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A perspective in the history of economic ideas

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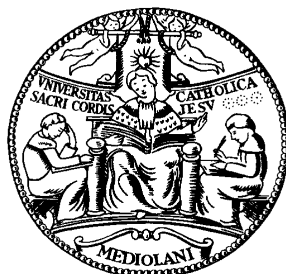

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THE THEORY AND PRACTICE OF ANTITRUST
A perspective in the history of economic ideas

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Abstract

This paper puts the theory of Antitrust in a historical perspective. Nowadays, Antitrust is a worldwide well established institution. Its ultimate object is to enlarge the scope for socially valuable decentralisation of economic decisions, when markets are less than perfectly competitive.

The paper traces the intellectual roots of the institutional design of Antitrust to the combination of the normatively-bent approach of utilitarian liberalism with the 'structural' analysis of the competitive process provided by the neo-classical school. This has resulted in a complex institution, that involves economic, moral, and legal aspects. The paper discusses how the evolution of economic ideas and especially the two major challenges coming from the Chicago critique and the so-called post-Chicago approach are affecting today the overall institutional design of Antitrust.

JEL classification: B16, B25, K21, L40

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Introduction

Nowadays, Antitrust is a worldwide well established institution. It was first established in North-America at the end of the 19th century (namely, in 1889, in Canada and in the following year, with the Sherman Act, in the U.S.), to act as a typical countervailing power in the institutional system of North-American economic democracies. In the decade that followed the second world war, Antitrust was a key element of the ambitious project of economic - and, in perspective, political - European integration. At least at its beginning, the crucial purpose of Antitrust in Europe was to enhance the "common market", overcoming the separation of the European economic space into several national markets. The goal of integration also explains a peculiarity of European Antitrust. In the European Union, antitrust principles are of constitutional nature, as they are directly embedded in its Treaty and bind not only private economic agents, but also national legislators and Governments. In the last two decades of the 20th century, following the *Zusammenbruch* of most socialist economies, a swift expansion of world trade took place, bringing about a major change in the international division of labour. In its effort to provide coordination to such a tumultuous process, the World Trade Organization is making the widespread acceptance of Antitrust principles a pillar of world trade's architecture.

At the beginning of the 21st century, Antitrust is, even in countries with a long-established tradition, as lively a subject as it seldom has been. Its worldwide diffusion is calling for a convergence to a unified perspective, overcoming the multiplicity of specific social and political goals, that have accompanied Antitrust in its historical development. It is almost universally agreed that such a unified perspective is to be provided by economic analysis. This consensus, however, does not make the assessment, of what Antitrust ultimately should consist of, a simpler task, as the views of economists about Antitrust have been in the past, and still are, undergoing significant evolution. On the one hand, little, if any, disagreement can there be with quite general statements, such as, e.g., that "Antitrust is to enhance competition in economic markets". On the other hand, the assessment may become rapidly complicated when one enters into even the most basic issues, such as, what is to be taken as the benchmark of competitive markets; or, under what conditions public intervention to enhance

competition in the marketplace might be justified; and, eventually, which is the best design of the working of Antitrust.

Antitrust inherently is an multidisciplinary subject, involving economic, moral, and legal issues. There are intricate connections between these three spheres, and the different ways in which they have been tackled give rise to different "models", with economic analysis playing a critical role in this respect. This paper is about the intellectual roots of Antitrust. It offers a personal view of the interplay between the evolution of economic ideas and the way in which they have affected the institutional design of Antitrust along its history. My conjecture is that the historical approach may enlighten some debated questions of the present time. Let me briefly expand on such motivation.

As a key institution of market economies, Antitrust cannot avoid facing a fundamental question in liberal political thought. To recall J. S. Mill (1982), such question is about "the nature and limits of the power which can be legitimately exercised by society over the individual"[1]. Since the heydays of classical political economy, economic analysis has made significant contributions to this search. Most of such contributions point to the claim that *competitive* markets are social contexts in which decentralisation of the relevant decisions, hence individual autonomy, is socially valuable and justified in terms of economic efficiency and welfare. From this perspective, to say that Antitrust is to "enhance competition" equals to state that the aim of Antitrust is the enhancement of economic agents' individual autonomy. This view is quite consistent with the current institutional design of Antitrust. As I will describe in more detail in Section 1, Antitrust essentially consists of a set of norms and legal principles that, in order to inhibit market power, *restrict* the economic agents' *allowed* decision set – that is, the set from which economic agents are free to choose their preferred strategy - when they interact in the marketplace. The crucial point is that, in such a way, the ultimate object of Antitrust is to enlarge the scope for socially valuable decentralisation of economic decisions, when markets are less than perfectly competitive. In other words, Antitrust law conventionally *restricts*, in an appropriate

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[1] One ought also to recall Wilhelm von Humboldt's (1903) seminal essay on "die Grenze der Wirksamkeit des Staats" ("*The Boundaries of Government's Intervention*"), written at the end of the 18th century and highly influential for J. S. Mill.

way, the decision set of individuals, in order that their decisional autonomy can be *exalted*, even in imperfectly competitive markets.

As it is the task of the law, to set the boundaries that conventionally restrict the economic agents' allowed decision set, Antitrust has eventually been, along many decades, mainly a subject matter for lawyers. I do not intend to deny the factual contribution, let alone its relevance, of the economic profession to the development of Antitrust. Lawyers and judges always have been willing to listening to the advice of economists in unravelling a technical matter, the complexity and subtleties of which not uncommonly escaped the lawyer's full understanding. However, the economic profession used to stay behind the stage, ancillarily serving a project, on the implementation of which it eventually had little control. The solution of the antitrust case was to be framed in *legal* analysis. This is essentially performed with reference to a typification of firms' behaviour according to a taxonomy of conducts, that allows to separate *illegal* practices that are *beyond* the firms' allowed decision set, from *legal* practices, that rest *within* the allowed set.

In recent decades, the received legal framework underwent two major challenges. The first challenge came from the fundamental critique of the so-called Chicago school, that subverted the legal analysis of a number of unilateral practices and vertical agreements that tradition listed among "anticompetitive behaviour". By using economic analysis to show that, under general circumstances, such practices are to be explained according to an efficiency rationale, the Chicago school advocated the *legal* acceptance of them. A second major challenge – and, to my view, a much more formidable one – was set forth by the so-called post-Chicago approach. The post-Chicago literature has followed significant advances in the theory of Industrial Organization, that have increased our comprehension of how markets actually work and finely added to our understanding of the welfare *effects* of market interaction, under different circumstances. In the post-Chicago era, economic experts are providing an increasingly critical contribution to the assessment of Antitrust cases, both helping with

the parties' defence, and supporting the Antitrust agencies of many jurisdictions in motivating their decisions[2].

Following the New Industrial Organization analysis, today economists are supporting a yet inexperienced, strong, neo-utilitarian normative stance in the practice of Antitrust. The policy debate witnesses a shift in the focus of Antitrust, from its 'legal' tradition, towards a greater concern with the welfare effects of *specific* behaviour. The new focus has been mostly solicited in cases in which it was to lead to an enlargement of the firms' allowed strategies, in particular for firms enjoying market power. Nevertheless, given the present state of our economic knowledge, the shift favours a case-by-case assessment of the effects of firms' conduct by the public agency, introducing a tension with the implementation of *ex-ante* general rules. As a consequence, the boundaries between Antitrust Law and direct economic policy tend to become blurred, thus inducing enlarged room for, *de facto ex-post*, intrusive public decision-taking in the sphere of individual choice in the marketplace, a result that would be inherently in contrast with the idea of competition as the realm of decentralisation. It is quite revealing that today the economic profession loves to speak of "Competition Policy"[3] and to explicitly contrast an "*effects-based*" to a "*form-based* approach to *competition policy*" (*italics added*)[4].

It is not at all clear whether the post-Chicago approach will eventually force a substantial change in the design of Antitrust. Several lawyers and economists are concerned with the present difficulties, and look for a possible composition of the tension in the future. In principle, the traditional perspective and the new one are not inconsistent with each other. As I will argue in this paper, Antitrust arose, in the 19th century, only when and because classical liberalism gave way to utilitarian liberalism.

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[2] A significant instance is the appointment, in 2003, of a Chief Competition Economist in DG Competition at the European Commission, to provide detailed economic input into the cases and policy discussion.

[3] *Competition Policy* is the title of a recent and, in all respects, highly valuable textbook by Motta's (2004) about economic analysis for Antitrust. It may also be worth recalling that Hovenkamp (1994) gives the revised and enlarged version of his former book on *Economics and Federal Antitrust Law* (1985) the title of *Federal Antitrust Policy*. However, he warns the reader that "I choose the word 'policy' … since this book attempts both to state the 'black letter' law and to present policy arguments for alternatives".

[4] See the recent Report for the DG Competition of the European Commission from the Economic Advisory Group on Competition Policy (EAGCP) J.Gual, M. Hellwig, A.Perrot, M. Polo, P.Rey, K.Schmidt, R.Stembacka (2006).

Prima facie, the utilitarian perspective intrinsically emphasizes the "policy" dimension. It does not preclude, however, rules of law firmly grounded on a utilitarian assessment. The point is that, along many decades in the past, the design of Antitrust could be made to rest on somewhat weak utilitarian requirements. Post-Chicago advances in economic analysis have substantially raised the height of such requirements, thus raising also a number of puzzling open questions about how to accommodate all the concerned economic, moral, and legal issues in a new coherent institutional design. This has opened new challenging paths for future research.

This paper is organised as follows. Section 1 presents the institutional setting of Antitrust. Section 2 argues that the intellectual roots of the received institutional design of Antitrust rest on the combination of the normatively-bent approach of utilitarian liberalism with the 'structural' analysis of the competitive process provided by the neo-classical school. Section 3 presents some alternative views of market decentralisation in the history of economic ideas. Section 4 discusses the main characteristics of the current institutional design of Antitrust that is grounded on economic structuralism. Section 5 is concerned with the Chicago critique to Antitrust structuralism. Section 6 discusses post-Chicago developments and the challenges they set today for the design of the Antitrust institution.

1. The institutional setting. Competition Law. Regulation.

Antitrust is a typical institution of market economies, that purportedly takes into account that actual markets are imperfectly competitive. In the perspective of *purely* competitive markets, the relevant institutional setting is typically identified in a system of property rights, a contract law, and a judicial system to enforce both. In fact, the above institutions aim at supporting the social relationship of "exchange", under the presumption that interaction in *purely* competitive markets requires no further restriction to the decision sets of economic agents. The institutions that enforce the exchange are exogenous to market interaction and a pre-requisite for it. In contrast, the need for an enlarged institutional design arises, when the paradigm of *pure* competition is abandoned, and we are concerned with the imperfections of actual competition and the inefficient results associated with them. Under the latter circumstances, the general

presumption is that *further* restrictions of the *allowed* firms' strategy set - beyond the ones supporting the catallactic order – are needed to ensure that the outcome of firms' interaction is not inconsistent with the optimal social division of labour. Such restrictions form the content of the set of norms and legal principles of which Antitrust Law consists of.

In principle, the institutional setting of Antitrust Law is simple. It basically rests on two *general* legal norms. The first norm excludes all conduct whereby firms co-ordinate their market strategies ("agreements"). The second norm restrains 'monopolisation' or 'abusive' behaviour by firms enjoying market power[5]. I emphasise that the two legal norms are vague, in the sense that they have only general content. They do not specify what practices are in fact conducive to co-ordination of market strategies, or what practices imply market monopolisation (in the US) or abuse of dominant position (in Europe). Specific content (i.e., the identification of the *illegal* practices) only springs from court decisions. This makes the case law of particular relevance in Antitrust.

In Antitrust law, it is standard to distinguish between *rules per se* and *rules of reason*. When a practice is considered to be a *per se* violation of Antitrust law, a defendant has only to prove that he has not performed the challenged conduct. Practices tested under the *rule of reason* are condemned only if found to interfere with competition *unreasonably*. 'Reasonableness' is a typical criterion in the common law tradition, implying that the assessment of a given conduct requires a *balancing* of its overall consequences along different, alternative, perspectives, each of them deserving social protection. Two comments are in order. First, a *per se* rule usually applies only after judges have had a long experience with a certain practice, and have concluded that the practice produces many pernicious results and almost no beneficial ones. Second, the range of the different perspectives, under which the consequences of a given conduct are to be balanced under the *rule of reason*, has not remained constant in the history of Antitrust. In the early days of Antitrust, the rule of reason was applied to

[5] Whereas prohibition of agreements is similarly envisaged in both the U.S. and the European Competition Law (being the content of, respectively, Section 1 of the Sherman Act, and article 81 of the Treaty of the European Union), there is in fact a difference in the way in which the second norm is designed, in the U.S. and in Europe. The Sherman Act, Section 2, prohibits all strategies that entail monopolisation, or attempts to monopolise the market. Article 82 of the Treaty of the European Union restrains firms with a dominant position in the market, from abusing it.

balance the *economic* consequences of a conduct, i.e., the consequences on market competition and efficiency, with *other*, non-market, social consequences of the same conduct. In more recent times, the resort to the *rule of reason* has been invoked as a necessary approach to assess the *overall economic* effect of the conduct[6].

In addition to the two general legal norms, Antitrust Law has a third – indeed, quite popular - ingredient, that is, assessment of mergers. In the U.S., the Clayton Act prohibits mergers if their effect "may be to substantially lessen competition, or tend to create a monopoly". In Europe, Merger Regulation n° 139/2004 states the incompatibility with the Common Market of "a concentration which would significantly impede competition … as a result of the creation or strengthening of a dominant position"[7]. I stress that, in Antitrust Law, merger assessment is of a very different nature, with respect to assessment of agreements and abuses. Whereas the latter imply *illegal* behaviour – something that is, or should be, *ex-ante* known to firms, which therefore have a duty to abstain from it - in the case of a merger, firms only have a duty to file notification of their decision to merge, and wait for the authorisation of a public agency to implement it.

Antitrust is to be contrasted with a different institution equally concerned with preventing market inefficiencies, namely "regulation". Due to the common concern, the distinction between the two is sometimes blurred in the economic debate, and economists often tend to apply a similar theoretical approach to both. To my view, this is unfortunate. Industry regulation implies turning a class of (otherwise) decentralised economic decisions into a collective decision, with the aim of directly attaining, in given circumstances, a calculated efficient (though usually second-best) solution. Such collective decision is taken within the articulated structure of delegation according to which the political institutions of society are framed. In the regulator's perspective, the specific circumstances are all that matters. It is the *calculus* of social costs and benefits in the given circumstances that leads the regulator to select "the" desired solution. In

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[6] I will expand on this point in Sections 4 to 6.

[7] Both in the U.S. and in Europe, the Merger law was added to Competition Law only later – albeit now it is an integral part of it. It is interesting to notice that, in both jurisdictions, Merger Law was introduced after Antitrust Agencies had started to assess mergers as monopolisation practices (in the U.S.) or as abuses (in Europe). In the U.S., the Clayton Act was passed in 1914 and, in the same year, the FTC Act assigned the merger assessment to a newly created Agency, namely the Federal Trade Commission. In Europe, Merger Regulation was first introduced in 1989 (then significantly modified in 2004), when more than thirty years had elapsed since the Treaty of Rome had been signed.

other words, industry regulation is a proper "policy", whereby, to induce the appropriate specific solution, the regulator has the coercive power to specifically substitute it for the regulated firms' private decisions. In fact, no role is normally envisaged for the regulated firms' freedom of choice, apart from the one instrumentally required to overcome the asymmetrical information between the regulator and the regulated firms (with the regulatory powers themselves strategically used with the purpose of eliciting the private information).

In contrast, it is not the purpose of Antitrust to artificially reproduce a calculated efficient solution in specific circumstances. Antitrust only sets the scope of the firms' decision set, from which the latter are then free to choose their strategies. Therefore, Antitrust Law consists in setting *rules* - that define, under general circumstances, the firms' allowed decision set - deemed to be adequate to deal with general cases. Contrary to regulation - whereby a *collective* decision substitutes for the result of decentralised market decisions - the restriction in the firms' decision sets imposed by Antitrust law is intended to enhance the working of competition and to fully exploit the benefits that society can expect from market decentralisation. Accordingly, the *implementation* of Antitrust law is not a matter of "policy", rather of establishing whether a given behaviour has been "lawful" or "unlawful", depending on whether it does, or does not, belong to the firm's allowed decision set. The particular effects of the given conduct in specific circumstances only matter insofar as they are precisely the expected effects why the conduct is illegal.

One has to notice that, when the boundaries between Antitrust and regulation are clearly set, mergers become a fuzzy case. Notwithstanding its being an integral part of Antitrust Law in all jurisdictions, merger evaluation implies as a matter of fact a proper "regulation". Merging firms are not called to evaluate whether their choice is legal or illegal. They only have to notify their decision to a public authority (the Antitrust agency) and wait for authorisation. Thus, the relevant decision is the *collective* decision taken by the public agency to authorise or prohibit the merger. When taking such a decision, the Antitrust Agency always has to perform a perspective, specific, analysis. It has to find out whether and to what extent the firm's decision set – better, the mapping from the firm's decision set to the set of the consequences – is going to significantly change after the merger, in such a way as to give rise to inefficient market outcomes. In

other words, when assessing a merger, the Antitrust agency is called to perform a thoroughly consistent *regulatory* function.

2. The "theory" of Antitrust in retrospect: the structuralist approach.

As anticipated in the introductory section, Antitrust is intended to enhance *decentralisation* of economic decisions. Such an abstract, yet substantial, perspective firmly locates Antitrust within the institutions for the 'liberal' society, as it is the tenet of liberalism that society greatly benefits from social interaction based on decentralised decisions. Liberalism is a general social philosophy and its principles extend to all kind of social interaction. The economists' claim, that in the marketplace the social benefits from decentralisation are to be expected to the highest degree, has always been central in the liberal tradition. In economic analysis, however, the claim has been supported through changing arguments and with changing intensity. Thus, along the history of economic ideas, different normative views have arisen, as to whether and how society has to design "institutions" aiming at enhancing competition, i.e. decentralisation, in economic markets.

Although it is undisputed that Antitrust is an institution for the 'liberal' society, it does not follow that all liberal tradition sees Antitrust as a necessary condition for decisions to be decentralised in the market. In the following Section, I will review several 'liberal' views of market decentralisation that stand in the way of the need to establish an Antitrust institution. The rationale, for institutionally constraining the economic agents' decision set in the market, makes its way, in the liberal tradition, in the second half of the 19th century, as a result of the combination of the more normatively-bent approach of utilitarian liberalism with the analysis of the competitive process provided by the school of Mathematical Economics. To see how utilitarianism lay the ground for a normative approach to the competitive process, a useful perspective is provided by the most famous essay "On Liberty", that a peculiar utilitarian liberal as J. S. Mill (1859) wrote in his maturity. In his book, J. S. Mill stated the basic principle according to which no ethical justification can be invoked for the State (or any social institution) to interfere with individual behaviour, whenever the latter does not involve a "social act", i.e., does not affect the interests of other persons, and of society in general.

Mill's statement stands on a very forceful – and in our days easily agreed upon – argument, establishing a sort of safe harbour, whereby the individual's freedom from the State's, as well as from society's, interference is justified as a general condition. At the same time, under more complex social situations, J. S. Mill admits that a utilitarian *calculus* is needed, before any possible conclusion be drawn, either in favour of the individual freedom of choice, or to justify appropriate restrictions of it.

To be sure, when specifically concerned with behaviour in the marketplace, J. S. Mill's own view was not that free trade, i.e., decentralisation of economic decisions, should be made to rest on the basic principle stated in "On Liberty". In the last chapter of the essay, when providing a discussion for consistent applications of the principle, Mill explicitly affirmed that "trade *is* a social act" (*italics added*). Let me, however, briefly postpone to the next Section a more detailed account of Mill's defence of free trade, to emphasise that, in the economic analysis of competition, the argument expounded in "On Liberty" had a relevance that greatly transcended the scope of J. S. Mill's own view in favour of freedom of choice in the marketplace. In fact, a most significant thread links "On Liberty" with the analysis of competitive markets that was provided by the neoclassical school of Mathematical Economics, starting from Cournot's seminal contribution, and for several decades afterwards. Quite independently of J. S. Mill's own view, such link makes "On Liberty" a critical cross-road for the normative approach to competition that was developed later.

The object of Cournot's analysis is the sequence of market equilibria in an industry as the number of producers varies. In the simplest case, of a homogeneous commodity produced at zero cost, Cournot (1938, par. 46) concludes that:

> "[lorsque] il y [a] 3, 4 … n producteurs en concurrence … la valeur de *p* (i.e., the market equilibrium price) [diminue] indéfiniment par l'accroissement indéfini du nombre n".

To assess the socially beneficial effects of competition, Cournot's assumes the classics' perspective (namely, the convergence of the price of the commodity to its production cost) and argues that such an effect is fully produced when the amount that each firm supplies is '*insensible*', not only with respect to total production, but also with respect to the effect of a change of it in the price of the commodity. Nowadays, the analytics behind Cournot's argument is standard textbook material. Under the described

circumstances (that Cournot labels '*concurrence indéfini*'), the firm's marginal revenue does not perceptibly differ from the price of the commodity and, by freely exerting its individual choice in the marketplace, each firm is unable to affect the price at which the commodity can be bought and sold by any other economic agent (therefore, it is unable to affect in any way the 'interests' of any other economic agent). It is to be added that, in Cournot's analysis, price-taking behaviour, i.e., the convergence of the firm's marginal revenue to price, is regularly approximated when the number of producers in the industry grows.

Cournot held that the assumption of '*concurrence indéfini*' had descriptive power:

> "cette hypothèse est celle qui se réalise dans l'économie sociale pour une foule de productions, et pour les productions les plus importantes" (par.50).

However, it is not Cournot's empirical belief that matters here. The critical point is that, his theoretical argument opens the way to the intellectual project that the neo-classical school thoroughly performed across the second half of the 19th century and the first half of the 20th. Let me summarize the end-result of such project as follows. *Perfectly* competitive markets (i.e., markets where the assumption of '*concurrence indéfini*' is satisfied) fully support the decentralisation of economic decisions precisely *because* price-taking behaviour (that they entail on the part of every economic agent) turns them into a "Millian" context, whereby every individual, by freely picking from within its choice set, can only affect its own well-being, and leaves the well-being of any other individual entirely unaffected. It is to be added that, differently from Cournot, the neo-classical school pursued its project fully within the utilitarian perspective that underlies the notion of 'social optimum' (albeit under the weak utilitarian requirement of Pareto-efficiency).

The analysis of perfectly competitive markets provides the basis for the so-called "structuralist" approach to industrial organisation, that was developed to its fullest in the 1950's under the so-called Structure-Conduct-Performance paradigm[8]. *Pace* the empirical beliefs of Cournot, structuralism recognises that market failures (that is,

[8] J. Bain (1956, 1959) is universally acknowledged to be the leading contributor to the structure-conduct-performance paradigm.

circumstances under which markets fail to give rise to a perfectly competitive "Millian" context) are pervasive. Typically, market failures are remedied by substituting individual decentralised decisions with collective decisions that usually imply an explicit utilitarian *calculus*. However, consistently with the structuralist perspective - and, in particular with the 'partial equilibrium' result of Cournot's analysis, that price-taking behaviour is regularly approximated when the number of producers in the industry grows - a room is left for an institutional design, that allows for decentralisation of economic decision even under imperfectly competitive conditions. Such is the institutional design of Antitrust, the intellectual roots of which were deeply grounded in economic structuralism. Antitrust structuralism claimed that, in a vast majority of market circumstances[9], decentralisation could be exalted, even under imperfect competition, provided the decision set of the economic agents could be reshaped in such a way as to compel the latter to "mimic" the behaviour of the perfectly competitive firm.

Structuralism provided Antitrust with what at that time was credited for being the 'best' available economic model. At the same time, it affected the overall design of Antitrust, consistently combining in a unified perspective the economic, moral, and legal, dimensions of a normative approach intended to enhance decentralisation in imperfectly competitive markets. In the moral perspective, the normative paradigm of economic structuralism is utilitarian, yet it is consistent with the defence of 'free trade'. On the one hand, in the benchmark of perfect competition, whereby no individual is able to affect the welfare of any other social agent, social utility necessarily is maximised when each one is free to select his choice from within his (largest) decision set. On the other hand, departure from the benchmark does not imply the intrusiveness of a substantial (collective) utilitarian *calculus*, as only weak utilitarian constraints suffice to support the normative prescriptions of Antitrust structuralism. In the legal perspective, Antitrust structuralism succeeded in its purpose, by translating the abstract notion of perfect competition as price-taking behaviour, from economic analysis to the realm of law.

[9] Which, of course, exclude 'natural monopolies' or markets whereby the technological constraints allow for a very small number of *efficient* firms.

3. Alternative views of market decentralisation.

Before describing in detail the articulated design of Antitrust structuralism, I intend to review, in this Section, some alternative approaches to market decentralisation that, in contrast to economic structuralism, do not support the design of an Antitrust institution and also set several intellectual challenges at it.

Let me start with, by briefly pointing out that little, if any, room can be provided for an institution as Antitrust by the liberal thinking that is strongly rooted upon the 'lockean' doctrine of natural rights. The modern, influential, version of such doctrine, as expounded in recent years by Robert Nozick (1974), might even admit of collective interventions affecting market interaction, insofar as they are aimed at rectifying "original" injustices[10]. However, a 'lockean' liberal would undoubtedly stand in the way of institutions that systematically interfere with individual autonomy in the marketplace, beyond the ones connected with the basic functions of the State, namely, protection and enforcement of natural rights[11].

Neither can a room for the Antitrust institution be provided by resorting to the views of classical political economists. On the one hand, it is true that we owe to them the fundamental vision of the market as the realm of decentralisation. On the other hand, competition was for them a pervasive phenomenon, able to force *under general circumstances* the price of every commodity toward its cost of production (thus guaranteeing the 'optimal' social division of labour). Adam Smith's general view is that the working of competition could only be hindered by political power[12] and the very single public intervention to "enhance" competition was to remove "institutional" monopolies.

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[10] See Gray (1986).

[11] A fascinating path of research, that would lead to quite different conclusions, would be to follow the track of a parallel, 17th century, doctrine that builds on the "natural rights" *à la* Spinoza, to understand how individuals, through a 'social contract', or a 'constitution', design institutions in order to prevent *Leviathan* from abusing its power. Such contractualist view is akin to the German neo-liberal approach of the so-called Freiburg school ("Ordoliberalism") which has been quite influential in Europe for the design of Antitrust, and for the development of the legal views about competition (definitely less influential for, at least non-German, economists, notwithstanding most of its proponents were economist). See Gerber (1998).

[12] It is worth recalling that, when A. Smith (1982, pp. 232-233) drives our attention, in his most quoted passage, to the coordination of "people of the same trade [that] seldom meet together [.........] but [whose] conversation ends in a conspiracy against the public, or in some contrivance to raise prices", such coordination is mainly meant as aiming at obtaining, through the collective 'petition' to the king of a franchise or a corporation bye-law, *institutional* protection to collusive behaviour.

Since I have referred to "On Liberty" as a critical intellectual root of Antitrust structuralism, let me briefly dwell on J. S. Mill. As already anticipated, the "Millian" argument, underlying the neoclassical defence of market decentralisation, was not in fact J. S. Mill's own view in favour of "free trade". In the last chapter of "On Liberty", that is concerned with the "Applications" of its basic principle, J. S. Mill (1982, on page 164) is loud and clear in stating that "the principle of individual liberty is not involved in the doctrine of free trade". It is worthwhile to follow Mill's argument verbatim. He begins by claiming that:

> "it must by no means be supposed, because damage … to the interests of others, can alone justify the interference of society, that therefore it always does justify such interference" (page 163)

Then, Mill singles out competition (even in the every-day-life, non-technical, meaning) where:

> "whoever is preferred to another in any context for an object which both desire, reaps benefits from the loss of others" (page 164)

as the typical instance whereby:

> " … it is, by common admission, better for the general interest of mankind that persons should pursue their objects undeterred by this sort of consequences" (page 164)

Under such premises, Mill concludes that:

> "trade is a *social* act …. It was once held to be the duty of governments, in all cases which were considered of importance, to fix prices and regulate the processes of manufacture … But it is by now recognized … that both the cheapness and the good quality of commodities are *most effectually* provided for by leaving the producers and sellers perfectly free, under the sole check of equal freedom to the buyers for supplying themselves elsewhere. This is the so-called doctrine of "free trade", which *rests on grounds different from*, though equally solid with, *the principle of individually liberty assessed in this essay*" (page 164, *italics added*).

Mill's defence of free trade rests on a clear utilitarian argument ("the cheapness and the good quality of commodities are *most effectually* provided for by leaving the producers and sellers perfectly free"). However, his views are much closer to classical

non-utilitarian liberalism than Jeremy Bentham's and James Mill's, namely the founders of utilitarianism from which J. S. Mill departed[13]. As a general principle, social utility had not been alien to classical liberal thinking. For instance, Scottish liberals had resorted to it, both to explain the spontaneous evolution of social institutions and as a criterion for a global assessment of social systems. It was Jeremy Bentham who turned the notion of social utility into a "tool" for legislators and governments. Bentham saw utility as *the* guiding criterion according to which, by means of a utilitarian *calculus*, specific policy decisions had to be pondered, and eventually taken[14].

J. S. Mill did not follow Bentham along this path. Again, it is worthwhile to follow his argument verbatim[15]:

> "… while … we entirely agree with Bentham in his principle [i.e., the principle of utility], we do not hold with him that all right thinking on the details of morals depends on its express assertion. We think utility, or happiness, much too complex and indefinite an end to be sought, except through the medium of various secondary ends … [T]he attempt to make the bearings of actions upon the ultimate end more evident than they can be made by referring them to the intermediate ends, and to estimate their value by a direct reference to human happiness, generally terminates in attaching most importance, not to those effects which are really the greatest, but to those which can most easily be pointed to and individually identified."

Accordingly, Mill's defence of free trade was based on a *broad* utilitarian assessment, reminiscent of the general analysis of classical political economists[16]. However, there is more than that in Mill's view. It is worth emphasising the great influence that, in "On Liberty", J. S. Mill repeatedly acknowledges to Wilhelm von Humboldt (1903), by fully reproducing the epigraph of "On Liberty", taken from von Humboldt's essay (that was first published in 1792):

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[13] For an analysis of J. S. Mill's utilitarian liberalism, see Gray (1996).

[14] von Hayek (1982) labels 'constructivistic fallacy' the belief that social institutions, and the way they work, can be explained as the result of an explicit, rational, human project.

[15] J. S. Mill (1962, on page 119).

[16] By contrasting J. S. Mill's with Bentham's utilitarian views, I do not at all intend to say that Bentham himself was an opponent of free trade. As a general rule, when dealing with issues concerning the organisation of economic activity, Bentham himself adhered to the post-Smithian doctrine of *laissez-faire* as expounded by the English classical economists. The point however is, that Bentham's moral and political philosophy lay the ground for supporting intrusive State intervention along lines that were later to be followed even by overtly non-liberal proponents. Mill's departure from Bentham provides immunisation with respect to such future developments.

> “The grand, leading principle, towards which every argument unfolded in these pages directly converges, is the absolute and essential importance of human development in its richest diversity”

W. von Humboldt’s was a most distinguished representative of romantic liberalism. His defence of the “minimal State” was substantially grounded on the romantic ideals of the individual’s self-assertion and self-fulfilment. Humboldt believed that the very reason, for restricting to a minimum the sphere for the – intrinsically coercive – government’s intervention, is the need to maximise the scope for every social individual to freely express oneself. His views about the ways in which society has to organise itself are essentially based on the distinction between the “principle of necessity”, that only leads to *negative* legal provisions, and the “principle of utility”, that informs *positive* provisions. He claims that only the former provides justifiable grounds for the government’s intervention in restricting individual freedom, whereas the latter - leading, by its intrinsic nature, to imprecise, and uncertain, judgements, that are subject to errors and unpredictable changes - eventually results in suppressing every human being’s individual *energy*.

More than half a century divides von Humboldt’s essay from J. S. Mill’s mature reflection in “On Liberty”. Mill’s urgency, this notwithstanding, to acknowledge von Humboldt’s influence reveals how deeply Mill agreed with the romantic social thinker’s idea that individual freedom (in all social relations, thus even in the marketplace) has fundamentally to do with the individual’s self-assertion and self-fulfilment. As necessarily implied by the basic principle stated in “On Liberty”, Mill recognises that there always are circumstances in which the external effects of *social* acts are to be seriously taken into account. However, when society resorts to a public (i.e., bureaucratic) decision-taking, the government has the duty to carefully evaluate the negative consequences of public intervention in terms of constraining the individuality of human development, thus frustrating the endless diversity of human experience and eventually impairing the ultimately beneficial diversity of social modes of action. Therefore, in the last paragraph of “On Liberty”, Mill conclusively states that:

> “To determine the point at which evils, so formidable to human freedom and advancement, begin … to predominate over the benefits attending the collective application of the force of society … for the removal of the obstacles which stand in the way of its well-being … is

> one of the most difficult and complicated questions in the art of government … [However] … the worth of a State, in the long run, is the worth of the individuals composing it; and a State which postpones the interest of *their* mental expansion and elevation to a little more of administrative skill … which dwarfs its men, in order that they may be more docile instruments in its hands even for beneficial purposes – will find that with small men no great thing can really be accomplished; and that the perfection of the machinery to which it has sacrificed everything will in the end avail it nothing, for want of the vital power which, in order that the machine might work more smoothly, it has preferred to banish". (on pages 185-187)

The defence of free trade, on grounds that do not at all depend on the assessment of market structure, has constantly been brought forward by important strands of the liberal tradition, all along the 19th and the 20th centuries. It is no issue that such views are radically in contrast with the institutional design on which Antitrust is built. There is however a relevant connection that deserves emphasis. In the 20th century, Friedrich von Hayek, a most conspicuous interpreter of the classical liberal tradition, developed an analysis of the competitive process grounded on the view that each economic agent is *individually* endowed with an exclusive amount of specific information, and that such dispersed information can only be conveyed to society, provided social interaction rests on decentralisation of the decision-taking process. Again, it is no issue that there is no room for Antitrust in Hayek's world. Nevertheless, significant Hayekian reminiscences can be found in some recent evolution of Antitrust analysis, whereby the need to enhance competition and decentralisation is precisely justified as the only way to allow firms to better convey, through a competitive product and process innovation, their 'private' information to the market.

Today, Antitrust is greatly concerned with *dynamic* competition. The critical point is that the incentives to innovative activity require some sort of *ex-post* monopoly. The need to foster 'competition through innovation', with its corollary of necessarily protecting, allegedly temporary, monopoly, is making its way in contemporary Antitrust, grounded on dynamic 'efficiency' arguments, and is setting new challenges to the received perspective[17].

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[17] The recent decision by the U.S. Supreme Court, *Trinko* (2004), affirmed that, not only is there nothing wrong with having monopoly power and being able to charge high prices, but that this "is an important element of the free-market system" because "it induces innovation and economic growth".

4. The design of Antitrust structuralism.

As anticipated in Section 2, Antitrust structuralism amazingly succeeded in translating the neoclassical, abstract, notion of perfect competition as price-taking behaviour, from economic analysis, to the realm of law.

In a broad "policy" perspective, the 'structure-conduct-performance' paradigm supported decentralisation of economic decisions, provided markets are dispersed. 'Market power', the typical hindrance of economic freedom of (other) agents in the market, was regularly and easily assessed by resorting to some measure of industry concentration, that summarised the number of producers in the market and the statistical distribution of their size. Structuralism devised Antitrust as a competition-enhancing institution that has the object of letting markets become or remain as dispersed as the technological conditions allow them to be.

It is, first of all, to be stressed that Antitrust was never given the task of an all-encompassing "policy for competitive markets", let alone of remedying the adverse social effects of "structural" lack of competition. As to the former point, market structure (hence the conditions for competition) can be significantly affected not only by the economic agents' behaviour, but also by institutional constraints – e.g., by the existence of an institutional monopoly or by the working of institutional barriers to entry. Antitrust, however, is only concerned with firms', not with the Government's, behaviour. Competition-enhancing policies, apt to remove the institutional sources of market power, remain, as a norm, outside the scope (i.e., the *power* of intervention) of Antitrust. They have to be handled directly by the legislative or the executive[18]. As to the latter point, there is no room for Antitrust intervention also in those situations in which competition is lacking due to *exogenous* "structural" factors, such as technological conditions crucially affecting the efficient size of firms, therefore the possibility of market dispersion. On the one hand, when increasing returns to scale imply that the efficient size of firms is 'large' with respect to the market, the only way to foster competition, according to the structuralist perspective, is by enlarging the

[18] As anticipated in the introductory Section, Antitrust law in the European Union shows a partial peculiarity in this respect. The Treaty of Rome, which is of "constitutional" rank in Europe, prohibits agreements *among firms* and the *dominant firm*'s abusive behaviour. Member States have the duty not to let their internal law annihilate the '*effet utile*' of the Treaty's norms. Hence, national legislators are not allowed to immunize firms' behaviour that can be challenged under articles 81 and 82 of the Treaty.

(usually geographical) size of the market[19]. However, to "enlarge" geographical markets as a "policy for competition" is in the hands of the Government, not of Antitrust (unless geographical markets are *artificially* restricted as the result of firms' active behaviour)[20]. On the other hand, when the market is a "natural monopoly", or technological constraints anyhow allow for a small number of efficient firms, the appropriate policy intervention under the structuralist paradigm is *direct* regulation.

Under such premises, in the legal perspective, structuralism led Antitrust norms to be interpreted in the sense that the behaviour of individual firms was constrained in such a way as to ensure 'independence' of economic decisions. Antitrust law was concerned, not only, in a weaker sense, with firms' decisions that, by modifying the industry structure, impinge on market dispersion, but also, in a stronger sense, with any attempt of firms' to distort or obstruct their *own*, as well as other firms', independence in the marketplace. In this sense, Antitrust structuralism compelled firms, although interacting in imperfectly competitive markets, to "mimic" the behaviour of the "competitive firm".

The legal architecture of Antitrust structuralism is quite simple and, amazingly, *internally* consistent. With respect to prohibition of horizontal agreements, the typical legal argument was that co-ordination on market strategies would be absent from the dispersed decision-taking we observe in dispersed markets, hence it was to be taken outside the firms' allowed decision set. The emphasis was on co-ordination in itself, rather than on co-ordination to reach a *collusive* (i.e., the industry profit maximising) equilibrium in oligopoly. Kovacic and Shapiro (2000, on page 50) recall that, in the 50's, in *Theatre Enterprises* (1954), the U.S. Supreme Court:

> "toy[ed] with the possibility of treating oligopolistic interdependence as a form of agreement … [before] … rul[ing] … that proof of 'conscious parallelism' … could not sustain a finding that the defendants acted jointly … [in absence of] … "plus factors".

Hovenkamp (1994, at page 168) recalls that, in the U.S., a test for detecting infringements of Sherman Act, par. 1, prescribes to ascertain "whether for each individual a particular act would be profit-maximising *whether or not others did the*

[19] See Novshek (1980) for a theoretical assessment of this point.

[20] In fact, in Europe, Antitrust is intended as a *tool* for the implementation of the *political* decision of integration of national markets.

same thing" (*italics* added). Amazingly, the test seems to imply that only parametric – i.e., independent - behaviour can be consistent with lawful conduct, even in oligopoly. In a paper in which he tried to struggle with the intricacies of oligopolistic behaviour, Donald Turner (1962) illuminatingly synthesised this view, by commenting that the ideal benchmark of perfect competition as price-taking behaviour was interpreted by Antitrust legal scholars as a straightforward way of turning a "benchmark" economic concept (the Robinson-Crusoe-like, isolated, rational, decision maker) into a well-defined legal notion. Today, competition law accepts Nash behaviour in oligopoly as compatible with the prohibition of agreements, both in the U.S. and in Europe[21]. The straightforward consequence is that tacit collusion - that is, anti-competitive behaviour that arises in oligopoly because firms simply follow the self-enforcing prescriptions of the Nash equilibrium solution of an appropriate, dynamic, indefinitely repeated, game - is also immune, in the U.S. and in Europe, from competition law[22].

With respect to vertical agreements and unilateral abusive practices, the general legal argument was that both types of conduct are to be prohibited whenever they "foreclose" markets, in the widest sense that they preclude further exchanges in the same or related markets, therefore making 'the market' less "thin". This view resulted in a detailed taxonomy of vertical agreements and unilateral practices, the essential assessment of which being critically based on whether they have the effect of reducing the number of producers or the opportunities for 'independent' exchanges. More specifically, vertical agreements are assessed as anti-competitive if they induce *inter-brand* as well as *intra-brand* restraints to market exchanges. Typically exclusive dealings obstruct inter-brand competition, by hindering existing competitors in the market or the entry of new competitors into the market. Resale price maintenance and territorial restraints, in addition to possibly restraining inter-brand competition, also obstruct intra-brand competition, as they reduce the scope for market exchanges at the

[21] See Phlips (1995).
[22] The way in which the European Court of Justice scrupulously reached this conclusion still is illuminating. The Court argued (*italics added*) that "the criteria of co-ordination and co-operation … must be understood in the light of the concept inherent in the previsions of the Treaty ..... that each economic operator must determine *independently* the policy which he intends to adopt .... it is correct to say that this requirement of independence does not deprive economic operators of the right to *adapt themselves intelligently* to the existing and anticipated conduct of their competitors....." (Cases 40-48/73, *Suiker Unie & others v. EC Commission,* 1975).

retail level[23]. Antitrust structuralism challenged unilateral practices for having the "foreclosure" effect of excluding other firms – thus further exchanges - from the same market, or from horizontally or vertically related markets. Exclusion can be price-based or non-price-based. Typical price-based exclusionary practices are predatory prices and rebates, aimed at foreclosing the same market, or mixed bundling that forecloses horizontally related markets. Non-price-based exclusionary practices involve tying and bundling, and refusal to supply, aimed at foreclosing respectively horizontally and vertically related markets[24].

Merger assessment was the realm of Antitrust structuralism, that challenged mergers strictly on the basis of market structure, often resorting to very narrow market definitions and very low safety thresholds. I would like to stress here that, following the structuralist perspective, Antitrust agencies were led to assess mergers in a not significantly different way, in terms of evaluation criteria and ex-ante predictability, with respect to *other* (namely, agreement and abuse) assessments under Antitrust law. This fact contributed to blur the relevant distinction between – and, above all, the ground for keeping distinct – the assessment of 'unlawful' behaviour, and the regulatory function performed by the Antitrust agency in mergers' evaluation.

Structuralism also led to a relevant simplification of the legal criteria on which the Antitrust judgement was grounded. The history of U.S. Antitrust in the period that preceded the heyday of structuralism - namely, from its beginning to the second world war - show that Antitrust decisions usually took explicitly into account a multiplicity of goals from which to assess the effects of a given conduct. More precisely, the economic effects, in terms of competition *and* market efficiency, were systematically *balanced* with *other*, often contrasting, effects (such as, *political* defence of small firms, or the smoothing of social tension). The way in which the courts performed the balancing was by resorting to *rules of reason*. In particular, during the interwar period, the application

[23] Vertical restraints have been severely treated under the European Competition law, as typical tools deployed to separate the European economic space into distinct national markets. Although the political objective was very forceful and patent, it resulted to be, at the same time, fully consistent with the theoretical framework of Antitrust structuralism.

[24] The general argument of Antitrust structuralism against many unilateral practices was the so-called 'leverage doctrine', according to which a firm with a monopoly in one market has an incentive to extend that monopoly to a horizontally or vertically related market, so as to get two monopoly profits instead of one. Building on such (later vehemently challenged) leverage doctrine, courts declared several unilateral practices illegal *per se*.

of the rule of reason allowed the balancing to be significantly bent in favour of different, non-economic, goals[25]. Under Antitrust structuralism, the assessment was firmly grounded on the primacy of the economic goal of preserving competition – also because, under the structure-conduct-performance paradigm, the latter consistently absorbed the political goal of small firms' defence. This resulted in the emphasis of *rules per se* that characterised Antitrust structuralism. Most significantly, since *Alcoa* (1945), the widespread resort to the *rule per se* went also along with the courts' view that, by following Antitrust structuralism, anti-competitive behaviour is to be construed as an *objective* notion, and therefore to be assessed independently of the firms' anti-competitive *intent*.

On the overall, Antitrust structuralism relied on an institutional design that combined together, in a complex architecture, the economic, moral, and legal, perspectives. Let me summarise, in conclusion, what in my view are the main, abstract, elements of such design.

(i) The institution of Antitrust was grounded in utilitarianism. The utilitarian approach, however, is not strained up to the point that an explicit utilitarian *calculus* is called for, to evaluate the effects of conduct in specific circumstances. Economic structuralism calls for such specific calculus under a different institutional setting, namely *regulation*, whereby, mainly due to significantly increasing returns to scale, a 'centralised' policy intervention substitutes for market decentralisation. In the vast majority of markets, Antitrust law only is to set *rules*, that have the primary purpose of enhancing the scope for the individual agents' freedom of choice.

(ii) As a general principle, Antitrust structuralism designed the rules that restrict the firms' *allowed* decision set, on the presumption that, when markets are imperfectly competitive, *social utility* is enhanced, whenever firms are precluded strategies, that have the likely effect of reducing the dispersion of both the economic agents, and the decision-taking process in the marketplace. Thus, a "legal" model evolved, whereby practices are classified as "lawful" or "unlawful", according to whether or not they give rise to such ultimate effects.

[25] The most cited decision of the U.S. Supreme Court during the interwar period was, in this respect, *Appalachian Coals* (1933), that excepted to the *per se* prohibition of horizontal price-fixing.

(iii) From the perspective of economic analysis, Antitrust structuralism was grounded in the "structure, conduct, performance" paradigm, to assess the effects of firms' interaction in imperfectly competitive markets. In the history of economic analysis, the Achilles' heel of the "structure, conduct, performance" paradigm was its inability to develop a consistent theory of competition in industries with increasing returns to scale. Antitrust structuralism shared with that paradigm the relevant neglect of possible, competitive, efficiencies associated with large-scale enterprises.

(iv) From the moral perspective, Antitrust law was grounded in the judgement that, insofar as freedom of choice in the marketplace is in general expected to be conducive to the "optimal" social division of labour, such freedom is to be enhanced up to the point that its exercise does not hinder the parallel freedom of choice of other firms and consumers.

(v) In the legal perspective, Antitrust structuralism enjoyed a number of 'nice' properties. It was easy to implement, highly predictable, and therefore accountable. On the one hand, the "lawfulness" or "unlawfulness" of a given practice was made to depend on what, according to the prevailing economic theory, were deemed to be its likely social effects. On the other hand, to follow the Antitrust rules did not impose on firms the burden of evaluating, specifically and in detail, the social consequences of their own behaviour[26]. In this respect, it is crucially worth noticing that, a tenet of Antitrust structuralism is that anticompetitive behaviour is an *objective* notion.

5. The Chicago critique.

In the last decades, Antitrust structuralism has been subjected to two major challenges, both resulting from advances in economic analysis.

The first challenge came from the so-called Chicago school. The Chicago critique focussed on a number of practices (both unilateral practices and vertical agreements[27]) that, in the taxonomy of Antitrust structuralism, were classified as implying, often *per se*, anticompetitive, illegal, behaviour. Building on scrupulous

[26] With a slight variation on Thomas More's theme in Robert Bolt's *A Man for All Seasons*, "… [Antitrust] law is a causeway upon which so long as [it] keeps to it a [firm] may walk safely".
[27] The received Antitrust view about horizontal agreements implying collusive behaviour resulted substantially immune from the Chicago critique.

economic analysis, the Chicago scholars proved that each concerned practice can be given an efficiency rationale, that contrasts with its pretended anticompetitive effects.

To quickly review the above taxonomy under the Chicago critique, consider, to start with, vertical agreements, such as exclusive dealings and resale price maintenance[28]. In the case of exclusive dealings, the Chicago argument was that, under competitive conditions, the buyers' surplus is always larger than the producer's surplus that can be extracted if a firm monopolises the market by imposing an exclusive dealing. No firm can therefore expect to extract from monopolisation enough resources to bribe its customers into an exclusive dealing, unless exclusiveness gives also rise to efficiencies that enlarge the total surplus. Resale price maintenance finds its efficiency rationale, according to Chicago scholars, whenever significant value is created through sale services provided at the retail level. The object of resale price maintenance is to provide correct vertical incentives under such circumstances. In a specific case, that has significant impact on intra-brand competition, retail services often have a relevant information content that helps buyers to single out and select their "preferred" brand of a differentiated product. Suppose that retailer A provides costly information to consumers. Then a competing retailer B might free-ride on the promotional activities undertaken by retailer A and offer a lower price. However, such free-riding would cause the provision of sale services to disappear at all from the market[29].

Exclusionary unilateral practices on the same market frequently involve predatory (i.e., below cost) pricing. Predatory prices are *low* prices that, at least in the short-run, raise the consumer's surplus. Producers resort to predatory pricing if they expect that, provided the exclusionary strategy succeeds, they will later recoup the short-run predatory losses. The rationale to resort to predatory pricing, even in the long-run perspective, was challenged by McGee (1958) who argued that: (i) in the predatory phase larger firms bear larger losses than smaller firms; (ii) even if the smaller firm goes bankrupt, its physical assets can be used by a new competitor; (iii) it is the role of financial markets to overcome the financial asymmetries that hinder the competitor in resisting the predatory phase; (iv) even if financial asymmetries are not removed, to merge is a superior strategy for the 'predator', as it entails no predatory losses.

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[28] See Posner (2001) and Bork (1978).

[29] Telser (1960).

Exclusionary unilateral practices on (horizontally adjacent, or vertically) related markets were traditionally challenged under Antitrust structuralism, by resorting to the so-called “leverage doctrine”, according to which a firm uses the monopoly power it has on one market, to monopolise a competitive related market. The plausibility of the “leverage effect” was challenged by the Chicago school, elaborating on the argument that “there is only one final market and only one monopoly profit”, so that no further benefits can accrue to the firm that attempts at monopolising a related market.

The Chicago critique pointed to the *bad* economic analysis on which Antitrust structuralism rested. Still, let me add a specification to this point. Whereas, according to the critique, the anti-competitive effects of monopolisation practices are implausible when carefully scrutinised with the help of “better” economic analysis (therefore, the solution simply is to adjust the economic analysis), the way in which the Chicago critique dealt with vertical agreements involves a more abstract argument, that goes to the heart of the design of Antitrust structuralism. The point can be described as follows. Although Competition law challenges horizontal and vertical agreements under the same statutory norm, there is a substantial difference between the two. Horizontal agreements are agreements among economic agents that all operate on the *same* side of the market. Therefore they aim at artificially reproducing the behaviour of a single monopolist. In contrast, vertical agreements are agreements between agents operating on *both* sides of the market. The rationale of vertical agreements is to be primarily found in the support they offer to an economic relation of exchange, that is to an instance of the social division of labour. What is at stake in a vertical agreement is whether the concerned “exchange” can be *most efficiently* organised, either as an anonymous, dispersed, market relationship or as a long-term contractual relationship. In other words, the relevant question is not, how close to the “ideal” market is the context in which the relation takes place, but whether there should be a ‘market’ at all. Antitrust structuralism, challenging vertical agreements because they reduce the scope for market exchanges, pretends that the *market* always is the best solution to a problem of optimal organisation of the social division of labour, even when it is in fact not so[30].

[30] As the title of Williamson (1975) emphasises, there is a relevant link between the contribution of the Chicago school to the economic analysis of organisations and the Chicago critique of Antitrust structuralism.

The Chicago school also solicited a re-assessment of the goals of Antitrust. Robert Bork (1954,1966,1967,1978) claimed that, from the legislative history of the Sherman Act, it is clear that the Act's single objective definitely is Consumer Welfare. In Antitrust law, however, later statutes and subsequent jurisprudence have aligned with consumer welfare further objectives such as, conspicuously, small business welfare. As already noticed, Antitrust structuralism in a way absorbed the two objectives in a single goal. Bork points out that – once the inability of the structure-conduct-performance paradigm to deal with competition in industries with increasing returns to scale, and the *bad* economic analysis underlying Antitrust assessment of vertical agreements and unilateral practices, are duly taken into account - consumer welfare and small business welfare are mutually inconsistent goals. To implement Antitrust law, by defending small businesses and letting them survive the competitive pressure of large businesses, cannot but lead to inefficient resource allocation, thus to higher prices, lower output, and eventually lower consumer welfare. Bork (1967, on page 250) blamed Antitrust law for being "an incoherent theory of injury to competition through injury to competitors". In this respect, Bork's critique goes further than other Chicago scholars'. He adds to his shared uneasiness with the economics of Antitrust structuralism, also his personal concern with the interplay between diverse objectives in Antitrust. In particular, he blames the statutes of the interwar period (whereby, such as in the Robinson-Patman Act, the *political* goal of protection of small business was more definitely and explicitly introduced) for setting legal criteria that allowed for objectives in contrast with the proper goals of competition in the market, and advocates a reversal to the purity of the Sherman Act. A multiplicity of inconsistent goals - Bork fears (on page 253) – is at the root of "the kind of uncertainty a legal system ought not to tolerate … which arises because judges are making case-by-case and ex-post facto … a political compromise between irreconcilable goals".

In conclusion, the normative suggestion of the Chicago critique was that vertical agreements and many unilateral practices should be legal *per se*, unless it can be proven that they are a tool for the implementation of a *horizontal* agreement[31].

[31] Tirole (1988, on page 185) takes from Howard (1983, on pages 150-151) the quotation of the testimony given in 1981 by William Baxter, assistant attorney general in charge of the antitrust division of the U.S. Department of Justice, who stated "In my view, there is no such thing as a vertical 'problem' … The only possible adverse competitive consequences of vertical arrangements inhere in their horizontal effects.

Albeit slowly, the Chicago perspective eventually gained acceptance in Antitrust law, making significant inroads in the Supreme Court's decisions. It is conventionally agreed that the turning point was *GTE-Sylvania* (1977). However, it is worth emphasising that the core of *Sylvania* is that non-price vertical restraints should be subject to the *rule of reason*. This is in a sense bizarre. Chicago analysis holds that only efficiency, therefore *pro-competitive*, effects should be attached to a number of vertical agreements and unilateral practices, and that such practices should therefore go unchallenged by Competition law, under a sort of *per se legality* presumption[32].

In the historical record of Antitrust before *Sylvania*, to resort to the rule of reason implied that, to assess the effects of a practice, a trade-off between different alternative goals is in need, as anti-competitive effects may go along with other, beneficial, consequences also deserving social protection. As a matter of fact, in the early days of Antitrust, "rule of reason" was the standard legal criterion, under the Common law's principle of "reasonableness". Thus, for instance, defendants in the first Sherman Act price-fixing case to reach the Supreme Court (today, horizontal price-fixing is a, universally agreed-upon, *per se* violation) urged that they be judged according to the 'reasonableness' of the price they fixed[33]. The Supreme Court established the rule of reason as the basic method of antitrust analysis in Standard Oil (1911). In the two decades between World War I and the late '30s - the period that Hofstadter (1966) calls the "era of neglect" of Antitrust - the widespread recourse to the rule of reason allowed firms' behaviour to be treated permissively, in order to take into account - also in accordance with the "associationalist" vision of business-government relations[34] - "political" goals, among which the defence of small business (the main target of Bork's critique) was of particular relevance. It is straightforward that, to implement a rule of reason implies a closer look at the specific effects of the concerned behaviour, as the effects differently affect the different goals among which the *balance* is to be performed. The Supreme Court called into play such a specific, multi-goals, analysis in *Board of Trade of the City of Chicago* (1918), when stating that the

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Only where vertical arrangements facilitate restricted output and raised prices – horizontal impacts – they should be inhibited"

[32] In my view, this is the straightforward conclusion of Robert Bork's emphasis, that there is *only one single goal* for Antitrust law, namely consumer welfare.

[33] *Trans-Missouri Freight Association* (1897).

[34] Kovacic and Shapiro (2000), on page 46.

Competitive restraints "should be evaluated through a comprehensive inquiry into their history, purpose and effect"[35]. In contrast, as recalled in the previous Section, the era of Antitrust structuralism, that followed the Second World War, is correctly recorded for its emphasis on *per se* rules, as the reliance on what then appeared to be a general and sound economic model, namely, the structure-conduct-performance paradigm, laid the ground for a *single economic goal* to prevail in Antitrust assessment[36].

After the Supreme Court eventually accommodated for the Chicago critique by declaring that assessments should be based on a *rule of reason*, the way was opened to a significant shift of the meaning and scope of the principle of rule of reason. The rule of reason was, since then, evoked, not with the purpose of balancing between *alternative* goals, but to support a specific, case-by-case, evaluation of the *economic* effects of the concerned practices. The consequences of this shift became fully apparent, when the so-called post-Chicago developments challenged the simple analytical results on which the Chicago prescriptions, of *per se* legality of a number of practices were based.

6. Post-Chicago developments.

Beginning in the early 80's, and building on an extensive use of game theory, modern industrial organization has greatly added to our understanding of how actual, imperfectly competitive, markets work. The New Industrial Organization analysis resulted in a number of "possibility theorems"[37], according to which most practices, that had been re-assessed as pro-competitive by the Chicago school, *ambiguously* give rise to either anti-competitive (welfare-reducing) or pro-competitive (welfare-enhancing) effects, depending upon the particular circumstances. In view of the analytical results of the New Industrial Organization, economists have solicited Antitrust agencies and

[35] Much cited Antitrust decisions in the "era of neglect", in which goals different from enhancement of competition and efficiency prevailed over the latter, are *United States Steel Corp.* (1920), whereby the Supreme Court positively assessed the fact that the defendant's competitors welcomed the protection offered to them by the "hierarchical" collusive organisation of the industry, and, above all, *Appalachian Coals* (1933), that excepted to the *per se* prohibition of even naked horizontal output restrictions.

[36] This is not to deny that, particularly following the Celler-Kefauver Act (1950), alternative political goals continued finding their way in Antitrust assessments of both mergers and horizontal and vertical transactions, mainly through what was successively termed an "efficiency-offence" argument (Kovacic and Shapiro, 2000, on page 51). In my view, however, the point simply is, that the "efficiency-offence" argument candidly reveals the Achilles' heel of the economic model of Antitrust structuralism.

[37] Evans and Padilla (2005).

courts to perform a full-scale *rule of reason* inquiry, so as to carefully assess, under the specific circumstances of the case, which is the relevant effect.

To quickly review the post-Chicago developments, let us refer again to the taxonomy of vertical agreements and monopolisation practices. Consider, to start with, exclusive dealing. Aghion and Bolton (1987) illustrate how an incumbent and a buyer might agree on an exclusive contract, whereby the buyer can be released from the exclusivity relationship by paying a penalty to the incumbent. Such contract *may* act as a barrier to entry of a more efficient competitor: exclusion does not always occur, but when it does, then it reduces welfare. Rasmussen, Ramseyer and Wiley (1991) and Segal and Whinston (2000) also show that, provided the entrant needs to supply a minimum number of buyers to cover its fixed costs, an incumbent might exploit the lack of coordination among buyers, to sign an exclusive contract with a subset of the latter, in such a way as to make entry unprofitable to a more efficient competitor. Bernheim and Whinston (1998) extend a similar intuition to show how entry can be blocked in an adjacent market, where a complementary good is sold.

With respect to resale price maintenance, the Chicago scholars argued that such a vertical agreement serves as an efficient solution to the problem of double marginalisation or to the problem of free-riding in the provision of retail services. However, Rey and Tirole (1986) prove that, under given circumstances, resale price maintenance may be welfare-reducing. Moreover, Jullien and Rey (2001) show that, when inter-brand competition is involved, resale price maintenance can facilitate collusion, by increasing price observability.

By extensively analysing predatory pricing, Bolton, Brodley and Riordan (2000) argue that, although McGee's critique has its merits, however, mainly under incomplete information, it cannot be concluded that firms always lack the incentive or the ability to engage in a predatory strategy.

The "single monopoly profit theorem", on which the Chicago schools built its critique of the "leverage doctrine", also is challenged by post-Chicago literature, coming to the conclusion that firms *may* use their monopoly in one market, to affect adjacent markets in ways that reduce social welfare. Whinston (1990) shows that, under appropriate assumptions, a monopoly has an incentive to tie its monopoly product to a

good sold in a competitive market, in order to foreclose the "tied" market. Carlton and Waldman (2002) show that, by tying its monopoly product to a complementary good sold in a competitive market, a monopolist may prevent entry of a competitor in its own monopolistic market[38].

Post-Chicago analysis also has an impact on the assessment of horizontal agreements. In addition to 'hard-core' cartels, whereby firms fix prices, allocate quotas, or divide the market, horizontal firms may also agree on so-called 'facilitating practices', that is, they may agree to engage in practices that make collusion easier. In general, a facilitating practice can de described as a practice that changes the market environment in such a way as to facilitate the attainment of a tacit collusive equilibrium in the indefinitely repeated oligopolistic game (Grillo, 2002). Typical instances of facilitating practices are the sharing of information or the agreement to impose resale price maintenance to retailers[39]. The point is, that firms may also engage in such practices for efficiency, thus pro-competitive, reasons. Therefore, a detailed, specific, account of the effects of the challenged behaviour is called for, before a pro- or anti-competitive assessment of the practice be performed.

The typical concern that arises from Post-Chicago developments is the need to avoid both type I (to challenge innocent behaviour, thus implying over-deterrence) and type II (to ignore pernicious behaviour, thus implying under-deterrence) errors in Antitrust decisions. To face such dilemma, economists tend to advocate, in the vast majority of cases, a full-scale *rule of reason* inquiry on the *economic effects* of the challenged behaviour. Antitrust agencies are therefore requested to apply an *ambiguous* model (that is a model that in principle leads to uncertain results) to the assessment of the specific case, and to carefully test the assumptions and the parameter values of the model with the specific circumstances of the challenged behaviour. As post-Chicago

[38] The Carlton and Waldman paper nicely illustrates the theoretical bulk of the U.S. DoJ's argument in *Microsoft*.

[39] Under the European Competition law, such facilitating practices have been condemned by the European Commission (*UK Agricultural Tractor Registration Exchange*, 1992) and by the Italian Competition Authority (*Accordi per la fornitura dei carburanti*, 2000, and *RC Auto*, 2000) for having an anti-competitive *object*.

results are explicitly derived from welfare maximization, at least in principle, a *calculus* is called for, to assess whether the practice is anti- or pro-competitive[40].

The post-Chicago developments, and their normative implications, are setting a number of challenges to the institutional design of Antitrust.

First of all, in the less abstract perspective, post-Chicago "possibility models" appear to be of very limited use, and to offer little practical guidance for antitrust agencies and courts. The assumptions and the parameters of the model, upon which the welfare-enhancing or welfare-reducing effects of a given market behaviour usually depend, are in fact hard to test in specific cases, at least given the current state of empirical knowledge.

Second, the economists' appeal to a rule of reason is somewhat misplaced and is the source of serious ambiguity for the co-operation between economists and lawyers. In fact, the economists' concern is with a *single economic goal*, namely, the *overall* welfare-enhancing or welfare-reducing effects of a given practice. Lawyers may misunderstand the economists' perspective. From the appeal to a rule of reason, they may be led to infer that the economic approach emphasises a tension (commonly represented as "efficiency-generating conduct … [that] … cause[s] disproportionate harm to rivals or consumers"[41]) between *different* goals, and therefore *diverging* interests, that have to be *balanced* under the law, *because* they all deserve social protection. However, as consensus goes, "Competition law is to protect competition, not competitors". This implies that harm to rivals is by itself irrelevant from the perspective of Competition law (since, far from being an unwanted consequence of competition, to harm rivals is the essence of it), whereas it would be hard to see how a (competitive) efficiency-generating conduct may cause harm to consumers.

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[40] In practice, in most circumstances, such a *calculus* is beyond the reach of the Antitrust agency, let alone of courts. A more at hand alternative, to implement a full-scale rule of reason assessment of the overall economic effects of a given conduct, is suggested by the EAGCP (Gual *et al.*, 2006) as follows: "A natural process would consist of asking the competition authority to first identify a consistent story of competitive harm, identifying the economic theory or theories on which the story is based, as well as the facts which support the theory as opposed to competing theories. Next, the firm should have the opportunity to present its defence, presumably to provide a counter-story indicating that the practice in question is not anti-competitive, but is in fact a legitimate, perhaps even pro-competitive business practice. In the end, it will be up to the court to determine which story it considers to be the most plausible".

[41] Melamed (2005, on page 1254).

Third, as Whinston (1990) notices in commenting his own contribution, the ambiguity of post-Chicago results "makes the specification of … practical legal standard[s] extremely difficult". Specification of legal standards is crucial in Competition law as, when the law is to be *implemented*, firms must be put *as a rule* in the position to evaluate whether they are acting within or beyond the boundaries between lawful and unlawful behaviour. The point is not simply that a fundamental requisite of predictability and accountability of the law need be satisfied. In my view, the point goes far beyond mere *predictability* and challenges the very rationale of Competition law, which is to enhance *decentralisation* of economic decisions. Legal standards in Competition law cannot be made to critically rest on the specific effects of a given conduct, because the *relevant* effects of market behaviour are normally *systemic* effects that only a sophisticated assessment, from the point of view of the general public interest, can tell - in fact, a public Agency is in charge of identifying them. From this perspective, it would eventually entail an *inconsistent* institutional design of Antitrust, to compel firms' *decentralised*, private, decisions to bear the burden of being a substitute for a collective decision[42].

In conclusion, post-Chicago developments seem to force Competition law to become closer to a tool of 'regulatory' economic policy. Such a result, however, might jeopardise the received institutional design of Antitrust, as it would ironically inflate the intrusiveness of the public sphere in the firms' autonomous decision-taking. This is, in my view, the main challenge that Antitrust has to face today. I have to add, however, that, at the same time, there are elements of the picture that contrast this drift. First, with specific reference to Europe, the institutional design of European Antitrust has recently undergone a major change through the so-called 'modernisation' process. The most relevant element of modernisation is the fact that the European Commission (itself the European Antitrust Agency) has waved aside some 'regulatory' powers, it previously had, concerning the assessment of agreements. Second, several lawyers and wary economists are deeply concerned with the post-Chicago difficulties and with the need to

[42] It is perhaps linked with the concerns expounded above, that today some legal commentators suggest to re-consider the *objective* notion of anti-competitive behaviour and to base the assessment of the latter also on the appraisal of *intent*.

reach a possible composition of the tension in the future[43]. As a matter of fact, there is nothing that in principle precludes *rules of law* based on post-Chicago analysis, albeit we are very far from having them[44]. This is, in my view, the very challenge for future research. Tight co-operation between economists and lawyers is however highly wanted to such purpose.

Let me conclude by stressing that the tension arising form post-Chicago literature need not affect merger evaluation. On the one hand, as already noticed, merging firms are not called to take an autonomous decision, nor are they challenged for illegal behaviour. They only have to notify their merger project and wait for being authorised. On the other hand, when assessing a merger, the Antitrust agency is called to perform a thoroughly consistent *regulatory* function, i.e., to develop a full-fledged specific assessment of the expected consequences of the merger, in terms of output restriction or expansion in the market.

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[43] Kovacic and Shapiro (2000, on page 58) refer to "two related challenges … One is for economists and attorneys to devise analytical techniques that accurately identify complex business practices as being pro-competitive or anti-competitive. The second is to adapt such techniques to formulate rules that are suited to the capabilities of enforcement agencies and courts and give the business community a stable and predictable base for designing business plans". In the same vein, Vickers (2005, on page F260) clearly states that "To say that the law … should develop a stronger economic foundation is not to say that rules of law should be replaced by discretionary decision making based on whatever is thought to be desirable in economic terms case by case. There must be rules of law … So the issue is not rules versus discretion, but how well the rules are grounded in economics".

[44] In some recent Antitrust cases, there have been instances of behaviour that has been assessed, under Antitrust law, according to *rules* consistent with post-Chicago literature. In the U.S., Kovacic and Shapiro (2000) refer to *American Airlines* and *Microsoft*. Let me recollect two recent decisions by the Italian competition authority that also satisfy the above condition. In the *Gasoline* (2000) case, a collective behaviour of gasoline producers, that had resorted to resale price maintenance, was condemned as an anticompetitive collusive facilitating practice, tightly applying Jullien and Rey's (2001) analysis. In the *SAGIT* (2003) decision, the anti-competitiveness of a partial exclusive dealing in the Italian ice-cream market, was declared to be legal following Segal and Whinston's (2000) analysis.

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