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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

UNITED STATES OF AMERICA, Plaintiff, v. AU OPTRONICS CORPORATION, et al., Defendants.	Case No. CR-09-0110 (SI) **DEFENDANT AU OPTRONICS CORPORATION'S SENTENCING MEMORANDUM PART TWO: APPLICATION OF THE SENTENCING GUIDELINES; CONDITIONAL REQUEST FOR EVIDENTIARY HEARING** Judge: Hon. Susan Illston Date: September 20, 2012 Time: 10:00 a.m. Place: Courtroom 10, 19th Floor

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I. INTRODUCTION

The calculation of a base fine under the Federal Sentencing Guidelines starts with a seemingly simple formula: "In lieu of the pecuniary loss . . . use 20 percent of the volume of affected commerce." U.S.S.G. § 2R1.1(d)(1). The PSR simply adopts the Government's position on both portions of this calculation. In this brief, we discuss important flaws in the Presentence Report's ("PSR") handling of these two critical issues.

SUMMARY OF ARGUMENT

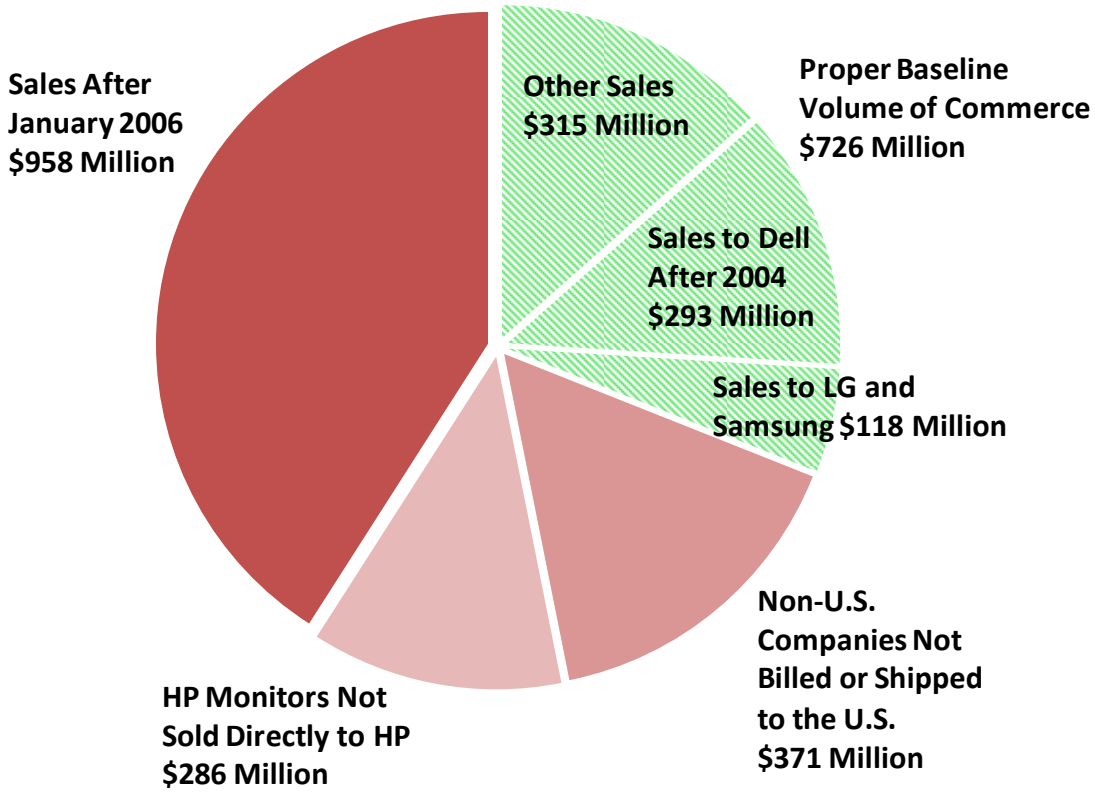
A. Baseline Volume of Commerce and Resulting Guideline Fine

The affected volume of commerce ("VOC") calculation offered by the Government and adopted by the PSR is $2.34 billion, based on calculations developed by Dr. Keith Leffler, the economist expert for the government. This calculation, which was never placed before or ratified by the jury, is triple what it should be, even as a baseline starting point, because the Government has now forsaken—indeed, apparently forgotten—both the theory on which it tried this case and the approach it took to calculating the VOC in the sentencing hearings for LG Display, Chi Mei Innolux Display, Chunghwa Picture Tubes and HannStar Display, all of whom attended the Crystal Meetings, just as defendant AU Optronics Corporation ("AUO") did. Indeed, the Government confirmed and endorsed the approach it used in the criminal matters in a November 15, 2010 letter to this Court in the related civil matters.

The pie chart below visually illustrates the impact of the Government's change of position. The total pie represents the $2.34 billion VOC proposed by the

Government. The red areas represent the respects in which the Government's VOC differs from and adds to the total VOC that would have resulted from its earlier approach. The three green shaded areas combined represent the baseline volume of commerce calculation using Dr. Leffler's data and the Government's earlier methodology, totaling $726 million when all relevant customers are included and $315 million when LG, Samsung, and post-2004 sales to Dell are excluded.

Breakdown of Government's Volume of Commerce Calculation



The Guideline fine ranges resulting from these alternative measures are summarized in the table below, which uses the 20 percent overcharge presumption[1] and applies the multiplier of 2 to 4 included in the PSR.

Estimated Fine Ranges for AUO Adjusting Dr. Leffler's Data[2]

	Baseline VOC after adjustments	VOC after eliminating LG, Samsung, and post-2004 Dell
Volume of Commerce	$726 million	$315 million
x 20% Presumption	$145 million	$63 million
x Multiplier of 2 to 4 = **Guideline fine range**	**$290 – 581 million**	**$126 - 252 million**

Dr. Leffler's analysis differs significantly from the Government's earlier methodology, and contains several additional errors.

Flaws and Inconsistencies in the DOJ's Volume of Commerce Calculations

Flaw 1: Inconsistent Methodology: In four previous Crystal Meeting sentencing proceedings, the Government used a three-part volume of affected commerce calculation: 1) sales shipped directly to the U.S.; 2) sales billed directly to the U.S.; and 3) sales to U.S. companies where the final consumer product is estimated to end up in the U.S. This approach was memorialized in a letter from the DOJ to this Court dated November 15, 2010.

[1] For simplicity, we use the 20 percent presumption for this calculation, though AUO and Professor Robert Hall, AUO's economist expert, believe this is significantly overstated, as is described later.

[2] Data in the table are calculated using Dr. Leffler's data sources. The estimated equivalent guideline fine range for AUO using Professor Robert Hall's data and the DOJ approach is $319 – 638 million based on the baseline VOC of $797 million and $145 – 290 million based on the VOC of $362 million after eliminating sales to Samsung, LG and post-2004 sales to Dell.

The DOJ now proposes to add two *additional* categories for purposes of sentencing AUO, the lone remaining Crystal Meeting attendee. One category is sales to non-U.S. companies where the sales were neither shipped nor billed to the U.S., accounting for $371 million of commerce. The second category is sales of panels by AUO to foreign system integrators, neither shipped nor billed to the U.S., which purportedly wound up entering the U.S. as HP computer monitors, accounting for another $286 million of commerce.

Flaw 2: Inconsistent Time Period: The second inconsistency between Dr. Leffler's $2.34 billion calculation and the Government's earlier approach is the time period Dr. Leffler uses. The government's entire case at trial—and Dr. Leffler's own testimony—focused on a cartel period ending January 31, 2006. It is undisputed that January 2006 was the last of the group meetings among the Crystal Meeting participants where prices were discussed. Yet now the government completely rejects this limitation and includes in its calculations the additional 10 month period from February 1, 2006 through December 1, 2006, inflating its volume of affected commerce calculation by 41%—nearly $1 billion.

Correcting both flaws results in a baseline volume of commerce of $726 million, less than 1/3 of the total proposed by the DOJ.

From this baseline calculation, further reductions must be made:

LG/Samsung Sales: AUO sales to co-conspirators LG and Samsung should not be included in the volume of affected commerce either. LG and Samsung could easily have avoided any overcharge by making the panels themselves, and the volume of sales to each is much too large for these sales to be a "cover story" for the

cartel. Subtracting sales to LG and Samsung from the baseline of $726 million results in a volume of affected commerce of $608 million.

Sales to Dell after December 31, 2004: $293 million of the baseline volume of commerce is for Dell purchases from AUO after December 31, 2004. Dell hired its own expert, Dr. Mohan Rao, to study whether Dell paid overcharges on its panel purchases. Dr. Rao's expert report in Dell's civil litigation with AUO finds *no overcharge at all* on sales to Dell after December 31, 2004. Eliminating these sales reduces the total volume of commerce from the baseline $726 million to $433 million, and combining this with the LG/Samsung reduction results in a baseline volume of commerce calculation of $315 million.[3]

B. Problems with the 20 Percent Presumption

The Guideline's 20 percent presumption also substantially overstates the overcharge and lost consumer opportunities in this case. The Guidelines presume a 10 percent overcharge and a 10 percent additional harm to consumers. In practice, overcharges from historical cartels studied by economists vary from zero to 50 percent or more—there is no "one-size-fits-all" proxy. The Guidelines state that the proxy is intended to spare the Court and the parties from the purportedly expensive and time-consuming process of calculating the alleged harm from case to case—*but that work has already been done here*. AUO's experts, using a variety of well-accepted techniques and basic economic logic, have found no measurable overcharge in AUO's sales. In addition, in the recently concluded Toshiba civil matter, the only

[3] There are further reductions below $315 million that are appropriate and are discussed in more detail in the brief, including elimination of sales where specific prices were not discussed and the incomplete passthrough of any overcharge to the final consumer.

jury to directly address the question of the precise overcharge resulting from a conspiracy involving the Crystal Meetings reached a verdict which impliedly found only a 1.8 percent overcharge—much lower than the 10 percent overcharge presumptively included in the Guidelines.

The second 10 percent of the Guideline presumption fails on simple economic logic grounds. According to the Guidelines commentary, the additional 10% represents alleged losses to consumers who supposedly would have bought the product absent the overcharge. As explained in Dr. Hall's declaration,[4] using the logic taught in every economics class, the lost consumer opportunities amount to approximately 1/20th of the overcharge.

II. THE STANDARDS GOVERNING THE GUIDELINES CALCULATION

According to the Ninth Circuit:

> The overarching statutory charge for a district court is to "impose a sentence sufficient, but not greater than necessary" to reflect the seriousness of the offense, promote respect for the law, and provide just punishment; to afford adequate deterrence; to protect the public; and to provide the defendant with needed educational or vocational training, medical care, or other correctional treatment.

United States v. Carty, 520 F.3d 984, 991 (9th Cir. 2008) (en banc).

In *Rita v. United States,* 551 U.S. 338, 351 (2007), the Supreme Court described the limitations on the role of the Sentencing Guidelines. Although a court "will normally begin by considering the presentence report and its interpretation of the Guidelines," the Court found, it may then hear arguments "that the Guidelines sentence should not apply, perhaps because (as the Guidelines themselves foresee) the case at hand falls outside the 'heartland' to which the Commission intends

[4] The final version of Dr. Robert Hall's declaration is submitted with this briefing as Exhibit A to the Declaration of Kirk Jenkins ("Jenkins Decl."). All citations refer to Dr. Hall's final declaration.

individual Guidelines to apply . . . perhaps because the Guidelines sentence itself fails to properly reflect § 3553 considerations, or perhaps because the case warrants a different sentence regardless."

A Guideline sentence is merely "the starting point and initial benchmark." *Gall v. United States,* 552 U.S. 38, 49 (2007). The court "may not presume that the Guidelines range is reasonable." *Id.* at 50; *see Rita,* 551 U.S. at 351. Rather, the court "must make an individualized assessment based on the facts presented." *Gall,* 552 U.S. at 50; *Carty,* 520 F.3d at 991.

The Government must prove any facts at sentencing to a clear and convincing standard. The Ninth Circuit has held in a series of cases that where a proposed sentencing enhancement would have an extremely disproportionate effect on the sentence, the clear and convincing standard applies. *United States v. Treadwell,* 593 F.3d 990, 1000 (9th Cir. 2010); *United States v. Pike,* 473 F.3d 1053, 1057 (9th Cir. 2007); *United States v. Staten,* 466 F.3d 708, 718 (9th Cir. 2006). Determining the proper standard requires a court to look at "the totality of the circumstances," including: (1) whether the enhanced sentence falls within the statutory maximum sentence for the crime alleged in the indictment; (2) whether the increase in sentence is based upon the extent of the conspiracy; (3) whether the increase in number of offense levels arising from the enhancement is less than or equal to four; and (4) whether the length of the enhanced sentence more than doubles the length

of the sentence authorized by the initial Guidelines range.[5] *Treadwell,* 593 F.3d at 1000.

The PSR recommends a fine against AUO of $500 million, (PSR Sentencing Recommendation, pg. 2), five times the statutory maximum sentence under the Sherman Act. Since both the PSR and the Government acknowledge that the only relevant commerce under Guideline § 2R1.1 is AUO's own sales, any sentencing enhancement is not based upon "the extent of the conspiracy." The volume of affected commerce adopted by the PSR increases AUO's base offense level by sixteen levels. (PSR, ¶ 39.) Absent the application of the volume of affected commerce standard set forth in Guideline § 2R1.1(d)(1), AUO's base offense level would be 12 (rather than 28 according to the PSR), and the applicable fine would be far less. (U.S.S.G. § 8C2.4(d).) Therefore, the totality of the circumstances supports the application of a clear and convincing standard.[6]

III. THE VOLUME OF COMMERCE PROPOSED FOR AUO IN THE PRELIMINARY SENTENCING REPORT IS GROSSLY OVERSTATED

The Sentencing Guidelines provide that, for the offense of price-fixing, the base fine for an organization is the greatest of "the pecuniary gain to the organization from the offense," or "the pecuniary loss from the offense caused by the organization, to the extent the loss was caused intentionally, knowingly, or recklessly." U.S.S.G. § 8C2.4(a). With respect to price-fixing, the Guidelines

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[5] One other factor noted by the court in *Treadwell* and other cases is inapplicable here, since the PSR points to no facts in support of enhancement of AUO's sentence which would create new offenses requiring separate punishment. *Id.*

[6] AUO adopts the arguments set forth by its co-defendants with respect to this issue as well.

provide that in lieu of pecuniary loss, "use 20 percent of the volume of affected commerce." U.S.S.G. § 2R1.1(d)(1).

The PSR finds that the "volume of affected commerce" attributable to AUO is $2.34 billion. (PSR, ¶¶ 22, 24.) The Probation Office adopted wholesale the Government's calculations, commenting that "[t]he methodology behind their calculations appear to be supported by a detailed analysis" without explaining why the Government's submission should be adopted over the detailed analysis provided by the defendants through Dr. Robert Hall. (*Id.* at ¶ 24.) The Government's calculation of "volume of affected commerce" is based on the Declaration of Dr. Keith Leffler, who also served as the Government's economist witness at trial.

Dr. Leffler's analysis of volume of commerce is erroneous for the following reasons:

- Dr. Leffler fails to use the same approach to volume of commerce utilized by the Government in every previous sentencing proceeding in connection with the Crystal Meetings and endorsed by the Government in its November 15, 2010 letter to this Court, thereby inflating his volume of commerce calculation by $657 million (*infra* at section III(A)(3));

- Dr. Leffler repeatedly testified, both in pre-trial disclosures and at trial, that overcharges ended on January 31, 2006. Indeed, he opined that AUO participated in the conspiracy during the statute of limitations period, and that the Crystal Meeting companies obtained gross gains in excess of $500 million, based in part upon his comparison of AUO's margins for six month periods before and after January 31, 2006. Nevertheless, Dr. Leffler now testifies that overcharges persisted through December 1, 2006, inflating his volume of commerce calculation by $958 million (*infra* at sections III(B)(1)-(2));

- Despite having testified at trial that the effectiveness of a target pricing conspiracy depends on the degree to which the purported target price was achieved for a particular type of panel, Dr. Leffler includes *all* panel sales between 12.1 and 30 inches listed in the Superseding Indictment in his volume of commerce, whether or not such sales occurred during a month where the size and type were the subject of price discussions at the

relevant Crystal Meeting. By doing so, Dr. Leffler inflates his volume of commerce calculation by $478 million (*infra* at sections III(C)(1)-(2)); and

- Dr. Leffler includes sales by AUO to LG and Samsung, although these companies would have no reason to knowingly pay overcharges, since they could supply their own needs through divisions or affiliates companies at competitive prices. In addition, Dr. Leffler includes sales to Dell post-2004, despite the fact that Dell's own economic expert reviewed Dell's data and concluded that it suffered no overcharges after December 31, 2004. By including such sales in his volume of commerce, Dr. Leffler inflates his volume of commerce calculation by $411 million (*infra* at section III(D)).

A. The PSR Cannot Be Reconciled With the Approach Taken to Calculating Volume of Commerce in Any of the Previous Sentencing Proceedings Connected to This Investigation and Endorsed by the Government in Its November 15, 2010 Letter to the Court

1. The Government's Approach to Calculating Volume of Commerce in Connection with Other Crystal Meeting Attendees

As the Court knows, prior to trial, the other companies which attended the Crystal Meetings pled guilty to criminal price-fixing and were sentenced to pay various fines (with the exception of Samsung, which avoided a fine entirely as part of the Government's Corporate Leniency Program). Counsel for the Government summarized the Government's approach to calculating the volume of commerce in those prior criminal sentencing proceedings in a letter to this Court, dated November 15, 2010 and written in connection with the related civil matters:

> As this Court is aware, three categories of LCD commerce were included as "affected" commerce in the calculation of the criminal fines of the pleading companies in the LCD criminal matter:
>
> 1. LCD panels directly imported into the U.S.;
>
> 2. Sales of LCD panels that were billed to or invoiced to purchasers located in the U.S.; and
>
> 3. LCD panels purchased by foreign affiliates of U.S. companies that were integrated into final products imported to the U.S.
>
> The government believes that these three categories of commerce represent harm caused to U.S. consumers by the LCD cartel.

(*See* Expert Declaration of Robert Hall, Ph.D., ("Hall Decl."), Appendix B, for a copy of this letter.)

Government counsel reaffirmed this approach to volume of commerce in the December 15, 2008 plea hearing for LG (RT December 15, 2008 33:1-34:19 (describing the three categories of commerce, and noting that it is "unclear" how Dell's sales should be accounted for), and the July 30, 2010 plea hearing for HannStar. (RT July 30, 2010 15:15-19 ("the United States uses a . . . three-category of volume of commerce determination to determine affected U.S. sales").

2. The Government's Approach to Calculating Volume of Commerce Here

a. Dr. Leffler Extends the Period of Alleged Overcharges Through December 1, 2006

Dr. Leffler describes his task as follows:

> I have been asked by the Department of Justice to calculate the total dollar sales of the AUO LCD panels named in the AUO Superseding Indictment that were incorporated into computer monitors, notebook computers, or televisions sold in the United States . . . over the period October 2001 through December 1, 2006.

(Draft Declaration of Keith Leffler re Volume of Commerce ("Leffler VoC Decl."), ¶ 2.)[7]

Implicitly recognizing that using the October 2001 – December 2006 time period contradicts not only Dr. Leffler's pre-trial disclosures, but more importantly his trial testimony (a point we will return to in detail below, *infra* at sections III(B)(1)-(2)), Dr. Leffler offers this defense of belatedly extending the effect of the conspiracy an additional ten months:

[7] Since the Government has not provided a copy of the final version of Dr. Leffler's declaration to counsel for AUO, citations in this brief are to Dr. Leffler's draft declaration. *See* Jenkins Decl., Ex. B.

> This is the period in which AUO participated in conspiratorial activity including group Crystal Meetings (through January 2006) and bilateral meetings (through November 2006). In my trial testimony, I found that the group Crystal Meetings had a substantial effect on prices. RT 3274, 3282. After those group meetings ended, the conspirators during their bilateral meetings continued to exchange the same kind of price information that they had exchanged in the group meetings. (Citation) And during this bilateral meeting period, AUO continued to rely on the price information it was receiving from its conspirators when setting its own panel prices. (Citation). Therefore, in my opinion, the conduct during this bilateral meeting time period had at least some effect on AUO's panel prices.

(Leffler VoC Decl., ¶ 2, n. 1.)

In its August 27, 2012 letter to the Probation Office in response to the tentative PSR, the Government offered this explanation of its eleventh-hour change of position:

> [W]hile Dr. Leffler's analysis at trial focused on the crystal meetings and not the one-on-one meetings, his current analysis does consider both the crystal meetings and the one-on-one meetings. This is because his task at trial was different than his task for purposes of sentencing. At trial, Dr. Leffler was answering the question of whether the gains from the entire conspiracy were at least $500 million, the figure used in the Indictment. Now, Dr. Leffler is engaged in a more precise analysis of the volume of commerce attributable to AUO from the conspiracy. In this analysis, he found it important to consider all of the conspiratorial conduct.

(Government's August 27, 2012 Letter to Probation Office, p. 3.)

Nonsense. Dr. Leffler's stated task was exactly the same before trial, on the witness stand and now: to estimate gross gain. Indeed, in his second pre-trial disclosure, Dr. Leffler repeatedly refers to the Crystal Meeting participants' alleged "volume of commerce," which included only the months with group meetings where prices were discussed, ending January 2006. (Leffler Supplemental Disclosure, p. 1.) The Government fails to acknowledge that a fundamental part of Dr. Leffler's opinion on both AUO's liability and gross gain, as will be discussed below, was a comparison between AUO's purported margins in the six months prior to January

31, 2006 and the period of March 1 – August 31, 2006: two periods which Dr. Leffler has now abruptly decided were both within the conspiracy period, even though the Government failed to offer any evidence that agreements were made during those months. (RT 3370:18-25; Leffler VoC Decl., ¶ 2.)

In early June, Deputy Assistant Attorney General Scott Hammond spoke at the Third Annual Chicago Forum on International Antitrust Issues. There, he promised to seek a "very heavy sentence" in this case, warning that the Government might seek as much as $1 billion each from AUO and AUOA.

Which – not coincidentally – is exactly what has now happened. The Government's approach to sentencing herein is the worst kind of result-oriented gamesmanship, beginning with a suggested fine designed to dissuade any other accused defendant from ever going to trial again and jury-rigging the analysis to come to the desired result, based on nothing more than the *ipse dixit* of a remarkably "compliant" expert witness.[8]

b. Dr. Leffler Excludes Direct Panel Imports and All Sales of Television Panels

Dr. Leffler begins his analysis by first excluding all panels directly delivered into the United States from his volume of commerce calculation:

[8] The Justice Department's tendency to litigate this case in the press continues. On August 31, 2012 – hours *before* the final PSRs were distributed to counsel – a story appeared in the online market publication MLex, disclosing the contents of the PSRs, and emphasizing that the Probation Office had recommended that defendants Mr. Chen and Dr. Hsiung be sentenced to the statutory maximum ten-year prison terms. PSRs are court documents, not public documents. *See United States v. Williams,* 624 F.3d 889, 894-95 (8th Cir. 2010); *United States v. Chavez-Vernaza,* 844 F.2d 1368, 1374 (9th Cir. 1987). PSRs must remain confidential unless a court order expressly provides otherwise. Local Criminal Rule 32-7(a), United States District Court for the Northern District of California.

> For my trial testimony, I calculated the direct imports of AUO Indictment panels into the United States of $154 million. See trial exhibit 776. However, because I do not know how much of these panels might be included in the final product calculations, I have not included any additional volume of commerce from such directly imported panels.[9]

(Leffler VoC Decl., ¶ 3, n. 2.)

Dr. Leffler excludes all sales of television panels from his calculations as well: "I have not found data sufficient to make a reliable estimate of those sales." (*Id.,* ¶ 3.)

c. Dr. Leffler Extrapolates AUO's Sales to Certain Large Customers to What He Views as the Entire U.S. Market

According to Dr. Leffler, his volume of commerce calculation is based on data from five large U.S.-based producers of computer monitors and notebooks: Dell, HP, Apple, Gateway and IBM. (*Id.*) First, Dr. Leffler uses data files obtained from Dell, HP and Apple to estimate the total value of panels sold by AUO which were eventually resold in the United States by a third party as part of a monitor or notebook. (*Id.* at ¶¶ 5, 15, 26.) Dr. Leffler was unable to find any AUO sales to Gateway or IBM during the relevant period,[10] so his estimate for Dell, HP and Apple

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[9] It is worth noting for purposes of assessing Dr. Leffler's credibility as an economic expert that the first sentence of this paragraph is "artfully phrased," to put it mildly. Dr. Leffler never testified on the stand that AUO shipped any particular amount of panels into the United States; on the contrary, he repeatedly denied ever having made such a calculation. (RT 3665:3-22.) AUO pointed this omission out in its post-trial motion (Dkt. No. 786 (Defendants' Joint Motion) at 21); the Government conceded the omission, but merely maintained that it made no difference. (Dkt. No. 790, (Govt. Opposition to Post-Trial Motions) at 30.) Regardless of who might have made the calculations contained in "trial exhibit 776," Dr. Leffler neglects to mention in his declaration that Exhibit 776 was never admitted into evidence at trial.

[10] In fact, AUO made modest sales to Gateway and IBM during the relevant period. These sales are included in the volume of commerce estimate provided by AUO's economic expert, Dr. Robert Hall. (Hall Decl., ¶ 43, n.25.)

became his estimated commerce for the five largest producers combined. (*Id.* at ¶29.)

According to Dr. Leffler, these five producers accounted for 62% of all PC sales to the United States during the relevant period. (*Id.* at 31.) Dr. Leffler assumed that AUO's sales to the producers accounting for the remaining 38% mirrored the data he had for Dell, HP and Apple (despite believing that he had already found two companies – Gateway and IBM – who purchased nothing from AUO). (*Id.*) Therefore, he simply scaled up his Dell/HP/Apple estimate and divided his combined Dell/HP/Apple estimate by 0.62, arriving at the $2.34 billion total adopted by the PSR. (*Id.* at ¶¶ 31-32.)

3. Dr. Leffler Does Not Use the Same Methodology Applied by the Government in the Earlier Sentencing Proceedings and Endorsed by the Government in its November 15, 2010 Letter to the Court

In reaching the $2.34 billion total, Dr. Leffler's analysis diverges from the Government's earlier approach to calculating volume of commerce in two important ways.

First, in the earlier cases, the Government excluded panel sales to non-U.S. companies that were neither billed nor shipped to the United States. Dr. Leffler ignores that limitation, scaling up his estimate for Dell, HP and Apple to the entire U.S. market. In doing so, he fails to recognize that some portion of the remaining 38% of the U.S. market is accounted for by sales to foreign companies that were not billed or shipped to the United States. (Hall Decl., ¶¶ 10, 42-43.) Dr. Robert Hall corrected Dr. Leffler's error, determining that both sales by eight U.S.-based companies and sales by numerous non-U.S. based companies that were billed or

shipped to the U.S. are included in that 38% market share, while the remaining market share is accounted for by foreign companies who would not have been included in the Government's approach to volume of commerce in the earlier sentencing proceedings. (*Id.* at ¶¶ 10, 41.) Eliminating the portion of Dr. Leffler's estimate accounted for by non-U.S. based companies' sales that were neither billed nor shipped to the U.S. reduces his estimated volume of commerce by $371 million. (*Id.,* ¶¶ 44.)

Second, because Dr. Leffler used data from customers rather than AUO's own sales data, he included $286 million which he views as sales of monitor panels to HP. (*Id.,* ¶¶ 46-47.) However, AUO's sales records reflect that AUO sold *no* monitor panels at all to HP during the relevant period. (*Id.* at ¶ 46.) The sales which Dr. Leffler relies upon were shipped and invoiced to foreign-based systems integrators, not to HP. (*Id.*) Therefore, pursuant to the approach taken by the Government in conjunction with sentencing every other Crystal Meeting attendee and endorsed in the Government's November 15, 2010 letter, these sales must be excluded, reducing Dr. Leffler's volume of commerce by a further $286 million. (*Id.,* ¶¶ 46-47.)

Dr. Hall has used the method applied by Dr. Leffler in his sentencing declaration to recalculate the volume of commerce applicable to each of the previously sentenced Crystal Meeting companies. Use of the "Leffler method" in those earlier proceedings would have greatly increased each company's volume of commerce, and therefore the Guidelines fine range. (Hall Decl., ¶¶ 75-76, Figures 3 & 4, and Tables H1 and H2.) When any consistent methodology for calculating

volume of affected commerce is used, AUO ranks in the middle of the Crystal Meeting companies. (*Id.*, ¶¶ 75-77.)

The Sentencing Guidelines provide for various accommodations to an organizational defendant who pleads guilty to price-fixing. Most prominently, such an organization's culpability score may be reduced by anywhere from one to five points. U.S.S.G. § 8C2.5(g). However, the Guidelines do *not* provide that defendants who plead guilty to such violations of Section One of the Sherman Act are entitled to their own individually tailored methodology for calculating the volume of affected commerce under § 2R1.1. Given that the Government advocated the same approach to calculating volume of commerce through at least four sentencing hearings—an approach it endorsed yet again in its November 15, 2010 letter to the Court—the Government should be required to accept that same methodology here. This adjustment reduces Dr. Leffler's proposed volume of commerce from $2.34 billion to $726 million. (Hall Decl., ¶ 48 and Table 5.)

4. Dr. Robert Hall's Additional Corrections to Dr. Leffler's Analysis

Dr. Hall also corrected two additional problems contained *both* in Dr. Leffler's calculations and in the volume of commerce methodology applied by the Government in earlier actions.

a. Dr. Leffler's Failure to Limit Affected Commerce to Panels Discussed in Crystal Meetings

Witness after witness at trial testified that the Crystal Meetings involved the setting of a "target price" for a specific size and type of panel. (RT 660:1-2, 14-17, 661:6-9, 668:20-22, 669:6-8, 10-12, 670:4-6, 676:3-5, 7-19, 678:12-20, 679:5-6, 680:5-16, 746:5-8; 809:1-3; 1339:7-1340:2; 1365:9-11; 1365:25-1366:7; 1368:3-8; 1373:20-

25; 1378:25-1379:6; 1379:21-1380:8; 1401:3-16; 1404:23-1405:7; 1405:9-12; 1406:15-20; 1407:25-1408:7; 1434:1-5; 1457:21-24; 1458:6-10; 1459:15-25; 1752:2-7; 1763:17-23; 1958:24-1959:9; 1965:21-1966:2; 1969:4-16; 1970:5-12; 3181:13-16; 3298:8-19; 3299:14-23; 3301:9-19; 3302:16-3303:13; 3303:23-3304:10; 3307:8-20; 3308:7-12; 3336:18-3337:20; 3338:2-16; 3339:22-3340:11; 3353:8-14; 3370:18-25; 3373:17-21; 4515:21-4516:23; 4517:7-4518:1; 4535:10-4536:5; 4563:7-4564:3; 4581:4-4582:3.) According to Dr. Leffler, the "effect" of such an alleged conspiracy is measured by the degree to which participants did or did not achieve the "target price." (RT 3304:16-23; 4515:21-4516:23; 4518:16-4518:9). Nevertheless, although the Government acknowledged in its opposition to AUO's post-trial motion at least some non-discussed panels "may not have been affected," (Dkt. No. 895, 59:10-12; 60:3-24), Dr. Leffler fails to recognize that Guideline 2R1.1 is limited to the "volume of *affected* commerce" by removing non-discussed panels from his calculation.

According to AUO's economic expert Dr. Hall:

> Given the focus on target prices and the variation in the number and type of products being discussed, the reasonable economic conclusion is that the cartel's overcharges would occur among the product/size/resolutions where prices were shared among rivals.

(Hall Decl., ¶ 33.)

Table 5 of Dr. Hall's declaration reflects the appropriate deductions from Dr. Leffler's volume of commerce calculation after limiting the relevant sales to the specific months and product/size/resolution where prices were discussed during Crystal Meetings. (Hall Decl., p. 22, Table 5.) This adjustment reduces the volume of affected commerce from $726 million to $248 million. (*Id.*; s*ee infra* at sections III(C)(1)-(2)).

b. Dr. Leffler's Failure to Exclude Panels Sold to LG and Samsung and Sales to Dell after January 1, 2005

Furthermore, Dr. Hall points out Dr. Leffler's failure to account for sales to the two Crystal Meeting attendees—LG and Samsung—which were, either directly or through closely affiliated companies, capable of supplying their own needs for TFT-LCD panels. (Hall Decl., ¶¶ 34-35.) Dr. Leffler suggests no reason why LG and Samsung would pay overcharges for panels purchased from AUO, and Dr. Hall concludes that no economically rational reason exists. (*Id.,* ¶ 34.)

Dr. Leffler also includes as the largest single customer in his volume of commerce calculation sales from AUO to Dell. But Dell's own retained economic expert, Dr. Mohan Rao, was able to find no overcharges in AUO's sales to Dell after January 1, 2005. (Expert Report of Mohan Rao, Ph.D., ¶¶ 110-111.)

Deducting sales to LG and Samsung reduces Dr. Leffler's baseline volume of affected commerce by $118 million. (Hall Decl., Appendix I.) Removing all sales to Dell after 2004 reduces Dr. Leffler's calculation by a further $293 million. (*Id.*) Finally, adjusting these calculations to account for "discussed" and "non-discussed" panels separately reduces the appropriate volume of affected commerce to $150 million. (*Id.*) *See infra* at sections III(C)(1)-(2) & (D).

B. The Government Is Barred From Arguing That the Volume of Affected Commerce Should Include Any Panel Sales After January 31, 2006

Although Dr. Leffler now opines that the effect of the Crystal Meetings persisted until December 1, 2006, he repeatedly took the position, both in pre-trial disclosures and at trial, that any overcharges ended ten months earlier, on January 31, 2006. His use of January 2006 as the cut-off date for comparing AUO's pricing and other economic data *during* the alleged conspiracy with the same data *after* the

alleged conspiracy was critical to his trial testimony. Having used the January 2006 end-date to convict AUO, neither the Government nor Dr. Leffler should be permitted to pick a December 2006 end-date now in order to inflate the potential fine.

1. Dr. Leffler's Pre-Trial Disclosures

Prior to Dr. Leffler's testimony at trial, the DOJ submitted three disclosures, each of which stated Dr. Leffler's opinions about the end of the cartel's overcharges.

a. First disclosure

The first disclosure was dated September 13, 2011.[11] In this disclosure, Dr. Leffler distinguished between meetings where prices were discussed (Price Meetings), which ended in January 2006, and meetings where prices were not discussed (Conspiracy Meetings), which ended in June 2006. He used the period after June 2006 as a control period for his regression and other analyses. Statements from this disclosure include:

- I refer to these as Conspiracy Meetings. These include the meetings in September and October 2002, the meeting of November 2004, and the meeting in February 2005. In addition, specific price discussions are longer contained in the meetings notes after January 2006.[12]
- These Conspiracy Meetings periods are September – October 2002, November 2004, February 2005, and February through June 2006.[13]
- The Crystal Meetings continued through at least June 2006. However, in late January 2006, Samsung approached the Department of Justice seeking acceptance in the Antitrust Division's Amnesty Program, and in April 2006, Samsung formalized an agreement with the Department in

[11] Notice of Expert Witness Testimony and Summary of Testimony under Rule 16(A)(1)(G), September 13, 2011 ("Leffler Disclosure")

[12] Leffler Disclosure, ¶25.

[13] Leffler Disclosure, ¶36.

> which it agreed to terminate its participation in conspiracy. In July of 2006, LG also self reported to the Department of Justice the existence of the price fixing conspiracy and its participation. It is also of significance that the percentage of panels subject to price discussions had fallen significantly by the end of the Price Meetings period (January 2006).[14]

b. Second disclosure

The second disclosure, dated January 9, 2012,[15] estimated the U.S. "volume of commerce" – Dr. Leffler's words – for the six companies participating in the Crystal Meetings. (Leffler Supplemental Disclosure at 1.) Dr. Leffler adopted a slightly different naming convention in this disclosure. He still noted that meetings occurred through June 2006, but only calculated volume of commerce for the "relevant period" during this period, which he defined as being the 48 months (ending in January 2006) where prices were discussed, as in his initial disclosure. He described his calculation as follows:

> From the transactional invoice data bases of the Crystal Meeting Participants, I calculate that the total worldwide sales of 12 to 30 inch LCD panels during the relevant periods of October 2001 through June 2006 were $71.8 billion.[16]

A prior footnote clarifies his use of the term "relevant periods": "By 'relevant periods,' I mean those 48 months in which in my initial disclosure I concluded that LCD prices were discussed."[17]

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[14] Leffler Disclosure, ¶37.

[15] United States' Supplemental Expert Disclosure Statement of Dr. Keith Leffler, January 9, 2012 ("Leffler Supplemental Disclosure").

[16] Leffler Supplemental Disclosure, ¶4.

[17] Leffler Supplemental Disclosure, Footnote 1.

c. Third disclosure

The DOJ's third disclosure stating Dr. Leffler's opinions, dated January 29, 2012,[18] again described "price discussion Crystal Meetings" ending in January 2006 and calculated cartel margins for the 6 and 12 month periods leading up to January 2006. For his post-cartel comparisons, Dr. Leffler used a number of alternative dates and time periods, starting as early as February 2006 and ending as late as November 2007. He described his time periods as follows:

> I have also analyzed the average margins earned per panel by the Crystal Meeting Participants at the end of price discussion Crystal Meetings and those earned after the meetings ended. I find the average margins per panel were substantially higher during the price discussion Crystal Meetings period than after the Meetings ended.[19]

The footnote to the first sentence is:

> The margins are defined for 12.1 to 30 inch panels. The margins are adjusted to changes in panel sizes. I have compared both six months and one year before the end of the price discussion meetings in January 2006 and six months and one year from alternative end dates of January, June and November 2006.

And the footnote to the second sentence is:

> The margins fell by, alternatively, $39 (7/06-12/06 re 8/05-1/06), $37 (12/06-5/07 re 8/05-1/06), $33 (12/06-5/07 re 8/05-1/06), $31 (7/06-6/07 re 2/05-1/06), $17 (12/06-11/07 re 2/05-1/06), and $31 (2/06-1/07 re 2/05-1/06).

2. Dr. Leffler's Trial Testimony

Dr. Leffler testified twice at trial, near the end of the DOJ's case on direct on February 9th and 13th, 2012, and on rebuttal after all other witnesses on February 23, 2012. In his direct testimony and cross examination, Dr. Leffler testified about four analyses that used an identified cartel ending date.

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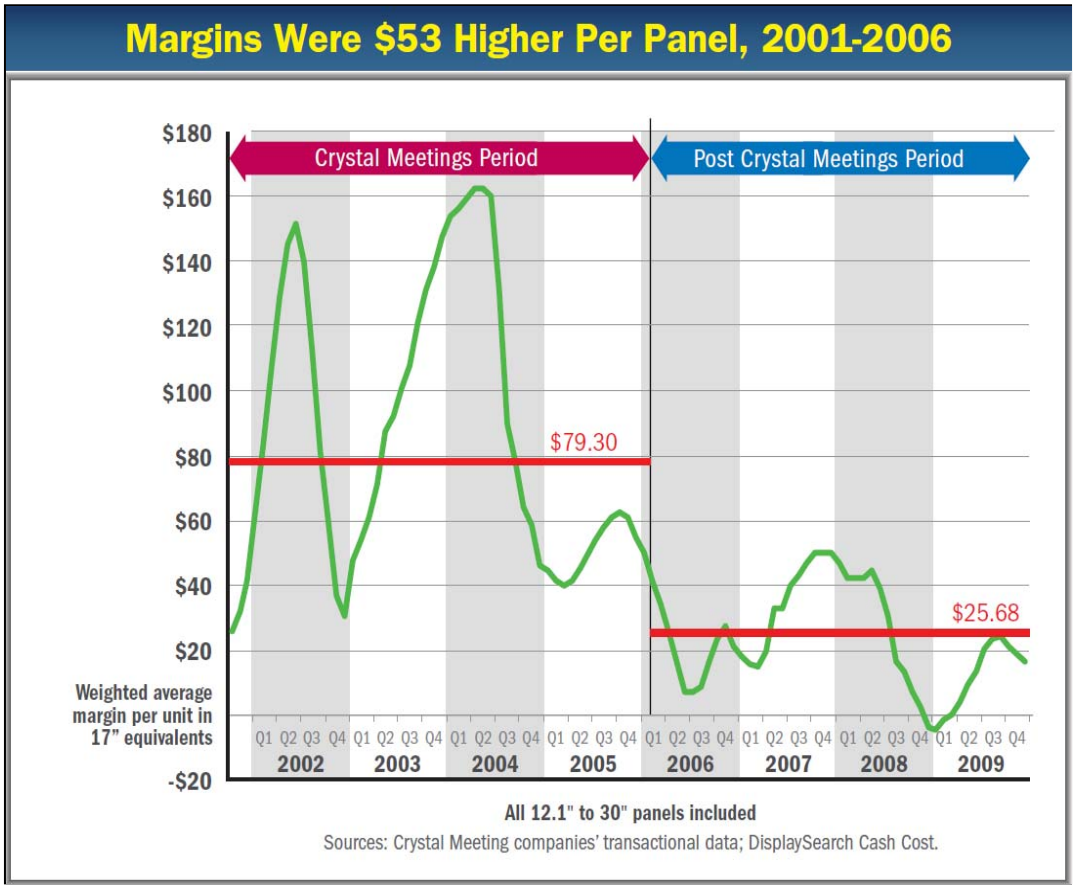
[18] United States' Second Supplemental Expert Disclosure Statement of Dr. Keith Leffler, January 29, 2012 ("Leffler Second Supplemental Disclosure").

[19] Leffler Second Supplemental Disclosure, ¶4.

a. First analysis

Figure 1 is a demonstrative exhibit Dr. Leffler used in his testimony regarding a cartel overcharge. He compared the period through January 2006 (his "Crystal Meeting Period") to the period thereafter and calculated a $53 per panel difference in margins. Economists often use a benchmark analysis in calculating antitrust damages, comparing one period with anticompetitive conduct to a baseline or yardstick period without that conduct. In this exhibit, Dr. Leffler was clearly taking the position that the period free of the effect of the cartel began in February 2006.

Figure 1: Dr. Leffler's Trial Demonstrative on 17 inch Panels, Dollar Margin per Panel



In connection with this demonstrative, he testified (emphasis added):

> Q. What short period of time or what short periods of time did you examine?
>
> A. There are two ideal time periods to look at here. Because, we have a date at which we first expect -- if there's an effect, we first expect the effects of Crystal Meetings. And that's October, 2001. That's the first month for which there were target prices. So, it's kind of like an off/on switch for analysis. Then we have a second date. The second date is **January, '06**. The last time at which there were any target prices set was January, 06. That's like an **off switch**.[20]

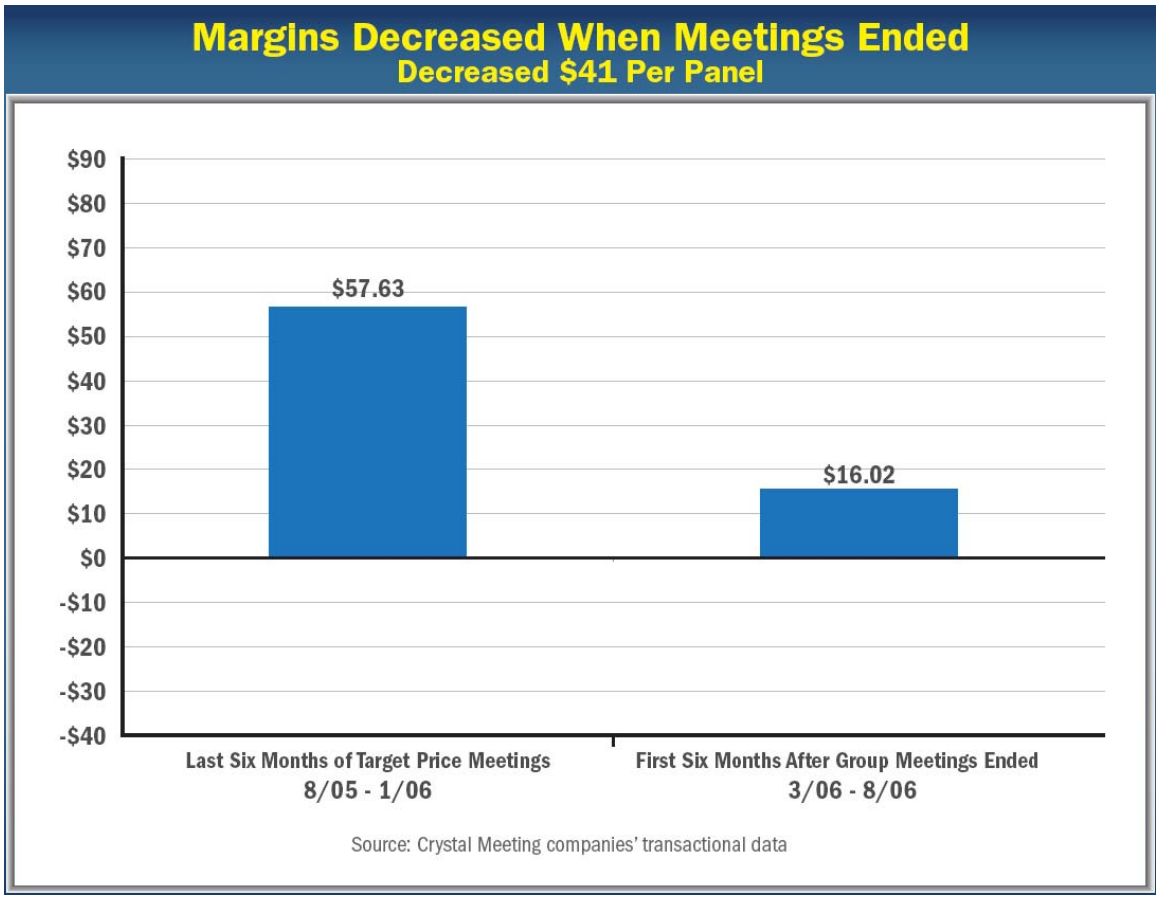
b. Second analysis

Figure 2 is another of Dr. Leffler's margin analyses, analyzing the six-month period from August 2005 through January 2006 and comparing this to the six-month period after the meetings ended, March 2006 through August 2006. He testified:

> Q. The last type of margin analysis you conducted. It states: "Margins decreased $41 per panel when meetings ended." Does this refer to your analysis of this time period, the so-called light-switch-off time period?
>
> A. Yes. As I said, the last target price at a Crystal Meeting was in January of 2006. And the industry changed. The Crystal Meetings basically ended, and target pricing ended.[21]

[20] Trial Testimony of Dr. Keith Leffler, 3363:4-14; 3370:18-3372:15.
[21] Trial Testimony of Dr. Keith Leffler, 3370:18-25.

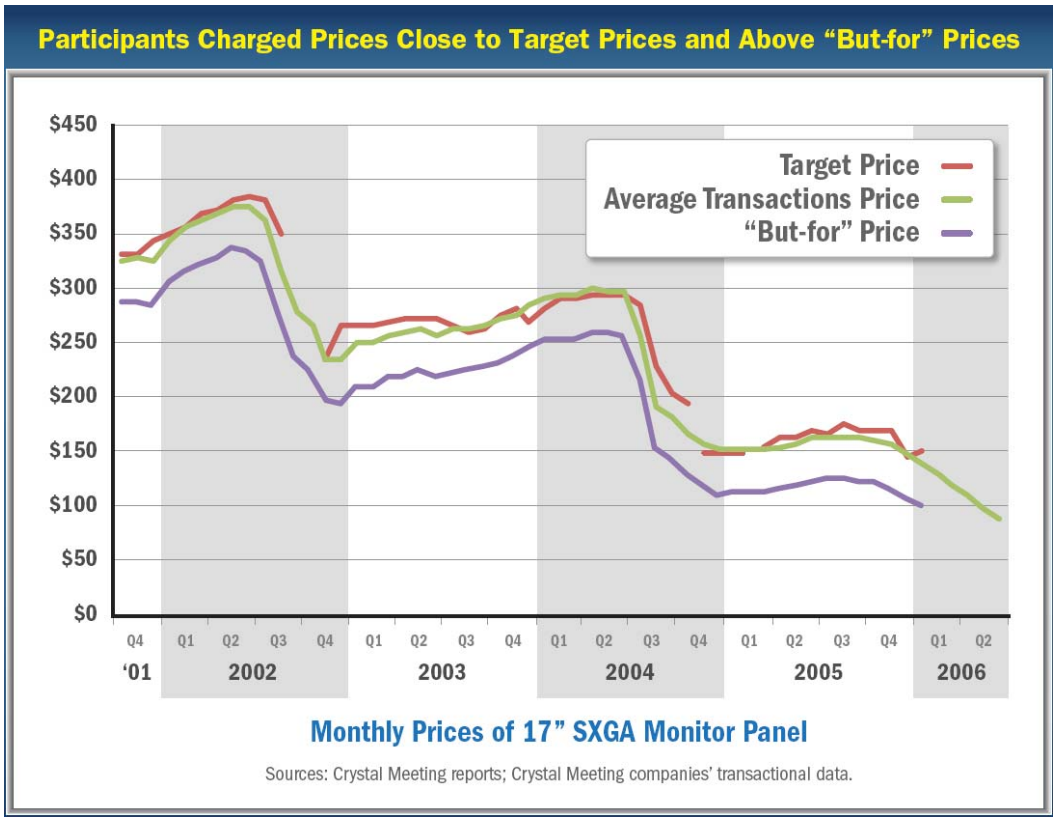
Figure 2: Dr. Leffler's Trial Demonstrative Comparing Margins per Panel during Six Month Periods



c. Third analysis

Dr. Leffler testified about the actual prices and illustrative prices "but-for" the cartel overcharge. Figure 3 shows Dr. Leffler's trial demonstrative exhibit that included no target prices or but-for prices after January 2006.

Figure 3: Dr. Leffler's Trial Demonstrative on Actual and But-for Prices



d. Fourth analysis

Dr. Leffler testified about a calculation of U.S. commerce associated with the six Crystal Meeting participants. He did not testify about any U.S. volume of commerce specific to AUO. Figure 4 is his demonstrative exhibit with a total of $71.8 billion in U.S. commerce for all six companies. This amount is the same total volume calculated and presented in the second disclosure summarizing his opinions, which used the months where prices were discussed, ending in January 2006.

Figure 4: Dr. Leffler's Trial Demonstrative on U.S. Commerce for the Six Crystal Meeting Participants

His estimate of $71.8 billion was based on the sales data from the six companies for the months where prices were discussed, ending in January 2006 (emphasis added; *sic* in original):

> So the first step that I did in that analysis was to say, "Well, let's start at the worldwide level. Let's just see the value of all of the panels produced by the six Crystal Meeting participants over the period of the Crystal Meetings." -- by which I mean October 2001 through **January 2006**. And that is 78.8 [sic].
>
> THE COURT: What was the number, sir?
>
> THE WITNESS: 71.8 billion. I think I transposed.
>
> THE COURT: Thank you.[22]

[22] Trial Testimony of Dr. Keith Leffler, 3313:2-13.

3. The Jury Made No Determination of When the Conspiracy Ended

The Government may attempt to justify its eleventh-hour change in its position by arguing that the jury verdict necessarily means that the conspiracy persisted until December 1, 2006, since that is what the Superseding Indictment alleges.

First, any such argument is beside the point. Neither the Government nor Dr. Leffler says in their sentencing submissions that they "accept the verdict" even though they believe the effect of the Crystal Meetings ended ten months earlier. Instead, the Government and Dr. Leffler pretend that the last year never happened, failing to even acknowledge the substance of Dr. Leffler's pre-trial disclosures and trial testimony.

Second, it is simply not true that a criminal conviction for participating in a Sherman Act conspiracy establishes as a matter of law all of the facts alleged in the Indictment.

In *Emich Motors Corp. v. General Motors Corp.* 340 U.S. 558 (1951), the corporate defendants had been criminally convicted of participating in a conspiracy in restraint of trade. In the civil case which followed, the plaintiff argued that the verdict estopped the defendant from challenging liability. The Supreme Court made it clear that a criminal antitrust conviction does *not* establish all of the facts alleged in the Indictment:

> A general verdict of the jury . . . without special findings does not indicate which of the means charged in the indictment were found to have been used in effectuating the conspiracy. And since all of the acts charged need not be proved for conviction, *United States v. Socony-Vacuum Oil Co.,* 310 U.S. 150, 250 (1940), such a verdict does not

> establish that defendants used all of the means charged or any particular one.

Emich, 340 U.S. at 569; *Twentieth Century Fox Film Corp. v. Goldwyn*, 328 F.2d 190, 225-26 (9th Cir. 1964).

Indeed, the jury was specifically instructed that it did *not* have to determine that the conspiracy continued through December 1, 2006 in order to convict:

> The indictment charges that the alleged conspiracy began on or about September 14, 2001 and continued until on or about December 1, 2006. The government need not prove that the conspiracy existed on those exact dates or that the conspiracy continued for the entire period charged in the indictment. It is sufficient if the government proves beyond a reasonable doubt that the conspiracy existed during or reasonably near the time period alleged in the indictment, and that the defendant joined the conspiracy some time during the period alleged in the indictment and continued to be a member to a time within the period of the statute of limitations, which, for purposes of this case, is the period from June 9, 2005 through June 9, 2010.

(Dkt. No. 829, p. 13.)

4. The Government Is Judicially Estopped From Arguing That Overcharges Persisted After January 31, 2006

Having successfully argued that AUO's market performance from March 1-August 31, 2006 (after discussion of "target" prices ended) was probative of its liability and alleged gain, the Government is now judicially estopped from taking an inconsistent position.

"[W]here a party assumes a certain position in a legal proceeding, and succeeds in maintaining that position, he may not thereafter, simply because his interests have changed, assume a contrary position." *New Hampshire v. Maine,* 532 U.S. 742, 749 (2001); *Davis v. Wakelee,* 156 U.S. 680, 689 (1895). This rule "generally prevents a party from prevailing in one phase of a case on an argument and then relying on a contradictory argument to prevail in another phase." *New Hampshire,* 532 U.S. at 749; *Pegram v. Herdrich,* 530 U.S. 211, 227, n. 8 (2000).

The doctrine is intended to "protect against a litigant playing 'fast and loose with the courts.'" *Russell v. Rolfs,* 893 F.2d 1033, 1037 (9th Cir. 1990) (applying judicial estoppel against state in habeas proceeding); *Rockwell Intl. Corp. v. Hanford Atomic Metal Trades Council,* 851 F.2d 1208, 1210 (9th Cir. 1988).

Three factors inform the decision of whether to apply judicial estoppel in a particular case: (1) whether the party's new position is "clearly inconsistent" with its earlier position, *New Hampshire,* 532 U.S. at 750, *United States v. Ibrahim,* 522 F.3d 1003, 1009 (9th Cir. 2008); (2) whether the party's first position was accepted, creating "the perception that either the first or the second court was misled," *New Hampshire,* 532 U.S. at 750, *Ibrahim,* 522 F.3d at 1009; and (3) whether the party seeking to assert an inconsistent position would derive an unfair advantage of impose an unfair detriment on the opposing party if not estopped. *New Hampshire,* 532 U.S. at 751; *Davis,* 156 U.S. at 689; *Ibrahim,* 522 F.3d at 1009. In addition, the doctrine does not apply where the party's previous position was based on inadvertence or mistake. *Id.*; *Helfand v. Gerson,* 105 F.3d 530, 536 (9th Cir. 1997); *see United States v. Liquidators of European Federal Credit Bank,* 630 F.3d 1139, 1149 (9th Cir. 2011) (judicial estoppel against government in civil case).[23]

[23] Nothing in *Heckler v. Community Health Servs. of Crawford County, Inc.,* 467 U.S. 51, 60 (1984) is to the contrary. AUO is not arguing that judicial estoppel bars the Government from enforcing the Sherman Act *at all*; rather, AUO argues that estoppel bars the Government from changing its position at the sentencing hearing merely to extract a far more draconian penalty than would otherwise be permissible. Nevertheless, the Government's repudiation of its own trial theory is so outrageous that the *Heckler* standard—that the public interest in enforcing the law is outweighed by the "countervailing interest of citizens in some minimum standard of decency, honor and reliability in their dealings with their Government"—is emphatically satisfied here. *Heckler,* 467 U.S. at 60-61.

a. The Government's New Position is "Clearly Inconsistent" With Its Theory at Trial

At trial, the Government argued that AUO's market performance after January 31, 2006 was probative of its exit from the conspiracy. (RT 3356:16-3361:5; 3363:4-18; 3370:18-3372:15; 3373:22-3374:10; 3472:15-3473:1; 4559:19-4560:6; 4585:19-4586:13.) Now, the Government argues that the Crystal Meetings continued to create overcharges from January 31 through December 1, 2006. The Government's positions are "clearly inconsistent."

b. The Government's Position Misled the Jury

As noted above, Dr. Leffler testified that he was persuaded that the alleged conspiracy existed and resulted in more than $500 million in gross gains in part by comparing AUO's margins in the six months before January 31, 2006 and the six months between March 1, 2006 and August 31, 2006. The jury was instructed that it had to find that AUO was a member of the conspiracy after June 9, 2005 in order to convict. (Dkt. No. 829, pp. 13-14.) Since Dr. Leffler's margin analysis was the principal evidence upon which the jury likely based its finding of participation within the statute of limitations or its determination of gross gains, the Government's earlier position misled the jury into convicting AUO.

c. The Government Would Derive an Unfair Advantage, and AUO Would Be Severely Prejudiced, if the Government is Not Estopped

Including sales from February 1, 2006 through December 1, 2006 increases Dr. Leffler's volume of commerce by $958 million – 41% of Dr. Leffler's total claimed volume of commerce. (Hall Decl., ¶¶ 9, 40.) The Government would indisputably derive an unfair advantage, and AUO and the other defendants would be severely

prejudiced, if the Government is not estopped from arguing that overcharges persisted after January 31, 2006.

d. There is No Evidence That the Government's Abrupt Change of Position is the Result of Inadvertence or Mistake

There is no evidence whatsoever that the Government's position about the end of the alleged overcharges—consistently maintained through three pre-trial disclosures and Dr. Leffler's two trips to the witness stand—was the result of inadvertence or mistake.

Each of the factors relevant to judicial estoppel is satisfied. The Government is therefore judicially estopped from arguing that the volume of commerce continues past January 31, 2006.

5. The Sixth Amendment and Due Process Bar the Government from Arguing That Overcharges Persisted After January 31, 2006

"Any fact (other than a prior conviction) which is necessary to support a sentence exceeding the maximum authorized by the facts established by a plea of guilty or a jury verdict must be admitted by the defendant or proved to a jury beyond a reasonable doubt." *United States v. Booker,* 543 U.S. 220, 244 (2005). Although *Booker* still permits courts to find facts during a sentencing proceeding, *United States v. Brika,* 487 F.3d 450, 459 & n.3 (6th Cir. 2007), it necessarily strips the *Booker* trial standard of any meaning to permit courts to find facts during the sentencing hearing—here, that the effect of the alleged conspiracy continued until December 1, 2006—which squarely contradict facts upon which the jury likely based its verdict—Dr. Leffler's claim that AUO's margins sharply decreased in the spring and summer of 2006.

For similar reasons, allowing the Government to argue that the volume of affected commerce should include sales occurring after February 1, 2006 would violate the due process rights of AUO, AUOA and the individual defendants, Mr. Chen and Dr. Hsiung.[24] The central evidence the jury heard that AUO participated in the alleged conspiracy or obtained gross gain after June 9, 2005—an essential prerequisite for the jury's verdict, (Dkt. No. 829, pp. 13-14)—was Dr. Leffler's testimony about AUO's margins before and after January 31, 2006. (RT 3356:16-3361:5; 3363:4-18; 3370:18-3372:15; 3373:22-3374:10; 3472:15-3473:1; 4559:19-4560:6; 4585:19-4586:13.) Due process requires that the Court accept for purposes of sentencing that the conspiracy ended on that date. *United States v. Bertling,* 611 F.3d 477, 481-82 (8th Cir. 2010); *United States v. Curry,* 461 F.3d 452, 461 (4th Cir. 2006); *see Dunn v. United States,* 442 U.S. 100, 107 (1979) (due process forbids affirmance of criminal conviction based on a different theory than the one found in the indictment and presented to the jury); *Cole v. Arkansas,* 333 U.S. 196, 201 (1948) ("[i]t is as much a violation of due process to send an accused to prison following conviction of a charge on which he was never tried as it would be to convict him upon a charge that was never made"); *United States v. Higgs,* 353 F.3d 281, 326 (4th Cir. 2003); *see also Thompson v. Calderon,* 120 F.3d 1045, 1058 (9th Cir. 1997) (en banc), *rev'd on other grounds,* 523 U.S. 538 (1998) (due process forbids prosecution from presenting factually irreconcilable theories in multiple trials for same crime); *Smith v. Groose,* 205 F.3d 1045, 1051 (8th Cir. 2000) (same).

[24] Both Mr. Chen and Dr. Hsiung had attended their final Crystal Meetings years earlier.

6. The Government Has Failed to Carry Its Burden of Proof With Respect to Including Panel Sales After February 1, 2006 in the Volume of Affected Commerce

Even if the Government were not judicially estopped from relying upon sales between February 1 and December 1, 2006 in its calculated volume of affected commerce, such sales should still be excluded because the Government has failed to carry its burden of proof that any such sales should be included.

Dr. Leffler gives this conclusory explanation of his view that bilateral information exchanges after February 1, 2006 were affected by the alleged conspiracy:

> After those group meetings ended, the conspirators during their bilateral meetings continued to exchange the same kind of price information they had exchanged in the group meetings. And during this bilateral meeting time period, AUO continued to rely on the price information it was receiving from its conspirators when setting its own panel prices. Therefore, in my opinion, the conduct during this bilateral meeting time period had at least some effect on AUO's panel prices.

(Leffler VoC Decl., ¶ 2, n. 1.)

Dr. Leffler's "explanation" is insufficient for several reasons.

The only person to attend these bilateral meetings called to testify at trial was Milton Kuan. Milton Kuan testified that the bilateral meetings were merely for the parties to exchange competitive information. (RT 3738:23-3739:4; 3887:13-15; 3946:10-16.) He offered no testimony that any price-fixing agreements had been reached; instead, Kuan testified that the industry had always been competitive (RT 3914:17-22), and that he did not have pricing authority. (RT 3821:9-13; 3866:10-13.)

The jury was instructed both during trial and at the conclusion of the evidence that exchanges of competitive information were not unlawful:

> It is not unlawful for a person to obtain information about a competitor's prices or even to exchange information about prices unless done pursuant to an agreement or mutual understanding between two or more persons to fix prices as charged in the indictment.

(Dkt. No. 829, p. 9.)

Even if that were not so, Dr. Leffler makes no effort to reconcile his odd passing remark that the bilateral meetings had "some effect" with the Government's theory at trial. Dr. Leffler insisted on the witness stand that the Crystal Meetings were a target pricing conspiracy. But he points to no evidence that a "target price" was ever set after February 1, 2006; in fact, he denied on the stand that any further target prices were set after that date. (RT 3362:4-14.) Nor does he make any attempt to explain how bilateral exchanges of competitive information could possibly serve as a target pricing conspiracy.

Finally, as discussed throughout trial, in order for conduct in foreign commerce to possibly violate the Sherman Act as amended by the Foreign Trade Antitrust Improvement Act, the necessary effect on commerce is a "direct, substantial and reasonably foreseeable" one. (Dkt. No. 829, pp. 10-11.) Dr. Leffler's half-hearted claim of "at least some effect" is woefully inadequate.

Any inclusion of panel sales after February 1, 2006 in the volume of affected commerce is barred by judicial estoppel and due process. Further, the Government has failed to carry its burden of proof to support including any such sales in the Guidelines calculation.

C. The Volume of Affected Commerce Must Be Limited to Panel Sales for Which a Price Discussion Was Had at the Applicable Crystal Meeting

1. The Courts Recognize That Sales Which Were Not Affected by a Conspiracy Should Not Be Included in the Volume of Commerce

The Government argued throughout trial that the Crystal Meetings were a target pricing conspiracy. (*Supra* at section III(A)(4)(a), and record citations there.) According to Dr. Leffler, the effectiveness of a target pricing conspiracy from one month to the next depends on the degree to which the attendees succeed in obtaining the target price for a particular panel. (RT 3304:16-23; 4515:21-4516:23; 4518:16-4518:9). Nevertheless, Dr. Leffler includes *all* panels sales between 12.1 and 30 inches mentioned in the Superseding Indictment—whether discussed at the relevant Crystal Meeting or not—in his "volume of affected commerce." Leffler VoC Decl., ¶ 2.

Four Circuits have construed the phrase "volume of affected commerce" for purposes of Guideline 2R1.1. Although the standards adopted by the Circuits are not identical, the Government's all-inclusive approach is wrong under every one of the Circuits' approaches.

United States v. Hayter Oil Co., Inc. of Greeneville, Tennessee, 51 F.3d 1265 (6th Cir. 1995) involved criminal allegations of fixing gasoline prices in the Greeneville, Tennessee area through the setting of target prices. After conviction and sentencing, the Government appealed the defendant's sentence, challenging the district court's interpretation of "volume of affected commerce" for purposes of Guideline 2R1.1.

The Sixth Circuit held that all sales that were "the direct object" of the price-fixing agreement should be included in the volume of commerce. *Id.* at 1273. "The

district court would be required to determine the sales of the *specific type of goods that were price-fixed made by the defendant* or his principal during the period of the conspiracy" in order to compute the volume of commerce, the Court found. *Id.* at 1276 (emphasis added).

United States v. SKW Metals & Alloys, Inc., 195 F.3d 83 (2nd Cir. 1999) involved a criminal conviction for conspiring to fix the price of ferrosilicon. The Government appealed the defendant's sentence, arguing that the district court erred by including only sales made at or above the target prices in the volume of commerce. *Id.* at 89. On appeal, the Government argued that *all* sales during the period of the conspiracy should be included in the volume of commerce, whether the price was at, above, or below the target price. *Id.* at 90.

The Court disagreed:

> [A] conspirator profits from an agreement to fix prices when the conspiracy is incrementally successful at impacting the terms of trade or at elevating the price above the putative market price, regardless of whether the target price is achieved . . . By the same token, a price-fixing conspiracy that fails to influence market transactions notwithstanding overt acts sufficient to support criminal responsibility has affected no sales within the meaning of the Guidelines . . . If the conspiracy was a non-starter, or if during the course of the conspiracy there were intervals when the illegal agreement was ineffectual and had no effect or influence on prices, then sales in those intervals are not 'affected by' the illegal agreement, and should be excluded from the volume of commerce calculation . . . Presumably, 'general deterrence' can be adequately served without sentencing on the basis of a tenuous presumption that commerce is affected by all sales within the period set forth in the indictment regardless of what effects, if any, the conspiracy may have had.

(*Id.* at 91-92.)

United States v. Andreas, 216 F.3d 645 (7th Cir. 2000) involved the criminal conviction of two corporate officers in connection with a conspiracy to fix the worldwide price of lysine. There, the Court rejected the broad reading of Section

2R1.1(d)(1) adopted by the Sixth Circuit in *Hayter Oil*: "Recognizing that many companies have multiple product lines that compete in separate markets, [Section 2R1.1(d)(1)] may simply instruct the court to count only the commerce in the product line that was the subject of the illegal agreement." *Id.* at 677. The purpose of the Guideline, the Court pointed out, was "to gauge the harm inflicted by the illegal agreement." *Id.* "Theoretically, sales that were entirely unaffected did not harm consumers and therefore should not be counted for sentencing because they would not reflect the scale or scope of the offense." *Id.* at 678. "It is conceivable," the Court found, that "sales made before new price schedules are issued or new quotes given to potential customers may be wholly unaffected" by a price-fixing agreement, "or that some subsequent sales might be sold at the actual market price." *Id.* "[T]hese odd sales completely unaffected by the conspiracy should not be counted for sentencing purposes." *Id.*

United States v. Giordano, 261 F.3d 1134 (11th Cir. 2001) involved allegations of price-fixing in the market for scrap metal. The Eleventh Circuit recognized that even among products as to which defendants attempted to fix prices, not all sales are necessarily included in the volume of affected commerce:

> It is enough for the district court to determine the periods during which the conspiracy was effective. Once the conspiracy is found to have been effective during a certain period, there arises a rebuttable presumption that all sales during that period were 'affected by' the conspiracy[25] . . . The defendant may rebut that presumption by offering evidence that certain sales, even though made during a period when

[25] AUO does not agree that any rebuttable presumption is permissible with respect to volume of affected commerce. Application of such a presumption without first requiring the Government to prove any foundational fact, such as that panel sales were of a type, size and resolution discussed in the relevant Crystal Meeting, would impermissibly shift the Government's burden to prove sentencing facts to a clear and convincing standard to the defendants.

> the conspiracy was effective, were not affected by the conspiracy . . . [T]he Government must "prove that the prices charged were 'affected by' the conspiracy" . . . To prove that prices were "affected by" the conspiracy, the Government must show that the conspiracy was effective to some extent (i.e. was not a non-starter and was not completely ineffective for periods of time).

Id. at 1146 & n. 15.

Regardless of the standard this Court adopts, panel sales of a size, type and resolution not discussed in the relevant Crystal Meeting are not properly included in the volume of affected commerce. If the Crystal Meetings were a target pricing conspiracy, then it necessarily follows that TFT-LCD panels of a size, type and resolution not discussed in the relevant meeting were not "the specific type of goods that were price-fixed." *Hayter Oil,* 51 F.3d at 1276. The standards adopted by Second, Seventh and Eleventh Circuits would sweep even more broadly, excluding not just non-discussed panels, but even some discussed panels. The Government's proposed volume of affected commerce is grossly overstated.

2. The Government Has Not Proven That the Alleged Conspiracy Affected the Sales of Non-Discussed Panels

Nor can the Government prove that all panel sales were affected by the alleged cartel as a factual matter.

At the monthly Crystal Meetings, only a small fraction of the LCD products manufactured by the attendees were discussed. (Hall Decl., ¶ 31.) In some months for which records of the Crystal Meetings are available, none of AUO's products were discussed; in others, more than a dozen different AUO panel types and sizes were discussed. (*Id.*)

Dr. Leffler has offered no explanation of why discussions of certain types and sizes of panels would necessarily affect the prices of other, non-discussed panels. If

anything, maintaining supracompetitive pricing in one type of product would necessitate the idling of productive capacity, and prices of other products should drift down, at least for a time, as idled capacity is shifted to manufacturing such products.

Economists have studied many target-price cartels and agree that such cartels require significant data and monitoring, particularly where—as is the case with TFT-LCDs-- the participants produce a variety of different products. (Hall Decl., ¶ 32 *citing* Harrington, Joseph E. (2006) "How Do Cartels Operate?" *Foundations and Trends in Microeconomics,* Vol. 2, No. 1, p. 9.) Economists recognize that it is particularly difficult to sustain an overcharge of any size in target-pricing cartels, as opposed to those where production quotas or fixed market shares are employed. (Hall Decl., ¶ 55.) For example, scholars have recognized that the lysine cartel, which ultimately resulted in the *Andreas* case cited above, was largely ineffective during the period in which the members of the cartel agreed solely to target prices, without setting quantity allocations or providing for formal and coordinated monitoring. (*Id.* at ¶ 56; citing De Roos, Nicolas (2006) "Examining Models of Collusion: The Market for Lysine," *International Journal of Industrial Organization,* Vol. 24, p. 1087; Sannikov, Yuliy and Andrzj Skrzypacz (December 2007) "Impossibility of Collusion under Imperfect Monitoring with Flexible Production," *The American Economic Review,* Vol. 97, No. 5, p. 1795.) The Government has produced no evidence to suggest that the Crystal Meeting companies somehow surmounted that barrier and successfully imposed overcharges

not merely on the panels for which target prices were discussed, but on panels which were *not* discussed.

D. The Government Has Failed to Carry Its Burden of Proof With Respect to Including Sales to LG and Samsung, or Panel Sales to Dell After January 1, 2005 in the Volume of Affected Commerce

Nor can the Government carry its burden of proof to demonstrate that AUO's sales to LG and Samsung, or AUO's panel sales to Dell on and after January 1, 2005, may properly be included in the volume of affected commerce.

At all times, LG and Samsung were, either directly or through closely affiliated companies, capable of supplying their own needs for TFT-LCD panels. (Hall Decl., ¶¶ 34-35.) The Government has offered no explanation of why either LG or Samsung would have paid overcharges for panels purchased from AUO. If AUO had attempted to impose overcharges on LG or Samsung, those companies would simply have supplied their own needs at competitive prices. (*Id.*) Although expanding their own manufacturing capability in order to increase internal purchases might take time, the threat of doing so would force down any supracompetitive price AUO attempted to charge LG or Samsung. (*Id.*) Nor could LG and Samsung's agreement to pay the same, purportedly supracompetitive prices be seen as a "cover story" to conceal the existence of supracompetitive pricing, since LG and Samsung supplying their own needs would have been equally effective, and more in LG and Samsung's economic self-interest. (*Id.* at ¶ 36.)

According to his Declaration, Dr. Leffler included sales by AUO to Dell from 2004 through December 1, 2006 in calculating his estimated $2.34 billion volume of affected commerce. (Leffler VoC Decl., ¶¶ 5-14.) However, Dell's own economic

expert in the related civil actions was unable to find *any* persistent overcharges in AUO's sales to Dell after January 1, 2005. (Expert Report of Mohan Rao, Ph.D., ¶¶ 110-111.) Dr. Leffler makes no effort to determine whether any such Dell sales included an overcharge, and therefore might arguably belong in the volume of affected commerce. According to Dr. Hall, removing the LG and Samsung sales reduces Dr. Leffler's baseline volume of affected commerce from $726 to $608; removing the improperly included Dell sales reduces Dr. Leffler's baseline from $726 million to $433 million. (Hall Decl., Appendix I.)

E. The Volume of Affected Commerce Must Exclude Any TFT-LCD Panels Which Were Sold Overseas and Purportedly Were Shipped Into the United States By Third Parties as Part of a Computer Monitor, Notebook Computer or Television.

AUO has argued throughout this case that panels sold overseas cannot be included within the scope of AUO's alleged offense based on the proposition that such panels ultimately entered the United States as part of a finished computer monitor, notebook computer or television. (Dkt. No. 258 (2nd Motion to Dismiss); December 13, 2011 RT 22:11-14, 20-23; 29:18-30:11; Dkt. No. 807 (Objections to Instructions), p. 30:6-10; Dkt. No. 878 (Motion for Acquittal or New Trial), pp. 16-23; RT 360:18-362:1; 5000:11-5006:6.) This is so because the Government failed to allege the only arguably applicable exception to the FTAIA – the "direct, substantial and reasonably foreseeable effect" exception – in the Superseding Indictment, and further failed to prove the necessary effect at trial. The argument has been fully preserved for appeal.

For the Court's convenience, we set forth the argument in detail in Appendix A to this brief, and merely incorporate it here by reference.

IV. THE COURT SHOULD REJECT THE 20% PROXY FOR OVERCHARGE AND CONSUMER LOSS FROM THE GUIDELINES BOTH ON CONSTITUTIONAL AND POLICY GROUNDS, AND ADOPT AN OVERCHARGE/LOSS ESTIMATE NO GREATER THAN 1.89%

A. The Guidelines' 20% Proxy for Overcharge and Consumer Loss

Sentencing Guideline § 2R1.1(d)(1) provides that "in lieu of the pecuniary loss . . . use 20 percent of the volume of affected commerce." In Application Note 3, the Sentencing Commission explains that the 20% proxy is a rough approximation of the harm done to consumers by a cartel – a presumptive 10% overcharge, and an additional 10% to account for additional loss to consumers forced out of the market by the higher prices:

> In selecting a fine for an organization within the guideline fine range, the court should consider both the gain to the organization from the offense and the loss caused by the organization. It is estimated that the average gain from price-fixing is 10 percent of the selling price. The loss from price-fixing exceeds the gain because, among other things, injury is inflicted upon consumers who are unable or for other reasons do not buy the product at the higher prices. Because the loss from price-fixing exceeds the gain, subsection (d)(1) provides that 20 percent of the volume of affected commerce is to be used in lieu of the pecuniary loss under §8C2.4(a)(3).

According to the Commission, the reason for using a "one-size-fits-all" rule of thumb instead of case-by-case calculations is the purported time and expense involved in estimating overcharges:

> The purpose for specifying a percent of the volume of commerce is to avoid the time and expense that would be required for the court to determine the actual gain or loss.

(U.S.S.G. § 2R1.1, Application Note 3.)

The Government will undoubtedly cite the final sentence of Application Note 3 to argue that the Court is required to use the 20% proxy, and that the most the Court is permitted to do in response to evidence that overcharges and consumer

losses were far lower than the proxy is to impose a fine on the lower end of the Guidelines range:

> In cases in which the actual monopoly overcharge appears to be either substantially more or substantially less than 10 percent, this factor should be considered in setting the fine within the guideline fine range.

(U.S.S.G. § 2R1.1, Application Note 3.)

The Government will be wrong.[26]

B. The Court May Disregard the Guidelines on Constitutional or Policy Grounds

Of course, the Court may disregard the Guidelines based on a finding that the applicable Guideline is unconstitutional as applied. *Booker, supra,* 543 U.S. 220.

The Court also has discretion to deviate from a Guideline range based on the Court's disagreement with the underlying policy. *Kimbrough v. United States,* 552 U.S. 85, 106-08 (2007). This discretion is not limited to the crack-cocaine Guidelines at issue in *Kimbrough* itself. Rather, "sentencing judges can reject *any* Sentencing Guideline, provided that the sentence imposed is reasonable." *United States v. Mitchell,* 624 F.3d 1023, 1030 (9th Cir. 2010). In exercising their discretion, courts should consider whether applying a particular Guideline as written will result in an unwarranted sentencing disparity, which the court must avoid pursuant to 18 U.S.C. § 3553(a)(6). *Kimbrough,* 552 U.S. at 108.

In *United States v. Carper,* the Ninth Circuit particularly encouraged district courts to deviate downwards from the Guidelines when the Sentencing Commission

[26] Even if the Guidelines were mandatory with respect to the 20% proxy, neither the PSR, the Government or Dr. Leffler make any attempt to calculate the purported overcharge, simply ignoring the statement in Application Note 3 that proof of an overcharge "substantially less than 10 percent" justifies a downward variance.

has not exercised its "characteristic institutional role" in developing the Guideline at issue. *United States v. Carper,* 659 F.3d 923, 925 (9th Cir. 2011). Accordingly, Courts should consider whether a particular Guideline was "not the result of an empirical study." *United States v. Henderson,* 649 F.3d 955, 960 (9th Cir. 2011). Similarly, the Second Circuit held in *United States v. Dorvee,* 616 F.3d 174, 188 (2d Cir. 2010) that courts should consider departures where dealing with "an eccentric Guideline . . . which, unless carefully applied, can easily generate unreasonable results."

Further, a sentencing judge has "greater familiarity with . . . the individual case and the individual defendant" than the Sentencing Commission or the Court of Appeals. The judge is therefore "in a superior position to find facts and judge their import" in each case. In light of these institutional strengths, a district court's discretion to vary from the Guidelines is at its height when the court concludes that a particular case falls "outside the heartland to which the Commission intends individual Guidelines to apply." *Kimbrough,* 552 U.S. at 109; *Rita,* 551 U.S. at 351.

C. The 20% Proxy Was Not the Result of the Commission Acting in Its Characteristic Institutional Role, and This Case in Particular Falls Well Outside the Heartland To Which Guideline ¶ 2R1.1(d)(1) Was Intended to Apply

1. The Origins of the 20% Proxy

There is no evidence that the 20% proxy was the result of empirical research by the Commission, acting in its "characteristic institutional role." *Carper,* 659 F.3d at 925. Scholarly commentators agree that the proxy was the result of testimony given before the Commission in 1986 by then-Assistant Attorney General Douglas H. Ginsburg. *E.g.,* John M. Connor and Robert H. Lande, "How High Do Cartels

Raise Prices? Implications for Optimal Cartel Fines," 80 Tul. L. Rev. 513, 524-25 (2005).

Ginsburg testified that in his view, the "optimal fine" for price fixing was equal to "the damage caused by the violation divided by the probability of conviction." Douglas H. Ginsburg, Statement to the United States Sentencing Commission 8 (July 15, 1986); *see* United States Sentencing Commission: Unpublished Public Hearings, 1986 volume, July 15, 1986 Hearing, at 8. According to Ginsburg, "our experience [is] that price fixing typically results in price increases of at least 10 percent."[27] *Id.* at 9. Ginsburg cited to no support for his overcharge estimate.

According to Professors Mark A. Cohen and David T. Scheffman, Ginsburg's claim appears to have been based on two cases[28] and a short survey by DOJ economists of empirical studies of bid-rigging in the road-building industry in the 1980s. Cohen and Scheffman, "The Antitrust Sentencing Guideline," 27 Am. Crim L. Rev. at 342, *citing* Gregory J. Werden and Marilyn J. Simon, "Why Price Fixers Should Go to Prison," 32 Antitrust Bull. 917, 924-25 (1987). Subsequent research on the two cases relied on by Ginsburg has "cast considerable doubt" on the

[27] Ginsburg estimated that the probability of a cartel being detected was also approximately 10 percent. *Id.* He offered no empirical support for that claim, and given the Antitrust Division's claim that amnesty applications increased twelve-fold following the 1993 revisions to the Corporate Leniency Program, his estimate is obsolete today, if indeed it ever had any empirical basis. Mark A. Cohen and David T. Scheffman, "The Antitrust Sentencing Guideline: Is the Punishment Worth the Costs?" 27 Am. Crim. L. Rev. 331, 347-48 (1989) (observing only three years after Ginsburg's testimony that "we are aware of no systematic study that quantifies the probability of detection of antitrust violations.") In any case, the Sentencing Guidelines make no mention of the probability of detection as justifying the 10% increment of the 20% proxy.

[28] *United States v. Container Corp. of America,* 393 U.S. 333 (1969) and U.S. Fed. Trade Comm'n, Economic Report on the Baking Industry (1967).

overcharge estimate, "concluding that the markups, if they existed, were quite small." Cohen and Scheffman, "The Antitrust Sentencing Guideline," 27 Am. Crim. L. Rev. at 345, and sources cited there. The Werden-Simon study apparently relied on by Ginsburg analyzed a single industry based on a "tantalizingly brief survey of existing cases." Connor and Lande, "How High Do Cartels Raise Prices?," 80 Tul. L. Rev. at 525 & n. 66.

The Commission's 20% proxy has been subjected to intense criticism almost from the outset. Professors Cohen and Schiffman pointed out in 1989 that a 10% average overcharge was inherently implausible in most cases, particularly when large volumes of commerce were involved. This was so because so long as the price elasticity of demand exceeded one, a ten percent increase in price would trigger an implausible ten percent *decrease* in output sold. *See* Cohen and Schiffman, 27 Am. Crim. L. Rev. at 343-44. They concluded:

> The Justice Department's assertion that price-fixing conspiracies would typically result in a markup over competitive levels of ten percent, or that the probability of detection of price-fixing or bid-rigging would be as small as ten percent is not supported by the available evidence. Both of these Justice Department assertions are especially untenable for conspiracies involving private for-profit purchasers.

Id. at 349.

The ABA Antitrust Section has repeatedly questioned the empirical basis for the 20% proxy and urged the Sentencing Commission to reconsider its use. In 2004, the Section wrote:

> If it enacts the proposed corporate fine increase, Congress should reassess the Sentencing Guidelines presumption that twenty percent of the volume of commerce is an appropriate proxy for the gain or loss in a conspiracy. This presumption is unique in the U.S. Sentencing Guidelines for antitrust crimes and produces disproportionate effects under existing sentencing that result in either higher or lower

> sentences than would be appropriate if the gain or loss were actually calculated . . .
>
> Having reviewed the Sentencing Commission's analysis of this issue, this presumption was unsupported by any empirical economic evidence. It now has been employed since 1991. Since 1996, the Antitrust Division, and many defendants in antitrust cases, have determined the actual gain or loss resulting from the conduct that is necessary for them to calculate the alternative maximum fine under 18 U.S.C. § 3571(d). This development, which has had a great impact on the size of criminal fines, is in substantial conflict with the twenty percent presumption in the Sentencing Guidelines. As part of any change of the statutory maximum fine, Congress should instruct the Sentencing Commission to review this controversial formula in light of the significant experience of the Division in cartel cases. Such a review could result in much higher fines in egregious cases of significant overcharges and much lower fines in appropriate cases, as opposed to the current "one size fits all" presumption . . .
>
> Looking at the Sentencing Guidelines employed in other criminal offenses, including numerous types of business misconduct, there are no other situations known to the Section where the United States is entitled to presume the loss generated by the illegal conduct. Certainly, the calculation of the loss generated in a large securities fraud case, or a substantial environmental crime, is as difficult to calculate as in an antitrust case. Yet, there is no comparable sentencing presumption imposed for those offenses.

(Comments on HR 1086: Increased Criminal Penalties, Leniency Detrebling and the Tunney Act Amendment, pp. 12-14.)

> A few months later, the Antitrust Section remarked:
>
> It is ironic that the Sentencing Commission allowed this conclusive presumption because of the difficulty in calculating the actual gain or loss in an antitrust case, while the Antitrust Division has been effectively calculating alternative maximum fines under 18 U.S.C. § 3571(d) since its sentencing calculation in *United States v. Archer Daniels Midland Co.* in 1996.

(Comments on the Proposed Amendments to the United States Sentencing Guidelines for Antitrust Sentencing, pp. 21-22.)

Later that year, the Antitrust Section submitted comments to the Antitrust Modernization Commission, which was charged with evaluating the 20% proxy:

> The Section has questioned, and continues to question, whether the current presumption in determining criminal fine levels is empirically sound or good public policy. (Citations omitted). Having reviewed the Sentencing Commission's analysis of the issue, the Section concluded

> that the presumption that the "average gain from price-fixing is 10 percent of the selling price" was unsupported by empirical economic evidence. Furthermore, while the loss from price-fixing may exceed the gain because of lost or reduced production and sales due to the "higher prices," the Section is aware of no empirical or theoretical support for the Sentencing Commission's decision to double the presumed gain to reflect such losses.
>
> In addition, the Section questions whether the Sentencing Commission's stated reason for adopting this special methodology for calculating organizational antitrust fines—to avoid the time and expense required to determine actual gain or loss in individual cases—remains viable today, if it ever was . . .
>
> If subsequent events have shown that the determination of gain or loss in antitrust cases is not as complex as the Sentencing Commission assumed in 1991, there is no need to continue to base antitrust fines or jail sentences on volume of affected commerce as opposed to actual harm as is done in most other federal economic crimes . . .
>
> The Section continues to believe that the Sentencing Commission should review the rationale for the continuation of a special sentencing methodology for antitrust cases in light of the significant developments since it was adopted in 1991 and against the backdrop that the Division has regularly determined gain or loss to increase the maximum fine recommendation pursuant to 18 USC § 3571(d). Such a review also should examine any empirical evidence supporting the adoption of 20% of affected commerce as the proxy for harm.

(Comments of the ABA Section of Antitrust Law in Response to the Antitrust Modernization Commission's Request for Public Comment on Criminal Remedies, pp. 8-12.)

In June 2006, the ABA submitted further comments to the Antitrust Modernization Commission:

> The Section believes that the Commission should recommend that Congress direct the Sentencing Commission to undertake a thorough review of the rationale for the continuation of a special sentencing methodology for antitrust cases—as well as any empirical evidence supporting the adoption of 20% of affected commerce as the proxy for harm. The Section believes that such a review could result in much higher fines in egregious cases of significant overcharges and much lower fines in appropriate cases of lesser magnitude, and would achieve a greater degree of fairness and proportionality in sentencing organizational defendants in criminal antitrust cases.

(Comments of the ABA Section of Antitrust Law in Response to the Antitrust Modernization Commission's Request for Public Comment on Criminal Remedies – The Alternative Fine Statute – 18 U.S.C. § 3571(d), pp. 2-3.)

Ultimately, the Antitrust Modernization Commission questioned both the empirical support for the 20% proxy, and whether there was any continuing justification for the use of a proxy in place of an individualized assessment of harm:

> Congress should encourage the Sentencing Commission to reevaluate and explain the rationale for using 20 percent of the volume of commerce affected as a proxy for actual harm, including both the assumption of an average overcharge of 10 percent of the amount of commerce affected and the difficulty of proving gain or loss . . .
>
> The Sentencing Commission should determine whether the existing proxy is empirically sound and accurately reflects the best estimate of typical harm in antitrust cases. It should also determine the costs that individualized calculations of harm would impose on the sentencing process—in light of the current ability of lawyers and economists to estimate harm caused by antitrust crimes—and should determine whether establishing more individually tailored base fines could justify those additional costs . . .
>
> The Sentencing Guidelines' use of a proxy for harm (whether the existing 20 percent harm proxy, or another revised proxy amount) does not carefully distinguish between defendants who have caused differing degrees of actual harm. That is, the inflexible presumption that antitrust crimes cause harm equal to 20 percent of the volume of commerce affected can be "inequitable," and potentially "disproportionate." Just as there is some debate as to whether the existing harm proxy is too high or too low as a general matter, as explained above, it may also be too high or too low in individual cases. Indeed, the use of a proxy runs counter to the Guidelines' approach in other, non-antitrust cases, where the Sentencing Guidelines call for actual calculation of harm.

(Antitrust Modernization Commission, Report and Recommendations, pp. 300-02.)

The 20% proxy used in § 2R1.1(d)(1) in place of an individualized assessment of harm was not the result of empirical research conducted by the Sentencing Commission, acting in its characteristic institutional role. As a result, the proxy is entitled to little deference from this Court.

2. The Use of Standard Overcharge Estimates Such as the Guidelines Proxy Has Been Criticized in the Economic Literature

The economic literature on overcharges shows that the use of a standard overcharge presumption such as the 10% presumption built into the Guidelines proxy can be arbitrary and irrational in a large number of cases. The Government relied upon the overcharge studies of Professor John M. Connor at trial, largely because Dr. Connor concluded that the *median* overcharge across the hundreds of empirical studies he reviewed was higher than 10%. (RT 4425:23-4426:7.) However, the Government failed to note that 8.4% of all overcharge estimates Connor reviewed equaled zero; another 14.1% of Connor's estimates ranged from 0.1 to 9.9, with a mean overcharge of 5.9%. Connor, John M., "Price Fixing Overcharges: Second Edition" (April 27, 2010 ed.), p. 110. As Dr. Hall notes in his Expert Declaration, a recent meta-analysis of many different overcharge estimates found overcharges ranging from zero to more than 50 percent. (Hall Decl., ¶ 53 & n. 34, *citing* Connor, John M. and Yuliya Bolotova (2006) "Cartel Overcharges: Survey and Meta-Analysis," *International Journal of Industrial Organization,* Vol. 24, p. 1128.)

Similarly, a recent paper by the Secretariat of the Organisation for Economic Co-Operation and Development (OECD) criticized overcharge presumptions for ignoring important distinctions between industries and cartels:

> This approach, however, has severe shortcomings: the strong fluctuation of overcharges indicates important industry, country and cartel-specific factors influencing the level of overcharges, rendering an average approach inaccurate. Appropriate databases that allow a cartel candidate to be benchmarked with some comparable historical cartel cases do not exist so far.

(Hall Decl., ¶ 54 & n. 36, *citing* OECD, "Roundtable on the Quantification of Harm to Competition by National Courts and Competition Agencies – Background Note by the Secretariat (October 7, 2011), p. 13.)

3. This Case Is Well "Outside the 'Heartland'" to Which ¶2R1.1 Was Intended to Apply

This case falls well "outside the 'heartland'" to which the Commission intended Guideline ¶ 2R1.1 to apply for a variety of reasons, and this is further grounds for giving the Guideline little deference.

First, the conduct at issue largely took place overseas, in Taiwan. The substantive scope of the Sherman Act is sharply limited with respect to foreign conduct by the FTAIA. 15 U.S.C. § 6a. Although the Application Notes to the Guideline argue that "there is near universal agreement" that arrangements such a "horizontal price-fixing . . . can cause serious economic harm," (U.S.S.G. § 2R1.1, Application Notes, Background), it should be noted that although a number of foreign jurisdictions investigated the Crystal Meetings and several imposed heavy penalties, only one jurisdiction treated this at any time as a criminal matter – the United States.

Second, as defendants have repeatedly pointed out, the binding law in the Ninth Circuit is that foreign conduct such as that at issue here is judged pursuant to the Rule of Reason, not the rule of *per se* illegality. *Metro Industries, Inc. v. Sammi Corp.*, 82 F.3d 839, 844-45 (9th Cir. 1996). Guideline 2R1.1, on the other hand, is expressly limited to *per se* offenses. (U.S.S.G. § 2R1.1, Application Notes, Background).

Third, Guideline § 2R1.1 is entirely unsuited for application to price-fixing of an economic input – a product which is sold to consumers only after being incorporated into another product by multiple third parties, with each making their own decision about how and to what degree to pass cost increases through the distribution chain. The Guideline's presumption that a 10% overcharge will trigger a 10% additional loss through consumers who are no longer willing or able to purchase a product (*Id.,* Application Note 3), presupposes that consumers will actually see the entire overcharge. If a portion of the overcharge is absorbed by upstream manufacturers, distributors or retailers, any consumer volume effect will be significantly less.[29]

D. The Guidelines' Presumption That Discouraged Consumers Will Amount to 10% of the Volume of Commerce – Or That Consumer Loss Will Equal the Overcharge – Is Simply Wrong Absent Outlandish Factual Assumptions Not Supported Here

The second 10% of the 20% proxy is intended to account for injury "inflicted upon consumers who are unable or for other reasons do not buy the product at the higher prices."[30] (U.S.S.G. § 2R1.1, Application Note 3.)[31]

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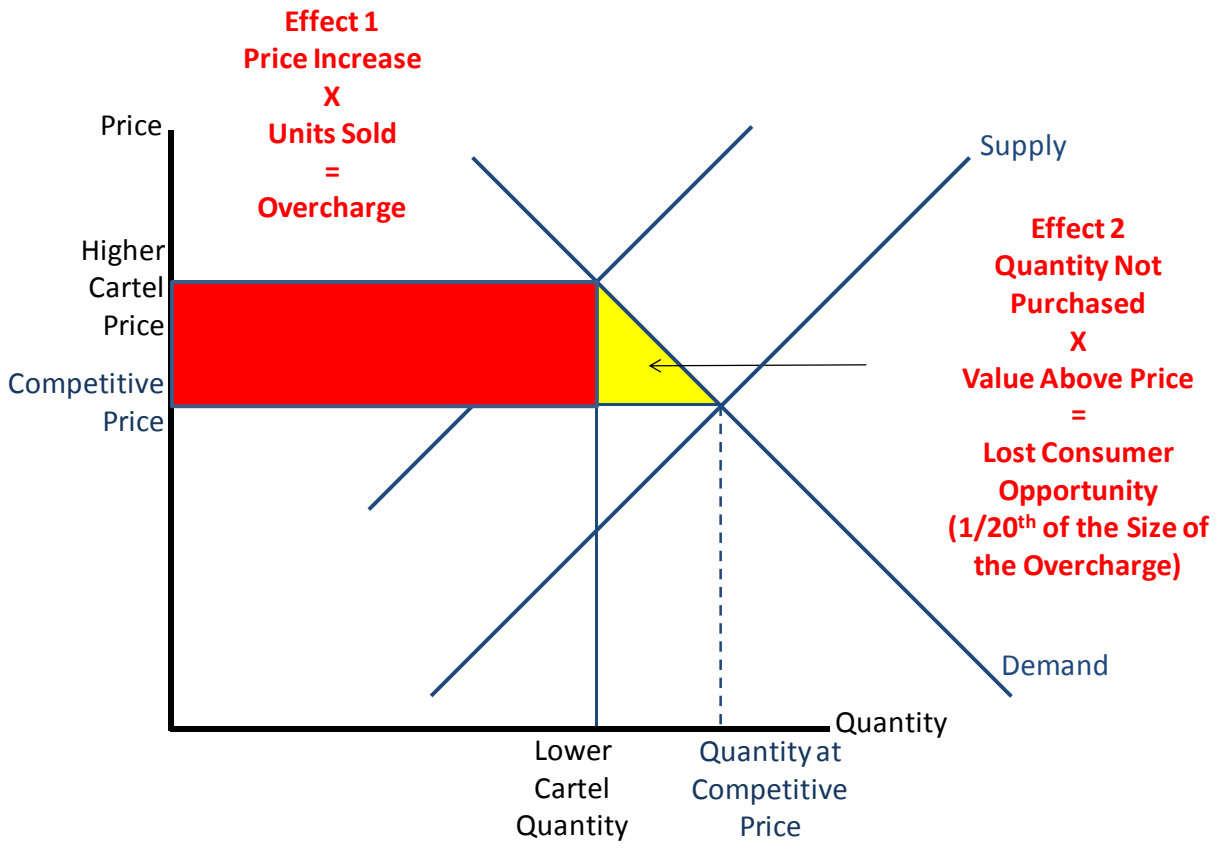
[29] In fact, as Dr. Hall shows in his Declaration, the Guidelines' 1:1 ratio between overcharge and consumer loss is overstated by a factor of twenty. (Hall Decl., ¶¶ 16, 68, 73, Appendix G.)

[30] As noted above, the Application Note says that the second 10% consists of consumer losses "among other things." However, nothing in the Application Note explains what those "other things" are. Given the degree to which the proxy overstates discouraged consumer losses, it is inconceivable that those undisclosed purported losses can justify the Guideline.

[31] Should the Government dispute the facts set forth herein, defendant AUO respectfully requests an evidentiary hearing regarding the issues of overcharge and lost consumer opportunities. If an evidentiary hearing is granted, Dr. Robert Hall will testify that (1) AUO obtained no overcharges approaching the 10% proxy included in the Guidelines; (2) AUO obtained no measurable overcharge at all; and (3) any reasonable approximation of lost

Economists represent overcharge and lost consumer opportunities as shown in the diagram. When a cartel constrains supply in order to support a price increase, the supply curve shifts left. The lost consumer opportunity is represented by the yellow triangle, which consists of consumers who were willing to pay an amount between the competitive price to slightly less than the supracompetitive price for the product, but will now not buy at the cartel's supracompetitive price. (Hall Decl., ¶¶ 66-67.) The overcharge is represented by the much larger red rectangle.

1. Lost Consumer Opportunity for Consumer Products Is a Small Fraction of the Alleged Overcharge



consumer opportunities should be at most 1/20th of any overcharge, if not less. AUO estimates that such a hearing would require no more than 1-2 hours of the Court's time.

Measuring the size of the lost consumer opportunity triangle is then simply a matter of geometry: ½ times (the reduction in quantity demanded) times (the increase in price). Most studies of the price elasticity of demand for consumer electronics cluster around an estimate of 1.0 – meaning that a 10% increase in price will result in a 10% decrease in quantity purchased. (*See* Hall Decl., Appendix G.) Therefore, the size of the lost consumer opportunity for a 10% overcharge would equal: (½) times (10%) times (10%) = 0.5%, 1/20th of the overcharge. (Hall Decl., ¶¶ 68-69; *see* Cohen and Scheffman, "The Antitrust Sentencing Guideline: Is the Punishment Worth the Costs?," 27 Am. Crim. L. Rev. at 341 & n.7. (arguing that depending on the demand elasticity of the product, lost consumer opportunities would amount to between 1/10th and 1/20th of the overcharge).)

A more mathematically rigorous proof of this same result appears at Appendix G of Dr. Hall's Expert Declaration. There, he demonstrates that in an industry like consumer electronics where price elasticity is 1.0, in order for the lost consumer opportunity to be 10%, as presumed in the Guidelines, the overcharge would have to be 45%—far above the Guidelines' presumptive overcharge. (Hall Declaration, Appendix G, p. 79.) On the other hand, for the lost consumer opportunity to be equal to the overcharge, as presumed in the Guidelines (again assuming a price elasticity of 1.0), the overcharge (and lost consumer opportunities) would have to be 200%, twenty times the Guidelines. (*Id.*)

2. Lost Consumer Opportunity For Overcharges on Intermediate Goods Is An Even Smaller Fraction of Any Overcharge

The explanation above describes the lost consumer opportunity associated with an overcharge in a consumer product. Where the product at issue is an input which is transformed into a consumer product by third parties who add additional value, the Guidelines' 10% estimate is an even greater overestimate of actual harm. (Hall Decl., ¶¶ 70-73.)

As Dr. Hall explains, for TFT-LCD panels, the price elasticity is equal to the price elasticity of demand for the consumer product—the monitor or notebook—multiplied by the share of the consumer product price accounted for by the panel. (*Id.* at ¶ 71). Evidence of the portion of monitor and notebook costs accounted for by panels varies in the record; trial testimony estimated the panel to be 80% of the cost of a monitor, and 40% of the cost of a notebook. (*Id.* at ¶ 72.) AUO's economic expert Dr. Edward A. Snyder estimates that a panel comprises 49-52% of the cost of a monitor, and 11-12% of the cost of a notebook. (*See* Jenkins Decl., Ex. C, Expert Declaration of Edward A. Snyder, Ph.D., ¶¶ 20, 22.)

This calculation must then be multiplied by the rate of passthrough, since consumers will not react to a price increase which is not passed along to them by decreasing their purchases. (Hall Decl., ¶ 73.) Dr. Snyder estimates that pass-through would vary from distribution chain to chain, and across time. (Snyder Decl., ¶ 28.) Therefore, depending on whether one is analyzing monitors or notebooks, the elasticity multiplier would be anywhere from virtually nothing to three fourths, depending on the product, and the lost consumer opportunities measure would be even less. (Hall Decl., ¶¶ 71-72.)

The Guidelines' assumption that a 10% overcharge would result in an additional 10% harm from lost consumer opportunities is simply wrong: not merely as a function of the facts of this case, but as a matter of black-letter microeconomic analysis and simple geometry. Because the Sentencing Commission's decision to double the presumptive 10% overcharge was irrational and arbitrary, utilizing that second 10% here in computing an appropriate fine would deprive AUO of due process and violate the Excessive Fines Clause. *Richmond v. Lewis,* 506 U.S. 40, 50 (1992) (due process violated where sentence relies upon arbitrary sentencing factor); *United States v. Garner,* 490 F.3d 739, 743 (9th Cir. 2007) (due process forbids sentencing based upon a scheme which is irrational or based on arbitrary distinctions); *United States v. Bajakajian,* 524 U.S. 321, 334 (1998) (Excessive Fines Clause).[32]

We now demonstrate that application of the 10% presumptive overcharge would be equally arbitrary and irrational, based on Dr. Hall's analysis.

[32] The Eighth Amendment bars the imposition of "excessive fines." The Excessive Fines Clause limits the government's power to extract payments, whether in cash or in kind, as punishment for an offense. *Austin v. United States,* 509 U.S. 602, 609-10 (1993). Forfeitures which are imposed for purposes of deterrence are punishments within the meaning of the Clause. *Bajakajian,* 524 U.S. at 329. The guiding principle of the constitutional inquiry is proportionality: a fine will violate the Excessive Fines Clause where it is grossly disproportionate to the gravity of the defendant's offense. *Id.* at 334. The application of the grossly disproportionate 10% presumption for lost consumer opportunities would certainly violate that principle here.

E. The 10% Presumptive Overcharge in the Guidelines Grossly Overestimates Any Harm Which Might Have Arisen From AUO's Conduct

1. Dr. Hall Concludes That a 10% Overcharge Can Be Ruled Out

Neither the PSR nor the Government has proven that AUO collected an overcharge remotely approaching 10% from its customers, as presumed in the Guidelines.

If AUO overcharged its customers by 10%, it necessarily follows that absent the Crystal Meetings, prices would have been 10% lower. (Hall Decl., ¶ 62.) As Dr. Hall explains, one way to test the realism of such a but-for world is to calculate the return to invested capital AUO and the other LCD manufacturers would have earned with 10% lower prices. AUO's returns on capital during the 2001-2006 period were near but not above the normal return for an industry with the risk involved in the LCD business. (*Id.,* ¶¶ 62-63.) If prices had been consistently 10% lower, not only would AUO and the other manufacturers have lost billions, but the return on capital would have been far below the normal rate. (*Id.* at ¶ 63.) Without the expectation of a normal rate of return, investment would have been insufficient to enable AUO and the other manufacturers to build needed capacity and continue to develop LCD technology. (*Id.*) Because output would have been significantly lower under this hypothetical scenario, prices would have gradually risen until the industry returned to a normal rate of return, and once a normal return was assured, investment would have resumed. (*Id.*) Therefore, Dr. Hall concludes, 10% lower prices could not have been long maintained. (*Id.*)

2. The Government's Theory That the Crystal Meetings Were Necessary to Address Persistent Losses Defies Normal Economic Logic

At trial, Dr. Leffler argued that in 2000 and 2001, just before the Crystal Meetings began, the TFT-LCD industry was "at desperate times." Entry of Taiwanese manufacturers had flooded the market with excess supply and manufacturers were losing money; but once the Crystal Meetings began, manufacturers "came together" and "things improved." (RT 4533:8-15.) In closing argument, counsel for the Government echoed the same theme: "These Crystal Meetings were set up to try to stop these price declines, and they were set up to try to make more money." (RT 4742:14-25.)

For reasons similar to the above, Dr. Hall concludes that the Government's theory that persistent overcharges were necessary to preserve the industry "defies normal economic logic." Dr. Hall points out that persistent losses cannot by definition persist over time. Below-market rates of return lead to lower output and investment in productive capacity which, with demand rapidly increasing, drives prices up, returning investors to the industry and increasing output. (Hall Decl., ¶¶ 64-65.)

3. After a Comprehensive Study of AUO's Sales Between 2001 and 2006, Dr. Hall Finds No Proof of Any Measurable Overcharge

"I have worked extensively with [Bruce] Deal, who testified at trial, on the overcharge questions," Dr. Hall testifies. (Hall Decl., ¶ 15, n. 7.) "I agree with his opinions as presented at trial." (*Id.*) In addition, Dr. Hall relies on the multiple reports he has co-authored on the overcharge issue with Mr. Deal in the related civil matters. (*Id.*) "My conclusion in this matter, based on extensive study of AUO's

data and other evidence, is that the gain is substantially less than 10 percent. *My work does not find a measurable overcharge attributable to AUO.*" (*Id.* at ¶¶ 15, 65) (emphasis added.)

Among other things, Dr. Hall points to the prices AUO charged to other Crystal Meeting attendees in support of his conclusion. As discussed above, LG and Samsung could each have supplied their own panel needs if AUO had attempted to charge them a supracompetitive price. Since both LG and Samsung knew about the Crystal Meeting discussions, neither had any reason to pay AUO a price for panels which incorporated an overcharge. (Hall Decl., ¶¶ 34-35, 59-60.) Since AUO's considerable sales to LG and Samsung occurred at prices which were quite similar to those charged to other customers, Dr. Hall concludes that AUO collected no measurable overcharge.[33] (*Id.* at ¶ 60.)

4. The Failure of the PSR, the Government or Dr. Leffler to Identify Any Lasting Reductions in Output in the Purported Target-Pricing Conspiracy Further Supports the Conclusion That Overcharges Were Minimal-To-Nonexistent

Economic theory supports Dr. Hall's conclusion that AUO collected no measurable overcharge as well. Economists recognize that a pure target-pricing conspiracy will face grave difficulty in maintaining a significant overcharge, since each individual member of the conspiracy will have an economic incentive to expand output. (Hall Decl., ¶¶ 55, 57; De Roos, Nicolas (2006), "Examining Models of

[33] Nor can the Government argue that the sales to Samsung and LG, at prices similar to those charged other customers, are somehow an attempt to conceal the effects of the Crystal Meetings. As Dr. Hall points out, such a theory makes no sense, since—if Samsung and LG had wanted to conceal an alleged cartel—self-supply would have been more effective and less expensive. (Hall Decl. at ¶ 36.)

Collusion: The Market for Lysine," *International Journal of Industrial Organization,* Vol. 24, p. 1087; Sannikov, Yuliy and Andrzej Skrzypacz (December 2007) "Impossibility of Collusion under Imperfect Monitoring with Flexible Production," *The American Economic Review,* Vol. 97, No. 5, p. 1795.) The Government has offered no compelling reasoning as to how the Crystal Meeting companies would have surmounted this obstacle.

5. The Recent Verdict in the Toshiba Case Further Supports Dr. Hall's Conclusion That Overcharges Were Negligible, and Far Below 10%

Finally, Dr. Hall cites the recent verdict in the Toshiba civil trial as further support for his conclusion that any overcharge was negligible. Although Toshiba did not attend the Crystal Meetings, the plaintiffs in that action alleged a single, overarching conspiracy of which the Crystal Meetings were only a part. It follows, then, that any overcharge in the Toshiba case should have been at least as high as the applicable overcharges arising from the Crystal Meetings, and perhaps higher.

In the Toshiba trial, the jury heard testimony from economists who presented estimates of an overcharge ranging from less than one percent to 18 percent. (Hall Decl., ¶¶ 14, 61.) Although the jury's verdict was stated as a dollar amount rather than an overcharge, the verdict equates to an overcharge of only 1.8%. (*Id.*) AUO believes that the Toshiba jury verdict offers a logical ceiling for the maximum overcharge multiplier here.

V. CONCLUSION

Although the final PSR ultimately recommended a below-Guidelines fine of $500 million, the PSR accepts the Government's calculation of a "volume of affected

commerce" of $2.34 billion. (PSR, ¶¶ 22, 24.) The Government's analysis contains a host of errors: (1) it fails to follow the same method of calculating the volume of commerce used by the Government in connection with sentencing of the other Crystal Meeting attendees and endorsed by the Government in its November 15, 2010 letter to the Court; (2) the Government and Dr. Leffler disregard Dr. Leffler's testimony and the Government's theory at trial, extending the period of the conspiracy an additional ten months and inflating the volume of commerce by $858 million, 41% of the government's total; (3) the Government includes sales of panels described in the Superseding Indictment in the volume of affected commerce, rather than limiting the calculation to those panel sales which were subject to particular pricing discussions in the Crystal Meetings; (4) the Government includes panels sold to LG and Samsung, but never explains why these companies, which attended the Crystal Meetings, would have agreed to pay any overcharges at all; and (5) the Government includes sales from AUO to Dell occurring on or after January 1, 2005, even though Dell's own economic expert in the related civil cases could find no overcharge in those sales. Once these errors are corrected, the Government's volume of commerce calculation falls from $2.3 billion to $150 million. (Hall Decl., Appendix I.)

Further, the Court should exercise its discretion to reject the 20% proxy in the Guidelines for overcharge and lost consumer opportunity on constitutional, policy and factual grounds. The Government has presented no evidence to support a finding of losses caused by AUO's conduct of anything approaching those sums. Dr. Hall's review and detailed analysis of AUO's sales records reveals no

measurable overcharge, and a variety of factors, including the difficulty of maintaining an overcharge in a target-pricing conspiracy, AUO's sales to LG and Samsung at the same price charged to others, and the recent Toshiba verdict, all confirm Dr. Hall's conclusion.

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ADDENDUM

A. The Volume of Affected Commerce Must Exclude Any TFT-LCD Panels Which Were Sold Overseas and Purportedly Were Shipped Into the United States By Third Parties as Part of a Computer Monitor, Notebook Computer or Television.

1. Such Panels Are Not Part of the "Offense," Since Harm From Third-Party Monitors and Notebooks Was Not Properly Alleged In the Superseding Indictment

The "volume of affected commerce" is defined in U.S.S.G. § 2R1.1(d)(1) as a proxy for the calculation set forth in § 8C2.4(a): the "pecuniary gain to the organization *from the offense*" and "the pecuniary loss *from the offense* caused by the organization." (Emphasis supplied). It follows, therefore, that the volume of affected commerce depends on the definition of the Sherman Act "offense."

Since 1982, the extraterritorial scope of the Sherman Act has been limited by the FTAIA:

> [The Sherman Act] shall not apply to conduct involving trade or commerce (other than import trade or import commerce) with foreign nations unless –
>
> (1) such conduct has a direct, substantial, and reasonably foreseeable effect –
>
> (A) on trade or commerce which is not trade or commerce with foreign nations, or on import trade or import commerce with foreign nations; or
>
> (B) on export trade or export commerce with foreign nations, of a person engaged in such trade or commerce in the United States . . .

15 U.S.C. §6a.

This Court has recognized both that the FTAIA applies to the Government's allegations, and that the FTAIA is an element of the Sherman Act offense, instructing the jury that one of the three "elements of the offense" was:

> . . . that the members of the conspiracy engaged in one or both of the following activities:

> (A) fixing the price of TFT-LCD panels targeted by the participants to be sold in the United States or for delivery to the United States; or
>
> (B) fixing the price of TFT-LCD panels that were incorporated into finished products such as notebook computers, desktop computer monitors, and televisions, and that this conduct had a direct, substantial, and reasonably foreseeable effect on trade or commerce in those finished products sold in the United States or for delivery to the United States. In determining whether the conspiracy had such an effect, you may consider the total amount of trade or commerce in those finished products sold in the United States or for delivery to the United States; however, the government's proof need not quantify or value that effect.

(Dkt. No. 829, p. 10.)

An Indictment must set forth every element of the charged offense. Failure to do so is a structural defect which is not subject to harmless error review. *United States v. Du Bo,* 186 F.3d 1177, 1179-80 (9th Cir. 1999).

Computer monitors and notebook computers shipped into the United States by third parties cannot qualify under the import exclusion to the FTAIA because AUO is not directly involved in their importation. *In re TFT-LCD (Flat Panel) Antitrust Litig.,* 2010 WL 2610641, *5 (N.D. Cal. 2010).

Nor did the Government adequately allege the "direct, substantial and reasonably foreseeable" exclusion to the FTAIA with respect to computer monitors and notebook computers. Although the Superseding Indictment arguably alleges a "substantial" effect from defendants' conduct, nowhere does it allege that such an effect was "direct" or "reasonably foreseeable."

TFT-LCD panels entering the United States as part of third-party monitors and notebooks are not part of the "offense" alleged by the Superseding Indictment. Such panels are therefore not part of the volume of commerce affected by the offense for purposes of Guideline 2R1.1.

2. Even If Third Party Consumer Products Had Been Properly Alleged In the Indictment, the Effect on Commerce From Price-Fixing An Economic Input Cannot Be "Direct" As a Matter of Law

Even if the Superseding Indictment were not fatally flawed, TFT-LCD panels sold overseas and shipped into the United States as part of finished monitors and notebooks could not properly be considered as part of the volume of commerce affected by the offense. Because of the uncertainties involved in tracing the impact of any alleged overcharges from sale of a component part through the final sale of the consumer product, several courts have held that the overseas sale of an input which is incorporated into a consumer product by a third party and imported into the United States is not a sufficiently "direct" effect to satisfy the FTAIA.

For example, the plaintiffs in *In re Intel Corp. Microprocessor Antitrust Litigation,* 476 F.Supp.2d 452 (D. Del. 2007) argued that Intel's unlawful overcharges for microprocessors had caused the manufacturers of personal computers and other consumer products to raise their prices, ultimately injuring the consumer plaintiffs. *Id.* at 454. The court pointed out that for plaintiffs to have been harmed, any overcharge would have to be passed from an initial sale, to OEMs, to retailers, and then on to consumers. "[T]his speculative chain of events is insufficient to create the direct, substantial and reasonably foreseeable effects on commerce required by the FTAIA." *Id.* at 456. Similarly, the court in *United Phosphorus, Ltd. v. Angus Chemical Co.*, 131 F.Supp.2d 1003 (N.D. Ill. 2001) held that effects on domestic U.S. sales of ethambutol were not a "direct" effect of defendant's alleged interference with the plaintiff's manufacture of AB, the key ingredient of ethambutol. *Id.* at 1007, 1013-14. "The FTAIA explicitly bars

antitrust actions alleging restraints in foreign markets for input . . . that are used abroad to manufacture downstream products . . . that may later be imported into the United States," the court held. *Id.* at 1014. *See also Pabst Motoren GMbH & Co., LG, v. Kanematsu-Goshu (U.S.A.), Inc.,* 629 F.Supp. 864, 869 (S.D.N.Y. 1986) (restraint on sale of drive motors in Japan does not have a direct anticompetitive effect on United States commerce based on subsequent sales of motors in United States since jurisdiction "is not supported by every conceivable repercussion of the action objected to on United States commerce").

3. The Government Has Produced No Evidence Showing That Any Effect On U.S. Commerce Arising from Sales to Consumers of Monitors and Notebooks Satisfied the Ninth Circuit Standard for a "Direct" Effect

According to the Ninth Circuit, an effect is "direct" under the FTAIA if it "follows as an immediate consequence of the defendant's activity." *United States v. LSL Biotechnologies,* 379 F.3d 672, 680 (9th Cir. 2004). As the courts above have pointed out, where a manufacturer does not sell directly to consumers, determining whether or not an effect is "direct" depends on whether overcharges are passed through from one level of the distribution chain to another. Where a large and uniform overcharge on a non-differentiated product that is resold only once in a single distribution channel, tracing an overcharge can be relatively straightforward. (Snyder Decl., ¶ 9.) In such cases, it might reasonably be said that an effect on retail commerce has followed "as an immediate consequence of" the increase in price of the input. But where an input is passed from an initial sale, to OEMs, to retailers, and only then to consumers, each level of the distribution chain faces differing competitive pressures, industry and cost structures, and passthrough

depends on a host of factors. (*Id.* at ¶ 9.) Under such circumstances, any ultimate effect an overcharge may have on commerce, far from being "direct," is the product of a long series of highly speculative "twists and turns." *In re Intel Corp.*, 476 F.Supp.2d at 456; *LSL Biotechnologies,* 379 F.3d at 680.

If passthrough is not evaluated at each stage of distribution, analyses may substantially overstate any harm to consumers. For example, if a product passes through three intermediaries before reaching the end user, and each passes on 80 percent of an overcharge, then the end user will only see 51% of the overcharge in the price he or she pays. If passthrough is estimated incorrectly for any one of the stages, passthrough would be even lower. (Snyder Decl. at ¶ 13.) Although the Government has presented no evidence relating to passthrough, the analysis of AUO's economic expert Dr. Edward A. Snyder shows that any effect of alleged overcharges in the TFT-LCD industry was certainly not "direct."

a. Economic Literature Does Not Support an Assumption of 100% Passthrough

Dr. Snyder has reviewed the economic literature in order to help determine whether the characteristics of the LCD industry would support a consistently high rate of passthrough. If passthrough were consistent both vertically (up and down distribution chains) and horizontally (across different distribution chains), such a finding would lend support to the notion that an overcharge for TFT-LCD panels might have a "direct" effect on U.S. commerce.

The empirical studies in the economic literature find a variety of passthrough rates. (Snyder Decl., ¶ 30.) Dr. Snyder has reviewed thirty-eight such studies, and third-five contain passthrough rates of less than 100%. Among the thirty studies

which do not relate to tax incidence, *all* contain passthrough estimates below 100%. (*Id.* at ¶ 31.) In particular, studies have recognized that the relationship between wholesalers and retailers can result in less than complete passthrough both in the short and long run. Because relationships between upstream and downstream firms are costly to attain and involve substantial direct negotiation, it can be difficult for wholesalers to fully pass through cost changes. Additional factors, such as local distribution costs and variable markup, may make wholesale prices more static in the face of cost changes. (*Id.* at ¶¶ 31-32.)

b. The Length and Complexity of Distribution Chains For LCD Monitors and Notebooks Would Lead to Varying Rates of Passthrough, Depending on a Variety of Factors

The distribution chain from TFT-LCD panels to consumer products includes several categories of activity where value is added: (1) the design and manufacture of components from raw materials; (2) the design and assembly of components into finished products; and (3) the marketing, distribution, sales and servicing of finished products. (Snyder Decl., ¶ 16.) These three categories are distributed across a variety of steps: component manufacturers, component distributors, contract manufacturers, original design manufacturers, system integrators, branded OEMs, distributors, and online and traditional retailers. (*Id.*) Some firms use several different distribution chains. (*Id.* at ¶ 17.)

Dr. Snyder has shown that there are potentially as many as six levels of distribution between the sale of an LCD monitor panel and the purchase of a finished monitor by an end user. For example, an original equipment manufacturer ("OEM") may design and coordinate the manufacture of a PC system that will be

sold under its brand name. In some cases the OEM will buy the monitor panel directly from the manufacturer, while in others, the panel may be sold to an original design manufacturer, contract manufacturer or system integrator. (*Id.* at ¶ 19.) Once a panel has been incorporated into a finished monitor, other intermediaries ranging from PC OEMs to distributors to retailers may purchase and resell the finished monitor, and may or may not add economic value to what is sold. (*Id.* at ¶20.) At each step, intermediaries may pass through all, most, or only some of an alleged overcharge – a factor which is crucial to the determination of whether any effect of the overcharge on U.S. commerce is "direct."

Similarly, Dr. Snyder shows that there are potentially as many as five levels of distribution between the sale of an LCD notebook panel and the purchase of the finished notebook computer by a consumer. TFT-LCD panels form only 11-12 percent of the total cost of the notebook. (Snyder Decl. at ¶¶ 21-22.) Because a variety of differentiating features are added as the notebook panel passes along the distribution chain, the price of the panel is only one of many factors considered by sellers at each stage of distribution when setting prices and deciding how much of a price increase in LCD panels to pass through. (*Id.* at ¶ 22.)

Intermediaries making decisions to pass through overcharges face substantially different competitive conditions, depending on the stage of the distribution channel, on whether value-added processing was involved, on the time period, and on the potential for substitution with other products. Retailers often have different pricing practices and strategies. (*Id.* at ¶ 39.) Once conditions have

diverged from perfect competition, which LCD products have, overcharges may be absorbed in part or passed on to the next step in the distribution chain. (*Id.* at 40.)

c. Industry Participants Have Testified That Changes In Costs Are Often Not Fully Passed On

Further, there is significant testimony in the related civil matters which indicates that firms do not routinely pass through all changes in costs. This can arise from contractual relationships between parties, such as when an OEM negotiates prices with an Original Design Manufacturer ("ODM") at which components will be assembled before knowing the prices it will pay for the individual components. If the price of the panel or other component unexpectedly increases, the OEM may not be able to pass the increase along to the ODM. (*Id.* at ¶ 42.) The same thing can happen between upstream firms and retailers; for example, a representative of one OEM testified that prices for finished products sold to retailers were set before the OEM knew what it would pay for TFT-LCD panels. (*Id.* at ¶ 43.) Similarly, when panel buyers compete in the marketplace with far larger companies able to extract discounts and rebates from panel manufacturers on their purchases, smaller-scale buyers may be unable as a competitive matter to pass along price increases. (*Id.* at ¶ 44.)

An effect on U.S. commerce is "direct" pursuant to *LSL Biotechnologies* only if it "follows as an immediate consequence of the defendant's activity." *LSL Biotechnologies,* 379 F.3d at 680. Dr. Snyder concludes that passthrough rates would "vary" depending on a variety of different factors with little relationship to the prices firms pay for TFT-LCD panels. (Snyder Decl., ¶¶ 47-49.) Given that the Government has offered neither evidence nor contrary opinion regarding

passthrough, the Government cannot show that any effect on U.S. commerce that overseas sales of TFT-LCD panels might have had was not "direct," as required by the FTAIA and the Ninth Circuit in *LSL Biotechnologies.*