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8 UNITED STATES DISTRICT COURT  
9 NORTHERN DISTRICT OF CALIFORNIA  
10 SAN FRANCISCO DIVISION

11  
12  
13 In re: CATHODE RAY TUBE (CRT)  
14 ANTITRUST LITIGATION

MDL No. 1917  
JAMS Ref. No. 1100054618

15 This Document Relates to:  
16 ALL DIRECT ACTION CASES

17 **REPORT AND RECOMMENDATION**  
18 **REGARDING INDIRECT PURCHASER**  
19 **PLAINTIFFS' MOTION FOR CLASS**  
20 **CERTIFICATION**  
21  
22  
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1 To the Honorable Samuel Conti, United States District Judge:

2 On April 29, 2013, the Interim Special Master heard Indirect-Purchaser Plaintiffs'  
3 Motion for Class Certification. Having considered the moving papers, evidence and the  
4 arguments of the parties, and good cause appearing, the Interim Special Master now makes the  
5 following Report and Recommendation. For the reasons set forth below, it is recommended that  
6 the Court GRANT Plaintiffs' motion.

#### 7 Introduction

8 This multi-district indirect purchaser state-law antitrust class action is pending before this  
9 Court based on diversity jurisdiction mandated by the Class Action Fairness Act ("CAFA"). The  
10 Honorable Charles A. Legge (Ret.) serves as Special Master, but with the parties' consent Judge  
11 Conti appointed the undersigned as Interim Special Master to hear and decide this motion while  
12 Judge Legge recuperates from a brief illness.

13 On October 1, 2012, Indirect Purchaser Plaintiffs ("plaintiffs") brought this motion  
14 seeking to certify 22 separate statewide damage classes under each state's antitrust/consumer  
15 protection laws pursuant to Rule 23(b)(3).<sup>1</sup> Plaintiffs define the class that they seek to certify in  
16 the following way:

17  
18 All persons and entities in [Indirect-Purchaser State<sup>2</sup>] who, from  
19 March 1, 1995 to November 25, 2007, as residents of [Indirect-  
20 Purchaser State], purchased Cathode Ray Tubes incorporated in  
21 televisions and monitors in [Indirect-Purchaser State] indirectly  
22 from any defendant or subsidiary thereof, or any named affiliate or  
23 any named co-conspirator, for their own use and not for resale.  
24 Specifically excluded from this Class are defendants; the officers,  
25 directors, or employees of any defendant; the parent companies  
26 and subsidiaries of any defendant; the legal representatives and

24  
25 <sup>1</sup> Plaintiffs' motion was accompanied by the Declaration, an Errata to the Declaration, and a Rebuttal Declaration of  
26 Janet S. Netz, Ph.D. Defendants moved to strike Dr. Netz's expert testimony, and the Interim Special Master has  
27 recommended that their motion be denied. Report and Recommendation Regarding Defendants' Motion to Strike  
28 Proposed Expert Testimony, filed 6/20/13.

27  
28 <sup>2</sup> "Indirect-Purchaser State" refers to the following jurisdictions, separately: Arizona, California, District of  
Columbia, Florida, Hawaii, Iowa, Kansas, Maine, Michigan, Minnesota, Mississippi, Nebraska, Nevada, New  
Mexico, New York, North Carolina, North Dakota, South Dakota, Tennessee, Vermont, West Virginia, and  
Wisconsin. The applicable class period for Hawaii, Nebraska, and Nevada begins from June 25, 2002, July 20, 2002,  
and February 4, 1999, respectively.

1 heirs or assigns of any defendant; and the named affiliates and co-  
2 conspirators. Also excluded are any federal, state, or local  
3 governmental entities, any judicial officers presiding over this  
4 action, members of their immediate families and judicial staffs,  
5 and any juror assigned to this action.

6 Plaintiffs allege that defendant cathode ray tube (“CRT”)<sup>3</sup> manufacturers and their named  
7 co-conspirators (“defendants”) artificially inflated CRT prices by agreeing to fix prices, limit  
8 production and allocate market shares and customers of CRTs. Plaintiffs maintain that the  
9 evidence demonstrating the existence and effectiveness of this conspiracy is compelling, and that  
10 the overwhelming corpus of evidence is common to all putative class members. Specifically,  
11 plaintiffs assert, defendants’ own documents, data and testimony unequivocally demonstrate that  
12 they conspired to fix the prices of CRTs and that this illegal conduct harmed members of the  
13 putative classes. Plaintiffs contend that this indirect purchaser case is the best vehicle to  
14 compensate American consumers who paid substantial overcharges as a result of defendants’  
15 unlawful conduct.

16 Defendants’ Opposition was accompanied by the expert report of Dr. Robert D. Willig.  
17 According to defendants, certification is inappropriate in these circumstances because plaintiffs’  
18 price-fixing allegations involve a multitude of diverse products, incorporated as components into  
19 a multitude of differentiated and competitively-priced finished products, sold at different prices,  
20 at different times, to different customers, and under various competitive circumstances at each  
21 level of distribution. As a result, defendants maintain, it is not possible to establish with  
22 common proof that there was classwide impact to each member of the indirect consumer class.  
23 Instead, defendants argue, mini-trials would be required to determine whether individual class  
24 members suffered any injury.

25 Following the normal briefing, defendants submitted a letter brief discussing the recent  
26 Supreme Court decision in *Comcast Corp. v. Behrend*, No. 11-864, 569 U.S. \_\_\_, slip op.  
27 (2013). On April 9, 2013, plaintiffs filed a responsive letter brief.

28 <sup>3</sup> CRTs are comprised of: (1) color picture tubes (“CPTs”) used in televisions, and (2) color display tubes (“CDTs”) used in computer monitors.

1  
2 CRTs and the CRT Market

3 The following facts, drawn largely from plaintiffs' evidence, are not significantly in  
4 dispute. During the relevant period, the sales of CRTs were massive.<sup>4</sup> CRT televisions and  
5 monitors were the dominant form of display screens in the United States and worldwide until  
6 approximately 2004. Indeed, for most of the relevant period, North Americans purchased more  
7 CRT monitors than did consumers in any other region in the world. For CRT televisions and  
8 monitors, worldwide annual sales measured in the billions. Between 2000-2006, defendants  
9 controlled nearly 90% of worldwide CRT commerce. Netz Decl., pp. 3, 36.

10 Newcomers to the CRT manufacturing business faced significant barriers to entry. Such  
11 barriers included: (1) large capital expenditure requirements to build factories and production  
12 lines; (2) lengthy timelines (of approximately two years) to complete their production facilities  
13 and begin mass production; (3) a diminishing product utilization rate in an industry beset with  
14 excess capacity; and (4) an inability to use CRT production equipment for subsequent alternative  
15 manufacturing purposes. Netz Decl., pp. 23-27; Alioto Decl., ¶¶ 4-5, Exhs. 3-4. In addition, the  
16 technological know-how needed to manufacture CRTs lay almost exclusively with defendants,  
17 who, according to plaintiffs, entered into elaborate arrangements to share crucial intellectual  
18 property among themselves, enabling them to tightly control and dominate the multi-million  
19 dollar CRT industry. Alioto Decl. ¶¶ 6-7, Exhs. 5-6.

20 CRTs have no independent utility. Their only use is to incorporate them into finished  
21 products sold to consumers. Specifically, CRTs can only be used as components of finished  
22 products such as televisions, computer monitors, and other specialized applications. Netz Decl.,  
23 ¶¶ 8-9, 94, Exhs. 7-8, 107. Thus, the demand for CRTs would not exist without the finished  
24 products, such as television and computer monitors, which are purchased by the class members.

25 CRTs are discrete parts. Direct purchasers buy CRTs to incorporate them into finished  
26 products. During the manufacture of these finished products, the CRT itself is not modified; it

27  
28 <sup>4</sup> CRTs were the precursor to LCD and Plasma technology. Thus, once LCD and Plasma products became prevalent and desired in the market place, CRT-based products' market share began to decline.

1 remains a separate, physical object that does not change form or become indistinguishable once  
2 incorporated. Netz Decl., ¶¶ 10-11, Exhs. 9-10.

3 The CRTs are the most expensive component in the finished products into which they are  
4 incorporated, and CRTs account for a significant portion of the total retail price. The cost of the  
5 CRT typically represents between 50%-70% of the retail price of the finished product; the larger  
6 the CRT, the higher its proportional cost. Netz Decl., p. 114, n.388; Alioto Decl., ¶¶ 12, 94,  
7 Exhs. 11, 107.

8 CRT manufacturers sold CRTs to finished product manufacturers such as Sharp, Funai,  
9 Dell and Hewlett-Packard, either directly or through affiliated entities acting as distributors. In  
10 addition, many of the defendants, including Samsung, SDI, Hitachi, Panasonic, Toshiba, Philips  
11 and LGE, sold CRTs to their own corporate subsidiaries and affiliates that manufactured CRT  
12 finished products. CRT-finished product manufacturers sold the televisions and monitors to  
13 retailers (sometimes through a distributor) such as Best Buy, Wal-Mart, Costco and Target, and  
14 retailers in turn sold the products to class members. Some CRT finished product manufacturers  
15 also sold televisions and monitors directly to class members. Netz Decl., pp. 32-33. Class  
16 members include individual consumers and end-user businesses.

### 17 Parties' Contentions

#### 18 A. Plaintiffs

19 Plaintiffs make the following contentions. Beginning at least as early as March 1995,  
20 defendants and their co-conspirators formed an illegal international cartel to restrict competition  
21 and fix prices for CRTs. Defendants carried out the conspiracy through frequent and systematic  
22 group and bilateral meetings in the United States and around the world. These meetings were  
23 called "Glass Meetings" which were organized into three levels: (1) "Top Meetings" or "CEO  
24 Meetings," which were attended by high-level executives, including presidents and CEOs and  
25 were held monthly during the early years of the conspiracy and quarterly later into the  
26 conspiracy; (2) "Management Meetings" which implemented agreements made at the Top  
27 Meetings. These were attended by high-level sales managers, and occurred more frequently,  
28 typically monthly; and (3) "Working-Level Meetings," which occurred often on a weekly basis

1 and were attended by lower-level sales managers. The function of the working-level meetings  
2 was largely to monitor and manage pricing on a weekly basis by verifying the respective  
3 defendants' implementation of prices agreed upon at the higher-level meetings. These working  
4 meetings were augmented by "Green Meetings," which occurred on golf courses often on the  
5 same day as a Glass Meeting "in order to make friendly contacts and strengthen mutual trust."  
6 Alioto Decl., ¶13, Exh. 12.

7 Defendants have admitted to attending hundreds of group and bilateral meetings with  
8 their competitors during the relevant period. *See* Alioto Decl., ¶¶ 33-34, Exhs. 32-43. These  
9 meetings led to industry-wide cooperation, including the sharing of information regarding  
10 pricing and production levels, agreements on pricing for the various sizes of CRTs and on  
11 pricing for specific customers, agreements to limit the production of CRTs, agreements to  
12 allocate customers and market shares, and agreements on methods to monitor each other's  
13 compliance with the agreements reached. Alioto Decl., ¶¶ 16-32, Exhs. 15-31. These meetings  
14 also led to an agreement regarding a formal, comprehensive auditing plan which enforced  
15 defendants' agreement to limit CRT production and provided a process for policing cheating.  
16 Alioto Decl., ¶¶45-48, Exhs. 44-47; ¶¶ 28, 50-51, Exhs. 27, 49-50.

17 Plaintiffs also maintain that defendants actively concealed the existence of their unlawful  
18 price-fixing practices: they limited the number of attendees at the meetings; asked participants to  
19 refrain from taking notes and listing meeting attendees; frequently reminded participants of the  
20 need for secrecy and to destroy conspiratorial communications after reading them; agreed upon  
21 false and pretextual reasons for price increases; agreed upon which attendee would communicate  
22 the price change to which customer; quoted higher prices to certain customers than the fixed  
23 price to give the appearance that the price was not fixed; and used agreed-upon code words,  
24 single letters and acronyms to hide the existence, attendees and content of the meetings. Alioto  
25 Decl., ¶¶ 53-55, Exhs. 52-54.

26 American and international governmental agencies began investigating defendants'  
27 practices in 2007. For example, defendants are currently being investigated by: the U.S.  
28 Department of Justice ("DOJ"), the European Commission ("EC"), the Japanese Fair Trade

1 Commission (“JFTC”), the Korean Fair Trade Commission (“KFTC”), the Canadian  
2 Competition Bureau (“CCB”) and the Czech Office for the Protection of Competition (“COPC”).  
3 Alioto Decl., ¶¶ 56-75, Exhs. 55-74.

4 In the United States to date, the DOJ investigation has resulted in a guilty plea by  
5 Samsung SDI Co., Ltd. for violations of the Sherman Act, 15 U.S.C. §1, and a \$32 million fine,  
6 as well as indictments of three former Chunghwa executives, one former Samsung SDI  
7 executive, and two former LG Philips Displays executives, all for violations of Section 1 of the  
8 Sherman Act. Alioto Decl., ¶¶ 56-58, Exhs. 55-57; ¶¶ 61-65, Exhs. 60-64.

9 Internationally, the JFTC found that 11 CRT manufacturers had violated Article 3 of  
10 Japan’s Antimonopoly law by conspiring to fix the prices of CPTs used in the manufacture of  
11 televisions. Fines imposed on 7 of the 11 companies totaled approximately JPY 4,255 billion  
12 (USD 48 million). Alioto Decl., ¶ 66, Exh. 65. In addition, the KFTC imposed fines totaling  
13 approximately KRW 26.271 million (USD 23.5 million) against Samsung SDI Co., Ltd., LG  
14 Philips Display Korea Co., Ltd, Chunghwa Picture Tubes, Ltd. and two Chunghwa subsidiaries  
15 for conspiring to fix CRT prices and reduce supply from 1996 through 2006. Alioto Decl., ¶ 68,  
16 Exh. 67. Finally, the COPC fined Chunghwa Picture Tubes Ltd., Technicolor SA, Panasonic  
17 Corporation, MT Picture display Co., Ltd., and Toshiba Corporation a combined 51.8 million  
18 koruna (USD 2.7 million) for their alleged involvement in the price-fixing cartel that ran from  
19 1998 to 2004. Alioto Decl., ¶¶ 72-74, Exhs. 71-73.

20 Plaintiffs also contend that most of the defendants, and many of their executives and  
21 employees, participated in the related LCD conspiracy. The LCD conspiracy, plaintiffs explain,  
22 resulted in guilty pleas, convictions, settlements and substantial fines against numerous  
23 individuals and companies. The methodologies that defendants used in both conspiracies are  
24 strikingly similar. For example, they both implemented the conspiracy through a system of  
25 highly organized, three-tiered meetings.

26 Finally, plaintiffs contend that defendants’ conspiracy harmed all class members.  
27 Specifically, defendants’ price-fixing agreements increased all CRT prices, and these price  
28 increases were passed through to class members. Plaintiffs assert that defendants accomplished

1 this in a variety of ways. First, defendants' pricing negotiations with their customers started from  
2 price points set by defendants at anticompetitive levels. For example, at the Glass Meetings,  
3 defendants agreed upon "price guidelines" (often referred to as "PGLs"), "bottom prices," or  
4 "baseline prices" for CPTs and CDTs, which often led to agreed-upon pricing for their large or  
5 "top tier" customers. These prices then acted as a floor or "baseline" pricing for others  
6 customers. Alioto Decl., ¶¶ 79-81, Exhs. 92-94. Similarly, defendants also employed "Most  
7 Favored Customer" pricing with their larger customers. The CRT pricing to these MFC  
8 customers acted as a floor for all prices for similar CRTs, thereby ensuring that prices were  
9 implemented across-the-board to all customers. Alioto Decl., ¶¶ 87-89, Exhs. 100-102; Netz  
10 Decl., pp. 43, 57-58. Defendants also agreed to specific "price differentials" between pricing  
11 offered to large customers versus small customers or internal versus external customers. Alioto  
12 Decl., ¶¶ 82-83, Exhs. 95-96. When combined with the price "floors," discussed, *supra*, these  
13 differentials ensured that CRT prices were artificially elevated for all customers.

14 Plaintiffs also maintain that defendants maintained structured price gaps between their  
15 different product offerings such that an increase in the price of one type of CRT product would  
16 result in an increase in their other CRT products. In this way, if Defendants artificially raised  
17 one type of CRT pricing, the pricing for all CRTs would be raised as well. *See* Netz Decl., pp.  
18 65-66. Plaintiffs also point to defendants' highly centralized pricing decisions, which, Plaintiffs  
19 contend, facilitated defendants' ability to implement the prices set at the meetings with their  
20 competitors and ensured that all customers paid the same or similar prices for a given CRT  
21 product. And finally, relying on Dr. Netz's report, Plaintiffs maintain that defendants' artificial  
22 CRT price increases were passed through to end-user consumers.

#### 23 B. Defendants

24 Defendants' argument focuses on the differences within the CRT industry and how those  
25 differences impacted CRT and CRT finished product pricing. Specifically, defendants' first  
26 focus on the industry's diverse products, which are subject to different costs and are subject to  
27 different forces of supply and demand. For example, CPTs and CDTs were not interchangeable  
28 – they have unique technical standards, different components and dissimilar size ranges. Willig



1 Decl., ¶¶ 39-41. Moreover, CPTs and CDTs were not in the same relevant product market;  
2 CPDs were purchased by consumers interested in televisions and CDTs were purchased by  
3 consumers interested in computers.

4 Further, CDTs and CPTs themselves are highly diverse. They contain many products  
5 that differed in “application, size, shape, finish and mask type.” And the products contained  
6 “different resolutions” and used “various coatings,” depending on each purchaser’s  
7 specifications. Netz Decl., pp. 16, 20.; Willig Decl. ¶¶ 39-41. Thus, Defendants maintain, CRTs  
8 manufactured by one company could not readily be substituted for a CRT from a different  
9 manufacturer. As a result, the price for even the same type and size of CRT would vary  
10 substantially based on its customization and the manufacturer’s reputation, making it difficult to  
11 compare prices across the entire CRT field. In addition, prices would vary among CRTs based on  
12 different competitive forces such as the early impact that LCDs had on CRT monitors.

13 Defendants also note that finished CRT products (*i.e.*, televisions and monitors) were not  
14 interchangeable and were subject to disparate market forces. For example, Defendants maintain,  
15 CRT televisions and monitors had different distribution and sales chains, internal sales teams,  
16 brand reputations and customers. And within each size category of televisions and monitors,  
17 CRT products were highly differentiated. For example, there were tiers of finished products with  
18 dissimilar technological and user features that competed on different terms, such as larger or  
19 premium CRT televisions that featured stereo sound, built-in VCR or other amenities.  
20 According to defendants, these differences would naturally make the product more expensive for  
21 the consumer to purchase.

22 Defendants also argue that during the putative class period, CRTs and finished CRT  
23 products were a dying technology; thus, the rapid decline in demand, prices and profits negate  
24 any inference of common proof of classwide injury. Specifically, defendants contend, the  
25 evolving decrease in demand caused a corresponding drop in CRT and CRT-product prices and  
26 profits, making it impossible for manufacturers of CRT televisions and monitors to pass on any  
27 or all of the alleged overcharges on CRTs to their customers. Retailers, therefore, did not  
28 uniformly pass on to the consumer the alleged increase in price. Rather, pass-through rates

1 varied from store to store on a case-by-case basis. Cole Decl., Exh. 30, Costco Tr. 106:4-14;  
2 109:1-1101:21; 114:16-115:22; 122:17-123:21; 125:5-17.

3 Defendants also focus on the varying distribution and manufacturing channels for CRTs  
4 and finished CRT products, which further contributed to wide variations in pricing. For  
5 example, defendants point to the fact that tube manufacturers first sold CRTs to either a  
6 manufacturer of a finished CRT product or to a distributor, who would then resell the finished  
7 CRT product to the manufacturer. Netz Decl., pp. 29-30. And the finished product  
8 manufacturers sometimes sold the product directly to consumers or to another layer of  
9 distributors or to retailers. These differing distribution channels would greatly impact the final  
10 cost of the finished CRT product to the consumer, as would the variations in the type of retailers  
11 who sold finished CRT products. These retailers included brick-and-mortar specialty stores like  
12 Best Buy, Circuit City or Office Depot and department stores like Macy's and Sears, with higher  
13 overhead, prices and costs. They also included lower-cost internet sites like Amazon.com and  
14 discount stores like Wal-Mart, Target and Costco.

15 Defendants also focus on the fact that pricing of both CRTs and CRT finished products  
16 varied widely from supplier to supplier, product to product, type of retailer, within retailers and  
17 customer to customer over time. For example, purchasers of CRTs and finished CRT products  
18 frequently received, to varying degrees and in varying amounts, discounts, credit terms, price  
19 protection, shipping and "lead time" guarantees, rebates and other special sales terms, all of  
20 which affected the final price. Moreover, the price of finished CRT products were constantly in  
21 flux, as evidenced by Best Buy's PMK's testimony that procurement costs of finished CRT  
22 products were subject to weekly negotiations with vendors. Cole Decl., Exh. 1, Best Buy Tr.  
23 157:21-158:8.

24 Defendants also contend that customers who bought CRTs or finished CRT products in  
25 large volumes or otherwise possessed significant buying power were able to extract more  
26 favorable pricing than smaller customers could. Similarly, global customers sometimes received  
27 different pricing than regional or local customers.

28

1 Defendants also argue that retailers had different pricing practices and strategies that  
2 could result in pricing differentials. For example, store prices at Best Buy could be subject to  
3 weekly changes based on unique promotional opportunities, the competitive landscape, inventory  
4 overstock and multiple other situations. In addition, Best Buy store managers at times had the  
5 discretion to negotiate prices with individual consumers in order to close the sale. Cole Decl.,  
6 Ex. 1, Best Buy Tr. 77:13-78:20; 102:15-103:6. And Costco could charge lower prices for the  
7 same finished CRT product sold by its competitors because of its unique membership strategy.  
8 Cole Decl., Exh. 30, Costco Tr. 25:7-23.

### 9 Legal Discussion

#### 10 A. Legal Standards for Class Certification

11 Class actions play an important role in the private enforcement of antitrust actions. *In re*  
12 *Citric Acid Antitrust Litigation*, No. C-95-2963 FMS, 1996 WL 655791 at \*8 (N.D.Cal., October  
13 2, 1996). Thus, subject to the requirements of Rule 23, “courts resolve doubts in these actions in  
14 favor of certifying the class.” *In re Rubber Chemicals Antitrust Litigation*, 232 F.R.D. 346, 350  
15 (N.D. Cal. 2005). “Courts have stressed that price-fixing cases are appropriate for class  
16 certification because a class-action lawsuit is the most fair and efficient means of enforcing the  
17 law where antitrust violations have been continuous, widespread, and detrimental to as yet  
18 unidentified consumers.” *In re TFT-LCD (Flat Panel) Antitrust Litigation (LCDs)*, 267 F.R.D.  
19 583, 592 (N.D. Cal. 2010), *amended in part*, 2011 WL 3268649 (N.D. Cal. July 28, 2011)  
20 (internal citations omitted).

21 “As a threshold matter, and apart from the explicit requirements of Rule 23(a), the party  
22 seeking class certification must demonstrate that an identifiable and ascertainable class exists.”  
23 *Mazur v. eBay Inc.*, 257 F.R.D. 563, 567 (N.D.Cal.2009) (since class would include non-harmed  
24 auction winners, this portion of the class definition was imprecise and overbroad). “A class  
25 definition should be precise, objective, and presently ascertainable.” *Id.* at 567 (citation omitted).  
26 The class definition must be sufficiently definite so that its members can be ascertained by  
27 reference to objective criteria. *Whiteway v. FedEx Kinko's Office and Print Servs., Inc.*, No. C  
28 05-2320 SBA, 2006 WL 2642528 at \*3 (N.D.Cal. 2006, September 14, 2006). “[A] class will be

1 found to exist if the description of the class is definite enough so that it is administratively  
2 feasible for the court to ascertain whether an individual is a member.” *O'Connor v. Boeing*  
3 *North American, Inc.*, 184 F.R.D. 311, 319 (C.D.Cal. 1998).

4       Once it has been shown that the class is sufficiently ascertainable, the plaintiff then bears  
5 the burden of demonstrating, by a preponderance of the evidence, that each element of Rule 23 is  
6 satisfied. *Gen. Tel. Co. v. Falcon*, 457 U.S. 147, 158-61 (1982); *Doninger v. Pac. Nw. Bell, Inc.*,  
7 564 F.2d 1304, 1308 (9th Cir.1977). Rule 23(a) requires proof that: (1) the class is so numerous  
8 that joinder of all members is impracticable (numerosity); (2) questions of law or fact exist that  
9 are common to the class (commonality); (3) the claims or defenses of the representative parties  
10 are typical of the claims or defenses of the class (typicality); and (4) the representative parties  
11 will fairly and adequately protect the interests of the class (adequacy of representation). A  
12 plaintiff must also establish that one or more of the grounds for maintaining the suit are met  
13 under Rule 23(b). Those grounds include: (1) that there is a risk of substantial prejudice from  
14 separate actions; (2) that declaratory or injunctive relief benefitting the class as a whole would be  
15 appropriate; or (3) that common questions of law or fact predominate and the class action is  
16 superior to other available methods of adjudication. Fed.R.Civ.P. 23(b); *Zinser v. Accufix*  
17 *Research Institute, Inc.*, 253 F.3d 1180, 1186 (9th Cir. 2001).

18       At times, Rule 23 requires “the court to probe behind the pleadings before coming to rest  
19 on the certification question.” *Wal-Mart Stores, Inc. v. Dukes*, 131 S.Ct. 2541, 2552 (2011).  
20 Under those circumstances, certification is proper only if “the trial court is satisfied, after a  
21 rigorous analysis, that the prerequisites of” Rule 23 have been satisfied. *Id.*; *Comcast v. Behrend*,  
22 No. 110864, 569 U.S. \_\_\_, slip op. (2013). Frequently that “rigorous analysis” will entail some  
23 overlap with the merits of the plaintiff’s underlying claim. That cannot be helped because “the  
24 class determination generally involves considerations that are enmeshed in the factual and legal  
25 issues comprising the plaintiff’s cause of action.” *Id.*; see also *Chavez v. Lumber Liquidators*  
26 *Inc.*, No. CV 09-4812 SC, 2012 WL 1004850 at \*3 (N.D.Cal. March 26, 2012). “The more  
27 complex determinations required in Rule 23(b)(3) class actions entail even greater entanglement  
28 with the merits.” *Coopers & Lybrand v. Livesay*, 437 U.S. 463, 469 & n.12 (1978) (emphasis and

1 citations omitted). That said, Rule 23 does not require a plaintiff seeking class certification to  
2 prove that each element of his or her claim is susceptible to classwide proof. It merely requires  
3 that the plaintiff must prove that common questions predominate over any questions affecting  
4 only individual class members. *Amgen Inc. v. Connecticut Retirement Plans and Trust Funds*,  
5 133 S.Ct. 1184, 1196 (2013). Rule 23 does not grant courts license to engage in free-ranging  
6 merits inquiries at the certification stage. “Merits questions may be considered to the extent –  
7 but only to the extent – that they are relevant to determining whether the Rule 23 prerequisites  
8 for class certification are satisfied.” *Id.* at 1194-95.

9 With regard to the inquiry required specifically under Rule 23(b)(3)’s predominance  
10 standard, this “inquiry tests whether proposed classes are sufficiently cohesive to warrant  
11 adjudication by representation.” *In re Wells Fargo Home Mortgage Overtime Pay Litigation*, 571  
12 F.3d 953, 956 (9th Cir. 2009). The “office of a Rule 23(b)(3) certification ruling . . . is to select  
13 the method best suited to adjudication of the controversy fairly and efficiently.” *Amgen, supra*,  
14 133 S.Ct. at 1191 (internal quotations omitted). It requires a showing that questions common to  
15 the class predominate, not that those questions will be answered, on the merits, in favor of the  
16 class. *Id.* The rule’s objective is to promote economy and efficiency in actions that are primarily  
17 for money damages. Where common questions “predominate,” a class action can achieve  
18 economies of time, effort, and expense as compared to separate lawsuits, permit adjudication of  
19 disputes that cannot be economically litigated individually, and avoid inconsistent outcomes,  
20 because the same issue can be adjudicated the same way for the entire class. Fed.R.Civ.P.  
21 23(b)(3) advisory committee’s note (1966).

22 B. Ascertainability

23 As noted above, a class will be found to exist if the description of the class is precise,  
24 objective and definite enough so that it is administratively feasible for the court to ascertain  
25 whether an individual is a member. *O’Connor*, 184 F.R.D. at 319. Defendants maintain that  
26 plaintiffs have failed to meet this burden because the process of determining class membership  
27 will require significant fact-based inquiries. Specifically, defendants contend, because none of  
28 the proposed class members bought CRTs directly, few, if any, class members will readily know

1 if their televisions or computers contain a CRT manufactured by one of the defendants or their  
2 alleged co-conspirators. In support of their argument, defendants point to the testimony of  
3 representative plaintiffs. According to defendants, named plaintiff Barry Kushner does not know  
4 which company manufactured the CRT in either of the two televisions that serve as the basis for  
5 his claim, and the same is true for Frank Warner, Gary Hanson, Lisa Reynolds, Margaret Slagle,  
6 Gloria Comeaux, Lawyer's Choice, Kerry Lee Hall, Janet Ackerman, Albert Crigler, Jeffrey  
7 Figone, Samuel Nasto, Brian Luscher, Steven Ganz, Louis Wood and David Rooks. *See* Cole  
8 Decl. Ex. 61, Kushner Tr. 22:10-17, 55:22-56:2; Opp., p. 43, n.61 (providing respective  
9 transcript citations for each IPP). And Plaintiffs Jeffrey Figone and Albert Crigler, defendants  
10 assert, do not even know if their products contain CRTs at all. *Id.* Ex. 68, Figone Tr. 68:6-6-  
11 69:16; Ex. 67, Crigler Tr. 88:11-19.

12 Defendants dismiss class counsel's argument that the named plaintiffs could easily open  
13 the back of their televisions and monitors by unscrewing a few screws in order to examine the  
14 CRTs inside. For one thing, some putative class members may no longer have the televisions or  
15 computers at issue since the class period runs from 5 to 17 years ago. Even if they still have the  
16 equipment, defendants assert there is no way for them to determine who made the CRTs..

17 The Interim Special Master finds defendants' stated concerns unpersuasive. The class  
18 definition here is based on objective criteria: class members must reside in one of the 22 states;  
19 they must have made a purchase during the class period; their purchase must have been for the  
20 class member's own use and not for resale; and the product must contain a CRT made by one of  
21 the defendants, their affiliates, or alleged co-conspirators. *See LCDs*, 267 F.R.D. 583, 592-93  
22 (N.D. Cal. Mar. 28, 2010). Plaintiffs convincingly point out that class members can identify the  
23 tube manufacturer of their television or computer by referencing the product model number  
24 printed on the *outside* of the unit. The model number can then be matched with the  
25 corresponding service guides, service manuals and other publically available information to  
26 reveal the tube number, which is unique to a specific manufacturer. Alioto Reply Decl. at ¶ 5.  
27 Alternatively, mechanically adept class members can identify the tube manufacturer of their unit  
28 by removing the screws from the back of the product and viewing the name of the tube maker or

1 the tube number, which is typically printed in large, gold letters on the tube itself. Alioto Reply  
2 Decl. at pp. 3-4. This information can then be submitted by plaintiffs as part of any potential  
3 claims process.

4 Moreover, Plaintiffs have submitted evidence showing that during the class period  
5 defendants controlled approximately 90% of the CRT commerce worldwide. Thus, since  
6 approximately nine out of every ten finished CRT products sold in the United States contained a  
7 CRT made by one of the defendants or their co-conspirators, the universe of products containing  
8 non-defendant CRTs is very small. Netz Decl., Exhs. 1, 5 and 6. Further, even if some  
9 individuals join the class and it is then determined that their units did not contain Defendants'  
10 CRTs, this does not preclude class certification. *Kohen v. Pac. Inv. Mgmt. Co.*, 571 F.3d 672  
11 (7th Cir. 2009) ["a class will often include persons who have not been injured by the defendant's  
12 conduct . . . [but] [s]uch a possibility or indeed inevitability does not preclude class  
13 certification"]. At the certification stage of class proceedings, the class need not be actually  
14 ascertainable; objective ascertainability is sufficient. *In re OSB Antitrust Litigation*, No. 06-826,  
15 2007 WL 2253418 at \*9 (E.D. Pa. August 3, 2007) ["Because the proposed class need only be  
16 ascertainable by some objective criteria, not actually ascertained, challenges to individual claims  
17 based on class membership may be resolved at the claims phase of the litigation]; *O'Connor*, 184  
18 F.R.D. at 319 ["As long as the general outlines of the membership of the class are determinable  
19 at the outset of the litigation, a class will be deemed to exist."]

20 Plaintiffs have met their burden. The class is sufficiently ascertainable under Rule 23.

21 C. Rule 23(a)(1): Numerosity

22 Rule 23(a)(1) requires that a class be so numerous that joinder of all members is  
23 impracticable. Plaintiffs do not need to state the exact number of potential class members, nor is  
24 a specific number of class members required to satisfy this prong. *Bates v. United Parcel*  
25 *Service*, 204 F.R.D. 440, 444 (N.D. Cal.2001). A court may make common sense assumptions to  
26 support a finding that joinder would be impracticable. 1 Robert Newberg, *Newberg on Class*  
27 *Actions*, § 3:3 (4th Ed.2002) ["Where the exact size of the class is unknown but general  
28 knowledge and common sense indicate that it is large, the numerosity requirement is satisfied."].

1 In addition, the fact that a class is geographically dispersed, and that class members are difficult  
2 to identify, supports class certification. *Id.* at § 3:6; *Haley v. Medtronic, Inc.*, 169 F.R.D. 643,  
3 648 (C.D.Cal. 1996).

4 Here, plaintiffs have satisfied Rule 23(a)(1)'s numerosity requirement. Joinder of all  
5 members of the state classes – consumers who purchased CRT finished products – would be  
6 impracticable. Membership in the classes is alleged to include “thousands” of members in the  
7 Indirect-Purchaser Statewide Classes, with all members geographically dispersed throughout the  
8 United States. *See*, IP Third Consolidated Amended Complaint (“IP CAC”), ¶¶ 233-234. The  
9 class, therefore, is sufficiently numerous.

10 D. Rule 23(a)(2): Common Questions of Law and Fact

11 Rule 23(a)(2) requires Plaintiffs to demonstrate the existence of questions of law and fact  
12 that are common to the class. Fed.R.Civ.P. 23(a)(2) This requirement is met if plaintiffs' claims  
13 “stem from the same source.” “The existence of shared legal issues with divergent factual  
14 predicates is sufficient, as is a common core of salient facts coupled with disparate legal  
15 remedies within the class.” *Hanlon v. Chrysler Corp.*, 150 F.3d 1011, 1019 (9<sup>th</sup> Cir. 2008) [all  
16 claims related to defective part in Chrysler minivans]. “Where an antitrust conspiracy has been  
17 alleged, courts have consistently held that the very nature of a conspiracy antitrust action  
18 compels a finding that common questions of law and fact exist.” *In re Dynamic Random Access*  
19 *Memory (DRAM) Antitrust Litig.*, No. M 02-1486 PJH, 2006 WL 1530166 at \*3 (N.D. Cal., June  
20 5, 2006).

21 Plaintiffs assert that questions of law and fact common to the class include: (1) whether  
22 defendants formed and operated a conspiracy to fix, raise, maintain, or stabilize the prices of  
23 CRTs; (2) whether defendants' conspiracy resulted in an unlawful overcharge on the price of  
24 CRTs; (3) whether the unlawful overcharge on the price of CRTs was passed-through to the  
25 indirect purchasers of CRT finished products; and (4) whether the overcharge to indirect  
26 purchasers can be calculated using a common, formulaic method.

27 Defendants do not dispute that there are some common issues of law and fact for  
28 purposes of Rule 23(a)(2). Instead, they contend that plaintiffs cannot demonstrate the Rule



1 23(b)(3) requirement that common issues predominate over individualized questions. The  
2 Interim Special Master finds that plaintiffs met their burden under the commonality requirement  
3 of Rule 23(a)(2), and will address the issue of predominance below.

4 E. Rule 23(a)(3) and (a)(4): Typicality and Adequacy

5 Under Rule 23(a)(4), class certification is only permitted if “the representative parties  
6 will fairly and adequately protect the interests of the class.” Fed.R.Civ.P. 23(a)(4). This factor  
7 requires: (1) that the proposed representative class members do not have conflicts of interest with  
8 the proposed class; and (2) that the proposed representative class members are represented by  
9 qualified and competent counsel. *See Hanlon*, 150 F.3d at 1020. Defendants do not challenge  
10 the qualifications or competency of plaintiffs’ counsel, and the Interim Special Master concurs  
11 that plaintiffs’ counsel are qualified and competent to litigate this case.

12 However, defendants do challenge the adequacy of the class representatives, contending  
13 that, “Plaintiffs have submitted literally no evidence from which the Court could conclude that  
14 any of the proffered individuals are typical of, and adequate to represent, the class.” *Opp.* at 46.  
15 Under Rule 23(a)(3)’s permissive standards, representative claims are “typical” if they  
16 are “reasonably co-extensive with those of absent class members; they need not be substantially  
17 identical.” *Hanlon*, 150 F.3d at 1020. Differences as to the various products purchased, the  
18 methods of purchase, or the amount of damage sustained by individual plaintiffs do not negate a  
19 finding of typicality, provided the cause of action arises from a common wrong. *Thomas &*  
20 *Thomas Rodmakers Inc. v. New Port Adhesives & Composites Inc.*, 209 F.R.D. 159, 164 (C.D.  
21 Cal. 2002); *In re Vitamins Antitrust Litig.*, 209 F.R.D. 251, 261 (D.D.C. 2002).

22 Specifically, defendants maintain, plaintiffs have provided no declarations or deposition  
23 testimony from the putative representatives attesting to their ability and willingness to represent  
24 consumers from their respective states. For example, thirteen putative class representatives  
25 testified that they did not know whether they purchased a product containing a CRT  
26 manufactured or sold by a defendant or one of the alleged co-conspirators. *See Opp.*, p.47, n.67.  
27 In addition, defendants assert, several putative representatives failed to establish that they made  
28

1 their purchases in the relevant state or while a resident of the state at issue. Defendants point to  
2 the testimony of Lawyer's Choice, the putative representative for the District of Columbia, who  
3 testified that it is possible that the purchases were made in Florida. Cole Decl. Exh. 53,  
4 Lawyer's Choice Suites, Inc. Tr. 114:5-115:23. And defendants point to the testimony of Frank  
5 Warner, the putative representative for Tennessee, who testified that he moved out of Tennessee  
6 in 1997 and that he cannot establish that he was a resident of Tennessee at the time that he made  
7 any of the purchases at issue. Cole Decl., Exh. 58, Warner Tr. 10:19-13:1; Cole Decl. Exh. 78,  
8 Warner Exh. 4.

9 Despite these snippets from deposition testimony, the Interim Special Master finds  
10 defendants' arguments unpersuasive. The threshold knowledge required of the class  
11 representatives is low. "[A] party must be familiar with the basic elements of her claim, and will  
12 be deemed inadequate only if she is startlingly unfamiliar with the case. It is not necessary that a  
13 representative be intimately familiar with every factual and legal issue in the case." *Moeller v.*  
14 *Taco Bell Corp.*, 220 F.R.D. 604, 611 (N.D.Cal.2004). With regard to the thirteen individuals  
15 discussed by defendants, *supra*, plaintiffs have now confirmed that they did, in fact, purchase a  
16 television or computer containing one of defendants' CRTs. And with regard to the putative  
17 class representative for the District of Columbia – Lawyer's Choice – this representative  
18 repeatedly testified that the purchase was made in the District of Columbia and that the District  
19 of Columbia is where the purchase was shipped. Alioto Reply Decl. Ex. 17, Guttman Tr. 19:5-  
20 18, 65:16-22; 66:19-24; 113:10-20; 114:5-17; 114:23-25. The fact that this individual also  
21 testified that it was "conceivable" that he made the purchase in Florida does not disqualify him  
22 from representing the class. With regard to the putative class representative for Tennessee – Mr.  
23 Warner – even though plaintiffs have conceded that he is not an adequate class representative,  
24 plaintiffs have also introduced testimony from Albert Sidney Crigler who, independent of Mr.  
25 Warner, adequately represents the class. Alioto Reply Decl. at ¶4(b) (discussing Albert Sidney  
26 Crigler's CRT purchase); ¶15 (referencing Mr. Crigler's testimony regarding his adequacy as a  
27 class representative). Defendants further contend that the putative Class Representatives have  
28 not shown that they are able to adequately protect the interests of the class. Opp. at p. 46. In

1 response, plaintiffs provided testimonial evidence demonstrating that the putative class  
2 representatives have knowledge of the case and that they are willing and able to protect the  
3 interests of the class. Alioto Reply Decl. at ¶ 15, Appendix A. Thus, the putative Class  
4 Representatives satisfy the adequacy requirement of Fed. R. Civ. P. 23(a)(4).

5 Plaintiffs have met their burden under the typicality and adequacy requirements of Rule  
6 23(a)(3) and (a)(4).

7 F. Rule 23(b): Predominance and Superiority

8 In addition to satisfying the requirements of Rule 23(a), plaintiffs must also establish that  
9 one or more of the grounds for maintaining this suit are met under Rule 23(b). Those grounds  
10 include: (1) risk of substantial prejudice from separate actions; (2) that declaratory or injunctive  
11 relief benefitting the class as a whole would be appropriate; or (3) that common questions of law  
12 or fact predominate and the class action is superior to other available methods of adjudication.  
13 *See Fed.R.Civ.P. 23(b)*. Plaintiffs base their certification motion on Rule 23(b)(3) –  
14 predominance and superiority. Defendants vigorously dispute that plaintiffs have met their  
15 burden.

16 “To qualify for certification under Rule 23(b)(3), a class must meet two requirements  
17 beyond the Rule 23(a) prerequisites: Common questions must ‘predominate over  
18 any questions affecting only individual members’; and class resolution must be ‘superior to other  
19 available methods for the fair and efficient adjudication of the controversy.’” *Amchem Prods.*  
20 *Inc. v. Windsor*, 521 U.S. 591, 615 (1997). “When common questions present a significant  
21 aspect of the case and they can be resolved for all members of the class in a single adjudication,  
22 there is clear justification for handling the dispute on a representative rather than on an  
23 individual basis.” *Hanlon*, 150 F.3d at 1022 (internal quotations omitted).

24 Courts do not require that plaintiffs show common proof on each element of their claim.  
25 Rather, “[i]n price-fixing cases, courts repeatedly have held that the existence of the conspiracy  
26 is the predominant issue and warrants certification even where significant individual issues are  
27 present.” *Newport, Inc.*, 209 F.R.D. at 167. “[C]ommon liability issues such as conspiracy or  
28 monopolization have, almost invariably, been held to predominate over individual issues.” 6

1 *Newberg on Class Actions*, at § 18.25. However, in indirect purchaser actions, courts require  
 2 plaintiffs to demonstrate that a defendant overcharged its direct purchasers for the product at  
 3 issue and that those direct purchasers then *passed on* the overcharges to indirect purchasers.  
 4 *Somers v. Apple, Inc.*, 258 F.R.D. 354, 358 (N.D. Cal.2009). To satisfy Rule 23(b)(3), an  
 5 indirect purchaser plaintiff must therefore establish a reliable method for proving common  
 6 impact—the overcharge pass-through—on indirect purchasers as a class. *Id.* at 361. Absent such  
 7 a showing, motions for class certification are regularly denied. *Id.* [declining to certify class of  
 8 indirect purchasers of iPods where plaintiffs failed to show how all class members suffered  
 9 injury as a consequence of defendant's alleged anti-competitive activity].

10 1. Predominance<sup>5</sup>

11 Consideration of whether questions of law or fact common to class members predominate  
 12 begins with the elements of the underlying causes of action. *Erica P. John Fund, Inc. v.*  
 13

14 <sup>5</sup> The parties vigorously dispute the applicability of four key cases to the predominance question: (1) *LCDs*, 267  
 15 F.R.D. at 583; (2) *In re Static Random Access Memory ("SRAM") Antitrust Litig.*, 264 F.R.D. 603 (N.D. Cal. 2009);  
 16 (3) *In re Flash Memory Antitrust Litig.*, No. 07-0086, 2010 WL 2332081 (N.D. Cal. June 9, 2010) [*"Flash*  
 17 *Memory"*]; and (4) *In re Graphics Processing Units Antitrust Litig.*, 253 F.R.D. 478 (N.D. Cal. 2008) [*"GPU"*]. In  
 18 the first two cases, Dr. Netz's methodology was deemed sufficient to support class certification. In the second two,  
 19 her methodology was rejected. The Interim Special Master finds this case more analogous to the *LCDs* and *SRAM*  
 20 decisions and therefore applies those courts' reasoning herein. In *LCDs*, the components, their products and their  
 21 distribution channels were similar to CRTs, and both cases involve some of the same defendants and at least one  
 22 defendant in each case has pleaded guilty to antitrust violations. *LC Ds*, 267 F.R.D. at 587-89, 588. Dr. Netz used  
 23 similar analyses and proposed similar regression approaches in both cases and reached similar conclusions, *Id.* at  
 24 601, 603. And in *LCDs*, defendants raised objections similar to those that defendants have raised here, which the  
 25 court ultimately rejected. *Id.* at 597-98, 603-606. In *SRAM*, the court certified the class despite the fact that it  
 26 involved market, distribution and product characteristics much more complex than those at issue here, concluding  
 27 that "divergent pricing and sales practices are not necessarily an impediment to measuring pass-through" and that  
 28 "many other markets have the same features as the markets at issue here, and those markets are routinely tested for  
 relationships among variables of interest." *SRAM*, 264 F.R.D. at 614. And the evidence in *SRAM* also showed that  
 defendants possessed a far smaller market share, making certification even more compelling here. *Id.* at 605, 606.  
*GPU* and *Flash Memory* are distinguishable from the present case on a number of grounds. First, as the court noted  
 in *LCDs*, in *GPU*, (1) there were no guilty pleas or ongoing criminal investigations as there were in *LCDs*, and  
*GPU* therefore lacked that "extrinsic evidence of harm;" and (2) the products involved in *GPU* were customized and  
 not fungible. *LCDs*, 267 F.R.D. at 605 (distinguishing *GPU*, 253 F.R.D. 478). Similarly, in *Flash Memory*, the  
 court relied on the fact that "the Department of Justice investigated claims of price fixing in the flash memory  
 industry and made no findings of wrongdoing." *Flash Memory*, 2010 WL 2332081, at \*6. And in that case, the  
 market characteristics weighed heavily in defendants' favor because the direct purchasers had significant negotiating  
 power; as such, the overcharge to direct purchasers could not be shown on a common, formulaic basis. *Id.*, at \*9. In  
 contrast, here the CRT product manufacturers faced intense competition which diminished their ability to negotiate  
 individualized prices. Finally, in *Flash Memory* there was no highly incriminating conspiracy evidence for Dr. Netz  
 to review; thus, her review was much more limited than her review here of over 4,200 cartel target prices generated  
 from years of Glass Meeting notes.

1 *Halliburton Co.*, 131 S.Ct. 2179, 2184 (2011). A court must analyze these elements in order to  
2 “determine which are subject to common proof and which are subject to individualized proof.”  
3 *LCDs*, 267 F.R.D. at 311-13. Here, to establish liability in their antitrust claims plaintiffs must  
4 prove: (1) that there was a conspiracy to fix prices in violation of the antitrust laws; (2) that the  
5 plaintiffs sustained an antitrust injury or “impact” from the defendants’ unlawful activity; and (3)  
6 the amount of damages sustained as the result of the antitrust violations.<sup>6</sup> *Id.* at 600.

7 Defendants contend that plaintiffs cannot show that questions of law or fact common to  
8 class members predominate over any questions affecting only individual members. Specifically,  
9 defendants contend that individual issues predominate because: (1) plaintiffs’ have not offered a  
10 methodology capable of demonstrating classwide impact or injury with common proof; (2)  
11 plaintiffs have offered no reliable common method for proving that all direct purchasers paid  
12 supra-competitive prices for every CRT as a result of the alleged cartel; (3) plaintiffs have  
13 offered no reliable methodology to assess classwide damages using common proof; and (4)  
14 common impact and injury cannot be inferred.

15 Inference of Impact: Plaintiffs argue that “[i]njury and damages do not present  
16 predominately individual issues because California and other repealer states’ laws permit an  
17 inference of classwide injury or classwide proof of damages.” Memo. p.28. The Interim Special  
18 Master finds plaintiffs’ argument unpersuasive. First, plaintiffs failed to adequately note which  
19 states, other than California, have adopted such an inference. Second, defendants have pointed  
20 to courts in at least two states under whose laws plaintiffs claim relief – Maine and Michigan –  
21 that have recognized that this inference has been rejected. *See Melnickv. Microsoft Corp.*, 2001  
22 WL 1012261, at \*7 (Me. Aug. 21, 2001) (citing *Karofsky v. Abbott Labs., Inc.*, CV-95-1009 at  
23

24  
25 <sup>6</sup> Defendants do not dispute that plaintiffs would employ predominantly common proof to prove the existence of a  
26 conspiracy. Thus, the Interim Special Master finds that common questions predominate on proof of defendants’  
27 purported conspiracy to fix prices, limit production and allocate markets and customers for CRTs. *See, In re Rail*  
28 *Freight Fuel Surcharge Antitrust Litig.*, No. 07-489 (PLF), 2012 WL 2870207, at \*31 (D.D.C. June 21, 2012),  
[“because plaintiffs’ allegations of price fixing indisputably ‘will focus on the actions of the defendants, and, as  
such, proof for these issues will not vary among class members’”] (*quoting In re Vitamins Antitrust Litig.*, 209  
F.R.D. 251, 264 (D.D.C. 2002)).

1 23 (Me.Super.Ct., Cum Cty. Oct. 15, 1997), which rejected inference in indirect purchaser  
2 cases); *Ren v. Phillip Morris Inc.*, 2002 WL 1839983, at \*5 (Mich. Cir. Ct. June 11, 2002)  
3 (injury in fact cannot be established through use of presumptions or inferences in indirect-  
4 purchaser cases). Third, as the court noted in *LCDs*, 267 F.R.D. at 592, “regardless of whether  
5 certain state laws permit an inference of antitrust impact,” plaintiffs still have the burden of  
6 demonstrating that “there is a reasonable method for determining on a class-wide basis whether  
7 and to what extent that overcharge was passed on to each of the [indirect purchasers] at all levels  
8 of the distribution chain.” *LCDs*, 267 F.R.D. at 601 (quoting *In re Methionine Antitrust Litig.*,  
9 204 F.R.D. 161, 164 (N.D. Cal. 2001). Thus, the existence of any state-based inference would  
10 not obviate the need for plaintiffs to continue to show common proof of their claims.

11 With regard to defendants’ first three challenges, defendants focus on the report of  
12 Plaintiffs’ expert economist Dr. Janet S. Netz. Dr. Netz received her Ph.D. from University of  
13 Michigan and is a Professor of Economics at Purdue University. Defendants do not challenge  
14 Dr. Netz’s expertise to render economic opinions. The Interim Special Master has recommended  
15 that the Court deny defendants’ motion to strike Dr. Netz’s testimony on *Daubert* principles  
16 [filed 6/20/13]. That Report examined Dr. Netz’s methodology in considerable detail.

17 Summary of Dr. Netz’s Analysis: Dr. Netz examined the CRT industry and market to  
18 determine whether the indirect purchaser plaintiffs would have suffered impact as a result of the  
19 alleged price-fixing conspiracy. Dr. Netz assumed that there was a conspiracy among CRT  
20 manufacturers as plaintiffs have alleged. Dr. Netz first addressed the economic questions  
21 relevant to class certification: (1) was there common impact to class members in that they paid  
22 higher prices for CRTs than they would have in the absence of a cartel; and (2) can class  
23 damages be calculated using a common, formulaic method? Netz Decl., p.5. Relying on the  
24 characteristics of the CRT industry<sup>7</sup> and on market forces, Dr. Netz answered both of these  
25  
26  
27

28 <sup>7</sup> One such characteristic was the fact that Defendants and their co-conspirators possessed 89% of the capacity to produce CRTs. Netz Decl., pp.36-42.

1 questions in the affirmative. Dr. Netz applied a regression analysis<sup>8</sup> to determine that over 91%  
2 of the variation in prices was determined by common factors, leaving no more than 9% of CRT  
3 prices to be determined by individual factors. *Id.* pp.5-6. (“That is, most of the variation in CRT  
4 prices is driven by common factors rather than individual ones, and these common influences on  
5 price are susceptible to being estimated using a formula.”). Dr. Netz also determined that, based  
6 on the economic theory of pass-through, the cartel had a common impact on class members:  
7 class members faced a higher price for CRT monitors and TVs as a result of the cartel. *Id.*, p.6.  
8 Finally, Dr. Netz concluded that damages to class members can be measured on a common,  
9 formulaic basis based on any one of the several methods that could be used to calculate the  
10 overcharge to direct purchasers as well as the pass-through studies she was able to conduct at  
11 that time. *Id.*

12 Dr. Netz’s analysis looked closely at the CRT industry. She discussed the differences in  
13 CRT products and CRT manufacturing,<sup>9</sup> and she outlined the structure of the CRT industry and  
14 the industry’s distribution channels. *Id.*, pp.15-32. Dr. Netz noted the differences in each of  
15 these components, but she concluded that those differences would not lead to individualized  
16 determinations. *Id.* Dr. Netz then concluded that proof of anticompetitive conduct is common to  
17 all class members. Specifically, Dr. Netz pointed to conduct such as “fixing prices, restricting  
18 capacity, allocating customer, and sharing sensitive information.” *Id.*, p.33. Proof of this  
19 conduct, Dr. Netz concluded, would be found in defendants’ documents, cartel meeting notes  
20 and business records that are common as to all putative class members. *Id.*

21 Impact on Direct Purchasers: To assess antitrust harm to direct purchasers, Dr. Netz first  
22 relied on a “less direct approach” to show that defendants had the requisite power to raise  
23  
24

25 <sup>8</sup> Regression analysis is used to quantify the relationship between multiple variables in order to explain or predict an  
26 outcome of interest. Thus, in the present case, as Dr. Netz explained, regression analysis was implemented using  
27 data from the CRT industry to understand how the price of a CRT is impacted by the presence of the cartel  
independently of the impact on price by demand, cost, and market structure variables that are not affected by the  
cartel. *Id.*, p.85

28 <sup>9</sup> In particular, Dr. Netz noted that the shift to LCD and the dot-com crash in 2000-2001 “had a very significant  
impact on CRT manufacturing.” *Id.*, pp.28-29. She also discussed how many CRT manufacturers were vertically  
integrated. *Id.*, p.29.

1 prices,<sup>10</sup> that the cartel set target prices above the competitive level,<sup>11</sup> and that prices paid by  
2 consumers were approximately equal to the cartel's target prices.<sup>12</sup> Performing both qualitative  
3 and quantitative analyses, Dr. Netz then showed that the anticompetitive harm caused by the  
4 cartel affected all direct purchasers<sup>13</sup> and that the target prices set by the cartel created a price  
5 structure for direct purchasers that was similar to the structure in target prices.<sup>14</sup>

6 Dr. Netz also assessed whether impact to direct purchasers could be addressed using  
7 proof that is common to all class members. She determined that it could, and "showed that the  
8 cartel raised the entire structure of CRT prices." Netz Decl. at 65; *see also* Netz Rebuttal Decl. §  
9 VII. In reaching the latter conclusions, Dr. Netz first analyzed economic theory positing that all  
10 CRT prices must be raised for a cartel to be effective, or, for example, purchasers will substitute  
11 away from price-fixed CRTs towards those that are not. *Id.* at 65-66. Dr. Netz also examined  
12 defendants' documents evincing the cartel's setting of a price structure through communication  
13 among cartel members of target price levels and price differentials for CRT products of different  
14 types and sizes. *Id.* at 66-68; *see also* Netz Rebuttal Decl. at 4.

15 Dr. Netz supplemented her economic theory analysis of target price structure by using a  
16 hedonic regression analysis of target prices, which evaluated how well cartel target prices could  
17 be approximated by a function of CRT characteristics.<sup>15</sup> *Id.*, pp.68-71. She found that over 90  
18

19  
20 <sup>10</sup> For example, Dr. Netz reported that the cartel possessed 89% of the capacity to produce CRTs; therefore, when  
the cartel restricted CRT output, that output reduction could not readily be offset by increased production of CRTs  
by non-cartel suppliers. *Id.*, p.36.

21 <sup>11</sup> To do this, Dr. Netz explained, the cartel set up the "Glass Meetings" to conduct cartel business such as price  
fixing, division of the market, and monitoring of compliance and that the cartel used most-favored customer clauses.  
22 *Id.*, pp.44, 57-58.

23 <sup>12</sup> To reach this conclusion, Dr. Netz empirically compared the cartel target prices listed in the Glass Meeting notes  
to the actual sales prices charged by Defendants for the CRT product types listed in those meeting notes. Netz Decl.,  
pp. 61-64. Based on that comparison, Dr. Netz concluded that "the cartel was generally successful in raising prices  
towards its target prices." *Id.*, p.64.

24 <sup>13</sup> *See* Pl. Exh. RR15 (showing that 80% of CRT's sold at prices within 85-115% of target prices, thereby  
demonstrating that cartel was successful at setting and implementing target prices).

25 <sup>14</sup> Dr. Netz discussed how the cartel established price structures by, *inter alia*, setting "bottom line pricing that must  
be kept" and by setting price differentials. *Id.*, pp.66, 67. These price structures caused the prices of all CRTs to rise,  
26 Dr. Netz explained, even though the cartel only explicitly set target prices for a subset of them. *Id.*, p.66

27 <sup>15</sup> Applying the hedonic regression analysis, Dr. Netz concluded that "common factors overwhelm the individual  
factors in determining CRT prices. The implication is that prices respond similarly to common market forces and  
28 therefore the target price structure the cartel put in place had the effect of causing the prices of all CRTs to be above  
the competitive level, not merely the CRTs whose prices were fixed by the cartel."



1 percent of the variation in target prices was explained by size, finish, tube shape (CPTs only),  
2 whether the target was a major customer, and a time trend. Netz Rebuttal Decl., p.4. Therefore,  
3 she concluded, variations in price among CRT models were overwhelmingly caused by  
4 differences in model characteristics (a feature common to all class members), rather than on  
5 individual negotiations or other non-common causes. Based on her analyses of the cartel target  
6 prices disclosed in defendants' documents to date (4,769 target prices), Dr. Netz concluded that  
7 "a price structure exists in the cartel's target prices." Netz Decl., p.69; *see also* Netz Rebuttal  
8 Decl., p.32, Exhs. RR-15, RR-19, RR-20. Dr. Netz then performed similar hedonic regression  
9 analyses using defendants' actual, transactional sales prices (not target prices discussed above) to  
10 examine the determinants of CRT prices. She found that over 90 percent of price variation is  
11 determined by five variables that describe the CRT characteristics (size, aspect ratio  
12 (widescreen), finish, buyer seller pairs and a time trend). Netz Rebuttal Decl., p.5. Dr. Netz  
13 concluded that "common factors overwhelm the individual factors in determining CRT prices;"  
14 that "prices respond similarly to common market forces and therefore the target price structure  
15 the cartel put in place had the effect of causing the prices of all CRTs to be above the  
16 competitive level, not merely the CRTs whose prices were fixed by the cartel;" and that "proof  
17 of harm does not require individualized inquiry into the effect of the cartel's conduct on any  
18 particular product or buyer; it is common to all class members." Netz Decl. p.71.

19 Pass-Through to Retailers and Class Members: Dr. Netz then conducted an analysis  
20 with regard to impact on class members, which she explained as follows:

21  
22 I first review the economic theory of pass-through, which  
23 consistently predicts that industry-wide cost increases result in  
24 price increases; that is economic theory shows that pass-through is  
25 positive. Next, I present documentary evidence showing that  
26 Defendants expected resellers of CRT products to pass through  
27 cost changes. These documents also establish that Defendants  
28 routinely monitored the street, or retail, prices of CRT products.  
Street price monitoring underscores that Defendants are aware of  
the connection between the price charged to direct purchasers and  
the amount paid by class members. My review of these materials  
leads me to conclude that, based on common methods and  
evidence, at least some portion of the cartel overcharge was passed

1 through to class members. In other words, class members were  
2 harmed by the cartel.

3 *Id.*, p.72. Dr. Netz concluded from established economic theory that pass-through rates could be  
4 calculated when there are multiple levels of distribution. *Id.*, pp.76-77. Specifically, she  
5 explained, “[a]s each [level in the CRT distribution chain] becomes more competitive, the pass-  
6 through rate at each level approaches 100% and, therefore, the channel-length pass-through rate  
7 also approaches 100%. The documentary evidence, from a variety of sources, indicates that each  
8 of the distribution levels for monitors and TVs is highly competitive.” *Id.*, p.78. Dr. Netz  
9 reached the same conclusion applying “cost-plus” pricing rules.<sup>16</sup> *Id.*, p.79. She also reached the  
10 same conclusion, “[r]egardless of the fact that [certain] products are differentiated across some  
11 specifications and sold at differing prices.” *Id.*, pp.81-82. In addition, Dr. Netz concluded that  
12 “100% pass-through of the (savings from the) eliminated overcharge is completely feasible even  
13 if the firm is selling at a loss,” that is, “incurring marketing costs in the form of discounts or sale  
14 prices is unrelated to whether input costs are being passed through.” *Id.*, p.83 (internal quotations  
15 omitted).

16 Dr. Netz then explained how measurement of the pass-through rate of the antitrust  
17 overcharge to indirect purchasers was also susceptible to common proof, and she noted that the  
18 data that she employed for her studies provided a “conservative estimate of the pass-through  
19 rate.” *Id.*, pp. 97-98. Dr. Netz again used a regression analysis to “regress the price at the lowest  
20 point in the channel on the cost at the highest point in the channel,” with the “coefficient on the  
21 upstream cost variable” proving the pass-through rate. *Id.*, pp.98-99. Dr. Netz acknowledged  
22 that some differences may exist across some of the products (*i.e.*, screen size) that also impact  
23 the price level. She therefore included variables to control for these different product  
24 characteristics whenever the data permitted. *Id.*, p.99.

25 Dr. Netz then conducted 40 empirical pass-through studies<sup>17</sup> using third-party data  
26 produced in response to plaintiffs’ subpoenas as well as other data produced by defendants. Her

27 <sup>16</sup> “Cost-plus” pricing is the practice of applying a certain markup above cost to set price. *Id.*, p.79, n.255.

28 <sup>17</sup> In her Rebuttal, Dr. Netz notes that she conducted an additional seven pass-through studies, using data from K-  
Mart, RadioShack, bestbuy.com and Sears. According to Dr. Netz, these studies yielded the same results, discussed,  
*infra*.

1 studies were not based on data from each individual firm in the distribution channel, however,  
2 because, according to Dr. Netz, pass-through could accurately be measured by obtaining a  
3 representative sample of all the firms. *Id.*, p.99.

4 Three of Dr. Netz's pass-through studies were for sales of CRT products at Wal-Mart  
5 stores, and 37 of her pass-through studies either involved data provided by CRT distributors (2),  
6 used data provided by CRT product makers (5), used data provided by CRT product distributors  
7 (4), or used data provided by CRT product resellers (27), including 12 brick and mortar retailers  
8 such as Best Buy, Costco, Fry's, Office Max, Sam's Club and Wal-Mart, and 15 online retailers,  
9 such as Amazon, Buy.com, CDW, Dell Gateway, PC Connection, PC Mall and Zones.<sup>18</sup> Dr.  
10 Netz's studies applied both a top-to-bottom approach and a top-and-bottom approach. The top-  
11 to-bottom approach incorporated data from multiple levels of the channel including as many  
12 intermediate resellers as necessary to trace specific products through the entire distribution chain  
13 from the CRT manufacturer to the end customer. The top-and-bottom approach used retail or  
14 street prices for products being sold to end-users as the downstream price. Dr. Netz also used an  
15 approach that calculated pass-through for a single level in the distribution channel. *Id.*, pp.100-  
16 Dr. Netz's top-and-bottom approach calculated a pass-through rate of 127%, and her top-to-  
17 bottom approach calculated a pass-through rate of 102%. *Id.*, p.103. In total, for 30 of 40 of Dr.  
18 Netz's studies in which she tested all levels of the distribution channel, Dr. Netz found a pass-  
19 through rate statistically greater than 100%. For 10 of 40 of the studies, the pass-through rate  
20 was not statistically significantly different from 100%. *Id.*, p.104. Dr. Netz concluded that class-  
21 wide damages can be calculated using a common formulaic method. *Id.*, p.105.

22 Damages: With regard to damages, Dr. Netz explained, "[o]ne method for measuring the  
23 antitrust damages to indirect purchasers is to first measure the antitrust overcharge imposed by  
24

25 <sup>18</sup> Data from these retailers, Dr. Netz explained, represented over 74 million CRT products sold to end users between  
26 1994 and 2011. Netz Rebuttal, p.74. The pass-through studies also contained large product distributors, she  
27 explained, including Ingram Micro and Tech Data, representing almost 4 million CRT products sold beginning in  
28 1997 and ending in 2010. *Id.* In addition, "[s]tudies for CRT monitor and television product manufacturers contain  
sales of over 37 million CRT products, beginning in 1995 and ending in 2009." And Dr. Netz "conducted two  
studies for tube distributors, containing sales of 15 million tubes beginning in 1994 and ending in 2002." Combined,  
therefore, Dr. Netz's pass through studies "encompass over 131 million tubes and CRT products sold across all  
levels of the distribution chain." *Id.*

1 Defendants on direct purchasers and to then measure the portion of that direct overcharge that  
2 was passed down the distribution chain to members of the class.” *Id.*, p.83. To do this, Dr. Netz  
3 discussed “several formulaic methods” for measuring the overcharge on direct purchasers based  
4 on the “but-for price.” Because the “but-for world in which [defendants] set prices independently  
5 did not exist . . . measuring the overcharge to direct purchasers necessarily involve[ed] making  
6 predictions regarding outcomes that would have occurred had Defendants not engaged in  
7 collusive conduct.” *Id.*, pp.83-84. Dr. Netz made these predictions based on (1) the economic  
8 determinants method; (2) the benchmark comparisons method; (3) the simulation method; and  
9 (4) the market power method. *Id.*, pp.83-97. Dr. Netz explained that she did not, at this stage of  
10 the proceedings, conduct a full and complete review of all data produced or expected to be  
11 produced, but she did describe these four “formulaic approaches” using evidence common across  
12 the class and “for which [she had ] engaged in sufficient investigation to assure [herself] that  
13 such data [was] likely to be available to allow the method to be implemented.” *Id.*, p.84.

14 In summary, Dr. Netz found:

15  
16 Defendants engaged in the alleged price fixing conduct, the CRT  
17 cartel was effective at increasing prices in a common manner to  
18 direct purchasers. Pass-through of the overcharges to direct  
19 purchasers occurred on a common basis, leading to a common  
20 impact on class members. That is, class members paid a higher  
21 price for CRT monitors and TVs as a result of the cartel’s conduct.

22 *Id.*, p.1

23 Defendants’ Challenges to Dr. Netz: In challenging Dr. Netz’s report, Defendants  
24 submitted a report of their own expert, Robert D. Willig, Ph.D. Dr. Willig is a professor of  
25 economics at Princeton University.

26 Dr. Willig concluded that:

27 The fact of impact on all (or almost all) of the members of the  
28 proposed IPP class from the alleged collusion among the defendant  
CRT producers cannot be established by means of common  
evidence. Prices of the different CRT finished products and

1 CRTs<sup>19</sup> changed very differently from each other from month to  
2 month, quarter to quarter and over the span of the class period, and  
3 this heterogeneity was due to substantially different market forces  
4 that applied to various CRT product segments at various points  
5 during the class period.<sup>20</sup> Moreover, pass-through rates were not  
6 uniform across various stages of the long and complex distribution  
7 channels<sup>21</sup> and a significant fraction of cost changes may not have  
8 been passed on to end-users at all by some manufacturers and re-  
9 sellers. The substantial variation in the rate at which costs were  
10 passed through (if at all) is another reason why the substantial  
11 diversity of pricing levels and movements that is apparent from the  
12 pricing data shows that individualized inquiries would be  
13 necessary to assess whether most of the members of the proposed  
14 class were impacted by the alleged collusion.

15 Dr. Willig critiqued Dr. Netz's economic analyses and performed his own regression  
16 analyses, reaching conclusions diametrically opposed to those of Dr. Netz. Based on this  
17 analysis, defendants maintain, it is clear that Dr. Netz offered no common method of establishing  
18 classwide impact or injury. Defendants contend that, "Dr. Netz has failed to acknowledge real  
19 world differences among the prices paid by direct and indirect purchasers and makes no attempt  
20 to assess whether pass-through rates vary by product or by consumers; instead she simply  
21 assumes that all CRTs (including CPTs and CDTs) are in the same market and subject to the  
22 same pass-through rates." Opp., p.21 (quotations omitted). Basically, defendants contend, Dr.  
23 Netz's made the unwarranted assumption that all manufacturers, retailers, and distributors of  
24 CRT finished products passed on 100% or more of any CRT price increase to each and every  
25 customer without considering contrary record evidence of disparate price levels. The Report  
26 now examines each of defendants' principal critiques.

27 Attack on Dr. Netz's Pass-Through Analysis: Defendants (and Dr. Willig) maintain that  
28 Dr. Netz's impact/injury analysis is flawed in three respects: (1) Dr. Netz improperly used

19 Differences between the CRT finished products and between CRTs themselves are partly responsible for the  
disparity in pricing, Dr. Willig explained. Such differences included "features such as application (TVs or computer  
monitors), brand, size, shape, resolution, the inclusion or exclusion of deflection yokes, type of mask, electrical  
properties, and the extent and type of customization." Willig Decl., ¶15.

20 One such market force that Dr. Willig noted was the "fierce competition from LCD and plasma display  
technologies that rapidly shrunk the CRT share of the display marketplace." *Id.*, ¶16.

21 See *id.*, ¶¶ 120, 121; see also *id.*, ¶135 (attributing differences in pass-through rates to differences in direct  
purchasers business models and strategies).

1 averages or aggregated data; (2) Dr. Netz used data samples that are too small and  
2 unrepresentative; and (3) Dr. Netz did not consider anecdotal evidence purportedly showing that  
3 pass-through was not uniform. None of these arguments have merit.

4 Use of Averages: Defendants maintain that Dr. Netz's purported pass-on analyses are  
5 inherently unreliable because they calculate "average" as opposed to actual pricing data. Opp.,  
6 p.22 (citing Netz Decl., pp. 103-04, Exhs. 34-39). As defendants explain, it is undisputed that  
7 different customers could pay different prices for the same CRT product depending on the time  
8 of purchase, individualized discounts, product bundling, and a wide variety of other reasons;  
9 thus, Dr. Netz should have calculated the actual pass-on rate charged to class members for  
10 finished CRT products on a transaction-by-transaction basis rather than examining average  
11 prices.

12 Dr. Netz's analysis accounted for these variations by explaining that both prices with  
13 reference to common target prices, and those that were impacted by some individual variance  
14 such as a special discount or clearance sale, all embodied a basic overcharge caused by cartel  
15 pricing. Therefore, despite the presence anecdotally of special customer deals, her analysis of  
16 common impact does not require individualized inquiries. *See, e.g.*, Netz Decl., pp. 81-83.  
17 Moreover, defendants' arguments against averaging are undercut by the fact that Dr. Willig also  
18 used average data in his own analyses. *See* Willig Decl. ¶124 ("Yet in 43% of the instances in  
19 which Zone's average cost of procuring a CRT monitor model changed by at least 5% from one  
20 month to the next . . ."; *id.* at 56 ("I consider only instances in which Zones' (weighted average)  
21 procurement cost for a model changed by at least 5% . . .") Further, in *LCDs* and other cases,  
22 courts have held that averaged and aggregated data may be used to demonstrate pass-through.  
23 *LCDs*, 267 F.R.D. at 605. For example, in *LCDs*, the court found persuasive the following  
24 language from the *Gordon v. Microsoft* opinion, where the court rejected similar arguments  
25 pertaining to averages as those put forth by defendants here:

26  
27 The damages question for trial is presumably not about whether a  
28 specific Microsoft price increase found its way through the

1 distribution chain and resulted in an increase in the price paid by a  
2 specific class member. Rather, the question is how a series of  
3 Microsoft price increases, and/or a series of Microsoft failures to  
4 reduce prices, impacted the price each consumer paid. The  
5 question of what would have happened but for Microsoft's  
6 monopoly overcharge is a hypothetical, and a hypothetical  
7 question generally cannot be answered by historical data about  
8 what actually happened, but must often be answered by general  
9 principles about what generally tends to happen. Thus, average  
10 pass through rates appear reasonable and even necessary to prove  
11 damages here.

12 *LCDs*, 267 F.R.D. at 605 (quoting *Gordon v. Microsoft Corp.*, 2003 WL 23105550, at \*3 and  
13 citing with approval *SRAM*, 264 F.R.D. at 614 (rejecting defendants' criticism that indirect  
14 purchaser plaintiffs' use of average and aggregated data in their structural model could yield  
15 "false-positive pass-through").

16 Finally, while Dr. Netz did use averages or aggregate data, she did not "disregard actual  
17 prices," as defendants maintain. Where transaction-level data was available in usable form, a  
18 review of the record indicates that Dr. Netz used actual, transactional cost and pricing data for  
19 nearly all of the third parties she analyzed. *See Netz Decl.*, p.99 (describing use of "transaction-  
20 level data" from third parties); p.100 (describing use of "actual transaction-level cost and prices"  
21 produced by Wal-Mart); p.102 (noting that the "top-and-bottom approach uses retail or 'street'  
22 prices for products being sold to end-users"); Exh. 34 (noting that "Transaction Price" was used  
23 for pass-through studies of CRT products purchased and sold by a variety of retailers)

24 Whether Data Samples are Representative: Defendants also claim that Dr. Netz's  
25 methodology is flawed because her data samples are too small and unrepresentative. Defendants  
26 attack Dr. Netz for not reviewing the data of eight major retailer-plaintiff groups who have  
27 asserted that they did not pass on any increases in CRT costs to their customers. *See Opp.*, p.25  
28 & n.50 (citing pleadings of Direct Action Plaintiffs ("DAPs")).

29 The Interim Special Master finds this criticism unpersuasive. First, allegations in  
30 pleadings are an unreliable source of facts on which to base expert conclusions compared to  
31 market data, economic theory and mathematical analysis. Second, a review of the record shows  
32 that Dr. Netz performed studies covering the full-length of the CRT distribution channel, studies

1 that calculated pass-through for each level in the distribution channel, and studies for all firms in  
2 the distribution channel that produced usable data. Netz Decl., pp.97-98. Dr. Netz utilized data  
3 from multiple entities at each level of the CRT distribution channel, including tube distributors,  
4 CRT product makers, CRT product distributors and CRT product resellers. Dr. Netz's pass-  
5 through studies include over 40 data sets from 29 different entities representing over 131 million  
6 CRTs; they cover transactions beginning as early as February 1994 and continuing to November  
7 2011; and they incorporate over 100 million price and cost observations. See Netz Decl., p.104,  
8 Exhs. 34, 36, 40-43; Netz Rebuttal Decl., §X.A.2, Ex. RR-34. This data certainly is not "tiny" or  
9 "unrepresentative."

10 Moreover, Dr. Netz examined data from numerous brick-and-mortar retailers, including  
11 Costco, Best Buy, Fry's, Office Max, Sam's Club, and Wal-Mart. She also examined data from  
12 numerous online retailers, including Amazon, Buy.com, CDW, Dell, Gateway, PC Connection,  
13 PC Mall, and Zones. Dr. Netz's retailer data alone included over 45 million price or cost  
14 observations. See Netz Decl., Ex. 34. As such, defendants' claim that Dr. Netz's "study at the  
15 retail level . . . analyzed the pricing data of only two retailer-plaintiffs (Costco and Best Buy), is  
16 specious.

17 Also, in response to these criticisms, Dr. Netz performed seven additional pass-through  
18 studies using data from other direct action plaintiffs.<sup>22</sup> See Netz Rebuttal Decl. §X.A.2.  
19 Tellingly, these studies resulted in pass-through rates greater than or equal to 100%. *Id.*

20 Contrary Evidence of Disparate Pricing: Defendants also challenge Dr. Netz's  
21 impact/injury analyses based on the fact that Dr. Netz "ignore[d] the unrebutted record evidence  
22 [from Costco and Best Buy] that not all manufacturers, wholesalers, and retailers of finished  
23 CRT products could pass on any alleged increases in the price of CRTs." Having reviewed the  
24 totality of the evidence, the Interim Special Master finds that defendants' anecdotal testimony  
25 which consists mostly of deposition excerpts regarding two companies' practices do not  
26

27 <sup>22</sup> These DAPs included K-Mart, Radio Shack, bestbuy.com and Sears. *Id.*  
28



1 overcome Dr. Netz's empirical analysis of 27 million price and cost observations in the Best Buy  
2 data, 8 million price and cost observations in the Costco data, and 55 million total price and cost  
3 observations of multiple retailers of CRT products. Moreover, in *LCDs* the same argument was  
4 raised and rejected. *LCDs III*, 2012 WL 555090, at \*8 (N.D. Cal. Feb.21, 2012.)

5 Attack on Dr. Netz's Findings of Common Impact on Direct Purchasers: Defendants  
6 challenge Dr. Netz's methodology for proving that all direct purchasers paid supra-competitive  
7 prices for every CRT on many of the same grounds they employed to attack her pass-through  
8 analysis. Specifically, defendants maintain, (1) Dr. Netz's "target price" analysis suffers several  
9 fatal deficiencies that render it incapable of demonstrating classwide impact to direct purchasers:  
10 (2) Dr. Netz's "target price" analysis falsely assumes that "target" prices set as to sales within  
11 Asia applied to CRTs sold in the United States and covered the entire alleged class period; (3)  
12 Dr. Netz's did not calculate any "but-for" price; and (4) there is no reliable evidence of a  
13 common CRT "price structure."

14 Purported Methodological Flaws: Again, defendants attack Dr. Netz for employing  
15 averaging in her analysis. They complain that she did not compare target prices for specific  
16 tubes to actual prices for those same tubes. The Interim Special Master does not agree that this is  
17 a meaningful criticism. Dr. Netz empirically compared the cartel target prices defendants listed  
18 in their Glass Meeting conspiracy notes to the actual sales prices charged by defendants for the  
19 CRT product types listed in those meeting notes. Netz Decl., pp.61-64; Netz Rebuttal Decl.,  
20 p.33. For example, Dr. Netz explained, "[n]early all [of the meeting notes] indicated the size  
21 and application of the CRT to which they applied and the period for which they were effective;"  
22 thus, she chose to use these characteristics to "make a comparison between target and actual  
23 prices for a large portion of the transaction data while remaining confident that target and actual  
24 prices had been matched with relative accuracy." Netz Rebuttal Decl., p.33. Based on that  
25 comparison, Dr. Netz found that target prices and actual prices matched well, and concluded that  
26 "the cartel was generally successful in raising prices towards its target prices." *Id.*, p.64. Dr.  
27 Netz's approach does not ignore meaningful individual price variations.

28

1 Defendants also challenge Dr. Netz's use of average sales prices, arguing that because  
2 Dr. Netz used average instead of transaction-level prices, she never examined the actual prices  
3 for CRTs that were charged by defendants in the market, nor did she examine the numerous price  
4 differences that existed for such sales. The Interim Special Master rejected defendants' argument  
5 that Dr. Netz's use of averaging was impermissible, *supra*. The same analysis applies here.

6 Defendants also contend that Dr. Netz ignored the testimony of SDI, which claimed that  
7 its CRT prices differed based on customer, type of product, region, size, and specifications,  
8 resulting in "thousands of prices" for CRTs. As stated above, the Interim Special Master rejects  
9 defendants' reliance on anecdotal testimony of outlier circumstances as a substitute for Dr.  
10 Netz's detailed, record-based analysis. Dr. Netz explained why price differentials of the sort SDI  
11 asserted do not detract from her conclusion that a price structure existed:

12  
13 The but-for world differs from the actual world only with respect  
14 to the challenged conduct. Therefore, . . . in the but-for world CRT  
15 manufacturers would have had relationships with certain buyers,  
16 just as they did in the actual world; CRT manufacturers would  
17 have offered special price concessions to those buyers in the but-  
18 for as well as the actual world. I use the term price structure as a  
19 shorthand to refer to all of these qualitative and categorical  
20 characteristics of CRT prices that are the same in the actual and  
21 but-for worlds. The price structure therefore includes price  
22 differentials at a point in time associated with product  
23 differentiation and price differentials at a point in time due to  
24 buyer-seller relationships.

25 Netz Rebuttal Decl., p.39.

26 Assumption that Asia-based Target Prices Impacted the U.S. Market: Many of the Glass  
27 Meeting target prices applied to CRTs referenced sales to Asian product manufacturers or  
28 distributors. Yet Dr. Netz employed those target prices to analyze price overcharges for products  
29 sold in the United States. She also assumed that the target prices reviewed were sufficient in  
30 quantity to cover a representative portion of the class period.

31 With regard to coverage of the class period, the target prices that Dr. Netz used in her  
32 analysis covered points in time spanning the entire class period. *See* Pl. Exhs. RR-41, RR-42.  
33 Moreover, in response to defendants' criticism, Dr. Netz "identified and reviewed additional

1 cartel meeting notes which contained target prices and added these new data to the pool of target  
2 prices [she] used in [her] original analysis. The search for new target prices was in response to  
3 criticism that the target prices did not cover enough of the class period to be meaningful.” Netz  
4 Rebuttal, p.32.

5 With regard to U.S. sales, there is no dispute that most of the CRTs sold to class members  
6 were manufactured in Asia and then sold into the United States in finished televisions and  
7 monitors. The CRT cartel target pricing for sales of tubes to Asian manufacturers, therefore, is  
8 relevant — indeed critically important — to the analysis. Netz Rebuttal Decl. §VII.D.3.  
9 Moreover, in her Rebuttal report, Dr. Netz empirically compared global cartel target prices to the  
10 actual transaction prices of CPTs manufactured in North America, and she found that the North  
11 American CPT prices more closely matched target prices than she found for CPTs generally. *See*  
12 *id.* Exh. 27.

13 Failure to Calculate But-For Prices: Defendants also challenge Dr. Netz’s failure to  
14 calculate any “but-for” prices. However, because plaintiffs need not prove the merits of their  
15 entire case in chief at the class certification stage, defendants’ argument is of no avail. *See In re*  
16 *Ethylene Propylene Diene Monomer (“EPDM”) Antitrust Litig.*, 256 F.R.D. 82, 101 (D.Conn.  
17 2009).

18 Unwarranted Price Structure Conclusion: Defendants’ criticism of Dr. Netz’s conclusion  
19 that a price structure existed for CRT tubes is discussed repeatedly above. Dr. Netz provided a  
20 reasonable basis for her use of a hedonic regression analysis to support her conclusion that there  
21 is a price structure among all CRTs, so that if a price of one particular CRT model was raised, all  
22 prices of neighboring tubes would increase by a similar amount. Dr. Netz’s hedonic regressions  
23 do not improperly rely upon average prices, as defendants maintain, and their failure to control  
24 for resolution, masks, dot pitch, MPRII/TCO and frequency is not fatal to plaintiffs’ claim. As  
25 discussed above, Dr. Netz quite intentionally and with legitimate empirical reasons controlled  
26 only for the major variables of date, application, size and finish. Defendants, therefore, have  
27 failed to show how Dr. Netz’s price structure analysis would render plaintiffs claims susceptible  
28 to individualized inquiries.

1           Attack on Dr. Netz’s Methodology to Calculate Classwide Damages: With regard to  
2 damages, the Interim Special Master concludes that Dr. Netz has offered a reliable methodology  
3 to assess classwide damages using common proof. Indeed, as discussed above, Dr. Netz has  
4 substantively described four detailed and widely-accepted methodologies to calculate the “but  
5 for price” that consumers would have paid absent the conspiracy. Netz Decl., pp.83-97  
6 (describing before and after method, benchmark comparisons method, merger simulation model  
7 and market power method). Dr. Netz’s judgments regarding the likely availability of data are  
8 based on her review of the types of evidence defendants and other firms in the CRT industry  
9 regularly collected, as well as her experience in conducting related empirical research in the  
10 academic field and the antitrust litigation context. See Netz Rebuttal Decl. §IX.A. Based upon  
11 these analyses, Dr. Netz stated that the direct overcharge and the pass-through rate can be  
12 calculated using a common method based on common evidence. See Netz Rebuttal Decl. at 5-6.

13           The “validity of [Dr. Netz’s] methods will be adjudicated at trial based upon economic  
14 theory, data sources, and statistical techniques that are common to the class,” not at the class  
15 certification stage. *LCDs*, 267 F.R.D. at 606 (quoting *In re NASDAQ Market –Makers Antitrust*  
16 *Litig.*, 169 F.R.D. 493, 521 (S.D.N.Y. 1996). Unlike the situation in *Allied Orthopedic*  
17 *Appliances, Inc. v. Tyco Healthcare Group L.P.*, 247 F.R.D. 156, 175 (C.D. Cal. 2007), a case  
18 relied upon by defendants in their Opposition brief, none of these four methods lacks a  
19 benchmark to serve as a basis for a workable damage formula.<sup>23</sup> Rather, Dr. Netz identified the  
20 types of data required for each method, she explained how the required data for implementing  
21 the method was common to all class members, and she demonstrated that each model has been  
22 estimated using real-world data similar to the data available or likely to become available here.

23           Further, courts “have never required a precise mathematical calculation of damages  
24 before deeming a class worthy of certification.” *In re Scrap Metal Antitrust Litig.*, 527 F.3d 517,  
25 535 (6th Cir.2008); see also *LCDs*, 267 F.R.D. at 606 (quoting SRAM, 2008 WL 4447592, at \*6  
26

27 <sup>23</sup> Defendants’ reliance on *Piggly Wiggly Clarksville, Inc. v. Interstate Brands Corp.*, 100 Fed. App’x 296, 300 (5th  
28 Cir. 2004) is equally unpersuasive because unlike in *Piggly Wiggly*, Dr. Netz has successfully explained how to  
assign numerical values to all factors relevant to her regression analysis and has identified obtainable data to be used  
with her four approaches later.

1 (“In price-fixing cases, “[p]laintiffs are not required to supply a precise damage formula at the  
 2 certification stage.”)). Thus, the fact that Dr. Netz did not actually calculate the “but-for” prices  
 3 paid by consumers using any one of her methodologies is not dispositive of plaintiffs’ motion for  
 4 certification. This conclusion is not precluded by the Supreme Court’s recent *Comcast* decision.  
 5 Indeed, *Comcast* did not articulate any requirement that a damage calculation be performed at  
 6 the class certification stage.<sup>24</sup> Instead, it merely rejected plaintiffs’ expert’s damage model,  
 7 which addressed impact based on four impact theories, because the expert had not isolated  
 8 damages resulting from the single theory of antitrust impact that the district court had accepted.  
 9 *Comcast*, 133 S.Ct. at 1431. The Supreme Court held that “a model purporting to serve as  
 10 evidence of damages in this class action must measure only those damages attributable to that  
 11 theory.” *Id.* at 1433. Here, it is undisputed that plaintiffs assert, and Dr. Netz analyzes, only one  
 12 theory of antitrust liability and impact. As a result, *Comcast* has no application as to the damage  
 13 analysis here.<sup>25</sup>

14 Defendants raise multiple other objections to Dr. Netz’s damages methodologies. These  
 15 objections, however, are mere quibbles with Dr. Netz’s approach.<sup>26</sup> As other courts have

16  
 17 <sup>24</sup> This conclusion is supported by the court’s decision in *In re High-Tech Employee Antitrust Litig.*, No. 11-CV-  
 18 02509-LHK, 2013 WL 1352016, \*28-29 (N.D. Cal April 5, 2 or 3), where, after discussing the *Comcast* decision,  
 19 the court still did not require plaintiffs’ expert to have performed a damage calculation at the class certification  
 20 stage. In fact, the court granted class certification despite the fact that plaintiffs’ expert only proposed a “plausible”  
 21 model for calculating damages. *Id.* (quoting *Comcast*, 133 S.Ct. at 1426 for proposition that damages “[c]alculations  
 22 need not be exact, but at the class-certification stage (as at trial) any model supporting a plaintiff’s damages case  
 23 must be consistent with its liability case, particularly with respect to the alleged anticompetitive effect of the  
 24 violation”) (emphasis added). *High-Tech*, therefore, undermines Defendants’ position.

25 <sup>25</sup> Defendants also contend that *Comcast* rejected the approach taken by the court in *LCDs* because *Comcast* requires  
 26 a more rigorous approach. The *LCDs* court engaged in a rigorous approach, however. See *LCDs*, 267 F.R.D. at 600-  
 27 606. Indeed, the court acknowledged the need for a rigorous analysis, stating that its analysis should be “as rigorous  
 28 as necessary to determine whether class certification is appropriate.” *Id.* at 591.

29 <sup>26</sup> In their Opposition brief, defendants argue that, “Plaintiffs bear the burden of showing, through common proof,  
 30 that every class member paid a higher price than he would have absent the alleged conspiracy.” See Defendants’  
 31 Opp. at pp. 19-20 (emphasis added) (citing *In re New Motor Vehicles Canadian Export Antitrust Litig.*, 522 F.3d 6,  
 32 19 n.18 (1st Cir. 2008); *Blades*, 400 F.3d at 570, 573-74). However, “it is not necessary for Plaintiffs to show that  
 33 every single class member was injured. . . .” *Rubber Chemicals*, 232 F.R.D. at 353. It is well-settled that “[c]lass  
 34 certification is not precluded simply because a class may include persons who have not been injured by the  
 35 defendants’ conduct.” *In re Rail Freight Fuel Surcharge Antitrust Litig.*, 2012 WL 2870207, at \*36 (quoting *Mims*  
 36 *v. Stewart Title Guar. Co.*, 590 F.3d 298, 308 (5th Cir. 2009)); see also *Kohen.*, 571 F.3d at 677 (“What is true is  
 37 that a class will often include persons who have not been injured by the defendant’s conduct . . . . Such a possibility  
 38 or indeed inevitability does not preclude class certification . . . .”) (citations omitted), cert. denied sub nom; *DG v.*  
 39 *Devaughn*, 594 F.3d 1188, 1201 (10th Cir. 2010) (“That a class possibly or even likely includes persons unharmed  
 40 by a defendant’s conduct should not preclude certification.”) (citation omitted).

1 recognized, “the issue at class certification is not which expert is the most credible, or the most  
2 accurate modeler, but rather have the plaintiffs demonstrated that there is a way to prove a class-  
3 wide measure of damages through generalized proof.” *EPDM*, 256 F.R.D. at 100. Plaintiffs are  
4 not required to “prove the merits of their case-in-chief at the class certification stage. They need  
5 not demonstrate that their multiple regression analysis captures all the proper variables and thus  
6 reaches the ‘right’ answer, as the defendants would require them to.... It is unnecessary to delve  
7 further into the merits by going point-by-point through each expert’s theory to decide who has  
8 designed the ‘better’ multiple regression equation.” *Id.* at 101. Accordingly, the Interim Special  
9 Master concludes that defendants’ additional objections are not a basis on which to deny  
10 certification.

11 Having undertaken a rigorous analysis of plaintiffs’ evidence (particularly, the reports of  
12 Dr. Netz), the Interim Special Master finds that Plaintiffs have satisfied their burden of showing  
13 that common questions predominate on proof of the cartel’s price-fixing activities, the direct  
14 purchasers’ payment of supra-competitive pricing as a result of the alleged cartel, on proof of  
15 common impact on class members, and on proof of damages. Defendants’ numerous challenges  
16 to Dr. Netz’s methodology are insufficient to render plaintiffs’ proof susceptible to  
17 individualized inquiries. Plaintiffs, therefore, have met their burden of demonstrating  
18 predominance pursuant to Rule 23(b)(3) at the class certification stage.

## 19 2. Superiority

20 Plaintiffs must also demonstrate that a class action is “superior to other available methods  
21 for fairly and efficiently adjudicating the controversy.” Fed.R.Civ.P. 23(b)(3). To satisfy this  
22 requirement, plaintiffs must show: (1) the class members’ interests in individually controlling the  
23 prosecution or defense of separate actions; (2) the extent and nature of any litigation concerning  
24 the controversy already begun by or against class members; (3) the desirability or undesirability  
25 of concentrating the litigation of the claims in the particular forum; and (4) the likely difficulties  
26 in managing a class action. Fed. R. Civ. P. 23(b)(3). Other considerations include the reduction  
27 of litigation costs and promotion of efficiency achieved through class litigation, the availability  
28 of realistic alternatives, whether the costs of individual suits outweigh potential recovery, and

1 agreement among the proposed class as to whether class treatment is appropriate. *Local Joint*  
2 *Executive Bd. of Culinary/Bartender Trust Fund v. Las Vegas Sands, Inc.*, 244 F.3d 1152, 1163  
3 (9th Cir.2001); *Valentino v. Carter-Wallace, Inc.*, 97 F.3d 1227, 1234-35 (9th Cir.1996). In an  
4 antitrust action, when common questions are found to predominate, “courts generally have ruled  
5 that the superiority prerequisite of Rule 23(b)(3) is satisfied.” Wright, Miller & Kane, *Federal*  
6 *Practice and Procedure: Civil Procedure* § 1781, at 254–55 (3d ed.2004).

7 According to plaintiffs, a class action is the superior method for managing this litigation  
8 because the damages suffered by each putative class member are not large; and therefore, there is  
9 no realistic alternative approach for class members to recover the damages that defendants  
10 caused. *See Wiener v. Dannon Co., Inc.*, 255 F.R.D. 658, 671 (C.D. Cal. 2009). Plaintiffs also  
11 contend that, because of the CAFA and the fact that the Judicial Panel on Multidistrict Litigation  
12 ordered that all CRT cases be transferred to this District Court, prongs 2 and 3 of the superiority  
13 analysis are also satisfied. And finally, plaintiffs assert that a class action is more manageable  
14 than any other procedure available for the treatment of the factual and legal issues raised by  
15 plaintiffs’ claims. While there may be some variations in how different states handle antitrust  
16 and consumer protection claims, these variations can be readily managed by grouping the  
17 indirect-purchaser states in accordance with their approaches to those claims.

18 The Interim Special Master agrees that, in light of the above, each of the 22 proposed  
19 statewide classes is separately manageable, as are the classes as a whole. As the court noted in  
20 *LCDs*, “[i]n antitrust cases such as this, . . . damages . . . are likely to be too small to justify  
21 litigation, but a class action would offer those with small claims the opportunity for meaningful  
22 redress.” *LCDs*, 267 F.R.D. at 608 (quoting *SRAM*, 2008 WL 447592, at \*7.)

23 A class action, therefore, is superior to other available methods of adjudication.

#### 24 Conclusion

25 Having conducted a “rigorous analysis” of the required elements for certification,  
26 including an examination of the merits of the case as necessary to determine certification  
27 questions, and made a particularly detailed study of the Rule 23(b)(3) predominance element, all  
28 as commanded by recent case law from the Supreme Court, the Ninth Circuit and this District,

1 the Interim Special Master concludes that the proposed classes meet the requirements of Rule  
2 23(a) and 23(b)(3). Accordingly, the Interim Special Master recommends that the Court grant  
3 Indirect-Purchaser Plaintiffs' motion for class certification. The Interim Special Master  
4 recommends that the Court certify the following statewide classes for damages pursuant to  
5 Federal Rule of Civil Procedure 23(a) and 23(b)(3):

6  
7 **ARIZONA:**

8 All persons and entities in Arizona who, from March 1, 1995 to  
9 November 25, 2007, as residents of Arizona, purchased Cathode  
10 Ray Tubes incorporated in televisions and monitors in Arizona  
11 indirectly from any defendant or subsidiary thereof, or any  
12 named affiliate or any named co-conspirator, for their own use  
13 and not for resale. Specifically excluded from this Class are  
14 defendants; the officers, directors, or employees of any  
15 defendant; the parent companies and subsidiaries of any  
16 defendant; the legal representatives and heirs or assigns of any  
17 defendant; and the named affiliates and coconspirators. Also  
18 excluded are any federal, state, or local governmental entities,  
19 any judicial officers presiding over this action, members of their  
20 immediate families and judicial staffs, and any juror assigned to  
21 this action.

22  
23 **CALIFORNIA:**

24 All persons and entities in California who, from March 1, 1995  
25 to November 25, 2007, as residents of California, purchased  
26 Cathode Ray Tubes incorporated in televisions and monitors in  
27 California indirectly from any defendant or subsidiary thereof, or  
28 any named affiliate or any named co-conspirator, for their own  
use and not for resale. Specifically excluded from this Class are  
defendants; the officers, directors, or employees of any  
defendant; the parent companies and subsidiaries of any  
defendant; the legal representatives and heirs or assigns of any  
defendant; and the named affiliates and coconspirators. Also  
excluded are any federal, state, or local governmental entities,  
any judicial officers presiding over this action, members of their  
immediate families and judicial staffs, and any juror assigned to  
this action.

**DISTRICT OF COLUMBIA:**

All persons and entities in the District of Columbia who, from  
March 1, 1995 to November 25, 2007, as residents of the District  
of Columbia, purchased Cathode Ray Tubes incorporated in



1 televisions and monitors in the District of Columbia indirectly  
2 from any defendant or subsidiary thereof, or any named affiliate  
3 or any named co-conspirator, for their own use and not for resale.  
4 Specifically excluded from this Class are defendants; the  
5 officers, directors, or employees of any defendant; the parent  
6 companies and subsidiaries of any defendant; the legal  
7 representatives and heirs or assigns of any defendant; and the  
8 named affiliates and coconspirators. Also excluded are any  
9 federal, state, or local governmental entities, any judicial officers  
10 presiding over this action, members of their immediate families  
11 and judicial staffs, and any juror assigned to this action.

8 **FLORIDA:**

9 All persons and entities in Florida who, from March 1, 1995 to  
10 November 25, 2007, as residents of Florida, purchased Cathode  
11 Ray Tubes incorporated in televisions and monitors in Florida  
12 indirectly from any defendant or subsidiary thereof, or any  
13 named affiliate or any named co-conspirator, for their own use  
14 and not for resale. Specifically excluded from this Class are  
15 defendants; the officers, directors, or employees of any  
16 defendant; the parent companies and subsidiaries of any  
17 defendant; the legal representatives and heirs or assigns of any  
18 defendant; and the named affiliates and coconspirators. Also  
19 excluded are any federal, state, or local governmental entities,  
20 any judicial officers presiding over this action, members of their  
21 immediate families and judicial staffs, and any juror assigned to  
22 this action.

18 **HAWAII:**

19 All persons and entities in Hawaii who, from June 25, 2002 to  
20 November 25, 2007, as residents of Hawaii, purchased Cathode  
21 Ray Tubes incorporated in televisions and monitors in Hawaii  
22 indirectly from any defendant or subsidiary thereof, or any  
23 named affiliate or any named co-conspirator, for their own use  
24 and not for resale. Specifically excluded from this Class are  
25 defendants; the officers, directors, or employees of any  
26 defendant; the parent companies and subsidiaries of any  
27 defendant; the legal representatives and heirs or assigns of any  
28 defendant; and the named affiliates and coconspirators. Also  
excluded are any federal, state, or local governmental entities,  
any judicial officers presiding over this action, members of their  
immediate families and judicial staffs, and any juror assigned to  
this action.

## IOWA:

1 All persons and entities in Iowa who, from March 1, 1995 to  
2 November 25, 2007, as residents of Iowa, purchased Cathode  
3 Ray Tubes incorporated in televisions and monitors in Iowa  
4 indirectly from any defendant or subsidiary thereof, or any  
5 named affiliate or any named co-conspirator, for their own use  
6 and not for resale. Specifically excluded from this Class are  
7 defendants; the officers, directors, or employees of any  
8 defendant; the parent companies and subsidiaries of any  
9 defendant; the legal representatives and heirs or assigns of any  
10 defendant; and the named affiliates and coconspirators. Also  
11 excluded are any federal, state, or local governmental entities,  
12 any judicial officers presiding over this action, members of their  
13 immediate families and judicial staffs, and any juror assigned to  
14 this action.

## KANSAS:

15 All persons and entities in Kansas who, from March 1, 1995 to  
16 November 25, 2007, as residents of Kansas, purchased Cathode  
17 Ray Tubes incorporated in televisions and monitors in Kansas  
18 indirectly from any defendant or subsidiary thereof, or any  
19 named affiliate or any named co-conspirator, for their own use  
20 and not for resale. Specifically excluded from this Class are  
21 defendants; the officers, directors, or employees of any  
22 defendant; the parent companies and subsidiaries of any  
23 defendant; the legal representatives and heirs or assigns of any  
24 defendant; and the named affiliates and coconspirators. Also  
25 excluded are any federal, state, or local governmental entities,  
26 any judicial officers presiding over this action, members of their  
27 immediate families and judicial staffs, and any juror assigned to  
28 this action.

## MAINE:

1 All persons and entities in Maine who, from March 1, 1995 to  
2 November 25, 2007, as residents of Maine, purchased Cathode  
3 Ray Tubes incorporated in televisions and monitors in Maine  
4 indirectly from any defendant or subsidiary thereof, or any  
5 named affiliate or any named co-conspirator, for their own use  
6 and not for resale. Specifically excluded from this Class are  
7 defendants; the officers, directors, or employees of any  
8 defendant; the parent companies and subsidiaries of any  
9 defendant; the legal representatives and heirs or assigns of any  
10 defendant; and the named affiliates and coconspirators. Also  
11 excluded are any federal, state, or local governmental entities,  
12 any judicial officers presiding over this action, members of their  
13 immediate families and judicial staffs, and any juror assigned to  
14 this action.

1 immediate families and judicial staffs, and any juror assigned to  
2 this action.

3 MICHIGAN:

4 All persons and entities in Michigan who, from March 1, 1995 to  
5 November 25, 2007, as residents of Michigan, purchased  
6 Cathode Ray Tubes incorporated in televisions and monitors in  
7 Michigan indirectly from any defendant or subsidiary thereof, or  
8 any named affiliate or any named co-conspirator, for their own  
9 use and not for resale. Specifically excluded from this Class are  
10 defendants; the officers, directors, or employees of any  
11 defendant; the parent companies and subsidiaries of any  
12 defendant; the legal representatives and heirs or assigns of any  
13 defendant; and the named affiliates and coconspirators. Also  
14 excluded are any federal, state, or local governmental entities,  
15 any judicial officers presiding over this action, members of their  
16 immediate families and judicial staffs, and any juror assigned to  
17 this action.

18 MINNESOTA:

19 All persons and entities in Minnesota who, from March 1, 1995  
20 to November 25, 2007, as residents of Minnesota, purchased  
21 Cathode Ray Tubes incorporated in televisions and monitors in  
22 Minnesota indirectly from any defendant or subsidiary thereof, or  
23 any named affiliate or any named co-conspirator, for their own  
24 use and not for resale. Specifically excluded from this Class are  
25 defendants; the officers, directors, or employees of any  
26 defendant; the parent companies and subsidiaries of any  
27 defendant; the legal representatives and heirs or assigns of any  
28 defendant; and the named affiliates and coconspirators. Also  
excluded are any federal, state, or local governmental entities,  
any judicial officers presiding over this action, members of their  
immediate families and judicial staffs, and any juror assigned to  
this action.

MISSISSIPPI:

All persons and entities in Mississippi who, from March 1, 1995  
to November 25, 2007, as residents of Mississippi, purchased  
Cathode Ray Tubes incorporated in televisions and monitors in  
Mississippi indirectly from any defendant or subsidiary thereof,  
or any named affiliate or any named co-conspirator, for their own  
use and not for resale. Specifically excluded from this Class are  
defendants; the officers, directors, or employees of any  
defendant; the parent companies and subsidiaries of any  
defendant; the legal representatives and heirs or assigns of any  
defendant; and the named affiliates and coconspirators. Also

1 excluded are any federal, state, or local governmental entities,  
2 any judicial officers presiding over this action, members of their  
3 immediate families and judicial staffs, and any juror assigned to  
4 this action.

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NEBRASKA:

All persons and entities in Nebraska who, from July 20, 2002 to November 25, 2007, as residents of Nebraska, purchased Cathode Ray Tubes incorporated in televisions and monitors in Nebraska indirectly from any defendant or subsidiary thereof, or any named affiliate or any named co-conspirator, for their own use and not for resale. Specifically excluded from this Class are defendants; the officers, directors, or employees of any defendant; the parent companies and subsidiaries of any defendant; the legal representatives and heirs or assigns of any defendant; and the named affiliates and coconspirators. Also excluded are any federal, state, or local governmental entities, any judicial officers presiding over this action, members of their immediate families and judicial staffs, and any juror assigned to this action.

NEVADA:

All persons and entities in Nevada who, from February 4, 1999 to November 25, 2007, as residents of Nevada, purchased Cathode Ray Tubes incorporated in televisions and monitors in Nevada indirectly from any defendant or subsidiary thereof, or any named affiliate or any named co-conspirator, for their own use and not for resale. Specifically excluded from this Class are defendants; the officers, directors, or employees of any defendant; the parent companies and subsidiaries of any defendant; the legal representatives and heirs or assigns of any defendant; and the named affiliates and coconspirators. Also excluded are any federal, state, or local governmental entities, any judicial officers presiding over this action, members of their immediate families and judicial staffs, and any juror assigned to this action.

NEW MEXICO:

All persons and entities in New Mexico who, from March 1, 1995 to November 25, 2007, as residents of New Mexico, purchased Cathode Ray Tubes incorporated in televisions and monitors in New Mexico indirectly from any defendant or subsidiary thereof, or any named affiliate or any named co-conspirator, for their own use and not for resale. Specifically excluded from this Class are defendants; the officers, directors, or employees of any defendant; the parent companies and

1 subsidiaries of any defendant; the legal representatives and heirs  
2 or assigns of any defendant; and the named affiliates and  
3 coconspirators. Also excluded are any federal, state, or local  
4 governmental entities, any judicial officers presiding over this  
5 action, members of their immediate families and judicial staffs,  
6 and any juror assigned to this action.

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NEW YORK:

All persons and entities in New York who, from March 1, 1995 to November 25, 2007, as residents of New York, purchased Cathode Ray Tubes incorporated in televisions and monitors in New York indirectly from any defendant or subsidiary thereof, or any named affiliate or any named co-conspirator, for their own use and not for resale. Specifically excluded from this Class are defendants; the officers, directors, or employees of any defendant; the parent companies and subsidiaries of any defendant; the legal representatives and heirs or assigns of any defendant; and the named affiliates and coconspirators. Also excluded are any federal, state, or local governmental entities, any judicial officers presiding over this action, members of their immediate families and judicial staffs, and any juror assigned to this action.

NORTH CAROLINA:

All persons and entities in North Carolina who, from March 1, 1995 to November 25, 2007, as residents of North Carolina, purchased Cathode Ray Tubes incorporated in televisions and monitors in North Carolina indirectly from any defendant or subsidiary thereof, or any named affiliate or any named co-conspirator, for their own use and not for resale. Specifically excluded from this Class are defendants; the officers, directors, or employees of any defendant; the parent companies and subsidiaries of any defendant; the legal representatives and heirs or assigns of any defendant; and the named affiliates and coconspirators. Also excluded are any federal, state, or local governmental entities, any judicial officers presiding over this action, members of their immediate families and judicial staffs, and any juror assigned to this action.

NORTH DAKOTA:

All persons and entities in North Dakota who, from March 1, 1995 to November 25, 2007, as residents of North Dakota, purchased Cathode Ray Tubes incorporated in televisions and monitors in North Dakota indirectly from any defendant or subsidiary thereof, or any named affiliate or any named co-conspirator, for their own use and not for resale. Specifically

1 excluded from this Class are defendants; the officers, directors,  
2 or employees of any defendant; the parent companies and  
3 subsidiaries of any defendant; the legal representatives and heirs  
4 or assigns of any defendant; and the named affiliates and  
5 coconspirators. Also excluded are any federal, state, or local  
6 governmental entities, any judicial officers presiding over this  
7 action, members of their immediate families and judicial staffs,  
8 and any juror assigned to this action.

#### 6 SOUTH DAKOTA:

7 All persons and entities in South Dakota who, from March 1,  
8 1995 to November 25, 2007, as residents of South Dakota,  
9 purchased Cathode Ray Tubes incorporated in televisions and  
10 monitors in South Dakota indirectly from any defendant or  
11 subsidiary thereof, or any named affiliate or any named co-  
12 conspirator, for their own use and not for resale. Specifically  
13 excluded from this Class are defendants; the officers, directors,  
14 or employees of any defendant; the parent companies and  
15 subsidiaries of any defendant; the legal representatives and heirs  
16 or assigns of any defendant; and the named affiliates and  
17 coconspirators. Also excluded are any federal, state, or local  
18 governmental entities, any judicial officers presiding over this  
19 action, members of their immediate families and judicial staffs,  
20 and any juror assigned to this action.

#### 16 TENNESSEE:

17 All persons and entities in Tennessee who, from March 1, 1995  
18 to November 25, 2007, as residents of Tennessee, purchased  
19 Cathode Ray Tubes incorporated in televisions and monitors in  
20 Tennessee indirectly from any defendant or subsidiary thereof, or  
21 any named affiliate or any named co-conspirator, for their own  
22 use and not for resale. Specifically excluded from this Class are  
23 defendants; the officers, directors, or employees of any  
24 defendant; the parent companies and subsidiaries of any  
25 defendant; the legal representatives and heirs or assigns of any  
26 defendant; and the named affiliates and coconspirators. Also  
27 excluded are any federal, state, or local governmental entities,  
28 any judicial officers presiding over this action, members of their  
immediate families and judicial staffs, and any juror assigned to  
this action.

#### 26 VERMONT:

27 All persons and entities in Vermont who, from March 1, 1995 to  
28 November 25, 2007, as residents of Vermont, purchased Cathode  
Ray Tubes incorporated in televisions and monitors in Vermont  
indirectly from any defendant or subsidiary thereof, or any

1 named affiliate or any named co-conspirator, for their own use  
2 and not for resale. Specifically excluded from this Class are  
3 defendants; the officers, directors, or employees of any  
4 defendant; the parent companies and subsidiaries of any  
5 defendant; the legal representatives and heirs or assigns of any  
6 defendant; and the named affiliates and coconspirators. Also  
7 excluded are any federal, state, or local governmental entities,  
8 any judicial officers presiding over this action, members of their  
9 immediate families and judicial staffs, and any juror assigned to  
10 this action.

#### 11 WEST VIRGINIA:

12 All persons and entities in West Virginia who, from March 1,  
13 1995 to November 25, 2007, as residents of West Virginia,  
14 purchased Cathode Ray Tubes incorporated in televisions and  
15 monitors in West Virginia indirectly from any defendant or  
16 subsidiary thereof, or any named affiliate or any named co-  
17 conspirator, for their own use and not for resale. Specifically  
18 excluded from this Class are defendants; the officers, directors,  
19 or employees of any defendant; the parent companies and  
20 subsidiaries of any defendant; the legal representatives and heirs  
21 or assigns of any defendant; and the named affiliates and  
22 coconspirators. Also excluded are any federal, state, or local  
23 governmental entities, any judicial officers presiding over this  
24 action, members of their immediate families and judicial staffs,  
25 and any juror assigned to this action.

#### 26 WISCONSIN:

27 All persons and entities in Wisconsin who, from March 1, 1995  
28 to November 25, 2007, as residents of Wisconsin, purchased  
Cathode Ray Tubes incorporated in televisions and monitors in  
Wisconsin indirectly from any defendant or subsidiary thereof, or  
any named affiliate or any named co-conspirator, for their own  
use and not for resale. Specifically excluded from this Class are  
defendants; the officers, directors, or employees of any  
defendant; the parent companies and subsidiaries of any  
defendant; the legal representatives and heirs or assigns of any  
defendant; and the named affiliates and coconspirators. Also  
excluded are any federal, state, or local governmental entities,  
any judicial officers presiding over this action, members of their  
immediate families and judicial staffs, and any juror assigned to  
this action.

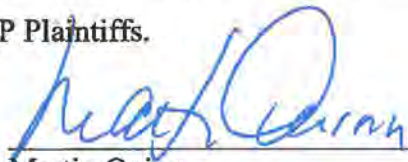
1 The Interim Special Master recommends that the following individuals and entities be  
2 named as Class Representatives:

3	<u>State</u>	<u>Plaintiff</u>
4	Arizona	Brian Luscher
5	California	Jeffrey Figone
6	California	Steven Ganz
7	District of Columbia	Lawyers' Choice Suites, Inc.
8	Florida	David Rooks
9	Hawaii	Daniel Riebow
10	Iowa	Travis Burau
11	Kansas	Southern Office Supply, Inc.
12	Maine	Kerry Lee Hall
13	Michigan	Lisa Reynolds
14	Minnesota	Barry Kushner
15	Minnesota	David Norby
16	Mississippi	Charles Jenkins
17	Nebraska	Steven Fink
18	Nevada	Gloria Comeaux
19	New Mexico	Craig Stephenson
20	New York	Janet Ackerman
21	New York	Louise Wood
22	North Carolina	Patricia Andrews
23	North Dakota	Gary Hanson
24	South Dakota	Jeff Speaect
25	Tennessee	Albert Sidney Crigler
26	Vermont	Margaret Slagle
27	West Virginia	John Larch
28	Wisconsin	Brigid Terry



1 The Interim Special Master recommends that Trump, Alioto, Trump & Prescott LLP be  
2 designated and appointed as Class Counsel for the IP Plaintiffs.

3  
4 Dated: June 20, 2013

  
\_\_\_\_\_  
Martin Quinn  
Interim Special Master

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7 Approved/Disapproved/Modified

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9 DATED: \_\_\_\_\_

\_\_\_\_\_  
Hon. Samuel Conti  
United States District Judge

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