What can merger retrospectives tell us? An assessment of EU mergers

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Objectives of the study

- In 2015 we delivered a report for DG COMP: "A review of merger decisions in the EU: What can we learn from ex-post evaluations?"
- To review the relevant literature of merger retrospectives on EU (EC or NCA) mergers,
- To discuss what the findings of these studies may imply about the quality of merger decisions,
- To introduce the relevant methodologies, and
- To provide a framework for identifying errors in merger decisions.

The report is available at:
http://ec.europa.eu/competition/publications/reports/kd0115715enn.pdf

Study sample

The price-effect of mergers

- 20 Differences-in-Differences and 9 Merger Simulation (MS) estimates.
- Where both the ex-post study and the merger decision were accessible.

The non-price effect of mergers

- 50 merger studies.
- Typically non-quantitative and done by CAs.
- Looks at the effect of the merger on market structure, dynamic effects, and other effects (buyer power, imports and service quality).

The price-effect of mergers

- On average, mergers in our sample were followed by a price increase, although this remained under 5 per cent in the large majority of cases.

	Difference-in-differences			Merger Simulations			Total sample		
	Mean (%)	Std.dev (%)	N	Mean (%)	Std.dev (%)	N	Mean (%)	Std.dev (%)	N
Approved	3.44	13.35	14	13.1	18.1	3	5.14	14.15	17
(no outliers)	0.48	7.73	13	2.65	0.07	2	0.767	7.19	15
Remedied	-2.47	5.19	6	2.31	2.9	4	-0.55	4.88	10
(no outliers)	-2.47	5.19	6	2.31	2.9	4	-0.55	4.88	10
Blocked			0	30.65	35.85	2	30.65	35.58	2

- The average price increase in unconditionally approved mergers was around 5 per cent.
- Remedied mergers on average did not increase prices.
- Conclusion? EU CAs appear to be good at finding the right remedy (contrast with US).

Price effect and concentration

Measure of concentration		N	Mean price-change (%) (std.err)	N	Mean price-change (%) (std.err)	N	Mean price-change (%) (std.err)
		Full sample		Unconditional		Remedied	
Combined market share (%)	$< 35\%$	11	0.59 (-2.29)	9	0.76 (-2.52)	2	-0.17 (-0.61)
	$> 35\%$	12	6.53 (-16.45)	7	9.67 (-21.5)	5	2.12 (-3.03)
Pre-merger HHI	< 2050	7	0.33 (-1.58)	5	-0.18 (-1.29)	2	1.63 (-1.93)
	> 2050	8	9.71 (-19)	4	22.92 (-18.2)	4	-3.5 (-6.76)
Post-merger HHI	< 2600	7	0.34 (-2.42)	4	-0.22 (-1.49)	3	1.09 (-3.57)
	> 2600	8	9.71 (-18.92)	5	18.34 (-18.85)	3	-4.67 (-7.09)
Number of firms	< 5	9	7.88 (-18.37)	7	12.57 (-18.24)	2	-8.5 (-3.53)
	> 5	12	1.53 (-2.24)	5	1.62 (-1.64)	7	1.46 (-2.72)

Price effect and concentration

- Average estimates of post-merger price increase were around zero where the market was less concentrated.
- In more concentrated markets the average estimated price-increase was large (between 10% and 22%) if the merger had been unconditionally approved.
- In the sample, remedies had been able to reduce post-merger price-increases even in concentrated markets.
- Conclusion? Some mergers were unconditionally approved even though they are in highly risky concentrated market.

Price effect and study design

	Full sample			Unconditionally cleared			Remedied		
Number of years after the merger	N	Average price-increase (%)	Std.dev. (%)	N	Average price-increase (%)	Std.dev. (%)	N	Average price-increase (%)	Std.dev. (%)
1	22	0.54	4.86	15	0.32	3.77	7	1.03	7
2	11	6.98	15.56	10	7.88	20.36	1	-2	
3	7	3.11	7.44	6	4.63	6.86	1	-6	
4 +	8	2.06	4.18	8	2.06	4.17	0		

- We treat the estimates for each separately estimated years as a single observation.
- A quadratic relationship (?) between the time passed after the merger and the price-change estimate, peaking at around 2 years after the merger.
- If this is true (sample size!!), do we need merger control at all?
- YES WE DO!
  - we don't know what would have happened without remedies,
  - and the un-remedied mergers were approved, because the CA may have anticipated these correcting forces to eliminate any price increase.

Do price increases indicate CA 'error'?

- In around half of the analysed sample, prices increased after the competition authority's intervention.
- A post-merger price increase may not imply an erroneous merger decision:
    - if non-price effects dominated price effects and the authority recognised this,
    - if the decision was based on faulty facts, or
    - if the post-merger price increase could have been seen as random variation at the time of the authority's decision.

Sample means broken down by CA error

$<$ 1 percent price change assumed as zero

	"no error"		"error"	
	N	mean	N	mean
Price effect	15	-2.98***	12	10.55***
Number of post-merger firms	12	6.75	11	7.62
HHI Pre-merger	9	1530***	6	2540***
HHI Post-merger	9	1874***	6	3251***
Combined post-merger market share	13	0.33	10	0.38
Decision year	15	2005	14	2004
Method (0 - DiD, 1 - MS)	15	0.13*	14	0.35*
CA decision (0 - no intervention) (1 - intervention)	15	0.4	14	0.28
Number of years between merger decision and data	15	1.6	14	1.6

*,**,*** implies t-test significance in the difference between means at 90%, 95% and 99%, respectively.

Non-price effects of mergers

(market structure - market shares, concentration, rivalry, and market size)

- Looking at how market structure changed post-merger may provide useful information for assessing the competition authority's decision.
- Developments in the joint market share of the merging firms, the level of rivalry, the level of concentration, and the size of the market are all informative for this purpose.
- We found that there is a non-trivial number of cases where the merger was followed by higher concentration, less rivalry, or larger market power of the merging firms.
    - However, where the merged firm's share decreased **prices** typically also decreased.
    - **Time** seems to play an important role; studies that are conducted more than 5 years after the merger were less likely to find similar concerns.

Non-price effects of mergers

('dynamic' effects - innovation, investment, entry-exit, further mergers)

- Very few studies looked at how dynamic effects (such as efficiencies or innovation) develop post-merger.
- This is somewhat surprising because these dynamic effects are typically the most debated part of merger decisions, and therefore it would be useful to improve our knowledge on how these effects unfold after the merger.
- Most of what we know is on market entry, in which case the sample of studies suggests that in general CAs do a good job in predicting where entry can potentially eliminate short-term competition concerns in the market.
    - Where entry happened typically the market share of the merged firm decreased.
    - Typically where prices increased post-merger, entry also happened (causality?)

A few concluding thoughts

- Caveats:
  - small sample,
  - classifications are sometimes difficult,
  - and selection issues abound.
- Merger retrospectives can be a very useful tool to improve enforcement activities.
- The presented results highlight the importance of this exercise and the need for a much larger body of such works (in Europe).