



Regional Workshop On **ECONOMIC ANALYSIS FOR COMPETITION LAW ENFORCEMENT**

MORNING LECTURE:

“The Role and Scope of Economic Analysis in Competition Policy and Law: Key Considerations for Effective Enforcement“

2 June 2016 | Putrajaya, Malaysia



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The Purpose of this Brief Introduction

- Provide an **overview** on different kinds of economic analysis
- Point out that different kinds of economic analyses are **differently important for different fields** of competition policy
- Structure the different methodologies in a way that gives **hints on what to do in actual cases**
- Make clear that „**economic reasoning**“ is often more important than statistical analysis
- Emphasize that one needs to carefully **avoid „overenthusiasm“** (relying on simple facts may be better)



The Role of Statistics at the European Commission:

The role of statistics in decisions by the European Commission on decisions on merger, antitrust and cartel cases, from 01/01/2004 to 11/10/2011 (Number of cases considered: 822):

Purpose/Methodology	Statistical Test	Demand Analysis	Other techniques
Market Definition	32	23	0
Market Structure	16	0	2
Pricing behaviour	8	12	3
Non-price-related behaviour	1	0	7

Source: Lianos, p. 113



Some Information on Different Techniques

Note: Pricing behavior is relevant for M&A, for potential abuse and for potential cartel behavior.

Examples of „Statistical tests“:

- **Correlations between prices** of different products (defining the relevant market)
- **Correlations of costs** for different products (for analyzing potential cartel behavior)
- **Regression analyses for pricing behavior** in order to identify partial correlations between endogenous and exogenous variables



Some Information on Different Techniques

Examples for „Demand analysis“:

- **Starting point:** either surveys or field data (defining the relevant market; understanding pricing behavior)
- **Techniques for understanding the impact of pricing behavior:** Critical loss analysis inferring from either survey or field data, showing losses in sales and profits would occur for (unilateral or bilateral) increases in prices (see SSNIP-test!)

Examples for „Other techniques“

Other techniques are rather sophisticated, hardly applied and **not recommendable for young agencies**. They include

- Estimations of bidding behavior in auctions from structural models
- Event studies for analyzing the impact of non-pricing strategies
- Structural models on the behavior of industries.



Economic Tools for Different Fields of Competition Policy

My distinction between different fields and techniques is structured along the following lines:

Methodology	1. Economic Reasoning	2. Data generated and used	3. Basic statistics for data analysis	4. More advanced statistics and econometrics
Field of Competition Policy				
1. Defining the relevant market (abuse, M&A)				
2. Assessing market structure and power (M&A, abuse)				
3. Assessing business practices under consideration (abuse)				
4. Detection and conviction of cartels				
5. Design of Procurement and detection of bid-rigging				

Distinguish between different kinds of economic data creation and evaluation

The table will be shown column by column in the next slides

Distinguish between different fields of competition policy



Economic Tools for Different Fields of Competition Policy

Field of Competition Policy	1. Economic Reasoning
1. Defining the relevant market (abuse, M&A)	a) Emphasis on consumer behavior; b) SSNIP-test
2. Assessing market structure and power (M&A, abuse)	a) Market structure as starting point; b) Game theoretic reasoning on market behavior (e.g. role of capacity constraints, economies of scale, sunk costs vertical relationships) c) Assess countervailing effects: e.g. cost advantages; reliability of prediction on demand
3. Assessing business practices under consideration (abuse)	a) Impacts of various instruments b) Definition of „relevant costs“
4. Detection and conviction of cartels	a) Structural facts alleviating collusion b) Typical business practices for collusion
5. Design of Procurement and detection of bid-rigging	a) Impact of auction design b) Countervailing impact of information transmission c) Design of „Business Intelligence Systems“



Economic Tools for Different Fields of Competition Policy

Field of Competition Policy	2. Data generated and used
1. Defining the relevant market (abuse, M&A)	<ul style="list-style-type: none">a) Expert opinionsb) Surveys on consumer behaviorc) Past data on demand
2. Assessing market structure and power (M&A, abuse)	<ul style="list-style-type: none">a) Data at firm level to determine market sharesb) Past data on demand (?)
3. Assessing business practices under consideration (abuse)	<ul style="list-style-type: none">a) Most often „only“ data on practices appliedb) Data on changes of market shares over time (?)
4. Detection and conviction of cartels	<ul style="list-style-type: none">a) Data on development of prices, market shares and so on over timeb) Data on business practices such as discountsc) Data on communication etc. („plus factors“)
5. Design of Procurement and detection of bid-rigging	<ul style="list-style-type: none">a) Data can directly be taken from behavior in auctionsb) Use additional information on costs and firm behavior if available



Economic Tools for Different Fields of Competition Policy

Field of Competition Policy	3. Basic Statistics for data analysis
1. Defining the relevant market (abuse, M&A)	<ul style="list-style-type: none">a) Summary statistics on responses in surveysb) Defining the market by simple „thresholds“
2. Assessing market structure and power (M&A, abuse)	<ul style="list-style-type: none">a) Market shares and concentration indices (HHI, i.e. sum of squared market shares)b) Correlation of prices over time (?)
3. Assessing business practices under consideration (abuse)	<ul style="list-style-type: none">a) Market shares over timeb) Response of other firmsc) Careful application of tools for „profit sacrifice“ in case of foreclosure (?)
4. Detection and conviction of cartels	<ul style="list-style-type: none">a) Price correlation analysisb) Correlation analysis of other factorsc) Comparison to comparable markets
5. Design of Procurement and detection of bid-rigging	<ul style="list-style-type: none">a) Price correlation within firmsb) Price correlation between firms,c) Identification of rigged bids



Economic Tools for Different Fields of Competition Policy

Field of Competition Policy	4. More advanced Statistics and Econometrics
1. Defining the relevant market (abuse, M&A)	a) Apply regression analysis for substitutability b) Critical Loss Analysis c) Estimation of price elasticities from past data instead or in addition to survey data
2. Assessing market structure and power (M&A, abuse)	a) Simulating behavior of firm and competitors b) Tests on significant impediment of effective competition (SIEC) test (hardly applied yet) c) Estimating cost effects from past data
3. Assessing business practices under consideration (abuse)	Advanced econometric analyses hardly applied; but see above
4. Detection and conviction of cartels	a) See „procurement“ for detection b) Estimate loss in CS for calculating welfare losses and fines (not common yet)
5. Design of Procurement and detection of bid-rigging	a) Several kinds of regression analyses b) Estimating structural models (?)



Thank you for your attention!





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