TRYG'S AQUCISION ALKA

Comments from Copenhagen Economics

ACE

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PART 1: COMMENTS TO THE DCCA MODEL

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The DCCA's *robustness* analysis

Effects of aggregation in estimation of elasticities

The model estimated by the DCCA is a version of

- $s_j - s_0 = \beta x_j - \alpha p_j + \text{FE} + \varepsilon_j$

Data dimensions

- Company (c)
- Region (zip-code) → FE (z)
- Year (2014-2017) → FE (t)

For a given product (or bundle) the DCCA estimated

- $s_{czt} - s_{0,zt} = \beta x_{czt} - \alpha p_{czt} + \gamma_z + \delta_t + \varepsilon_{czt}$

The DCCA's *robustness* analysis

Effects of aggregation in estimation of elasticities

Estimated elasticities vary considerably with level of aggregation

Elasticities for Home/liability and Accident are considerably higher in the more aggregated estimations

Coarse	High	Good
Regional resolution	**Elasticities (numerical Value)**	**Model Fit**
Fine	Low(er)	Worse

Plausible explanations

Disaggregation introduce noise

Call for a more flexible model and better controls/instruments

If not available then we end up with a mis-specified model that provide a poor fit to the data

This should not be interpreted as lack of robustness for the model at a more aggregated level

DCCA

One can not be sure that better controls would bring the elasticities of the disaggregated estimation up to the level of the aggregated estimations

Sure, but extreme shares/prices get more weight in the disaggregated estimation which can bias results.
α in all regions are forced to be the same.

What to conclude:

- The same model is not applicable at finer levels of aggregation
- The lack of fit at the finer level tells us to look deeper, it does not tell us to dismiss the aggregated estimations

More flexibility needed!

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PART 2: THE MISSING DECISION RULE

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Managing economist

The unanswered Million dollar question: When do we have a substantial impediment of effective competition?

The DCCA estimated a marketwise price increase of [0-1]% with linear demand and [1-2] % with isoelastic demand

Parties	DCCA
A marketwise price increase of [0-1]% is below the threshold for a SIEC (and correctly calculated is was even lower)	There is no threshold: 1% for non-life insurances could be a lot more significant than 5-6% for deodorants
Isoelastic demand not relevant	The isoelastic demand is relevant

Two more general question are left open:

- What is the relevant threshold?
- What demand curve?

QUESTION 1: THE RELEVANT THRESHOLD?

Two reasons why is should be not be 0%

The relevant test:

- The test is if the merger significantly impedes effective competition

Model uncertainty:

- The model does not never fit the real market
- The resulting model uncertainty is not captured by the standard sensitivity analysis or confidence intervals

M.6467 Sara Lee/Unilever: Marketwise price increase of 1.2% not considered a SIEC

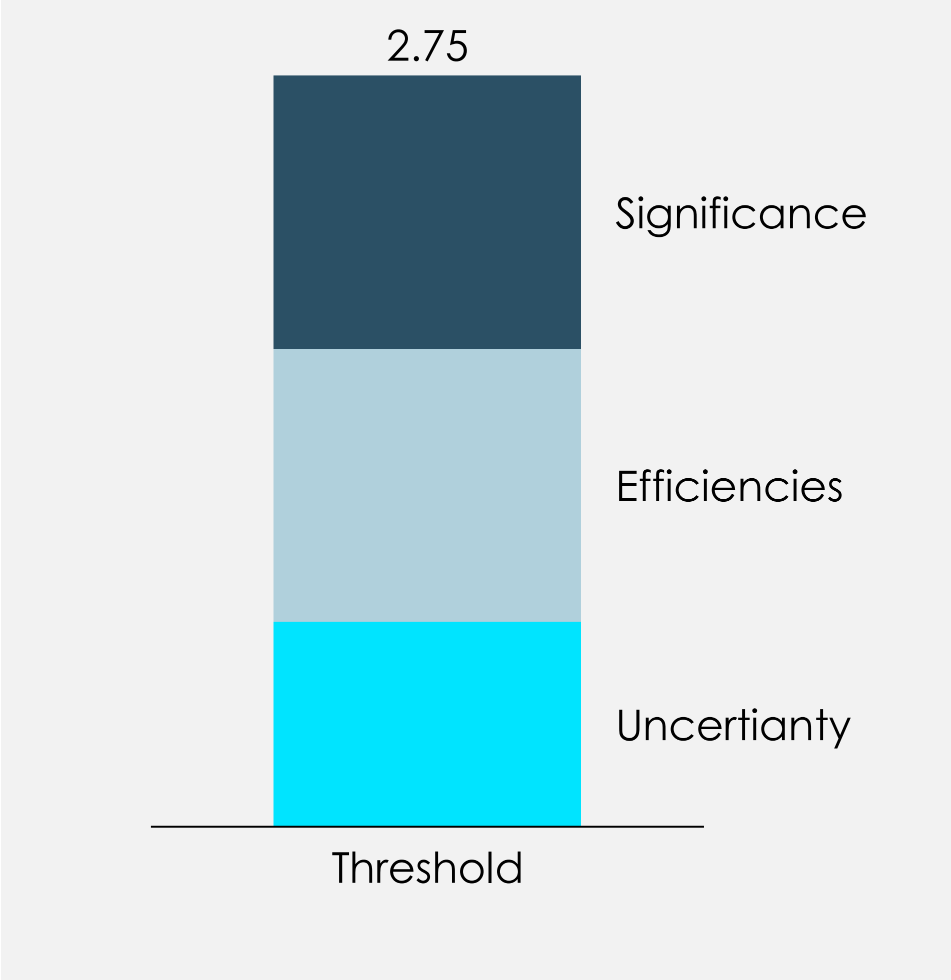
Country	Markets		Brands (total male market and female market)					
	Male	Female	Axe	Dove	Rexona	Sanex	Impulse	Vaseline
Belgium	1.2	6.2	0.5	10.3	3.5	18.2		
Spain	2.3	2.0	1.7	3.4	3.4	5.3		
NL	1.1	5.7	0.7	10.2	2.8	20.6		10.9
UK	1.0	4.0	0.7	2.8	2.5	30.7	1,9	2.7

Note: Red numbers indicate that the Commissions raised concerns. Green numbers indicate that the Commission did not raise any concerns.

Source: M.6497 Sara Lee/Unilever. paragraph 187. Table 7.

CMA Saintbury/Asda, 2019: A variable SIEC threshold applied in a GUPPI

> […] 84. We then decided to set the threshold for the GUPPI decision rule for our local assessment of the Parties' supermarket overlaps at 2.75% for all local areas.
>
> This takes account of our view of the size of efficiencies that are likely to be generated by the Merger, and an allowance for uncertainty in our analysis together with the requirement in the legal test that any lessening of competition must be 'substantial'. […]



CMA, 'Anticipated merger between J Sainsbury PLC and Asda Group Ltd, April 2019

Model uncertainty: The market versus the model

KFST used a standard Bertrand Nash model	Is this model a good fit for the non-life insurance market?
Differentiated product model	Non-life insurances are to a large extent priced individually: Age, geographic location, claims record etc.
All consumers assumed to buy the same package of insurance policies	The consumers buy individual products: Coverage, liability, etc
Each company offers the package to all consumers at the same price	The consumers buy different packages: Many bicycles in CPH, many cars in Jutland

Uncertainty not included in sensitivity analysis

Model uncertainty: The aggregation problem

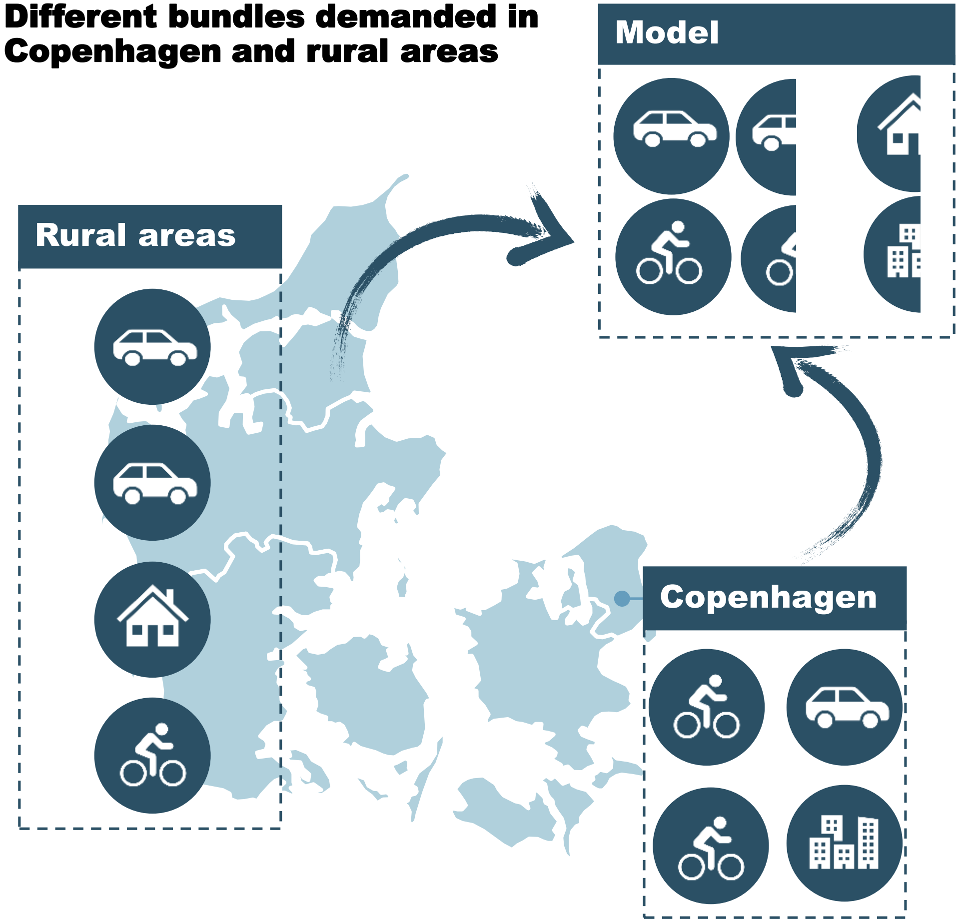
DCCA went for both an estimated model and the calibrated model
- Estimated model: Bottom-up model
- Calibrated model: Top-down model

Only the calibrated model was used because:
- The estimated model suffered from instability when varying the geographical aggregation (using 1,2 or 3 digit area code)
- The results differed significantly between Copenhagen and rural areas

DCCA put all weight on the calibrated model

CE: The same instabilities are likely to be included in the calibrated model:
- The data used in calibrated model is also aggregated from individual data
- With the calibrated model, Tryg did the aggregation before submitting to DCCA

Different bundles demanded in Copenhagen and rural areas



Uncertainty not included in sensitivity analysis

QUESTION 2: WHAT DEMAND CURVE?

DCCA could not repeat an analysis made in 2013 – was there any?

2013

2018

DCCA: Jysk/IDEDESIGN

The calculations are based on a linear demand curve.

The DCCA has also made the calculations with an isoelastic demand curve.

However, these calculations show unrealistically high price increases.

Against this background, the DCCA finds that the linear demand curve gives the best approximation of the market behavior.

DCCA: Tryg/Alka

The empirical demand curve is unknown.

There DCCA used the linear and the isoelastic demand as a lower and upper bound.

The spread represents the uncertainty resulting from the fact that the about the empirical demand curve is unknown.

Question to DCCA:
Please repeat the analysis you must have made in 2013?

Answer:
It is a case-by-case assessment….

Does the isoelastic demand curve make sense?

The isoelastic demand curve assumes that competitors will not respond to the parties price increase:

- This regardless of it being by 5%, 10% or 100%.
- Is this realistic in market with differentiated products?

But DCCA stressed that the competitors would have an incentive to raise their prices if Tryg increased it's prices after the merger (e.g. paragraph 794).

> "The competitors to Tryg and Alka will also benefit from the reduced competition pressure caused by the merger. A Tryg price increase will increase the demand for competitor's products, which will make a price increase profitable for the competitors. Thus, competitors will also have an incentive to raise their prices if Tryg raises prices."

We agree and cannot see that is consistent with using the isoelastic demand curve

In the telecom mergers, DG Competition has only used the linear demand

DG Competition has applied a Bertrand Nash model in several telecom merger, e.g.

- M.7018 Telefónica Deutschland/E-Plus
- M.7421 Orange/Jazztel
- M.7612 Hutchison 3G UK/Telefonica UK
- M.7758 Hutchison 3G Italy/Wind/JV

DG Competition has only used linear demand

- They have not explicitly said that the isoelastic is not relevant
- But there are no consideration about using it
- The often stress that they use a conservative approach and this has also been mentioned as an arguments for using the linear demand curve (paragraph 141, M.7018)

In previous cases, the DCCA only used the linear demand in 2002 and 2003

The DCCA used a Bertrand Nask model in previous merger cases

- Nykredit/Totalkredit 2003
- Danish Crown/Steff Houlberg 2002

In both cases, the DCCA only used the linear demand

The DCCA emphasized that chose the linear demand because it represents a conservative approach that ensures robust results

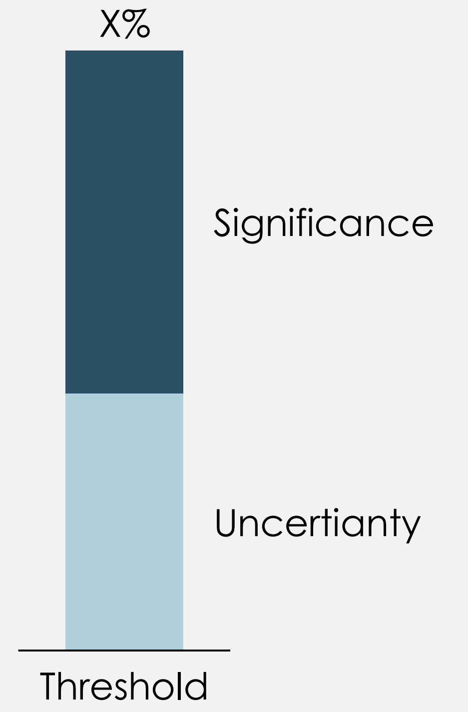
Conclusions

1

We need a threshold that allows for both significance and model uncertainty

2

We need some common understanding of which assumptions to apply when we assess if the threshold is met or not, e.g. which demand curve to use when the empirical demand is unknown



The ideal would be that the DG Competition made a guidance