

The role of economics in antitrust enforcement: Legal standards in the case of CMA

Vasiliki Bageri (Panteion University)

and

Yannis Katsoulacos (Athens University of Economics and Business and
Jiangxi University of Finance and Economics)



The research project was supported by the Hellenic Foundation for Research and Innovation (H.F.R.I.) under the “1st Call for H.F.R.I. Research Projects to support Faculty Members & Researchers and the Procurement of high-cost research equipment grant” (Project Number: 1314).

Objective

- To examine empirically the role of economics in **antitrust** enforcement in UK, by OFT and CMA.
- Only infringement cases.
- Period: 2000 – 2020
- Background research papers:
 - Katsoulacos Y , S Avdasheva and S Golovanova, (2018) “A methodology for empirically measuring the extent of economic analysis & evidence and identifying the legal standards in Competition Law enforcement”, in Festschrift in Honour of Frederic Jenny, **Concurrences Review**.
 - Katsoulacos Y. and G. Makri (2020). The role of economics and the type of legal standards in antitrust enforcement by DGCOMP: an empirical investigation. **Journal of Antitrust Enforcement**.
 - Bageri V. and Katsoulacos Y.(2023). The role of economics and the type of legal standards in antitrust enforcement by the CMA: an empirical investigation. *Mimeo DP*.
 - Katsoulacos Y & D Ulph (2022) “Choosing Assessment Procedures in Antitrust Enforcement in Different Markets and Countries: a Proposal for Extending the Decision-Theoretic Approach”, **Managerial and Decision Economics**.
 - Katsoulacos Y. (2023) “Could a move to more presumption-based Legal Standards be justified, for the big-tech digital markets, on error-cost minimizing grounds?”, in Antitrust and the Digital Economy: Presumptions, Legal Standards and Key Challenges”, **Concurrences Antitrust Publications**, edited by Katsoulacos Y.
 - Katsoulacos Y. (2023) “Accelerating antitrust enforcement through the use of more presumption-based Legal Standards for the big-tech digital markets”, **Concurrences Review**, 2003 – 2.

Conduct Groups Examined

- **Conduct group G1:** violations of Chapter I, which have strong market power-enhancing effects. They include price fixing, bid rigging, boycotts, market sharing and exclusive territories (or a mixture of these);
- **Conduct group G2:** concerted practices – all the decisions that were included here for CMA, involved price information exchange cases;
- **Conduct group G3:** vertical restraints, such as various types of resale price maintenance and other vertical agreements such as exclusive dealing or exclusive territories.
- **Conduct group G4:** practices by dominant firms that may have exclusionary effects and hence are considered abusive under Chapter II (such practices include predation, margin squeeze, price discriminations, loyalty rebates, exclusive contracts, tying and bundling and refusals to deal).

Table 1: The Dataset: Number of decisions, appeals and annulments (by conduct group) – CMA: 2000 - 2020

G1	G2	G3	G4	Total
Total number of decisions (shares)				
27 (0,491)	7 (0,127)	15 (0,273)	5 (0,093)	54
Number of appealed decisions (shares)				
6 (0,222)	2 (0,286)	7 (0,467)	2 (0,400)	17 (0,315)
Number of annulled decisions (shares)				
0 (0,00)	0 (0,00)	1 (0,143)	0 (0,00)	1 (0,018)

A **continuum** of Legal Standards, depending on the Assessment Screens examined

- **S1:** Conduct characterisation screen.
- **S2:** (a) Market contextualisation and (b) when relevant, Significant Market Power (SMP) /contestability screen.
- **S3:** Potential for significant exclusionary impact or enhanced ability to exercise / maintain market power screen.
- **S4:** Potential consumer welfare loss, due to just anticompetitive effects, screen. Examination of potential effects on output, prices, quality, variety and innovation.
- **S5:** Efficiencies assessment and balancing screen.

Identifying Legal Standards

Screens examined in assessment	Legal Standard
S1	Strict Per Se (SPS)
S1 and S2 (a) S1 and S2	Object – based (EU) Modified Per Se (MPS)
S1 and S2 and S3	Truncated Effects Based I (TEB I)
S1 and S2 and S3 and S4	Truncated Effects Based II (TEB II)
S1 and S2 and S3 and S4 and S5	Full Effects Based (FEB) or Rule of Reason
S1 and S5	Quick Look I
S1 and S2 and S5	Quick Look II
S1 and S2 and S3 and S5	Quick Look III

Table 2: Number of decisions per conduct group in which different Legal Standards were adopted

Conduct group (share)	Legal Standard								Total
	SPS	Object- Based or MPS	TEB I	TEB II	FEB	Quick Look I	Quick Look II	Quick Look III	
G1	1	23	2	0	0	0	1	0	27
% within group	3.7%	85.2%	7.4%	0.0%	0.0%	0.0%	3.7%	0.0%	
G2	0	6	0	0	0	0	0	1	7
% within group	0.0%	85.7%	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%	
G3 (RPM)	0	8	3	1	0	0	1	0	13
% within group	0.0%	61.5%	23.1%	7.7%	0.0%	0.0%	7.7%	0.0%	
G3 (non-RPM)	0	0	0	0	1	0	0	1	2
% within group	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	50.0%	
G4	0	0	0	3	1	0	0	1	5
% within group	0.0%	0.0%	0.0%	60.0%	20.0%	0.0%	0.0%	20.0%	
Total	1	37	5	4	2	0	2	3	54
% of Total Decisions	1.9%	68.5%	9.3%	7.4%	3.7%	0.0%	3.7%	5.6%	

The Cumulative Economic Analysis Indicator (CEAI)

An indicator of the total economic evidence examined in assessing conducts in a given category by the agency, in order to prove that it is anticompetitive.

Screens examined in assessment	Value of CEAI corresponding to screens examined
S1	1
S1 and S2	2
S1 and S2 and S3	3
S1 and S2 and S3 and S4	4

Table 3: Highest level of economic analysis present in each decision

	The highest level of economic analysis present in the decision					
	S1	S2	S3	S4	S5	Total
Total number of decisions	1	37	5	4	7	54
Shares	2%	69%	9%	7%	13%	

Shares reflect predominance of G1 decisions in sample.

Table 4. Economic analysis applied per conduct group

Type of Analysis Applied \ Conduct group	S1=1	S2=1*	S3=1	S4=1	S5=1
G1	27	26	2	0	1
% within group	100%	96%	7%	0%	4%
G2	7	7	1	0	1
% within group	100%	100%	14%	0%	14%
G3 (RPM)	13	13	4	1	1
% within group	100%	100%	31%	8%	8%
G3 (non-RPM)	2	2	2	1	2
% within group	100%	100%	100%	50%	100%
G4	5	5	5	4	2
% within group	100%	100%	100%	80%	33%
Total	54	53	14	6	7
	100%	98%	26%	11%	13%

*Note that this implies market definition and determination of market shares but not necessarily any detailed assessment of extant market power

Table 5: Formal market delineation (e.g. SSNIP test, Critical loss analysis)

Conduct group	SNIPP test
G1	0
% within group	0%
G2	0
% within group	0%
G3 (RPM)	0
% within group	0%
G3 (non-RPM)	0
% within group	0%
G4	1
% within group	17%
Total	1
% of Total	2%

Table 6: Number and share of decisions that correspond to each CEAI

Conduct group		CEAI				No of Cases	Average Efficiencies Indicator (AEfI)
		1	2	3	4		
G1	No of decisions	1	24	2	0	27	0.04
	Share of decisions for each CEAI	3.7%	88.9%	7.4%	0.0%		
G2	No of decisions (Info exchange of prices)	0	6	1	0	7	0.14
	Share of decisions for each CEAI	0.0%	85.7%	14.3%	0.0%		
G3	No of decisions (RPM)	0	9	3	1	13	0.08
	Share of decisions for each CEAI	0.0%	69.2%	23.1%	7.7%		
	No of decisions (non-RPM)	0	0	1	1	2	1.00
	Share of decisions for each CEAI	0.0%	0.0%	50.0%	50.0%		
G4	No of decisions	0	0	1	4	5	0.40
	Share of decisions for each CEAI	0.0%	0.0%	20.0%	80.0%		

Table 7: The WACEAI* and indicators of the quality of enforcement and of legal certainty by conduct group

Conduct group (share)		WACEAI	CEAI with highest share	Concentration index: Max. 1	Quality (Q) of enforcement (Optimal CEAI)	Value of Q relative to max. dev. of 3
G1	0.50	2.04	2	0.80	2.96 (2)	0.99
G2	0.13	2.14	2	0.76	2.86 (2)	0.95
G3 (RPM)	0.24	2.38	2	0.54	2.62 (2)	0.87
G3 (non-RPM)	0.04	3.50	3,4	0.50	2.50 (4)	0.83
G4	0.09	3.80	4	0.68	2.80 (4)	0.93
WAEQ (Weighted Average Enforcement Quality (WAEQ) of agency)					2.74	
WAEQ relative to maximum					0.91	

*Weighted Average CEAI

Index of Total Economic Evidence (TEE)

- TEE indicates the total economic evidence considered on average during the assessment of decisions in a given conduct group, irrespective of the burden of proof.
- For the calculation of the TEE index we treat each of 5 evidentiary screens identically and assign a value of 1 to the “amount of evidence produced by the screen” if the screen is assessed and a value of 0 otherwise. Obviously the total evidence has a maximum of 5 if all screens are assessed.
- So then, to each of the 8 LSs we assign a value of the total economic evidence considered by the LS, ranging from 1 to 5 for SPS to FEB, a value of 2 for QL I, of 3 for QL II and of 4 for QL III.
- Note that Quick Look LSs i.e assessment procedures where the agency did not go through all the components of economic analysis that examine anticompetitive effects before examining efficiency claims i.e. made a quick examination of the pro- and anti-competitive considerations of the allegedly illegal conduct, need to be taken in account.
- Therefore, the TEE index for each conduct group will be the weighted average of the LSs adopted in the assessment of the decisions of that particular conduct group.

Table 8: Index of Total Economic Evidence (TEE) considered during assessment, irrespective of burden of proof, so, taking into account the efficiencies screen

Conduct group	TEE irrespective of burden of proof: Max. 5	TEE irrespective of burden of proof, relative to maximum: Max. 1
G1	2.07	0.42
G2	2.29	0.46
G3 (RPM)	2.46	0.49
G3 (non-RPM)	4.50	0.90
G4	4.20	0.84

Indicators' Calculation

Indicator	Expression
Weighted Average Cumulative Economic Analysis Indicator (WACEAI) ($0 \leq WACEAI \leq 4$)	$WACEAI_j = \sum_i CEAI_{ji} \times s_{ji} , \quad i = 1,2,3,4, j = 1,2,3,4$ <p>where s_{ji} are the shares of the CEAI in each particular conduct group j.</p>
Concentration index (max.1)	$Concentration\ index_j = \sum_i s_{ji}^2 , \quad i = 1,2,3,4, j = 1,2,3,4$ <p>where s_{ji} are the shares of the CEAI in each particular conduct group j.</p>
Quality of enforcement indicator (Q) for each conduct group ($0 \leq Q \leq 3$)	$Q_j = 3 - ABS(WACEAI_j - \widehat{LS}_j), \quad j = 1,2,3,4$ <p>where \widehat{LS}_j is the optimal LS for conduct group j and “3” is the maximum possible CEAI deviation.</p>
Weighted Average Enforcement Quality (WAEQ) of agency ($0 \leq WAEQ \leq 3$)	$WAEQ = \sum_j Q_j \times s_j , \quad j = 1,2,3,4$ <p>where s_j is the share of the decisions in each conduct group j relative to the total number of the decisions in the sample.</p>

Indicators' Calculation

Indicator	Expression
Average Efficiencies Indicator (AEfI) ($0 \leq \text{AEfI} \leq 1$)	$\text{AEfI}_j = e_j/n_j, \quad j = 1,2,3,4$ <p>where e_j is the number of decisions in conduct group j in which efficiency arguments were used and n_j the total number of decisions in each particular conduct group j.</p>
Total Economic Evidence Indicator (TEE)	$\text{TEE}_j = \sum_i \text{share}_{ji} \times \text{LS}_i, \quad i = 1 \dots 8, \quad j = 1,2,3,4$ <p>where share_{ji} is the fraction of the number of decisions that correspond to each LS "i" relative to the total number of decisions in each conduct group "j" and LS_i is the legal standard (i.e. SPS, MPS, TEB I, TEB II, FEB, Quick Look I, Quick Look II, Quick Look III).</p>

Table 9: Evolution of WACEAI by conduct group

Conduct Group	2000 - 2004	2005 - 2009	2010 - 2014	2015 - 2020
G1: WACEAI	1.75	2.00	2.00	2.14
No of decisions: 27	4	6	3	14
G2: WACEAI	n/a	n/a	2.00	2.25
No of decisions: 7	0	0	3	4
G3 (RPM): WACEAI	2.40	n/a	2.00	2.50
No of decisions: 13	5	0	2	6
G3 (non-RPM): WACEAI	n/a	n/a	4.00	3.00
No of decisions: 2	0	0	1	1
G4: WACEAI	4.00	4.00	3.50	n/a
No of decisions: 5	2	1	2	0

Table 10: Evolution in the application of screens in conducts groups G1, G2, G3 and G4

	Conduct Group	2000 - 2004	2005 - 2009	2010 - 2014	2015 - 2020
No of Decisions	G1	4	6	3	14
	G2	0	0	3	4
	G3 (RPM)	5	0	2	6
	G3 (non-RPM)	0	0	1	1
	G4	2	1	2	0
S3=1	G1	0	0	0	2
	Share	0%	0%	0%	14%
	G2	0	0	0	1
	Share	n/a	n/a	0%	25%
	G3 (RPM)	1	0	0	3
	Share	20%	n/a	0%	50%
	G3 (non-RPM)	0	0	1	1
	Share	n/a	n/a	100%	100%
	G4	2	1	2	0
	Share	100%	100%	100%	n/a

Table 10 (Cont.): Evolution in the application of screens in conducts groups G1, G2, G3 and G4

	Conduct Group	2000 - 2004	2005 - 2009	2010 - 2014	2015 - 2020
No of Decisions	G1	4	6	3	14
	G2	0	0	3	4
	G3 (RPM)	5	0	2	6
	G3 (non-RPM)	0	0	1	1
	G4	2	1	2	0
S4=1	G1	0	0	0	0
	Share	0%	0%	0%	0%
	G2	0	0	0	0
	Share	n/a	n/a	0%	0%
	G3 (RPM)	1	0	0	0
	Share	20%	n/a	0%	0%
	G3 (non-RPM)	0	0	1	0
	Share	n/a	n/a	100%	0%
	G4	2	1	1	0
	Share	67%	100%	50%	n/a

Table 10 (Cont.): Evolution in the application of screens in conducts groups G1, G2, G3 and G4

	Conduct Group	2000 - 2004	2005 - 2009	2010 - 2014	2015 - 2020
No of Decisions	G1	4	6	3	14
	G2	0	0	3	4
	G3 (RPM)	5	0	2	6
	G3 (non-RPM)	0	0	1	1
	G4	2	1	2	0
S5=1	G1	0	0	0	1
	Share	0%	0%	0%	7%
	G2	0	0	0	1
	Share	n/a	n/a	0%	25%
	G3 (RPM)	0	0	1	0
	Share	0%	n/a	50%	0%
	G3 (non-RPM)	0	0	1	1
	Share	n/a	n/a	100%	100%
	G4	0	1	1	0
	Share	0%	100%	50%	n/a

- Thank you!!