IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

IN RE:	)	
	)	MDL Docket No. 05-1717-LPS
INTEL CORP. MICROPROCESSOR ANTITRUST LITIGATION	)	
	)	
	)	
PHIL PAUL, on behalf of himself and all others similarly situated,	)	
	)	
Plaintiffs,	)	
	)	
v.	)	Civil Action No. 05-485-LPS CONSOLIDATED
	)	
INTEL CORPORATION,	)	[redacted]
	)	
Defendant.	)	**PUBLIC VERSION**

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MEMORANDUM OPINION

July 31, 2014
Wilmington, Delaware.

STARK, U.S. District Judge:

Pending before the Court in this multi-district antitrust action are a motion for class certification, a motion to strike an expert, and objections to the Report and Recommendation of a special master with respect to both motions. The Court held a three-day evidentiary hearing in July 2013 and later received post-hearing briefing and proposed findings of fact. After due consideration of the massive record created over many years in this complex matter, the Court had decided that the proposed class cannot be certified. Although the Court finds that the Plaintiffs' expert provided credible testimony and reasonable analysis – and, therefore, disagrees with the special master that this expert's opinions should be stricken – the Court further concludes that, even considering the expert opinion, Plaintiffs have failed to show that their claims can be established through common, class-wide evidence. The Court provides its finding of facts and conclusions of law below.

PROCEDURAL BACKGROUND

This case originated as 14 separate putative class actions filed against Intel for violation of various state antitrust and consumer protection statutes. (D.I. 2073[1] at 10) It was filed on July 12, 2005. (D.I. 1) Class Plaintiffs assert that Intel violated Section 2 of the Sherman Act, 15 U.S.C. § 2, and similar provisions of state antitrust and unfair competition laws, all by virtue of abusing its alleged monopoly power over the domestic market for x86 architecture computer microprocessors through a variety of acts. (D.I. 49) Fundamentally, Plaintiffs allege that Intel's "anticompetitive acts have foreclosed consumer choice and allowed Intel to charge inflated prices for its products." (D.I. 49 at 1)

[1]Unless otherwise indicated, citations to docket entries refer to the 05-485 action.

On November 3, 2005, the Judicial Panel on Multidistrict Litigation ("Panel") ordered centralization and coordination of pretrial proceedings in the District of Delaware of what were then ten Plaintiffs' actions pending in the Northern District of California and four Plaintiffs' actions already pending here in the District of Delaware. (Multi-District Litigation ("MDL") No. 05-1717 D.I. 1) Acting pursuant to 28 U.S.C. § 1407, the Panel found "that the actions in this litigation involve common questions of fact, and that centralization . . . will serve the convenience of the parties and witnesses and promote the just and efficient conduct of the litigation." (*Id.*)

Over the course of several years, more cases were transferred and consolidated for pretrial purposes with the MDL pending in this Court. As previously summarized by the special master:

> On December 6, 2005, the Panel ordered the transfer and consolidation of seventeen additional actions from the Northern District of California, one action from the Southern District of California, one action from the South District of Florida, one action from the District of Kansas, one action from the Eastern District of Tennessee, and one action from the Western District of Tennessee. On December 6, 2007, the [Panel] transferred one action from the District of Maine and one action from the District of New Mexico (D.I. 689) to the District of Delaware, and on January 24, 2010 the [Panel] transferred one action from the District of Nebraska to this Court (D.I. 730). On March 3, 2008, the Panel transferred one action from the District of Idaho to this Court (D.I. 845).

(D.I. 2073 at 11) (some internal citations omitted)

Plaintiffs filed consolidated amended complaints in this Court in April and May 2006. (D.I. 49; *see also* MDL No. 05-1717 D.I. 59) In particular, Plaintiffs allege claims against Intel for violations of Section 2 of the Sherman Act, 15 U.S.C. § 2, the California Cartwright Act, Cal. Bus. & Prof. Code § 16720, California's tort law against monopolization, California's Unfair

Competition Law, Cal. Bus & Prof. Code §§ 17200 *et seq.*, various state antitrust and restraint of trade laws, and various state consumer protection and unfair competition laws; as well as claims for unjust enrichment and disgorgement of profits. (D.I. 49; *see also* MDL No. 05-1717 D.I. 59)

On May 11, 2006, the Honorable Joseph J. Farnan, Jr., now retired, appointed a special master to "hear, resolve and make rulings on all disputes regarding discovery and, when appropriate, enter orders setting forth his rulings." (D.I. 21; *see also* MDL No. 05-1717 D.I. 73) Between May 2006 and April 2010, the special master held no fewer than six in-court hearings and issued at least seventy orders.[2] Between April 15 and 19, 2010, the special master held a class certification hearing, during which he heard testimony from both sides' experts. (*See* D.I. 2073 at 1) On July 28, 2010, the special master filed his Report and Recommendation ("Report"), recommending that Plaintiffs' motion to certify the class be denied and that Defendants' motion to strike Plaintiffs' expert be granted. (D.I. 2073)

On July 30, 2010, Judge Farnan retired. Thereafter, the case was reassigned to the undersigned judge. (*See, e.g.*, D.I. 2077; *see also* MDL No. 05-1717 D.I. 2475)

Plaintiffs filed objections to the Report on October 4, 2010. (D.I. 2078) After receiving extensive briefing (*see* D.I. 2078, 2091, 2097), the Court heard argument on the objections on March 2, 2011. On September 28. 2012, the Court issued a Memorandum Order directing, among other things, that the parties appear for an additional evidentiary proceeding, so the Court could evaluate for itself the credibility and opinions of the parties' experts and make a ruling on

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[2]*See, e.g.*, D.I. 81, 158, 234, 245, 257, 285, 307, 367, 396, 428, 460, 501, 538, 545, 684, 760, 798, 872, 919, 920, 983, 1011, 1015, 1046, 1052, 1066, 1116, 1118, 1129, 1137, 1160, 1291, 1364, 1391, 1405, 1416, 1463, 1493, 1524, 1554, 1555, 1594, 1598, 1605, 1607, 1608, 1612, 1613, 1614, 1628, 1633, 1635, 1639, 1684, 1694, 1699, 1701, 1714, 1749, 1872, 1880, 1908, 1942, 1947, 1984, 2040, 2041, 2042, 2061, 2073.

the objections and pending motions. (D.I. 2115)[3] The September 2012 order disposed of several issues but left unresolved the two remaining motions.

After receiving additional briefing (*see* D.I. 2120, 2130, 2136), the Court held a three-day evidentiary hearing on July 16, 17, and 18, 2013 (*see* D.I. 2162, 2163, 2164 ("2013 Tr.")). The

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[3]Among the reasons the Court gave for taking so long to resolve the pending motions, and for requiring some redundancy of efforts in connection with the then-forthcoming evidentiary hearing, was the enormous size of almost everything about this long-running MDL. As the Court explained, this case:

> [I]nvolves 56 individual actions, consolidated for multi-district litigation. Plaintiffs allege that between $3 billion and $6 billion are at issue. The proposed nationwide class consists of millions of consumers who made millions of computer purchases. As defense counsel summarized at [the 2011] oral argument: "you have a class that covers about five years of transactions, . . . over 200 million transactions, millions and millions of class members, and they're not out there buying a commodity, they're out there buying personal computers . . . that encompass . . . almost 2,000 different Intel microprocessors." (Tr. at 76-77 . . .)
>
> Discovery has also been massive. Indeed, "it has been described as the largest document discovery antitrust case in history." (Tr. at 63; *see also* D.I. 2091 at 10 ("Discovery in the consolidated cases [including *Advanced Micro Devices, Inc. v. Intel Corporation*, C.A. No. 05-441-JJF] yielded one of the largest records in any private antitrust litigation in history. Intel produced some 14 million e-mails – hundreds of millions of pages of documents in total – and its current and former employees for over 180 deposition days. Discovery of AMD yielded millions more documents and over 170 days of testimony. Intel, AMD, and plaintiffs also took document and deposition discovery from dozens of third parties, including all major computer OEMs [original equipment manufacturers], distributors, and retailers. In addition, Intel deposed 91 class representatives.")) The record before the Special Master on the Motion to Certify included over 1,300 pages of briefing and expert declarations.

(D.I. 2115 at 8-9) (some internal citations omitted)

parties completed post-hearing briefing on October 15, 2013. (D.I. 2165, 2166, 2169, 2170, 2193, 2194) As recently as June 9, 2014, the parties advised the Court of supplemental authority and argued about the impact of such authority on the issues still before the Court. (*See* D.I. 2203, 2204)

FINDINGS OF FACT

A. The Parties

1. Phil Paul is one of ninety-five named plaintiffs in this action, who "purchased . . . for his, her or its own use and not for resale, one or more Intel x86 microprocessors or computers with Intel x86 microprocessors and suffered injury as a result of Intel's illegal conduct." (D.I. 49 at 4-8)

2. Other Plaintiffs include eighty-five individuals residing in thirty-eight different states and the District of Columbia, and ten businesses located in Arizona, California, Florida, Minnesota, and North Dakota. (*Id.* at 4-8)

3. The named class representatives are either individual consumers or small businesses with sixty or fewer employees. (*See, e.g.*, WDX 86, WDX 88, WDX 117)

4. Defendant, Intel Corporation ("Intel"), sells x86 microprocessors to original equipment manufacturers ("OEMs"), who manufacture, or contract for the manufacture of, desktop and mobile computers, and in some cases servers. (D.I. 1901 at 2)

5. Intel has a market share exceeding 80%. (D.I. 756 ¶ 14; 2013 Tr. 464, 486, 499)

B. AMD

6. Non-party Advanced Micro Devices, Inc. ("AMD"), was, during all times relevant to this litigation, a major competitor to Intel in the microprocessor market. (2013 Tr. 107, 109,

212, 445, 464)

7. AMD filed an antitrust action against Intel in the District of Delaware in June 2005. (*Advanced Micro Devices, Inc. v. Intel Corporation*, C.A. No. 05-441-JJF D.I.1) AMD and Intel reached a settlement – which included a payment from Intel to AMD of $1.25 billion – on November 11, 2009. (C.A. No. 05-441 D.I. 1873-1)[4]

C. Microprocessors and the Microprocessor Industry

8. A general-purpose microprocessor is an integrated circuit capable of executing instructions and performing mathematical computations at very high speeds and is the "brain" of every computer. (D.I. 1901 ¶ 2)

9. Intel and AMD x86 microprocessors are used in desktop and mobile personal computers ("PCs"). Mobile computers are also known as "laptops" or "notebooks." (D.I. 1901 ¶ 3)

10. The microprocessor and computer industries are often segmented, including by desktop, mobile, and service segments. (*See, e.g.*, D.I. 756 ¶¶ 8.F, G) The personal computer industry is often segmented by type of buyer, including consumer, small and medium business ("SMB"), and enterprise segments. (WDX 193 ¶ 5.b) The consumer segment consists of individual buyers who purchase computers primarily for personal productivity and entertainment. (*Id.*) The enterprise segment consists of large businesses, generally those having more than 500 employees. (*Id.*)

11. During the class period, June 2001 through March 2006, nearly 200 million

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[4]*See also* http://www.intel.com/pressroom/archive/releases/2009/20091112corp_a.htm (last accessed July 31, 2014).

personal PCs containing Intel x86 microprocessors were sold in the United States. (D.I. 1705 at Exhibit E)

D. Plaintiff's Allegations

12. Plaintiffs filed this antitrust class action on behalf of all persons and entities that indirectly purchased Intel x86 processors, as part of a desktop or mobile PC. Specifically, the proposed class members are:

> All persons and entities residing in the United States who, from June 28, 2001 through the present [March 2006], purchased an x86 microprocessor in the United States, other than for resale, indirectly from the Defendant or any controlled subsidiary or affiliate of the Defendant, as part of a desktop or mobile personal computer.

(D.I. 917 at 1) Plaintiffs seek damages from July 2001 through March 2006 as well as injunctive relief. (D.I. 1705 ¶ 4; D.I. 1666 at 71)

13. Plaintiffs allege that Intel, in combination with others, has illegally monopolized the x86 microprocessor market through exclusionary acts designed to limit the ability of other x86 microprocessor manufacturers, in particular AMD, to effectively compete in the marketplace. Plaintiffs allege that these exclusionary acts have suppressed competition in the x86 microprocessor market, resulting in higher prices for Intel x86 microprocessors, and the overcharges imposed by Intel have been passed on to Plaintiffs and the putative class members in the form of higher prices for PCs containing Intel x86 microprocessors. (D.I. 49 ¶¶ 1-6, 234; *see also* D.I. 754 at 2-9)

14. The proposed indirect purchaser class includes computer buyers in the consumer, SMB, and enterprise segments. Those classes exclude purchasers of servers and stand-alone

microprocessors. (D.I. 1901 ¶ 7)

15. Plaintiffs seek to certify 26 separate indirect-purchaser statewide classes for monetary relief under Federal Rule of Civil Procedure 23(b)(3) pursuant to the laws of Arkansas, Arizona, California, the District of Columbia, Florida, Idaho, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Rhode Island, South Dakota, Tennessee, Vermont, West Virginia, and Wisconsin ("Included States"). (D.I. 754 at 2) In addition to the 26 separate statewide classes, Plaintiffs also seek to certify a nationwide indirect-purchaser class under Rule 23(b)(3) for damages pursuant to the California Cartwright Act and for restitution under the California Unfair Competition Law. (D.I. 754 at 1-2)

16. Plaintiffs also seek to certify a nationwide class for injunctive relief under Rule 23(b)(2) pursuant to the federal antitrust laws. (D.I. 754 at 1)

17. Each of the proposed classes would number in the hundreds of thousands to millions of members.

E. Intel's Business Model

18. Intel's microprocessors are described by different brand names (e.g., Pentium 4, Pentium D, Celeron, Core 2 Duo, etc.) and have different performance characteristics. (D.I. 1901 ¶ 11) During the class period, Intel sold more than 1,200 different microprocessors for use in desktop PCs and more than 600 different microprocessors for use in mobile PCs. (D.I. 756 ¶¶ 43-44; WDX 778 at 417; D.I. 1059 ¶ 22)

19. Intel sells x86 microprocessors to OEMs. (D.I. 1901 ¶ 12) OEMs that sold personal computers during the class period include Dell, Hewlett Packard ("HP"), Compaq, IBM,

Lenovo, Fujitsu-Siemens, Toshiba, SEL, Gateway/eMachines, TAIS, Acer, NEC NECAM, and Sony. (*Id.* ¶ 13)

20. The distribution chain that stands between an Intel microprocessor and the personal computers purchased by the proposed class members can include a number of different entities, depending on the computer and manufacturer. (*See* D.I. 1059 at ¶ 35) OEMs may sell PCs directly to end-users and/or to retailers or "value added resellers" that resell them to end-users. (D.I. 1901 ¶ 16) OEMs also have a variety of sales strategies, including making sales of PCs directly to customers through web-based e-commerce, sales through company-employed sales staffs targeting IT professionals and Fortune 1000 companies, and sales through a network of independent distributors who sell to smaller business customers. (D.I. 49 ¶ 137; D.I. 434 ¶ 137)

21. Intel's microprocessor prices vary meaningfully from one microprocessor to another. (D.I. 1059 ¶¶ 23, 63-65, Exhs. 8-10) Intel sold the same microprocessor at different prices to different direct purchasers at the same general point in time. (D.I. 1059 ¶ 23) Intel also sold the same microprocessor to the same OEM at different prices during different times throughout the product's life-cycle. (D.I. 1059 ¶ 66)

22. Because of the significant price variation in Intel's x86 microprocessor prices, any analysis of the impact of Intel's alleged anticompetitive conduct requires individual analysis. (D.I. 1876 ¶ 88)

F. Intel's Payment Schemes

23. The prices that OEMs and other direct purchasers paid Intel and AMD for microprocessors during the class period were the product of negotiations between those

purchasers and Intel or AMD, and varied depending on a number of factors. (*See* D.I. 1876 ¶¶ 65 & n.168, 88 & nn. 217-19; D.I. 1705 ¶ 18; *see also* D.I. 49 ¶ 140)

24. Intel provided rebates, discounts, and allowances to OEMs who purchased Intel microprocessors during the class period. The form of those concessions varied over time and among OEMs.

25. Intel responded to customer requests for competitive concessions in a variety of ways. One such way is through the "ECAP" ("Exception from Corporate Authorized Price") program, which Intel typically used to refer to a discount or rebate off the price of a specific microprocessor. (*See, e.g.*, WDX 116 at 66; WDX 118 at 172; WDX 124 at 44; WDX 90 at 20-21; WDX 107 at 97)

26. Intel also used "LCAPs," a type of lump-sum rebate based on total purchase volume, to enable an OEM to meet competitive offers from AMD-based systems across its Intel-based product line. (*See* D.I. 1059 ¶¶ 61, 105; WDX 176 at DELL-0004-0004613; WDX 58 at DELL-0001-0249302) Intel sometimes used lump-sum rebates for "ease of operation" in place of ECAPs. (*See* D.I. 1876 ¶ 13; WDX 147 at 67770DOC5000238; WDX 116 at 134-35) These lump-sum payments were typically contingent on the OEMs' complete or substantial Intel exclusivity. (D.I. 1705 ¶ 25)[5]

27. Professor Keith Leffler, Plaintiffs' expert on class certification ("Leffler"), testified before the special master that there "existed processes through which an OEM could explicitly request price discounts and that happened numerous times" but "because it's a

[5]"The only payments Plaintiffs are now challenging as unlawful are the lump sum payments from Intel to OEMs that were not used for discounting the price of computers sold to consumers." (D.I. 2115 at 9)

cumbersome administrative process," OEMs "were given a lump sum of money [] with the expectation that some of that money would be used to competitively react when the formal process is just too cumbersome to apply." (MDL No. 05-1717 D.I. 2438 at 231-32)[6] Plaintiffs also admitted that Intel gave OEMs lump-sum rebates for "administrative convenience" because the "marketplace is a very active one where there is all sorts of competitive bids by AMD," so the OEMs could "decide, rather than coming to [Intel on a] transaction by transaction or deal by deal [basis], that [the OEMs] can use some of this money to discount." (MDL No. 05-1717 D.I. 2504 at 130-31)

28. At times, Intel also offered OEMs additional "meet competition" allowances, which were unrestricted lump-sum funds that allowed OEMs to discount Intel-based products against a competitive threat, such as an offering from another OEM. (*See, e.g.*, WDX 116 at 181-82; *see also* D.I. 1059 ¶ 106)

29. OEMs asked for and Intel provided lump-sum rebates both in response to direct competition from AMD and to lower OEMs' computer prices to combat a competitor's AMD-based offerings. (*See, e.g.*, WDX 169 at DELL-0001-0010242; WDX 79 at 536-37) Intel's senior management and the major OEMs understood that increased competition from AMD would result in downward pressure on Intel's x86 microprocessor prices. (2013 Tr. 116) Lump-sum rebates were, therefore, intended to be used in competitive situations. (WDX 98 at 97; WDX 179 at DELL-0019-0060207; WDX 25 at DELL-0001-0073105; WDX 177 at DELL-0009-0018788; WDX 58 at DELL-0001-0249300 through DELL-0001-0249302;WDX 38 at

[6]MDL No. 05-1717 D.I. 2438, 2439, and 2440 are the sealed transcripts of the 2010 class certification hearing ("2010 Tr.") before Special Master Poppiti. The transcript was also submitted to the Court by Defendant as Exhibit WDX 74.

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30. From 2000 to 2006, Intel paid the top nine OEMs $8.68 billion in lump-sum payments. (WDX 83 ¶¶ 9 n.14, 16, and Table A1)

G. Special Competitive Situations

31. Intel sold some PC microprocessors during the class period in "special competitive situations," including some of its sales to HP, Compaq, Gateway, and IBM. (D.I. 756 ¶¶ 8.C n.2, 47 n.87, 51 n.90, 55 & 83 n.126) Special competitive situations occurred when "Intel would offer a particular OEM reduced microprocessor prices in order for that OEM to compete against a low-priced AMD-based offer to an important customer." (*Id.* at ¶ 55) These special competitive situations resulted in a competitive or below competitive price. (*Id.* at ¶ 8.C n.2)

32. Microprocessors sold at a competitive or below competitive price in a "special competitive situation" would not have been sold at a lower price in the "but for" world where lump-sum payments are absent and prices are assumed to be competitive. (WDX 78 at 340; *see also* D.I. 1059 ¶¶ 12(1)-(2), 91)

H. Dr. Leffler's Opinion on Economic Harm

33. Dr. Leffler opined that x86 microprocessors compete in a relevant economic market in which prices of the different microprocessors are interrelated. He explained that if the price of one type of microprocessor is higher than another (controlling for quality), customer switching, or the threat of switching, will cause the price of more expensive microprocessors to drop. (WDX 83 ¶ 36)

34. Dr. Leffler further opined that the economic principle that more competition

results in lower prices was applicable in the x86 market, which he determined by examining a period of increased competition in the x86 desktop segment in the second half of 2006. (D.I. 1705 ¶¶ 37-45; *see generally* 2013 Tr. 132-40) Dr. Leffler relied on the period of increased competition as a "benchmark" or proxy to quantify the impact of Intel's anticompetitive conduct. (WDX 83 ¶ 35; 2013 Tr. 549-50)

35. Focusing on this benchmark period, Dr. Leffler conducted two empirical tests. First, Dr. Leffler performed a statistical analysis called the Mann-Whitney test and found that the distribution of prices for Intel microprocessors was statistically significantly lower in the third quarter of 2006 than it was in the first quarter of 2006. (D.I. 1705 ¶ 42 n.116; 2013 Tr. 162-72) Second, Dr. Leffler examined the extent of discounting, as reflected in Intel's database, before and after Intel's list price drop in mid-2006 for Intel microprocessors subjected to increased AMD competition. Controlling for the identity of the buyer and taking into account the life-cycle effect, he found that Intel's prices were lower in the third quarter of 2006 than they had been in the first quarter. (D.I. 1705 ¶ 42; WDX 83 ¶¶ 63-66; 2013 Tr. 172-80) The downward price shifts Dr. Leffler observed were significantly greater than one would expect to see in the microprocessor industry over a typical six-month period. (D.I. 2162 at 171-72)

36. Dr. Leffler opined that "for all class members to be impacted there only need be ***some*** pass-on of the higher Intel microprocessor prices that would result from Intel's alleged anticompetitive acts." (D.I. 756 ¶ 62) (emphasis in original) "It is a standard and accepted economic principle that overcharges at one level of the distribution chain are expected to flow through to end-users such that a class of end-users will normally be impacted by an overcharge to the direct purchasers." (*Id.* at ¶ 59 & n.96; *see also* 2013 Tr. 184-86)

I. Actual Economic Effects of Intel's Lump-Sum Payments

37. OEMs had discretion to use lump-sum rebates to reduce the per unit "cost of goods sold" for microprocessors and the price of computers. (WDX 85 at 794-95; WDX 92 at 30, 32 ("[R]ebates [and] credits . . . were all series of instruments or methods that we would use to get the lowest CPU price . . . ."), 129-30, 150, 790; WDX 58 at DELL-0001-0249302; WDX 184 at HPC-0016-00013633; WDX 107 at 251-52, 306; WDX 127 at 360; WDX 109 at 67-70; WDX 120 at 93-94; WDX 35 at TAIS-000537495; WDX 147 at 67770DOC5000238; WDX 102 at 368-69; WDX 116 at 316, 327-28; *see also* 2013 Tr. 395-96, 403-04; D.I. 2073 at 40)

38. In addition to the exercise of OEM discretion to use lump-sum rebates to reduce computer prices, even Dr. Leffler acknowledged that "Intel can take actions that, in effect, might convert what appears to be a lump-sum payment into a marginal payment," resulting in reduced computer prices. (WDX 81 at 915) Dr. Leffler stated, for instance, that Intel incentivized Gateway to apply lump-sum rebates to compete against AMD-based systems by indicating that Intel would no longer provide lump-sums if they were not used for that purpose. (*Id.* at 901-03) Similarly, Dr. Leffler admitted that a lump-sum rebate should be treated as a discount when Intel "prodded" an OEM to use a lump-sum rebate to lower computer prices, and "what turns the lump-sum payment into a discount" is an indication from Intel that, if it were not so used, "we are going to give you less money." (2013 Tr. 323)

39. Intel sometimes expected OEMs to use lump-sum rebates to reduce computer prices, and would reduce rebates in the future if they were not so used. (WDX 118 at 378-81, 623-24; WDX 35 at TAIS000537495)

40. Dr. Leffler also acknowledged that there may be "strategic reasons for the OEMs

themselves" that would incentivize them to apply lump-sum rebates to reduce computer prices. (WDX 82 at 1169-70)

41. As an example, Dell "had the discretion to apply ["MCP" or meet-competition program funds] where [it] thought it was needed in the market." (WDX 92 at 129-30) This was an "internal Dell decision." (WDX 58 at DELL-0001-0249302; *see also* WDX 113 at 141-42, 413-14; WDX 110 at 43; WDX 172 at DELL-0001-0158132; WDX 24 at DELL-0001-0041651; WDX 60 at DELL-0001-0041740)

42. Dr. Leffler testified it would be economically rational for Dell to use lump-sum rebates to motivate its pricing managers to lower prices and make more (above-cost) sales. (2013 Tr. 343-44)

43. Defendant's expert, Mr. Kaplan, explained that, "in the real world, . . . if you are motivating someone to lower the price and you are incenting someone to lower the price, you are causing them to lower the price. That is why you are doing it. You are enabling them to do it. And without the [MCP] money, the prices would be different." (2013 Tr. 588-89)[7] For example, one Dell document indicated that with MCP, the price of a computer would be $999, but without MCP, the price would be $1,099. (WDX 60 at DELL-0001-0041740 (MCP was needed to achieve the lower price)) Another Dell document explained that the rebate program "allows us to be more aggressive on all of our server business." (WDX 170 at DELL-0001-0038794)

44. Intel's MCP funds resulted in lower Dell computer prices, which benefitted at least some consumers. (*See, e.g.*, WDX 25 at DELL-0001-0073105)

45. Determining which computer prices were reduced by Intel's monetary concessions

[7]The Court found Dr. Kaplan to be credible.

to OEMs (and to what extent) requires analysis of the specific monetary concession at issue, how the OEM used the monetary concession, and its effect on the OEM's purchase and pricing behavior. (WDX 77 at 107-08, 110)

LEGAL STANDARDS

Pursuant to Federal Rule of Civil Procedure 53(f)(3), the Court "must decide de novo all objections to findings of fact made or recommended by a master." Further, the Court "must decide de novo all objections to conclusions of law made or recommended by a master." Fed. R. Civ. P. 53(f)(4). In undertaking such a review, the Court "may receive evidence." Fed. R. Civ. P. 53(f)(1). After reviewing the objections according to the applicable standard of review, and following any additional proceedings the Court deems necessary, the Court "may adopt or affirm, modify, wholly or partly reject or reverse, or resubmit to the master with instructions." Fed. R. Civ. P. 53(f)(1).

DISCUSSION

I. Intel's Motion to Strike Plaintiffs' Expert Dr. Keith Leffler

A. Legal Standards

Federal Rule of Civil Procedure 702 governs the admissibility of expert testimony, providing:

> A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's . . . specialized knowledge will help the trier or fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

The proponent of expert testimony must establish a "preponderance of proof" that its proffered

expert is qualified under to rules to present his expert opinion. *See* Fed. R. Civ. P. 104(a); *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 592 n.10 (1993). To prove reliability by a preponderance of the evidence, Plaintiffs here must show that the expert opinion of Dr. Keith Leffler is "based on the 'methods and procedures of science' rather than on 'subjective belief or unsupported speculation.'" *In re Paoli R.R. Yard Litig.*, 35 F.3d 717, 742-44 (3d Cir. 1994) (citing *Daubert*, 509 U.S. at 590).

The Rules of Evidence "assign to the trial judge the task of ensuring that an expert's testimony both rests on a reliable foundation and is relevant to the task at hand." *Daubert,* 509 U.S. at 597. The trial court has "considerable leeway" in deciding whether particular expert testimony is reliable. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152 (1999). However, the Supreme Court has cautioned trial courts that, in undertaking this inquiry, "[t]he focus, of course, must be solely on principles and methodology, and not on the conclusions they generate." *Daubert*, 509 U.S. at 595; *see also Kannankeril v. Terminix Int'l, Inc.*, 128 F.3d 802, 806 (3d Cir. 1997) ("Admissibility decisions focus on the expert's methods and reasoning; credibility decisions arise after admissibility has been determined.").

B. Dr. Leffler's Testimony is Sufficiently Reliable to be Admissible

The special master recommended excluding Dr. Leffler's expert testimony as unreliable, and therefore inadmissible, under Rule 702. (D.I. 2073 at 29) After reviewing the special master's exhaustive findings, as well as the objections to the special master filed by Plaintiffs, and having observed the testimony of Dr. Leffler during the July 2013 evidentiary proceedings, the Court finds that Dr. Leffler's testimony is reliable and is not the sort of "junk science" that *Daubert* requires the Court to exclude.

Dr. Leffler is a respected economist who has been certified as an expert in previous antitrust cases. (*See* D.I. 2086 at 58) Dr. Leffler prepared a set of regression models and applied standard economic theories. As the special master recognized, "[r]egression analysis is a generally accepted methodology and has been used at the class certification stage to assess impact." (*Id.* at 29) (citing cases) He performed other accepted tests, like Mann-Whitney (described further below).

As one basis for his analysis, Dr. Leffler identified a "benchmark" period – the second half of 2006 – in which there was increased competition in the microprocessor market. (2013 Tr. 130-33) Defendant's expert, Mr. Kaplan, agreed that this period provided the best proxy for "what Intel would have done" in the face of "enhanced competition of AMD." (*Id.* at 438-39) Dr. Leffler then presented regression analyses to identify the amount of "overcharge" that was due to Intel's allegedly monopolistic conduct, and further to identify the "pass-on rate," which is the amount of overcharge passed on to putative class members through the microprocessor distribution chain. (*Id.* at 100) Dr. Leffler used data gathered from Intel's own electronic data warehouse ("EDW") or sales database to analyze pricing trends during the class period, with a specific focus on the benchmark period. (*Id.* at 103)

Plaintiffs' Motion for Class Certification relies heavily on Dr. Leffler's analysis and conclusions. As is explained below in connection with the Court's evaluation of Plaintiffs' motion, the Court agrees with many of the substantive challenges Intel presents to Dr. Leffler's opinions.[8] Nonetheless, Plaintiffs have demonstrated that Dr. Leffler's testimony and opinions

[8]At bottom, the Court finds Dr. Leffler's analysis to be sufficiently reliable to be an input into the larger assessment of how Intel operated, all to determine whether Plaintiffs' claims are amenable to proof by common, classwide evidence. Having considered Dr. Leffler's opinions,

are reliable under the standards of Rule 702 and *Daubert*. Accordingly, Dr. Leffler's testimony is admissible and the Court will consider his analyses and opinions in determining whether to certify a class. The Court will deny Defendant's motion to exclude Dr. Leffler.[9]

II. Plaintiff's Motion for Class Certification

A. Legal Standards

Pursuant to Federal Rule of Civil Procedure 23(a), the Court may certify a class only if:

> (1) the class is so numerous that joinder of all members is impracticable; (2) there are questions of law or fact common to the class; (3) the claims or defenses of the representative parties are typical of the claims or defenses of the class; and (4) the representative parties will fairly and adequately protect the interests of the class.

In addition to satisfying the requirements of Rule 23(a), a party seeking class certification must satisfy one of Rule 23(b)'s additional requirements. *See Warfarin Sodium Antitrust Litig.*, 391 F.3d 516, 527 (3d Cir. 2004) (stating "parties seeking class certification must show that the action is maintainable under Rule 23(b)(1), (2), or (3)"). Plaintiffs here seek certification under Rule 23(b)(3), which is permissible where "the court finds that the questions of law or fact common to class members predominate over any questions affecting only individual members,

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and Mr. Kaplan's contrasting opinions, in light of the mass of evidence in the record, the Court is persuaded by Kaplan and Intel that this case cannot be certified as a class action.

[9]A principal reason for the 2013 evidentiary proceeding was the Court's need to assess Dr. Leffler's credibility. (*See* D.I. 2115 at 4-5) Having now had the opportunity to make its own assessment of credibility, the Court finds Dr. Leffler to be sufficiently credible that a reasonable finder of fact could credit his testimony. For instance, a finder of fact might reasonably accept Dr. Leffler's explanation that the "evolving" nature of his opinion (e.g., his admission that many of the payments he had previously characterized as lump-sums he now realizes are discounts) is due to the complexity of the matters he is reviewing, and problems with data, rather than any inherent unreliability of his analysis. Hence, the Court will not exclude Dr. Leffler's analysis.

and that a class action is superior to other available methods for fairly and efficiently adjudicating the controversy." Fed. R. Civ. P. 23(b). These twin requirements of Rule 23(b)(3) are referred to as "predominance" and "superiority."

"Class certification is proper only 'if the trial court is satisfied, after a rigorous analysis, that the prerequisites' of Rule 23 are met." *In re Hydrogen Peroxide Antitrust Litigation,* 552 F.3d 305, 309 (3d Cir. 2008) (quoting *Gen. Tel. Co. of the S.W. v. Falcon*, 457 U.S. 147, 161 (1982)).

Here, at a broad level, it is fair to summarize Plaintiffs' allegations as being that Intel unlawfully used its monopoly power to inflate prices. But, importantly, Plaintiffs do not allege "direct" price-fixing. Instead, Plaintiffs allege that Intel injured the putative class members by using its monopoly power in its interactions with OEMs, who stand between Intel and individual PC purchasers. In this way, Plaintiffs are alleging "indirect" price-fixing. Courts have recognized that satisfying the prerequisites to a class action is more difficult in a case involving indirect price-fixing rather than direct price-fixing. *See, e.g., Allied Orthopedic Appliances, Inc. v. Tyco Healthcare Grp., L.P.,* 247 F.R.D. 156, 165 (C.D. Cal. 2007) ("An illegal price fixing agreement that directly inflates prices is far more persuasive to show that injury can be proven on a class-wide basis, than an alleged 'array of anticompetitive conduct having an ***indirect effect*** on, among other things, the general price level' of the products at issue. Accordingly, proof of fact of injury requires much more than a simple showing that the plaintiffs purchased an item in a world where average prices were inflated.") (emphasis in original; internal citations omitted). In the instant case, for the reasons explained below, Plaintiffs have failed to meet their burden for class certification.

B. Rule 23(a) Requirements

Plaintiffs have not met their burden to show that the proposed class satisfies each of the requirements for certification under Rule 23(a). Specifically, Plaintiffs have failed to show that (1) the claims of the named plaintiffs are typical of those of the class; and (2) the interests of enterprise customers are adequately represented by the named class representatives. Plaintiffs have further failed to show that the class is ascertainable, since the proposed class as currently defined includes members who have not been injured.

The Court now addresses each of the requirements of Rule 23(a).

1. Numerosity

The proposed class includes all persons who purchased an x86 microprocessor during a five-year period in the early 2000s. Hence, the putative class consists of millions of members, and even each subclass consists of thousands (possibly millions) of members. Plaintiffs have satisfied the numerosity requirement of Rule 23(a)(1), as the class is so numerous as to make joinder of all members impracticable. Intel does not contest that numerosity is present.

2. Commonality

"Rule 23(a)(2)'s 'commonality' requirement is subsumed under, or superseded by, the more stringent Rule 23(b)(3) requirement that questions common to the class 'predominate' over other questions." *Amchem Prod., Inc. v. Windsor*, 521 U.S. 591, 609 (1997). Here, there are questions of law and fact common to the class, including whether there were overcharges resulting from Intel's allegedly anticompetitive conduct and whether such overcharges were passed on to individual consumers in the form of higher computer prices. However, as is explained more fully in connection with the Court's analysis of the Rule 23(b)(3) predominance

requirement, the record before the Court reveals a multitude of individualized questions. Hence, the Court will forgo a discussion of Rule 23(a)(2)'s commonality requirement in favor of a more detailed analysis below of Rule 23(b)(2)'s predominance requirement. *See id.* (allowing such an approach, where "the harmfulness of asbestos exposure was indeed a prime factor common to the class . . . but uncommon questions [also] abounded").

3. Typicality

The question of typicality involves whether the named plaintiffs have the same claims or defenses as the putative class members, which is necessary to assure that the absent members of the class will be fairly represented. On this point, the Court adopts the special master's findings of fact and conclusions of law. The named class representatives include individuals and small business that purchased computers "either from a direct-selling OEM, a VAR [value added reseller], a retailer at a brick-and-mortar store, online, or over the phone. . . . Their purchases involved a small number of computers and may or may not include a limited number of hardware accessories." (D.I. 2073 at 53)

However, the proposed class also includes enterprise customers; the claims of the named representative Plaintiffs are not typical of the claims of these enterprise customers. (*See id.* at 53-56) Individual customers who purchase PCs have significantly different motivations and concerns than enterprise customers, who purchase larger volumes and different types of computers. (*Id.* at 54) Enterprise customers often purchase computers as part of a package, and the prices they pay result from individual negotiations. (*Id.*) Neither of these are characteristics of individual consumer purchases. As the special master found, "[Enterprise customers] often negotiate multiyear contracts that require them to purchase products and services from the OEM

for the duration of the contract. Moreover, enterprise sales often involve bundles of computers and other products and services, such as a commercial notebook that has an accidental damage protection contract. . . . Individuals do not negotiate individualized contracts." (*Id.*) Thus, a class consisting of both individual and enterprise customers cannot be certified when the representatives do not also include both individual and enterprise customers.

The Court agrees with the special master's conclusion that "[t]o prove that Intel overcharged the enterprise customers would require different proof because they were able to negotiate deals in a different competitive landscape" than individual customers. (*Id.* at 55) Plaintiffs have not shown that they can do so. Thus, Plaintiffs have failed to meet their burden on Rule 23(a)'s typicality requirement.

4. Adequacy of Representation

For the same reasons just discussed in connection with the typicality requirement, Plaintiffs – all of whom are individual rather than enterprise customers – have likewise failed to meet their burden to show that the interests of enterprise customers would be adequately protected by the individual customers who comprise the group of representative class members.

In addition, where, as here, a class includes parties who "claim to have been harmed by the same conduct that benefitted other members of the class," there is a "fundamental conflict" between the named representatives and the class as a whole, defeating certification. *In re Photochromic Lens Antitrust Litig.*, 2014 WL 1338605 at *10 (M.D. Fla. April 3, 2014). This conflict is discussed more fully below in connection with the predominance requirement of Rule 23(b)(3).

C. Rule 23(b)(3)

In addition to failing to meet the requirements of Rule 23(a), Plaintiffs have also failed to meet their burden in connection with Rule 23(b)(3). For this reason as well, the Court must deny Plaintiffs' motion for class certification.

1. Ascertainability

"Ascertainability mandates a rigorous approach at the outset because of the key roles it plays as part of a Rule 23(b)(3) class action lawsuit." *Carrera v. Bayer Corp.*, 727 F.3d 300, 307 (3d Cir. 2013). Ascertainability assures that a court will not need to engage in extensive fact-finding to identify the members of the class. *See Marcus v. BMW of N. Am., LLC*, 687 F.3d 583, 592-93 (3d Cir. 2012). If "determining membership in the class would essentially require a mini-hearing on the merits of each class member's case, . . . [a] class action [is] inappropriate for addressing the claims at issue." *Sanneman v. Chrysler Corp.*, 191 F.R.D. 441, 446 (E.D. Pa. 2000). The Third Circuit has explained other benefits arising from the ascertainability inquiry:

> First, it eliminates serious administrative burdens that are incongruous with the efficiencies expected in a class action by insisting on the early identification of class members. Second, it protects absent class members by facilitating the best notice practicable under Rule 23(c)(2) in a Rule 23(b)(3) action. Third, it protects defendants by ensuring that those persons who will be bound by the final judgment are clearly identifiable.

Marcus, 687 F.3d at 593 (internal quotation marks and citations omitted).

Plaintiffs have failed to meet their burden with respect to ascertainability because they have failed to exclude from the purported class those individuals who were not harmed by Intel's practices. Plaintiffs have failed even to propose a practicable method for identifying these unharmed individuals, to enable them to be excluded from the class. Granting Plaintiffs' motion

would result in certification of an impermissibly overbroad class. *See generally Carrera,* 727 F.3d 300.

In their effort to establish ascertainability, Plaintiffs rely on data from Intel and Dell and attempt to show that prices were inflated across the entire market. Plaintiffs generally contend that they have adduced evidence from which it could be found that every purchase in the relevant market occurred at a higher price than it would have occurred at in the but-for market, so anyone who purchased a computer during the class period was necessarily harmed, making the class easily ascertainable. The Court is unpersuaded. As will be discussed at length in the Court's predominance analysis, the evidence shows that not every purchaser suffered injury resulting from Intel's conduct. Plaintiffs have not offered, let alone succeeded in assuring the Court, that a reliable screening method will be put into place to ensure that only those purchasers who were injured by Intel's lump-sum payment scheme will be included in the certified class.

It follows, then, that Plaintiffs have not satisfied Rule 23(b)'s ascertainability requirement and, again, the class cannot be certified.

2. Predominance

For certification under Rule 23(b)(3) to be appropriate, "issues common to the class must predominate over individual issues." *Hydrogen Peroxide,* 552 F.3d at 311. "If proof of the essential elements of the cause of action requires individual treatment, then predominance is defeated and a class should not be certified." *In re Constar Int'l Sec. Litig.*, 585 F.3d 774, 780 (3d Cir. 2009) (internal citations omitted). "The essential inquiry for predominance is whether the proposed class is 'sufficiently cohesive to warrant adjudication by representation.'" *Amgen Inc. v. Conn. Ret. Plans & Trust Funds*, 133 S.Ct. 1184, 1196 (2013) (quoting *Amchem*, 521 U.S.

at 623).

The Third Circuit has instructed that "actual, not presumed, conformance with Rule 23 requirements is essential." *Marcus,* 687 F.3d at 591. "Expert opinion with respect to class certification, like any matter relevant to a Rule 23 requirement, calls for rigorous analysis." *Hydrogen Peroxide,* 552 F.3d at 323. "Weighing conflicting expert testimony at the certification stage is not only permissible; it may be integral to the rigorous analysis Rule 23 demands." *Id.*

As Plaintiffs explain, "[t]he predominance inquiry asks whether Plaintiffs can establish the three elements of their case through common proof: (1) existence of the alleged antitrust violation; (2) injury or impact; and (3) damages." (D.I. 754 at 31) The Third Circuit has pointed out that in antitrust cases, the element of "***impact*** often is critically important for the purpose of evaluation of Rule 23(b)(3)'s predominance requirement because it is an element of the claim that may call for individual, as opposed to common proof." *Hydrogen Peroxide*, 552 F.3d at 311 (emphasis added). Although class Plaintiffs need not ***prove*** common impact at the class certification stage, they must at least

> ***demonstrate*** that the element of antitrust impact is ***capable of proof at trial through evidence that is common to the class*** rather than individual to its members. Deciding this issue calls for the district court's rigorous assessment of the available evidence and the method or methods by which plaintiffs propose to use the evidence to prove impact at trial.

Id. at 311-12 (emphasis added).

Here, Plaintiffs have failed to demonstrate that the essential element of antitrust impact is capable of being proven at trial through evidence common to the class. Therefore, the predominance requirement is not satisfied and class certification is inappropriate.

The Court does not question Plaintiffs' general proposition that Intel's engagement in

anticompetitive conduct "could, in theory, impact the entire class despite [resulting in] a decrease in prices for some customers in parts of the class period, and despite some divergence in the prices different plaintiffs paid." *Hydrogen Peroxide*, 552 F.3d at 325. "But the question at class certification stage is whether, if such impact is plausible in theory, it is also susceptible to proof at trial through available evidence common to the class." *Id.* The issue is whether Plaintiffs have offered a methodology that employs common proof to show that all or nearly all class members suffered antitrust injury, and to show that any benefits received by certain purchasers as a result of Intel's "anticompetitive" payments are exceeded by the overcharges Intel imposed (and were passed on to end purchasers). This, again, Plaintiffs have failed to do.[10]

a. Overcharge Analysis

As already noted, although Plaintiffs need not, at the class certification stage, prove antitrust impact, they must show that impact is capable of proof at trial through evidence that is common to the class rather than requiring proof that is individual to the members of the class. *See Hydrogen Peroxide*, 552 F.3d at 311-12. Plaintiffs first must show that there is common proof that Intel overcharged the individual class members who purchased Intel microprocessors contained in laptop or desktop computers during the class period.

Notably, the allegedly unlawful conduct by Intel consisted of millions of dollars of loyalty payments made to ***manufacturers*** of personal computers. Those computers were then sold through the distribution chain and eventually purchased by the consumers who comprise the

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[10]Just as Plaintiffs have failed to establish that antitrust impact is amenable to proof by common evidence, so, too, have they similarly failed to make this showing with respect to damages. Given the Court's conclusions as to other failings, there is no need to reiterate the deficiencies in the context of damages.

putative class. Intel did not sell any microprocessors directly to the members of the proposed class. Plaintiffs must, therefore, show that they can prove – through common evidence – that (i) Intel overcharged its OEM (direct) customers, and (ii) the OEMs passed on the overcharges (in the form of higher computer prices) to their customers, i.e., the members of the class, who are to Intel only ***indirect*** customers. This two-step analysis distinguishes the instant case from price-fixing class actions involving alleged overcharges to direct purchasers (including the two cases drawn to the Court's attention in a recent submission by Plaintiffs (D.I. 2203; *see also* D.I. 2204).[11] As Defendant's expert, Mr. Kaplan, explained, another distinction between the instant case and many other price-fixing cases is that the challenged "conduct is a price ***reduction***, and that's why this case is so unusual, the provision of lump-sum rebates, that could benefit consumers." (2013 Tr. 484) (emphasis added) *See also Photochromic*, 2014 WL 1338605 at *11 ("[A] class cannot be certified when some members of the class benefitted from the alleged wrongful conduct.").

i. Dr. Leffler's Analysis

Dr. Leffler relied on economic theories and empirical evidence to support his conclusion that prices in the "but-for" world of a competitive marketplace would be approximately 13-14% lower than the prices customers actually paid during the class period of 2001 through 2006. (*See*

[11] *See In re Elec. Books Antitrust Litig.*, 2014 WL 1282293 (S.D.N.Y. Mar. 28, 2014) (allegations that Apple Inc. colluded with publishers to inflate prices of electronic books, which were directly purchased by class members, resulting in no need for analysis of whether overcharges were passed on to class members); *In re High-Tech Employee Antitrust Litigation*, 2013 WL 5770992 (N.D. Cal. Oct. 24, 2013) (finding common issues predominated where class alleged conspiracy to suppress employee compensation through agreements to refrain from soliciting employees from co-defendants, based on two-step analysis that only superficially resembles that undertaken by Dr. Leffler).

2013 Tr. 246) Dr. Leffler relies heavily on economic theory, most notably the concept that "stronger competition leads to lower prices." (D.I. 2169 at 15) Dr. Leffler testified that "there are high demand and supply cross-elasticities," which indicate that Intel's products and AMD's products were comparable substitutes for one another. (2013 Tr. 123) Dr. Leffler stated that, based on these concepts, he concluded that Intel's conduct in controlling the pricing and marketability of microprocessors resulted in "significant overcharges in this marketplace over a long period of time . . . [which are] market pervasive." (*Id.* at 128)

As a component of his empirical analysis, Dr. Leffler identified the second half of 2006 as a "benchmark" period, essentially a proxy for what would have occurred with respect to prices in a "but for" competitive world (i.e., absent Intel's anticompetitive conduct). Dr. Leffler chose the second half of 2006 because this was a period in which Intel was, in actuality, subject to increased competition. (2013 Tr. 132-33) In May 2006, Dell had abandoned its exclusivity agreement with Intel and began making and selling computers containing AMD microprocessors. (*Id.* at 133) Dr. Leffler found that during the second-half 2006 benchmark period, Intel "became more competitive . . . by lowering prices." (*Id.* at 138)

Dr. Leffler performed two empirical tests to support his opinion that microprocessor pricing complied with his basic economic expectations. First, he undertook a "Mann-Whitney" analysis, to illustrate the differences between the price distributions before and during the benchmark period. Dr. Leffler found a downward shift in the prices of those microprocessor families that he expected to be responsive to increased competition. (Dr. Leffler excluded certain types of microprocessors, as discussed below.) For example, running the model on the distribution of prices of the Intel Pentium D microprocessor resulted, according to Dr. Leffler, in

a "95% probability of not getting a higher draw from the third quarter than the first quarter. [This was a] [h]ighly statistically significant" result. (2013 Tr. 168) To Dr. Leffler, this model indicates that, in a six-month period, the microprocessor price may have been affected by competition by as much as a third. (*Id.* at 171) ("We're seeing an average change in the price of something like . . . $85 to $60. We're seeing nearly a 33 percent shift in that distribution.")

Second, Dr. Leffler undertook his "339 test," directly comparing actual prices of microprocessors in the two periods. The 339 test compared 339 purchaser-customer pairs; i.e., it compared the purchase price paid by a buyer of a specific microprocessor in the first quarter of 2006 to the price that same buyer paid for the same specific microprocessor in the third quarter of 2006. (*Id.* at 173) The results indicated to Dr. Leffler that "it's pretty obvious prices fell." (*Id.* at 175) In particular, Dr. Leffler opined that the price of a Pentium D microprocessor would drop 12.8% in a competitive marketplace. (D.I. 2169 at 22; *see also* 2013 Tr. 178)

ii. Multiple Distribution Levels Necessitate Individual Analysis

Dr. Leffler's testimony does not establish that Plaintiffs' claims may be proven with evidence common to the class because it fails to account for many of the real-world facts surrounding this complicated market. The Court is persuaded by Defendant's expert, Mr. Kaplan, who explained:

> The question that has been raised is whether lump sum rebates were in fact used by OEMs to lower the price. And it's that issue in my opinion that cannot be analyzed on [an] economic basis but must be analyzed by looking at the actual business practices in the real world about what actually happened. Not what we think might have happened, what in our perception might happen, or what a theory might predict happened, but let's look at the market realities of what actually happened. And in order to do that, in my opinion, based on the record that I have reviewed and my background and

> experience, the only way we're going to be able to do that is to dig into and analyze separately what the OEMs did with the money.

(2013 Tr. 396)

The marketplace for microprocessors and the computers into which they are incorporated includes various levels of distribution, potentially including multiple resellers, between Intel and each putative class member. Consequently, as Mr. Kaplan testified,

> Even if one were to assume that there was an overcharge embedded in the microprocessor price . . . tracing that purported overcharge through the distribution chain, [through] OEMs, [through] distributors, [through] what are called value added retailers . . . which are the people who buy microprocessors and make custom-made computers and resell them, down to the retail chain, Best Buy, Circuit City, etc., and then ultimately to the consumer which is the proposed class member . . . [that] process of tracing through that purported overcharge itself is going to require a highly individualized analysis.

(2013 Tr. 397)

iii. Exclusion of Relevant Data from Common Analysis

Plaintiffs propose a class definition that includes purchasers of mobile computers – but Dr. Leffler did not include in his analyses any data regarding mobile computers. Intel presented evidence that microprocessor sales for mobile computers comprised 30% of Intel's total sales during the class period. (2013 Tr. 437) Plaintiffs have not shown that they have a methodology for including mobile computer purchasers in overcharge regressions or otherwise proving their claims with respect to such purchasers through common evidence. Accordingly, Plaintiffs have not satisfied the predominance requirement.

Dr. Leffler's 339 test also contains crucial omissions. As Intel points out, because the 339 test was limited to instances in which the same customer purchased the same microprocessor

in both the first and third quarters of 2006, the purchase pairs in Dr. Leffler's test involved only 11 of the more than 1200 types of microprocessor chips Intel sold during the class period. (2013 Tr. 379; D.I. 2073 at 6). As importantly, Dr. Leffler intentionally excluded from the 339 test even some of the same purchaser-same chip pairs he found, including legacy products (which are largely insulated from competition and not being used in PCs), microprocessors that were late in their life cycles (and not competing for new sales), and chips that were commercial failures (and likely already being discounted). (2013 Tr. 148-51)[12] The problem with identifying microprocessors which would not be subject to increased competition is that Plaintiffs include in their class definition ***all*** persons purchasing ***any*** microprocessor during the class period. The discrepancy between the broad class definition and the narrower 339 test illustrates the type of individualized proof issues that will need to be resolved in order to try Plaintiffs' claims.

iv. Failure to Analyze Impact of Lump-Sum Payments on Class Members

Dr. Leffler's analysis fails to account quantitatively for the very loyalty payments which are the subject of this action. (D.I. 2165 at 4) ("All of Leffler's statistical studies offered to show an overcharge in Intel's prices . . . are based on . . . pricing figures that intentionally exclude lump-sum rebates.") Dr. Leffler's opinion as to the effect of the lump-sum payments is that he has not seen any evidence to support the proposition that lump-sum payments resulted in lower personal computer prices. (*See* 2013 Tr. 198) To support this opinion, he relies on economic theory, including by contending that as public companies the OEMs had every incentive to put

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[12]As Mr. Kaplan credibly opined, Dr. Leffler "eliminated a large amount of data, isolated the data down to those that he felt were the ones that should be examined[, which effectively] concedes that Intel is not going to lower the price across the board even in the face of new competition." (2013 Tr. 444)

any lump-sum payment toward their bottom line to maximize their stockholders' interests. (2013 Tr. 207) Dr. Leffler further states that OEMs need only be concerned with their marginal costs and whether the return from selling a computer exceeds the cost of making it. (2013 Tr. 208) Dr. Leffler's analysis does not account for the highly competitive market in which the OEMs operate, which creates strong incentives to use the loyalty payments to remain competitive with other OEMs by lowering prices.

The evidence shows that OEMs had the discretion to – and did – use the lump-sum payments to lower prices, as the lump-sum payments enabled the OEMs to do without negatively impacting their thin profit margins. (*See* D.I. 2165 at 2; 2013 Tr. 415; D.I. 2073 at 66-74) As Intel argues, "OEMs did not have the profit margins to fund continued price reductions in the absence of the challenged rebates." (D.I. 2165 at 14) Intel cites a Dell document showing that Dell used a lump-sum rebate to reduce the price of a personal computer with a 2.0 Ghz Intel processor from $1099 to $999. (WDX 60 at DELL-0001-0041740) Evidence from other OEMs, including HP and Lenovo, confirms that they made similar use of their lump-sum payments. (*See* WDX 107 at 251; WDX 192 at ¶ 6; *see also* WDX 170 at [redacted] rebate program "allowed [redacted] to be more aggressive on all of our server business"); WDX 142 at 66667DOC5000001 (at [redacted] rebates "enable low cost bids" and "aggressive" pricing); WDX 36 at [redacted]004-00242233 ("[l]oss of Intel funds will increase" the sale price of specific [redacted] computers by about $35).

Testimony from corporate representatives of the OEMs further shows that the OEMs believed the Intel lump-sum payments were tools available to OEMs to reduce their prices. [redacted] testified that "rebates" and "credits" "were all series of instruments or methods

that we would seek to get the lowest CPU prices." (WDX 92 at 32) He further testified, "My job was to have the lowest microprocessor cost," and "having higher rebates or discounts was certainly a way to do that." (WDX 92 at 150; *id.* at 790 (stating "gross prices minus [MCP] rebates is my net price")) Another [redacted] employee, [redacted] testified that "the [redacted] funds that are received as a result of rebates effectively lowers . . . the price [redacted] pays for the microprocessors." (WDX 98 at 112)

Dr. Leffler's matching analysis further supports the conclusion that, by his own extrapolation, there was $1.25 billion in lump-sum rebates which may have been used by OEMs to reduce prices. (WDX 82 at 1118, 1193-94) Dr. Leffler disagrees with this conclusion, instead attributing lower prices to competition, opining that "[i]f the allocations that lower the apparent cost result in lower Dell PC prices, there is one and only one reason that happens. And it's because Dell wants to make that sale." (2013 Tr. 224) On cross-examination at the 2013 trial, Dr. Leffler further explained how his conceptualization of the economics behind these lump-sum payments:

> [D]o [lump-sum payments] actually reduce the price of the PC "because of." That's what is critical. They reduce the price of PCs. You saw the Lenovo diagram. The prices ranged substantially. So they clearly reduce prices of PCs in certain situations. The question is, was it because of something? It's the 'because of' that matters.

(2013 Tr. 326) Dr. Leffler later added:

> So my conclusion is, it's not that the consumers benefitted because of lump-sum payments. They benefitted because Dell decided to be competitive. And their deciding to be competitive has nothing to do with lump-sum payments.

(2013 Tr. 341)

Dr. Leffler's compartmentalized view is unconvincing and, more fundamentally, illustrates that the evidence on which Plaintiffs will have to rely to prove their case is individualized evidence, not evidence common to the class as a whole. Dr. Leffler needs to look at each OEM, and each transaction, to determine whether a lump-sum payment that he admits was used to lower prices to end consumers was used in this way "because of" the lump-sum payments or, instead, "because of" something else. The evidence establishes that the lump-sum payments allowed OEMs to react to a competitive marketplace in ways in which they could not have done without Intel's payments.

As Mr. Kaplan credibly and persuasively testified,

> [W]hen [OEMs] get access to additional funds, it gives them the opportunity to lower price. It doesn't mean they are going to lower price with all the funds. They may use some of the funds to enhance their margins. They may use some of the funds to support marketing activity. But . . . that is the exact point, for us to find out how much of it they used to lower their prices and how many consumers . . . benefitted from it. . . . That is a critically important issue for purposes of whether they were adversely affected. The only way we are going to reliably be able to determine that is by going to each of the individual OEMs and all of the other direct buyers.

(2013 Tr. 412) In this regard, it is notable that even Plaintiffs acknowledge that "[w]hether an OEM reduced its PC prices ***because of*** lump-sum payments . . . is a factually intensive and difficult issue." (D.I. 2136 at 12 n.10) (emphasis in original)[13]

Plaintiffs are correct that they are not required, at the class certification stage, to prove that every class member was injured, or the exact amount of every injured class members' injury.

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[13]Plaintiffs further concede that the extent to which "OEMs actually used any of Intel's lump sum payments as discounts . . . [is] something that neither party has determined nor likely could determine definitively." (D.I. 2136 at 12)

(*See* 2013 Tr. 618) However, the Court is obligated by Rule 23(b)(3) to consider manageability issues and, in light of the deficiencies outlined above, the Court concludes that the proposed class is not one for which common issues predominate. Plaintiffs have not met their burden.[14]

b. Pass-On Analysis

Even if Plaintiffs could show by common evidence that there were overcharges, the Court would still not certify the proposed class because Plaintiffs' analysis also breaks down at the second step, proving that the alleged overcharges are passed on to end purchasers in the form of higher prices to consumers. Plaintiffs must show that the overcharges were passed on to consumers in order to show antitrust impact on the indirect purchaser class. As Mr. Kaplan put it: "There has to be a common methodology to trace through that overcharge to the people that are at issue in this case, which are the individual proposed class members buying personal computers all across the United States in individualized geographic areas." (2013 Tr. 463)

Plaintiffs' position again relies on economic theory. Dr. Leffler opines, based on literature on the food manufacturing industry, "if [industries] are competitively structured and firms maximize profits, then the rate of pass-through of the wholesale prices is 100 percent irrespective of the value of the market elasticity." (2013 Tr. 186) He adds: "If all your costs go up, you are going to either pass them on or no longer do business. So the competitive nature of the industry is extremely important and of itself is really predictive of substantial pass-on of any changes." (2013 Tr. 188)

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[14]Given the Court's conclusions, it is unnecessary to resolve the parties' disputes over the validity of Defendant's modifications of Dr. Leffler's regression analyses by disaggregating data by microprocessor or OEM, to show the effect of increased competition in late 2006. The special master relied heavily on this portion of Defendant's analysis. (*See* D.I. 2073 at 80-85) Even assuming, *arguendo*, this was error, the fact remains that Plaintiffs have not met their burden.

Plaintiffs' analysis fails to account for the effect the lump-sum payments had on OEMs when they were making decisions as to whether to pass on costs to consumers. The evidence shows that Intel made payments to OEMs who then had the discretion to determine whether to use that money to lower their prices or apply it directly to their own bottom line. (2013 Tr. 395) Notwithstanding Dr. Leffler's surprise that he "can't imagine [that pass on] is even a subject for debate" (2013 Tr. 196), Plaintiffs have failed to show that they can, through common evidence, prove that higher costs are passed on to the members of the putative class.

OEMs operate in a highly competitive market. Even Dr. Leffler recognized that manufacturing and distribution of personal computers was "among the most competitive sectors of the economy." (2013 Tr. 188) Dr. Leffler adds that "[w]hen an industry is highly competitive, competition will force sellers to do things that they don't want to do because otherwise they won't make sales." (2013 Tr. 187) Hence, OEMs had to lower their prices to remain competitive; using the lump-sum payments to reduce the cost of their computers allowed OEMs to stay competitive. In at least some circumstances, then, the end customers who comprise the putative class did not experience any pass-through of the overcharge, as instead the competitive forces at the manufacturer/OEM level resulted in ***lower*** prices to retailers and ***lower*** prices to end consumers. It follows that Plaintiffs have failed to show that common evidence will prove that all members of the class were injured, or even that common evidence can show ***which members*** of the class were injured through ***which specific transactions.***[15]

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[15]Additionally, Dr. Leffler's analysis is premised on the assumption that firms will always act rationally, even though he admits that sometimes companies "do things that don't make too much sense." (2013 Tr. 556) Identifying instances of an OEM, for example, not acting in the "sensible" manner predicted by economic theory is a task that Plaintiffs have not shown can be accomplished through common evidence.

Yet another problem with Plaintiffs' overcharge analysis is that it attempts to draw conclusions about the behavior of all OEMs from data that is limited to Intel's relationship with Dell alone. Dr. Leffler has not shown how using the data capturing Intel's interactions with Dell, the largest OEM, accurately depicts how pricing was determined for the numerous other OEMs, distributors, and retailers. This is all the more so because of problems with the Dell data. Dr. Leffler was unable to compare Dell's pricing systems at all in 2006 or for much of 2005. (2013 Tr. 217) Dell's database shows that much of the money Intel paid to Dell did not relate to specific transactions; nor does Dell's purchase database clarify what individual end consumers paid for Intel's products. (D.I. 2162 at 218-25) (describing Dr. Leffler's efforts to analyze whether payments by Intel were reported as discounts) The Court cannot certify a class relying on incomplete data from only one or two of the many players in this marketplace.[16]

3. Superiority

Given the Court's findings regarding Plaintiffs' failure to show that common issues predominate, class certification under Rule 23(b)(3) would be inappropriate even if Plaintiffs could satisfy the superiority requirement. Hence, it is unnecessary for the Court to address this requirement.

D. Rule 23(b)(2) Class

Plaintiffs have requested injunctive relief, arguing:

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[16]At the hearing, Dr. Leffler testified that the "lump-sum payments" to "Others" – including distributors and OEMs – are "***not*** anticompetitive," even though he acknowledged they are labeled in Intel's database in a manner identical to the payments Plaintiffs do allege are anticompetitive. (2013 Tr. 356-57) (emphasis added) Dr. Leffler further conceded that to understand the incentives Intel was providing to "Others" he had to "go beyond" the Intel database. (2013 Tr. 537) This testimony was illustrative of the problems plaguing Plaintiffs' efforts to show they can prove their case through evidence common to the class.

> Class members have been injured and will continue to be injured in their businesses and property by paying more for x86 microprocessors purchased indirectly from Intel than they would have paid and would pay in the future in the absence of Intel's unlawful acts, including paying more for personal computers and other products in which x86 microprocessors are a component, as a result of higher prices paid for x86 microprocessors by the manufacturers of those products.

(D.I. 49 at 49) Plaintiffs rely on 15 U.S.C. § 26, which provides that "any person, firm, corporation, or association shall be entitled to sue for and have injunctive relief, in any court of the United States having jurisdiction over the parties, against threatened loss or damage by a violation of the antitrust laws."

Federal Rule of Civil Procedure 23(b)(2) imposes two express requirements for certification of an injunctive class. First, the party opposing the class must have acted or refused to act on grounds generally applicable to all class members. Second, final injunctive relief, or corresponding declaratory relief, must be appropriate regarding the class as a whole. In particular, where a claim is based on Section 16 of the Clayton Act, Plaintiffs must show "'a significant threat of injury from [a] . . . violation of the antitrust laws.'" *Warfarin*, 213 F.3d at 399 (3d Cir. 2000) (quoting *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 130 (1969)). Recently, the Supreme Court added: "The key to the (b)(2) class is the indivisible nature of the injunctive or declaratory remedy warranted – the notion that the conduct is such that it can be enjoined or declared unlawful only as to all of the class members or as to none of them. In other words, Rule 23(b)(2) applies only when a single injunction or declaratory judgment would provide relief to each member of the class." *Wal-Mart Stores, Inc. v. Dukes*, 131 S.Ct. 2541, 2557 (2011).

Plaintiffs' proposed 23(b)(2) class fails because Plaintiffs have not established that there

is any unlawful conduct by Intel as to the class as a whole. For the reasons explained above, the Court cannot afford a remedy at equity or at law for "a violation of the antitrust laws" (15 U.S.C. § 26) when, as here, there is no proof of class-wide antitrust injury. In this case, a single injunction would ***harm*** some class members, i.e., those class members who benefitted from Intel's lump-sum payments in the form of discounted computer prices. Accordingly, Plaintiffs have failed to meet their burden to show that the Court can certify a Rule 23(b)(2) injunctive relief class.

CONCLUSION

For the reasons stated above, while the testimony of Dr. Keith Leffler is found to be reliable and admissible under Rule 702 and Defendants' motion to strike that testimony will be denied, Plaintiffs' class certification motion will also be denied. By separate order, the Court will solicit a joint status report from the parties, including their proposal(s) as to how this case should proceed in light of the Court's decisions.

Additionally, the Court will terminate the referral to the special master. In doing so, the Court wishes again to express its gratitude to the special master for the enormous amount of highly valuable and beneficial work he performed on behalf of the Court over many years.

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

IN RE:	)	
	)	MDL Docket No. 05-1717-LPS
INTEL CORP. MICROPROCESSOR ANTITRUST LITIGATION	)	
	)	
PHIL PAUL, on behalf of himself and all others similarly situated,	)	
	)	
Plaintiffs,	)	
	)	
v.	)	Civil Action No. 05-485-LPS
	)	CONSOLIDATED
INTEL CORPORATION,	)	
	)	
Defendant.	)	

ORDER

At Wilmington this **31st** day of **July, 2014**, for the reasons stated in the Memorandum Opinion issued this same date,

IT IS HEREBY ORDERED that:

1. Plaintiffs' objections (D.I. 2078) to the special master's recommendation (D.I. 2073) regarding Defendants' Motion to Exclude the Testimony of Dr. Keith Leffler (D.I. 1062) are **SUSTAINED**. Defendant's Motion to Exclude the Testimony of Dr. Keith Leffler (D.I. 1062) is **DENIED**.

2. Plaintiff's objections (D.I. 2078) to the special master's recommendation (D.I. 2073) regarding Plaintiffs' Motion to Certify a Class (D.I. 753) are **OVERRULED**. The special master's report and recommendation (D.I. 2073 at 50-91) with respect to Plaintiffs' Motion to Certify a Class is **ADOPTED**. Plaintiffs' Motion to Certify a Class (D.I. 753) is **DENIED**.

3. The referral to special master Vincent J. Poppitti (D.I. 21) is **TERMINATED**.

4. The parties shall meet and confer and provide the Court with a joint status report, which shall include their proposal(s) as to how this case should proceed in light of the Court's decisions, no later than **August 15, 2014**.

5. Because the Court's Memorandum Opinion has been issued under seal, the parties shall meet and confer and provide the Court, no later than **August 5, 2014**, a proposed redacted version. The Court will subsequently issue a publicly-available version of its Memorandum Opinion.

UNITED STATES DISTRICT JUDGE