VERTICAL MERGER ENFORCEMENT POLICY

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Vertical merger enforcement is an important part of the Department's merger policy. In the last year, the Department brought three enforcement actions against vertical mergers, that is, transactions involving producers of complementary products in the same production and distribution chain. This afternoon I will describe the Department's thinking about those transactions and explain how the Department's enforcement actions fit into that thinking. However, for those expecting a policy pronouncement as well articulated as the 1992 Horizontal Merger Guidelines, let me forewarn you that today's talk will disappoint you.

The reason for this disparity between horizontal and vertical merger policy is simple -- there are important differences in our ability to predict the economic consequences of mergers depending on whether the transactions are horizontal or vertical in nature. In both cases, antitrust analysis requires an assessment of the proposed transaction's likely effects through a weighing of expected efficiency gains against potential harms from any lessening of competition. However, because of differences in the analysis of both competitive effects and efficiencies, the balancing process is typically more difficult with vertical mergers.

Consensus prevails among most economic and antitrust scholars on the likely competitive effects of horizontal mergers. When two competitors combine into a single firm, we understand how to analyze the transaction's effects based on structure and other factors. On the other hand, the effects of vertical mergers are more controversial. There had been some thought, especially during the 1980's, that vertical mergers rarely, if ever, raise competition concerns. Today, however, a growing body of literature suggests that vertical mergers may indeed have anticompetitive effects. In particular, I would note an article by Mike Riordan and Steve Salop in the January 1995 issue of *Antitrust Law Journal*, which has informed some of my remarks, but there are many other leading economists who have come to the conclusion that vertical mergers can harm competition under certain circumstances.

Efficiency analysis also is typically more difficult in the vertical merger context. Some have argued that efficiencies may be intrinsic to most vertical transactions. Undoubtedly there are efficiencies from coordination between levels in the functional chain, but that ignores the question of how much of those efficiencies can be achieved by the parties short of the merger. This is not to say that vertical merger analysis should turn into an *ex post* search for the "least restrictive alternative," but does raise difficult questions of how much a proposed vertical merger actually will increase efficiency. For example, a long term contract between a supplier and a customer may capture most of these efficiencies so that a subsequent merger between the two involves little net gain.

Despite these difficulties, it remains true that certain types of plausible efficiencies can come out of a vertical merger that are completely absent in the horizontal merger context. First, a vertical merger can reduce transaction costs. It eliminates the necessity for negotiation and execution of contracts, reduces associated risk and uncertainty, discourages opportunism, and facilitates the communication of information. A second and related efficiency is improved coordination of design, production, and distribution. Finally, a vertical merger may promote more efficient pricing through internalizing external pricing decisions[1] or by elimination of double-marginalization, or more simply, the markup on the markup.[2]

What are the implications of these differences between horizontal and vertical merger analysis? Horizontal merger analysis provides a comparatively strong and developed theory of competitive effects, while at the same time, it is comparatively more difficult to establish offsetting efficiencies. That suggests that there ought to be a fairly well articulated and vigorous horizontal merger enforcement policy, at least as measured against vertical merger policy. Additionally, compared to the vertical context, the thresholds for illegality ought to be low and there should be a weak presumption of efficiencies -- which is not inconsistent with the 1992 Department of Justice and Federal Trade Commission Horizontal Merger Guidelines and the case law.

Vertical merger analysis, however, presents a different state of affairs. Not only is the theory of competitive effects less specified, even where that theory predicts harms to competition, it does so under fairly limited conditions. And those conditions are harder to determine -- vertical analysis requires examination of two relevant markets and the relationships between them, whereas horizontal analysis typically focuses on one market. At the same time,

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[1]Simply put, "internalizing the externality" recognizes that an integrated producer of two complements may find that its profit maximizing price for the sale of both products to be different (and lower) than the two profit maximizing prices for the products if sold by independent firms. For example, an integrated producer of a personal computer and associated peripheral equipment with monopoly power in both markets will likely sell the peripherals at a lower price than an independent firm would sell the same equipment to increase demand for the integrated system.

[2]Not all vertical mergers eliminate double marginalization. For example, if a firm is organized in profit centers by functional level and sets all transfers at a true market price (as some firms do), double marginalization may still occur.

there are more types of plausible efficiency gains in vertical mergers, though some of them may have been secured already through contract.

Some important conclusions follow from the state of vertical merger theory. First, the enforcement agencies need to exercise caution in taking actions against vertical transactions to avoid chilling efficiency-enhancing mergers that pose little risk of harm to competition. It is likely that anticompetitive effects will be more difficult to establish, while offsetting efficiencies gains will be easier to show than in the horizontal context. The lack of a highly articulated theory of effects also means that vertical transactions will be examined on a much more case-specific basis without the benefit of concrete vertical merger guidelines with bright line thresholds.

The practical result likely will be few enforcement actions against vertical transactions. In the last one and half years, the Department took roughly 30 merger enforcement actions, of which only three involved vertical mergers. Those three cases were *U.S. v. MCI Communications Corp.* (BT/MCI), *U.S. v. AT&T Corp.* (AT&G/McCaw), and *U.S. v. Tele-Communications, Inc.* TCI/Liberty).

Some have raised the question of whether the lack of a robust theory of general applicability and a solid empirical basis should lead to the conclusion that there should be no vertical merger enforcement. That would be a mistake. The Department is obligated to examine all proposed transactions that come before it. If the results of the analysis indicate a harm to competition and consumers, the Department must take appropriate action. Just because the Department arrives at those conclusions as a result of *ad hoc* investigation rather than of application of *a priori* guidelines cannot excuse those transactions from antitrust scrutiny. Indeed, vertical mergers can create or raise entry barriers that result in significant and enduring costs in the affected markets. This is particularly important now with respect to certain networked industries -- such as telecommunications, cable, and computers -- where certain firms possess existing market power through ownership of established networks marked by high entry barriers, including huge sunk costs. Many sectors of these industries are at a key juncture where market dynamics, particularly innovation, are causing changes that will fundamentally affect consumers well into the next century. To allow firms with market power to extend that power into new or existing markets through anticompetitive vertical mergers could impose substantial costs in key sectors of the economy. In any event, similar to the operation of the common law, the Department develops guidelines by turning the learning and experience of many investigations into sound policy and coherent guidelines.

Before describing specific theories of competitive effects in the vertical context, it is useful to consider two concepts that have frequently been used to justify a policy of nonintervention. The first is the idea that there exists only a single monopoly rent in any chain of production and distribution. This theory says, very simply, that a monopolist at any stage in a multistage production and distribution chain can extract all the surplus out of that chain. Therefore, the theory posits, the addition of a second monopolist to that chain -- or the extension of monopoly power into a second market by vertical merger -- would not result in an output reduction to the ultimate consumers. Although the theory is useful as a first order model, the model works only under certain circumstances. First, the monopolist's output must be used by its downstream customers in fixed proportions: otherwise, the downstream customers could switch to another mix of inputs.[3] Second, the model assumes that the single monopolist has exercised all available market power at its functional level. If not, and a vertical merger increases the monopolist's ability to exercise market power (perhaps through raised entry barriers), that merger may reduce welfare. The model also assumes perfect competition downstream, without which considerations of double marginalization and price discrimination come into play. Additionally, it assumes a lack of any constraining regulation.

These conditions make practical application of the single monopoly rent model far from universal. Moreover, the model is essentially static. It does not consider how vertical integration may affect incentives and abilities to invent. Additionally, it assumes that under practical conditions a monopolist has the information and ability to extract all available rents, even if there are several layers downstream. The complexities of the real world make this proposition often seem implausible.

A second observation often made about vertical mergers is that they merely rearrange supply relationships. In fact, the Department believes that a vertical merger that merely rearranges supply relationships without a welfare effect downstream does not harm competition and does not violate Section 7 of the Clayton Act. However, as I will explain, the Department believes that under certain conditions a vertical merger may result in an output reduction of price increase in a downstream market.

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[3]Switching to an inefficient mix of inputs in response to a supracompetitive price increase raises costs and may reduce welfare.

What necessarily follows is that before the Department would find harm to competition arising from a vertical merger, there must be a probable downstream output or price effect. That effect does not arise simply because input prices are raised to nonintegrated rivals -- these increased input prices must translate downstream into higher market prices or lower output.

There are at least three general categories of vertical merger theories -- foreclosure/raising rivals' costs, increased anticompetitive coordination, and regulatory evasion. Foreclosure and raising rivals' costs are similar since total foreclosure to an input in effect raisers rivals' costs to the cost of its next best substitute and the same predicate conditions support these two doctrines. These three categories encompass the four more narrow vertical merger theories described in the 1984 Department of Justice Merger Guidelines. The 1984 Guidelines' "need of two-level entry" theory is at bottom a foreclosure story.[4] "Facilitating collusion through vertical mergers" is, of course, an increased coordination theory, since the ability to raise price arises from increased information flows among horizontal competitors. The 1984 Guidelines' third theory, the "elimination of a disruptive buyer," is a raising rivals' costs theory, since the merger allows the upstream firms to raise input prices through the elimination of the disruptive and market power limiting influence of the buyer.[5] Lastly, the "evasion of rate

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[4]The 1984 Guidelines recognize that integrated firms may also engage in price or supply "squeezes" against their non-integrated rivals. 1984 Merger Guidelines, § 4.211, n.31. This of course is a form of raising rivals' costs.

[5]The elimination of a disruptive buyer also could be reasonably classified as an increased coordination story since that elimination facilitates upstream coordination. However, for purposes of identifying predicate conditions, it is useful to distinguish between mergers that increase the information available to horizontal competitors (thereby allowing them to coordinate) and those that make it easier to reach terms of coordination (without increase available information). The former fall within the increased coordination story and the latter within the raising rivals' costs rubric.

regulation" theory is but one way that a vertical merger may allow an integrated firm to escape constraining regulation.

FORECLOSURE/RAISING RIVALS' COSTS

Foreclosure and raising rivals' costs posit that a vertical merger may allow an integrated firm to deny or to raise the cost of inputs to its rivals -- input foreclosure -- or to deny or to limit access by rivals to downstream customers -- customer foreclosure. For simplicity's sake, I will focus only on input foreclosure, although the theory works similarly for customer foreclosure.

A vertical merger has an adverse welfare effect only if the foreclosure causes input prices to rise and output to fall or prices to increase downstream. For example, there is no welfare effect if increased input pries cause the non-integrated firms to reduce output but simultaneously the integrated firm increases output so that total market output is unchanged.

What are the necessary conditions? First, the upstream market must be susceptible to a unilateral or coordinated exercise of market power after the merger. To analyze this question, the Department starts with the basic principles in the 1992 Horizontal Merger Guidelines, including market definition, concentration, entry, and unilateral and coordinated effects. We then ask whether market power can be exercised after the merger because the merger itself may create such power.[6] A finding of upstream market power is necessary because without it the

[6]For example, suppose that two complementary markets exist with two non-integrated firms in both the upstream and downstream markets. Suppose further that downstream prices are competitive because the two downstream firms can play the upstream firms off against one another. If one of the upstream and downstream firms merge, the remaining non-integrated firm

merged firm is unlikely to be able to effect, unilaterally or in coordination with its rivals, higher prices or reduced output in the upstream market.

Second, the structure and circumstances of the downstream market should also be conducive to the exercise of unilateral or coordinated market power after the merger. Again, the Department relies on the 1992 Horizontal Merger Guidelines to aid the analysis. Downstream competition may prevent a price increase if customers can switch to a substitute product. If other producers can expand output, or if new entrants can begin production. More generally, if market power exists upstream but not downstream, a vertical merger is unlikely to change materially the prices set in the downstream market.[7]

The theory's focus on market power as a necessary condition is appropriate because a vertical merger is likely to harm competition unless it gives the integrated firm the ability and the incentive to induce new market equilibria upstream and downstream. With market power, an integrated firm may be able to raise its rivals' costs or foreclosure access to inputs. It may be able to raise costs directly by inducing a price increase. It may also raise its rivals' cost by

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my lose its ability to negotiate a competitive price from the upstream firms. In this hypothetical, there is no upstream market power prior to the merger, but there is such power postmerger.

[7]Although market power in the downstream market is not strictly necessary for an anticompetitive effect under limited circumstances, it is sufficiently unlikely and, even if present, the magnitude would likely be small, so that an enforcement action under these circumstances is unlikely. For an effect to occur without downstream market power, the output producers must not have efficient substitutes for the input and customers of the output producers must not have efficient alternatives for the output product. Moreover, even if the integrated firm has a small downstream market share, the merger may allow it to expand greatly into a position where it does have market power or to raise entry barriers upstream. If the integrated firm has a small market share downstream, the magnitude of the effect is likely to be small since the integrated firm's incentives will not change significantly as a result of the merger nor will any foreclosure effect be large. However, it is not entirely implausible that under specified conditions incentives or available market opportunities would change enough to result in a significant welfare loss downstream.

impairing their ability to operate above minimum efficient scale. In any event, the integrated firm must also have the incentive to do so, that is, a post merger upstream price increase must increase the integrated firm's total profit upstream and downstream.

As the final piece to the puzzle, a harm to competition can only be found where higher pries or a reduction in output can be found in the downstream market. If the vertical merger simply allows the integrated firm to capture a larger share of the downstream market without reducing total output, there is no output effect.

An example of the Department's application of the raising rivals' cost theory is its challenge to the acquisition by AT*T of McCaw. AT&T is the nation's largest manufacturer of cellular infrastructure equipment, including radio towers and cellular switches. McCaw is the largest provider of cellular services in the United States. Under FCC regulations, metropolitan markets typically have only two cellular services providers, one a Regional Bell Operating Company (RBOC) and one other. The merger affected many markets featuring McCaw in competition against an RBOC, which, in turn, was supplied with essential infrastructure equipment by AT&T's Network Services Division.

The Department's investigation began with analysis of the upstream equipment market and the downstream service markets. In the upstream market, AT&T possessed market power -- it had a dominant share in a concentrated market with high entry barriers. Moreover, it benefitted from an additional "lock-in" effect. Its RBOC customers needed to purchase AT&T proprietary equipment to expand and upgrade their networks. Incremental expansion could not be achieved by the purchasing a competing equipment supplier's switches since those switches would not work with the AT&T equipment. Therefore, the only way to change suppliers was to replace the entire network in the metropolitan market at great cost. Moreover, McCaw had market power in the output market. There are only two suppliers of cellular services in any geographic market and there presently are no good substitutes for cellular services.

The Department determined that the merger would likely result in an output reduction in the cellular services market. The merger gave AT&T the ability to use its market power upstream to limit the supply of equipment to the RBOCs, limiting the ability of the RBOCs to expand services in the rapidly growing services market. McCaw in turn could charge higher prices for cellular services. The merger gave AT&T the incentive to raise equipment prices because margins in cellular services were high and cellular revenues were roughly ten times the amount of equipment revenues. Thus, AT&T's lost profit in the sale of equipment would be more than offset on the service revenue gains.

The Department also determined that the potential efficiency gains from the transaction did not outweigh the likely anticompetitive effects. In this transaction, there was little elimination of double marginalization, reduction of transaction costs, and opportunity for improved coordination since McCaw did not purchase AT&T equipment and is unlikely to do so in the future because it is also "locked in" to its current equipment supplier.

The Department ultimately allowed AT&T and McCaw to consummate the merger after securing a consent decree that substantially increased the RBOC's ability to switch out of AT&T equipment. In this manner, if AT&T attempted to limit the availability of infrastructure equipment, the RBOC could turn to alternate equipment suppliers.

INCREASED ANTICOMPETITIVE COORDINATION

Vertical mergers can also increase anticompetitive coordination when important price and non price information, particularly technology, must be share between the supplier and the customer. Again, several conditions must be satisfied before a vertical merger can be considered likely to harm competition in this manner. As with foreclosure, the input market must be susceptible to the exercise of post merger market power, otherwise there is little chance of coordinated conduct, even if the integrated firm has increased information. Similarly, there is a much higher likelihood of anticompetitive effect if the exercise of market power downstream is possible.[8]

Conditions other than market structure are also important. First, there must be substantial transactions between the integrated firm and one or more non-affiliated customers or suppliers. Without such transactions, there is no conduit for information that can form the basis for coordination. Second, the information exchanged through the customer/supplier relationship must be reliable, useful in reaching terms of coordination for other transactions, and not available through any other channel, Finally, as with the other vertical theories, the coordination must translate into an ability and an incentive to raise prices with a resulting welfare effect downstream.

[8]Again, downstream market power is not strictly necessary for a welfare effect. As explained in connection with the foreclosure theory (see note 7), even without downstream market power, there would be no welfare effect if the output producers have efficient substitutes for the input or if the customers of the output producers have efficient alternatives for the output product. However, it is not entirely implausible that under specified conditions competitively sensitive information obtained by an integrated firm can significantly impair market performance upstream and result in a welfare loss downstream.

The Department's AT&T/McCaw enforcement action is an example of how this analysis works. As discussed above, AT&T and McCaw were the nation's leading cellular infrastructure equipment and cellular service providers, respectively. AT&T was, and would continue to be, the key input supplier to McCaw's sole competitors in many metropolitan markets, the RBOCs. But, for the RBOCs to innovate or to expand their services, they had to cooperate closely with AT&T, their equipment supplier, to ensure equipment availability, to get timely delivery, to expand the network, to improve functionality, and to support the network. The merger, therefore, would put AT&T in the position of access to a particular RBOC's strategy while, at the same time, its affiliate was that RBOC's sole competitor. The Department determined that the effect of this merger would be to lessen the incentives for the RBOC to compete aggressively on price and service and to innovate.

The consent decree secured by the Department also remedied these concerns. It provided for a firewall to prevent the passage of confidential information and it established conditions that increased the RBOC's ability to switch out of AT&T equipment, thereby stopping the information flow.

EVASION OF REGULATION

A third theory is that a vertical merger can lead to anticompetitive regulatory evasion. This theory has perhaps the purest academic pedigree and has been explored in depth in connection with the Modified Final Judgment in the AT&T monopoly case. There is little dispute that this theory is a plausible basis for finding anticompetitive effects under appropriate circumstances.

The typical justification for regulations is to constrain the market power of a natural monopoly. If a vertical merger allows an integrated firm to evade that regulation and exercise market power in either the regulated market or an adjacent market, it is possible that welfare will be reduced. The most common example of how a vertical merger can be lead to regulatory evasion -- in fact, it is the 1984 Guidelines example -- is when artificial transfer prices allow rate regulation avoidance.

Other types of regulatory evasion are more subtle. The Department's challenge to the British Telecom/MCI transaction is premised on potential anticompetitive effects arising from regulatory evasion. BT is the dominant provider of international telecommunications services in the United Kingdom. MCI, of course, is a significant long distance and international carrier in the United States. Telephone services between the U.K. and the U.S. are provided pursuant to an international agreement under which BT charges the same price, a "settlement rate," for terminating calls from the U.S. carriers in the U.K. as the U.S. carriers charge for terminating U.K. calls in the US. Additionally, FCC policy provides that BT will send calls to the U.S. carriers in the same proportion it receives them from those carriers. So, if 60 percent of the traffic from the U.S. to BT is from AT&T, BT will send 60 percent of its U.S. calls to AT&T.

The acquisition had two aspects: A 20 percent investment by BT in MCI and a joint venture between BT and MCI to provide enhanced global business communication services. The Department concluded that this integration gave BT and MCI the ability and incentive to evade the proportionate return policy and, as a result, to raise the international settlement rate. In addition, BT and MCI, through their venture or otherwise, could use private lines to send traffic between them outside the international accounting system, which would increase the incentive to raise the settlement rate. These factors led the Department to conclude that the proposed transaction likely would result in higher international rates over the correspondent network.

The Department's concerns were remedied by a consent decree that provided transparency and certain requirements relating to international simple resale. Increased transparency provides the telecommunications regulators in the U.K. and the U.S. the ability to detect regulatory evasion. The international simple resale requirements insure that BT and MCI cannot send traffic outside of the international accounting system until their competitors have similar abilities.

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In summary, vertical merger enforcement involves the same weighing of potential competitive harms against possible efficiency gains as horizontal enforcement does. Although there are at least three separate theories of possible anticompetitive effects in the context of vertical mergers, some common principles emerge. A vertical merger may harm competition if the transaction gives the merged firm the ability and the incentive to induce the exercise of market power. That exercise of market power must result in a welfare effect to consumers downstream. For this to happen, typically both the upstream and downstream markets must be conducive to the exercise of market power. The Department uses the familiar principles of the 1992 Horizontal Merger Guidelines to analyze these markets. If the Department finds anticompetitive effects under these principles, the transaction will be challenged only if the anticompetitive effects outweigh possible efficiency gains.

Therefore, as a practical matter, you should expect a limited number of vertical merger enforcement actions. However, if a proposed transaction involves the unification of a dominant firm in a concentrated market with significant entry barriers with a significant producers of complementary products in a concentrated market with entry barriers, you can expect the Department to look closely at the transaction.