On the Divergence Between the Legal and Economic Meanings of Collusion

Stephen Martin
Department of Economics
European University Institute
50016 San Domenico di Fiesole
Florence, Italy

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> When I use a word, it means just what I choose it to mean, | neither more nor less.
>
> Humpty Dumpty

1. Introduction

In this short essay, I wish to argue that without quite realizing it, lawyers and policymakers on the one hand and economists on the other have come to use the terms \collusion" and \cartel" in quite di®erent ways. Competition policy in the European Community and in the United States prohibits naked collusion, but does not condemn independent actions taken by a ¯rm in its own self-interest. The very active literature in which economists have studied noncooperative collusion emphasizes that in the absence of a legally binding agreement to act jointly, all collusion is the result of independent actions taken by ¯rms in their own self interest.

After reviewing US and EC policy toward collusion, I survey the corresponding (or rather, if the argument of this paper is accepted, the non-corresponding) economics literature. I conclude with suggestions for reorientation of economists' e®orts in this area.

2. Public Policy Toward Collusion

2.1. United States

2.1.1. The *per se* rule

I wish to contrast the *per se* rule against price ¯xing and collusion with the approach of US antitrust to consciously parallel behavior.

That agreements to ¯x price and divide markets are illegal under US antitrust law is a standard that goes back to the decision in the Addyston Pipe and Steel case,[1] involving a cartel formed by manufacturers of iron pipe in the Southern and Midwestern United States in the 1890s.

The cartel practiced geographic market division. Some cities were assigned to speci¯c ¯rms. For the sake of appearances, other ¯rms submitted bids for contracts in these cities. These bids were made high enough so that they would not obtain the business. For contracts in areas that had not been reserved, the cartel conducted its own private \auction" in advance of the public bidding for the contract. At the private auction, cartel members bid \bonus payments" to the cartel for the right to win the contract. The cartel member that pledged the highest bonus to the cartel won the right to submit the low bid at the public auction. Periodically, the accumulated bonus payments were divided up among cartel members.

Addyston Pipe and its fellow conspirators were convicted of violating Section 1 of the Sherman Act (conspiracy in restraint of trade). They appealed to the Supreme Court to reverse their conviction. They proposed that the Supreme Court apply a \rule of reason" to Section 1 of the Sherman Act and exonerate them on the ground that the prices set by the cartel had been reasonable. The Supreme Court rejected this argument (175 U.S. 2378):

> It has been earnestly pressed upon us that the prices at which the cast-iron pipe was sold ... were reasonable. ...We do not think the issue an important one, because...we do not think that at common law there is any question of reasonableness open to the courts with reference to such a contract. Its tendency was certainly to give defendants the power to charge unreasonable prices, had they chosen to do so. But if it were important we should unhesitatingly ¯nd that the prices charged in the instances which were in evidence were unreasonable.

In a later decision, the Supreme Court clari¯ed the relationship between the rule of reason and the rule that attempts to ¯x prices are illegal without regard to the reasonableness of the prices ¯xed (Trenton Potteries, 273 U.S. 392 at 396; citations omitted):

[1] 175 U.S. 211 (1899).

> That only those restraints upon interstate commerce which are unreasonable are prohibited by the Sherman Law was the rule laid down by the opinions of this Court in the Standard Oil and Tobacco cases. But it does not follow that agreements to fix or maintain prices are reasonable restraints and therefore permitted by the statute, merely because the prices themselves are reasonable. ...Whether this type of restraint is reasonable or not must be judged in part at least in the light of its effect on competition, for whatever difference of opinion there may be among economists as to the social and economic desirability of an unrestrained competitive system, it cannot be doubted that the Sherman Law and the judicial decisions interpreting it are based upon the assumption that the public interest is best protected from the evils of monopoly and price control by the maintenance of competition. The aim and result of every price-fixing agreement, if effective, is the elimination of one form of competition. The power to fix prices, whether reasonably exercised or not, involves power to control the market and to fix arbitrary and unreasonable prices. The reasonable price fixed today may through economic and business changes become the unreasonable price of tomorrow. Once established, it may be maintained unchanged because of the absence of competition secured by the agreement for a price reasonable when fixed.

From these decisions stems the per se rule against price fixing. To prove a violation of Section 1 of the Sherman Act, the government need only prove that firms conspired to fix price. It need not prove that the conspiracy obtained absolute control over price. It need not prove that the conspirators abused such control as they had. It need not prove that specific anticompetitive effects flowed from the act of fixing price. The policy of the antitrust laws is that the economy is best served when markets determine prices. Any conspiracy to interfere with this market mechanism is unreasonable within the meaning of the antitrust laws.

2.1.2. Conscious parallelism

The general line of development of US antitrust treatment of conscious parallelism is well known. It begins with the case of Interstate Circuit,[2] which with an affiliated firm managed over 100 movie theaters in Texas and New Mexico. Interstate Circuit had a dominant market position in the markets in which it operated. In 1934, Interstate's manager sent a letter to eight major distributors of motion pictures. The address block of the letter made it clear that the same letter was being sent to all eight distributors. The manager asked the distributors to agree to two proposals.

The first proposal was that if the Interstate theaters took a film on its first release to the public (a so-called first-run film), there would be a minimum admission price on

[2] 306 U.S. 208 (1938). For an application to parallel price changes, see American Tobacco, 328 U.S. 781 (1946).

any showings of the ¯lm in later releases. The second proposal was that if Interstate took a ¯rst-run ¯lm for its theaters, that ¯lm would not be shown, in later releases, as part of a double feature.

The e®ect of each of these proposals is to raise the price, directly or indirectly, at second-run theaters. By preventing these theaters from showing ¯lms at a low price or from showing two ¯lms for the price of one, these proposals made it harder for second-run theaters to compete with ¯rst-run theaters. This reduction in competition directly bene¯ted ¯rst-run theaters, which faced less pressure to compete in terms of price. It indirectly bene¯ted the motion picture distributors, who could use their cooperation to bargain for a share of the higher price at the ¯rst-run theaters. By cooperating, the vertically related ¯rms | producers and exhibitors | were able to reinforce their ability to hold the price above marginal cost. After some negotiations, the distributors agreed to the demands contained in Interstate's letter.

The trial court found evidence of conspiracy in the fact that each distributor knew that the same demands had been made of the others. In the trial court, this evidence was su±cient to sustain a ¯nding that the distributors were guilty of a conspiracy in restraint of trade. The distributors appealed to the Supreme Court, which was not sympathetic (306 U.S. 208, at 2267):

> While the District Court's ¯nding of an agreement of the distributors among themselves is supported by the evidence, we think that in the circumstances of this case such agreement for the imposition of the restrictions upon subsequent-run exhibitors was not a prerequisite to an unlawful conspiracy. It was enough that, knowing that concerted action was contemplated and invited, the distributors gave their adherence to the scheme and participated in it. Each distributor was advised that the others were asked to participate; each knew that cooperation was essential to the successful operation of the plan. They knew that the plan, if carried out, would result in a restraint of commerce, which...was unreasonable within the meaning of the Sherman Act... (emphasis added)

What this decision says is that it is not necessary for courts to ¯nd evidence of agreement among ¯rms in order to conclude that the ¯rms had conspired within the meaning of the Sherman Act. It is su±cient to ¯nd that as a result of interactions among ¯rms, each ¯rm acted in a way that it would not have acted without the interaction.

U.S. antitrust's °irtation with conscious parallelism ends with Theatre Enterprises.[3] Theatre Enterprises managed the Crest Theatre, which was located in a shopping center in suburban Baltimore. It solicited ¯rst-run ¯lms from major ¯lm distributors, which independently refused the request. Theatre Enterprises sued the ¯lm distributors, alleging a conspiracy in restraint of trade in violation of the Sherman Act. The

[3] 346 U.S. 357 (1953).

company did not come to court with evidence of an agreement, but relied on the parallel behavior of the distributors to prove a conspiracy. The ¯lm distributors responded that they had independently exercised their best business judgment. Downtown theaters were more accessible than the Crest, they argued, and would provide a better forum for ¯lm exhibition. A jury found against Theatre Enterprises, which appealed to the Supreme Court. The Court's decision marked a retreat from the frontier reached in Interstate Circuit and American Tobacco (346 U.S. 537, at 5401):

> The crucial question is whether [the ¯lm distributors'] conduct ... stemmed from independent decision or from an agreement, tacit or express. To be sure, business behavior is admissible circumstantial evidence from which the fact ¯nder may infer agreement. ... But this Court has never held that proof of parallel business behavior conclusively establishes agreement or, phrased di®erently, that such behavior itself constitutes a Sherman Act o®ense. ...\conscious parallelism" has not yet read conspiracy out of the Sherman Act entirely.

This retreat reached its extreme in the C. P¯zer & Co. decision.[4] In this case, two pharmaceutical manufacturers were exonerated of conspiracy to exclude competitors and ¯x prices (among other charges) in the market for an important, patented, prescription drug. This decision was reached despite the undisputed fact that the agreements in question were reached only after two meetings of the presidents of the companies alleged to be involved in the conspiracy. The defendants asserted, and in the end the court accepted, that the behavior in question could be taken to represent the independent exercise of business judgement.

2.2. European Community

Article 85(1) of the Treaty of Rome, prohibits

> all agreements between undertakings, decisions by associations of undertakings and concerted practices which may a®ect trade between Member States and which have as their object or e®ect the prevention, restriction or distortion of competition within the common market...

EC competition policy, like U.S. antitrust, prohibits naked collusion.[5] It is policy toward concerted practices that seems to come closest to the issues raised by the question of conscious parallelism. The EC Commission's Woodpulp decision[6] condemned concerted behavior by ¯rms the operations of which were based outside the European Community (EC Commission, Fourteenth Report on Competition Policy, 1985, p. 57):

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[4] 367 F. Supp. 91 (1973).

[5] See, for example, Franco-Japanese ballbearings Commission Decision of 29 November 1974 OJ L 343/19 21 December 1974.

[6] OJ L 85/1 26 March 1985.

> Between 1975 and 1981 the producers concerted regionally and internationally with regard to the prices announced for bleached sulphate woodpulp sold in the EEC. During most of this period, they also concerted on the transaction prices charged for sale of this pulp to European purchasers, by means of a system of quarterly announcements, an institutionalized exchange of information and price recommendations within the American export association KEA, an exchange of information in meetings within the framework of the Swiss Research and Information Centre FIDES and an exchange of information between individual producers. Some of the producers further restricted competition by using contracts of sale with their European customers which prohibited resale or export of the pulp sold to them. The e®ect of these practices on competition within the EEC was appreciable since the producers involved account for about two-thirds of total importations of bleached sulphate woodpulp in the EEC and about 60% of total consumption.

But in a March 1993 decision, the European Court of Justice declined to accept the Commission's arguments. The Court took the view that (Financial Times, 1993, p. 12)

As the Commission had no direct evidence of concerted behavior, it was necessary to ascertain whether there could be another explanation for the observed parallels in prices.

In the Court's view, other explanations for parallel pricing included the rapid transmission of information by customers, agents, and the trade press; and the fact that the market was an oligopoly.

It seems clear that the ¯nal word on this aspect of EC competition policy has yet to be written. But the grounds on which the Court has reversed the European Commission suggest that EC competition policy, like U.S. antitrust policy, will retreat from condemnation of consciously parallel behavior.

3. The Recent Economic Analysis of Collusion

The modern economic analysis of collusion suggests that under legal regimes that do not permit legally enforceable contracts to raise price, all collusion must be regarded as noncooperative.

It is the idea of intertemporal tradeo®s that is central to the analysis of ¯rms' incentive to behave in a way that results in collusive market performance. Despite the elegant mathematical superstructure of this literature,[7] the intuition behind its essential logic is straightforward:

[7] For a survey, see Martin, Stephen Advanced Industrial Economics. Oxford: Basil Blackwell, 1993.

1. It is profitable for a single firm to raise price, if all other firms raise price;
2. but if all other firms raise price, it is even more profitable, in the short run, for a single firm to undercut rivals;
3. however, if it is believed that rivals will retaliate in kind once this reversion to non-collusive behavior is detected, a single firm's long-run profit can be maximized by going along with the high-price strategy.

4. Economics versus Law of Collusion

Viewed through the lens of the economic analysis of noncooperative collusion, there appears an internal contradiction in U.S. and developing EC competition policy toward the joint exercise of monopoly power in oligopoly. Agreements in restraint of trade are illegal; independent exercise of business judgement is not. But since contracts in restraint of trade are not enforceable, all decisions to act in a way that has the effect of restricting output and raising price must, in the end, result from the exercise of independent business judgement. If U.S. and emerging EC policy toward conscious parallelism is carried to its logical conclusion, there is no effective prohibition against agreements/concerted practices in restraint of trade. Since mutual understandings to behave in such ways are adhered to only as a result of the exercise of independent business judgement, they will not be condemned.

Can this implicit contradiction be resolved? This question carries within it a research agenda for industrial economists, and a possible line of development for competition policy. For industrial economists, the research agenda is to investigate specific types of conduct and exchanges of information that make it easier for firms to independently conclude that it is in their interest to act as if they were parties to a legally enforceable contract to collude. For competition policy, the possible line of development is to entertain a willingness to condemn firms for agreements/concerted practices if it is reasonable to conclude that firms would not have followed observed patterns of behavior in the absence of such conduct or exchanges of information.

Where agreements in restraint of trade are not legally enforceable, the concept of agreement in restraint of trade becomes an empty shell. Firms act as if they were parties to a legally enforceable agreement to restrain trade if it is in their own interest to do so. If competition policy against the exercise of monopoly power in oligopoly is to be effective, it must condemn the behavior that makes it clear to individual firms that it is in their own self-interest to behave anticompetitively.