The Intel-AMD Antitrust Suits: Economic Issues and Implications

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Intel Corp. (Intel) announced on November 12, 2009 that it had reached an agreement with competitor Advanced Micro Devices (AMD), to pay AMD $1.25 billion towards the settlement of all pending legal issues between them. The negotiated settlement marked an end to long standing antitrust disputes between the two companies, whereby AMD persistently alleged that Intel had attempted to foreclose upon competition and broaden its monopoly power by engaging in illegal pricing strategies. Intel's counter allegations involved claims that AMD had unlawfully appropriated and transferred intellectual property that Intel owned to Global Foundries, a joint venture to which AMD had divested its manufacturing operations. Despite an end to the legal disputes between the two companies, Intel's antitrust woes are far from over.

Earlier this year, the European Union's competition bureau fined Intel a record €1.06 billion on the grounds that Intel granted conditional discounts to several Original Equipment Manufacturers (OEMs), including Acer, Dell, HP, IBM and NEC, which restricted the commercialization of some AMD-based products.[1] Intel is currently appealing this judgment. In the United States, New York Attorney General, Andrew Cuomo, and the Federal Trade Commission have filed separate suits against Intel, both of which reiterate many of the European Commission's findings.[2] In addition, the FTC suit claims that Intel attempted to stifle competition in the market for Graphic Processing Units (GPUs) by developing products that impaired the performance of non-Intel CPUs and GPUs.

At issue in each of the antitrust suits against Intel is whether the rebates Intel granted to its large OEM customers were anticompetitive. Rebates and other discounting practices are ubiquitously employed across numerous industries as a strategy geared towards the acquisition of additional market share, or towards the retention of the business of loyal customers. For the most part, such practices do not incite any antitrust concerns because they lead to lower prices

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[1] A summary of the European Commission's decision can be found at: http://ec.europa.eu/competition/sectors/ICT/intel_summary_decision_en.pdf.

[2] The complaint filed by the New York Attorney General can be found at: http://www.intel.com/pressroom/legal/docs/NY_AG_v._Intel_COMPLAINT.pdf, and a summary of the FTC's complaint can be found at: http://www.ftc.gov/opa/2009/12/intel.shtm.

for consumers thereby enhancing their welfare. However, discounting which is conditional on most or all sales being from the dominant firm, or which translates into a net price which is below cost, is often considered abusive by antitrust authorities. The two fundamental economic issues at stake are price discrimination and predatory pricing. Price discrimination encompasses situations whereby firms charge different prices per unit to different customers, or for different quantities of the same product.[3] Predatory pricing arises when a dominant firm sets prices below cost for a period of time long enough to force a weaker competitor out of business.[4] The dominant firm thereby acquires sufficient market power to raise prices and recoup the costs of the predatory pricing scheme, as well as additional profits from ensuing higher prices.

Price discrimination, standing alone, does not violate the antitrust lawsl. This is because price discrimination does not always compromise total societal welfare: Consumer welfare is maximized when prices equal marginal cost (i.e. the cost of manufacturing an incremental unit). Since price discrimination relies on a differential pricing scheme whereby prices offered to every customer, or for every unit sold, do not always equal the marginal cost, price discrimination tends to lower consumer welfare. However, price discrimination also has the potential to generate efficiencies and increase total societal welfare via an increase in the aggregate quantity sold, compared to a situation where prices are set at marginal cost for every unit sold. As such, price discrimination allegations need to be subject to the rule of reason criterion for competitive harm to be established. Indeed, several industries, including computer chip manufacturing, of which Intel is part, would not be viable under marginal cost pricing. This is because such industries are characterized by high set-up, fixed and R&D costs, and have very low marginal costs of production. For such industries to remain viable in the long run, prices have to be set above marginal costs, even in a competitive environment, because pricing at marginal cost would return a rate of investment on capital that is too low to warrant the initial outlay. Pricing above marginal costs to consumers who are willing to pay more, and at or near marginal cost for customers who would otherwise not be able to afford the purchase therefore makes economic sense, and can in fact enhance total welfare by creating an incentive mechanism for the industry to increase production and by allowing consumers who would otherwise not be able to afford the product to make the purchase.

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[3] A situation whereby firms charge each individual customer their maximum willingness to pay is called first-degree price discrimination (e.g. auctions where winning bidders pay the price that they bid). Volume discounting based on economies of scale arguments is generally referred to as second degree price discrimination. Third degree price discrimination involves situations whereby firms offer different prices to different groups of customers based on the demand elasticity of each customer group (e.g. differential commuter pricing schemes for seniors or students). For a more detailed discussion, *see*: Tirole, J. (1988) The Theory of Industrial Organization, MIT Press, pp. 135-152.

[4] *See* Tirole, J. (1988) The Theory of Industrial Organization, MIT Press, pp. 377-379.

On the other hand, predatory pricing may violate the U.S. antitrust laws. This is because, by design, predatory pricing mechanisms are targeted at getting rid of a weaker competitor or at preventing a new competitor from entering a market, with the goal of securing monopoly profits through higher prices once the competitor is eliminated. However, predatory pricing is an inherently costly and risky strategy because it calls for the alleged predator to sacrifice of short term profits over a potentially lengthy timeframe and requires entry barriers to be sufficiently high for the exiting firm or new competitors to be unable to re-enter and compete with the dominant firm. As such, many antitrust commentators believe that while predatory pricing is often claimed, it is seldom observed. Accordingly, lower prices which are not predatory should in general be presumed legal and welfare enhancing, and tests for predatory pricing should be especially rigorous in order to avert any unintentionally chilling effect on otherwise healthy competition between firms.

In the case of Intel, it is as yet unclear what analytic framework the FTC or the New York Attorney General will use to support their allegations that Intel's pricing practices were anticompetitive. However, the European Commission has published ample commentary regarding its finding that Intel engaged in anticompetitive behavior. While the Commission relies in part on European antitrust law where conditional rebates are per se prohibited, it also supports its decision with a predatory pricing test which it claims Intel failed. However, commentators like Professor Damien Geradin of Tilburg University have highlighted a number of flaws with the European Commission's analysis. These flaws call into question whether antitrust cases against Intel would actually be warranted in the absence of the per se illegal nature of conditional rebates, which are in fact subject to the rule of reason criterion in the United States.[5]

For instance, Professor Geradin argues that the Commission's predatory pricing test was overly restrictive and that it relied on the speculative proposition that the Intel's customers based their purchasing decisions on the assumption that Intel would disproportionately reduce their rebates if they switched their purchases to AMD. In reality, Dell, for example, did not incur any retaliatory reduction in its rebates when it did in fact switch part of its purchases to AMD. As such, it would appear that Intel's pricing strategies did not have a substantive impact on market outcomes and any competitive harm that Intel's pricing practices were alleged to have caused are potentially unfounded.

Further, the time frame over which Intel pricing strategies were alleged to be anticompetitive is characterized by accelerated innovation which brought increasingly powerful computer chips to the market. In addition, contrary to other high-tech industries where prices remained more or less constant as quality improved, computer chip prices have been in constant

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[5] Professor Geradin's paper is available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1490114.

decline throughout the past decade, which raises doubts about the extent of market power that Intel could have been exercising.

Finally, when it comes to the assessment of competitive harm, it is customary to carry out a counterfactual analysis for the purpose of establishing market outcomes but for the alleged abuse. However, AMD's performance over the period where antitrust injury is alleged was strong and it would seem that there was at least some period of time whereby AMD experienced capacity constraints, implying that market outcomes would have remained unchanged, at least whenever AMD was capacity constrained, in spite of Intel's pricing practices.

In conclusion, whether antitrust intrusion was necessary in a market characterized by broad technological change, rapidly declining prices and capacity constraints for the competitor is debatable. Nevertheless, the antitrust cases against Intel highlight the challenges that dominant firms face in devising and executing pricing strategies which involve bulk discounts and loyalty payments. This is because it would seem that the antitrust enforcers may be pursuing a double standard which dictates that dominant firms are only allowed to lower prices to the point their competitors' position in the market is preserved, despite the fact that even lower prices could be non-predatory and efficiency-enhancing.