

Warsaw Conference 2017

The Use of Economics and Economic Experts in Cartel Damages Cases

A Primer

25 April 2017

Dr Jorge Padilla

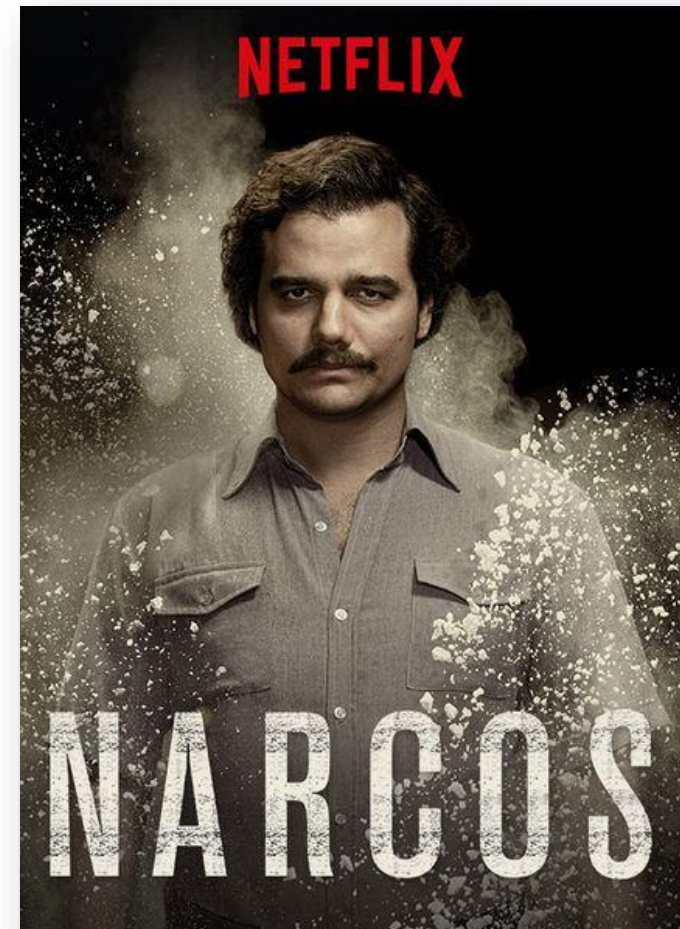


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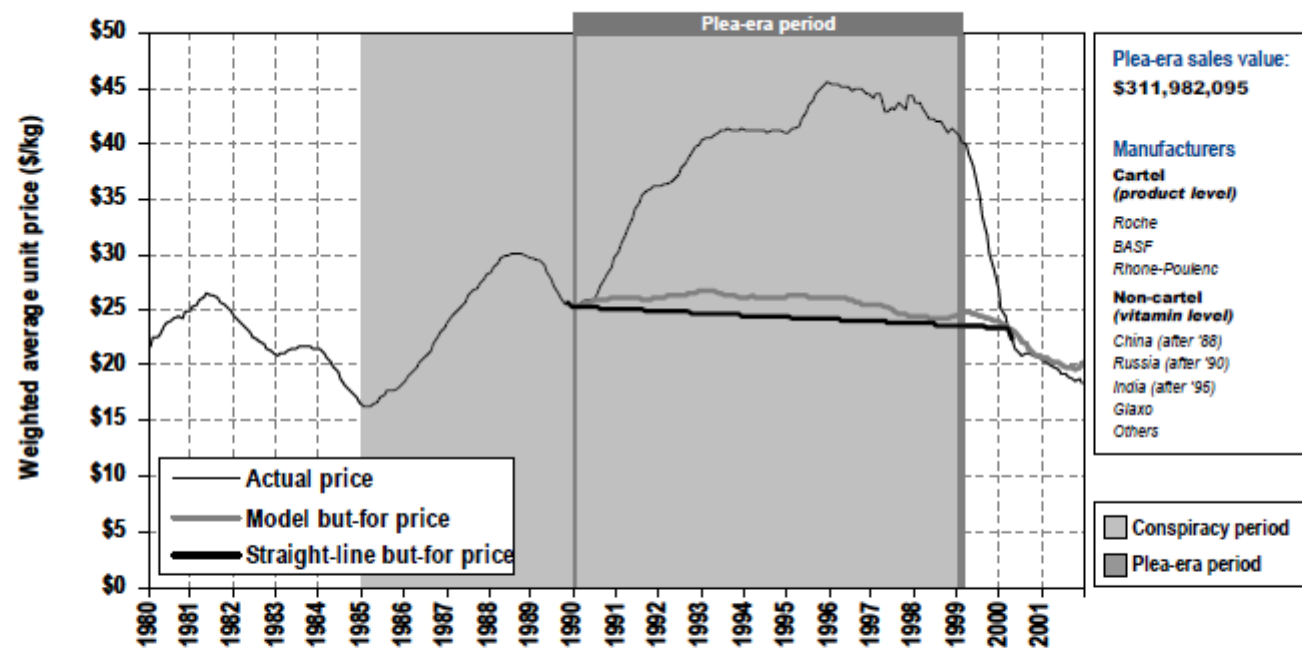
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EVIL CARTELS



EVIL CARTELS

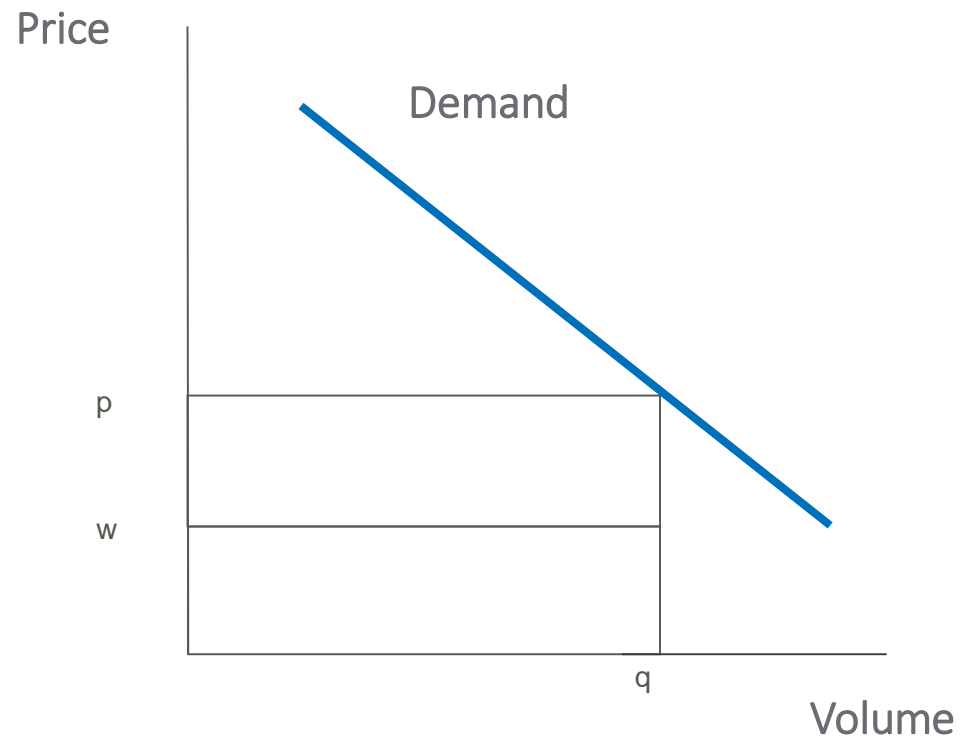


Source: 7-month centered moving average for U.S. "tel quel" feed price from Roche ROVIS data

Figure 1: Data on Vitamin A Acetate 650 Feed Grade as shown in Figure 12-6 of Bernheim (2002, p.207)



CARTEL DAMAGES: GRAPHICAL REPRESENTATION OF A MARKET

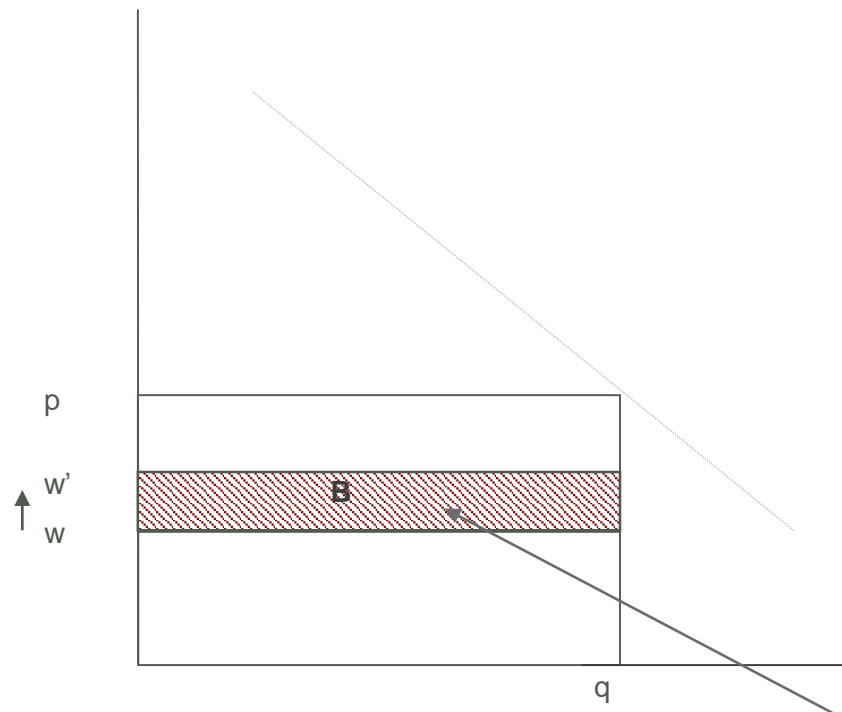


w – price of input

p – price of end product

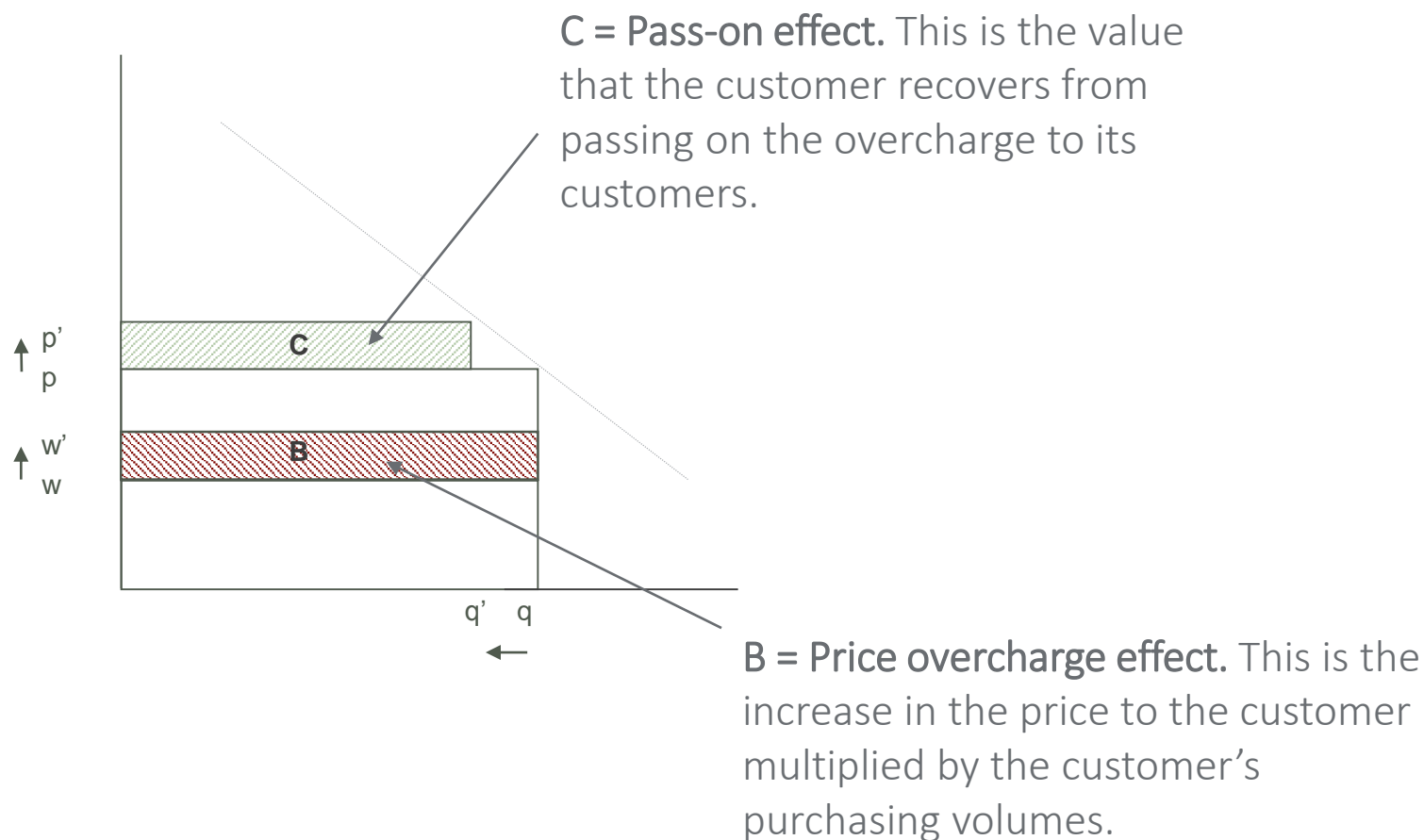
q – volume of end product

CARTEL DAMAGES: OVERCHARGE

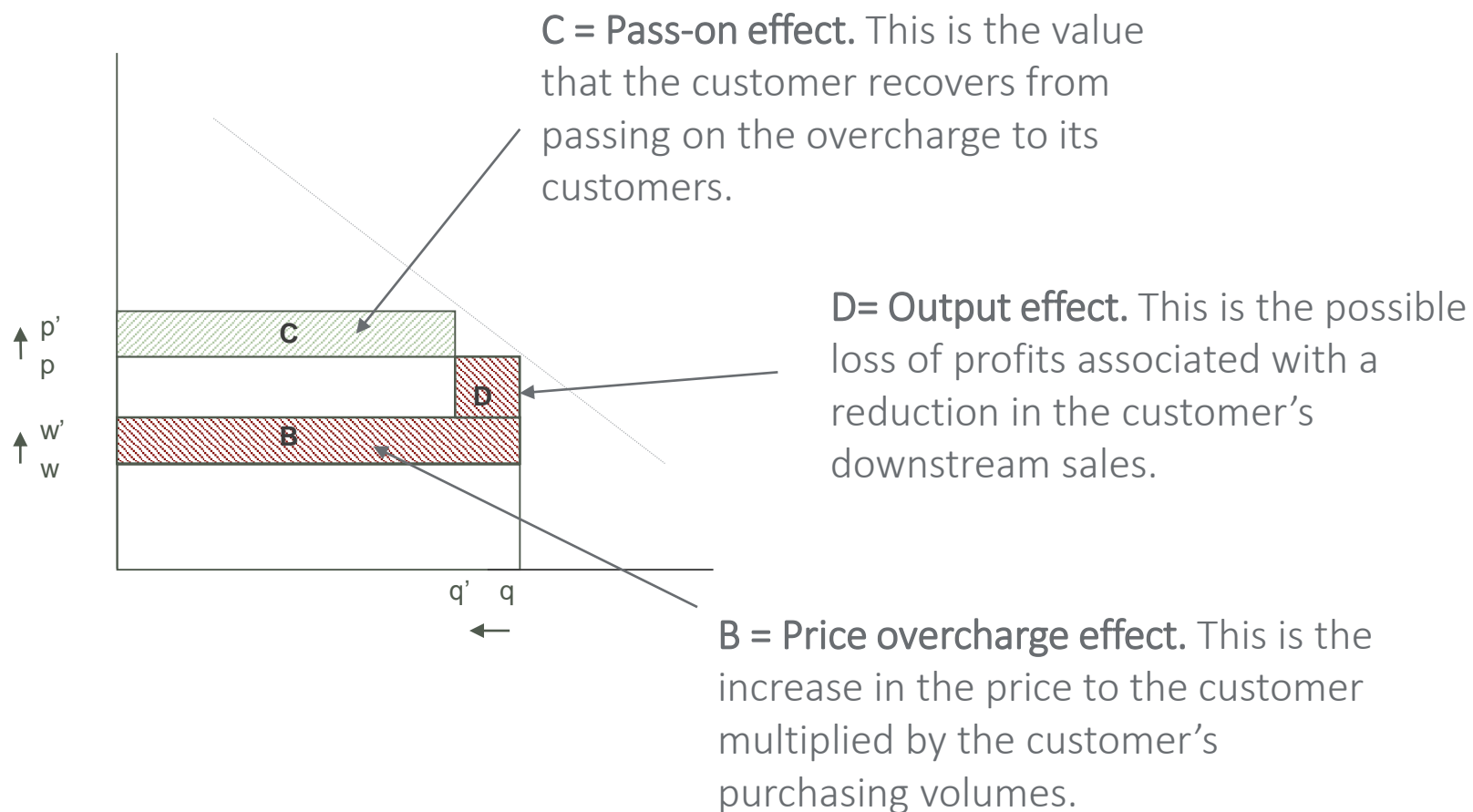


B = Price overcharge effect. This is the increase in the price to the customer multiplied by the customer's purchasing volumes.

CARTEL DAMAGES: PASS-ON OR PASS-THROUGH EFFECT

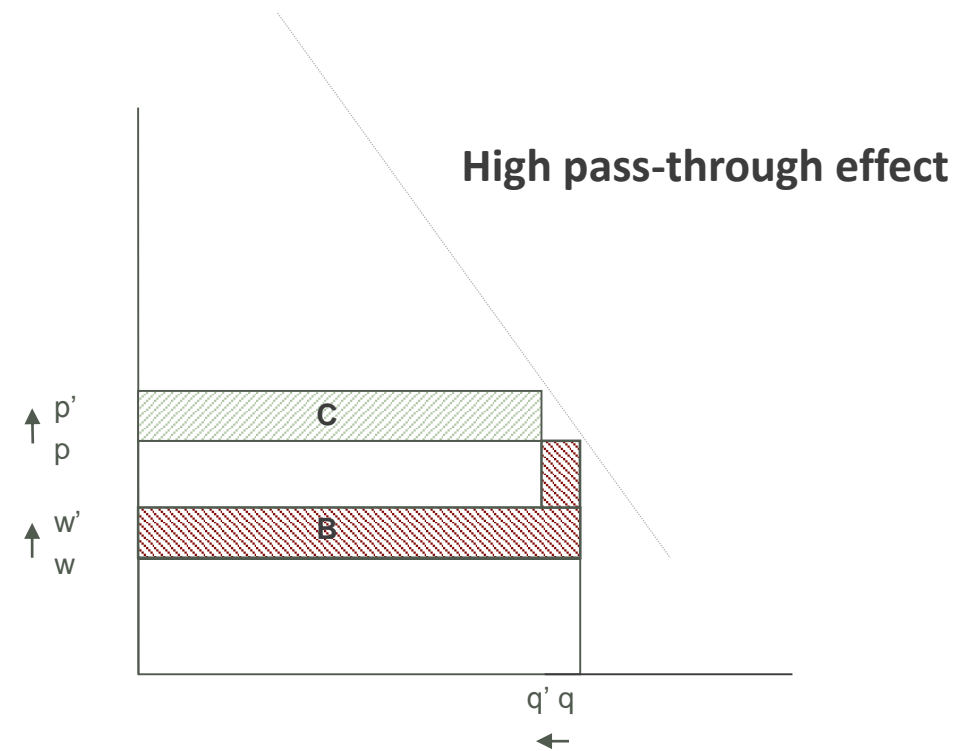
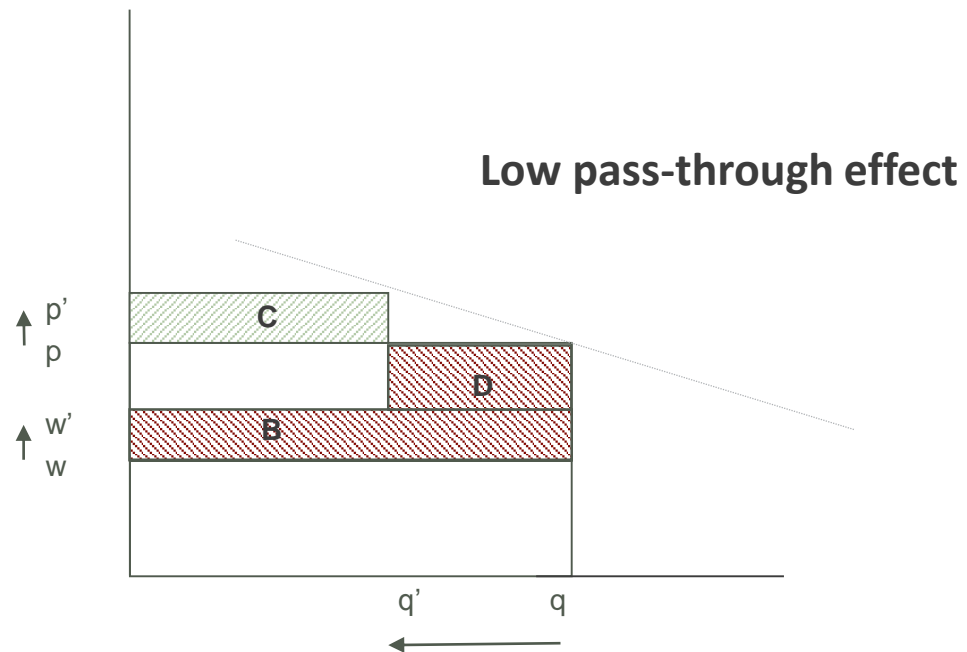


CARTEL OVERCHARGE: OUTPUT EFFECT

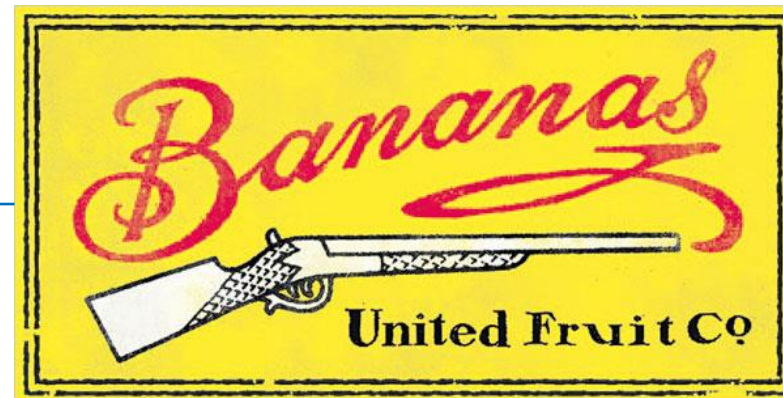


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HETEROGENEOUS CARTELS

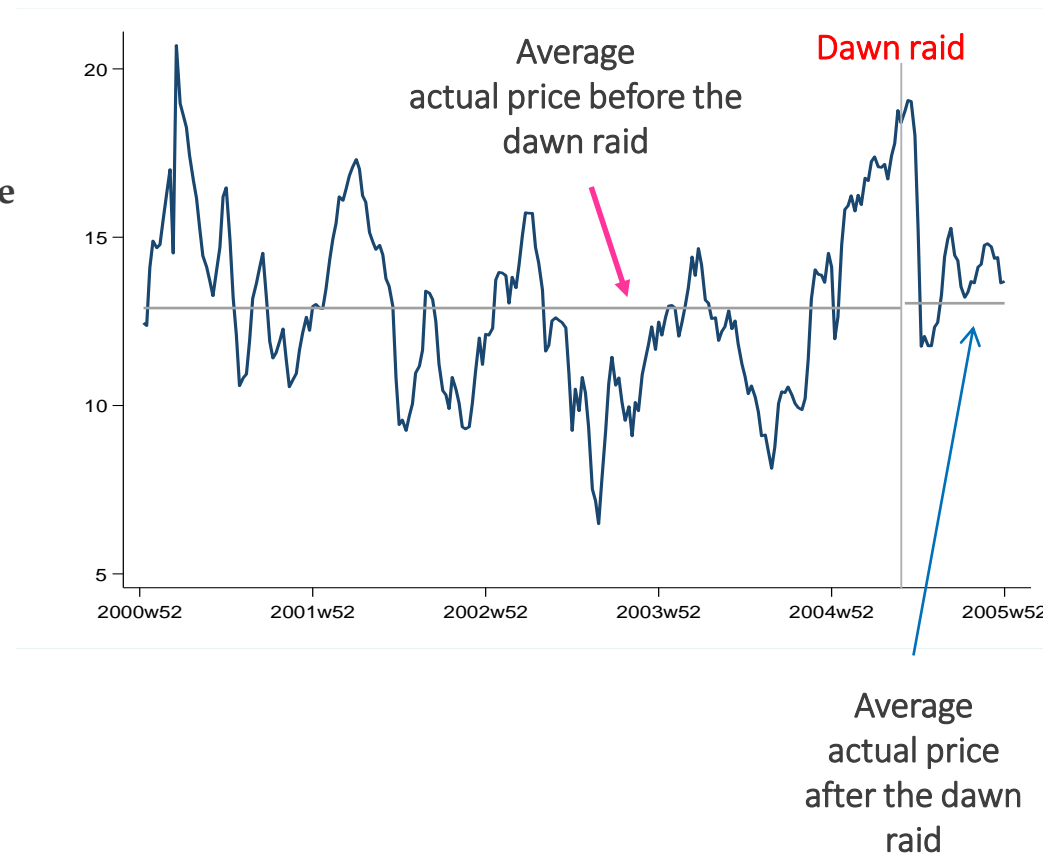


THE BANANAS “CARTEL”

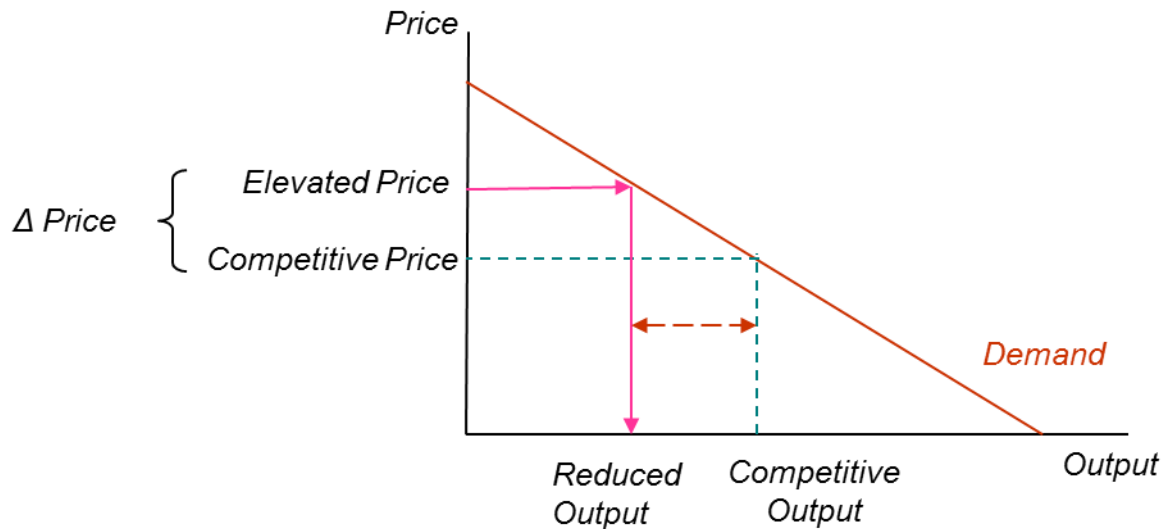


THE BANANAS “CARTEL”

Evolution of Dole's
volume weighted average
actual net price
before and after
the dawn raid



THE BANANAS “CARTEL”



“Basic economic principles suggest that in order for a conspiracy to be effective and actually raise prices, the conspiracy must successfully reduce supply available to the market.” (§137)

“Prices in Europe were determined by the artificial scarcity created by the EU quota regime. Banana importers and marketing companies had no influence on quantity as it was in their interest to fully fill their license allocation and little influence on price.” (§132)

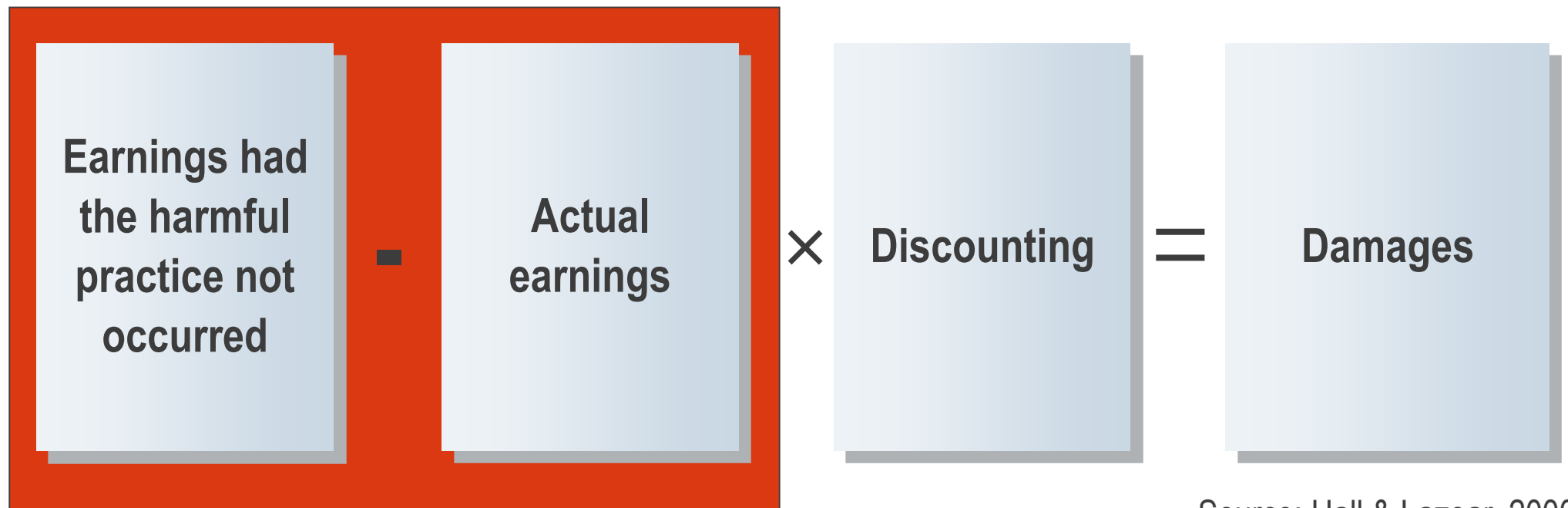
Quotes from Declaration of Thomas H. Spreen, Ph. D. before the United States District Court for the Southern District of Columbia, 2006 , on behalf of Chiquita.

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THE “BUT-FOR” OR COUNTERFACTUAL APPROACH

- The assessment of compensation damages requires analysis of the economic impact of the anti-competitive behavior:
 - On prices
 - On sales
 - On profits
- One must re-construct the plaintiff’s economic position had the harmful event not occurred.
- This counterfactual state of the world is what is called the “but-for” world.
- Damages are the difference between the value of the plaintiff’s actual position and the value of the plaintiff’s position in the “but-for” world.

THE “BUT-FOR” OR COUNTERFACTUAL APPROACH



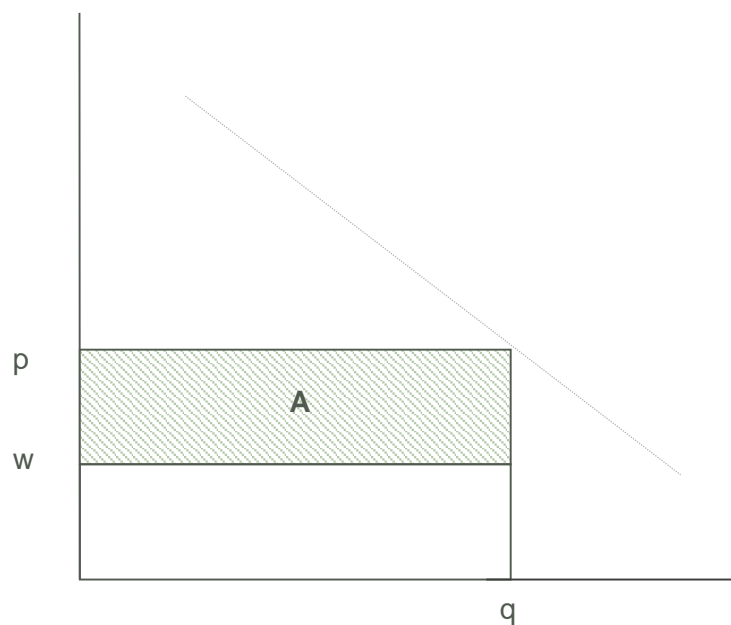
Source: Hall & Lazear, 2000

The “But For” world is the appropriate benchmark for the assessment of antitrust damages.

THE “BUT-FOR” OR COUNTERFACTUAL APPROACH

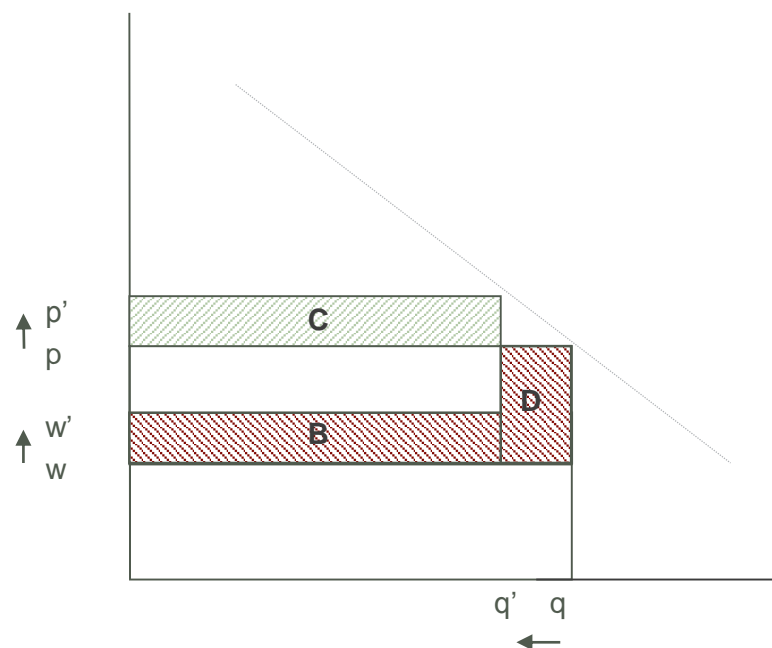
Loss of profits resulting from the infringement = $B + D - C$

Claimant's counterfactual profits



w' = cartel price
 $w' - w$: cartel overcharge
 $q - q'$: reduction of sales due to the cartel
 $p' - p$: pass-on of the cartel overcharge

Claimant's actual profits



A = counterfactual profits
 B = loss of profits from input price increase
 C = increase in profits due to pass through
 D = loss of profits from reduction in sales

THE “BUT-FOR” OR COUNTERFACTUAL APPROACH

- Estimating antitrust damages thus requires comparing two states of the world: the actual state and a “but for” world.
- This exercise is simple when both states can be observed.
- But most often, the “but for” world cannot be observed – a counterfactual must be constructed.
- How?

COMPETING VIEWS

- “The correct test is, in my judgment, simply to ask what, as a matter of **common sense**, is the amount of the loss which has been directly caused to BCL by the actual level of rates and the use of fighting ships and rumor spreading by the Conferences.”

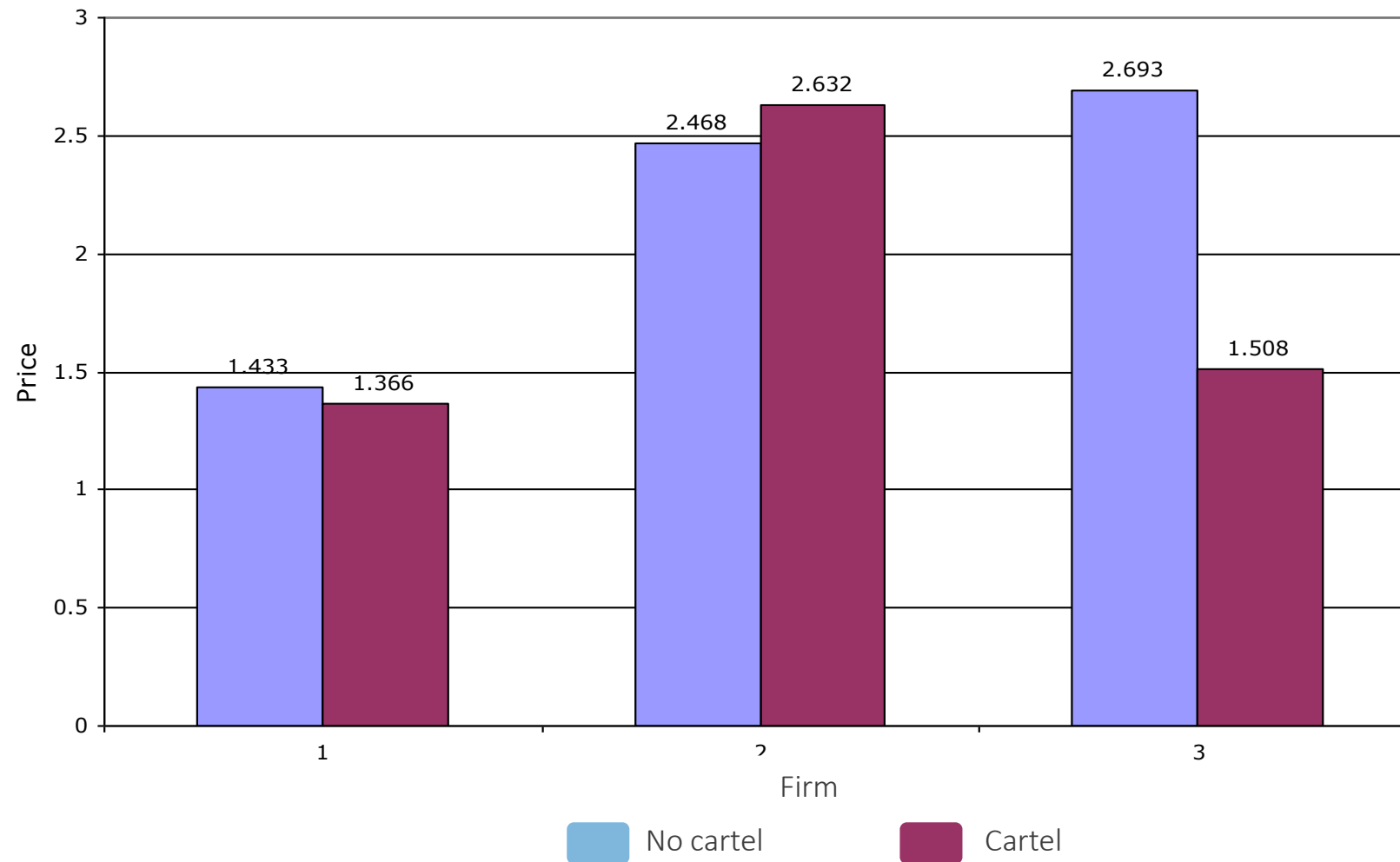
Arkin v. Borchard, 2004

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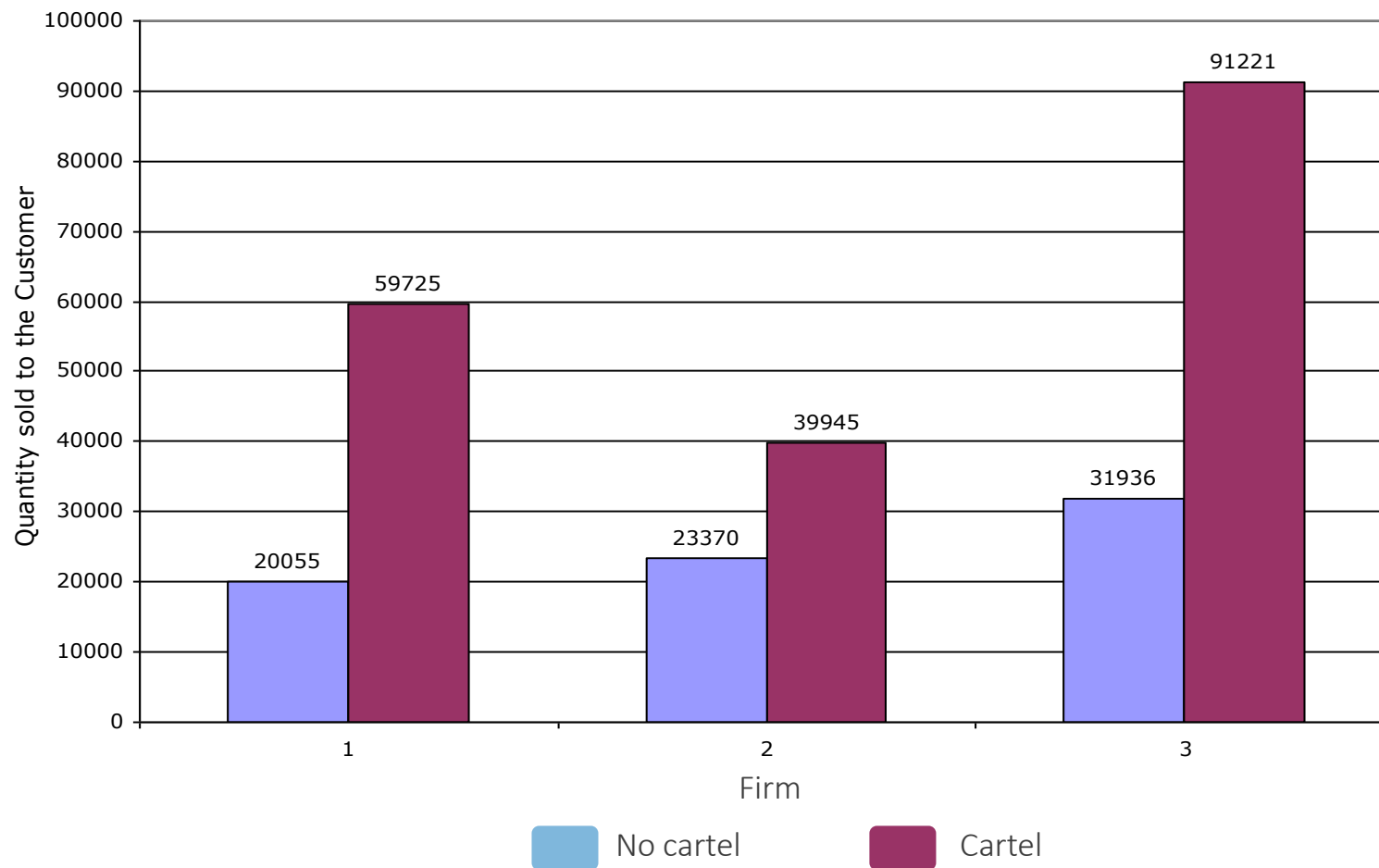
- Common sense in practice
 - “Before and after” comparisons
 - Cross-country comparisons, etc.

SIMPLE MEAN COMPARISONS MAY NOT WORK



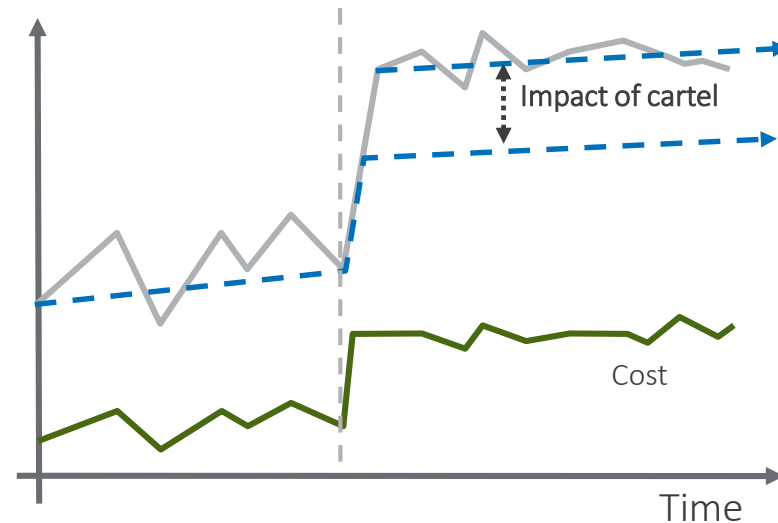
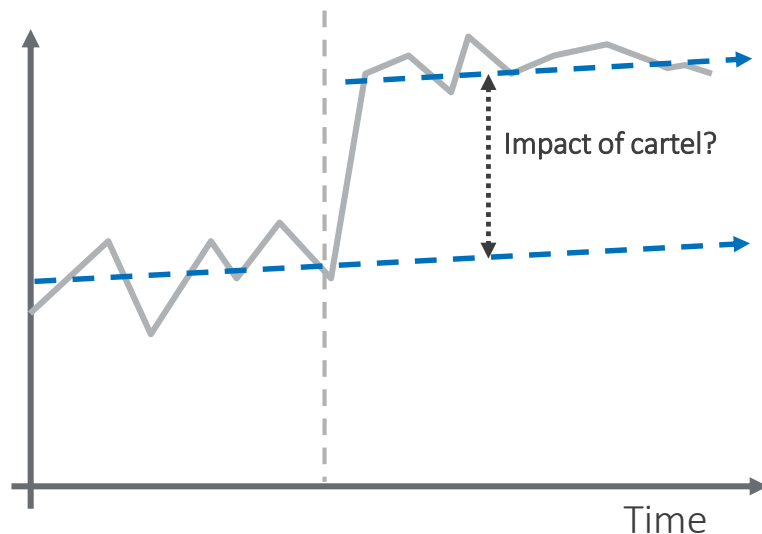
SIMPLE MEAN COMPARISONS MAY NOT WORK

... because we need to take into account many other factors that affect prices, e.g. volume differences.



COMPETING VIEWS

- We use econometrics to simulate the unobserved counterfactual.
 - Using historical data and empirical models to identify the impact of anticompetitive behavior on market outcomes ...
 - Taking into account the many other factors that may differ between the actual and counterfactual scenarios.



COMPETING VIEWS

- “Multiple regression is a statistical tool for understanding the relationship between two or more variables. ... Multiple regression also may be useful (1) in measuring whether or not a particular effect is present; (2) in measuring the magnitude of a particular effect and (3) in forecasting what a particular effect would be, but for an intervening event ... Over the past several decades the use of regression analysis in court has grown widely.”

Daniel L. Rubinfeld, “Reference Guide on Multiple Regression” in *Reference Manual on Scientific Evidence*, Federal Judicial Center, 2000.

$$Price = \alpha + \beta \cdot supply + \gamma \cdot demand + \lambda \cdot cartel + \varepsilon$$

Coefficient of interest: captures overcharge level specifically due to anticompetitive practices

COMPETING VIEWS

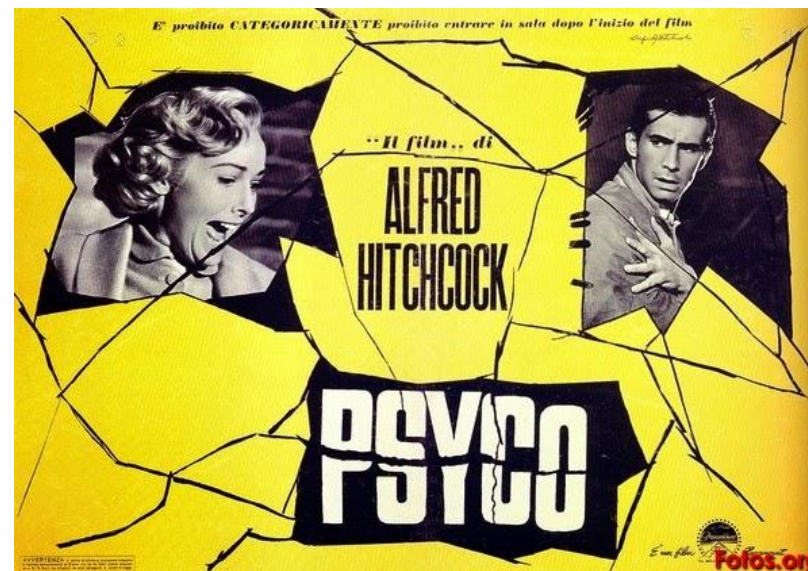
- “... an economically sophisticated law of damages requires **empirical studies** to be made within the context of litigation and with specific application to the facts before the court. For the economist, empirical studies invariably mean **statistics, regression analysis and other forms of higher mathematics**. The result can be a nightmare for the judge ...”

Herbert Hovenkamp, *Federal Antitrust Policy*, West Group, 1999.

COMPETING VIEWS

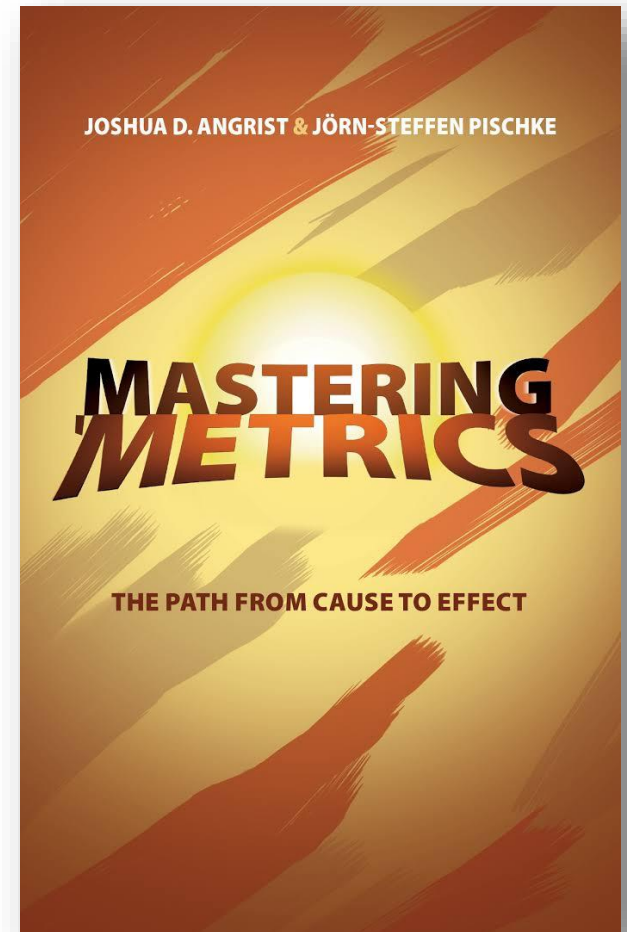
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THE EMPIRICAL ECONOMIST'S CLAIM

- You can use, interpret and communicate effectively these quantitative models in litigation without a Doctorate in Econometrics.
- *How many of you know computer science?*
 - I do not and yet I do use computers everyday.
- *How many of you know how to repair your car's engine?*
 - I do not and yet I drive to and fro every day.



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ECONOMICS IS NOT A SCIENCE

“However much more some economists may try to pretend otherwise by wrapping their thoughts in mathematical formulas, economics is not an exact science, like physics or chemistry, but a social science, like sociology, history or moral philosophy”.

W.P.J. Wils, EU Hearing Officer, *World Competition*, 2014

“We therefore need to remember that there are a few robust economic presumptions that can be drawn from the available literature, i.e. there are few or no “universal economic truths” ... Those familiar with economic theory will know that a large of number results can often be reversed by making alternative assumptions. This is particularly true of modern economic analysis which employs game theoretic methodology”.

S. Bishop, “Snake-oil with mathematics is still snake oil: why recent trends in the application of so-called “sophisticated” economics is hindering good competition policy environment”, *European Competition Journal*, 2014

ECONOMICS IS A SCIENCE!!

- The scepticism towards economic analysis is often based on the understandable, but incorrect, belief that the application of scientific methods to the facts of a competition policy case should produce unambiguous and consistent results. Contradictory results are therefore taken as evidence of advocacy or unprofessional behaviour by so-called “hired guns”.
- However, those apparent contradictions may result from differences in the data, differences in the approach to economic modelling or in the assumptions used to interpret the data, differences in the empirical techniques and methodologies, or may be the result of unintentional mistakes.
- When alternative studies produce contradictory conclusions, their relative merits should be carefully investigated. The right approach cannot be to discard them all as if they were equally incorrect or unscientific

ECONOMICS IS A SCIENCE!!

- It may well be the case that all those studies prove valuable in spite of their apparent contradictions. Those inconsistencies may simply reflect some inescapable “ambiguity”.

“We need to develop a greater tolerance for ambiguity. We must face up that we cannot answer all of the questions that we ask”

Charles F. Manski, *Identification Problems in the Social Sciences*, 1995.

- If the analyses submitted to test a given proposition in a competition policy case produced contradictory results but (i) all of them were scientifically valid and (ii) none of them could be considered intrinsically superior to the other(s), the only legitimate conclusion would be that the available evidence can neither validate nor falsify or refute that proposition. The outcome will then be determined by the allocation of the burden of proof.

ECONOMICS IS A SCIENCE!!

- There is no such a thing as a perfect economic and econometric model. All models involve simplifying assumptions and/or are based on imperfect data. However, in many circumstances, those simplifications and imperfections do not have an impact on the quantitative and/or qualitative results of the analysis.

"... In that empire, the art of cartography reached such perfection that the map of one province alone took up the whole of a city, and the map of the empire, the whole of a province. In time, those unconscionable maps did not satisfy, and the Colleges of Cartographers set up a map of the empire which had the size of the empire itself and coincided with it point by point. Less addicted to the study of cartography, succeeding generations understood that this Widespread Map was useless and not without impiety they abandoned it to the inclemency of the sun and of the winters. In the deserts of the West some mangled ruins of the Map lasted on, inhabited by animals and beggars; in the whole country there are no other relics of the Disciplines of Geography."

Jorge Luis Borges and Alberto Bioy Casares, *On Exactitude in Science*, in Jorge Luis Borges, *A Universal History of Infamy*, 1990.

ECONOMICS \Rightarrow USELESS COMPLEXITY

“Many economists and philosophers of science have criticised the immoderate use of mathematics in economics as creating an appearance of scientifity while covering a vacuity of thought and unacknowledged value judgements”.

W.P.J. Wils, EU Hearing Officer, *World Competition*, 2014

“the use of superficially more complex models and techniques has detracted attention and effort away from understanding how competition really works”.

S. Bishop, “Snake-oil with mathematics is still snake oil: why recent trends in the application of so-called “sophisticated” economics is hindering good competition policy environment”, *European Competition Journal*, 2014

COMPLEXITY IS OFTEN UNAVOIDABLE

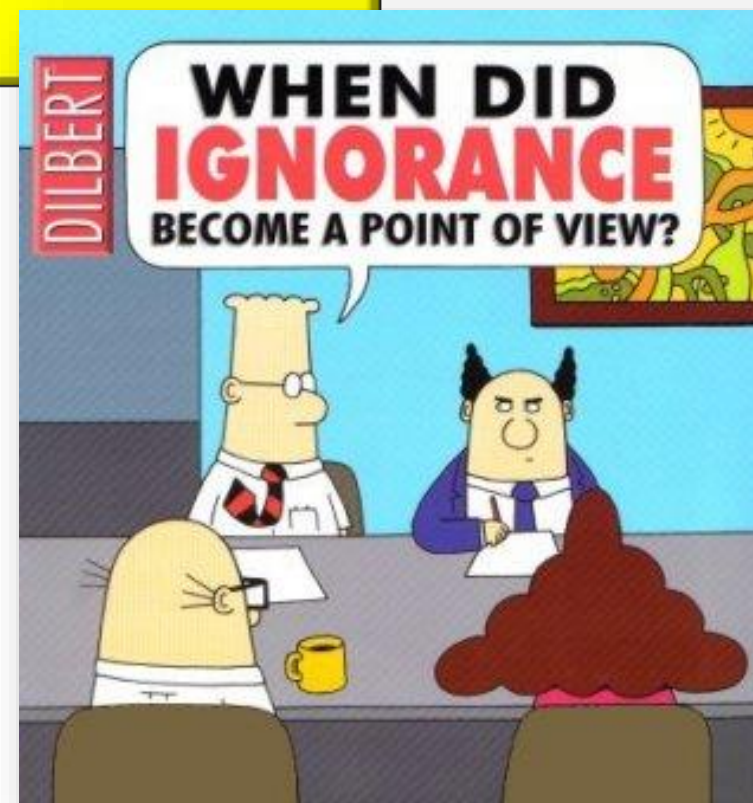
“Because intuition turned out to be deceptive in so many instances, and because propositions that had been accounted true by intuition were repeatedly proved false by logic, mathematicians became more and more skeptical of the validity of intuition. They learned that it is unsafe to accept any mathematical proposition, much less to base any mathematical discipline on intuitive convictions.”

H. Hahn, *The crisis in intuition*, 1933.

COMPLEXITY IS OFTEN UNAVOIDABLE

“I have usually felt that the man who essays to tell the rest of us how to solve knotty problems would be more convincing if first proved out his alleged method by solving a few himself”.

Irving Fisher, “Statistics in the Service of Economics”, *Journal of the American Statistical Association*, vol. 28, March, 1933.



ECONOMISTS ARE DISHONEST

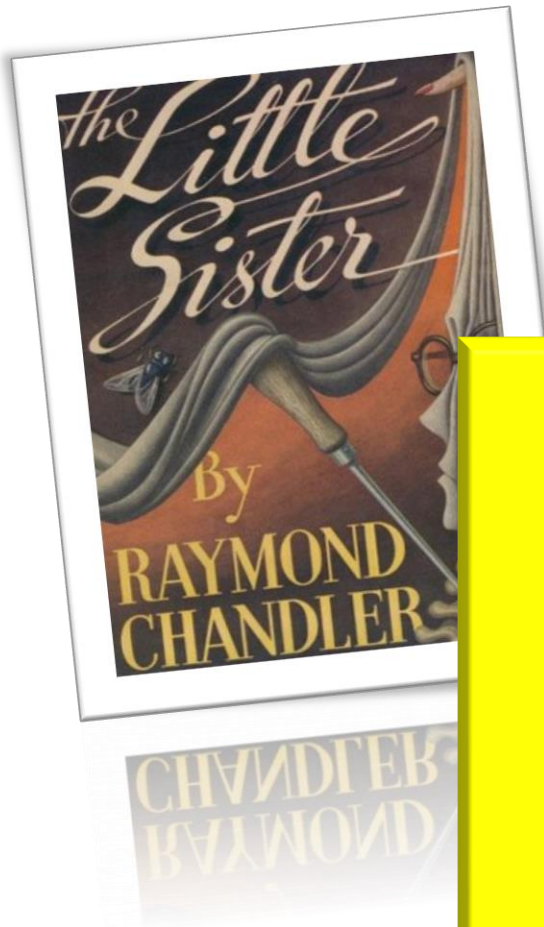
“Apart from serving the interests of the dominant companies, the so-called “more economic approach” also serves the special interests of the economics profession”.

W.P.J. Wils, EU Hearing Officer, *World Competition*, 2014

How can you tell when an economist is lying?
His lips are moving

DEONTOLOGICAL ISSUES

- Some practitioners have rightly warned about the potential for abuse.
- Economists are no more honest or dishonest than any other professional.
- What we need is appropriate processes to assess economic evidence.



“Private investigator, huh”, he said thoughtfully. “What kind of work do you do mostly?” “Anything that is *reasonably honest*” I said. He nodded. “**Reasonably is a word you could stretch. So is honest**” I gave him a shady leer. “You’re so right,” I agreed. “let’s get together some quiet afternoon and stretch them.”

Raymond Chandler, *The Little Sister*

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ASSESSING COMPETING EVIDENCE

- Following the U.S. Supreme Court's ruling in ***Daubert*** in 1993, federal court judges are asked to make a “preliminary assessment” of whether expert testimony is “scientifically valid,” focusing “solely on principles and methodology”.

The Court's ruling directs trial judges to consider at least four factors when determining the admissibility of scientific evidence in legal proceedings: (a) whether the theory or methodology can be tested, (b) whether the proffered work has been subject to peer review, (c) whether the rate of error is acceptable and (d) whether the method at issue enjoys wide acceptance.

Joseph T. Walsh, “The Evolving Standards of Admissibility of Scientific Evidence”, *The Judges' Journal*, 1997.

ASSESSING COMPETING EVIDENCE

- Courts can adopt measures aimed at facilitating the assessment of seemingly contradictory economic and econometric evidence. One option is to request the opposing experts to explain their discrepancies in intuitive terms, possibly, though not necessarily, working in cooperation.

16 May 2013

THE COMPETITION COMMISSION OF FREEDONIA /

PATENTALIA Inc.

CT Case No: 01

Experts Meeting Joint Minute

13 and 14 May 2013

This document records the issues discussed in the meeting of experts and the core areas of agreement and disagreement. In some areas it also been noted that were not raised or discussed in the meeting. The minute is not intended to replace any of the experts' respective reports, which are not exhaustive in terms of the arguments made.

Professor XX

Commission Economic Expert

Date

Professor YY

Patentalia Economic Expert

Date

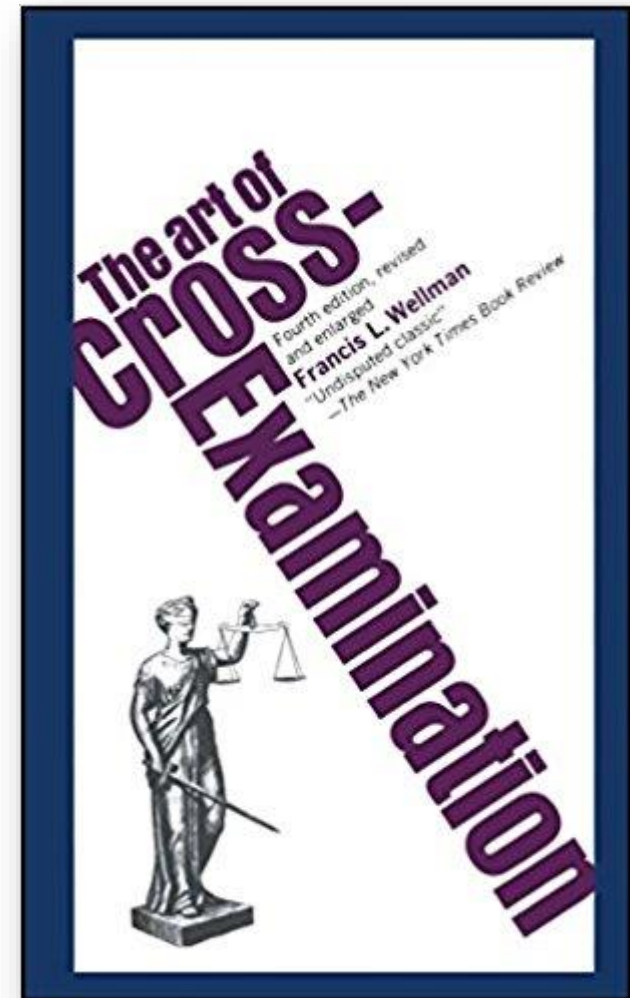
16 May 2013

Patent hold up, hold out and royalty stacking				
Issue	Agree/ Disagree	Commission Economic Expert's view	Patentalia Economic Expert's view	Comments
Standardisation can give rise to considerable efficiencies	A	Standard setting organisations (SSOs) determine standards for the manufacture and use of certain technologies. SSOs have played a crucial role in the development of many high-tech industries, such as the mobile telephony industry.	Standardisation facilitates interoperability and results in considerable economies of scale and scope.	
Standardisation confers market power on selected technologies	A (partial)	Incorporation in a standard will increase market power by excluding existing and future alternative technologies. The market power may have been much weaker, or non-existent, if the technology had not been incorporated in the standard, because in that scenario other alternatives might have imposed a competitive constraint.	The impact of standardisation on market power depends on the existence of credible alternatives to the selected technology in the counterfactual scenario.	
SEP owners hold a dominant position	D	Owners of SEPs hold a dominant position because implementers have no option but to licence their technologies for use in their products.	SEP owners face a number of competitive constraints: buyer power, downstream competition, standardisation is a repeated game.	<p>Existing models of SSO decision making are somewhat simplistic and miss key strategic considerations.</p> <p>These models are to the best of my knowledge static.</p> <p>More empirical work is needed:</p> <ul style="list-style-type: none"> - Drivers of the selection process

1

ASSESSING COMPETING EVIDENCE


- Nothing works better than prolonged and detailed cross-examination



ASSESSING COMPETING EVIDENCE

- Well, I am wrong, there is nothing more effective than a **hot-tub**



 **FEDERAL COURT OF AUSTRALIA** [Main Menu](#)

Using the "Hot Tub"

How Concurrent Expert Evidence Aids Understanding Issues

12 October 2013

[RTF version](#)

Steven Rares*

Introduction

1. Australian courts and agencies have been acknowledged as having the most experience with the "hot tub" method in which experts give their evidence concurrently. This is not a parochial boast, but appeared in the American Journal *Anti-Trust*¹¹. An article in the *Oregon Law Review* stated in 2009 that the innovation itself is attributable to Australia¹². Ian Freckleton SC recently echoed this tribute in the Fifth edition of *Expert Evidence: Law, Practice, Procedure and Advocacy*¹³, commenting that international interest is developing, for example in the United States of America, Canada and the United Kingdom. The purpose of this paper is to explain, *first*, a little bit of history about expert evidence, *secondly*, the purposes and technique of concurrent evidence, and *thirdly*, the technique's virtues.

2. Expert evidence is not a new phenomenon. In 1554, Saunders J said in *Buckley v Rice Thomas*¹⁴:

"... If matters arise in our laws which concern other sciences and faculties we commonly call for the aid of that science or faculty which it concerns, which is an honourable and commendable thing for thereby it appears that we do not despise all other sciences but our own, but we approve of them and encourage them."

However, some experienced commentators have observed that in contemporary times, the use of expert evidence "has increased dramatically ... both in its frequency and its complexity"¹⁵. When expert evidence is tendered in contested proceedings, traditionally each party will call one or more expert witnesses whose evidence in chief supports that party's case. Cross-examination is the traditional common law method for testing that evidence. Experience of the forensic use and testing of expert evidence in this way has often produced a number of concerns:

- each expert is taken tediously through all his or her contested assumptions and then is asked to make his or her counterpart's assumptions;
- considerable court time is absorbed as each expert is cross-examined in turn;
- the expert issues can become submerged or blurred in a maze of detail;
- juries, judges and tribunals frequently become concerned that an expert is partisan or biased;
- often the evidence is technical and difficult to understand properly;

THANK YOU!



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View my research on my SSRN author
page: <http://ssrn.com/author=47132>