Article

Merger Efficiencies in Canada: Lessons for the Integration of Economics into Antitrust Law

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Abstract
In terms of solidifying the economic foundations of competition policy, Canadian merger law is much further advanced than merger law in any other jurisdiction. This article evaluates the developments in the Canadian law and draws both positive and negative lessons for integrating economic principles into merger law generally. The balancing weights test adopted in Canadian law for incorporating efficiencies into merger assessment has firm support in economics. But the implementation of this test has run into problems. A sharp wedge remains in Canada between the law and the economics of merger evaluation.

Keywords
merger law, competition policy, efficiencies, economic foundations

Introduction

Roger Blair's extraordinary record of contributions to antitrust economics includes a recent article on welfare standards in U.S. and E.U. antitrust enforcement.[1] As Roger and his frequent coauthor Daniel Sokol document in this article, merger law in both U.S. and E.U. has changed substantially since the 1960s. Economic theory traditionally had little influence on merger decisions in either jurisdiction because of political considerations or simply the idea that big was bad. Merger law now rests more firmly on economic foundations. Yet in Europe, Blair and Sokol conclude, political goals still influence merger decisions. And in both jurisdictions, as Blair, Sokol, and other scholars have noted, merger decisions appear to depend on the impact of mergers on consumers, rather than on total welfare. Economists generally favor a total welfare standard, which includes profits as well as consumer surplus.

1. Roger D. Blair & D. Daniel Sokol, *Welfare Standards in U.S. and E. U. Antitrust Enforcement*, 102 Fordham L. Rev. 81 (2013).

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This article sets out and analyzes the framework of merger law in Canada. The question of criteria as between consumer welfare and total welfare arises in cases involving the potential for both price increases and efficiency gains. The Canadian law is important not just because passing the Canadian merger criteria is necessary for many multinational corporate mergers. The Canadian experience has lessons for the integration of economic principles into merger law generally. Canadian merger law is far out in front of the wave of increasing economic foundations. Canada is the leading jurisdiction in which modern competition law has engaged with the problem of how to approach anticompetitive mergers where nontrivial efficiency gains are also expected.[2]

Canadian merger cases are now decided on a standard that involves a weighting of consumer and producer surplus, with an apparently strong presumption of total surplus (i.e., equal weights). The concepts of welfare triangles, welfare trapezoids, and the trade-off of price distortions with efficiency gains are not just textbook topics when it comes to Canadian merger law. These concepts are estimated and relied upon in Canadian merger challenges. In the two major cases at the foundation of Canadian merger law, mergers with price increases (of at least 8% and at least 10%) were successfully defended on the basis of efficiencies associated with the merger.[3] In no other jurisdiction in the world would a court accept evidence of substantial price effects from a merger and yet allow the merger.

Canadian merger law finds itself in this position for two reasons. The first is the economic context in which Canada's 1986 Competition Act was drafted. Canada of the 1970s and 1980s was (and remains) a small country heavily dependent on its trading relationship with the United States. The debate in policy circles around the drafting of a new merger law was focused on creating incentives for Canadian firms to become more efficient by comparison with their U.S. counterparts, and the new Competition Law was seen as an important part of the framework.

Second, Oliver Williamson's seminal article on efficiencies and antitrust policy towards mergers appeared at the same time as the early drafting of Canada's new Competition Act.[4] Williamson introduced the idea of a trade-off between the dead weight loss that could be expected from a merger and any efficiency gains that were specific to the merger. Williamson's basic idea of a trade-off was actually "baked in" to section 96 of the 1986 Competition Act.

> The Tribunal shall not make an order under section 92 if it finds that the merger or proposed merger in respect of which the application is made has brought about or is likely to bring about gains in efficiency that will be greater than, and will offset, the effects of any prevention or lessening of competition that will result or is likely to result from the merger or proposed merger and that the gains in efficiency would not likely be attained if the order were made.

This is an opportune time for an analysis of Canadian merger law from the perspective of lessons to be learned for the economics of merger law. The *Tervita* decision by the Supreme Court of Canada in January 2015 would appear to substantially strengthen the economic foundations of merger law. *Tervita* establishes a burden on the Commissioner of Competition to quantify or estimate economic parameters underlying the trade-off between deadweight loss and efficiencies wherever possible.

2. In Canada, efficiencies enter consideration only once the government has demonstrated a substantial lessening of competition. Section 92 of the Canadian Competition Act is concerned with lessening of competition. If the Commissioner of Competition prevails in section 92, the merging parties have the option to present an efficiency defense under section 96 of the Act. It is in section 96 where the law deals with the standard in balancing of a lessening of competition with efficiency effects. Thus, unlike the U.S. law, Canadian law separates the determination of the competitive effects and the balancing of efficiencies with competitive effects.
3. Canada (Commissioner of Competition) v. Superior Propane Inc. (2000), 7 C.P.R. (4th) 385; and Tervita Corp. v. Canada (Commissioner of Competition), 2015 SCC 3.
4. Oliver Williamson, *Economics as an Anti-Trust Defense: The Welfare Trade-Offs*, 58 American Econ. Rev. 18 (1968).

Without such quantification, the commissioner will lose his challenge to a merger, even with evidence of a substantial lessening of competition (SLC) and efficiencies that are only "negligible," "marginal," and "insignificant."[5] *Tervita* thus injected even more economics and econometrics into merger law—to the point where the commissioner describes the case as solidifying the place of economists as the "rock stars" of merger law enforcement.[6]

As to the lessons that the Canadian experience carries, the application of a total surplus criterion is not as straightforward as it might seem. *Superior Propane* involved an analytical error on the part of the commissioner in the estimation of the deadweight loss, as Margaret Sanderson and a number of other commentators have pointed out.[7] Moreover, important procedural issues arise, such as which side, the commissioner or the parties, should be required to present its estimate *first* in the section 96 efficiencies defense, so that the other side has a target to which it can respond. *Tervita* addressed this issue directly, confirming a burden on the commissioner of quantifying any evidence that is quantifiable so that the merging parties know the case that they have to meet.

We elaborate below on the suggestion of Winter that in terms of designing an efficient mechanism for merger decisions, the Supreme Court of Canada in *Tervita* erred.[8] The parties, not the Commissioner, should be the first to present evidence in the section 96 efficiencies balancing test.

On the side of positive lessons, the Canadian experience shows that integrating profits into the merger criterion is workable. And the method for doing so, the *balancing weights test,* established in *Superior Propane*, we suggest is exemplary.[9]

The Basic Trade-Offs

The basic Williamson trade-off is simple and accessible. Williamson pointed out that many, perhaps most, mergers are motivated by cost savings, or efficiency gains, and that from a welfare economics perspective the value of these cost savings should be counted as a positive gain from the merger, to be balanced against any dead-weight loss that may also be created as a result of a merger-induced price increase. Figure 1 illustrates the trade-off.

The original analysis by Williamson assumed that the appropriate weighting scheme for surplus was to sum all surplus changes equally, independent of whether the changes were to consumer or producer surplus and independent of the wealth level of the individuals impacted by the merger. This approach has become identified as the total surplus approach to evaluating mergers.

In Figure 1, the triangle A is the dead weight loss arising from the merger induced price increase and the rectangle B is the value of merger induced cost savings. Applying the total surplus criterion, only if the area of A exceeds the area of B should the merger be blocked.

5. The Supreme Court recognized at ¶ 142 of *Tervita* this characterization of the efficiency gains by the Federal Court of Appeal (FCA): "The gains were 'marginal' (paras. 34, 169-71 and 174 [of the FCA decision]), 'negligible' (para. 169) and 'insignificant' (paras. 170 and 174) and therefore were not enough to outweigh the anti-competitive effects."
6. "I know that most people already have a natural tendency to see economists as the rock stars of competition law enforcement—but I'm still pleased that this ruling has clearly made that the only possible point of view" (John Pecman, Commissioner of Competition, Feb. 17, 2015). Winter (2015) objects to the commissioner's interpretation on the basis that even before *Tervita* it was clear that economists were the rock stars of competition law enforcement.
7. Margaret Sanderson, *Competition Tribunal's Redetermination Decision in Superior Propane: Continued Lessons on the Value of the Total Surplus Standard*, 21 Canadian Competition Rec. 1 (2002); Tom Ross and R. A. Winter, *The Efficiency Defence in Merger Law: Economic Foundations and Recent Canadian Developments*, 72 Antitrust L. J. 471 (2005).
8. Winter, *supra* note 6.
9. An alternate strand of policy proposals would have Canada abandon its "outlier" position with respect to the evaluation of mergers using the total surplus approach and harmonize more closely with other jurisdictions, particularly the United States. In our view, this line of policy proposals is misguided: the Canadian statutory framework has created an example for other jurisdictions to move towards. To retreat from the framework would abandon the progress made towards solidifying the economic foundations of merger law.

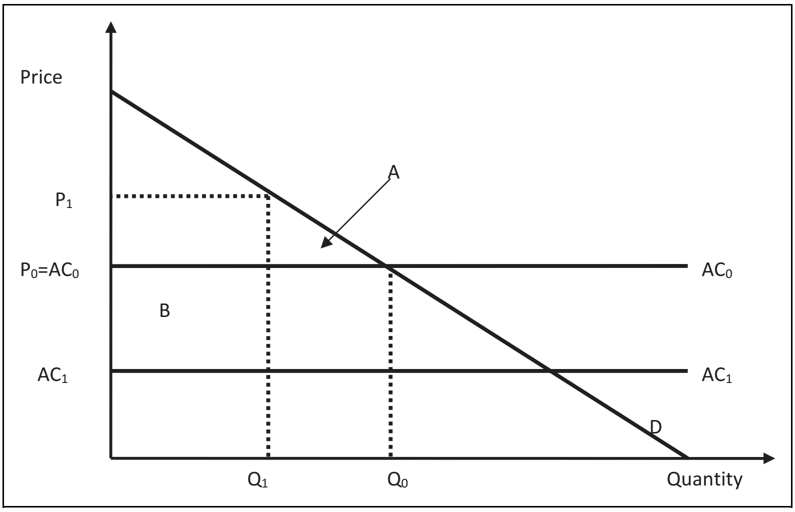

Figure 1. Gains and losses from a merger that raises price to P_1 and lowers cost from AC_0 to AC_1.

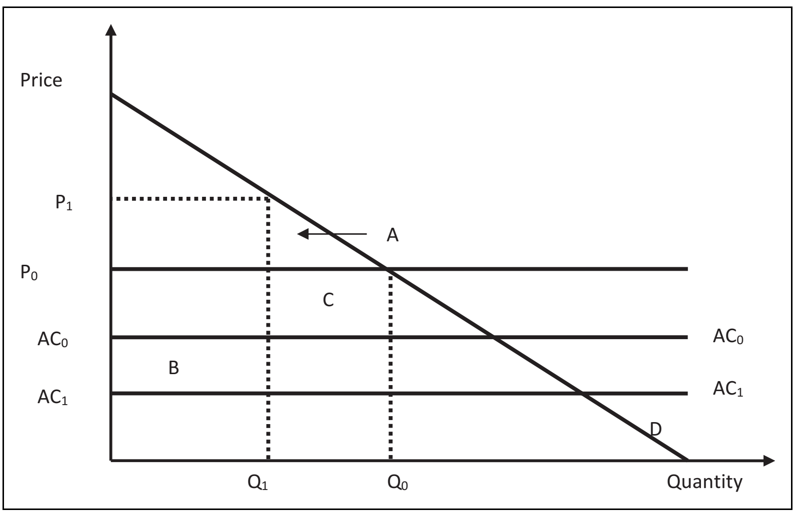

Figure 2. Deadweight loss and efficiency gains with premerger market power.

In comments by other authors and a follow-up note from Williamson, it was acknowledged that the analysis is more complex if the merging firms are already exercising market power—in the sense of pricing above marginal cost—before the merger. In many, perhaps most, oligopolistic markets, this is likely a better description of reality than the assumption that the pre-merger firms are pricing competitively. Figure 1 needs to be modified when there is a premerger market structure with market power, and the modified diagram is shown as Figure 2.

With premerger market power, when the merged entity restricts output and raises price, surplus is lost from two sources rather than only one where the premerger market is competitive. First, the dead weight loss triangle A, as before, captures the lost consumer surplus from consumers who are deterred from purchasing the good because of the price increase. But the same lost sales also imply lost profits to the producer on the sales (the difference between price and marginal cost). The area of this new rectangle C must be added as a second source of lost surplus created by the merger. Thus, the new welfare effect of the merger, still applying the total surplus standard, is

$$\Delta W = B - A - C.$$

Superior Propane (2000)

Williamson's analysis, together with its embodiment in the 1986 Canadian Competition Act, was the fulcrum for the intense litigation that followed from the attempt in 1998 by Superior Propane to acquire ICG Propane. Superior Propane and ICG Propane were the two largest propane distributors in Canada. The combined market shares were large, exceeding 95% in many of the regional markets that were identified. The merger was contested by the Commissioner of Competition in 1999 and the case heard before the Competition Tribunal.

The *Superior Propane* case was the first high-profile litigated merger case in any advanced country in which the evidence pointed to an expected price increase following the merger accompanied also by a significant scale of merger specific cost savings. It was thus a perfect platform to test whether the Williamson trade-off framework would hold up in the context of real-world antitrust litigation.

At the hearing in 1999, the commissioner was initially opposed to any consideration of a trade-off between dead weight loss from a price increase and efficiency gains. Once it was clear that the tribunal would consider such a trade-off, the commissioner and his expert economist presented evidence that corresponded to Figure 1 but not Figure 2. Dr. Michael Ward presented econometric evidence that estimated the size of triangle A in Figure 1 as approximately $4 million annually. On the efficiencies side, the respondent commissioned a detailed study of the efficiency gains expected from the merger, which the tribunal accepted at a level of approximately $30 million annually. Given that the estimated cost savings appeared to exceed the dead weight loss by a wide margin, the tribunal concluded that the merger could not be blocked under the Competition Act.

Distributional Issues in Welfare Trade-Offs

Although both Williamson and the first set of Canadian *Merger Enforcement Guidelines* contemplated a total surplus approach to evaluating the trade-off between dead weight loss and efficiency gains, in general distributional issues have been at the heart of many of the controversies about how exactly to interpret section 96 of the Competition Act.[10] The broad concern is whether losses experienced by consumers as a result of a merger can by partially or completely netted out by the corresponding gains made by shareholders. And what if these same consumers have significantly lower incomes on average than the shareholders who stand to be enriched by the merger?

As an early example, in an *obiter dictim* to the *Hillsdown* decision, Madame Justice Reed argued that the entire amount of any transfer from consumers to shareholders that was likely to occur as a result of a merger should be counted as negative consumer surplus but the positive transfer to shareholders should carry zero weight.[11]

The "Hillsdown standard" has never underpinned a decision by the Competition Tribunal, but was proposed by the commissioner at an early stage in *Superior Propane*. Even in the first hearing, several

10. Competition Bureau, Merger Enforcement Guidelines (Information Bulletin No. 5, March 1991) (Can.).
11. Canada (Director of Investigation and Research) v. Hillsdown Holdings (Canada) Ltd. (1992), 41 C.P.R. (3d) 289. This is not equivalent to a consumer surplus standard, because efficiency gains received by shareholders still carry full weight, whereas under a consumer surplus standard they also receive zero weight. Ross & Winter, *Efficiency Defence in Merger Law*, *supra* note 7, show that this proposal, essentially because it treats income received by the same individuals differently depending on its origin, can violate the Pareto principle.

witnesses and the tribunal in its decision recognized that at least some consumers of propane (notably those who used propane to heat private residences) were likely very far down the income distribution, and also not likely to be significant shareholders who would benefit from the merger.

Purely as a matter of welfare economics, a social welfare function can give any weights to changes in wealth experienced by different individuals as a consequence of a merger. Ross and Winter contains an extensive discussion of this issue and introduces necessary conditions that one would want such a weighting scheme to satisfy, such as the Pareto criterion (if any individual or group is made strictly better off by a merger and no individual or group is made worse off, the merger should be allowed to proceed).[12] One method of aggregating wealth changes to individuals but still allowing some distributional weighting is to separate the changes arising from a merger into changes in consumer surplus and changes in producer surplus (changes in profits). The change in total surplus is then simply the sum of these two magnitudes. The late Dr. Peter Townley, appearing as an expert witness for the Commissioner, proposed an interesting and subsequently important solution to the distributional problem, a methodology that has become known as the "balancing weights" methodology. Townley proposed that the tribunal should separate the expected change in consumer and producer surplus as a result of the merger and evaluate the net change in total welfare as

$$\Delta W = w\Delta CS + (1 - w)\Delta PS,$$

where w is an undetermined parameter. Instead of imposing the burden on the Competition Tribunal of deciding on an appropriate value for w (a task that some suggested they would be ill equipped to perform), Dr. Townley proposed that the tribunal, implicitly or explicitly, should solve the equation

$$s\Delta CS + (1 - s)\Delta PS = 0$$

for s. In other words, the tribunal would determine the *minimum weight* given to consumer surplus changes that would be sufficient to reject the merger. Given the "critical" value of s, the tribunal could determine whether their own private valuation exceeded the critical value s, and only if it did would the merger be blocked. The appeal of this proposal was that the tribunal did not have to go on the record with a precise value of w with all the appeal vulnerability and precedential issues that might likely be created.

Court Decisions in Superior Propane

In their first decision in August 2000, the Competition Tribunal decided that total surplus could be read into the Competition Act as the criterion for merger analysis. The tribunal saw no need to employ balancing weights. However, the commissioner appealed the case to the Federal Court of Appeals, who reversed the tribunal decision. The court required the tribunal to rehear the case and to consider the balancing weights methodology in their redetermination decision.[13]

The evidence presented at the first *Superior Propane* hearing allowed a determination of the parameter s as defined above equal to .62. In other words, 62% and 38% were the weights required for consumer and producer surplus, respectively, such that the merger would be neutral in its effect on total welfare.

In its redetermination decision, the tribunal explored some pioneering analysis to assess whether the evidence supported a weight greater than .62 on consumer surplus. First, the consumption breakdown of propane showed that 90% of it went to industrial users (mostly heating) and only 10% to residential

12. Ross & Winter, *Efficiency Defence in Merger Law*, *supra* note 7.
13. The FCA also required the tribunal to consider other section 1.1 factors (the "Purpose Clause") of the Competition Act in their decision. Section 1.1 broadens the objectives of the Competition Act from pure economic efficiency to include factors such as exports and the promotion of small and medium-sized enterprises.

consumers. Of these groups, only the consumers using propane to heat their primary residences were a plausible candidate for receiving a higher welfare weight than other groups, because census data showed that this group was concentrated in the lowest quintile of the income distribution. The tribunal concluded that a differentially high weight might be given to this group but that all other consumers and shareholders should be given a common uniform weight.

The remaining task was to determine what differentially high weight might be given to this target group of consumers. The tribunal reviewed research by Robin Boadway and Harry Kitchen, who found that the tax system overall implemented taxes that are roughly proportional to income.[14] When social insurance and fiscal redistribution expenditures are added in, there is a net progressivity, but only towards those at the very poorest or most needy end of the income distribution, not, for example, to all individuals in the lower half of the distribution. The tribunal stated in its redetermination decision, "Having regard to the combined system of taxes and public expenditures in Canada, there appears to be a basis for attaching a greater weight to the income groups that could be described as poor or needy than to shareholders assuming they are neither."[15]

While recognizing that such choices are inevitably arbitrary, the tribunal chose the lowest quintile of consumers as appropriate for a differential weight with respect to merger-induced changes in consumer surplus. Recalling the nature of the balancing weights test, it was not necessary for the tribunal to determine the correct or appropriate weight, but only to satisfy itself that any reasonable weight would not imply an aggregate weight on consumer surplus of greater than 62%. Some illustrative calculations can assist in clarifying this decision.[16] If we assume that all propane is consumed by final consumers, and that approximately 20% of propane is consumed by the poorest 20% of the income distribution, then placing a 50% greater weight of the impact of the merger on the poorest consumers would yield weights on consumer and producer surplus of (.52, .48). Increasing the weight on the poorest consumers to double that of everyone else yields weights of (.55, .45). The poorest 20% of consumers are unlikely to purchase the same percentage of total sales, however, so the weights of .52 and .55 are themselves upper bounds—a more accurate value would take account of their lower share of propane consumption.

A more significant correction is to take account of the fact that only about 10% of propane is purchased by residential consumers of all incomes. If this correction is made, in addition to correcting for the fact that the lowest quintile consumes only 13% of propane purchased by households, the weights for a 50% premium are (.502, .498)—very close to the weights corresponding to a total surplus standard.

A final consideration discussed by Ross and Winter is that merger-induced profit increases are in fact shared between shareholders and taxpayers. The taxpayer component merits a premium over shareholder earnings because it reduces the need to raise distortionary taxes elsewhere in the economy. The effect of this "taxpayer effect" is to reduce any relative premium placed on consumer surplus.[17]

In none of these illustrative calculations is the calculated weight on consumer surplus remotely close to the critical value of .62 derived from the balancing weights test. Not surprisingly, therefore, in its redetermination decision the tribunal once again declined to make an order preventing the merger from going ahead.

14. Robin W. Boadway & Harry M. Kitchen, Canadian Tax Policy Paper No. 103 (3rd ed. 1999).
15. *Superior Propane*, C.C.T.D. No. 10, ¶ 113 (2002).
16. These calculations were reported in Ross & Winter, *Efficiency Defence in Merger Law*, *supra* note 7.
17. Thus, Ross & Winter concluded: "When combined with the high proportion of business purchasers, as in the *Superior Propane* case, and the presence of taxpayers as stakeholders, in general, the implied deviation leads to an extremely small departure of the law from the total surplus standard – even if income to poor consumers is to receive twice the weight as income flowing to other participants." *Id.* at 493.

To this point we have emphasized in our discussion of *Superior Propane* a positive lesson to be learned from the case, namely, the conception and implementation of the balancing weights test. A negative lesson must also be taken from the case, a lesson about the application of economic principles to the efficiency—competitive impact. This lesson is not from the decision itself but from the evidence adduced by the commissioner in the case. The commissioner relied on the characterization in Williamson's original article (and in many textbooks) of the welfare loss as a welfare *triangle*. Evidence on the record clearly pointed to premerger market power in the case, however—that is, the premerger prices exceeded estimates of marginal cost. Where premerger prices exceed marginal cost, the welfare loss from a merger is the area of a *trapezoid* as illustrated in Figure 2. The evidence of parameters in the case showed that the commissioner's estimation of a welfare triangle instead of the correct welfare trapezoid resulted in a downward bias of 88% in the welfare loss (as a best estimate, given evidence in the case).[18] The commissioner would likely have won the case without this error. An attempt by the commissioner to correct the estimation in his final argument was of course excluded from consideration by the tribunal as an attempt to introduce new evidence. The tribunal indicated, however, that its decision may well have been different had the correction been introduced properly.[19]

The "triangle versus trapezoid" issue in *Superior Propane* raises a more general issue that we think deserves discussion in the antitrust economics literature: antitrust and the theory of the second-best. Merger law is intended to meet one distortion in the economy: the distortion in prices and competition that would be introduced by a merger. To what extent do we want to incorporate existing distortions in the economy in making a decision on a merger, that is, in designing merger law? The theory of the second-best discusses the possible errors introduced when a single distortion is corrected in an economy with multiple distortions.[20] The premerger market power argument, that the welfare loss estimate must incorporate the distortion in the pre-merger market, is an argument that an additional distortion in the economy (beyond the decrease in competition introduced by the merger) affects the welfare calculus of the change induced by the merger.

Other indirect effects of a merger could in theory be recognized. For example, pre-existing market power in the market for a *substitute* good can easily lead to an increase in total surplus as a *result* of the price increase induced by a merger. But no court anywhere would accept the argument that a monopoly in trucks should be allowed because of market power in the sale of cars, and the need to get the relative price of cars and trucks more in line with efficiency. And merger law obviously cannot in each case require the simulation of the entire economy. Where the boundary should be drawn in the consideration of the problem of the second best is an open question.[21]

Tervita (2015)

The elements of *Superior Propane* that we have reviewed settled the issue of which criterion should be used in merger law to balance efficiencies against lessening of competition. That, of course, is not the end of the story. Among the questions addressed by the Supreme Court of Canada in *Tervita* are the following: How is evidence brought to bear on the efficiencies trade-off, and what are acceptable kinds of evidence? What is the right procedure, within the adversarial process, for bringing evidence on efficiencies?

The *Tervita* decision in January 2015 refined an already sophisticated competition framework by focusing on the role of quantitative versus qualitative evidence. Prior to *Tervita*, it was understood that

18. Ross & Winter indicate that given the evidence on parameters in the case, the trapezoid was approximately 8.5 times as large as the welfare triangle based on the (incorrect) assumption that premerger prices were equal to marginal cost. *Id.* at 495.
19. *Superior Propane*, ¶ 451.
20. R. G. Lipsey & Kelvin Lancaster, *The General Theory of Second Best*, 24 Rev. Econ. Stud. 11 (1956).
21. Merger simulation methodology typically draws the boundary around the market in which the merger is taking place.

while the commissioner had the burden of proof in demonstrating a substantial lessening of competition (under section 92 of the Competition Act), the merging parties had the entire burden—if the commissioner's section 92 burden was met—of showing under section 96 that the lessening of competition was offset by efficiencies. Under *Tervita*, the respondents continue to have the burden of proof of demonstrating efficiencies, and in practice this is almost invariably a quantitative exercise. But now the commissioner has the burden of quantifying *quantifiable* evidence on the substantial lessening of competition.[22] The Supreme Court of Canada decided on the basis of procedural fairness that the commissioner must quantify the dead weight loss of a merger in order to provide a target that is procedurally fair for the respondent to meet with their own quantitative evidence of efficiencies. If the commissioner does not present quantitative evidence on quantifiable parameters underlying the competitive harm, then he fails to meet his burden in section 96, even if the qualitative evidence of competitive harm is strong and efficiencies are negligible, insignificant, or marginal.

Tervita is weak on several points.[23] In her clear and persuasive dissent, Justice Karakatsanis discussed two of these. We can set out these weaknesses succinctly in economic terms. First, *Tervita*, in strengthening a principle set out in *Superior Propane*, created a hierarchy between quantitative evidence and qualitative evidence that is unjustified. The court aimed to minimize subjectivity, inherent in qualitative evidence. From an inferential standpoint, however, subjectivity in qualitative evidence must be balanced against *standard errors* and constraints on estimation generally as limitations of quantitative evidence. Where data are scarce or where identification problems rule out unbiased estimates, qualitative evidence may be the more important notwithstanding its inherent subjectivity.[24] Second, the adversarial system is adopted in merger law (and in common law generally) in order to elicit incentives for each side to bring the strongest evidence before the trier of fact. Each side has the incentives to bring the strongest evidence rather than suppress it. If the strongest evidence on the part of the commissioner is quantitative, then this is presumably the evidence that the commissioner will present. In constraining the type of evidence the commissioner may bring, the court intervened in the adversarial mechanism without a theory of mechanism failure.

The final issue of concern to us is the assumption in *Tervita* as to the procedure in which the parties in a merger hearing bring efficiency evidence. One can imagine two possibilities. First, the commissioner brings evidence on the deadweight loss (and this, the court expects, will generally be a quantitative estimate of the deadweight loss). Then the merging parties, knowing the deadweight loss estimate of the commissioner, bring quantitative evidence on efficiencies. This is clearly the procedure that the *Tervita* court had in mind, in connection with their ruling that the competitive effects be quantified when possible:

> The difficulty with assigning non-quantified quantifiable effects a weight of "undetermined" is that it places the merging parties in the impossible position of having to demonstrate that the efficiency gains exceed and offset an amount that is undetermined. Under this approach, to prove the remaining elements of

22. The meaning of the court's requirement that all quantifiable evidence be quantified depends of course on the meaning of "quantifiable." Quantifiable could mean anything along the spectrum from the broad definition of quantifiable *in principle* to a narrow definition of estimable with a high degree of confidence. If is clear that the court has in mind a broad definition. The court faulted the commissioner for not presenting evidence on demand elasticity, in a market for which it is clear that empirically identifying a demand curve would be very difficult. (The commissioner's expert inferred—appropriately, we would argue—a demand elasticity estimate from the evidence presented by the parties' expert. The court rejected this approach based partly on the fact that the estimate was not derived directly from the data.)
23. Winter, *supra* note 6, elaborates on these points.
24. The European General Court in *Ryanair* set out a position in 2010 that is much closer to what we believe is the correct approach, one that allows due weight to be given to both qualitative and quantitative evidence without mandating a priority given to either.

> the defence on a balance of probabilities becomes an unfair exercise as the merging parties do not know the case they have to meet.[25]

The court's concern over fairness towards the merging parties is misplaced. The effort that the merging parties take in bringing evidence on efficiencies, and the decision on which pieces of evidence to bring, are in fact not helped at all by knowledge of the particular deadweight loss estimate of the commissioner. Parties in a merger case simply bring to evidence the entire set of efficiencies that they argue will result from the merger. They do not hold back any evidence, waiting to see the estimate that the commissioner will produce. Knowledge of the commissioner's evidence ("the case that they have to meet") should not change the parties' decisions on their own evidence whatsoever.

A second possible procedure, which we believe makes more sense, is one in which the merging parties first bring a set of claimed efficiencies. Then the commissioner reacts. The commissioner may (and in practice invariably does) bring evidence that pares down the set of claimed efficiencies, on grounds, for example, that some of the efficiencies are not merger-specific. Then the commissioner, knowing the target that he must meet, brings evidence of deadweight loss. The commissioner has the second-mover advantage in adducing evidence in the effects-efficiency trade-off.

Why should the commissioner have the second-mover advantage? The commissioner's evidence will almost always be some mixture of quantitative and qualitative evidence (notwithstanding the *Tervita* court's optimism about quantifiability of evidence). The commissioner, knowing the target that must be met for the deadweight loss, can quantify those parameters that can be quantified, and then present evidence as to whether or not qualitative evidence—or quantitative evidence with high standard errors—exceeds a necessary bound. As an illustrative example, given all other parameters, it might be the case that the deadweight loss exceeds estimated, valid efficiencies if demand elasticity is less than 1.4. The commissioner could bring evidence on whether this condition is met on the basis of testimony from buyers about their alternatives to the merging firms products, as well as the possibly crude empirical evidence available. The commissioner need not, under this procedure, arrive at a precise estimate of demand elasticity. Given the imprecise evidence, he need only present evidence as to whether a bound is exceeded.

The principle that we invoke—assert might be more accurate—is that in an adversarial system, the party that has the most subjectivity in its evidence, or high standard errors in quantitative evidence should be assigned the second-mover advantage. This allows the qualitative evidence to be matched to the question of whether a bound is exceeded, rather than to the need for a precise estimate. There is a clear parallel here with the tribunal's application of the balancing weights test in *Superior Propane*, in which the inherently subjective issue of the appropriate weighting of consumer and producer surplus was reduced to a question of whether a bound was exceeded.

Although we believe the above proposal represents the best solution for merger law in Canada, we acknowledge a possible legal complication. A successful case brought under section 92 requires the commissioner to identify a substantial lessening of competition. An efficiencies defense cannot be (and of course is not required to be) brought under section 96 if the commissioner has not already satisfied his burden under section 92. So some structure to the "order of moves" is baked into the law. Our proposal for (i) the respondent submits quantitative (and qualitative) efficiency evidence, then (ii) the commissioner submits quantitative and qualitative evidence on the deadweight loss, may not be feasible under the act as it currently stands. The following procedure is possible, we believe: (i) the commissioner establishes an SLC using largely qualitative evidence, (ii) the respondent submits their efficiencies case, (iii) the commissioner submits quantitative and qualitative evidence in support of the claim that the SLC exceeds efficiencies.

25. *Tervita*, at ¶ 131.

There remains the question of what precisely step (i) above means. Various tribunals have been vague on this point. Does it mean an SLC in the absence of efficiencies or allowing for efficiencies to exert their equilibrium effect on prices? Where all efficiencies are fixed cost efficiencies, this issue does not arise, but in many cases it would need to be clarified.

Conclusion

Our purpose in this article is not to criticize in detail the Canadian developments on merger law. But in drawing both negative and positive lessons from the Canadian experience for the appropriate treatment of efficiencies in merger law, some critique is inevitable. In terms of positive lessons, the Canadian experience shows that profits can be incorporated in the merger criterion, as they should be. A redistribution of wealth should enter merger analysis, or any cost-benefit analysis for that matter, only—or, at most—to the extent that the redistribution is unfavorable in the sense of transferring wealth away from the poor. The balancing weights test achieves this with a minimum amount of subjectivity. And the test is operational. The balancing weights test, in the case we examined here, is close to a total surplus test; we expect that this will generally be the case. The Canadian law appears to presume total surplus (a special case of the balancing weights test) in a wide set of circumstances including mergers in intermediate markets, where buyers are firms.

Procedures for efficient elicitation of evidence are equally important. Here, unfortunately, we cannot draw positive lessons from recent Canadian jurisprudence. More thinking is necessary in general on the economics of designing procedures in merger cases. We have argued, however, that an appropriate procedure in merger cases would involve the parties presenting quantitative evidence, with the government then following with evidence on whether deadweight loss exceeds efficiencies (with adjustment in the case of a balancing weights test that departs from the total surplus criterion). This is the opposite of the procedure implied by the *Tervita* decision.

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