RPM has been set to discipline an otherwise inefficient and opportunistic dealer. The alternative interpretation, that RPM has been set to punish an efficient discounter, is excluded a priori because it is implicitly assumed that a manufacturer would never wish to damage an efficient dealer. What about, Lao observes (ibid., 201-2), the case of a big, though inefficient, dealer? For a sheer matter of size (i.e., of total sales), the manufacturer might well wish to favour it, notwithstanding its inefficiency, with respect to a very efficient, but small, discounter. Once again, the Chicago view seems too ad hoc.

Lao remarks how the free riding argument is gaining more ground in American ALE. Case law is extending its logic from the provision of “tangible” services (like, say, repair or sales assistance) to that of “intangible” features, such as ambiance or reputation. Again, the idea is that RPM may be justified as a pro-efficiency practice by which the manufacturer gives dealers the incentive to invest in “intangibles” which may somehow enhance the image or reputation of the manufacturer’s brand. These intangibles would not be provided – and the competition would be distorted from interbrand to intrabrand – without RPM (ibid., 202-4). Ironically, in one of those arguments the rationale for RPM is found in the reputational signal that a retailer's decision to carry a given brand may bestow to the brand holder. Signalling stories like that are typical of the game-theoretic approach to PP, and for this reason are usually despised by Chicago scholars. But not of course when they may be used to uphold one of Chicago pet stories.

Support for the free riding logic shows that the real issue in *Leegin* – "can a per se prohibition, like the old *Dr. Miles* doctrine, be applied when a free riding argument *may* exist?" – may extend its reach to several other business practices. Surprisingly, the resounding "NO" answered by the Chicago-oriented *Leegin* Court is orthogonal to the even louder "NO" that the *Brooke* Court had given to a similar question, namely, "can a dominant firm be condemned for a price cut when a story explaining it as an act of predation *may* exist?". An even bigger irony is therefore that those same Chicago scholars who, in the PP realm, defend every price cut made by dominant firms following the "price-as-the-best-competitive-tool" mantra, in the case of RPM are keen to find every possible justification for the manufacturer's decision to eliminate price as a competitive weapon in the first place. It is a pity that Lao has missed these two ironies in her otherwise delightful paper.

§4. Explaining Chicago enduring charm

In the previous pages I have summarized the opposing views of the Chicago and Post-Chicago approaches with respect to a limited set of business practices. From the standpoint of pure economics, the Post-Chicago school has clearly the edge. Armed with Bayesian game theory, Post-Chicago scholars have pushed contemporary industrial economics well beyond the boundaries of basic price theory. As a matter of fact, the discipline today largely coincides with the Post-Chicago approach, while Chicago theses find limited space.

In their way to classroom triumph, Post-Chicago scholars have demonstrated that a profit-maximizing rationale exists for a bunch of anti-competitive practices which had been sanctioned by Chicago supporters. By showing that the suspicion, if not outright disfavor, which antitrust enforcers had traditionally reserved to practices like tying, RPM or dominant firm's price cuts, was justified in terms of strategic analysis, the Post-Chicago school has granted theoretical credit to many of the post-WWII antitrust doctrines which Chicago-oriented courts had cancelled, one by one, since the late 1970s. However, this rescue operation has largely remained a purely intellectual endeavor. The impact of Post-Chicago economics upon US antitrust courts, first of all the Supreme Court, has so far been negligible. On the contrary, in the last couple of decades the influence of the Chicago school on antitrust case law has reached the apex. Notwithstanding their newly acquired theoretical soundness, almost none of the old pre-Chicago doctrines have survived the ax – the latest to fall being the per se prohibition of RPM in *Leegin*. Why has Post-Chicago economics failed to migrate from classrooms to courtrooms? How to explain the persistence of the Chicago approach in American ALE?

From the viewpoint of the history of economics these questions can hardly be overemphasized. What is at stake here is an understanding of *how economists persuade*, i.e., of when and why a formal economic argument may have a chance of making its way among practical men looking for operational solutions in either court- or policy rooms.[20] History abounds of similar situations, of rigorous theories failing to persuade the policy-makers or flawed arguments being applied long after their theoretical unsoundness has been proved. Understanding why is key to the economists' aspiration to affect on the real world. Antitrust law and economics represents one of the best fields where the issue may be tackled.

In the remaining pages I will provide seven possible explanations for Chicago "mysterious" persistence. As I said in the Introduction, none of them is 100% satisfactory. Each will be presented separately from the others, as if it were endowed with well-definite contours. Inevitably, this will entail that each explanation, and its supporters too, will look like a caricature, an ideal straw man. For expository reasons, my goal here is to amplify the differences among the various explanations, while concealing the fact that none of them has ever been advanced in a pure form. ALE scholars have almost always bundled them in small subsets. The paper's main contribution is precisely to unbundle the subsets and provide a comprehensive taxonomy. As in the rest of the paper, some of the chapters in Pitofsky's volume will provide a useful starting point.

§5. Chicago? What Chicago?

The first answer is simply to deny the question itself. This kind of "solution" may come in two versions. Either it is negated that Chicago ever achieved a 100% success within American ALE, or it

[20] For a similar question in a different policy context see Mankiw 2006.

is claimed that it wasn't actually Chicago to triumph, but a combination, in varying degrees, of Chicago-plus-Harvard.

Pitofsky's volume contains two instances of the first version in Fred Scherer's and Daniel Rubinfield's chapters. Both argue that even at its peak Chicago never really dominated antitrust case law, while in industrial economics its views have always been minoritarian.[21] They underline that some of the old, post-WWII doctrines have survived until recently. And even now that these doctines' last vestiges have been almost totally canceled, the fact that Post-Chicago scholarship is spreading, albeit slowly, among US lower courts gives the two authors reason to believe that Chicago victory has never been complete and will be eventually reversed.

The objection against this version of the "what Chicago?" argument is straightforward. As it turns out, some of its present-day supporters had *already* conceded defeat to Chicago at the end of the 1980s! So their point looks like a late recognition that they had been overtly pessimistic at that time. Some limited areas of judicial resistance against the Chicago army have always existed within case law. But the overall picture they themselves seem to acknowledge is still that of an overwhelming dominance of the Chicago view in US courts, with very little room left for Post-Chicago doctrines.

The second version is more stimulating. In a series of insightful papers, top scholars such as Herbert Hovenkamp, Bill Kovacic, Thomas Kauper and Einer Elhauge have argued that the present situation of antitrust case law represents an almost ideal equilibrium between the theoretical and policy features of the two main schools of American ALE, Chicago and Harvard. The essays by Hovenkamp and Kauper in Pitosky's collection reiterate this thesis, which is known in the literature under different names, such as "the Harvard-Chicago joint venture", or "the chastised Chicago view" (Hovenkamp 2008), or "the double-helix view" (Kovacic 2007).

The "joint venture" thesis is first and foremost theoretical. Its supporters explain how the economic theory underlying most contemporary case law is neither purely Chicago, nor purely Harvard. Not even flagship doctrines, such as that in *Brooke*, may exhibit a 100% Chicago origin. As is well known, the origin of the first prong of the *Brooke* test, the price-cost test, lies in the classic 1975 paper by Harvard law scholars Phillip Areeda and Donald Turner, who applied price theory to predatory pricing.[22] Little surprise at this and similar examples. One of Chicago main contributions to ALE is the application of basic price theory, but of course this theory is not the exclusive

[21] The point about industrial economics is also in Martin 2007.

[22] Areeda & Turner 1975. See on this story Giocoli 2011, 2012. Hovenkamp remarks (2008, 110, text and footnote 13) that even the second prong of the *Brooke* test was forerun by Areeda and Turner.

property of Chicago economics. The monumental *Antitrust Law* treatise by Areeda and Turner bears witness to this statement (see Hovenkamp 1996).

Hovenkamp et al.'s argument is definitely convincing. Yet, the facts they bring in its support might be given a less ecumenical interpretation. What even one of the founders of the Chicago school Posner called "a growing convergence between [Harvard and Chicago]" (Posner 1979, 933) might as well be interpreted as the inevitable outcome of Harvard's encounter with orthodox price theory. What this encounter meant for Harvard scholars was the demise of the discredited SCP approach – a Harvard economics trademark. In other words, given that price theory was at the heart of Chicago doctrines, and given that the Harvard part of the "joint venture" was almost exclusively contributed by Harvard law scholars, rather than by Harvard economists, a more cynical interpretation could simply be that the triumph of price-theoretic antitrust amounted to an effective surrender of Harvard to a just-a-little-bit-watered-down version of Chicago ALE.

A variant of the latter point is to emphasize what Harvard actually contributed to the "joint venture". That is, not so much on theoretical grounds, but rather in terms of a pragmatic attitude to antitrust case law. This attitude is the real trademark of Harvard law scholars such as Areeda, Turner and Breyer. Supporters of the "joint venture" thesis also share this view. For example, Kovacic claims that caution about the administrability of rules and the capacity of antitrust institutions to implement them have been the main contributions of Harvard Law School to modern US antitrust (Kovacic 2007). While sharing the general concern about deterrence effects, Harvard preoccupation was not identical to Chicago's. The latter had a theoretical (or ideological: see next §) foundation in the alleged superiority of markets in allocating scarce resources with respect to every other institution. The former simply addressed the practical side of antitrust law enforcing. A test like that in *Brooke* could thus be read not as the epitome of the Chicago view, but as the outcome of Harvard scholars' insistence that antitrust enforcers should take into account institutional limitations and give prominence to a few simple and operational principles which all courts and agencies may easily handle.

The "joint venture" thesis captures a good portion of what happened to American ALE. In particular, the pragmatic barrier erected by Harvard scholars seems to explain both the attractiveness of plug-and-play prescriptions stemming from judge-friendly basic price theory and the courts' disfavor for the excessively refined, and operationally weak, analysis of the Post-Chicago school. Ironically, Harvard law scholars endowed Chicago doctrines with a powerful shield

– the administrability issue – to be used against those arguments capable of rescuing the old prescriptions devised by Harvard economists.

§6. It's the ideology, stupid!

Ideology is perhaps the commonest explanation of Chicago success and persistence. The thesis is simply that, coming the 1980s, free market ideology triumphed over alternative views of the role of the law and the State in the economy. Faith in the self-corrective power of markets and distrust about the effectiveness of State-based regulations reduced both the space and the legitimacy of antitrust interventions. If any market power is only temporary and destined to be wiped off by the invisible hand of markets, and if policy-makers or bureaucrats can never enjoy a knowledge advantage in the pursuit of efficiency over businesses and individuals, the wisest policy is to leave markets cure their own imperfections and limit as much as possible any interference by antitrust authorities. A corollary of this view is that using antitrust law to pursue goals other than economic efficiency – like those supported by Modern Populists – would amount to an even more damaging interference with the free and efficient working of markets, with inevitable suboptimal outcomes.

According to this reading, the ideological switch in favor of *laissez faire* explains Chicago rise to dominance, and the demise of the populist view, since the late 1970s – early 1980s. This is a standard a story which does not deserve to be repeated here. More significant is that ideology may also account for Chicago ability to resist the game-theoretic challenge. The defeat of the populist view did not eliminate the normative element from antitrust debates. The dispute about ALE has become since the 1980s an intramural quarrel between industrial economists, with little room left to other social scientists and other, non-economic values. But beneath the surface the fire of ideological divide still burns. Ideology underlies the contrasting policy views of Chicago and Post-Chicago, and accounts for the prevalence of the former over the latter.

The difference between those who believe that markets automatically tend to efficiency and those who believe that market failures are not necessarily self-correcting and that firms may permanently gain from these imperfections is not just a matter of analytical tools and theoretical assumptions. At the bottom lies a deep division about the normative assumptions most appropriate to antitrust policy. Consider the following passage by Michael Jacobs: "While Chicagoans assume that the desire to maximize profits drives firms to compete away market imperfections and destabilizes collusive activity, Post-Chicagoans believe that strategizing firms can create or perpetuate market imperfections that can seriously hamper competitive balance. Similarly, while Chicagoans presuppose that markets promote efficient business behavior and that judges untrained in economics are ill-equipped to identify and measure market imperfections, Post-Chicagoans have less trust in markets and more confidence in the judiciary's ability to distinguish between competitive and anticompetitive conduct." (Jacobs 1995, 225). These differences are, in a nutshell, articles of political, or ideological faith, which reflect specific, and irreconcilable, normative beliefs.

The argument may be pushed further. By demolishing the confidence in price-theoretic results, Post-Chicago scholars have revealed the fundamental inability of economics to provide definitive criteria to settle the toughest antitrust issues – that is, precisely those issues where the Chicago/Post-Chicago divide is most acute. Because they cannot be resolved either theoretically or empirically, the disputes in contemporary antitrust bear witness to "the unavailability of a transcendent economic perspective and demonstrate the durability of the ideological questions that economists have sought to banish from antitrust discourse" (ibid., 265). The conclusion is paradoxical: "…far from having marginalized the role of value choice in antitrust discourse, the ascendancy of economic models underscores its enduring importance" (ibid., 225).

Jacobs's thesis touched a sensible nerve with ALE scholars. Richard Posner – one of the keenest supporters of the "everything's OK" view of modern antitrust enforcement – dedicated no less than the Preface of the second edition of his landmark *Antitrust Law* to counter it. Posner's point is very simple (maybe *too* simple!): Jacobs, and with him all believers in the persisting power of ideological and normative evaluations in ALE, are guilty of "a confusion between motive and theory. Political values, temperament, and a host of other nonanalytical factors influence a choice of theoretical positions, but it doesn't follow that the theories themselves have a political character". How best to achieve efficiency in the marketplace is a question of instrumental rationality (of relations of means to ends) which can well be resolved "without delving into underlying political or personal motivations" (Posner 2001, vii-viii).

Posner's counter-argument is suspiciously naïve. Whenever two theories have different policy implications, and absent objective criteria to decide between them, the choice of which theory to follow *is* a political choice. Claiming that antitrust enforcers – or the economists counseling them – may always be capable of peacefully selecting between alternative interpretations of the same economic phenomenon, say, a given business practice, in terms of the respective ability to better approximate the shared goal of allocative efficiency is a caricature of the (sometimes brutal) clashes accompanying most antitrust case law. Or, if you like, it is to enormously overvalue the power of theoretical and empirical economics to give definitive answers to even the most basic policy questions. That such an overvaluation may come from someone who has invested so much in demonstrating the power of economics to cast light over most legal issues is perhaps understandable, but still far-fetched. Especially in the field of antitrust, we should accept that it is often a matter of neither price or game theory. For many antitrust questions, "politics and history – messy, individuated, idiosyncratic, and unscientific – are the answers of last resort." (Jacobs 1995, 291).

§7. The Classics were right: "Competitions is a process, not a state"

This explanation draws upon the distinction between competition as a process and competition as a state made by several commentators. Among the latter features Eleanor Fox, whose chapter is one of the liveliest in Pitofsky's volume. The argument is once again straightforward. Having persuaded most antitrust scholars and practitioners to focus on allocative efficiency as the sole goal of antitrust policy, the Chicago approach has dramatically affected the characterization of competition itself. Competition is not viewed anymore – as the pre-Chicago enforcers allegedly did – as a process triggered by effective rivalry in the marketplace. Competition is merely a state with optimal welfare properties. Such a limited view of competition has caused a retreat of US antitrust enforcers from their traditional goal of protecting actual market rivalry – in all its multi-faceted meanings – to an outcome-based approach where the courts' only role is to condemn blatantly inefficient outcomes (Fox 2008, 79).

As a by-product of their restricted focus on static efficiency, antitrust enforcers in the US are today anesthetized against the richer implications of the Post-Chicago approach. The latter once again highlights the dynamic benefits of effective rivalry in the marketplace; it also warns against the belief that free markets suffice to warrant these benefits. The secret behind the success and persistence of the Chicago school would therefore consist in the clever strategy – deliberately pursued by, say, Bork 1978 – of shrinking ALE to the very single issue, efficiency, where the validity of basic price theory is undisputed. Every other aspect of the richer notion of competition which, according to this reading, underlay both the pre-Chicago era and most Post-Chicago work would be lost in the transition.

Fox's interpretation is fascinating, but suffers from a major drawback. It simply betrays the history of economics. The notion of competition as a process was peculiar of Classical economics. Competition, for Smith and the other Classics, was synonymous with market behavior, i.e., with the actions and reactions of sellers and buyers in the marketplace. The analytical function of competition within the Classical "model" was to bring market price to its normal level, eliminating both excess profits and unsatisfied wants. In this sense competition was indeed a process, leading to certain predicted results. It was a price-determining force which operated within the market, but did not coincide with it. Clearly, the Classics did not conceive of competition as a market structure or state as in the post-1930s neoclassical approach.

Classical economics considered the solution of the basic allocation problem as independent of the market type, that is, of the specific structural assumptions about competition. In modern jargon, it would perhaps be correct to say that the Classics did not deal with "competition", but just with the "price mechanism". It was the latter which prevented chaos in the marketplace and warranted a definite solution to the allocation problem. In order for the price mechanism to work, the only requirement was a sufficient degree of competition between buyers and sellers, i.e., of their freedom to act and react. As underlined by Paul McNulty, the notion of competition entered economics in the form of a business behavior consisting of a series of actions and reactions which later neoclassical economists would almost invariably consider monopolistic.[23] The very essence of classical competition was to undersell your rival, and the power to set or cut prices was the main competitive weapon (McNulty 1968).

The Classic view of competition as a behavioral process was however inadequate when applied to an economy like the U.S. in the last two decades of the 19th century, when the seeds of modern antitrust law were planted. Centered as it was on the exchange behavior of buyers and sellers, the notion could not account for the processes taking place inside the firms. These processes consisted of all those activities aimed at finding the cheapest production techniques or the most efficient managerial methods. Such an "internal" character of competition was much less prominent in the Classical characterization, but was crucial in the new industrial structure characterized by unprecedented investments in fixed capital and huge scale economies. The earliest antitrust enforcers struggled to reconcile the ideal characterization of competition as

[23] Examples of Classical competitive actions are undercutting or bidding up prices, entering a market, expanding capacity, etc.

rivalry, which Adam Smith and the other Classics had enshrined in the cultural background of free market economies, with a reality made of big businesses, cartels and trusts.

The process view of competition did represent the paradigm for US antitrust law in such an early era. Its inadequacy with respect to the new industrial structure explains most of the inconsistencies affecting the first tentative enforcements of the Sherman Act. However, Fox seems to overlook that between this period and the advent of the Chicago school came the SCP approach (see above, §1), itself the outcome of the major theoretical innovations which transformed industrial economics in the 1930s and 1940s. Armed with the new theory of imperfectly competitive markets, Harvard economists identified a specific market structure – the perfectly competitive one – as the new ideal reference for antitrust enforcers. Thus, the post-WWII era of strong enforcement, whose demise Fox clearly bemoans, was not built upon the "competition as rivalry" view, but rather upon the newly devised "competition as a market structure" one.

Supporters of SCP devised a special mission for US courts, namely, that of interfering with the spontaneous working of markets in order to lead them to reproduce, as closely as possible, a perfectly competitive structure. The presumption was that law- and policy-makers were not only capable of preserving "an environment congenial to mavericks and upstarts" (as Fox 2008, 80, put it), but that they were able to recognize and build it in the first place. In short, the goal of SCP-based antitrust law was to engineer a competitive structure in the marketplace.

Such an engineering view of the role of antitrust enforcement could only emerge after *more* economic reasoning, in the form of the theory underlying SCP, had entered courtrooms. That is to say, only when courts abandoned their earlier Classical (or merely intuitive) view of competition as a dynamic process requiring protection, in favor of a static characterization of competition as a first best structure requiring protection *and* fabrication. Contrary to Fox's account, the notion of competition as a state thus predates the advent of the Chicago school.[24]

The novelty brought by Chicago was its skepticism about the effective ability of law- and policy-makers to help the working of the competitive process, let alone engineer a more competitive market structure. As Schmalensee put it in his chapter, even Chicagoans believe that competition is "a process, the outcome of which is welfare" (2008, 13). What characterizes them, differently from the SCP approach, is the belief that only free markets may allow the process to deploy its full

[24] The only way to rescue Fox's belief that the "competition as rivalry" view lasted in US courts until the advent of Chicago is to recognize that post-WWII industrial economics was largely irrelevant in the workings of, say, the Warren Court. But if it is so (and it may well be so), then it becomes impossible to justify the rise of the Chicago school as in Fox's account, i.e., in terms of the judicial acceptance of the efficiency paradigm. If economics found no hearing in courts during the 1950s or 1960s, why should it be welcomed in the 1970s or 1980s?

strength, and that any interference with the markets' magic would only diminish total welfare. Such a perspective brings us back to the second explanation (above, §6), namely, to the different normative beliefs in the different abilities of government and bureaucracies vis-à-vis free markets to warrant the achievement of maximum efficiency.

§8. An internal dispute within economics: long versus short run effects

The fourth explanation is related to the second, i.e., ideological, one, though its roots are theoretical. It shares with the second explanation the idea that, beyond the simplest cases, economics seldom delivers unequivocal conclusions about the anticompetitive character of common business practices. The eventual decision is thus often driven by the enforcer's normative beliefs and ideological inclinations. However, the fourth explanation zooms in on a specific instance of normative choice.

We know that every business practice has short and long run effects on social welfare. In most cases, economic theory shows these effects point to opposite directions. According to the fourth explanation, antitrust enforcers do not let themselves be driven by generic socio-political inclinations; they answer specific competition problems by attributing more weight to the immediate welfare gains that a practice generates vis-à-vis its future losses, or vice versa. Such an attribution may seem theoretically-driven, but it is not. The failure of economics to provide objective grounds for it (say, by proving that short run effects always outweigh long run ones) entails that the attribution is normative, though it is a one-dimensional kind of normativeness (viz., the preference for short over long run consequences).

As an instance of this interpretation, we may refer to Alan Devlin & Michael Jacobs's recent paper, where they explain in terms of the short/long run tradeoff the gulf separating US and EU antitrust enforcers with respect to a list of business practices, such as refusal to supply, predatory pricing or vertical integration (Devlin & Jacobs 2010). For example, EU competition authorities look more suspiciously to the behavior of owners of essential facilities than their American counterparts. Economics shows that restricted access to essential facilities may cause short run welfare losses by obstructing the emergence of a fully competitive market. Yet, it also shows that these restrictions may have positive effects in the long run, due to the extra-profits they warrant to would-be investors in new facilities. By condemning an owner's refusal to grant access to her facility, antitrust authorities favor a more competitive market in the short run, but at the same time diminish her rewards, possibly below what she expected when investing in the facility. Incomplete appropriability of investment rewards discourages future investments in valuable facilities and thus reduces long run welfare. Devlin & Jacobs's point is that in most real world cases economics cannot offer a clear-cut solution to this tradeoff. The enforcer's decision in an antitrust case involving an essential facility is therefore driven by his normative judgment about which of the two effects is more relevant in view of the given policy goals (e.g., maximizing total welfare). EU authorities privilege the short run negative effect, US courts the long run positive one.

The positions are reversed in the case of predatory pricing. American case law gives more credit to the short run consumer gains warranted by the price cut, regardless of the possible strategic reasons behind it. European authorities are more worried about the long run competitive losses that a successful predatory strategy may possibly cause. The reversal shows that the Atlantic divide is not a matter of privileging either a short or a long run perspective. What really matters is the enforcers' different confidence in the free markets' long run ability to deliver their efficient outcomes. Post-1980s US courts seem to trust markets quite a lot. Hence, when facing the short/long run tradeoff in actual antitrust cases they tend to privilege the solution which most faithfully reflects this view – like, say, entrusting free entry to prevent a predator from recouping her losses or believing in the strength of the profit incentive to warrant the investment in new essential facilities. EU authorities are more skeptical about the long run effectiveness of market forces, especially when hindered by monopoly power.[25] For competition to work properly, the policy-makers' intervention in the market is deemed necessary. Hence, EU competition law tends to favor the solution of the short/long run dilemma which is closer to this attitude – like, say, forcing the owner to grant access to her facility or disallowing a dominant firm's price cut if it may cause the exit of smaller competitors.

It is not hard to see what kind of economics is more in tune with the American view. We already know that free entry is Chicago "virtual trump card" (see above, §1). Both the general Chicago philosophy ("always trust the market, never interfere with it") and its specific policy implications support the conclusion that courts should always choose the horn of the dilemma entrusting markets' ability to generate long run gains. What about the EU view? One of the main features of the Post-Chicago approach is that it shows the limits – sometimes the inconsistency – of Chicago long run optimism. Contrary to Chicago claims, game-theoretic analysis shows that for several

[25] This view descends from the Ordoliberal foundations of European competition law. See Giocoli 2009.

business practices leaving the markets unobstructed does not warrant maximum welfare. Competition law is required precisely *because* these practices may cause either short or long run negative effects which the working of free markets may not be able to compensate, or avoid. Thus, it is hardly surprising that, especially in recent years, Post-Chicago ideas have found more receptive ears in Europe than in the US.[26]

It is important to emphasize that – more than in the case of the second explanation – the short/long run dilemma reflects an internal dispute between economists and within economics. Chicago and Post-Chicago scholars differ in their analysis of the dilemma, in particular of the relative weights to be attributed to opposite short and long run effects. Given the unavailability of definitive answers, either theoretical or empirical, each school tends to emphasize the horn which more closely tracks its normative, pre-analytic view with respect to the free market system. The fourth explanation ensues. Chicago resilience in US case law depends on the circumstance that American courts almost always side with the Chicago solution of the short/long run dilemma, as they share Chicago faith in the power of markets to bring efficient outcomes in the long run. No amount of rigorous theorizing by the Post-Chicago school may thus persuade them to change their view. At least, not as long as economic analysis remains unable, in real antitrust cases, to provide undisputable factual elements in favor of Post-Chicago solutions.

§9. Rules' administrability and the courts' limited competence

We have already remarked that the contribution of Harvard ALE to the present enforcement patterns in US antitrust law may be reconstructed in terms of a pragmatic focus on the enforceability of rules (see §5). This section further elaborates the point and argues, as a fifth explanation of Chicago persistence, that there is proposition which is "central to both the Chicago and Harvard positions: administrability is key" (Hovenkamp 2008, 118). From this proposition, it follows that business practices "must be reasonably susceptible to judicial control, which means that the court must be able to identify the conduct as anticompetitive" (ibid.).

By providing courts with a set of easily administrable rules, the Chicago approach gained an edge over previous, more complicated enforcement patterns (which, for instance, often required the proof of a firm's anticompetitive intent). The edge is still there because Post-Chicago scholars have

[26] See e.g. the proposals by the UE Economic Advisory Group in EAGCP 2005.

so far been unable to transform their superior theoretical prescriptions into easily enforceable principles. Moreover, by calling into play basic price theory, Chicago ALE could, and still can, be easily accommodated within the boundaries of judges' and courts' limited economic competence. Post-Chicago theory, founded as it is on highly sophisticated game-theoretic reasoning, is on the contrary "too complicated" for average judges and courts to understand, let alone apply.

Think again of predatory pricing (PP). According to Kovacic (2007, 48-9), the crucial *Matsushita* decision (see above, §2.1) should not be credited directly to the influence of the Chicago school. The key impulse came from then-judge, and formerly Harvard scholar, Stephen Breyer, with his 1983 *Barry Wright* ruling.[27] In that decision, Breyer expressed his concern with the possible deterrence of pro-competitive behavior caused by too strict an enforcement of the traditional PP doctrine. Yet, Breyer's concern did not stem from the same kind of preoccupations of Chicago economists. It rather descended from the fear that antitrust courts and agencies could lack the ability to handle difficult cases and, consequently, that their poor decisions might cause credibility problems to antitrust law. If Kovacic is right,[28] then the present enforcement pattern for PP should be read more as the outcome of a typical Harvard-style insistence that competition policy should take into account the limitations of antitrust institutions, than as the product of Chicago price theory. The best way to handle these limitations is to reduce antitrust law to a few simple and fully operational doctrines which every judge, court or agencies may easily apply, regardless of their economic literacy.

If we accept that emphasis on administrability is Harvard's main contribution to contemporary US antitrust law, then it is just a small step to understand the enduring fascination of the Chicago approach upon American courts. First, by leading enforces to focus on the sole goal of efficiency, Chicago greatly simplified their work, allowing them to get rid of the set of, sometimes conflicting, goals which made previous case law difficult to handle and highly unpredictable. Second, Chicago provided courts and judges with a common language, basic price theory, which was (usually) within their reach and which was well understood by plaintiffs, defendants and the wider business community. Third, by following Chicago, US enforcers could avail themselves of a set of price-

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[27] *Barry Wright v. ITT Grinnell Corp.*, 724 F.2d 227 (1st Cir., 1983).

[28] Kovacic's thesis is confirmed by a closer look at Justice Breyer's antitrust doctrine (see Greenfield & Matheson 2009). First as a judge in the Court of Appeals of the First Circuit and then as a member of the Supreme Court, Breyer has always decided, in antitrust cases, in favor of bright-line rules and safe harbors whenever the benefits of exhaustive analysis, using all the available economic tools, would not justify the costs. *Barry Wright* is again exemplary in this regard. Far from denying that antitrust enforcement could enormously benefit from the insights and rigor of economic theory, Breyer remarked that: "…while technical economic discussion helps to inform the antitrust laws, those laws cannot precisely replicate the economists' (sometimes conflicting) views. For, *unlike economics, law is an administrative system* the effects of which depend upon the content of rules and precedents only as they are applied by judges and juries in courts and by lawyers advising their clients." (*Barry Wright*, at 234, emphasis added).

theoretical propositions which enjoyed undisputed prestige within 20th-century social sciences. The authoritativeness of these propositions could thus be transferred to US courts' case law, granting their decisions a semi-scientific aura of rigor – a major step forward with respect to the skepticism surrounding some of the earlier antitrust rulings. The three features combined to make the administration of antitrust case law easier and speedier, fully in the spirit of Harvard-style administrability.

Beyond explaining Chicago success, administrability also accounts for its persistence. The second and third features cannot be shared by the Post-Chicago approach, whose language and techniques are distant from the standard economic literacy of legal scholars, practitioners and businessmen, and whose results do not – actually, *cannot* (see §11) – enjoy a status of generalized acceptance even vaguely comparable to that of price-theoretic propositions. In short, if it is true that Harvard legacy on contemporary antitrust law is the emphasis on administrability, then the Chicago approach still enjoys on these grounds a clear edge over the Post-Chicago view.

§10. Can courts trust Post-Chicago scholars? The *Daubert* rule on expert testimony

The chances that the Post-Chicago approach might fare well within the US system of antitrust enforcement – little as they already were – have been further diminished in 1993 by the same Supreme Court which delivered the *Brooke* decision. In *Daubert*,[29] the Court established the principle that to be admitted in court an expert testimony must be not only "relevant", but also "reliable". The reliability standard – which applies to any kind of scientific, technical or other specialized knowledge, including economic knowledge – has restricted the scope for expert testimony, entitling courts to a gate-keeping role for the admission of scientific experts.

The literature about *Daubert*'s impact on US jurisprudence is huge. Suffices to say that, according to the Court, an expert testimony may be considered "reliable" only if it is scientifically valid, while in order to be "relevant" it must be related to the facts of the matter. As far as antitrust cases are concerned, these requirements translate as mandating that, to be admitted, an economist's testimony must, first, provide a scientific theory capable of distinguishing between anti- and pro-competitive explanations of the practice under scrutiny, and, second, apply the theory to the facts of the case. Science for the *Daubert* Court means falsifiability: a scientific

[29] *Daubert v. Merrell Dow Pharm. Inc.*, 509 US 579 (1993).

theory must be a falsifiable theory. Hence, it has been argued that "…the *Daubert* standard provides judges with a useful tool to separate economic science from economic fiction." (Coate & Fischer 2001, 852).

The foundations of the Post-Chicago approach lie in modern game theory. A *Daubert*-based dismissal of that theory for lack of "reliability and relevance" would therefore sound ominous for the possibility of Post-Chicago arguments to find hearing in – let alone be endorsed by – a US court. The dismissal would lend support to Harvard-style skepticism against those economic models which fail to satisfy the administrability requirements. How can a theory which is deemed either unreliable or irrelevant, or both, ever provide an operational tool for the solution of concrete antitrust cases? The *Daubert* doctrine is in tune with Harvard emphasis on operational rules and on the necessity to account for the limited knowledge and capability of antitrust enforcers. On the contrary, it heralds bad news for Post-Chicago arguments.

As a matter of fact, the Post-Chicago approach has systematically run into troubles when facing a *Daubert* challenge. A series of post-*Daubert* decisions by US lower courts show a high degree of skepticism against Post-Chicago claims, either when no further evidence is provided relating the challenged conduct to actual market facts or when those facts are indistinguishable from the results of pro-competitive behavior. As noted by Coate and Fischer (ibid., 823-4), while Chicago models are, generally speaking, falsifiable, Post-Chicago ones are so dependant on their underlying assumptions that they are almost impossible to test. And even admitting that they make for "reliable science" (viz., that they are falsibiable), it is even more debatable that they can be considered "relevant" in the *Daubert* sense, i.e., that they may produce fact-based outcomes (ibid., 828).

The empirical value of game-theoretic models is almost nil because their mathematical results only hold when the underlying assumptions are exactly met. The wide array of outcomes which may possibly arise as equilibria in a game-theoretic model (see next §) make the latter, and any expert testimony based upon it, inevitably ad hoc. While this is a boon for academic modelers because it grants them a high degree of freedom and flexibility, it is an indictment in terms of the model's courtroom applicability. A game-theoretic result which merely points to a *possible* anticompetitive outcome of a given business strategy is insufficient to win the attention of a post-*Daubert* antitrust court.

In short, Post-Chicago models cannot be applied to evaluate real world cases. On the one side, the virtual facts upon which they are founded cannot be verified in courtroom; on the other, the real facts in the trial record are of no use in assessing the models themselves (ibid., 832). The verdict is inevitable: the *Daubert* doctrine would require antitrust courts to reject as mere opinion, short of "reliable and relevant science", any expert testimony based on this kind of reasoning. Were courts to accept an expert testimony "… that fails to rise above 'mere speculation' [30] in order to infer that a particular market outcome was the result of anticompetitive conduct rather than the natural result of the competitive process, the result would be a chilling effect on the competitive process." (ibid., 807, footnote added), i.e., the very risk that Chicago-inspired decisions like *Matsushita* and *Brooke* set out to avoid. Here lies our sixth possible explanation of Post-Chicago failure to oust Chicago from US courtrooms.[31]

§11. Judges don't believe in fables – should they?

The final explanation is strictly related to the previous two and is presented as a separate one for expositional convenience. Indeed, it provides a proper conclusion to the paper in that, by capturing a fundamental weakness of the Post-Chicago approach, it may aptly summarize most of what we said so far about Chicago "mysterious" resilience.

In a 1989 paper MIT economist Franklin Fisher distinguished between *generalizing* and *exemplifying* theories. The former are those which proceed from wide assumptions to inevitable consequences and which speak in terms of what *must* happen given the background circumstances; the latter are those which focus on determining what *can* happen and are highly sensitive to the assumptions used (Fisher 1989, 117). Oligopoly theory belongs to the exemplifying category. Many different things may happen in an oligopoly model and there is no full theory of what *must* happen given well-defined, measurable circumstances. According to Fisher, oligopoly theory was just a collection of "…a large number of stories, each one an anecdote describing what might happen in some particular situation." (ibid., 118). The advent of game theory had only made things worse, because the only kind of generalizing result had been a *negative* one, namely, the so-called Folk Theorem, which "…tells us that we cannot hope for a general oligopoly theory based only on cost and demand functions and free of the context in which oligopolists operate." (ibid.).

[30] These were the words the Eight Circuit Court used to reject the testimony of no less than Stanford professor and future AEA President Robert Hall, following a successful *Daubert* challenge in *Concord Boat Corp. v. Brunswick Corp.*, 207 F.3d 1039 (8th Cir. 2000).

[31] Significantly, the essays in Pitofsky's volume almost completely ignore *Daubert* and its dire implications for the Post-Chicago approach.

In the light of Fisher's distinction, it is apparent that the antitrust prescriptions offered by the Post-Chicago approach may never achieve the status of a generalizing theory. The latter however is the only kind of theory which may find hearing in a US antitrust court, especially after *Daubert* (see previous §). Our last explanation for the courtroom failure of strategic models lies therefore in the hopeless contradiction between the score of exemplifying theories produced by contemporary industrial economists and the generalizing arguments considered acceptable by antitrust judges or juries. No amount of rigorous theorizing demonstrating the anticompetitive rationale behind, say, predatory or tying strategies may alter the legal response to specific instances of these practices. The latter has to obey the operational imperative of endorsing easily administrable rules (as in *Brooke*), provided the rules themselves are based on "relevant and reliable science" (as in *Daubert*), that is, on a generalizing theory.

This explanation has implications which go well beyond the limits of the Post-Chicago approach. If we accept that US courts would never endorse a legal argument founded upon an exemplifying theory, the prospect sounds ominous for a large chunk of contemporary economics, including of course industrial economics. A good portion of modern economics looks like a collection of examples or special cases – or *fables*, as leading game-theoretician Ariel Rubinstein put it (Rubinstein 2006). This part of the discipline is therefore unsuitable for courtroom use.

The history of ALE demonstrates that economists' practices can be compatible with courtroom's ones only in those special cases where the outcome of their theorizing is at the same time generalizing enough (because exemplifying theories cannot stand scrutiny in trial) and sufficiently operational (because too general theories do not lend themselves to practical application in concrete cases). The strength of the Chicago approach lies in its being a highly operational and sufficiently generalizing theory. This makes Chicago-based arguments especially suited for courtroom use, and a big challenge for alternative approaches which happen to fall short on one or both accounts.

In previous research I have privileged this last explanation of Chicago enduring charm (see Giocoli 2011, 2012). Yet, like the other explanations, even this one is hardly exhaustive. While it seems to work for the case of PP, it cannot account for those cases where the exemplifying stigma should be attached to Chicago-style arguments. Two prominent examples are the free riding argument against the RPM doctrine and the single monopoly theory against the tying doctrine. As we know, both defences are based upon very specific assumptions. Both are instances of exemplifying theories, valid only under the strict circumstances identified by their underlying assumptions. As various chapters in Pitofsky's volume make clear, it is the Post-Chicago approach which offers a (more) generalizing account of the rationale behind RPM and tying. But it is Chicago-style defence of the two practices which has found hearing – or are about to find it – in American courts. Thus, contrary to what my favourite explanation would claim, the latter seem to have endorsed – or be willing to endorse – fables-like, exemplifying arguments. This fact alone should clarify how the mysterious resilience of the Chicago approach still awaits a convincing explanation. Indeed, like the secret behind an Old Lady's charm, it may just be impossible to fully disclose.

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