

## Reliability Of 'Price Premium' Calculations In Class Actions

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In a multitude of recent class actions, plaintiff consumers have sought restitution for purchases of products that they allege were mislabeled or falsely advertised. Restitution in such cases is often determined by the “price premium” for the products at issue, defined as “the difference between the market price actually paid by consumers and the true market price that reflects the impact of the unlawful, unfair, or fraudulent business practices.”[1] Under the U.S. Supreme Court’s decision in *Comcast v. Behrend*,[2] trial courts have a duty to conduct a “rigorous analysis” in deciding class certification including assessing a plaintiff’s damages model. In deciding whether to certify a class, recent trial courts have reached different conclusions on whether the price premium models proposed by plaintiff experts satisfy *Comcast*.



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The evaluation of price premium models by trial courts will be critical in determining the success of current consumer class actions and the prevalence of future consumer class actions. As explained below, many recently proposed price premium models have fallen short of meeting the economic requirements of a reliable price premium calculation.

### Three Factors That Must Be Incorporated into a “Price Premium” Calculation

A “price premium” attributable to wrongful conduct such as alleged mislabeling or false advertising exists when the market price paid by a consumer exceeds the price that she would have paid “but-for” that wrongful conduct.[3] As shown by basic industrial organization economics, whether a price premium exists and its magnitude depend on three factors: (1) the impact of the allegedly wrongful conduct on the demand for the defendant’s product; (2) the costs of the defendant; and (3) the competitive interaction between the defendant and competing suppliers.[4]

Regarding the first factor, the removal or correction of an allegedly false product claim that caused a price premium would reduce demand for the defendant’s product (i.e., lower the demand curve). It may also change the demand for some consumers differently than others (thereby changing the “slope” of the demand curve in addition to lowering demand). Whether this reduction in demand would have resulted in a lower “but-for” price would, in turn, depend on costs and competitive conditions. Because demand, costs and competitive conditions jointly determine the “but-for” price (and therefore the price premium) any reliable model of a price premium must account for all three factors.

Plaintiff experts have proposed two primary models for calculating price premiums in recent consumer class actions — surveys and “hedonic regressions.” As I explain below, many recently proposed implementations of these two methods have not clearly and properly accounted for these three factors.

## **Surveys**

In several recent consumer class actions, plaintiff experts have proposed a survey that purports to calculate the “willingness to pay” of consumers for an attribute at issue (for example an “all natural” claim). These include cases involving such products as vegetable oil, hairstyling products, electronic cigarettes, pharmaceuticals and cheese.

Surveys in such cases are typically done in the form of “conjoint analysis.” In conjoint analysis, an expert surveys a sample of consumers and presents them with several different hypothetical products with different bundles of product characteristics and separate price points. The surveyor then asks the sampled consumers to choose their preferred product (including sometimes being able to choose none of the offered products). By assembling multiple alternative hypothetical products, some of which include the product characteristic for which the researcher is attempting to calculate a price premium (for example, a claim that a product is “all natural”) the researcher attempts to isolate consumers’ “willingness to pay” for the attribute at issue. A proper conjoint survey requires, among other things, using an appropriate representative sample of consumers, properly including product characteristics, and properly phrasing the questions presented to those surveyed.[5]

Because it reflects only demand, “willingness to pay” is generally not equal to a price premium, and oftentimes will substantially overstate any actual price premium.[6] When faced with a decrease in willingness to pay, a defendant selling a “differentiated” product (meaning one which consumers perceive as differing from those offered by competitors) will often reduce its price by less than the reduction in the “willingness to pay” and sometimes not at all. In some cases, trial courts have recognized that conjoint surveys have been critically deficient in failing to adjust for supply.[7] Unfortunately, in some other cases, trial courts have concluded that such surveys satisfied Comcast and certified a class.[8]

Some researchers have proposed that, in theory, combining a properly designed conjoint survey with assumptions about cost and competitive behavior through a “simulation” may properly isolate a price premium and thus, perhaps, resolve the inherent deficiency of relying exclusively on a survey.[9] A plaintiffs’ expert presented a market simulation recently in *In re: Dial Complete Marketing and Sales Practices Litigation*. Reliably conducting a simulation requires not only establishing a valid survey but clearly setting forth the assumptions regarding costs and competitive conditions underlying that simulation and the support for those assumptions. A market simulation also requires an assumption regarding what economists call an “equilibrium” condition (such as a “Nash” equilibrium). These are substantial tasks. In *Dial*, the district court apparently accepted that the plaintiffs’ expert had cleared these hurdles despite its conclusion that this expert had explained his simulation in an “opaque way” and was “unclear.”[10] Such simulations should be viewed with a critical eye unless it is clear that demand and supply conditions have been adequately incorporated and the underlying assumptions of the simulation have been explained.

## **The “Hedonic Regression”**

The second approach commonly used by recent plaintiff experts is the “hedonic regression” model. A

regression is a statistical tool in which an economist attempts to explain changes in the value of a “dependent variable” (e.g., price) based on the values of one or more “independent variables” (e.g., cost). In a hedonic regression model, the analyst runs a regression model relating the price of a product to multiple product characteristics (such as size, color, packaging and ingredients). A “hedonic regression” does not represent either a demand curve or a supply curve but instead is a “reduced form” equation meaning that it combines demand and supply factors into a single equation (without necessarily containing a way to break these apart).[11] Experts have sometimes treated the “coefficient” on a product characteristic variable in such a regression as the “implicit” price of that product characteristic.[12]

There are several substantial challenges to applying a hedonic regression method to calculate a price premium, and it is, at best, unclear whether recent models proposed in consumer class actions have overcome these challenges. These challenges include choosing the appropriate “functional form” (i.e., the relationship between price and the product characteristics, such as logarithmic or linear), choosing appropriate measures of product characteristics, ensuring that important variables are not left out (to avoid an “omitted variable” problem), and “disentangling” the effects of separate characteristics from each other (arising from what economists call “multicollinearity”). For example, a regression may have variables for the brand of the product and the label of a product that completely overlap (in other words, in the data all observations for that brand include the label). In this scenario, a regression is unlikely to disentangle the separate effects of branding and the label at issue.[13]

It is important that experts clearly and completely explain their choice of modeling for a hedonic regression. Based on the alternative choices available for functional form, time period, data set and product characteristics, there can easily be hundreds, or even thousands, of possible choices available to an expert for specifying a hedonic regression model. The existence of many alternative choices of the model means that it will often be easy to find at least one specification that appears to support a price premium. It is problematic that a hedonic regression model may be readily manipulated to generate a desired result.

Some trial courts have identified critical deficiencies in hedonic regression models set forth by plaintiff experts.[14] Others, however, have concluded that a hedonic regression model satisfied Comcast without requiring experts to adequately explain the choices underlying the models they proposed. At least one trial court accepted as sufficient under Comcast an expert’s claim that he would be able to perform a reliable hedonic regression analysis even though he had yet to perform one.[15] Given the complexities inherent in reliably performing a hedonic regression analysis in the context of consumer class actions, courts should be highly suspicious of such “just trust me” claims.

Another trial court appeared to accept a regression analysis without addressing issues raised about the “completeness of the variable set used and the correctness of the data categorizations” because the “validity of the methodology itself” was not at issue.[16] The fact that the methodology of a hedonic regression has been used in some applications (for example, the calculation of consumer price indices) does not imply that this method can be reliably used for a specific consumer class action. In order to determine if a hedonic regression can isolate a price premium in a consumer class action, it is necessary to evaluate such issues as the correctness of the data categorizations.

### **Are We There Yet?**

Plaintiff experts have proposed evolving methods for calculating price premiums in consumer class actions. The “just trust me” approach in which an expert asserts an ability to calculate a price premium

without conducting the analysis is clearly deficient. Surveys that do not specifically consider supply conditions are also critically deficient. Hedonic regressions and market simulations face substantial challenges. It is far from clear that plaintiff experts have proposed hedonic regression or simulation models that meet these challenges in the recent wave of consumer class actions. Whether experts in upcoming consumer class actions will propose models that can clearly and reliably address demand, cost and competition and reliably calculate price premiums on a classwide basis remains to be seen.

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[1] Werdebaugh v. Blue Diamond Growers, No. 12-2724, 2014 WL 2191901 at \*22 (N.D. Cal. May 23, 2014).

[2] Comcast v. Behrend, 133 S.Ct. 1426, 1433 (2013).

[3] I'm referring to "price premium" based on applying economics to current cases and not a legal definition of "price premium."

[4] See, e.g., "Sources of Bias and Solutions to Bias in the Consumer Price Index," Jerry Hausman, Journal of Economic Perspectives, Vol. 17, No. 1 (Winter 2003), 23-44 at 36.

[5] See, e.g., "Valuation of Patented Product Features," Greg M. Allenby, Jeff Brazell, John R. Howell, and Peter E. Rossi, The Journal of Law and Economics 2014 57:3, 629-663.

[6] This is assuming that a survey that has been performed accurately measures willingness to pay. Because a survey measures what consumers tell the surveyors they would do under hypothetical scenarios (as opposed to measuring their actual choices) this will not necessarily be the case for conjoint analysis.

[7] See, e.g., Morales v. Kraft Foods Group Inc., 2017 WL 2598556, No. CV14-04387 (C.D. Cal. June 9, 2017)

[8] In Re: Lenovo Adware Litigation, case number 5:15-md-02624, U.S. District Court for the Northern District of California.

[9] Allenby, et al. supra note 5.

[10] In re: Dial Complete Marketing and Sales Practices Litigation, MDL Case No. 11-md-2263-SM, 2017 DNH 051 (D.N.H. March 27, 2017)

[11] Hausman, supra note 4, at 37.

[12] See, e.g., "The Price of Happy Hens: A Hedonic Analysis of Retail Egg Prices," Jae Bong Chang, Jayson L. Lusk, and F. Bailey Norwood, Journal of Agricultural and Resource Economics 35 (3) (2010), 406-423.

[13] In at least one case, a plaintiff expert offered a “hybrid” model which promised to resolve such an issue by performing a hedonic regression in conjunction with conjoint analysis. See *Briseno v. ConAgra Foods Inc.*, 90 F. Supp. 3d 919, 2015 BL 54967 (C.D. Cal. Feb. 23, 2015). However, as explained above, conjoint analysis alone can only measure the demand side of a price and it is therefore doubtful that this hybrid model reliably isolated the price premium. See, “Computing Damages in Product Mislabeling Cases: Plaintiffs’ Mistaken Approach in *Briseno v. ConAgra*,” Greg Allenby, Peter E. Rossi, Lisa Cameron, and Yikang Li, *Product Safety and Liability Reporter*, Bloomberg Law, Feb. 27, 2017.

[14] See, e.g., *Werdebaugh v. Blue Diamond Growers*, *supra* note 1.

[15] *Arcuri et al v. The Scotts Miracle-Gro Company Inc et al.*, case number 7:12-cv-04727, in the U.S. District Court for the Southern District of New York.

[16] See, e.g., *Rohini Kumar v. Salov North America Corp.*, No. 14-cv-02411 (N.D. Cal.) (July 15, 2016).