

Targeted Ex Post Evaluations in a Data Poor World

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Competition agencies have faced increased pressure to demonstrate their worth by showing that they have positively contributed to consumer surplus or the efficiency of the economy as a result of their decisions. As a result, there has been increased interest in carrying out ex post reviews of merger decisions. These reviews typically seek to determine whether prices have increased as a result of a cleared merger, a question that is fraught because of the empirical challenges of an accurate assessment and the limited value of the assessment. A demonstration that prices did in fact rise and that that increase can be attributed to the merger may tell us something about the correctness of the decision in that transaction but not about decisions in other transactions more generally. The Commerce Commission, as a result of this and the paucity of data that would allow for a difference-in-difference approach to ex post merger evaluation, has changed its approach to such evaluations. Rather than seeking to determine the veracity of a decision, the Commission carries out investigations that seek to determine whether anticipated market developments that were key to its decision, such as entry or increased imports, did in fact take place and if not, why not. This is done across a wide number of transactions with the goal of determining which techniques and types of evidence best serve its purpose so as to improve on them. This paper outlines this ex post methodology and presents learnings to date.

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I. Introduction

1. Competition agencies have for years been under pressure to show their effectiveness by demonstrating that their decisions were “really the most appropriate ones that could have been taken.”¹ This has typically been done by carrying out assessments to determine the actual effects a cleared merger has had on elements of competition, price in particular. Such a determination is, however, fraught with difficulties. It requires not only understanding how and why markets developed as they did, but then comparing this to how they might have developed but for the merger. As noted by Greg Werden of the US Department of Justice, “An inconvenient truth is that precisely estimating the tangible effects of a consummated merger might not be possible.”² This is not only because relevant data are usually scarce, but also because the “difficulties of compiling the relevant performance indicators are trivial in comparison to those in estimating the values of those indicators but for the merger.”³ And even should an agency manage to carry out analysis that robustly demonstrates that a particular decision was either sound or unsound, the general applicability of such a finding is not clear. A single or limited number of such studies out of the large numbers of agency decisions can hardly be expected to speak either to the agency’s effectiveness or ineffectiveness. Since no entity can be expected to get all of them right, or, for that matter, all of them wrong, one such finding could be simply a matter of luck, good or otherwise.
2. As a consequence in January 2014, the Commerce Commission (the Commission) changed its approach to ex post merger evaluations. Up to that point, for the three prior years the Commission had reviewed one investigation a year of a cleared merger that had raised significant competition issues. These investigations were largely based on extensive interviews of industry participants with an intention of determining the likely competitive consequences of the merger. This method of analysis is in contrast to what is generally considered the gold standard of ex post reviews: difference-in-differences, a method of analysis that relies on data from control markets in order to help isolate the effects of the merger.
3. Given the limited use of even a “gold standard” ex post review with statistically robust results, the Commission’s new approach to ex post reviews pulls back from the question of whether a particular decision was right or wrong. Instead it focuses on particular aspects of its original analysis to see which ones held true. In particular, the Commission reviews whether certain market conditions developed as predicted. This is done with the aim of refining and improving the tools and techniques used in making those predictions.
2. Also, because the approach is focussed on particular issues that regularly arise in mergers, those topics are canvassed more broadly, greatly increasing the number of

¹ “Manual on Ex-Post Evaluation of Specific Competition Agencies’ Interventions”, Working Party No. 2 on Competition and Regulation, OECD, 16 June 2014, at para 3.

² Gregory J. Werden, “Inconvenient Truths and Constructive Suggestions on Merger Retrospective Studies”, Retrospective Analysis of Agency Determinations in Merger Transactions Symposium, June 29, 2013, at 2.

³ Werden, 2013, at 2.

mergers subject to review. This increase in the number of reviews should better allow for the identification of any systematic shortcomings in merger analysis, and so better allow for the consideration of improvements in evidence gathering and tools that potentially have applicability across a broad range of cases.

3. Section II outlines the methodology used in the merger clearance review project. Section III examines the results and Section IV the resulting lessons learned to date. Section V concludes.

II. Review of past merger decisions: methodology

4. As noted, the objective of this project is not to determine whether a particular merger decision was the right one. That is, in the case of a merger clearance, we do not ask whether prices went up as a result of the merger (or whether other elements of competition were adversely affected). Rather, we review post-merger market conditions to determine whether our expectations about a particular market development were correct. This is done with the objective of improving how we form those expectations and so improving future investigations.
5. Since the review is focused on expectations, those merger clearances where strong expectations were formed around clear-cut issues are chosen for review:
 - 7.1 Entry or expansion was likely;
 - 7.2 Existing competition was adequate;
 - 7.3 Divestiture would satisfy competition concerns; and
 - 7.4 Buyers had countervailing power as a result of their ability to sponsor entry.
6. This approach allows us to focus on a single hypothesis in a time-efficient manner. In particular:
 - 8.1 Was there entry or expansion?⁴
 - 8.2 Did the competitors in the market at the time of the merger stay in the market, gain market share or otherwise provide competitive constraint?
 - 8.3 Did the divested product or entity become a competitive alternative in the market?
 - 8.4 Were buyers able to sponsor entry or self-supply?
7. In our initial review in January 2014, we identified decisions that contained one or more of the four key issues from the entire pool of clearance decisions that were made between May 2008 and June 2011. The beginning of the period was chosen as not being so far in the past such that even relatively straight-forward changes become

⁴ The reason for entry was not considered in the review and so was not necessarily in response to a post-merger price increase.

intractable,⁵ and the end of the period was chosen on the basis that sufficient time had passed to allow for market-changing developments, such as entry.

8. This resulted in the identification of 10 cases from a pool of 29.⁶ In January 2015, we carried out nine⁷ more reviews out of 19 clearances that took place between July 2011 and July 2013.⁸ One of these mergers proved, upon review, too complex so as to lend itself to the “key” reason approach we describe above and so was not included in the final tally of matters reviewed. As such, the results of a total of 18 merger clearance reviews are reported herein.
9. For each decision, we used the internet to research market developments and contacted (typically by phone) a few market participants to ask them a series of questions related to the key issue. Participants included the merged entities, customers, and competitors.

III. Review of past merger decisions: results

10. Of the 18 cases examined, several involved multiple markets. Each market was separately reviewed in regard to the identified key reason for clearance. As such, in total, 40 markets were reviewed.⁹ As noted above, we sought to answer four main questions around entry/expansion, existing competition, divestiture, and countervailing power through entry sponsorship. For the 10 reviewed clearances that took place between May 2008 and June 2011, the findings are as at January 2014, and for the eight reviewed clearances that took place between July 2011 and July 2013, the findings are as at January 2015.
11. Of the 17 markets in which the Commission relied on entry occurring to discipline any substantial lessening of competition, entry occurred in 12 of them.¹⁰ Of the 20 markets where existing competition was relied on as a key reason for the clearance, in 18 of them those competitors remain.
12. In the two markets where effective competition did not remain, in one there was exit by the sole remaining market participant because of concerns around its product. There was subsequent entry two years after that exit by a third party. In the second market, the effectiveness of import competition varied depending on fluctuations in the exchange rate.

⁵ Additional benefits proved to be that industry participants were able to remember pre- and post-merger situations, and industry participants were often still with their companies.

⁶ Of the 31 merger decisions between May 2008 and June 2011, two were declined.

⁷ An additional review of a declined merger also took place. That merger was declined on the basis of insufficient remaining competition and high barriers to entry. While it was found that a market participant exited the market and there was no entry, since the merger was declined, it cannot be known how the market would have developed had the merger taken place. Due to the absence of such a counterfactual, this review is not included in the analysis.

⁸ The last merger subject to the January 2015 review took place in February 2013.

⁹ One merger – Bligh Finance/Hire Equipment Group – involved eight separate regional markets. Two mergers involved the same market - internal parasite treatment for production animals.

¹⁰ This does not preclude the possibility that the threat of entry, or some other source of competitive discipline, helped assure pre-merger competitive outcomes. Whether or not this was the case is outside the scope of the study.

13. In the two clearances where a business line was divested as part of the merger, the divested business has managed to maintain a similar market share as to when the business was owned by a merging party. In the one matter where buyer sponsorship of entry was relied upon, such entry had not occurred but the identified sponsor indicated that it would still do so were prices to become too high. Table 1 summarises the results.

Table 1: Summary of results – 18 reviewed merger clearances, entailing 40 markets, May 2008-July 2013

Key reason for clearance – corresponding question	Number of markets for which this was a key reason for the clearance	Number of markets for which the response to the question was yes
Was there entry or expansion?	17	12*
Did the competitors in the market at the time of the merger stay in the market, gain market share or otherwise provide competitive constraint?	20	18**
Did the divested product or entity become a competitive alternative in the market?	2	2
Were the buyers able to sponsor entry?	1	1***

* There was entry in one additional market but it was of limited scale and geographic reach.

** In one market, the one remaining competitor exited two years after the merger; two years after that exit, there was entry by another player. In the other market, competitive constraint from imports varied with exchange rate fluctuations.

*** Entry did not occur but the primary purchaser continues to indicate that it would sponsor entry were prices too high.

14. See Attachment 1 for a list of the cases reviewed.

IV Review of past merger decisions: lessons learned

15. There have, to date, been lessons learned involving the following topics:

- 17.1 exchange rates
- 17.2 conditions for exports
- 17.3 exit in duopoly markets
- 17.4 opportunity cost as a cost of entry
- 17.5 low sunk costs.

Each of these is discussed more fully below.

Exchange rates

16. The profitability of importing, and so the competitive constraint imports are likely to provide, is not independent of the exchange rate. In some matters, the price difference at which imports can profitably be brought into New Zealand may be sufficiently large such that imports will continue to provide competitive constraint regardless of most exchange rate fluctuations. In other matters, imports may be more vulnerable to reasonably small variations in exchange.
17. In the cases reviewed, imports were the basis of the conclusion that there was likely to be sufficient remaining competition in one matter, and new imports were the basis for the finding of likely entry post-merger in another.
18. In the first matter, for the period subject to the review, exchange rates were high and so imports continued to be an important source of competition. Nonetheless, the effectiveness of that competition was found to be vulnerable to exchange rate fluctuations.
19. In the second matter – CSR Building Products (NZ) and Brickworks Building Products (NZ) – the imports that were expected from Australia in response to price increases had not taken place. The failure of such imports did not ride on the exchange rate but rather independent developments in the Australian brick market (see paragraphs 21-23 for the related lesson learned). Given the importance of imports to that decision, however, more testing of the sensitivity of imports to exchange rate changes may have been useful to highlight the exchange rate scenarios in which entry may not have been likely.
20. *Lesson learned:* A determination of the range of exchange rates over which imports are likely to occur should form a standard part of import assessment.

Conditions for exports

21. The availability and the profitability of imports into New Zealand are not independent of local conditions in the export market. This is true both when those exports are spearheaded by New Zealand importers who take on any domestic risk and cost, and when exports are spearheaded by the foreign-located firms looking to expand their markets. However, it appears likely that exports into New Zealand are more vulnerable to variations in those conditions in the latter situation. This may be because an importer only decides to import when it is certain of supply, so any relevant change in the foreign market will have already played out at the time of the import decision.
22. In the CSR Building Products (NZ) and Brickworks Building Products (NZ) merger, three Australian brick producers were identified as potential new sources of imports to New Zealand in the face of any price increases post merger. In the case of one company, it merged with CSR Australia and the associated plant was shut down. Another company changed its production system so that producing New Zealand standard-sized bricks is

now problematic. The third company simply indicated that it was no longer interested in exporting to New Zealand. A New Zealand-based importer did, however, enter the market on a limited scale based on imports from China.

23. *Lesson learned:* When relying on imports as a source of competition, particularly if it is a new source of import, greater attention should be paid to market conditions that drive those export decisions and possible variations in these. While this is relevant in all import cases, it is particularly so when the imports being relied upon are those that are to be spearheaded by the foreign-based firm. In such a case, relevant factors in assessing the likelihood, extent and timeliness of such imports include:

25.1 the firm's business plans;

25.2 the process (and the associated time) by which export decisions are made, including any possible variation in those decisions; and

25.3 the firm's financial condition.

In the case of New Zealand-based importers, relevant questions should address:

25.4 the certainty of supply, including any contracts;

25.5 the length of those arrangements; and

25.6 the flexibility around increasing imports.

Exit in duopoly markets

24. In one pharmaceutical merger, Schering-Plough Corporation/Merck, the only other remaining supplier of bovine virus diarrhoea cattle vaccines withdrew its product two years after the merger because of problems with its product. While this withdrawal was for unforeseeable reasons and was wholly independent of the merger, a duopoly market is more vulnerable to adverse competitive consequences of such exogenous changes.¹¹
25. *Lesson learned:* While there often reasons to be concerned by mergers that result in duopolies, another is that the competitive consequence of withdrawal of one player, which can happen for any number of exogenous reasons, is monopoly. Given that not all exogenous changes are unforeseeable, greater consideration should be given to the possibility of such eventualities in more concentrated markets.

Opportunity cost as a cost of entry

26. A cost of entry, even into otherwise profitable markets, is the opportunity cost of such entry. Opportunity cost appears to be a particular concern, or may be particularly high, for multi-national firms when considering entry into New Zealand. In the clearances subject to this review, there are examples of pharmaceutical companies that have products that are sold overseas, and so appear to face low costs of entry

¹¹ As noted above, new entry occurred two years after the firm in question exited.

into New Zealand, that have not yet been registered in New Zealand. In those matters, opportunity cost considerations relative to the size of the New Zealand market appear to be playing a role in the decision not to enter what appears to be otherwise profitable markets.

27. *Lesson learned:* When considering entry, particularly by multi-national companies, questions should address:
- 29.1 corporate interests potentially competing with any investment decision to enter New Zealand;
 - 29.2 the internal decision-making process around investment decisions;
 - 29.3 any existing investment priorities; and
 - 29.4 the circumstances in which investments decisions to enter New Zealand are likely to be reconsidered and the likelihood of those circumstances arising.

Low sunk costs

28. The reviewed clearances tend to confirm that low sunk costs, and so low risk of entry, do make entry more likely. As such, the Commission should continue to pay proper attention to these.
29. *Lesson learned:* an assessment of the degree to which entry costs are sunk should form a vital part of entry analysis.

V. Conclusion

32. In a data poor world, with little or no access to information that allows for a thorough assessment of how markets developed following a merger, let alone sufficient controls to allow for a robust assessment of how they would have evolved absent a merger, there is still benefit to be had from ex post review. The benefit, however, is not in an attempt to determine whether the Commission got a decision right or wrong, but in ascertaining whether aspects of the market relied upon in that decision proved correct. This allows for the identification of deficient techniques that can be improved and good techniques that can be again relied upon.

Attachment 1: Summary of merger clearances reviewed

Entry and expansion

1. Media Monitors Pty Ltd/Chong Bureau Ltd (February 2009)
 - 1.1 media monitoring services
2. Schering-Plough Corporation/Merck (August 2009)
 - 2.1 internal parasite treatment for production animals
3. Pfizer/Wyeth (August 2009)
 - 3.1 internal parasite treatment for production animals
 - 3.2 swine vaccine
 - 3.3 equine strangles vaccine
4. Christchurch International Airport Ltd/Craddocks Car Storage (January 2011)
 - 4.1 long-term parking
5. Sonoco New Zealand Ltd/TTL Pacific (February 2011)
 - 5.1 standard core cardboard tubes
 - 5.2 high-specification industrial cardboard tubes
6. CSR Building Products (NZ)/Brickworks Building Products (NZ) (October 2012)
 - 6.1 national market for the manufacture/import and supply of clay bricks
7. Bligh Finance/Hire Equipment Group (February 2013)
 - 7.1 eight regional markets for the supply of building construction and maintenance equipment hire services (up to 12 tonnes)

Existing competition

8. Schering-Plough Corporation/Merck (August 2009)
 - 8.1 bovine virus diarrhoea (BVD) cattle vaccine
9. Pfizer/Wyeth (August 2009)
 - 9.1 companion animal vaccine
10. Novartis/Alcon (May 2010)
 - 10.1 over-the-counter (OTC) ocular anti-allergies, decongestants and antiseptics

- 10.2 OTC artificial tears
- 10.3 OTC preparations for use with contact lenses
- 11. Sanford Ltd/Pacifica Seafoods Group of Companies (November 2010)
 - 11.1 South Island farming and processing of king salmon
 - 11.2 South Island farming of greenshell mussels
 - 11.3 South Island processing of greenshell mussels
- 12. TEC Projects Ltd/Tecpak Industries Ltd (November 2010)
 - 12.1 injection moulded rigid thin-walled plastic food containers under five litres
- 13. NZ Comfort Group/Dunlop Living Ltd (June 2011)
 - 13.1 box base beds
 - 13.2 foam for bedding and furniture
- 14. GEA Process Engineering/Nu-Con Ltd (August 2011)
 - 14.1 milk powder handling systems
 - 14.2 high output milk powder packaging systems (above 12-14 tonnes/hour)
 - 14.3 low output milk powder packaging services (below 12-14 tonnes/hour)
- 15. Matariki Forests/Selwyn Plantation Board (September 2011)
 - 15.1 production and supply of pulp, L-grade and S-grade logs in mid and north Canterbury for 2012-2018
- 16. iSite Ltd./O.T.W. Advertising Ltd (September 2011)
 - 16.1 regional market for the provision of billboard services
- 17. Seagate Technologies PLC/Samsung Electronics Co Ltd (December 2011)
 - 17.1 3.5" desktop hard disk drives (HDD), 3.5" and 2.5" consumer electronics HDDs, 2.5" mobile HDDs, external HDDs
- 18. Visy Industries/HP Industries (March 2012)
 - 18.1 North Island market for the manufacture and supply of PET beverage and non-beverage bottles
 - 18.2 North Island manufacture/importation and supply of plastic closures

19. Bligh Finance/Hire Equipment Group (February 2013)

19.1 national market for the supply of heavy construction and earthworks equipment hire services (over 12 tonnes)

Divested product

20. NZ Comfort Group/Dunlop Living Ltd (June 2011)

20.1 foam and rubber underlay for carpeting

21. Pact Group Pty Ltd/Viscount Plastics (NZ) Ltd (May 2012)

21.1 manufacture, importation and supply of plastic pails up to 20 litres capacity throughout New Zealand

Countervailing power, sponsorship of entry

22. AsureQuality Ltd/Proficiency Services Ltd (November 2010)

22.1 milk, dairy and meat proficiency testing services