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# **An Expected Value Approach to Evaluating Uncertainty in New Zealand Merger Analysis**

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*Woolworths Ltd v Commerce Commission* 29/11/07, Mallon J and Dr King, HC Wellington CIV-2007-485-1255.

# Introduction

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Competition law aspects of merger regulation in New Zealand are governed by the Commerce Act 1986. The purpose of the Act is to promote competition in markets for the long-term benefit of consumers in New Zealand.<sup>1</sup> This purpose creates a clear statutory preference in favour of consumers, whose interests often clash with those of firms.<sup>2</sup> However, firms are able to decide themselves when and how they engage with the Commerce Act, since they have the choice whether to initiate business acquisitions or not. New Zealand consumers, on the other hand, have no choice on when or how their interests are affected by a merger. Rather, consumers rely on government agencies to apply the legislative tests in order to safeguard their interest in competitive markets.<sup>3</sup>

In 2001 the legal test for merger evaluation was amended.<sup>4</sup> Part of the reason for this amendment was to allow the agencies to apply more sophisticated methods of merger analysis.<sup>5</sup> This paper aims to show that the opportunity for adopting sophisticated methods for merger analysis has not been fully embraced. Rather, current approaches to merger analysis in New Zealand are deficient, largely due to their poor evaluation of uncertainty. As a result, the interests of consumers are not adequately protected.

Chapter One of this paper analyses the *Warehouse Case* – the most recent judicial pronouncement on merger analysis in New Zealand. Chapter Two analyses the deficiencies in the current treatment of uncertainty in merger analysis. It advocates an alternative Expected Value approach that can be applied within the existing legislative and analytical framework. Chapter Three discusses the threshold for declining or approving mergers, where it should be set and how it

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<sup>1</sup> Commerce Act 1986, s 1A.

<sup>2</sup> Firms would prefer weak competition so that they can charge higher prices while consumers prefer rigorous competition so that firms charge lower prices.

<sup>3</sup> R Ahdar, "Consumers, Redistribution of Income and the Purpose of Competition Law" (2002) 23 *European Competition Law Review* 341, 350.

<sup>4</sup> Commerce Amendment Act 2001 (2001 No 32).

<sup>5</sup> Explanatory Note to the Commerce Amendment Bill 2001 No 2, 111-1.

should be evaluated. Chapter Three also provides a description of how the *Warehouse Case* would be determined using an Expected Value approach.

# 1. The Warehouse Case

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The *Warehouse Case* involved two separate merger clearance applications to the Commerce Commission (the “Commission”) by both New Zealand supermarkets, Foodstuffs and Woolworths,<sup>6</sup> to acquire the Warehouse Group Limited (the “Warehouse”).<sup>7</sup> The Commission declined both applications on the ground that the acquisitions would result in a substantial lessening of competition.<sup>8</sup> On appeal, the High Court overturned the Commission’s decision.<sup>9</sup> The High Court’s ruling was itself overturned by the Court of Appeal, which reinstated the Commission’s original determination.<sup>10</sup> Currently Woolworths has stated its intention to appeal the case to the Supreme Court.<sup>11</sup>

## 1.1. The Legislative Framework

The Commerce Act 1986 (the “Act”) is the primary piece of legislation governing competition law in New Zealand. The Act is administered by the Commerce Commission<sup>12</sup> and its purpose is to “promote competition in markets for the long-term benefit of consumers in New Zealand.”<sup>13</sup> Parts II and III of the Act prohibit certain activities on the grounds that they are anti-competitive.<sup>14</sup> If these provisions are breached the person(s) involved are liable to pecuniary penalties.<sup>15</sup>

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<sup>6</sup> See below for an explanation on the companies and their holdings.

<sup>7</sup> Had the supermarkets’ decision come only a year beforehand a clearance would have been unnecessary, since the Warehouse dealt solely in general merchandise and therefore operated in a different market to the supermarkets. It was only after the Warehouse announced its foray into the sale of groceries that the decision to acquire it was made.

<sup>8</sup> *Foodstuffs/Warehouse*, 71.

<sup>9</sup> *Warehouse Case HC*, [261].

<sup>10</sup> *Warehouse Case CA*, [208].

<sup>11</sup> *The National Business Review*, “Woolworths goes to Supreme Court on Warehouse Decision” 15 August 2008.

<sup>12</sup> New Zealand Commerce Commission, *Mergers and Acquisitions Guidelines* (Wellington, 2004), 6. The Commission is also responsible for the regulatory regimes specified in the Dairy Industry Restructuring Act 2001, the Electricity Industry Reform Act 1998, the Telecommunications Act 2001 and the Fair Trading Act 1986.

<sup>13</sup> Commerce Act 1986, s 1A.

<sup>14</sup> Prohibited activities include entering into contracts, arrangements, understandings and covenants that substantially lessen competition (Commerce Act 1986, ss 27 and 28), boycotts (s

Section 47 of the Act prohibits business acquisitions that are likely to substantially lessen competition in a market.<sup>16</sup> If a person proposing a business acquisition is concerned that it might breach s 47, that person may apply to the Commission for a merger clearance under s 66 of the Act.<sup>17</sup> A clearance allows the applicant twelve months to complete the nominated acquisition, during which time the acquisition will be protected from challenge under the Act.<sup>18</sup> The Commission will grant an applicant a merger clearance if it is “satisfied” that the merger is “not likely to have the effect of substantially lessening competition in a market”.<sup>19</sup>

The Commission publishes the New Zealand Mergers and Acquisitions Guidelines<sup>20</sup> (the “Merger Guidelines”) to assist the public in determining whether a clearance should be sought and to explain the Commission’s merger analysis procedure.<sup>21</sup> The Merger Guidelines are not intended as a substitute for the Act and do not bind the court.<sup>22</sup> Such a publication is in line with most other Western competition law regulatory bodies.<sup>23</sup>

The general framework used by the Commission to evaluate mergers involves three steps.<sup>24</sup> First, the Commission will define the relevant market(s) and

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29), taking advantage of a substantial degree of market power for certain purposes (s 36) and resale price maintenance (s 37).

<sup>15</sup> Commerce Act 1986, s 83. The breaching party may also be liable for personal actions for damages (Commerce Act 1986, 84A), divestiture of assets or shares (Commerce Act 1986, 85) and injunctions (Commerce Act 1986, 84).

<sup>16</sup> Commerce Act 1986, s 47(1).

<sup>17</sup> Optional merger notification (also referred to as *ex post facto* control, or the ‘strike-down’ regime) replaced mandatory pre-merger notification in 1990 by virtue of the Commerce Amendment Act 1990. For an analysis of this legislative change see M Berry and A Riley, “Beware the New Business Acquisitions Provisions in the Commerce Amendment Act 1990” (1990) 21 VUWLR 91.

<sup>18</sup> Commerce Act 1986, s 69.

<sup>19</sup> Commerce Act 1986, s 66(3)(a).

<sup>20</sup> Merger Guidelines, above n 12.

<sup>21</sup> *Ibid*, 1.

<sup>22</sup> *Ibid*.

<sup>23</sup> Eg, U.S. Department of Justice and the Federal Trade Commission, *Horizontal Merger Guidelines* (Washington DC, 1997), Australian Competition and Consumer Commission, *Merger Guidelines* (Canberra, 1999), UK Competition Commission, *Merger references: Competition Commission Guidelines* (London, 2003), Canadian Competition Bureau, *Merger Enforcement Guidelines* (Ottawa, 2004), European Competition Commission, *Guidelines on the Assessment of Horizontal Mergers Under the Council Regulation on the Control of Concentrations Between Undertakings* (Brussels, 2004).

<sup>24</sup> Merger Guidelines, above n 12, 6-7.

estimate the market shares of the participants in the market(s).<sup>25</sup> Second, the Commission will establish two hypothetical scenarios for each relevant market: what will, or is likely to happen if the acquisition takes place (the “factual”) and what will, or is likely to happen if the acquisition does not take place (the “counterfactual”).<sup>26</sup> Third, the Commission will compare the state of competition between the factual and counterfactual to determine whether any reduction in competition amounts to a substantial lessening of competition (a “SLC”). If the Commission determines that a SLC is not likely then the clearance will be granted, otherwise the clearance will be refused.

## **1.2. The Supermarkets**

Currently New Zealand has only two independent supermarket retailers: “Foodstuffs” and “Woolworths”,<sup>27</sup> who account for 100% of supermarket retail purchases<sup>28</sup> and 78% of all retail food purchases in New Zealand.<sup>29</sup> Foodstuffs is comprised of three regionally based co-operatives,<sup>30</sup> which each hold exclusive rights to the Foodstuffs supermarket banners in separate regions of New Zealand.

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<sup>25</sup> The Commission uses a broad definition of ‘market’ that includes geographical area(s), goods/services supplied and level(s) of production/distribution. When relevant, the Commission also considers timing elements and customer types. The central inquiry when defining a market is substitutability. That is, products that are good substitutes for each other will be in the same market. Whether products are good substitutes is measured by customer reaction to price increases; the “SSNIP” test. The SSNIP test measures the smallest geographical area within which a hypothetical localised monopolist could impose a Small yet Significant and Non-transitory Increase in Price without customers substituting to other goods. Often the SSNIP used to determine customer reaction is a 4-5% increase in price. (Merger Guidelines, above n 12, 14).

<sup>26</sup> See Merger Guidelines, above n 12, 21.

<sup>27</sup> Prior to 2002 New Zealand had three independent supermarket retailers: Progressive, Woolworths (New Zealand) Limited and Foodstuffs. At the time Progressive had 24% of the market-share, Woolworths (New Zealand) Limited had 18% and Foodstuffs had 58% (See *Foodstuffs/Warehouse*, 6). In June 2002, Progressive acquired Woolworths (New Zealand) Limited from Dairy Farm International Holdings of Hong Kong. This acquisition reduced the number of independent supermarket retailers in New Zealand to two. In December 2005, Progressive was sold by Foodland Association Limited of Australia to Woolworths Limited of Australia.

<sup>28</sup> Woolworths holds a market share of approximately 44% while Foodstuffs accounts for the remaining 56% (*Foodstuffs/Warehouse*, 10).

<sup>29</sup> Coriolis Research, *Mapping the Structure of the New Zealand Food & Beverage Industry* (Auckland, 2005), Appendix: Retailing, 4. This includes grocery sales in specialty stores, convenience stores, dairies, etc.

<sup>30</sup> Foodstuff (Auckland) Limited, Foodstuffs (Wellington) Co-operative Society Limited and Foodstuffs South Island Limited (collectively *Foodstuffs*).

The supermarket banners operated by Foodstuffs are Pak'n Save (43 stores), New World (130 stores) and Four Square (279 stores).<sup>31</sup> Pak'n Save is a discount banner targeted at the price-sensitive portion of the market, New World is a high-end full-service supermarket and Four Square is a convenience store that is typically located in small catchment areas.<sup>32</sup> The supermarkets are run as owner/operator franchises, which are coordinated through the regional Foodstuffs entities. Foodstuffs also owns the Pams, Budget and Fresh Express grocery brands.<sup>33</sup>

Woolworths Limited is an Australian company, listed on the Australian Stock Exchange. It is the largest employer in Australia with over 180,000 employees and 1,600 stores of various banners.<sup>34</sup> Woolworths conducts its supermarket operations in New Zealand through its subsidiary Progressive Enterprises Limited ("Progressive"). Progressive operates supermarkets under the Countdown (55 stores), Woolworths (63 stores) and Foodtown (31 stores) banners and coordinates the Fresh Choice (31 stores) and Super Value (12 stores) franchises.<sup>35</sup> Countdown and SuperValue are discount banners, while Woolworths, Foodstuffs and Fresh Choice are higher-end supermarkets. Progressive also owns the Select, Home Brand and Signature Range grocery brands.<sup>36</sup>

### **1.3. The Target**

The Warehouse is a publicly listed New Zealand company. It operates 85 general merchandise stores under the "Warehouse" banner and 43 stationary stores under

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<sup>31</sup> Foodstuffs, *Outline of Operations*, available online at <<http://www.foodstuffs.co.nz/OurCompany/OutlineOfOperations/>> (last accessed 28 August 2008).

<sup>32</sup> *Foodstuffs/Warehouse*, 3.

<sup>33</sup> Foodstuffs, above n 31. Pams is the largest selling grocery brand in New Zealand, see Pams Foods, *About Us - The History of Pams*, available online at <<http://www.pams.co.nz/AboutUs/History/>> (last accessed 28 August 2008).

<sup>34</sup> Woolworths, *Our Company - Key Facts*, available online at <<http://www.woolworthslimited.com.au/phoenix.zhtml?c=144044&p=our-keyfacts>> (last accessed 28 August 2008).

<sup>35</sup> Progressive Enterprises, *Fact File*, available online at <[http://www.progressive.co.nz/about\\_us/index.asp](http://www.progressive.co.nz/about_us/index.asp)> (last accessed 28 August 2008).

<sup>36</sup> Progressive Enterprises, *Our Company - Our Brands*, available online at <[http://www.progressive.co.nz/about\\_us/our+brands.asp](http://www.progressive.co.nz/about_us/our+brands.asp)> (last accessed 28 August 2008).

the “Warehouse Stationary” banner.<sup>37</sup> The Warehouse is the largest general merchandise and apparel retailer in New Zealand. As part of the Warehouse’s business model of offering a wide range of low priced goods, it runs a large nation-wide distribution centre for hard goods, apparel and (recently) groceries.<sup>38</sup>

During 2006 the Warehouse decided to trial a new business model, the “supercentre”. Supercentre is a generic term for exceptionally large stores that offer both a wide range of general merchandise and a full range supermarket, all under one roof. The Warehouse dubbed its supercentre “Warehouse Extra” and proceeded to unveil three such stores. The first Warehouse Extra opened at Sylvia Park shopping mall in Auckland on 8 June 2006, the second in Whangarei on 30 November 2006 and the third in Te Rapa shopping centre in Hamilton on 23 August 2007.

The Warehouse Extra business model differs from standard supermarket business models by having different cost drivers. The purpose of including the supermarket is to attract more customers into the store who will purchase high-margin general merchandise in addition to groceries.<sup>39</sup> As a consequence grocery sales need only cover their cost – profit margins are relatively unimportant. The increased general merchandise sales are referred to as a “Halo” effect. It usually takes several years before the Halo effect becomes fully profitable.

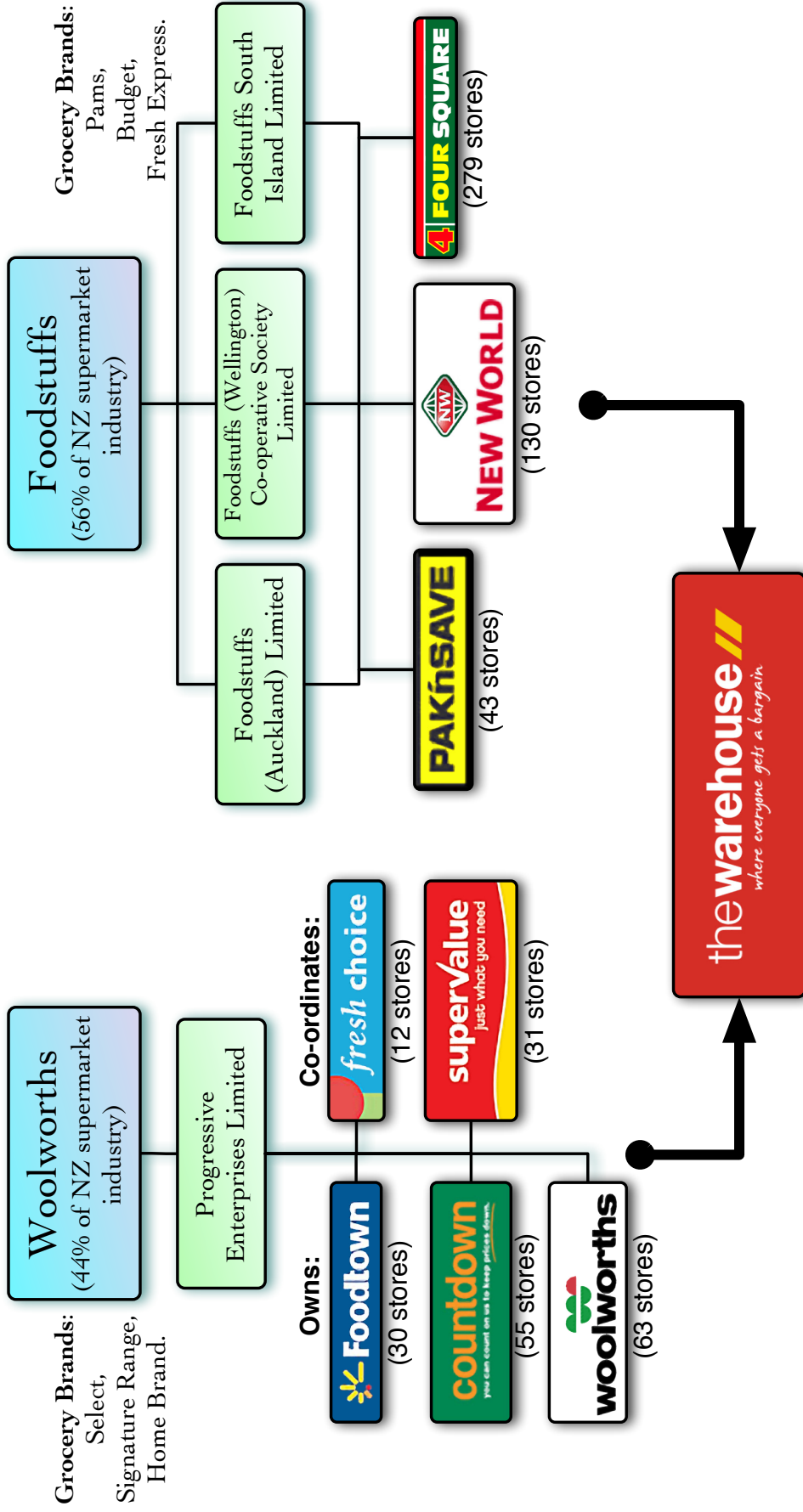
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<sup>37</sup> *Foodstuffs/Warehouse*, 4.

<sup>38</sup> The Warehouse Group Limited, *Business Profile*, available online at <<http://www.thewarehouse.co.nz/Content.aspx?id=100008763>> (last accessed 28 August 2008).

<sup>39</sup> *Warehouse Case HC*, [43].

Figure 1: The Supermarkets



85 Warehouse stores; 43 Warehouse Stationary stores;  
National distribution centre; 3 Warehouse Extra stores.

#### **1.4. The Bid**

Shortly after the launch of the first Warehouse Extra, Foodstuffs and Woolworths each purchased a 10% shareholding in the Warehouse.<sup>40</sup> Concurrently Stephen Tindal, the founder of the Warehouse, announced his decision to privatise the Warehouse by purchasing all its publicly traded shares.<sup>41</sup> Woolworths and Foodstuffs then applied to the Commission for clearances to purchased up to 100% of the shares in the Warehouse. This prompted Stephen Tindal to abandon his proposed bid.<sup>42</sup>

Foodstuffs' and Woolworths' bid for the Warehouse came at a suspicious time, since it came immediately after the Warehouse became a direct competitor of theirs. Both supermarkets therefore explained their interest in the bid to the Commission and the High Court. Foodstuffs' interest is largely censored from the public version of the High Court judgment, but the judgment does mention the enhanced general merchandise offering and buying power that Foodstuffs would gain from acquiring the Warehouse.<sup>43</sup> Woolworths explained its interest as a desire to enter the general merchandise retailing business in New Zealand and the timing as an attempt to prevent Stephen Tindal from privatising the Warehouse.<sup>44</sup>

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<sup>40</sup> *Foodstuffs/Warehouse*, 7. See Figure 2: Warehouse Case Timeline on page 10 for the full timeline of events.

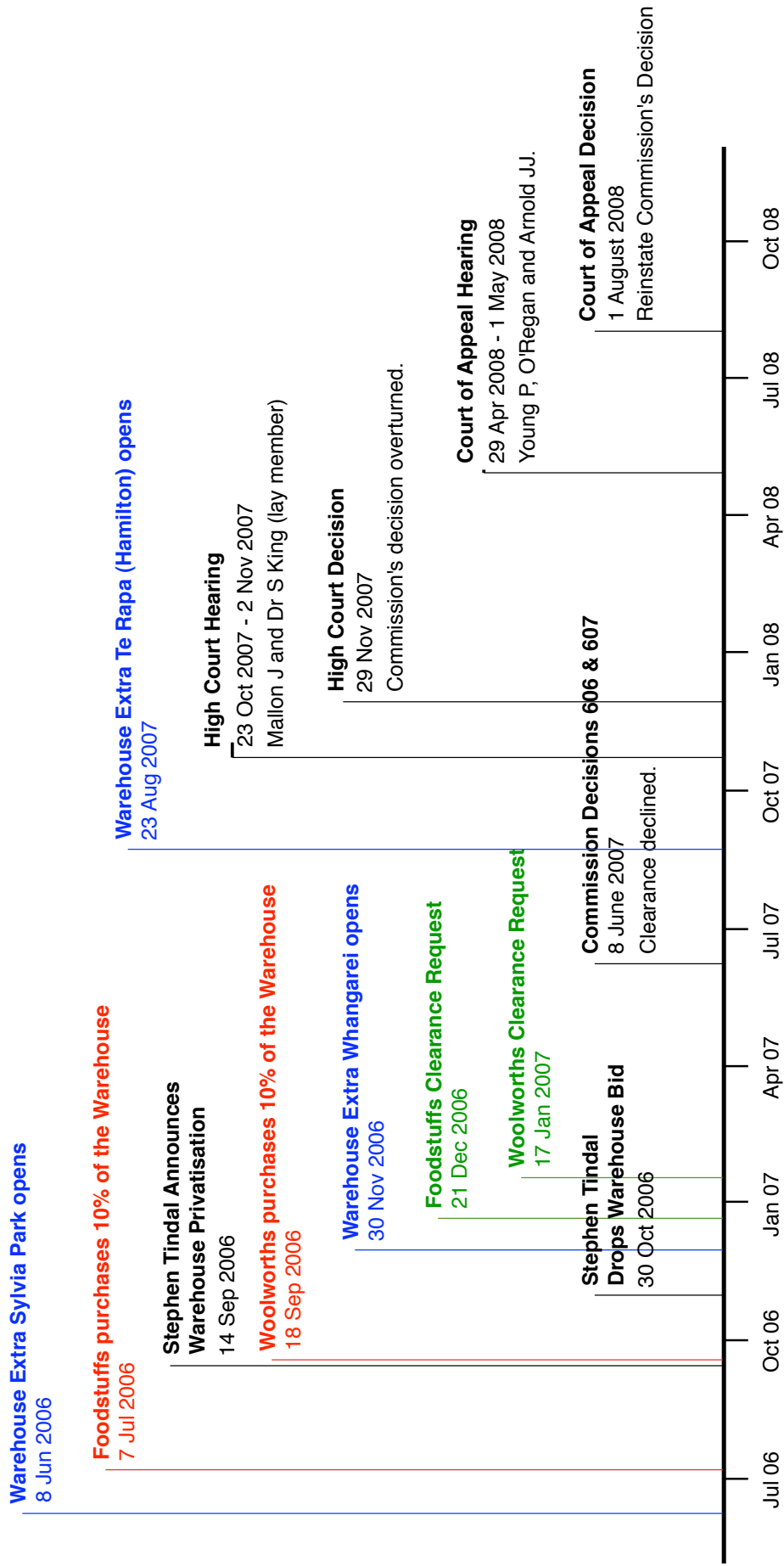
<sup>41</sup> Mr Tindal's interest in privatisation was due to his confidence in the success of the \$60 million, five-year plan to roll out further Warehouse Extra stores (*New Zealand Herald*, "Warehouse founder bids for bargain" 15 September 2006).

<sup>42</sup> *New Zealand Herald*, "Tindall abandons plan to privatise Warehouse" 30 October 2006.

<sup>43</sup> *Warehouse Case HC*, [46].

<sup>44</sup> *Warehouse Case HC*, [44].

Figure 2: Warehouse Case Timeline



## 1.5. *The Judgments*

The Commission declined both Woolworths' and Foodstuffs' clearance applications.<sup>45</sup> On appeal to the High Court, Mallon J and Dr S King (lay member) overturned the Commission's decision.<sup>46</sup> On further appeal, the Court of Appeal delivered a single, unanimous judgment that reversed the High Court's decision and reinstated the Commission's decision to refuse clearance.<sup>47</sup> The central issues in the Court of Appeal were the same as those in the High Court: how should uncertainty be dealt with under s 66 of the Act and how should the SLC be measured. The relevant part of s 66 reads:

### **"66: Commission may give clearances for business acquisitions**

(1) A person who proposes to acquire assets of a business or shares may give the Commission a notice seeking clearance for the acquisition.

..

(3) Within 10 working days after the date of registration of the notice, or such longer period as the Commission and the person who gave the notice agree, the Commission shall either—

(a) If it is satisfied that the acquisition will not have, or would not be likely to have, the effect of substantially lessening competition in a market, by notice in writing to the person by or on whose behalf the notice was given, give a clearance for the acquisition; or

(b) If it is not satisfied that the acquisition will not have, or would not be likely to have, the effect of substantially lessening competition in a market, by notice in writing to the person by or on whose behalf the notice was given, decline to give a clearance for the acquisition."

In the Court of Appeal, as in the High Court, both parties accepted that the relevant market was the market for "retailing of grocery items in supermarkets, incorporating local markets not less than 5km in radius from The Warehouse Extra stores."<sup>48</sup>

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<sup>45</sup> *Foodstuffs/Warehouse*, 64.

<sup>46</sup> *Warehouse Case HC*, [272].

<sup>47</sup> *Warehouse Case CA*, [208].

<sup>48</sup> *Foodstuffs/Warehouse*, 30. At the High Court the supermarkets contested that the Commission's 5 km radius was arbitrary, but the High Court found that extending the boundary made no difference to the final result (*Warehouse Case HC*, [163]-[164]). See also *Warehouse Case CA*, [5].

The Court of Appeal accepted the Commission’s submission that the High Court treated the appeal as a *de novo* hearing,<sup>49</sup> and not as a rehearing<sup>50</sup> as required by R718 of the High Court Rules.<sup>51</sup> This approach was manifest in the High Court by admitting extensive additional evidence that was not before the Commission and dealing with the case afresh.<sup>52</sup> The Commission did not eventually pursue a challenge to the High Court’s decision on this ground, however, as it was a *fait accompli*.<sup>53</sup>

### 1.5.1. *Uncertainty Under Section 66*

The Court of Appeal found that s 66 requires the Commission to engage in an inquisitorial rather than adversarial process.<sup>54</sup> As part of this process, the Commission should make its own “reasonable inquiry” into the merits of the clearance sought.<sup>55</sup> The High Court’s approach to the standard of proof in this inquiry was criticised by the Court of Appeal for adopting what it called a “binary” approach.<sup>56</sup> Under this approach, if an effect cannot be positively established as likely then, by default, it must be unlikely.<sup>57</sup> The High Court also expressed the view that the Commission is entitled to reject a clearance application only where “available relevant and important evidence is missing.”<sup>58</sup> The Commission is not entitled to reject an application because “it is too early for [it] to be able to make up [its] mind what effect is likely.”<sup>59</sup> This approach was in line with the Court of

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<sup>49</sup> An appeal *de novo* is defined as “an appeal in which the appellant court uses the trial court’s record but reviews the evidence and law without deference to the trial court’s ruling” (Bryan A Garner and Henry Campbell Black, *Black’s Law Dictionary* (8th ed, Thomson/West, St. Paul, MN, 2004), 106).

<sup>50</sup> A rehearing is defined as “a second or subsequent hearing of a case or an appeal, usually held to consider an alleged error or omission in the court’s judgment or opinion” (Bryan A Garner and Henry Campbell Black, *Black’s Law Dictionary* (8th ed, Thomson/West, St. Paul, MN, 2004), 1311).

<sup>51</sup> *Warehouse Case CA*, [36].

<sup>52</sup> *Warehouse Case CA*, [49]. This evidence was in addition to updating evidence.

<sup>53</sup> *Warehouse Case CA*, [55].

<sup>54</sup> *Warehouse Case CA*, [97].

<sup>55</sup> *Warehouse Case CA*, [101].

<sup>56</sup> *Warehouse Case CA*, [105].

<sup>57</sup> In other words, the default position for the evaluation of uncertainty is that an event is unlikely. It will only be ‘likely’ if the Commission can positively establish that it is ‘likely’.

<sup>58</sup> *Warehouse Case HC*, [108].

<sup>59</sup> *Warehouse Case HC*, [109].

Appeal's decision in *Power New Zealand Ltd v Mercury Energy Ltd*.<sup>60</sup> There the Court of Appeal discussed the predecessors to ss 47 and 66<sup>61</sup> and held that the old sections were the converse of each other and that there was no 'gap' between the two.<sup>62</sup> That is, if a SLC could not be established as 'likely' under s 66 then it must be unlikely, both under s 47 and for the purpose of granting a clearance under s 66.

The Court of Appeal rejected the idea that the *Power New Zealand* approach was relevant to the new ss 47 and 66.<sup>63</sup> The Court stated that the correct approach is for the Commission to grant a clearance "only if satisfied that a substantial lessening of competition is not likely."<sup>64</sup> In other words, the Commission must use the inquisitorial process to investigate whether a SLC is unlikely to occur. If it is satisfied that it is unlikely then the Commission should grant a clearance. If the Commission is left in "doubt" as to whether a SLC is likely or not, it should refuse the clearance.<sup>65</sup> The standard of proof to which the Commission should be satisfied that a SLC is unlikely is the civil "more probable than not" standard.

The Court of Appeal did not directly discuss the meaning of the word "likely" in s 66. It is therefore unclear whether the Court identified one or two limbs of uncertainty in s 66 and how a likely event is to be evaluated:

"It is common ground that the standard of proof in this context is on the balance of probabilities. A hypothesis is established on the balance of probabilities if it is more likely than not to be true. So this means that s 66(3)(a) should be construed as applying if the Commission is of the view that it is more likely than not that the acquisition will not have, or would not be likely to have, the effect of substantially

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<sup>60</sup> [1997] 2 NZLR 669.

<sup>61</sup> The central difference between the old sections and the new sections is the change from a dominance test to a substantial lessening of competition test (see G Goddard and E Curry, "New Zealand's New Mergers Test: A Comparison of Dominance and Substantial Lessening of Competition in the Supermarket Industry" (2003) 24 European Competition Law Review 300). The old s 66 did not contain the word 'likely' but rather referred to the standard in the old s 47. In *Power New Zealand Ltd v Mercury Energy Ltd* [1997] 2 NZLR 669, 675 the Court of Appeal held that s 66 should be read "as if the words in s 47(1) had been repeated in it."

<sup>62</sup> *Power New Zealand Ltd v Mercury Energy Ltd* [1997] 2 NZLR 669, 674.

<sup>63</sup> *Warehouse Case CA*, [106].

<sup>64</sup> *Warehouse Case CA*, [107]. The Court considered that s 66(3)(b) should be read as "In any other case .. decline to give a clearance for the acquisition." instead of "If it is not satisfied that the acquisition will not have, or would not be likely to have, the effect of substantially lessening competition .. decline to give a clearance." (*Warehouse Case CA* [95]). This interpretation is intended to simplify the reading if the double negative in the subsection.

<sup>65</sup> The Court of Appeal defined doubt in this context as "a failure to exclude a real chance of a substantial lessening of competition." (*Warehouse Case CA*, [98]).

lessening competition in a market. So we have ‘more likely than not’ on top of ‘will not have, or would not be likely to have’ along with the test of substantial lessening of competition, which also necessarily involves a question of degree.”<sup>66</sup>

Consequently, it is unclear which of two possible approaches for evaluating uncertainty the Court of Appeal intended.<sup>67</sup> The first possible approach is that the Commission should establish the ‘likely’ effect of the merger using the standards expressed by the High Court in this case. Under this approach the standard of proof would require the Commission to refuse a clearance when it is not satisfied with its own evaluation of what is ‘likely’. The High Court expressed the meaning of ‘likely’ as:

“What is clear from the case law is it must be more than ‘possible’ that the proposed acquisition will have the prescribed effect but it need not be ‘more probable than not’ that it will. To be above merely what is ‘possible’, the case law has referred to ‘a real chance’ and a ‘real and substantial risk’.”<sup>68</sup>

The High Court held that this formulation supported the following propositions:

- ‘Likely’ contemplated a 30% probability of occurrence;<sup>69</sup>
- There can be more than one ‘likely’ effect or outcome;<sup>70</sup>

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<sup>66</sup> *Warehouse Case CA*, [97].

<sup>67</sup> A third approach not discussed is that ‘satisfied’ and ‘likely’ in s 66 merge together into one test for uncertainty whereby the Commission must be able to conclude the probability of a SLC is higher than 50%. It is unlikely that the Court of Appeal advocated this approach because the Court held that ‘likely’ in ss 47 and 66 of the Act meant a “real and substantial risk” (*Warehouse Case CA*, [63]). This separate interpretation of ‘likely’ appears to exclude the idea of combining ‘likely’ and ‘satisfied’ into a single standard. Moreover, the Merger Guidelines specifically mention that ‘likely’ can mean a probability of less than 50%, and this was not discussed by the Court of Appeal.

<sup>68</sup> *Warehouse Case HC*, [112].

<sup>69</sup> *Warehouse Case HC*, [113]. Note that the Court adopted this threshold simply because the parties agreed to it. Subsequently, however, the Court placed little weight on the actual figure. For the purposes of this paper it is of little importance whether the probability threshold is 20%, 30% or 49% since they all carry the same degree of predictability for merger clearance applicants and they all treat uncertainty in the same manner. For reasons of simplicity this paper will use the Court’s 30% threshold for illustrations.

<sup>70</sup> *Warehouse Case HC*, [113]. The Commission and the Court are not entitled to choose the one likely outcome that has the greatest prospect of occurring and evaluate only that outcome. Rather, if any one of these ‘likely’ outcomes will result in a SLC, the merger clearance will not be granted.

- Where a certain outcome is dependent on more than one probability, both probabilities must be independently likely for the effect or outcome to be likely;<sup>71</sup> and
- The likelihood of an outcome must not be assessed in relation to the outcome itself.<sup>72</sup>

The second possible approach comes from the Court of Appeal's discussion on what it considered to be the key question when assessing the counterfactual in the *Warehouse Case*. The Court of Appeal stated that:

“We regard the key question on this aspect of the case as being whether there is a real and substantial prospect that the Extra concept will succeed to the extent that the Warehouse is prepared to roll out more stores. This question can, in the end, only be answered as a matter of impression. Further, given the nature of the clearance process, it has always been for Woolworths and Foodstuffs to establish that there is no such real and substantial prospect.”<sup>73</sup>

This passage may indicate an approach whereby ‘likely’ is to be assessed through a purely impressionistic approach.

It is difficult to determine whether the Court of Appeal intended the first or second approach, because it did not discuss the High Court's interpretation. This, despite the High Court's use of the “real and substantial” formula.<sup>74</sup> This ambiguity may allow courts in the future to determine which interpretation to adopt.

If the first approach is subsequently affirmed, then the law will require a three-step approach to evaluating uncertainty under s 66. First, the Commission should estimate the likely effect of the merger using the High Court's formulation. If a SLC is likely then the Commission should refuse clearance. Second, if the likely effect is unclear or ambiguous, the Court of Appeal's formulation of the standard of proof means that the Commission should refuse clearance. Third, if Commission is

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<sup>71</sup> *Warehouse Case HC*, [125].

<sup>72</sup> *Warehouse Case HC*, [123]. In other words the court must limit itself to the probability of an event occurring, while ignoring the consequences of that event: “The question is what is likely to happen, not what benefit to customers potentially could be gained if the acquisition is locked unrelated to the chance of that gain materialising.”

<sup>73</sup> *Warehouse Case CA*, [135].

<sup>74</sup> *Warehouse Case HC*, [111].

satisfied, on the balance of probabilities, that a SLC is not likely then it should grant a clearance.

If the second approach is subsequently adopted then the Commission is merely required to make an impressionistic evaluation of whether there is a real and substantial risk that a certain counterfactual will occur. Under such an approach it is unclear when the Commission would be required to resort to economic evidence. However, even where the Commission does resort to economic evidence, the impressionistic approach seems to allow a certain degree of discretion in weighting the evidence. Moreover, if the Commission is not confident of its own impressionistic evaluation then it should err on the side of declining the clearance.

Both approaches create a gap between s 47, where the onus of proof is on the Commission to prove that a SLC is likely, and s 66 where the Commission must be satisfied that a SLC is unlikely. Thus, an applicant whose clearance application is declined because the Commission is uncertain whether a prescribed effect is likely, may decide to proceed with the acquisition without a clearance. The onus of then proving that the acquisition is likely to result in a SLC, as per s 47, will rest on the Commission. Given the Commission's earlier inability to be satisfied one way or the other, the Commission is unlikely to successfully discharge the onus of proof.

### 1.5.2. *The Factual and Counterfactual*

There was little disagreement between the Commission, the High Court and the Court of Appeal as to the formulation of the factual. All three agreed that the supermarkets currently competed with each other, but that the competition could potentially be more vigorous.<sup>75</sup> They also agreed that the supermarkets had no incentive to develop a successful Warehouse Extra once they purchased the Warehouse.

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<sup>75</sup> *Foodstuffs/Warehouse*, 33, *Warehouse Case HC*, [197] and *Warehouse Case CA*, [119]. The disincentive arose from the fact that a successful Warehouse Extra would cannibalise the traditional supermarkets' sales.

When assessing the counterfactual both the Commission and the High Court found it was not their role to evaluate Extra's business model and its likelihood of success.<sup>76</sup> However, both proceeded to evaluate the business model. The Commission found that the Warehouse Extra was likely to succeed because by and large the supercentre concept was successful overseas.<sup>77</sup> The High Court found three possible counterfactuals,<sup>78</sup> two in which the Warehouse Extra concept would fail and one in which it would succeed. The High Court held that the third counterfactual was not likely because the Warehouse Extra's chances of success were "remote".<sup>79</sup>

The Court of Appeal examined Extra's business plan and found that it was both viable and showing signs of success.<sup>80</sup> Rather than leaving the business model assessment at that, however, the Court of Appeal went further and held that:

"While it is true that the [supercentre] concept has not been universally successful, it has had considerable success elsewhere. It is difficult to see why it cannot be developed to operate successfully in New Zealand, at least in some form. In this respect we are *not prepared to second-guess the business judgment of the senior management* and directors of the Warehouse. They would not have developed the Extra concept unless they saw it as viable."<sup>81</sup> (Emphasis added)

The Court of Appeal appears to make its final assessment of what is likely to happen by reference to management rather than the plan's likelihood of success. The Court is presuming that Extra is likely to succeed because the Warehouse executives chose to invest in it. Such a "Presumptions Approach"<sup>82</sup> is appealing because it allows the Court to avoid an evaluation of the empirical data. However, it sets a difficult precedent for future cases where the Commission and the courts might be required to presume that every business plan is likely to succeed merely because someone chose to invest in it. Such an approach risks substituting the judgment of business persons for that of the court.

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<sup>76</sup> *Foodstuffs/Warehouse*, 34 and *Warehouse Case HC*, [218].

<sup>77</sup> *Foodstuffs/Warehouse*, 35.

<sup>78</sup> *Warehouse Case HC*, [209].

<sup>79</sup> *Warehouse Case HC*, [224]. Note, however, that the Court only evaluated the limited empirical data available on Extra's performance since its launch to decide this (*Warehouse Case CA*, [143]).

<sup>80</sup> *Warehouse Case CA*, [141].

<sup>81</sup> *Warehouse Case CA*, [142].

<sup>82</sup> The "Presumptions Approach" is discussed in detail in section 2.3.2.

### 1.5.3. *Likely Competitive Impact*

When evaluating Extra's likely competitive impact on the market, the Commission considered several theoretical concerns. Most importantly, the Commission evaluated the general undesirability of three-to-two mergers<sup>83</sup> and the high barriers to entry to the supermarket industry to conclude that a SLC was likely.<sup>84</sup> The High Court, on the other hand, was not required to evaluate the competitive impact since it concluded that Extra was unlikely to continue operating. The High Court nonetheless proceeded to assess the competitive impact of Extra if it continued in operation.<sup>85</sup> The Court focused on the available quantitative and empirical data on Extra's performance. It determined that the threshold for a SLC is generally a 4-5% price increase for consumers<sup>86</sup> but decided to reduce the threshold to 3% in this case because of the small profit margins characteristic of the supermarket retailing industry.<sup>87</sup> This approach is in line with the most recent Australian Competition and Consumer Commission's 2008 Draft Merger Guidelines, which state that a 5-10% increase in price for consumers will generally amount to a SLC under the Australian legislation.<sup>88</sup> The High Court then evaluated Extra's financial impact to date and concluded that a SLC was unlikely, even if Extra was continued, because Extra did not compete on price.<sup>89</sup>

The Court of Appeal criticised both approaches. The Commission, it found, focused too much on theory<sup>90</sup> while the High Court focused too much on available empirical data.<sup>91</sup> The Court of Appeal also rejected the idea of a general threshold for the assessment of a SLC.<sup>92</sup> The Court considered that:

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<sup>83</sup> "Three-to-two mergers" are mergers that reduce market competition from three independent competitors to two independent competitors.

<sup>84</sup> *Foodstuffs/Warehouse*, 64.

<sup>85</sup> *Warehouse Case HC*, [249].

<sup>86</sup> *Warehouse Case HC*, [145].

<sup>87</sup> *Warehouse Case HC*, [149].

<sup>88</sup> See Australian Competition and Consumer Commission, *Merger Guidelines Draft 2008* (Canberra, 2008), 7. New Zealand adopted the current SLC test for merger analysis from the Australian legislation (Goddard and Curry, above n 61).

<sup>89</sup> *Warehouse Case HC*, [258].

<sup>90</sup> *Warehouse Case CA*, [187].

<sup>91</sup> *Warehouse Case CA*, [188].

<sup>92</sup> *Warehouse Case CA*, [191].

“[W]hat constitutes a substantial lessening of competition must in the end be a matter of judgment, although we accept, of course, that such a judgment must be informed by as much practical evidence as possible.”<sup>93</sup>

This approach is in line with the recent Court of Appeal authority in *New Zealand Bus Ltd v Commerce Commission*.<sup>94</sup> There the Court considered that the SLC assessment required by s 47 is one of “fundamental judgment”, not to be obscured by “false scientism”.<sup>95</sup>

The Court of Appeal’s approach to evaluating Extra’s likely competitive impact was to consider both the available empirical evidence and the theoretical concerns of a three-to-two merger in a market with high barriers to entry. The Court concluded that there is “no reason why [a successful Extra] would not have a significant effect” on Woolworths’ and Foodstuffs’ pricing, quality, range and service.<sup>96</sup> Woolworths and Foodstuffs would not be able to ignore Extra because neither could replicate Extra’s offering involving general merchandise.<sup>97</sup> As a result the merger had a likely effect of substantially lessening competition in a market, and clearance was declined.

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<sup>93</sup> *Warehouse Case CA*, [191].

<sup>94</sup> [2007] NZCA 502.

<sup>95</sup> *New Zealand Bus Ltd v Commerce Commission* [2007] NZCA 502, [104].

<sup>96</sup> *Warehouse Case CA*, [201].

<sup>97</sup> *Warehouse Case CA*, [203].

## 2. The Treatment of Uncertainty

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That business and commerce are inherently uncertain has been recognised at least as far back as biblical times.<sup>98</sup> Businesses throughout history have nonetheless managed to deal with uncertainty with relative success, especially in recent times.<sup>99</sup> Business best practice today employs various statistical methods to reach the best decision given the available information.<sup>100</sup> While statistics can in no way eliminate uncertainty, in practice they can help the decision-maker reach the best decision. It is, of course, essential that the decision-maker understand the statistic in order for him or her to utilise it effectively.

The Commerce Commission is also required to make business-like decisions in conditions of uncertainty. This is especially true when the Commission attempts to determine what is likely to happen in a given market when assessing a merger clearance under s 66 of the Act. Given the wide raft of factors that influence the behaviour of a market and its participants,<sup>101</sup> this is a very difficult task. Yet the decision must be a good one, since the wrong decision may have negative long-term consequences for consumers in New Zealand.

This part of the paper will argue that current approaches used to evaluate uncertainty by the Commission and the courts, as expressed in the *Warehouse Case*, are inadequate. Rather, the Commission and the courts should use a simple statistical method called “Expected Value”<sup>102</sup> to improve their analysis of uncertainty. The Expected Value approach is commonly used by businesses to

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<sup>98</sup> James 4:13, “Come now, you who say, ‘Today or tomorrow we will go to such and such a city, and spend a year there and engage in business and make a profit.’ Yet you do not know what your life will be like tomorrow.”

<sup>99</sup> Peter L Bernstein, *Against the Gods: The Remarkable Story of Risk* (John Wiley & Sons, New York, 1996), 1.

<sup>100</sup> See generally Robert Kast and André Lapied, *Economics and Finance of Risk and of the Future* (John Wiley & Sons, Chichester, England, 2006).

<sup>101</sup> These would include changing customer preferences, the availability and costs of capital and labour, the behaviour of other firms in the relevant market, changes in the legislative framework, etc.

<sup>102</sup> A detailed explanation of what Expected Value means and how it would apply in merger analysis is discussed in section 2.3.3. Expected Value is also referred to in the literature as “Expected Utility”, “Decision-Theory”, “Prospect Theory” and sometimes simply as “Risk Assessment”.

evaluate risk in cost-benefit analysis and guide decision-makers.<sup>103</sup> Using Expected Value in merger analysis can significantly improve the evaluation of the possible factualls and counterfactuals, and achieve results that are more consistent with the long-term benefit of consumers in New Zealand.

Note that this part of the paper will only discuss how to improve the analysis of effects that the Commission and the courts are able to quantify, and which they do quantify on a regular basis. The paper does not advocate a wholly scientific approach to merger analysis, nor does the majority of literature on the use of Expected Value in business decision-making.<sup>104</sup> Moreover, economics alone cannot provide objectives or scientific solutions to merger analysis. As John Maynard Keynes once observed:

“The Theory of Economics does not furnish a body of settled conclusions immediately applicable to policy. It is a method rather than a doctrine, an apparatus of the mind, a technique of thinking, which helps its possessor to draw correct conclusions.”<sup>105</sup>

The evaluation of qualitative effects and their relationship to quantitative effects will be discussed in Chapter 3.

## **2.1. Defining a “likely effect”**

### **2.1.1. Statutory Interpretation of ‘likely’**

The word ‘likely’ is prevalent throughout New Zealand legislation, with over 2,600 instances of the word.<sup>106</sup> It is well established in case law that this word does not

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<sup>103</sup> K Heyer, “A World of Uncertainty: Economics and the Globalization of Antitrust” (2005) 72 *Antitrust Law Journal* 375, 376.

<sup>104</sup> Eg, Sean Cleary and Thierry Malleret, *Global Risk: Business Success in Turbulent Times* (Palgrave Macmillan, New York, 2007), 48: “In risk assessment, different forms of quantitative and qualitative techniques are used. More often than not, *quantitative* modelling is complemented by *qualitative* analysis for risks that are less suited to formal modelling.”

<sup>105</sup> This observation is contained in an introduction written by Keynes to a series known as “The Cambridge Economic Handbooks”, cited by C. W. Guillebaud and Milton Friedman in the introduction to Sir Dennis Robertson and Stanley Dennison, *The Control of Industry* (Cambridge University Press, Cambridge, 1960), vii.

<sup>106</sup> The search was carried out on 22 July 2008 on the Thompson Brookers Ltd New Zealand electronic statute search engine.

have one fixed meaning.<sup>107</sup> Rather, the interpretation of 'likely' depends on the statutory context in which it exists, and it can encompass a wide range of probabilities.<sup>108</sup>

'Likely' is often interpreted as a probability that is expressed in verbal, as opposed to numerical terms. This interpretation appears to originate in criminal law<sup>109</sup> and the reason it was phrased in verbal terms was probably to make it suitable for directing a jury.<sup>110</sup> The general meaning given to the word 'likely' in the criminal context is "a real or substantial risk".<sup>111</sup> This was the interpretation used for 'likely' where the accused was required to know that his actions were "likely to cause death".<sup>112</sup> The probability contemplated by 'likely' can be reduced from the "real and substantial risk" formulation when the offence is less serious.<sup>113</sup> For example, in the context of publishing information that is 'likely' to lead to the identification of an accused in contravention of a name suppression order, the standard for likely was interpreted as "appreciable risk".<sup>114</sup>

The method of interpreting 'likely' as a verbal expression of probability has been extended to quasi-criminal and pecuniary penalty sections in a civil context.<sup>115</sup> For example, in cases involving fraudulently obtained judgments,<sup>116</sup> misleading

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<sup>107</sup> *R v W* [1998] 1 NZLR 35, 38 (CA). Recently affirmed in *R v Lee* [2006] 3 NZLR 42, 80(CA).

<sup>108</sup> *Commissioner of Police v Ombudsman* [1988] 1 NZLR 385, 404.

<sup>109</sup> See generally *R v Piri* [1987] 1 NZLR 66 and *R v Wickliffe* [1987] 1 NZLR 55. The other cases reviewed for the purpose of this section of the paper are: *R v W* [1998] 1 NZLR 35, *R v Hende* [1996] 1 NZLR 153, *R v Fatu* [1989] 3 NZLR 419, *Pearce v Thompson* [1988] 1 NZLR 385, *Gennaoui v Monk* [2000] NZAR 348, *R v Vialoux* 3/3/99, Randerson J, HC Auckland T982337, *R v W* 20/5/97, Gendall J, HC Palmerston North AP8/97, *Kawarau Raft Expeditions Ltd v Superintendent of Mercantile Marine* 9/9/96, Pacnkhurst J, HC Invercargill AP10/96, *Morley v Police* [1996] 1 NZLR 551, *Browne v Partridge* [1992] 1 NZLR 220, *R v La Hood* 9/5/89, Tipping J, HC Dunedin T1/89, *Enright v Gold Medal Exports Ltd* (1989) 3 PRNZ 243, *Bonz Group Pty Ltd v Cooke* (1996) 7 TCLR 206, *Hieber v Barfoot & Thompson Ltd* (1996) 7 TCLR 301, *Des Forges v Wright* [1996] 2 NZLR 758, *Colonial Mutual Life Assurance Society Ltd v Wilson Neill Ltd* [1994] 2 NZLR 152, *Re Wilson Neill Ltd* [1993] 2 NZLR 657, *Sinclair Horder O'Malley Ltd v National Insurance Co of New Zealand Ltd* [1995] 2 NZLR 257, *Trustees of the Hibernian Australasian Catholic Benefit Society v Storey* (1998) 4 ELRNZ 217.

<sup>110</sup> *R v Piri* [1987] 1 NZLR 66, 79 (per Cooke P).

<sup>111</sup> *R v Fatu* [1989] 3 NZLR 419, 430 (per Cooke P).

<sup>112</sup> *R v Piri* [1987] 1 NZLR 66, 82. The section discussed was s 167(d) of the Crimes Act 1961.

<sup>113</sup> See *Re H* [1996] 1 All ER 1, 16-17. Adopted in New Zealand in *Spellacey v Solicitor-General* (2003) 21 CRNZ 140.

<sup>114</sup> *R v W* [1998] 1 NZLR 35, 40.

<sup>115</sup> *Colonial Mutual Life Assurance Society Ltd v Wilson Neill Ltd* [1994] 2 NZLR 152, 161 (CA).

<sup>116</sup> *Enright v Gold Medal Exports Ltd* (1989) 3 PRNZ 243.

conduct under the Fair Trading Act 1986<sup>117</sup> and insider trading<sup>118</sup> the word 'likely' was interpreted using analogies to the criminal law, and the probability contemplated was expressed in verbal terms. Despite what appears to be a general adoption of the criminal interpretation in the quasi-criminal sphere, the Court of Appeal has stressed that a stringent examination of the context in which 'likely' is used is required to ensure that it is appropriate to adopt the criminal case law.<sup>119</sup>

There are few examples of cases interpreting 'likely' in a non-penal context. My research only uncovered two such New Zealand cases from recent years.<sup>120</sup> *Sinclair Horder O'Malley Ltd v National Insurance Co of New Zealand Ltd*<sup>121</sup> involved an insurance contract which required the insured to give notice to the insurer if they became aware of something which was 'likely' to give rise to a claim against them. The Court of Appeal in this case approved of the High Court's interpretation of the contractual clause as a 'reasonable person' test.<sup>122</sup> The insured was thus required to give notice when a reasonable person would realise that something "could well" give rise to a claim.<sup>123</sup> *Trustees of the Hibernian Australasian Catholic Benefit Society v Storey*<sup>124</sup> involved an application to become a heritage protection authority.<sup>125</sup> This Act required the Minister to approve the application if he or she was satisfied that the applicant is 'likely' to carry out its responsibilities

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<sup>117</sup> *Bonz Group Pty Ltd v Cooke* (1996) 7 TCLR 206, *Hieber v Barfoot & Thompson Ltd* (1996) 7 TCLR 301 and *Des Forges v Wright* [1996] 2 NZLR 758 (per Elias J).

<sup>118</sup> *Re Wilson Neill Ltd* [1993] 2 NZLR 657, 672: in this context 'likely' meant "such as could well happen."

<sup>119</sup> See for example *Colonial Mutual Life Assurance Society Ltd v Wilson Neill Ltd* [1994] 2 NZLR 152, 161 (CA): "In applying those criminal cases it has to be remembered that under the [Securities Amendment Act 1988] the question is not one of mens rea but of objective assessment of risk by the Court. Civil liability for insider trading has deliberately been made strict by the legislature when prescribed or other procedures safeguarding against abuse have not been followed."

<sup>120</sup> Not that the discussion is limited to cases in which the word 'likely' is used in a contractual provision or in legislation, as it is used in the Commerce Act 1986. Cases discussing the meaning of 'likely' in common law tests, such as the assessment of foreseeable damage in contract law (John Burrows, Jeremy Finn and Stephen Todd, *Law of Contract in New Zealand* (3rd ed, LexisNexis NZ, Wellington, 2007), 687-692), are not. This is because statutory analysis and case law analysis involve different exercises; the exact wording being less significant in the latter instance.

<sup>121</sup> [1995] 2 NZLR 257.

<sup>122</sup> *Sinclair Horder O'Malley Ltd v National Insurance Co of New Zealand Ltd* [1995] 2 NZLR 257, 269.

<sup>123</sup> *Sinclair Horder O'Malley Ltd v National Insurance Co of New Zealand Ltd* [1992] 2 NZLR 706, 715.

<sup>124</sup> (1998) 4 ELRNZ 217.

<sup>125</sup> Under s 188 of the Resource Management Act 1991

satisfactorily.<sup>126</sup> The High Court adopted a verbal interpretation from criminal law whereby 'likely' meant a "distinct or significant possibility".<sup>127</sup> There was no discussion as to the appropriateness of the criminal verbal formulation in this context.

In summary, the review of the case law exhibits a tendency by the courts to interpret 'likely' in a verbal form.<sup>128</sup> A common thread through most of the cases mentioned above is that 'likely' refers to what the defendants should have known about the direct and immediate consequences of their actions. Such matters are not easily susceptible to numerical quantification. Rather, they call for a value judgment and therefore verbal formulations are often appropriate in the criminal and quasi-criminal context.

### 2.1.2. *'Likely' in the Commerce Act 1986*

Several of the pecuniary penalties in the Act use the word 'likely'. In these sections a given effect must be 'likely' to result, directly or indirectly, from the defendant's actions in order to attract pecuniary liability. For example, s 27 imposes a prohibition on anti-competitive arrangements that are 'likely' to cause a substantial lessening of competition.<sup>129</sup> The most authoritative definition of the word 'likely' in the pecuniary penalty context of the Act comes from the Court of Appeal in *Port Nelson Ltd v Commerce Commission*.<sup>130</sup> There the Court of Appeal interpreted 'likely' in s 27 as:

"[B]earing in mind the purpose of the provision the appropriate level is that above mere possibility but not so high as more likely than not and is best expressed as a real and substantial risk that the stated consequence will happen."<sup>131</sup>

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<sup>126</sup> Ibid, 223.

<sup>127</sup> Ibid, 225.

<sup>128</sup> Ordinarily the court uses one of three general standards of probability: 'appreciable risk', 'real and substantial risk' or 'more likely than not'.

<sup>129</sup> Commerce Act 1986, s 27. Section 27(1) reads: "No person shall enter into a contract or arrangement, or arrive at an understanding, containing a provision that has the purpose, or has or is likely to have the effect, of substantially lessening competition in a market."

<sup>130</sup> [1996] 3 NZLR 554.

<sup>131</sup> Ibid, 563.

The purpose of the provision, as found by the High Court in that case and adopted by the Court of Appeal, was to create a quasi-criminal penalty and thus the Court should exercise “caution over setting standards too low.”<sup>132</sup> The Court did not discuss whether there were any material differences between criminal sections and the Commerce Act 1986. A potentially important difference is the complexity involved in evaluating the reactions of customers, competitors, suppliers, distributors and other relevant third parties to determine what the ‘likely’ effect on the market is going to be.

In *Rugby Union Players’ Association Inc v Commerce Commission (No 2)*<sup>133</sup> the High Court extended the *Port Nelson* interpretation of ‘likely’ to an authorisation section.<sup>134</sup> Unfortunately the High Court did not discuss whether there were any relevant differences between the penal s 27 and the wholly civil authorisation section. That decision was not appealed. The Court of Appeal had an opportunity to examine the word ‘likely’ in a non-penal context of the Act in *Power New Zealand Ltd v Mercury Energy Ltd*.<sup>135</sup> There the Court extended the *Port Nelson* formulation to the old merger clearance section.<sup>136</sup>

### 2.1.3. ‘Likely’ in Section 66 of the Commerce Act 1986

In 2001 both ss 47 and 66 of the Act were amended to the new SLC test for business acquisitions.<sup>137</sup> Since this amendment there has only been one case under s 47<sup>138</sup> and two cases under s 66,<sup>139</sup> the latest one being the *Warehouse Case*. In the *Warehouse Case* both the High Court and the Court of Appeal adopted the *Port*

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<sup>132</sup> *Commerce Commission v Port Nelson Ltd* (1995) 6 TCLR 406, 432.

<sup>133</sup> [1997] 3 NZLR 301.

<sup>134</sup> *Ibid*, 319-320.

<sup>135</sup> [1997] 2 NZLR 669.

<sup>136</sup> *Ibid*, 674.

<sup>137</sup> Commerce Amendment Act 2001 (2001 No 32), ss 11(1) and 11(2).

<sup>138</sup> *Commerce Commission v New Zealand Bus Ltd* (2006) 11 TCLR 679 and its appeal *New Zealand Bus Ltd v Commerce Commission* [2007] NZCA 502.

<sup>139</sup> *Brambles New Zealand Ltd v Commerce Commission* (2003) 10 TCLR 868 and *Woolworths Ltd v Commerce Commission* 29/11/07, Mallon J and Dr King, HC Wellington CIV-2007-485-1255. There has also been one case under the merger authorisation section, s 67: *Air New Zealand Ltd v Commerce Commission (No 6)* (2004) 11 TCLR 374.

*Nelson* formulation for use in the current s 66.<sup>140</sup> While the Court of Appeal considered that the latest amendment of s 66 was part of a major change of the Commission's role,<sup>141</sup> the Court did not discuss whether it was appropriate to extend the *Port Nelson* interpretation to the new s 66. It is possible, however, that the High Court considered that a verbal formulation was vague and difficult to apply in practice, since it substantially extended the interpretation of likely and gave it more precise boundaries.<sup>142</sup> This extension was not discussed in the Court of Appeal.

In conclusion, it appears that the criminal interpretation of 'likely' was incorporated into the Commerce Act 1986 by analogy to the Act's pecuniary penalty sections in *Port Nelson*. From there the interpretation was extended without much discussion to non-penal sections. However, it is submitted that this simplistic verbal interpretation is inappropriate in the context of the non-pecuniary or even pecuniary penalty sections of the Act. The 'likely' effect of a merger, for example, is not confined to the direct and inevitable consequences of the merging parties' actions. Rather, what is 'likely' depends to a large extent on the reactions and decisions of customers, competitors, suppliers, distributors and other relevant third parties. Therefore, wherever a section in the Act requires an assessment of the reactions of a large number of third parties, the interpretation of the word 'likely' in that section requires a more nuanced interpretation due to the complexity and extent of third party decision-making involved.

## **2.2. Econometric Analysis in Merger Clearance Evaluation**

When assessing the likely effects of a merger, the Commission evaluates changes in a number of market competition indicators. The Commission often focuses on

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<sup>140</sup> *Warehouse Case HC*, [111] and *Warehouse Case CA*, [63].

<sup>141</sup> *Warehouse Case CA*, [106].

<sup>142</sup> As discussed in section 1.5.1, the Court concluded that 'likely' contemplated a 30% probability of occurrence; there can be more than one 'likely' effect or outcome; where a certain outcome is dependent on more than one probability, both probabilities must be independently likely for the effect or outcome to be likely; and the likelihood of an outcome must not be assessed in relation to the outcome itself.

changes in coordinated<sup>143</sup> and non-coordinated<sup>144</sup> market power.<sup>145</sup> An increase in coordinated market power means that firms find it easier to tacitly coordinate their pricing, output or related commercial decisions, usually due to a decrease in the number of participants in the market.<sup>146</sup> An increase in non-coordinated, or unilateral market power means that competitive restraints on a firm have been removed or weakened such that the firm finds it profitable to raise prices, reduce output or otherwise exercise market power.<sup>147</sup>

The economic measures used to estimate the potential changes in coordinated and non-coordinated market power include market concentration, market barriers to entry, elimination of a vigorous competitor, scope for collusion, etc.<sup>148</sup> These measures can be utilised in two ways. They can either be used as isolated measures to gain a general impression of the competitive effect of the merger or they can be integrated into an econometric model that estimates the quantitative effect of the merger. The quantitative measurement is often expressed as a percentage price increase or decrease for consumers.<sup>149</sup>

The Commission often assess merger clearances using a number of relevant individual measures rather than a full econometric model.<sup>150</sup> This is appropriate when the merger clearance is relatively uncontroversial, either because one or more of the economic measures is so high that the merger is likely to cause a SLC or because the relevant measures are so small that the merger is unlikely to cause a SLC. In controversial or difficult mergers where the market is appropriate for

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<sup>143</sup> For a discussion on coordinated effects and their econometric simulation see K U Kühn, "The Coordinated Effects of Mergers" in P Buccirosi (ed.), *Handbook of Antitrust Economics* (MIT Press, London, 2008), 105.

<sup>144</sup> For a discussion on non-coordinated effects and their econometric simulation see G J Werden and L M Froeb, "Unilateral Competitive Effects of Horizontal Mergers" in P Buccirosi (ed.), *Handbook of Antitrust Economics* (MIT Press, London, 2008), 43.

<sup>145</sup> Merger Guidelines, above n 12, 12.

<sup>146</sup> Australian Competition and Consumer Commission, *Merger Guidelines Draft 2008* (Canberra, 2008), 28.

<sup>147</sup> *Ibid.*, 20.

<sup>148</sup> See generally Merger Guidelines, above n 12.

<sup>149</sup> James Michael Mellsoy and James Palmer, *Economics and Competition Law* (New Zealand Law Society, Wellington, 2004), 60-61.

<sup>150</sup> Merger Guidelines, above n 12, 22-31.

modelling,<sup>151</sup> however, the Commission ordinarily undertakes full econometric modelling. For example, econometric modelling was used for the Progressive/Woolworths,<sup>152</sup> Cendant/Budget<sup>153</sup> and Contact Energy/NGC<sup>154</sup> clearance applications and the Qantas/Air New Zealand<sup>155</sup> authorisation application.<sup>156</sup> All these applications involved oligopolistic markets and conflicting individual economic indicators. Econometric modelling is necessary in such cases because the Merger Guidelines require that merger effects on price or quantity must be sustainable for a period of two years or more.<sup>157</sup> In borderline cases this can only be accurately gauged from full econometric modelling, as opposed to an assessment of individual economic indicators.

The Commission uses one of two broad economic models to evaluate mergers in oligopolistic markets: the Cournot model and the Bertrand model.<sup>158</sup> These are both well-established economic models that differ on the assumptions that they make. The Cournot model assumes that oligopolies produce a single homogenous product.<sup>159</sup> It is therefore most appropriate for modelling industries where firms make decisions based on quantity, as opposed to price. An example of such an industry would be the electricity market. The Bertrand model assumes firms largely compete on price with similar but differentiated products.<sup>160</sup> It would therefore be appropriate for modelling, for example, the personal computer hardware market. The Commission will sometimes use modifications of these models to better represent the market analysed. However, the fact that the

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<sup>151</sup> Most oligopolistic markets are appropriate for econometric modelling, see I Kokkoris, "Merger Simulation: A Crystal Ball for Assessing Mergers" (2005) 28 *World Competition* 327, 332 (henceforth "Kokkoris I").

<sup>152</sup> *Progressive Enterprises Ltd / Woolworths NZ Ltd*, Com Com Decision No 448 (14 December 2001).

<sup>153</sup> *Cendant Corporation / Budget Group Incorporated*, Com Com Decision No 482 (6 November 2002).

<sup>154</sup> *Contact Energy Ltd / Natural Gas Corporation Holdings Ltd*, Com Com Decision No 491 (4 February 2003).

<sup>155</sup> *Qantas Airways Ltd / Air New Zealand Ltd*, Com Com Decision No 511 (23 October 2003).

<sup>156</sup> Mellso and Palmer, above n 149, 60-61.

<sup>157</sup> Merger Guidelines, above n 12, 13.

<sup>158</sup> Mellso and Palmer, above n 149, 58.

<sup>159</sup> *Ibid.*

<sup>160</sup> *Ibid.*, 59.

Commission uses one of two broad models means there is relatively little scope for disagreement over the general economic framework.

Under the current approach the Commission uses econometric modelling for a single factual or counterfactual that is considered 'likely' and causes the most serious reduction in competition. Factuals and counterfactuals that do not reach the 'likely' threshold or whose effects are not as serious as the factual or counterfactual being assessed are ignored from this early stage. However, once econometric modelling is created for a given merger, it is relatively simple to run the simulation several times with small changes that take account of the different possible factuals and counterfactuals. For example, if there is a 25% chance of new entry into the market that was not evaluated in the 'likely' counterfactual, then the exact same model would be run again, only with the added information of the new entry, resulting in two sets of possible price increase. Moreover, the information used to create the econometric model can be used to help quantify the likelihood of each potential event occurring.<sup>161</sup>

## **2.3. Three Approaches for Evaluating Uncertainty**

### **2.3.1. The "Real Risk" Approach**

The Real Risk approach refers to the use of either a verbal or numerical probability threshold for the assessment of likely events. This is the current approach in New Zealand for evaluating uncertainty in merger clearance analysis. The Merger Guidelines express the evaluation of uncertainty under 'likely' in s 66 as:

"Likely does not mean more likely than not. It means more than a mere possibility, but it can mean less than a probability of 50 percent. Likely means a real risk, a substantial risk or something that might well happen."<sup>162</sup>

This interpretation accords largely with the pronouncements of the High Court and Court of Appeal in the *Warehouse Case*.<sup>163</sup>

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<sup>161</sup> See Kast and Lapied, above n 100, Chapter 6: Risk Economics. See also Kokkoris I, above n 151.

<sup>162</sup> Merger Guidelines, above n 12, 10.

The advantage of the verbal formulation is that judges are familiar with it from their experience with other areas of the law. However, the formulation is vague and unpredictable in application. While it may be appropriate in criminal cases where the actions or beliefs of a person are at issue, it is not necessarily appropriate for the evaluation of the likely behaviour of a market and its participants. Moreover, an attempt to determine what the formulation means in practice may cause some frustration. Clearly any event with a 50% chance of occurring or more will be 'likely'. However, when the probability is lower one must try and determine, using an "impressionistic approach",<sup>164</sup> whether the chance of occurrence are "more than merely possible" and a "real risk".

The High Court's adoption of a 30% threshold for likelihood in the *Warehouse Case*, while arbitrary, injects a significantly higher degree of certainty into the Real Risk formulation. If the Supreme Court subsequently approves this threshold, it will provide concrete guidance for businesses and the Commission on how to apply the standard. Even if the 30% threshold is subsequently approved, however, it shares two central deficiencies with the verbal formulation.

The first deficiency is that the Real Risk formulation amounts to an "all-or-nothing" approach. That is, if a counterfactual reaches the 'likely' threshold it is treated as an absolute certainty and if it does not, the counterfactual is treated as if it does not exist. In the American context Katz and Shelanski express this deficiency as:

"Under this approach, events found to be of low probability or supported by uncertain evidence receive no weight in the decision calculus. Meanwhile, events with probabilities above the threshold are sometimes treated as if they were certain to occur. In short, uncertainty is treated as if it did not exist. This treatment can generate seriously inaccurate predictions regarding consumer welfare when low-probability events would have significant effects if they occurred."<sup>165</sup>

In the *Warehouse Case* the High Court considered that the counterfactual where Extra succeeded did not reach the 'likely' threshold.<sup>166</sup> As a result the Court ignored that counterfactual completely. The difficulty with this approach is that

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<sup>163</sup> See section 1.5.1.

<sup>164</sup> *Warehouse Case CA*, [135].

<sup>165</sup> M L Katz and H A Shelanski, "Merger Analysis and the Treatment of Uncertainty: Should We Expect Better?" (2007) 74 *Antitrust Law Journal* 537, 538-539.

<sup>166</sup> *Warehouse Case HC*, [224].

ignoring counterfactuals reduces the information on which the decision is founded. The quality of the decision is consequently reduced. Innovation, for example, is a major casualty of such an approach. Innovation is often considered more important to a competitive market than price competition,<sup>167</sup> but it frequently takes several years to make its full impact on a market.<sup>168</sup> Effects due to take place several years into the future are more difficult to predict with accuracy than events in the near future and will therefore have lower likelihoods of occurrence. As a result detriments to consumers from losing this innovation will rarely be assessed by the Commission and the courts under the Real Risk approach, no matter how significant.

The second deficiency, closely related to the first, is that the Real Risk approach disregards likelihood when assessing the effects of a merger. That is, once a counterfactual passes the 'likely' threshold, the probability of it occurring is disregarded in the later assessment of the merger's effect. Consider, for example, two counterfactuals in two separate mergers. The counterfactual in the first merger is 'likely' and has a 90% chance of causing a 5% increase in prices for consumers. The counterfactual in the second merger is also 'likely' but has only a 40% chance of causing a 5% increase in prices for consumers. Under the Real Risk approach both counterfactuals would be evaluated as having an equal effect on the relevant markets. However, consumers have more to worry about from the first merger than the second. This is because the price increase in the first merger is almost certain to occur whereas the price increase in the second merger has a smaller chance of occurring. Katz and Shelanski note that:

“The fundamental point for policy is that the magnitude of each possible outcome .. and not just whether it is likely .. must be taken into account if the welfare implications of the merger are to be fully understood.”<sup>169</sup>

To properly assess a merger, then, the probability of a counterfactual occurring must be linked to that counterfactual's effect.

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<sup>167</sup> M E Porter, “Competition and Antitrust: Toward a Productivity-Based Approach to Evaluating Mergers and Joint Ventures.” (2001) 46 Antitrust Bulletin 919.

<sup>168</sup> Ministry of Economic Development, *Discussion Document: Review of the Clearance and Authorisation Provisions under the Commerce Act 1986* (Wellington, 2007), 13.

<sup>169</sup> Katz and Shelanski, above n 165, 550-551.

### 2.3.2. *The “Presumptions” Approach*

The Presumptions approach is a slight modification of the Real Risk approach. It attempts to address some of the deficiencies in the way the Real Risk approach deals with events that have a low probability of occurrence. It does this by assuming that an event is likely, regardless of its actual probability, if a certain set of facts exists.

The Court of Appeal in the *Warehouse Case* tends towards this approach. This is particularly evident when the Court stated its unwillingness to “second-guess” the business judgment of the Warehouse’s executives.<sup>170</sup> The Court’s comments can be interpreted as creating a presumption that the Warehouse Extra is likely to succeed because: (a) the business plan envisages its success, and (b) the Warehouse executives chose to invest in it. Such an approach could be transferable to other cases where the Commission would be required to assume that a given business plan is likely to succeed because a competent investor thought that it was worth the investment. While the matter was not explored in the Court of Appeal’s judgment, it is possible that these presumptions are rebuttable. For example it may be possible to rebut the likelihood of Extra’s success by showing that the business plan is wholly illusory or that it was negligently prepared. A second example of a potential use of the Presumptions approach would be a presumption that where a firm is attempting to innovate, that innovation would be assumed to be commercially successful.

The attraction of the Presumptions approach is the foreseeability and objectivity it injects into the analysis of certain kinds of mergers. Once a presumption is articulated by the Commission or the courts, legal advisors can forecast with reasonable accuracy whether a similar merger is likely to receive clearance or not. As things presently stand, however, businesses may be required to wait a long time until a sizable case law builds up articulating the various presumptions and their rebuttals.

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<sup>170</sup> *Warehouse Case CA*, [142]: “In this respect we are not prepared to second-guess the business judgment of the senior management and directors of the Warehouse. They would not have developed the Extra concept unless they saw it as viable”. See section 1.5.3.

Moreover, the Presumptions approach does not remedy the structural deficiencies of the Real Risk approach. By creating a list of presumptions it merely attempts to remedy several specific situations. These presumptions will provide for the best outcome in most, but not all, cases. Indeed, once the factual patterns that are required for a presumption become known, companies may well attempt to artificially order their affairs to fit into a presumption's requirements if it will benefit them. Such a development would reduce the number of instances where the presumption provides for the best outcome and creates a whole new set of problems without solving the old ones. It is submitted, therefore, that a systematic framework that arrives at the best decision without creating a list of exceptions to the rule would be preferable.

### 2.3.3. *The "Expected Value" Approach*

Expected Value is a summary statistic.<sup>171</sup> It quantifies a decision's various possible outcomes, weighs each of them by the probability that they will occur, and sums these estimates together.<sup>172</sup> The Expected Value result can then be employed to help guide decision-makers, such as the Commerce Commission, in cost-benefit analysis.<sup>173</sup> Richard Posner argued as early as 1972 that the law in general should utilise an Expected Value-like approach to appraise legal disputes.<sup>174</sup> Today Expected Value is advocated by academics for use in various aspects of competition law.<sup>175</sup> Michael Katz and Howard Shelanski of the University of California at Berkley advocate an Expected Value approach for use in US merger

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<sup>171</sup> Summary statistics are a type of descriptive statistics that are used to summarise a set of observations in order to communicate them as simply as possible ("Summary Statistics" in Graham Upton and Ian Cook, *A Dictionary of Statistics* (2<sup>nd</sup> ed, Oxford University Press, Oxford, 2006)).

<sup>172</sup> Heyer, above n 103, 376.

<sup>173</sup> Christian Gollier, *The Economics of Risk and Time* (MIT Press, Cambridge, Mass, 2001), 3.

<sup>174</sup> R A Posner, "An Economic Approach to Legal Procedure and Judicial Administration" (1973) 2 JLS 399.

<sup>175</sup> See eg, D S Evans and A J Padilla, "Designing Antitrust Rules for Assessing Unilateral Practices: A Neo-Chicago Approach" (2005) 72 University of Chicago Law Review 73, C Frederick-Beckner and S C Salop, "Decision Theory and Antitrust Rules" (1999) 67 Antitrust Law Journal 41 and K Hylton and M Salinger, "Tying Law and Policy: A Decision Theoretic Approach" (2001) 69 Antitrust Law Journal 469.

analysis.<sup>176</sup> Ken Heyer, the Economics Director at the Antitrust Division of the United States Department of Justice, advocates a similar approach, which he would apply generally to most antitrust assessments of uncertainty.<sup>177</sup> The approach advocated in this paper differs from these US writers by tailoring the approach to fit into the unique characteristics of New Zealand competition law. It also differs by combining Expected Value with qualitative assessments rather than relying on the Expected Value alone.<sup>178</sup> Expected Value is a suggested tool to improve merger analysis that has yet to be used judicially in New Zealand or overseas.

In order to calculate an Expected Value for a given merger the Commission would require three sets of figures: the number of possible counterfactuals (n), the probability of each counterfactual occurring (PR) and the percentage price impact<sup>179</sup> of each counterfactual, when compared to the factual (PI).<sup>180</sup> These figures would be assessed through econometric analysis currently undertaken by the Commission.<sup>181</sup> Once these figures are obtained the Expected Value of the merger is calculated using the following formula:

**Equation 1: Expected Value Formula**

$$EV = \sum_{i=1}^n PR_i \times PI_i$$

EV = Expected value.

PR = Probability of counterfactual occurring.

PI = Price impact of each counterfactual, compared to the factual.

n = Number of possible counterfactuals.

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<sup>176</sup> Katz and Shelanski, above n 165.

<sup>177</sup> Heyer, above n 103.

<sup>178</sup> Katz and Shelanski, above n 165, 571-574.

<sup>179</sup> Percentage price increases are used because it is a figure the Commission often calculates and that the courts often deal with (as was the case in the *Warehouse Case*). This approach can easily be modified to take account of any other quantifiable impact that the Commission may determine is relevant to the assessment of a particular merger (see Charles M Grinstead and J. Laurie Snell, *Introduction to Probability* (2nd ed, American Mathematical Society, Providence, RI, 1997), chapter 6: Expected Value and Variance).

<sup>180</sup> The comparison to the factual is used, so as to represent the fact that the counterfactual cannot occur if the merger takes place (see below n 182).

<sup>181</sup> Discussed in section 2.2.

This formula multiplies each counterfactual probability by the price impact of the counterfactual when compared to the factual,<sup>182</sup> and adds all the outcomes together.

To illustrate, consider the three counterfactuals identified by the High Court in the *Warehouse Case*. For the purposes of illustration I will use probability percentages that are either above or below the 30% threshold expressed by the High Court, since the High Court did not assign percentage probabilities to each counterfactual.<sup>183</sup> The first counterfactual was that the Extra concept would fail. I will assign it a probability of 40% with a price impact of 0%. The second was that Extra would continue to be trialled for a while and then fail. I will assign that a probability of 35% and a price impact of 0%. The third was where Extra would succeed. This counterfactual was held not 'likely' and therefore I will assign it a probability of 25% and an impact of a 2.5%<sup>184</sup> price increase for consumers, when compared to the factual.<sup>185</sup> Putting the numbers into the equation we get:

**Equation 2: Expected Value Example 1**

$$(0.4 \times 0) + (0.35 \times 0) + (0.25 \times 0.025) = 0.00625$$

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<sup>182</sup> In other words, the effect of each counterfactual is first deducted from the factual in order to receive a net price impact for that scenario if the merger takes place. This is done so that the expected impact under Expected Value is calculated for the merger as a whole, rather than calculating Expected Value twice, once for all the factuals and again for all the counterfactuals, and then deducting one from the other. Thus, where a counterfactual would result in a price decrease for consumers, but that price decrease would be lost in the factual (ie, if the merger took place) then that price decrease would be calculated as a price increase to represent the fact that consumers could not benefit from it if the merger took place.

<sup>183</sup> Note that the High Court did not place significant weight on the 30% threshold, nor did it calculate the precise percentage probability of each counterfactual. However, the 30% threshold is useful for illustration purposes to demonstrate the difficulties associated with the Real Risk approach, which always uses an arbitrary cut-off point (expressed as either a verbal cut-off point or a percentage cut-off point). The percentage probability used here is either above or below the 30% threshold depending on whether the High Court considered the counterfactual was 'likely' or not.

<sup>184</sup> The price increase figures were omitted from the public version of the High Court judgment in the *Warehouse Case*. Since the SLC threshold in that case was held to be 3%, the price increase must be lower. Hence the use of a 2.5% price increase in this example.

<sup>185</sup> If the merger was declined and the counterfactual occurred then there would be a 2.5% price decrease for consumers. However, this price decrease would be lost in the factual (ie, if the merger took place). Therefore when comparing the counterfactual to factual we represent the *loss* of this price decrease as a price increase for consumers.

Under the High Court's assessment the price effect on consumers was zero because the third counterfactual did not reach the High Court's 'likely' threshold and was therefore ignored. Under the Expected Value calculation the average expected price increase is small, 0.625%,<sup>186</sup> but it is not zero.

As a second example, consider a fictional merger with two possible counterfactuals: an 80% chance of a 1% price increase for consumers and a 20% chance of a 15% price increase for consumers. Under the Real Risk approach this merger would be allowed,<sup>187</sup> since the 20% probability counterfactual would be ignored and a 1% price increase may not be sufficient to constitute a SLC. Expected Value would measure the merger in this way:

**Equation 3: Expected Value Example 2**

$$(0.8 \times 0.01) + (0.2 \times 0.15) = 0.038$$

The average expected price increase of allowing this merger is a 3.8%. The use of this statistic allows the lower probability counterfactual to be considered together with all other counterfactuals. As a result the decision-maker can come to an informed decision on whether to grant or decline the merger application.<sup>188</sup>

Before proceeding it is important to explain what the Expected Value result actually means. Expected Value is a descriptive quantity, akin to an average or a mean, of all the counterfactuals and their effects.<sup>189</sup> It is not equivalent to a price increase in a given counterfactual. The Expected Value may be, and often is, a result that we would not expect to observe in practice after making the decision a single time. In this respect it is similar to a class with an average grade of 72.3 despite no individual student receiving this mark. A useful way to conceptualise Expected Value, then, is as an average result for the proposed merger. What the

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<sup>186</sup> The Expected Value of 0.625% is reached by multiplying the Expected Value result of 0.00625 by 100. This is because the Expected Value calculation expresses the percentage outcome out of a maximum of 1 (ie, a result of 1 = 100% and a result 0.5 = 50%). To express the Expected Value result as a percentage out of 100% we simply multiply the Expected Value result by 100.

<sup>187</sup> Assuming all other facts are equal.

<sup>188</sup> See Katz and Shelanski, above n 165 for numerous examples of how such an approach would work in different types of mergers with varying probabilities and outcomes.

<sup>189</sup> Grinstead and Snell, above n 179, 225.

Expected Value “average” actually measures is the price increase that would occur if we allowed a large number of mergers with the same facts and averaged the price increases that resulted in all of them.<sup>190</sup>

By combining all the possibilities and outcomes of a particular decision together, Expected Value allows us to assess a summary of all aspects of the decision instead of focusing on individual parts of it. To illustrate, consider an attempt to assess whether a given school class performed well in an exam. Adapting the Real Risk approach, we would measure how well a class did by determining whether a certain proportion received a mark higher than 80% and ignore the rest of the class, which would be misleading and unhelpful. The Expected Value approach would be akin to using an average mark for the class to determine how well it performed, thus taking into account more information than the Real Risk Approach and condensing it into one figure.

To further explain Expected Value, we can use a more complicated example. Consider being faced with an American roulette and the question whether it would be profitable to place a bet on one of the numbers? An American roulette has 38 numbers on it.<sup>191</sup> If you place a \$1 bet on the winning number you will get your \$1 back plus \$35,<sup>192</sup> otherwise you will lose your \$1. You thus have a 1/38 chance of winning 35 times your original bet and a 37/38 chance of losing your original bet. Using Expected Value we can calculate that you should expect to lose 5.26% of your money.<sup>193</sup> Obviously you could not lose this percentage of money on an individual bet. The Expected Value is the loss that you would expect if you repeatedly placed bets on the roulette. Note that if you bet \$1 on all 38 numbers in a single roulette spin, then one of your numbers would inevitably come up and you end up with \$36. This \$36 represents a 5.26% loss from the \$38 that you bet on the

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<sup>190</sup> Note that an ordinary average calculation can be accompanied by a variance, so that the average of 50 and 100 (ie, 75) can be distinguished from the average of 70 and 80 (which is also 75). Similarly Expected Value can be accompanied by a variance measure so that a merger with potential outcomes of -100% and +100% price change for consumers and a merger with -2% and +2% price changes can be distinguished from one another (see *Ibid.*, Chapter 6 for a full explanation of the Expected Value variance).

<sup>191</sup> American roulettes have numbered slots 1-36 as well as “0” and “00” slots (38 slots in total). Non-American roulettes only one “0” (and therefore 37 slots in total).

<sup>192</sup> This is the standard ‘win’ when playing American roulette.

<sup>193</sup> The Expected Value calculation is  $\frac{1}{38} \times 35 - \frac{37}{38} \times 1 = -0.0526$ .

round,<sup>194</sup> which is equal to the loss as calculated by Expected Value. Expected Value can thus help us reach the logical conclusion that gambling on roulette is a loss making game that we should not play. When applied to merger analysis, Expected Value can give the decision-maker the same level of insight into the risks of granting clearance to a merger.

Since Expected Value represents an average outcome for a decision, it is especially useful in merger analysis. The Commission is required to analyse numerous merger clearance applications every year.<sup>195</sup> Most of these applications represent borderline cases where the advising solicitor is unsure whether the merger will or will not breach s 47 of the Act. Therefore the applications will often have similar probabilities and outcomes, despite existing in different markets and at different times. An Expected Value approach would allow the Commission to both make a long-term assessment of the benefit to consumers in New Zealand and enhance its ability to compare different mergers. Moreover, since Expected Value calculates the likely effect of the merger as a whole, it avoids the 'gap' between ss 66 and 47 caused by the current approach by the Court of Appeal.<sup>196</sup>

Further, the Court of Appeal in the *Warehouse Case* noted that:

“[T]he Commission can be expected to engage in an inquisitorial process in which it would make a reasonable inquiry into the merits or otherwise of the clearance that is sought. The decision to grant or refuse a clearance is necessarily to be made on the basis of all the evidence.”<sup>197</sup>

It is difficult to see how the Court of Appeal's Real Risk approach complies with this pronouncement. An approach that omits potentially important evidence from the final determination does not result in a decision made “on the basis of all the evidence”. Expected Value, on the other hand, evaluates all the possible counterfactuals to allow a decision to be truly made on the basis of all the evidence.

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<sup>194</sup> The calculation is  $\frac{36}{38} - 1 = -0.0526$ .

<sup>195</sup> On average the Commission evaluates approximately 20 clearance applications per year (Ministry of Economic Development, *Discussion Document: Review of the Clearance and Authorisation Provisions under the Commerce Act 1986* (Wellington, 2007), 23)

<sup>196</sup> See section 1.5.1.

<sup>197</sup> *Warehouse Case CA*, [101].

In conclusion, Expected Value provides a single numerical summary of the entire quantitative aspects of the proposed merger, with which the Commission can begin to assess its likely impact. Expected Value provides several additional benefits over the Real Risk and Presumptions approaches. The formalistic and well-established formulation of Expected Value promotes transparency in the merger clearance process; many applicants will easily understand the Expected Value techniques since they regularly use it in their business dealings; Expected Value takes into account future events with a low probability, ensuring that serious detriments to consumers will not be ignored; Expected Value links the probability of a counterfactual occurring to its effect; and, Expected Value allows the Commission and the courts to make their own assessment of the likely effect of the merger, rather than relying on the opinions of the parties involved in the merger. This quantitative assessment must, however, be supplemented by a qualitative assessment.<sup>198</sup>

#### **2.4. *The Potential Prevalence of Expected Value in Merger Analysis***

Under the current Real Risk approach the Commission focuses on a single factual or counterfactual that is 'likely'. Therefore most of the reported cases and decisions do not discuss alternative possible counterfactuals. For example, in *Brambles New Zealand Ltd v Commerce Commission*<sup>199</sup> the Commission identified the relevant counterfactual as being a continuation of the status quo. However, it specifically omitted an alternative counterfactual from its analysis because the probability of that counterfactual occurring did not reach the statutory threshold of 'likely'.<sup>200</sup> Since ignored counterfactuals are often not reported it is difficult to estimate precisely how much information is currently being discarded. The scarcity of discussion over alternative counterfactuals does not, however, mean

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<sup>198</sup> The link between quantitative and qualitative assessment is discussed in Chapter 3.

<sup>199</sup> (2003) 10 TCLR 868.

<sup>200</sup> *Ibid*, 873. The details of that counterfactual were censored from the public version of the judgment: "[The Commission] then considered the counterfactual and concluded that the status quo was the counterfactual. In particular, it rejected the possibility that [..]"

that they do not exist. Nor does it mean that the alternative counterfactuals can be safely ignored: “low probability events can matter, and for that reason they should not be casually or easily discarded.”<sup>201</sup>

It is feasible to estimate what counterfactuals may have been ignored in a decision by reading the case and contemplating what alternative scenarios may have been possible. For example, in *New Zealand Bus Ltd v Commerce Commission*<sup>202</sup> the largest bus company in Wellington, New Zealand Bus Limited, wanted to purchase the second largest bus company in Wellington, Mana Coach Services Limited.<sup>203</sup> The factual, that Mana and NZ Bus would no longer compete with each other after the merger was virtually certain and was not controversial.<sup>204</sup> The counterfactual, however, was not as obvious.<sup>205</sup> The High Court nonetheless considered that the only relevant counterfactual was that Mana would be sold to a different bus company who wished to enter the Wellington market, and that under new ownership Mana would compete with NZ Bus.<sup>206</sup> The High Court did not evaluate other counterfactuals. However, that does not mean that there were no possible alternative counterfactuals. One possibility would be for Mana to go bankrupt and not be purchased at all. Moreover, if Mana would have been purchased then there would still be at least two possibilities: that Mana remain a meek competitor, or, if Mana would have been purchased by a bus company that wanted to usurp NZ Bus, it may have become a very aggressive competitor. It would have been preferable for the High Court to have evaluated all the possible counterfactuals rather than focusing on a single one.

Notwithstanding this estimation exercise, without the information held at the time by the parties and the court we cannot know what scenarios were possible, or how possible they were. However this exercise shows that, since the Commission and the courts can rarely determine with absolute certainty what *will* happen in the

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<sup>201</sup> Katz and Shelanski, above n 165, 554.

<sup>202</sup> [2007] NZCA 502.

<sup>203</sup> Ibid, [10].

<sup>204</sup> Ibid, [256]-[258] and *Commerce Commission v New Zealand Bus Ltd* (2006) 11 TCLR 679, 719-720.

<sup>205</sup> *Commerce Commission v New Zealand Bus Ltd* (2006) 11 TCLR 679, 720.

<sup>206</sup> Ibid, 721.

future, alternative possible counterfactuals will normally exist, and they should not be ignored.

The discussion in this paper has focused on the benefits of using Expected Value to calculate price increases as measured by econometric modelling. However, Expected Value can also be used to evaluate the likely effect of individual economic indicators that are expressed in numerical terms. For example, an economic indicator used to estimate increases or decreases in a firm's unilateral power is the firm's market share. Under the Real Risk approach the Commission would only evaluate the change in a firm's market share in a single 'likely' counterfactual and ignore market share changes in scenarios that do not reach the 'likely' threshold. Under the Expected Value approach the Commission would estimate the change in market share under all possible counterfactuals and use Expected Value to gain a complete understanding of the merger's effect on the firm's market share.

Thus, the Commission's and the court's use of the Real Risk approach masks the true risks that a merger gives rise to by discarding counterfactuals early on in the investigation. These counterfactuals are often not mentioned in the final decision or judgment, but they nonetheless exist. As a result the potential prevalence of Expected Value in merger analysis is large. The Expected Value approach could be employed in every merger analysis where the assessment involves deciding what is 'likely' to happen and where that evaluation involves quantitative indicators of competition.

## **2.5. *Potential Criticism of the Expected Value Approach***

The Expected Value approach, and indeed any mathematical or statistical usage can seem foreign within the law. In this part of the paper I would like to anticipate and address a number of potential criticisms that the Expected Value approach may give rise to. The first potential criticism that will be addressed is that judges and the Commission will not understand the concept or be able to apply it in

practice. Katz and Shelanski also identify this potential criticism<sup>207</sup> and pose a simple, yet effective response to it – observing that “the difficulties of the expected-value approach arise not because the method of analysis is hard, but because the problem to be addressed is hard.”<sup>208</sup> Merger analysis necessarily involves complicated econometric and statistical data.<sup>209</sup> The Expected Value approach helps synthesise this information in a more effective manner. It does not introduce foreign statistical calculations in an area of law where they do not currently exist.<sup>210</sup> Nor does it create an additional burden by including quantitative data that could be safely ignored, since ignoring low probability events does not eliminate their impact.<sup>211</sup>

Moreover, the Commission and the courts are equipped to effectively implement such an approach. The Commission is a specialist tribunal that deals with significantly more complex mathematical, statistical and econometric data than Expected Value. A significant portion of the Commission’s staff are trained in economics and related disciplines, and specialist economist assistance is regularly sought for merger clearance review.<sup>212</sup> Judges on appeals from the Commission are naturally privy to all the reports prepared by and presented to the Commission. Moreover, High Court Judges who sit on Commerce Act cases are in the unique position of sitting alongside a lay-member advisor.<sup>213</sup> A central purpose of this arrangement is cross-pollination of expertise. One would expect the lay-member to explain the meaning of the Expected Value statistic to the judge in order for them to reach a conclusion on it together.

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<sup>207</sup> Katz and Shelanski, above n 165, 554.

<sup>208</sup> Ibid.

<sup>209</sup> See Mellsop and Palmer, above n 149, Chapter 3.

<sup>210</sup> *Telecom Corporation of New Zealand Ltd v Commerce Commission* [1992] 3 NZLR 429, 441.

<sup>211</sup> Katz and Shelanski, above n 165, 555.

<sup>212</sup> Alan Lear, *Report to the NZ Commerce Commission: A Best Practice Review of the New Zealand Merger Clearance Regime* (Auckland, 2007), 25.

<sup>213</sup> In competition law cases a “lay-member” ordinarily sits alongside the judge in High Court proceedings (Commerce Act 1986, ss 77 & 78). The lay-member is selected from a panel of persons with “knowledge or experience in industry, commerce, economics, law or accounting” (Commerce Act 1986 s 77(2)) and may issue his or her own opinion. In cases where there are two or more lay-members, they may constitute a majority opinion that decides the outcome of the case, notwithstanding the judge’s opposing view (R Young, “The Role of Lay-Members in Competition Law Cases in New Zealand” (2001) 29 Australian Business Law Review 258, 259).

A second potential criticism that I would anticipate is that the Expected Value approach is one of “false scientism”<sup>214</sup> whereby the work of the law is replaced by an imprecise mathematical calculation. Such criticism, however, misunderstands the approach advocated. First, it is vital that the Commission and the courts understand the figures, the econometric modelling and the assumptions that make up the Expected Value. Since the Commission currently analyses this data itself there is no reason to assume that the Commission will not be able to continue to do so in the future. Second, Expected Value will rarely be the sole determining factor for the outcome of a clearance application. The use of Expected Value in merger analysis, like in business decision-making, requires an additional consideration of qualitative factors before a decision is made.<sup>215</sup> The Expected Value does, however, create a benchmark and a clear framework for the analysis of the available evidence.

A further potential criticism, also mentioned by Katz and Shelanski,<sup>216</sup> is that the figures used to calculate the Expected Value are sometimes controversial and could lead to disagreement between the Commission and the applicants. A subsequent appeal to the High Court would consequently be very expensive, long and complicated, involving significant economic data and analysis. Such a criticism is well placed. However, it could equally be directed at the Real Risk approach. There too the Commission is required to undertake economic analysis of the proposed acquisition and, if the parties disagree over the Commission’s modelling, the ensuing litigation is likely to be long, expensive and complicated. Thus, if there is no reliable economic data available the implication and solution in the Real Risk approach and the Expected Value approach is the same: to skip the quantitative assessment and focus on theoretical and qualitative concerns.

Moreover, it is submitted that where the data is reliable but the Commission misapplies the economic modelling, then the applicant is entitled to, and should attack the modelling. In such a case the area requiring improvement is not the

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<sup>214</sup> *New Zealand Bus Ltd v Commerce Commission* [2007] NZCA 502, [104] per Hammond J.

<sup>215</sup> Cleary and Malleret, above n 104, 48-49.

<sup>216</sup> Katz and Shelanski, above n 165, 553. Note, however, that Katz and Shelanski address this criticism from the context of evidence in American antitrust cases.

theoretical treatment of complicated economic data, but the quality of modelling undertaken by the Commission. Further, an Expected Value approach would be preferable to the Real Risk approach in such circumstances by reducing disagreements over small inaccuracies in the economic modelling. For example, under a 30% probability threshold it may be extremely important for an applicant to establish whether the likelihood of a potential event is estimated at 28% or 32%.<sup>217</sup> As a result significant resources may be expended in debunking the Commission's accuracy when assessing the event's probability. Expected Value, on the other hand, combines all the merger's figures together instead of focusing on one single figure. Therefore such a small variation would be virtually immaterial when using Expected Value, especially once qualitative factors are taken into account.<sup>218</sup>

The final potential criticism that this paper will address is that the Expected Value approach takes into account price decreases as well as price increases for consumers. This appears, on first inspection, similar to merger authorisation under s 67 of the Act where the Commission is required to look at the net benefit to the public.<sup>219</sup> Therefore, the argument would run, the Expected Value approach wrongly encroaches on territory reserved for merger authorisations.

The response to this criticism is twofold. First, it is true that the Expected Value approach increases the level of overlap between the clearance and authorisation provisions. However, the authorisation process takes into account significantly more information on the benefits to the public than the Expected Value approach.

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<sup>217</sup> Similarly, under an impressionistic approach, where it is controversial whether a counterfactual is 'likely' or not, the parties will conduct the same expensive exercise. The central difference between a percentage probability threshold and an impressionistic threshold is that the decision-maker has more discretion when using an impressionistic threshold. While the use of that discretion may in some cases resolve the disagreement, in other cases it may simply form the grounds for an expensive and drawn out appeal process.

<sup>218</sup> For example two calculations of expected value with such a variation could be  $(0.28 \times 0.05 + 0.72 \times 0.01) = 2.12\%$  and  $(0.32 \times 0.05 + 0.68 \times 0.01) = 2.28\%$ . The difference between the two figures is a fraction of percentage point (0.16%).

<sup>219</sup> Section 67(3)(b) requires the Commission to authorise a merger "if it is satisfied that the acquisition will result, or will be likely to result, in such a benefit to the public that it should be permitted." For an explanation of the net benefit test and some of its shortcomings see G Bertram, "What's Wrong With New Zealand's Public Benefit Test?" (2004) 38 New Zealand Economic Papers 265.

This 'Public Benefit' test under s 67 has been given a wide interpretation that includes matters such as greater international competitiveness for New Zealand, increased utilisation of New Zealand resources, preserving local economic activity and employment, better consumer information and preventing "free riding",<sup>220</sup> to name a few. Moreover, there is a difference between the authorisation procedure and the clearance procedure in the way the information is used.<sup>221</sup> The authorisation process uses this information to assess whether there is a net benefit to the public, while the clearance procedure uses this information to assess whether there is likely to be a change in the competitive pressures in a market.<sup>222</sup>

Second, the clearance process is a complex process. The Court of Appeal in the *Warehouse Case* noted that the 10 working day timeframe for clearances<sup>223</sup> is not an indication that the clearance process should be used only for obvious cases.<sup>224</sup> In practice it takes the Commission over two months on average to assess and publish a clearance decision.<sup>225</sup> In making this decision all relevant and available information that affects competition in the market should be taken into account to evaluate the likely effect of the merger.<sup>226</sup> This should include potential increases in competition as well as decreases in competition.

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<sup>220</sup> R Ahdar, "The Authorisation Process and the 'Public Benefit' Test" in R Ahdar (ed.), *Competition Law & Policy in New Zealand* (The Law Book Company, Sydney, 1991), 217, 239. See also Jill Caughey, *A Tangible Distinction? Intangibles and the Public Benefit Test in the Commerce Act 1986* (Honours Research Paper, University of Otago, 2006).

<sup>221</sup> See R Ahdar, "A Tale of Two Airlines (Still)" (2005) 33 *Australian Business Law Review* 64 for an analysis of *Air New Zealand Ltd v Commerce Commission (No 6)* (2004) 11 *TCLR* 374 where the Commission was required to analyse both a SLC and the public benefit tests under a merger authorisation request.

<sup>222</sup> For alternative views on analysing what constitutes a "Public Benefit" and the different factors that could be considered in the test see J S Gans, "Reconsidering the Public Benefit Test in Merger Analysis: The Role of 'Pass Through'" (2006) 34 *Australian Business Law Review* 28, P Hughes, "Comments on Professor Joshua Gans's Presentation 'Reconsidering the Public Benefit Test'" (2006) 34 *Australian Business Law Review* 49 and S P King, "The Public Benefit Standard for Merger Authorisations" (2006) 34 *Australian Business Law Review* 38.

<sup>223</sup> Section 66(3) of the Commerce Act 1986 requires the Commission to issue a decision over a clearance application within 10 working days unless the applicant agrees to extend that period.

<sup>224</sup> *Warehouse Case CA*, [96].

<sup>225</sup> Ministry of Economic Development, *Discussion Document: Review of the Clearance and Authorisation Provisions under the Commerce Act 1986* (Wellington, 2007), 25.

<sup>226</sup> *Warehouse Case CA*, [101].

## **2.6. Does the Commerce Act 1986 Prohibit an Expected Value Approach?**

It is well established that merger analysis in New Zealand requires a comparison of the factual with the counterfactual.<sup>227</sup> The word ‘likely’ in s 66 dictates how the Commission and the courts are to treat uncertainty in merger analysis. ‘Likely’ is not defined in the Commerce Act 1986. The question that arises is whether, in this context, an interpretation of ‘likely’ necessarily dictates a Real Risk approach and prohibits an Expected Value approach.<sup>228</sup>

The interpretation of ‘likely’ depends on the statutory context in which it exists.<sup>229</sup> In *Telecom Corporation of New Zealand Ltd v Commerce Commission*<sup>230</sup> the Court of Appeal held that the essential notions and objectives of the Commerce Act 1986 were economic ones.<sup>231</sup> Words such as “market”, “competition” etc should be interpreted with reference to their economic equivalent.<sup>232</sup> Maureen Brunt, for example, who has sat as lay-member on many competition law cases in New Zealand and Australia, considers that “if antitrust is to be relevant and socially useful, the very fabric of the law must have mixed economic-legal content, with due attention given to both”<sup>233</sup>. Thus, interpretation of ‘likely’ within the Commerce Act 1986 could be performed with reference to its economic equivalents of risk assessment, which would include Expected Value.<sup>234</sup>

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<sup>227</sup> See *Tru Tone Ltd v Festival Records* [1998] 2 NZLR 352 (CA) and *New Zealand Bus Ltd v Commerce Commission* [2007] NZCA 502, [91].

<sup>228</sup> Note that Katz and Shelanski consider that Expected Value is not barred by the US statutory language which bars mergers where “the effect of such acquisition *may be* substantially to lessen competition or to tend to create a monopoly” (emphasis added, Katz and Shelanski, above n 165, 562-564).

<sup>229</sup> *Commissioner of Police v Ombudsman* [1988] 1 NZLR 385, 404.

<sup>230</sup> [1992] 3 NZLR 429.

<sup>231</sup> *Ibid*, 441.

<sup>232</sup> See Miriam Dean and Tom Weston, *New Zealand Law Society Seminar: Competition Law Update* (New Zealand Law Society, 2001), part 3.

<sup>233</sup> M Brunt, “Antitrust in the Courts: The Role of Economics and of Economists” in M Brunt (ed.), *Economic Essays on Australian and New Zealand Competition Law* (Kluwer Law International, The Hague, 2003), 353, 354.

<sup>234</sup> See Gollier, above n 173.

Moreover, the current interpretation of s 66 assesses the likelihood of individual counterfactuals without linking them to the outcome or effect.<sup>235</sup> This interpretation appears incompatible with s 66, which requires an assessment of the merger's "likely effect of substantially lessening competition".<sup>236</sup> Read literally, the likely effect is for the merger as a whole and the likelihood and effect are linked to each other. This is precisely what Expected Value calculates. The current interpretation reads s 66 as if it read "a likely factual or counterfactual that has an effect of substantially lessening competition", despite no indication in the section that it should be read this way.

Finally, the Court of Appeal in *Benton v Miller & Poulgrain (a firm)*<sup>237</sup> discussed the treatment of uncertainty in the context of negligence and a loss of chance. Loss of chance evaluation involves a counterfactual analysis,<sup>238</sup> similar to that undertaken in merger analysis. In that context the Court found that uncertainty could either be evaluated on an "all-or-nothing" basis by reference to the balance of probabilities or on a proportionate basis.<sup>239</sup> The Court held that where the question is how would the plaintiff have acted in the absence of a breach of duty it should be evaluated on an all-or-nothing basis.<sup>240</sup> However, uncertainties as to how third parties would have acted should be evaluated on a proportionate basis.<sup>241</sup> Similarly in merger analysis, when evaluating the 'likely' effect of a merger, it is necessary to evaluate how customers and other participants in the market are likely to react. Extending the *Benton v Miller* ratio, the evaluation of what is 'likely' in merger analysis should use a more sophisticated method than a simple all-or-nothing approach. As a result, not only is it open to the courts to interpret 'likely'

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<sup>235</sup> The danger with such an approach is that "When merger review addresses uncertainty by overemphasising the likelihood of particular outcomes and discounting the importance of those outcomes, except perhaps when that importance reaches 'extraordinary' scale, a small effect that has a high probability of occurring may weigh much more heavily in enforcement decisions than an effect whose probability is lower but whose consequence is of greater magnitude. Such an approach could have perverse effects on consumer welfare." (Katz and Shelanski, above n 165, 545)

<sup>236</sup> Commerce Act 1986, s 66(3)(a).

<sup>237</sup> [2005] 1 NZLR 66.

<sup>238</sup> *Ibid*, [46].

<sup>239</sup> *Ibid*, [44].

<sup>240</sup> *Ibid*, [47].

<sup>241</sup> *Ibid*, [49].

as allowing an Expected Value approach, but it may also be more consistent with the legislation to do so.

## 3. The Substantial Lessening of Competition Threshold

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### 3.1. *The Threshold for Evaluating a SLC*

The SLC test requires an evaluation of the change in a market's competitive restraints as a result of a given merger. Grant David expressed the test as concentrating on a "dynamic" movement along the competitive continuum.<sup>242</sup> This is to be distinguished from the previous "Dominance" test where the central inquiry was whether a certain status would be achieved after the merger or not.<sup>243</sup> In both the SLC and the Dominance tests the economic factors are evaluated in order to determine increases in coordinated and non-coordinated market power. The two tests differ, however, in the focus of the investigation. The SLC test focuses on inter-firm competitive dynamics while the Dominance test focuses on market share.<sup>244</sup>

The SLC test originates from s 7 of the United States' Clayton Act 1914.<sup>245</sup> The United States Department of Justice and Federal Trade Commission apply a relatively low, economically centred threshold.<sup>246</sup> The substantial lessening of competition test is applied literally, and the investigation will often involve

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<sup>242</sup> G David, "Substantial Lessening of Competition" [2002] New Zealand Law Journal 155, 158

<sup>243</sup> R H Patterson, "Merger Policy in Australia and New Zealand: The Competition Thresholds" (1995) 20 Queen's Law Journal 487 and Goddard and Curry, above n 61. Rodney Hansen J and K M Vautier (lay member) in *Air New Zealand v Commerce Commission (No 6)* (2004) 11 TCLR 347, [42] expressed the change in focus as "A comparative judgment is implied by the statutory test which now focuses on a possible change along the spectrum of market power rather than on whether or not a particular position on that spectrum, ie dominance has been attained."

<sup>244</sup> I Kokkoris, "Do Merger Simulation and Critical Loss Analysis Differ Under the SLC and Dominance Test?" (2006) 27 European Competition Law Review 249, 250 (henceforth "Kokkoris II").

<sup>245</sup> § 7 Clayton Act 1914, 15 U.S.C. § 18, prohibits mergers where the effect "may be to substantially lessen competition".

<sup>246</sup> T O Barnett, "Substantial Lessening of Competition - the Section 7 Standard" (2005) 20 Columbia Business Law Review 293, 299.

sophisticated analysis of competitive dynamics.<sup>247</sup> A merger may thus cause a SLC even if harm to consumers is not obvious.<sup>248</sup>

The Dominance test is a common alternative to the SLC test and it is generally considered more legalistic and less economic.<sup>249</sup> In the past 20 years there appears to be a worldwide trend of abandoning the Dominance test in favour of the SLC test.<sup>250</sup> New Zealand adopted the SLC test in 2001 (the “2001 Amendment”).<sup>251</sup> In contrast to the approach in the United States, New Zealand applies a relatively high threshold for the SLC test. Frequently, harm to consumers will be obvious, and some harm may even be acceptable.<sup>252</sup> This approach is often justified on the basis that New Zealand is a small country and should therefore allow highly concentrated markets in order to improve the international competitiveness of New Zealand firms.<sup>253</sup> Following the *Warehouse Case* New Zealand appears to be adopting a legalistic approach to the evaluation of a SLC. This notwithstanding the Explanatory Note to the 2001 Amendment which stated that the new SLC test would promote a “more economic approach” to merger analysis.<sup>254</sup>

The European Community in 2004 replaced its Dominance test with a SLC test.<sup>255</sup> At the time the European Community also expressed the idea that part of the impetus for the change in wording was to promote a more economic approach to

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<sup>247</sup> Ibid.

<sup>248</sup> For example, a merger of two firms that produce similar products that are not perfect substitutes for each other may in itself amount to a SLC due to the change in the merged firm’s unilateral power, even if an increase in prices for consumers is not anticipated (Douglas F Broder and Julian Maitland-Walker, *A Guide to US Antitrust Law* (Sweet & Maxwell, London, 2005), 120).

<sup>249</sup> Kokkoris II, above n 244, 250 and Explanatory Note to the Commerce Amendment Bill 2001 No 2, 111-1.

<sup>250</sup> Countries that have switched from a Dominance test to a SLC test include Canada, Australia, the United Kingdom (Goddard and Curry, above n 61) and the European Community (Council Regulation (EC) 139/2004 of 20 January 2004, Article 2).

<sup>251</sup> Commerce Amendment Act 2001 (2001 No 32).

<sup>252</sup> Ahdar, above n 3, 353.

<sup>253</sup> T Arnold, D B D Boer and L Evans, “The Structure of New Zealand Industry: Its Implications for Competition Law” in M N Berry and L T Evans (eds.), *Competition Law At the Turn of the Century: A New Zealand Perspective* (Victoria University Press, Wellington, 2003), 24. C.f. Graham T Crocombe, Michael J Enright and Michael E Porter, *Upgrading New Zealand's Competitive Advantage* (Oxford University Press, Auckland, 1991).

<sup>254</sup> Explanatory Note to the Commerce Amendment Bill 2001 No 2, 111-1.

<sup>255</sup> Article 2 of Council Regulation (EC) 139/2004 of 20 January 2004 prohibits business concentrations “which would significantly impede effective competition”.

merger analysis.<sup>256</sup> The limited experience of the European Community to date shows that the courts are indeed taking a more economic approach, however it does not yet reach the level of sophistication seen in the United States.<sup>257</sup> Ioannis Kokkoris considers that the reasons for the relative lack of economic sophistication are the European Competition Commission's inadequate resources, strict statutory timeframes and its reliance on complainants to initiate inquiries.<sup>258</sup>

The New Zealand Commerce Commission shares at least one of these features with the European Competition Commission, inadequate resources.<sup>259</sup> This may be part of the reason why the New Zealand Commission does not encourage or pioneer more sophisticated economic approaches to merger analysis and the SLC threshold. This, combined with an uneasy relationship between economics and law in New Zealand,<sup>260</sup> may explain why the Court of Appeal in the *Warehouse Case* rejected the High Court's adoption of an economic prima facie threshold of a 4-5% price increase for consumers.<sup>261</sup> Rather, the Court of Appeal held that what amounts to a SLC "must in the end be a matter of [informed] judgment" (the "Informed Judgment" threshold).<sup>262</sup>

It is submitted that a prima facie threshold would be preferable to an Informed Judgment threshold. I say this for a number of reasons. First, a prima facie threshold provides a starting point for the evaluation of a SLC. After the Commission assesses all the evidence, it can easily compare its findings to the

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<sup>256</sup> European Commission, *Green Paper on the Review of Council Regulation (EEC) No 4064/89* (December, 2001). The EC notes at page 40 that it has "been suggested that the SLC-test might be closer to the spirit of the economically-based analysis undertaken in merger control and less (legally) rigid than the dominance test." See also Doris Hildebrand, *The Role of Economic Analysis in the EC Competition Rules* (2nd ed, Kluwer Law International, The Hague, 2002), 2-3.

<sup>257</sup> Kokkoris II, above n 244, 260.

<sup>258</sup> Ibid.

<sup>259</sup> The Commerce Commission had a budget of approximately \$28,000,000 in 2007 for all its activities, of which merger regulation is only one (New Zealand Commerce Commission, *2006/07 Commerce Commission Annual Report* (Wellington, 2007), 48). Alan Lear, *Report to the NZ Commerce Commission: A Best Practice Review of the New Zealand Merger Clearance Regime* (Auckland, 2007), 3 recommends that the Commission should employ more economics qualified personnel to deal with the complexities involved in merger analysis.

<sup>260</sup> A Bollard and D White, "The Interface Between Law and Economics in the Context of the Commerce Act 1986" in R Ahdar (ed.), *Competition Law & Policy in New Zealand* (The Law Book Company, Sydney, 1991), 44 and Brunt, above n 233, 358.

<sup>261</sup> *Warehouse Case HC*, [145]: "Any departure .. should be justified, able to be applied in practice and provide reliable evidence on the competitive impact."

<sup>262</sup> *Warehouse Case CA*, [191].

prima facie threshold and have an indicator of how serious any anti-competitive impacts of the merger may be. The threshold itself would be a prima facie threshold, subject to quantitative evidence and to variation in appropriate cases.<sup>263</sup>

Second, a prima facie threshold would significantly increase predictability. Applicants who assesses the likely effect of their own merger and arrive at a likely effect that is materially below or over the threshold will be able to know with reasonable certainty whether the merger breaches the Act's prohibition or not. It will only be where there are exceptional circumstances or where the evidence suggest that the merger's likely effect is very near the threshold that a clearance would be sought. Conversely, under an Informed Judgment threshold applicants who would otherwise proceed with a merger since it was materially below a prima facie threshold may decide to apply for a clearance, just to be safe and free from challenge over a vague standard. Moreover, the idea of a prima facie threshold is consistent with the Australian 2008 Draft Merger Guidelines, which express the idea that a 5-10% price increase for consumers will normally amount to a SLC.<sup>264</sup>

Third, a prima facie threshold would be more economically oriented than an Informed Judgment threshold, because the prima facie threshold would be related to the result of the economic evaluation undertaken in the merger analysis. A more economic threshold is preferable because the SLC test is internationally recognised as an economics-centred test, a fact recognised by the 2001 Amendment's Explanatory Note.<sup>265</sup> Moreover, if the reason why the Commission does not adopt a more economic threshold and approach is lack of resources, then the solution is to improve its resources, not to compromise the quality of merger analysis and the welfare of New Zealand consumers.

Fourth, an Expected Value approach merger to analysis would assist the evaluation of uncertainty whether an Informed Judgment threshold or a prime facie threshold is used. However, a prima facie threshold would be directly linked to the Expected

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<sup>263</sup> For the type of features that would justify a change to the prima facie threshold advocated in this paper see section 3.3 below.

<sup>264</sup> See Australian Competition and Consumer Commission, *Merger Guidelines Draft 2008* (Canberra, 2008), 7. New Zealand adopted the current SLC test for merger analysis from the Australian legislation (Goddard and Curry, above n 61).

<sup>265</sup> Explanatory Note to the Commerce Amendment Bill 2001 No 2, 111-1.

Value result and would therefore complement the Expected Value approach. The prima facie threshold would make it easier for the Commission, the courts and applicants to apply and understand the Expected Value result because they could compare it to the threshold.

The prima facie threshold that I propose is similar to that adopted by the High Court in the *Warehouse Case*, in the sense that that threshold is linked to price increases for consumers and it can be varied depending on the circumstances of the case. The threshold would be linked, however, to the expected price increase under Expected Value and would accommodate qualitative factors by having them support or rebut the quantitative evaluation. I will now proceed to describe what is meant by qualitative factors and how they compare to quantitative factors. Following that description I will explain how the prima facie threshold would work in practice.

### **3.2. Quantitative and Qualitative Factors**

The factors that the Commission will normally investigate in a merger clearance application are listed in the Merger Guidelines, yet the way in which the Commission then evaluates the entire body of evidence is not. The Court of Appeal in the *Warehouse Case* rightly disapproved of the Commission's primary focus on theoretical concerns and the High Court's primary focus on empirical evidence.<sup>266</sup> In neither case was all the evidence evaluated in a clear and systematic manner. As a result, the analysis was deficient. I would suggest developing the Court of Appeal's requirement that a "decision to grant or refuse a clearance is necessarily to be made on the basis of all the evidence",<sup>267</sup> by separating the evidence into quantitative and qualitative evidence. This would ensure that all the evidence is systematically evaluated and accounted for in the final decision, as well as ensure that the evidence is evaluated under the proper heading.

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<sup>266</sup> *Warehouse Case CA*, [187]-[188].

<sup>267</sup> *Warehouse Case CA*, [101].

Quantitative factors consist of economic indicators, either in individual form or aggregated into full-scale econometric modelling, and empirical evidence.<sup>268</sup> Under the approach advocated in this paper they would be the result of the Expected Value calculation. Qualitative factors are comprised of matters that are not accounted for in econometric modelling and theoretical concerns that arise from the proposed merger.

### 3.2.1. *Matters Not Accounted for in Economic Modelling*

Matters not accounted for in economic modelling exist where the economic model used is unable to satisfactorily model a relevant aspect of the merger. In this respect, the central deficiency of both the Cournot and Bertrand models is that they are inept at evaluating dynamic efficiency.<sup>269</sup> Dynamic efficiency is the pressure that pushes firms to innovate and offer new, different or improved products, services or quality.<sup>270</sup> If the Commission or the courts identify a proposed acquisition target as a source of dynamic efficiency, then allowing the merger to proceed will reduce that competitive pressure. However, econometric models that evaluate dynamic efficiency are highly controversial.<sup>271</sup> Information derived from these models is, therefore, of no use in a judicial context. The

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<sup>268</sup> As discussed in Chapter 2.

<sup>269</sup> Note, however, that the Bertrand and Cournot models can be modified to accommodate certain limited aspects of dynamic efficiency such as the incentive to invest in cost-reducing Research and Development (L D Qiu, "On the Dynamic Efficiency of Bertrand and Cournot Equilibria" (1997) 75 *Journal of Economic Theory* 213, 214).

<sup>270</sup> Many economists consider dynamic efficiency to be more important than static efficiency (which is the net result of allocative and productive efficiencies). See eg., J B Baker, "Beyond Schumpeter Vs. Arrow: How Antitrust Fosters Innovation" (2007) 74 *Antitrust Law Journal* 575, 765, A B Abel, N G Mankiw et al., "Assessing Dynamic Efficiency: Theory and Evidence" (1989) 56 *Review of Economic Studies* 1, Graham T Crocombe, Michael J Enright and Michael E Porter, *Upgrading New Zealand's Competitive Advantage* (Oxford University Press, Auckland, 1991) and Robert M Solow, *Growth Theory: An Exposition* (Oxford University Press, New York, 1970).

<sup>271</sup> See, eg, P Bajari, C L Benkard and J Levin, "Estimating Dynamic Models of Imperfect Competition" (2007) 75 *Econometrica* 1331, T Magnac and D Thesmar, "Identifying Dynamic Discrete Decision Processes" (2002) 70 *Econometrica* 801, V J Hotz and R A Miller, "Conditional Choice Probabilities and the Estimation of Dynamic Models" (1993) 60 *Review of Economic Studies* 497, A B Abel, N G Mankiw et al., "Assessing Dynamic Efficiency: Theory and Evidence" (1989) 56 *Review of Economic Studies* 1, 1-2 and T F Bresnahan and P Reis, "Empirical Models of Discrete Games" (1991) 81 *Journal of Econometrics* 57.

approach, then, must be an impressionistic one that takes into account as much relevant information and as many economic indicators as possible.

An important source of dynamic efficiency in a market is the presence of a “maverick” firm.<sup>272</sup> A clear and simple definition of a maverick firm has proved elusive in competition law.<sup>273</sup> The United States Merger Guidelines define maverick firms as “firms that have a greater economic incentive to deviate from the terms of competition than do most of their rivals (e.g., firms that are unusually disruptive and competitive influences in the market).”<sup>274</sup> The New Zealand Merger Guidelines, however, provide a more practical test for identifying maverick firms by providing a list of features associated with mavericks.<sup>275</sup> While the list is in no way perfect,<sup>276</sup> it helps the practical identification of mavericks within the Merger Guidelines’ framework and therefore promotes predictability. Australia appears to be adopting a similar approach to New Zealand in their 2008 Draft Merger Guidelines by listing a number of tendencies exhibited by maverick firms as opposed to the vague definition contained in the 1999 Merger Guidelines currently in force.<sup>277</sup>

In the *Warehouse Case* the Commission identified the Warehouse Extra as being a maverick in the supermarket industry.<sup>278</sup> The main reasons for this were that the Warehouse had a history of innovation, and the Warehouse Extra was considered a new and innovative concept that had a different business model and cost drivers

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<sup>272</sup> Australian Competition and Consumer Commission, *Merger Guidelines Draft 2008* (Canberra, 2008), 44.

<sup>273</sup> R Breunig and F Menezes, “Empirical Approaches for Identifying Maverick Firms: An Application to Mortgage Providers in Australia” *Journal of Competition Law and Economics* Advance Access published 13 February 2008, doi:10.1093/joclec/nhm035, 2.

<sup>274</sup> U.S. Department of Justice and the Federal Trade Commission, *Horizontal Merger Guidelines* (Washington DC, 1997), 21.

<sup>275</sup> Merger Guidelines, above n 12, 30. These features include: a history of aggressive and independent pricing behaviour; a record of superior innovative behaviour or low costs; a business having a substantial amount of excess capacity; a business have a primary commitment to the discount segment of the market; a growth rate exceeding that of the market; a firm having a business model that differs from the industry norm; and a history of independent behaviour generally.

<sup>276</sup> Breunig and Menezes, above n 273, 2.

<sup>277</sup> Australian Competition and Consumer Commission, *Merger Guidelines Draft 2008* (Canberra, 2008), 44 c.f., Australian Competition and Consumer Commission, *Merger Guidelines* (Canberra, 1999), 53.

<sup>278</sup> *Foodstuffs/Warehouse*, 52.

from traditional supermarkets.<sup>279</sup> The High Court acknowledged that Extra had a different business model,<sup>280</sup> but concluded that it did not behave like a maverick, because it did not plan on being a price leader.<sup>281</sup> It is disappointing that the Court of Appeal did not discuss the concept of a maverick in this case.<sup>282</sup> The High Court's finding on the importance of price competition for the concept of a maverick, while not necessarily in line with academic views,<sup>283</sup> may require an amendment to the Merger Guidelines' definition of a maverick firm. This is because the Merger Guidelines indicate that the most important features for identifying a maverick firm are being "in some way atypical", an innovator and unpredictable.<sup>284</sup> The secondary importance given to price competition in the Merger Guidelines<sup>285</sup> is at odds with the primary importance placed on price competition by the High Court.

### 3.2.2. *Theoretical Economic Concerns*

Theoretical economic concerns are economic presumptions and circumstances which textbook economics would deem likely to be anti-competitive. A textbook example of such a circumstance is "three-to-two" mergers,<sup>286</sup> which is normally considered to reduce competitive pressures in a market. However, this is merely a general presumption that does not hold for all three-to-two mergers and general presumptions can be dealt with by the econometric modelling.<sup>287</sup> For example, reductions in competition resulting from a specific three-to-two merger would be

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<sup>279</sup> *Foodstuffs/Warehouse*, 51-52.

<sup>280</sup> *Warehouse Case HC*, [257].

<sup>281</sup> *Ibid.*

<sup>282</sup> The Court of Appeal only mentioned the concept of a maverick when discussing the Commission's and the High Court's decisions. See *Warehouse Case CA*, [171], [177] and [183].

<sup>283</sup> J B Baker, "Mavericks, Mergers, and Exclusion: Proving Coordinated Competitive Effects Under the Antitrust Laws" (2002) 77 NYU L Rev 135, 140: "The concept of maverick also encompasses firms that constrain coordination from becoming more likely or more effective without necessarily starting price wars or otherwise appearing observably disruptive."

<sup>284</sup> Merger Guidelines, above n 12, 30.

<sup>285</sup> "The maverick may be identifiable as an observable disruptive force by, for example, its taking the lead in price wars." (Merger Guidelines, above n 12, 30).

<sup>286</sup> *Warehouse Case CA*, [200]. In this type of merger the number of participants in a market is reduced from three to two.

<sup>287</sup> See N Attenborough, F Jimenez and G K Leonard, "Are Three to Two Mergers in Market With Entry Barriers Necessarily Problematic?" (2007) 28 European Competition Law Review 539.

assessed in the econometric modelling performed for that merger.<sup>288</sup> By evaluating the theoretical concern separately, the same factor is being assessed twice. For these reasons, it is submitted that theoretical concerns should only be given weight in a merger clearance application where all other merger-specific indicators are inconclusive. Consequently, the Court of Appeal gave too much weight to the theoretical concern of three-to-two mergers in the *Warehouse Case*.<sup>289</sup>

### **3.3. Combining Qualitative and Quantitative Factors**

Once quantitative and qualitative factors are separated, they can be evaluated against a prima facie threshold. The threshold that I propose is a 2% price increase for consumers as measured by the Expected Value of the merger. I propose this because of the New Zealand approach to measuring a SLC and the nature of the Expected Value calculation. The New Zealand attitude towards measuring a SLC represents a compromise between allowing some consumer harm through relatively high market concentrations that improve New Zealand firms' international competitiveness<sup>290</sup> and protecting the long-term interest of consumers in New Zealand.<sup>291</sup> In Australia the Trade Practices Act 1974 adopts a lesser level of consumer protection,<sup>292</sup> which was interpreted in the Australian 2008 Draft Merger Guidelines as creating a threshold whereby a 5-10% price increase for consumers will normally amount to a SLC.<sup>293</sup> In New Zealand this threshold should be lower because of the greater importance given to consumer interests under the Act, but not so low as to unduly prevent high market concentrations. Therefore the High Court was correct in concluding that a 4-5%

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<sup>288</sup> Kokkoris I, above n 151, 330-332.

<sup>289</sup> *Warehouse Case CA*, [200].

<sup>290</sup> Ahdar, above n 3, 353.

<sup>291</sup> Commerce Act 1986, s 1A.

<sup>292</sup> Australian Trade Practices Act 1974, s 2.

<sup>293</sup> See Australian Competition and Consumer Commission, *Merger Guidelines Draft 2008* (Canberra, 2008), 7. New Zealand adopted the current SLC test for merger analysis from the Australian legislation (Goddard and Curry, above n 61).

price increase for consumers would normally amount to a SLC under the Real Risk approach.<sup>294</sup>

However, the High Court's 4-5% threshold is one that is compared to the effect of an individual counterfactual, whereas Expected Value measures an average price increase for the merger as a whole. Thus Expected Value would take into account counterfactuals with price decreases as well as counterfactuals with price increases. For example, if a given merger has one possible counterfactual that results in a 1% price *decrease* for consumers and a second possible counterfactual that results in a 6% price *increase* for consumers, then under the High Court's approach only the counterfactual that results in the price increase will be measured against the threshold. Expected Value, however, would take all the counterfactuals into account and arrive at a lower price increase for comparison against the threshold.<sup>295</sup> An Expected Value approach therefore requires a lower threshold in order to achieve the same level of consumer protection as an approach, such as the Real Risk approach, that measures the threshold against the effect of an individual counterfactual. As a result, it is submitted that 2% is an appropriate threshold for an Expected Value measurement of the price increase.

The SLC test is a dynamic test that evaluates changes in competition in a large variety of markets. While a 2% expected average price increase would constitute a SLC in most markets, the threshold should not be so rigid as to prohibit deviations where the market under examination is unique or materially different from most other markets. This variation would be in line with the High Court's threshold in the *Warehouse Case*. For example, there the High Court's 4-5% price increase threshold was reduced to 3% in the *Warehouse Case* to represent the exceptionally low profit margins in the supermarket industry.<sup>296</sup> In essence the flexibility to alter

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<sup>294</sup> *Warehouse Case HC*, [138].

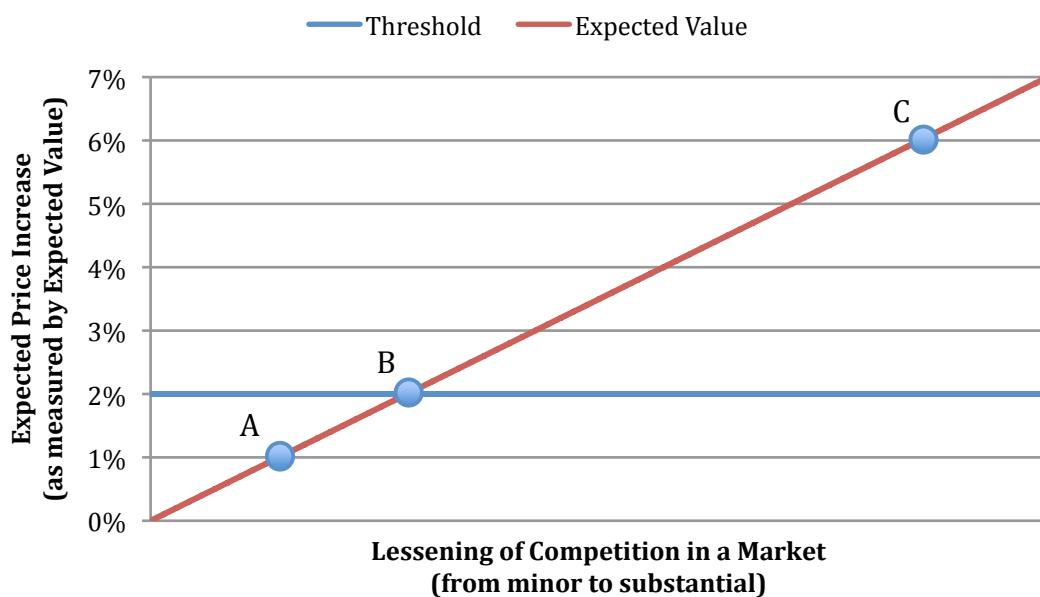
<sup>295</sup> If both counterfactuals have a 50% chance of occurrence, then under the current approach only the 6% price increase would be measured against the 4-5% threshold. However, under the Expected Value approach an expected price increase of 2.5% would be evaluated against the threshold (the Expected Value calculation would be:  $(0.5 \times 0.06) - (0.5 \times 0.01) = 0.025$ ).

<sup>296</sup> *Warehouse Case HC*, [148]-[149]. The reasoning of the Court was that a price increase of 4-5% would amount to a SLC in most industries. However, the profit margins in the supermarket industry were so low that a price decrease of 5% between the factual (where Extra would compete against the supermarkets and force a reduction in prices) and the counterfactual (where Extra

the prima facie threshold incorporates the advantages of relative predictability and ease of use that comes from evaluating the merger's effect against a pre-set figure as well as the advantage of flexibility where the threshold is inappropriately high or low.

Thus, after evaluating whether the relevant market justifies a variation of the threshold, the Commission would compare the merger's Expected Value to the threshold. If the price increase for consumers, as measured by Expected Value, is *above* the threshold then the clearance prima facie ought to be declined, subject to qualitative factors. If the price increase is *below* the threshold than the merger prima facie ought to be granted, subject to qualitative factors.

**Figure 3: Measuring a SLC**



In the final stage of evaluation, the Commission would employ an informed impressionistic evaluation of the qualitative factors. These will either support or rebut the Expected Value's quantitative assessment. For example, if the expected price increase is 1%, as per point A in Figure 3, a clearance should prima facie be

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would not compete and therefore would not cause a reduction in prices) would be virtually impossible since the supermarkets would be operating at a loss. Therefore a lower threshold was appropriate.

granted. However, there may be qualitative considerations, such as the loss of dynamic competition, that push the decision beyond the threshold and as a result a clearance would be refused. The further away the expected price increase is from the threshold, the stronger the qualitative factors needed to change the decision. If the expected price increase is 6%, as per point C in Figure 3, then extraordinarily strong qualitative factors in support of the merger must exist in order for clearance to be granted. If the expected price increase is equal, or very close, to the threshold, as per point B in Figure 3, then the quantitative evidence can be effectively ignored and qualitative factors alone will determine the outcome of the merger clearance application. In these cases theoretical concerns will be of value.

### **3.4. *How the Warehouse Case Should Have Been Decided***

After canvassing the Expected Value approach to merger analysis, it is appropriate to describe how the Foodstuffs and Woolworths merger clearance application would have been evaluated under this approach. The supermarket industry is an oligopolistic market that can be effectively modelled using the Bertrand model. Since in this case the effects on competition are not obvious, the Commission would construct an econometric simulation of the merger to determine its potential effects. The next stage would be to use the information derived from the simulation to calculate the expected price increase of the merger using Expected Value. For the purposes of this example we can use the figures presented to the High Court<sup>297</sup> and the expected price increase of 0.625% calculated in section 2.3.3.

The next stage would be to evaluate whether the default 2% threshold is appropriate in this case. The High Court found that supermarket profit margins were materially smaller than in other industries and therefore reduced its threshold from 5% to 3%. In line with the proportion of the High Court's reduction,

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<sup>297</sup> The decrease in the threshold should be linked to the manner in which the relevant market is unique or different. Thus, for example, if the profit margins in a market were half of those in most other retailing markets, then it would be appropriate to reduce the threshold by half. Since the precise figures presented to the Court in this case are not available in the public version of the judgment, this figure of a 1.5% threshold may not be accurate.

it would be appropriate to reduce the threshold to 1.5%.<sup>298</sup> Comparing the expected price increase to the threshold, it is 0.875% lower than the threshold and therefore the merger out to prima facie be approved. Note, however, that this is a relatively small gap.

The third stage would be to evaluate any relevant qualitative factors. The Court of Appeal and High Court did not classify Extra as a “maverick”.<sup>299</sup> However, they both agreed that it had different cost drivers from the other supermarkets and that it could increase competition in quality, range and service.<sup>300</sup> In this respect, then, the Warehouse Extra would introduce dynamic competitive pressure into the supermarket industry. This pressure would either be reduced or eliminated after a merger, since Foodstuffs and Woolworths do not have an incentive to continue to develop the supercentre concept.<sup>301</sup> Another important qualitative factor in this case are the extraordinarily high barriers to entry in the supermarket industry.<sup>302</sup> The Warehouse is in a unique position to expand into the supermarket industry by using its existing store locations and economies of scale.

Both these qualitative factors are highly significant. The dynamic competitive pressure exerted by Extra is new to the supermarket industry and the high barriers to entry mean that new competition would be unlikely to recreate this pressure in the foreseeable future. These factors push the evaluation of the merger upwards on the graph in Figure 3. Since the difference between the merger’s expected price increase and the threshold was a relatively small 0.875%, these qualitative factors are sufficient to tip the decision towards rejecting the clearance application.

The outcome under the Expected Value approach is the same as that arrived at by the Court of Appeal.<sup>303</sup> The Expected Value approach, however, reaches the

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<sup>298</sup> A more precise reduction could be achieved with the figures that were presented to the High Court but removed from the public version of the judgment.

<sup>299</sup> *Warehouse Case CA*, [205] and *Warehouse Case HC*, [257].

<sup>300</sup> *Ibid.*

<sup>301</sup> *Warehouse Case CA*, [110].

<sup>302</sup> This is due to a lack of suitable sites, requirements for resource consents and economies of scale (*Warehouse Case CA*, [166]).

<sup>303</sup> *Warehouse Case CA*, [208].

decision by using a systematic and clear approach that is equally applicable to future merger evaluations. It synthesises the evidence gathered by the Commission more efficiently than the Court of Appeal's approach without necessarily requiring additional work by the Commission. Moreover, the Expected Value approach highlights any tensions between the quantitative data and the qualitative data. In this case the quantitative data alone indicated that the merger clearance should be granted while the qualitative data alone indicated the clearance should be declined. This insight explains why the Commission and the High Court came to opposite conclusions.<sup>304</sup> Had the Commission systematically evaluated all the data at its disposal using the Expected Value approach advocated here, it would have reached a fully analysed decision. That decision would have been likely to be upheld on appeal, since the High Court would have benefited from a thorough and systematic analysis of the relevant data.

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<sup>304</sup> The Commission focused solely on qualitative data and so it rejected the merger, while the High Court focused solely on quantitative data and therefore approved the merger.

## Conclusion

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Returning to the observation made at the introduction to this paper, the replacement of the Dominance test with the SLC test in 2001 provided the Commission and the courts with an opportunity to improve merger analysis. While sophisticated economic analysis is used in many aspects of merger analysis, its absence in other areas materially reduces the quality of merger analysis in New Zealand. The Real Risk approach expressed by the Court of Appeal in the *Warehouse Case* perpetuates this lack of sophistication. The most serious shortcoming of the Real Risk approach is its treatment of events with a low probability as if they did not exist and events with a high probability as if they were certain to occur, which can have perverse effects on consumer welfare. It also fails to link effects to their probability. Moreover, the impressionistic aspect of this approach injects unnecessary vagueness into the assessment of likelihood. On top of this, an additional layer of uncertainty is created by the use of a vague Informed Judgment approach to the threshold,<sup>305</sup> which may vary depending on the opinion of the specific decision maker.

As an alternative, this paper advocates an Expected Value approach to the evaluation of uncertainty in merger clearance applications. This approach allows the Commission and the courts to consider the merger's entire quantitative effect using a single figure that denotes the merger's 'likely' effect. At the same time Expected Value provides a clear and simple measure that allows applicants to determine what the Commission and the courts will consider the merger's 'likely' effect to be. Qualitative factors are then evaluated using an impressionistic approach that either supports or rejects the quantitative evaluation of the merger. Such a separation also ensures that all the economic evidence is evaluated properly and systematically.

In conclusion, the current approach to the evaluation of uncertainty in merger analysis is over simplified, and results in decisions that fail to evaluate relevant

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<sup>305</sup> *Warehouse Case CA*, [191].

and available information. Expected Value is a simple and established statistic that can be employed to remedy this serious deficiency. Since it would be open to the courts to adopt an Expected Value approach under current legislation, it is submitted that they should do so.

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