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CANADA'S (IN)EFFICIENCY DEFENCE: WHY SECTION 96 MAY DO MORE HARM THAN GOOD FOR ECONOMIC EFFICIENCY AND INNOVATION

Matthew Chiasson and Paul A Johnson[1]

Since 1986, Canada's Competition Act has had an "efficiencies defence" for anticompetitive mergers that allows economic efficiency to be promoted at the expense of competition, instead of through competition. This paper questions whether that policy makes sense. We review a large body of literature and case studies demonstrating that competition spurs innovation and efficiency of enormous magnitude. However, these significant beneficial effects of competition are often overlooked under the current merger review framework because they are less susceptible to ex ante prediction or quantification. The perverse result, we argue, is that the Competition Act has a bias towards authorizing anticompetitive mergers in the name of economic efficiency even though such mergers are more likely to reduce efficiency overall.

Depuis 1986, la « défense fondée sur les gains en efficience » que prévoit la Loi sur la concurrence du Canada pour les fusions anticoncurrentielles permet de promouvoir l'efficience économique au détriment de la concurrence, plutôt que par la concurrence. Le présent article se penche sur le bien-fondé de cette disposition. Nous y examinons un vaste corpus d'ouvrages et d'études de cas démontrant que la concurrence est un catalyseur d'innovation et d'efficience d'une puissance remarquable. Or, l'importance de ces bienfaits considérables est souvent négligée par l'actuel cadre d'examen des fusions, puisqu'ils sont difficiles à prévoir ou à quantifier d'avance. L'effet pervers qui en résulte, à notre avis, est une propension de la Loi sur la concurrence à permettre les fusions anticoncurrentielles au nom de l'efficience économique, alors qu'elles sont en réalité plus susceptibles de réduire l'efficience globale.

I. Introduction

Canada adopted its "efficiencies defence" for anticompetitive mergers as part of a large set of reforms introduced in 1986 with the passage of the modern *Competition Act*. That legislative reform effort was largely inspired by a 1969 report from the Economic Council of Canada, which advocated a single objective for Canadian competition policy, namely: "the improvement of economic efficiency and the

avoidance of economic waste, with a view to enhancing the well-being of Canadians."[2] Although the *Competition Act* did not embrace this singular purpose overall,[3] efficiency considerations were given special status in the case of merger enforcement through a stand-alone defence contained in section 96.[4] As explained by the Supreme Court of Canada:

> A stand-alone statutory efficiencies defence was considered "particularly appropriate for Canada because a small domestic market often precludes more than a few firms from operating at efficient levels of production and because Canadian firms need to be able to exploit scale economies to remain competitive internationally". In the context of the relatively small Canadian economy, to which international trade is important, the efficiencies defence is Parliamentary recognition that, in some cases, consolidation is more beneficial than competition.[5]

In essence, section 96 serves as an economic efficiency "gut check" that merging parties can ask the Tribunal (or Commissioner) to undertake before intervening in an otherwise anticompetitive merger. Conceptually, that gut check poses an attractive question: do the costs to society of intervening in the merger exceed the costs of not intervening—or, more specifically, would Canadian welfare be better served by allowing the merger to proceed and tolerating its anticompetitive consequences than by imposing a remedy and losing out on the attendant economic efficiencies?[6]

While such a prospective balancing test is laudable in theory, this article argues that it breaks down in practice. It breaks down because of the empiricism that such a test demands in order to minimize subjective judgement. That empiricism necessarily focuses attention on a subset of effects that are the easiest to pin down *ex ante,* yet, as we explain, those effects turn out to be comparably unimportant for economic efficiency *ex post*.[7]

Specifically, we review a large body of literature that demonstrates that *competition* spurs innovation and efficiency of enormous magnitude. Competition is a unique and powerful force that pressures companies to innovate to improve efficiency and quality by bringing new products to markets and implementing new and more efficient production processes. However, these significant beneficial effects of competition are often overlooked in the section 96 trade-off because the dynamic process through which they occur makes them less susceptible to *ex ante* prediction or quantification. Put simply, on a balance of probabilities, it is relatively easy for merging parties to identify specific and measurable headcount reductions

or other resource savings that an anticompetitive merger is likely to bring about; it is much harder for the Commissioner to identify and measure the specific ways in which a merged firm will become sluggish or complacent with less competitive pressure. The result is that the former effects (which count in favour of approving the merger) are considered in the trade-off while the latter are not, even though the latter effects play a more significant role in driving innovation and economic efficiency in the economy in general. The perverse implication, we argue, is that the efficiencies defence has a bias towards authorizing anticompetitive mergers in the name of economic efficiency even though such mergers are more likely to reduce efficiency overall. We argue that this bias cannot be corrected by changing the way cases are argued as it is inherent in the trade-off framework itself and the limitations of case-specific evidence available in merger review.

The strong claim that competition is critical to efficiency is not based on theoretical musings or models at the periphery of economic debate. In fact, the claim that competitive pressure is a unique and powerful force that spurs innovation and efficiency has been the subject of economic investigation for arguably centuries and has culminated in a remarkable consensus over the past half century. For example, the OECD states that:

> [I]t is clear that industries where there is greater competition experience faster productivity growth. This has been confirmed in a wide variety of empirical studies, on an industry-by-industry, or even firm-by-firm, basis … This finding is not confined to "Western" economies, but emerges from studies of the Japanese and South Korean experiences, as well as from developing countries.[8]

Importantly, in considering economic efficiency, one should not interpret innovation narrowly as new "flashy" products or technologies. Instead, one should also consider the importance of more "mundane" innovation in business processes, products, and services. While mundane, such innovation has enormous effects on efficiency. This article develops this theme in section II and section III and then provides an overview of some of the evidence that competition increases economic efficiency by spurring innovation in section IV.

With this context, the article then turns to a discussion of how different competition regimes affect innovation and efficiency in section V. While a regime like that reflected by section 96 might be facially appealing in that it aims to save economic efficiency from potentially overzealous enforcement action against anticompetitive mergers, that appeal is misleading. If one believes, as the evidence in section IV suggests, that competitive

pressure spurs innovation and efficiency of enormous magnitude, then it is worth asking whether there is a meaningful conflict between competition and efficiency to justify a defence for anticompetitive mergers in the first place.

Clarification

Before proceeding further, it is worth pausing here to distinguish our thesis from other critiques of section 96 levied by various commentators and senior officials.

First, we do not argue, as some have,[9] that consumer welfare is a normatively more worthy end goal than economic efficiency. In fact, we proceed by accepting that economic efficiency is the primary end goal of Canadian merger policy. Our thesis is that an end goal of economic efficiency might well be better served by repealing the efficiencies defence for anticompetitive mergers. We note that the vast majority of mergers, which are either procompetitive or competitively benign, would be unaffected by such a change.

Second, we do not take issue with the optics of a *Competition Act* that is capable of sanctioning "mergers-to-monopoly" *per se*.[10] We are concerned with mergers-to-monopoly inasmuch as they are likely to have significant anticompetitive consequences when they occur in markets with high entry barriers, and that this elimination of competitive pressure will generally serve to reduce economic efficiency. In other words, our concern with such mergers is strictly utilitarian.

Third, we are not arguing that the efficiencies defence be repealed to better align with international best practice.[11] Harmonization with trading partners is undoubtedly a good thing, where possible, and repealing the efficiencies defence *would* align Canada with other competition regimes.[12] However, our thesis is that such a change would be good for the Canadian economy regardless of the approach taken elsewhere.

Fourth, we do not argue that the efficiencies defence should be repealed because it is not tailored to its original statutory imperative, which was to enhance the ability of Canadian firms to compete in international markets through realization of scale economies.[13] The application of section 96 may very well be broader than Parliament intended, but if this was all that was wrong with the efficiencies defence it could be fixed simply by an amendment that would limit its application to situations where international competition and scale economies are important—we think that

a more fundamental change may be needed if the end goal is to promote economic efficiency and innovation.

Fifth, and more technically, we do not argue that the typical claims of cost savings in Canada are not merger-specific because they can be achieved in other less anticompetitive ways. In Canada, headcount reductions are frequently the most consequential cost savings made. However, such cost savings are, essentially, appeals to the existence of economies of scale, which can, in principle, be achieved without a merger.[14] This paper accepts that the usual efficiencies claims are merger-specific.

Lastly, we are not advocating for a change because the current legislative framework is too complex or costly to administer.[15] Repealing the efficiencies defence would likely go some way towards simplifying merger reviews, clarifying goals, and reducing overall administrative burden on businesses, however, more fundamentally, we think it should be considered because it could lead to better outcomes for the Canadian economy.

II. Improvements to business practices enhance economic efficiency and constitute an important form of innovation

Innovation is valuable not for its own sake, but because it allows us to produce more and higher quality output with less input. In the words of the current Prime Minister, "New technology is always dazzling, but we don't want technology simply because it is dazzling—we want it, create it and support it because it improves people's lives."[16]

This stress on the *effects* of innovation as opposed to the *nature* of innovation suggests that innovation be defined broadly. Not only can it be a dazzling new product or process, it can also be a more mundane business practice that improves productive efficiency or makes businesses more responsive to its customers. The importance of this latter form of innovation ought not be downplayed as it has been critical to economic development. For example, the eminent business historian, Alfred Chandler described how dazzling innovations in transportation and electrification led to a "second industrial revolution." But only more mundane innovation in improved business practices allowed firms to exploit those technological innovations.[17] The importance of innovation in business process has continued to be recognized by business and in the academic business literature. In fact, innovation in business practices has become so important that terminology such as "total quality control" and "lean supply management" is familiar to most. This view is widely recognized:

> Much innovation is mundane and incremental, depending more on a cumulation of small insights and advances than on a single, major technological breakthrough. It often involves ideas that are not even 'new'—ideas that have been around, but never vigorously pursued. It always involves investments in skill and knowledge, as well as in physical assets and brand reputations.[18]

Better business practices are the core of such innovation and can result in astounding gains in efficiency. That insight was highlighted by Harvey Leibenstein more than 50 years ago, who presented some empirical evidence that showed that firms *within the same industry* exhibit markedly different productive efficiency that was not explainable in obvious ways (e.g., economies of scale, application of different technology); Leibenstein attributed such differences to differences in a type of efficiency he denoted as "X-efficiency."[19] In this respect, X-efficiency (or its converse, "X-inefficiency") can be thought of as "the difference between the maximum (or theoretical) productive efficiency achievable by a firm and the actual productive efficiency attained."[20] For example, X-inefficiency is present if a company could produce 5 widgets per hour with a given set of inputs, but had only managed to organize itself to produce 4 with those same inputs. Leibenstein argued that reasonable decreases in *productive* X-efficiency would likely dwarf *allocative* inefficiency due to monopoly.

Leibenstein's original insight has withstood the scrutiny of subsequent inquiry remarkably well. Differences in X-efficiency have been shown to be ubiquitous and large. Chad Syverson's recent survey of the scholarly literature on the topic of productive efficiency summarizes the consensus succinctly.

> Thanks to the massive infusion of detailed production activity data into economic study over the past couple of decades, researchers in many fields have learned a great deal about how firms turn inputs into outputs … They have documented, virtually without exception, enormous and persistent measured productivity differences across producers, even within narrowly defined industries.[21]

Syverson goes on to remark on the magnitude of the differences among firms. By one analysis of US firms across various industries, the firm that is more productive than 90% of firms in the same industry is *twice* as efficient as the firm that is more productive than only 10% of firms in the same industry. Astonishingly, this statistic means that an efficient maker

of widgets produces twice as many widgets with exactly the same inputs as an inefficient maker of widgets!

The next section sets out how competition plays a role in such large and persistent differences in firm-level productivity.

III. Competition spurs innovation in business practices

That competition spurs firms to adopt innovative business practices is an old observation. As early as the 18th century, Adam Smith wrote that "Monopoly … is a great enemy to good management, which can never be universally established, but in consequence of that free and universal competition which forces every body to have recourse to it for the sake of self defence."[22] Perhaps most famously, Sir John Hicks wrote in 1935 that monopolists "are likely to exploit their advantage much more by not bothering to get very near the position of maximum profit, than by straining themselves to get very close to it. The best of all monopoly profits is a quiet life."[23] Later, Leibenstein himself recognized the role of competition in determining the degree of X-efficiency writing that "we have instances where competitive pressures from other firms or adversity lead to efforts toward cost reduction, and the absence of such pressure tends to cause costs to rise."[24]

Nevertheless, the proposition that competition is necessary for efficiency has turned out to be harder to explain rigorously than might be expected at first glance. Standard textbook economic theory allows no place for X-inefficiency. Specifically, textbook economics posits that firms maximize profits. And because profit maximization necessarily implies minimizing costs for a given level output, firms that maximize profits necessarily achieve maximum productive efficiency by assumption. There is simply no room for competition—or anything else—to lead to less than perfect productive efficiency.

A key implicit assumption of textbook microeconomic theory is that firms act as an "atomic decision-making unit." A more nuanced view recognizes that firms are composed of individuals who carry out imperfectly-defined and monitored tasks and have incentives that do not necessarily align with those of the firm's owners. From this observation, stylized theoretical models have been developed that allow a place for X-inefficiency. For example, de Bettignies and Ross exploit the limited liability the owners of a firm can place on the managers of a firm to show that when a manager's actions are not directly verifiable, X-inefficiency can increase as competition lessens.[25] Another example is due to Holmes and

Schmitz who argue that managers are less likely to effect change within their organizations when the opportunity costs of doing so are high.[26] Thus, only when those opportunity costs are low—perhaps because competition has reduced profits—will firms have an incentive to innovate to escape from such a state.[27] While these theories have intuitive appeal, they are not very useful for predictive purposes.

While theoretical models do not generally exhibit a strong link between competition and X-efficiency, the story is very different when it comes to empirical analysis. One prominent empirical examination of the relationship between competition and a narrowing of productivity differences across firms is due to Syverson.[28] He studies ready-mix concrete and compares geographies where many producers are active (i.e., large-demand markets) and geographies where few producers are active (i.e., low-demand markets). Consumers have more choices in the former markets than in the latter markets forcing low-performing producers out of business and, thereby, narrowing the heterogeneity in firm-level productivity.[29] Notably, these changes in productivity are not driven by the development or adoption of new technologies (in the case of ready-mix concrete, an important technological advance is the automatic mixing of a particular concrete "recipe" as opposed to manual mixing) or even achieving economies of scale; instead, these differences suggest differences in business practices across otherwise similar firms.

The mechanism at work in the ready-mix concrete example is simple and intuitive as it operates through a kind of Darwinian selection: in competitive environments inefficient firms lose sales and, at the limit, are driven out of business; more efficient and innovative firms gain sales. This mechanism does not increase the productivity of any given firm but operates *across firms* to increase the average level of productivity by shifting share to more efficient firms.

A second distinct mechanism sees competition increasing the productivity of individual firms (e.g., by lowering the opportunity cost of implementing a change that is costly in the short-run but enhances productivity in the longer-run). This mechanism operates *within firms* to increase the average level of productivity.

The next section will provide examples of each type of mechanism while providing a more detailed overview of the empirical evidence of the effects of competition on innovation.

IV. Empirical evidence that competition spurs innovation

Empirical analysis tests effects predicted by theory and can sometimes provide a sense of magnitudes of the predicted effects. Such insight is particularly valuable when it comes to assessing the effects of competition on innovation and economic efficiency. Specifically, the magnitude of the effects of competition on innovation and economic efficiency ought to be critical in assessing different competition policies, which is the topic addressed in section V. The current section provides a non-exhaustive summary of some of the available empirical results to set the stage for that later section.

The empirical analysis reviewed here mainly consists of case studies where the relationship between competition and innovation can be assessed very carefully. The advantage of such an approach is that questions of causality—that is, whether competition causes innovation, or whether another factor causes both competition and innovation—can be addressed very directly and the effects measured very precisely; the disadvantage of such an approach is that it is necessarily narrow. But while these case studies are individually narrowly focused, collectively they paint a compelling portrait of how competition spurs innovation. The following subsections describe the relationship between competition and productive efficiency, quality, and the adoption of technologies in novel ways.[30] And, critically, as Leibenstein first suggested, the magnitude of these effects can be enormous. The section concludes by recognizing more ambiguous results from a different literature that, while more general, is necessarily less precise and whose implications are less clear.

Competition spurs firms to improve efficiency

A large number of careful case studies have demonstrated that competition increases productive efficiency.

Studies of export activity across industries and countries provide some of the strongest and clearest evidence to support this conclusion. For example, in the 1980s, the distinguished business scholar Michael E. Porter conducted a four-year study of various industries in ten countries. From that study, Porter identified competition as key to innovation and competitive advantage:

> The presence of strong local rivals is a final, and powerful, stimulus to the creation and persistence of competitive advantage … Conventional wisdom argues that domestic competition is wasteful: it leads to

> duplication of effort and prevents companies from achieving economies of scale. The 'right solution' is to embrace one or two national champions, companies with the scale and strength to tackle foreign competitors, and to guarantee them the necessary resources, with the government's blessing. In fact, however, most national champions are uncompetitive, although heavily subsidized and protected by their government … Static efficiency is much less important than dynamic improvement, which domestic rivalry uniquely spurs. Domestic rivalry, like any rivalry, creates pressure on companies to innovate and improve. Local rivals push each other to lower costs, improve quality and service, and create new products and processes.[31]

Another type of study that has received significant attention concerns the impact of trade liberalization on productivity. For example, Daniel Trefler studied the effects of the Canada-US Free Trade Agreement, which came into effect in 1989 and opened up Canadian businesses to competition from the United States.[32] His analysis examines a number of Canadian industries and finds "enormous" increases in Canadian productivity caused by the Free Trade Agreement in industries that were most impacted by the agreement—with a suggestion that much of the productivity increase is from more efficient firms gaining share and less efficient firms losing share (i.e., the *across firms* mechanism described above).

Other studies exploit changes in competition in a particular industry over time. One of the more compelling and dramatic of such studies focuses on iron ore mining in the Canadian and US Great Lakes region in the 1980s.[33] Prior to the early 1980s, Great Lakes producers faced no competition from producers outside the region. But due to changes in the relative prices of ore in North America and Europe, that lack of competition changed dramatically when Brazilian producers suddenly found it profitable to sell into what had previously been a market served exclusively by production from the Great Lakes. In response, Great Lakes producers increased productivity dramatically: labor productivity *doubled* over a few years and other measures of productivity increased dramatically as well. Notably, those huge increases in productivity were not caused by the shuttering of less efficient mines or the adoption of new technologies; instead, those gains resulted from simple changes in work practices. For example, workers began to immediately carry out minor repairs to machinery themselves instead of calling in highly specialized repair technicians who were costly and necessarily caused productivity delays.

The gains in iron ore productivity represent the *within-firm* mechanism described above. Other case studies show that increased competition can

improve productivity through the mechanism that works across firms (i.e., by allocating more sales to efficient firms and taking away sales from less efficient firms). One interesting example is a study of a legal cartel in the United States for sugar, which lasted from 1934–1974.[34] The cartel had a significant negative impact on productive efficiency: the pounds of manufactured sugar recovered per ton of beets increased significantly before and after the cartel, but decreased significantly during the cartel—from 310 pounds per ton in 1934 to about 240 pounds per ton in 1974.[35] Interestingly, much of that productive inefficiency appears to have resulted from growing beets in the wrong areas of the United States. After the end of the cartel, production expanded in the Midwest and fell in the West: efficient producers made more sales and inefficient producers—no longer protected by the cartel—made fewer sales.

None of the results of these studies are easily explained by the adoption or development of new technologies. For example, in the iron ore example, new technology was specifically ruled out and innovative management practices were specifically identified as the determinative factor. Buttressing that result is the fact that there are significant differences across firms in the types and quality of management practices they employ. For example, a prominent study systematically tracked the quality of various management practices across a large number of firms in France, Germany, the United Kingdom, and the United States.[36] Just as there exists substantial variation in firm-level productivity, that study showed a substantial variation in the quality of firm-level management practices. Importantly, a key insight of that study was that increased competition leads to better management practices.[37]

Perhaps most critically for our purposes, it would be extremely difficult, *ex ante*, to identify how a reduction in competition due to a merger may worsen managerial "slack" in the ways illustrated above. It would be even more difficult to estimate or predict the productivity loss that such managerial slack was likely to bring about.

Competition spurs firms to improve quality

Case studies also suggest that competition spurs firms to offer attractive products and services that they would not have otherwise offered. A recent example is how non-traditional ride-sharing services like Uber have improved the quality and features offered by incumbent taxis. Traditional taxis now not only offer more conveniences such as apps, but some evidence indicates that competition has spurred them to improve

the quality of their service as measured by indicia such as the number of complaints about broken air conditioning or complaints about the driver being rude.[38] A Canadian example involves improvement in Canadian wine-making caused by increased competition due to the Canada-US Free Trade Agreement as well as the General Agreement on Tariffs and Trade.[39] Prior to trade liberalization, Canadian vintners were protected from competitive pressure through tariffs and preferential treatment by monopoly retail outlets; there was little interest from export markets for Canadian wine produced from the common and low quality *vitis labrusca* grape. When faced with competitive pressure, Canadian wine makers innovated and improved quality: they replaced low quality grape varieties with higher quality varieties, they implemented the "Vintners Quality Alliance" or VQA standard that served as a quality control and signal for select wines, and they encouraged the development of Icewine and wine tourism.

Another prominent and careful analysis of the effects of competition on quality concerns how "stockout" rates (i.e., the frequency of inventory shortfalls) in supermarkets respond to competitive pressures.[40] That study examined variation in competitive conditions *across* stores and found that firms that faced local market competition average 5% lower stockout rates than otherwise similar stores. It also examined how changes in competitive conditions affect *individual* stores. In particular, Walmart's entry into local markets caused stockout rates to decrease by 10%, on average.[41]

These examples show how increased business efficiency stemming from competitive pressure can lead to quality improvements for the consumer. And much like the examples above that described how competition decreased costs, quality improvements will often be difficult to quantify or even foresee *ex ante*—for example, an economic analyst would be forgiven for assuming that supermarkets act to minimize stockout rates regardless of the level of competition they face, so long as it is profitable for them to do so.

Competition can spur firms to incorporate new technologies

The insights above show that innovation and efficiency are not always related to new flashy technologies, but are frequently more mundane. That is an important and perhaps underappreciated perspective in light of the prominence of technology in the popular press and political discourse. Nevertheless, competitive pressure can undoubtedly promote the use of new technologies, too.

One example is technology that came to be used in the retail sector in the 1990s. That technology uses universal product codes and point-of-sale scanners "to better manage inventories, maintain and adjust prices more efficiently, and develop individual customer databases used to micromarket products."[42] Adoption of that technology has been the result of large chain stores, which use such technology extensively, growing significantly at the expense of less productive and innovative rivals.[43] This across-firm mechanism is only possible, of course, if incumbents can be displaced by more innovative entrants. In light of the active debate about the implications of increases in broad measures of concentration, it is interesting that in this case *increases* in retail concentration demonstrate a result of the competitive process, rather than the existence of a barrier to competition.[44]

Once again, it will often be difficult to predict or quantify how the adoption of new technology would be affected by a merger that lessens competition. Adoption of new technology is, by its nature, hard to predict—such is the nature of "innovation." The obstacle becomes even harder to overcome when one attempts to predict an *incremental* increase in the likelihood of adoption of a new technology due to an increase in competitive pressure.

Response to contrarian results on the relationship between competition and innovation

The examples cited above describe an unambiguous relationship between competition and economic efficiency spurred by innovation. A different literature, focused on economic growth, asks different questions and uses different techniques to call into question that unambiguous relationship. While the focus of this literature is not on competition policy *per se*, it has developed results that have been influential in the debate on competition policy that must be confronted here.

Perhaps the most prominent example of the influence of the growth literature on competition policy is an article written by Philippe Aghion, Nicholas Bloom, Richard Blundell, Rachel Griffith, and Peter Howitt. That article claims that the relationship between competition and innovation follows an "inverted-U" pattern.[45] The inverted-U relationship holds that innovation is highest at moderate levels of competition: when competition is too weak or too fierce, the pace of innovation declines. That insight was developed in the context of a highly stylized theoretical model

and tested with data on measures of patents and profitability in different UK industries over time.

The debate about how to appropriately interpret the inverted-U relationship between competition and innovation is extensive and unsettled. While it is perhaps tempting to interpret its implications literally, more careful consideration reveals that doing so is unwise. For example, Peter Howitt, one of the authors of the study mentioned above, notes quite plainly that his recommendations for competition policy are not those that follow directly from the growth literature:

> The key insight from this second-generation growth theory is that concerns of earlier researchers about a conflict between encouraging competition and fostering growth might have been misplaced. To the extent competition policy authorities, regulators, or trade liberalizers might have shrunk from promoting competition for fear that innovation-promoting profits might erode, the "new" new growth theory suggests they should take a more aggressive stand in favour of more competitive markets.[46]

In later writing, however, Howitt appears to argue that competition is more likely to stimulate innovation only in certain cases. Specifically, he claims that "tighter enforcement of competition law" is more likely to spur innovation only when firms are "on an even technological footing, producing similar products and facing similar costs of production." In cases "with an established technology leader," he claims that "tighter enforcement of competition law" is likely to lessen innovation.[47] Howitt does not specify what "tighter enforcement of competition law" might entail and its meaning is not obvious. Presumably, it is not a call for collusion in markets with a clear technology leader; similarly, a call for laxer merger or monopolistic practice enforcement in markets with a clear technology leader would also appear to be unorthodox.

Other references describe the debate on how to appropriately interpret the inverted-U relationship between competition and innovation very ably and at length.[48] While such a summary will not be attempted here, it is possible to get a flavour of that debate in considering its theoretical and empirical aspects.

The theoretical debate concerns whether the analysis conducted in the growth literature can be used to inform competition policy. To get some sense of this debate, it is useful to consider certain aspects of the influential theoretical model of Aghion *et al.* That model has only two competing firms and entry is impossible. The state of play can be such that either

each firm has access to the same technology or that one firm has successfully innovated to move "one step" ahead of its rival; no firm can innovate to move "two steps" ahead of its rival. The model asks how innovation varies when the degree of competition between the two firms changes and finds the inverted-U relationship.[49] Nevertheless, if competition is lessened through a *merger* of those two firms, any and all innovative activity is ended—a reduction in competition due to merger unambiguously lessens innovation in that model. Thus, while the model aims to study how differences in "competition" affect innovation, its implications cannot be literally applied to all aspects of competition policy.

Aside from these theoretical concerns, a number of empirical concerns have been raised when it comes to the relationship between competition and innovation as it is measured in the growth literature. In contrast to the studies described above, which mostly focus on a single industry and frequently a single firm or plant, the empirical strategy in the growth literature has been to focus on comparisons across industries. Drawing unambiguous inferences from cross-industry comparisons is generally much more difficult than drawing inferences from very narrow and focused studies of a particular industry. To illustrate this difficulty, consider summarizing "competition" across a large number of industries using a measure like market concentration or average profitability. Now, consider those proxies for competition in light of the following example adapted from Holmes and Schmitz.[50] Suppose some industries do not allow entry by efficient and innovative entrants due to some entry barrier (e.g., government regulation). In these industries, numerous inefficient entrants are active so that concentration is low and their high costs cause average profitability to be low also. In other industries, the entry barrier is absent so that efficient and innovative entrants can and have entered, leading to the exit of incumbents who were less efficient and innovative. While the former case involves less concentration and lower profits, the latter case is one that is unambiguously more competitive—it lacks an entry barrier. Nevertheless, one would incorrectly classify the former set of industries as more competitive than the latter set of industries and an attempt to associate "competition" with innovation would lead to exactly the wrong answer.

Whatever one takes away from that debate, a more agnostic perspective recognizes that antitrust enforcement is typically active only in cases where competition is far from perfect (e.g., entry barriers are important). Thus, even to the extent that one accepts an inverted-U relationship between competition and innovation, the only portion of that relationship

relevant for antitrust enforcement is likely that portion where innovation is increasing in competitive intensity.

A separate but related debate has emerged very recently. Inspired by the European Commission's investigation of the merger between Dow and DuPont, Giulio Federico, Gregor Langus, and Tommaso Valletti developed a simple model that has strong and unambiguous predictions when it comes to competition and innovation.[51] Similar to the logic underlying the development of "upward pricing pressure,"[52] the insight of Federico et al. relies on the observation that while a firm might have an incentive to innovate to steal business from a rival competitor pre-merger, a merger will internalize that business-stealing externality leading to a lessened incentive to innovate. Others have noted that this result may "provide only a partial picture of the impact of mergers on innovation and do not justify the authors' claim that 'a merger between two out of a limited number of innovators is likely to lead to a reduction of innovation in a market characterized by limited knowledge spillovers and in the absence of other possible countervailing efficiencies.'"[53] As a simple illustration of why such an argument provides "only a partial picture," consider the implications of complementary innovation. In that case, innovation involves developing a new product that increases the value of a competitor's products. In that case, a merger internalizes a positive externality and increases incentives to innovate. In any case, the observation that the *theoretical* relationship between innovation and competition is ambiguous is not particularly novel nor controversial. In such cases, best practices turn to empirical evidence, which the preceding sections have argued shows the substantial beneficial effects of competition on innovation and efficiency.

V. What competition regimes best promote innovation and economic efficiency?

The conclusion of the preceding sections is that competition is critical to innovation that enhances economic efficiency. Thus, a competition policy that promotes vigorous and sustained competition can be an important tool to support an ultimate policy goal of promoting innovation and economic efficiency. In that light, this section considers three different competition policies and discusses how they function to affect innovation and economic efficiency.

Consider a first regime that aims to protect and promote "fair competition." This regime does not focus on the outcomes of competition, but on the freedom of firms to compete in a fair marketplace—one where many

firms are able to compete. It puts substantial emphasis on the size and market shares of firms and looks at large firms with suspicion. In that sense, this regime seeks to promote the abilities and rights of firms to compete; it seeks to rein in the power of dominant firms, and, generally, ensure that economic activity is not dominated by a small number of interests. Critically, this regime does not seek to enhance any measure of welfare as much as it seeks to enhance fairness, opportunity, and, even, freedom. Such a regime was arguably in place in the United States through about the 1960s, as illustrated by decisions such as the United States Supreme Court's opinion in *Von's Grocery*.[54] This regime has seen a recent resurgence with calls to change some of the main objectives of current antitrust enforcement.[55]

While the "fair competition" regime may promote notions of fairness and opportunity, it is likely to do so at the expense of innovation and economic efficiency. Not only does it limit the exploitation of economies of scale or scope, it ultimately leads to a misallocation of resources as it supports less able firms that produce less attractive products at the expense of more efficient or innovative rivals. Widely cited and accepted research has shown that the effects of such misallocation are huge. Generally, that research considers a wide set of policies that artificially prop up specific firms or types of firms. Those policies include taxes or subsidies, protections given to state-owned enterprises, or regulations favouring firms of a certain size. The common theme of these policies in that they entrench the positions of certain firms and limit the ability of "outsider" firms to disrupt the *status quo*. For example a subsidy may support and entrench incumbent firms to the detriment of entrants; a law may require special and preferential treatment of state-owned enterprises; and a regulation may impose costs on firms of a certain size that other firms are not required to bear. Ultimately, these distortions lower the adoption of innovative techniques and technologies and economic efficiency significantly. But, perhaps surprisingly, they do so not by directly affecting the technology that is available, but by causing resources and capital to be allocated to the wrong places. For example, a regulation that requires firms with over one-hundred employees to obtain government permission for layoffs will entrench the position of small firms and cause capital and resources to flow away from large firms thereby limiting the beneficial exploitation of economies of scale, scope, or network effects. One prominent study, based on US data, found that such distortionary policies could reduce productivity by an astounding 30–50%.[56] While distortions in developed countries like the United States lead to very large reductions in productivity, those

effects appear even larger in developing countries. For example, another widely cited study calculated the effects of reallocating capital in India and China to mimic how it was allocated in the United States. That study showed that productivity in China would increase by 30–50% and productivity in India would increase by 40–60%.[57] But beyond specific studies that quantify the effects of specific instances of distortions, the "fair competition" regime can be usefully viewed in the context of the more general conclusion that highly regulated economies ultimately generate not only less wealth, but offer less economic opportunities than economies where market mechanisms are freer to function.

A second type of regime focuses on the utilitarian outcomes of competition. A "consumer welfare" regime blesses any industrial structure or conduct (short of *per se* conduct such as collusion) so long as high quality products sold at low prices result. Importantly, this regime only puts weight on benefits to consumers; it puts no weight on profits retained by producers. Similarly, it places no value, *per se*, on productive efficiency inasmuch as that efficiency does not redound to consumers. This regime, broadly speaking, is now in place in the United States.

A third regime is similar in that it focuses on outcomes as opposed to process. But unlike the consumer welfare regime, a "total welfare" regime considers producer surplus (i.e., profits) in addition to consumer surplus. Promotion of total welfare is the default standard Canadian courts have used in interpreting the efficiencies defence for mergers under the *Competition Act*.[58]

Proponents of the total welfare standard argue that its consideration of both consumer and producer surplus allows antitrust to focus on the maximization of total wealth available to society. That is not possible, those proponents claim, under a consumer welfare standard, which places no weight on producer surplus. If competition policy maximizes the total wealth available to society, other policy tools can be used to allocate that wealth in a way that is deemed socially desirable. That logic is compelling and has been embraced by many.[59]

Motivated by this logic, Canada adopted its "efficiencies defence" for merger review in 1986 with the introduction of the modern *Competition Act*. That legislative reform began with a 1969 report from the Economic Council of Canada that "identified economic efficiency as the overriding

policy objective."[60] That emphasis on efficiency has led to some praise for the sophistication of Canada's competition law.[61]

However, to accept that total welfare is the appropriate ultimate policy goal does *not* mean that antitrust enforcement should seek to maximize total welfare. Generally, the process of achieving a particular policy goal may not be direct. For example, lawyers that represent litigants are told to pursue vigorous advocacy, not because vigorous advocacy is the ultimate policy objective, but because vigorous advocacy is believed to lead to the ultimate objective: justice. In that case, the mechanism (vigorous advocacy) used to pursue the policy goal differs substantially from that policy goal (justice). The same is true when it comes to achieving a policy goal of maximizing total welfare: even if the ultimate goal of antitrust is to maximize total surplus, "it does not follow that antitrust agencies or courts should adopt a decision rule of the form: challenge or block behavior if and only if that behavior looks likely to lower total surplus."[62]

Proponents of the efficiencies defence usually emphasize the efficiencies that can be brought about by merger.[63] Fundamentally, these proponents argue that it is appropriate, in some circumstances, to accept a lessening of competition in exchange for an increase in the internal operational efficiency of firms. In contrast, the consumer welfare regime unabashedly rejects this trade-off and focuses solely on competition.

But while proponents of the efficiencies defence highlight innovation and efficiencies brought about by the merger, they do so to the exclusion of innovation and efficiencies brought about by competition. As the preceding sections argued, that is an important omission. Ultimately, this focus leads to the efficiencies trade-off focusing on very specific, but very short-run efficiencies predicted to result from merger-specific cost savings. For example, merging parties asserting the efficiencies defence frequently claim substantial savings from headcount reductions.[64] However, in practice, less weight is given to the less immediate and harder-to-quantify, dynamic effects of competition on innovation and efficiency described in the previous sections. This is through no fault of effort, of course, such effects are simply harder to pin down for all of the reasons explained. Instead, anticompetitive effects are usually restricted to reductions in allocative efficiency as measured by some estimation of deadweight loss.

Given that innovation and efficiencies brought about by competition have been less prominent in the trade-off analysis, one might ask, "why doesn't the Commissioner simply lead evidence on X-inefficiency effects

in future merger cases to make the trade-off analysis more complete?" While this is a reasonable suggestion, the problem is that increases in X-inefficiency stemming from a loss of competition are often not susceptible to *ex ante* prediction and so there often will not be case-specific evidence to lead in merger cases. For the reasons that follow, the lack of case-specific evidence presents the Commissioner with a formidable hurdle to overcome.

First, there is little basis to believe that the existence or degree of X-inefficiency can reliably be predicted in any particular case. That is not to say that the existence or degree of X-inefficiency has not been analyzed empirically. In fact, the case studies presented in the previous section demonstrate the substantial empirical literature that describes instances of X-inefficiency. Other substantial literatures have developed in response to the fact of differing degrees of X-inefficiency of firms. For example, the literature on stochastic frontier analysis has developed econometric techniques to account for the fact that while some firms appear to operate efficiently many others do not.[65] Thus, while economists have extensively and successfully *described* X-inefficiency in specific cases, no advances have been made to develop approaches that *predict* when X-inefficiency will arise in a given environment subjected to a particular stimulus such as, say, a merger.

The lack of ability to causally predict the existence and degree of X-inefficiency effects arising from a specific anticompetitive merger—despite knowing that such effects are likely to be important—suggests that they could be treated as an assumed anticompetitive effect of significant yet undetermined magnitude. However, Canadian jurisprudence has explicitly rejected that notion: even in a merger to monopoly "there has to be evidence of those effects."[66] Thus, while the collection of case studies described in section IV paints a compelling portrait of the effects of competition on innovation and efficiency, they remain case studies that are specific to the cases they study and may not be seen as evidence sufficiently tailored to the merger at hand. It would, of course, be open for the Commissioner to file briefs with the Tribunal summarising, in a general way, the literature and case studies described above; however, the Tribunal would likely see this as a call to read-in a "default" or "presumptive" harm to efficiency arising from anticompetitive mergers, applicable in all cases. It is unclear whether the Tribunal has the flexibility to do this.[67] In particular, a presumption that an anticompetitive merger will lead to X-inefficiency would require merging parties to prove cognizable

efficiencies exceeding a threshold level in all cases, an approach that the Supreme Court has explicitly rejected.[68]

Finally, the new primacy of quantified anticompetitive effects as articulated by the Supreme Court presents a significant obstacle.[69] On the one hand, merging parties can and routinely do provide quantitative evidence of the efficiency savings that result from static cost savings (e.g., headcount reductions). On the other hand, it seems unlikely that the Commissioner would be able to advance case-specific evidence—whether qualitative or quantitative—that speak to the magnitude and scope of X-inefficiency. At least in theory, X-inefficiency could be predicted by examining, for example, historical changes in competitive conditions and comparing them to contemporaneous productive efficiency for the industry in question. A finding that productive efficiency increased when competition increased and decreased when competition decreased would be evidence to support that a future reduction in competition is likely to lead to an increase in X-inefficiency. While the existence of such data—with the required variation—could be available in theory, it will rarely be available in practice.[70] Without such quantitative evidence, the Commissioner's alternative is case-specific *qualitative* evidence. But even that evidence—setting aside its "lesser importance"—will often be lacking. There are myriad ways that inefficient business practices can creep in from a reduction in competitive pressure, and they are unlikely to be found in any strategic plan or business document. What self-respecting manager is likely to believe, much less admit, that they will be more sluggish and less cost-conscientious after merging with their competitor?[71] The Commissioner will be ultimately faced with the prospect of confronting quantitative, case-specific evidence on cost savings with little in the way of case-specific rebuttal evidence on X-inefficiency—whether qualitative or quantitative. This is true even though we know from the discussion and examples above that a loss of competitive pressure has a strong tendency to produce large losses in efficiency and innovation.

If, as the discussion in the previous section suggests, competitive pressure spurs innovation and efficiency of enormous magnitude, these reasons imply that the efficiencies defence likely leads to a significant loss of economic efficiency. However, the efficiencies defence operates in the context of a merger review regime that challenges a merger only if it is likely to lessen competition *substantially*. That requirement reflects the case studies presented in the previous section in that they involved substantial changes in competitive pressure (e.g., local entry of a large chain store, the sudden viability of imported goods, the operation of a (legal) cartel); that

evidence should not be construed to speak to marginal changes in competitive pressure. Thus, when competition is marginally lessened, not only are traditional anticompetitive effects likely to be of marginal magnitude, but there is also a marginal risk of anticompetitive effects from X-inefficiency. These remarks are important because they suggest that any regime that only seeks to enjoin mergers that substantially lessen competition is unlikely to lose the benefits of substantial merger synergies that could lead to increases in total surplus despite small decreases in consumer surplus.

We hope that this discussion makes clear that the problem with the efficiencies defence is *inherent in the trade-off test itself*. The empiricism that such a balancing test demands in order to minimize subjective judgement necessarily focuses attention on effects that are the easiest to pin down *ex ante,* yet, those effects turn out to be comparably unimportant for economic efficiency *ex post*. In light of the empirical evidence that competitive pressure spurs innovation and efficiency of enormous magnitude, it is worth asking whether there is a meaningful conflict between competition and efficiency to justify a defence for anticompetitive mergers in the first place. Indeed, it may make more sense to pursue a policy goal of enhanced innovation and efficiency, not by a merger policy that tries to achieve such an objective *at the expense of* competition, but by a merger policy that unabashedly and without exception promotes that objective *through* competition.

VI. Conclusion

A focus on deadweight loss to the exclusion of the beneficial dynamic effects of competition on efficiency and innovation leads to a substantial downward bias in the estimation of anticompetitive effects. As noted above, Harvey Leibenstein first made this point over 50 years ago in his seminal article on X-efficiency. That article included two tables. The first reported welfare losses from studies associated with allocative efficiency. These losses were all well under one percent; and in the two studies that estimated welfare loss due to monopoly, the losses were estimated to be less than *one-tenth* of one percent. He went on to claim that reductions in productive efficiency due to monopoly were likely to dwarf losses in allocative efficiency:

> Is it possible that the lack of competitive pressure of operating in monopolized industries would lead to cost 3/10 of a per cent higher than would be the case under competition? This magnitude seems to be very small, and hence it certainly seems to be a possibility. The question essentially, is whether we can visualize managers bestirring themselves sufficiently, if

> the environment forced them to do so, in order to reduce costs by more than 3/10 of 1 per cent. Some of the empirical evidence available suggests that not only is this a possibility, but that the magnitudes involved are very much larger.

The evidence described in the preceding sections shows how subsequent research has strengthened Leibenstein's original observations. Fundamentally, that research supports the conclusion that if Canadian firms do not compete in competitive domestic markets, their future is not bright even if they are able to achieve some static cost savings from eliminating competition through merger. Michael E Porter, the distinguished business scholar, sums up the grim consequences when a country turns its back on competition:

> When local rivalry is muted, a nation pays a double price. Not only will companies face less pressure to be productive, but the business environment for all local companies in the industry, their suppliers, and firms in related industries will become less productive. This demonstrates in particular the danger in arguments about the creation of 'national champions' in an industry in the home country in order to gain the scale to compete internationally. Unless a firm is forced to compete at home, it will usually quickly lose its competitiveness abroad. Local competition matters for productivity and productivity growth, even in industries whose geographic scope is global.[72]

Previous calls to limit the application of the efficiencies defence have gone unheeded.[73] However, in light of the growing body of evidence described above, perhaps it is time to consider whether our efficiencies defence is doing more harm than good.

ENDNOTES

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[2] Economic Council of Canada, *Interim Report on Competition Policy*, (Ottawa: Queen's Printer, 1969) at 19. See also at 9, "Canadian competition policy should aim primarily at bringing about more efficient performance by the economy as a whole. *Competition should not itself be the objective* but rather the most important single *means* by which efficiency is achieved." (emphasis in original)

[3] *Competition Act*, RSC 1985, c C-34, s 1.1.

[4] *Report of the Advisory Panel on Efficiencies,* submitted to Sheridan Scott, Commissioner of Competition Ottawa: August 2005), online: <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/01954.html> [*Report of the Advisory Panel on Efficiencies*].

[5] *Tervita Corp. v Canada (Commissioner of Competition)*, 2015 SCC 3 at para 87, [2015] 1 SCR 161 [citations omitted] [*Tervita*].

[6] *Commissioner of Competition v CCS Corporation et al.* (29 May 2012), CT-2012-002 at paras 391-392, Crampton J, concurring, online: <https://www.ct-tc.gc.ca/CMFiles/CT-2011-002_Reasons%20for%20Order%20and%20Order_189_38_5-29-2012_5291.pdf> [*CCS Corporation et al.*]. See also: *Canada (Commissioner of Competition) v Superior Propane Inc. (CA)*, 2001 FCA 104 at para 172, [2001] 3 F.C. 185 (CA), Létourneau J, dissenting in part. Excerpt: "The Act maintains and promotes competition. It assumes that economic efficiency will generally and primarily develop through competition. It also accepts in section 96 that, in some cases, a reduction in competition can and will produce more efficiency than competition as it existed before merger."

[7] This can be thought of as a manifestation of the "streetlight effect", a bias that occurs when analysts focus on data that are most available rather than the most important to the problem at hand.

[8] OECD, *Factsheet on how competition policy affects macroeconomic outcomes*, (Paris: OECD, October 2014).

[9] See, for example: Stephen F Ross, "Did the Canadian Parliament Really Permit Mergers that Exploit Canadian Consumers So the World Can be More Efficient?" (Winter 1997) 65:2 Antitrust LJ 641. See also: Derek Ireland and Michael Jenkin, "Embedding consumer protection in competition policy, *Policy Options* (18 July 2018), online: <http://policyoptions.irpp.org/magazines/june-2018/embedding-consumer-protection-in-competition-policy/>.

[10] See remarks by Commissioner Konrad von Finckenstein (delivered at the Standing Committee on Industry, Science and Technology, Ottawa, 31 March 2003). Excerpt: "The interpretation given to section 96 means that the *Competition Act* condones the creation of monopolies. In our view, it is a perverse result that the application of the *Competition Act* results in sanctioning the creation of a monopoly." See also remarks by Commissioner Sheridan Scott (delivered at the Standing Senate Committee on Banking, Trade and Commerce, Ottawa, 12 May 2004). Excerpt: "A merger which results in a monopoly, something that has occurred under the current approach…, I would submit, is contrary to the purpose and objectives of the *Competition Act*."

[11] Commissioner John Pecman, "Strengthening competition: Innovation, collaboration, and transparency" (delivered at the CBA's Competition Law Fall Conference, 6 October 2016), online: <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04148.html>. Excerpt: "… Canada's approach to efficiencies is increasingly misaligned with other jurisdictions. My view is that this is bad for businesses and bad for consumers.". See also remarks by Commissioner Konrad von Fickenstein, *supra* note 10, excerpt: "In closing, I would reiterate

that section 96 of the *Competition Act* needs to be fixed … to provide Canadians with merger review provisions comparable to the provisions observed at an international level." See also remarks by Commissioner Sheridan Scott, *supra* note 10, excerpt: "Historically, Canada has looked at efficiencies from a different viewpoint than virtually all other jurisdictions in the world" and "we are not witnessing a move internationally to the existing Canadian model."

[12] In most jurisdictions, efficiency claims are considered as part of the overall assessment of *whether* a merger is anticompetitive, not as a stand-alone defence for mergers that *are* anticompetitive. See, for example: "Recommended Practices for Merger Analysis" (2008) International Competition Network at 30, online: <https://www.internationalcompetitionnetwork.org/portfolio/recommended-practices-for-merger-analysis/>. Excerpt: "The evaluation of efficiencies commonly is part of an agency's competitive assessment, focusing on whether the claimed efficiencies counteract the harm in the market in which the lessening of competition occurs."

[13] *Tervita, supra* note 5 at para 167. Excerpt: "While the efficiencies defence applies in this case under the terms of s. 96 as written, this case does not appear to me to reflect the policy considerations that Parliament likely had in mind in creating an exception to the general ban on anti-competitive mergers." See also address by Commissioner John Pecman (delivered at Bennett Jones, 17 February 2015), online: <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03873.html>. Note that each of the two instances where the efficiencies defence was successfully invoked involved purely domestic markets with no pretext of import or export competition.

[14] Joseph Farrell and Carl Shapiro, "Scale economies and synergies in horizontal merger analysis" (2001) 68:3 *Antitrust LJ* at 685.

[15] For a discussion on administrability issues associated with total welfare tests akin to section 96, see: Herbert J Hovenkamp, "Is Antitrust's Consumer Welfare Principle Imperiled?" (2018) *Faculty Scholarship at Penn Law*, 1985, online: <https://scholarship.law.upenn.edu/faculty_scholarship/1985/>.

[16] Right Honourable Justin Trudeau, Prime Minister of Canada, "The Canadian Opportunity" (delivered at the World Economic Forum Signature Session, Davos-Klosters, Switzerland, 20 January 2016), online: <https://pm.gc.ca/eng/news/2016/01/20/canadian-opportunity-address-right-honourable-justin-trudeau-prime-minister-canada>.

[17] Alfred D Chandler Jr, *The Visible Hand: The Managerial Revolution in American Business* (Cambridge: Harvard University Press, 1993).

[18] Michael E Porter, "The Competitive Advantage of Nations" (1990) 1:1 *Competitive Intelligence Rev* 73.

[19] Harvey Leibenstein, "Allocative efficiency vs. 'X-efficiency'" (1966) 56:3 *The American Economic Review* 392 [Liebenstein].

[20] Competition Bureau, *Merger Enforcement Guidelines* (Gatineau : 2011) [MEGs]. In general, three interrelated categories of efficiency are considered in merger review: allocative, productive and dynamic. For a more detailed discussion of these three categories of efficiency and their relationship with

X-efficiency, see MEGs at Part 12, as well as the Report of the Advisory Panel on Efficiencies, *supra* note 4.

[21] Chad Syverson, "What determines productivity?" (2011) 49:2 *Journal of Economic Literature* 326 [Syverson].

[22] Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, (London: Thomas Nelson & Sons, 1843) ch XI, part I. Smith goes on to cite empirical evidence of competition's beneficial effects. He states, "It is not more than fifty years ago, that some of the counties in the neighbourhood of London petitioned the parliament against the extension of the turnpike roads into the remoter counties. Those remoter counties, they pretended, from the cheapness of labour, would be able to sell their grass and corn cheaper in the London market than themselves, and would thereby reduce their rents, and ruin their cultivation. Their rents, however, have risen, and their cultivation has been improved since that time." The authors thank Tom Ross for pointing out this example to us.

[23] John R Hicks, "Annual survey of economic theory: the theory of monopoly" (1935) 3:1 *Econometrica* 1 at 8.

[24] Liebenstein, s*upra* note 19 at 408–9

[25] Jean-Etienne de Bettignies and Thomas W Ross, "Mergers, Agency Costs, and Social Welfare" (2013) 30:*2 JL Econ & Org* 401.

[26] Thomas J Holmes and James A Schmitz Jr, "Competition and productivity: a review of evidence" (2010) 2:1 *Ann Rev Econ* 619 [Holmes & Schmitz].

[27] This is similar to Arrow's famous insight that vigorous competition and the associated low profits spur firms to innovate to "escape" a low profit environment. See: Kenneth Arrow, "Economic Welfare and the Allocation of Resources to Invention" in Universities-National Bureau Committee for Economic Research and the Committee on Economic Growth of the Social Science Research Councils, eds, *The Rate and Direction of Inventive Activity: Economic and Social Factors* (Princeton: Princeton University Press) 467.

[28] Chad Syverson, "Market structure and productivity: A concrete example" (2004) 112:6 *J of Political Econ* 1181.

[29] Syverson has conducted further research and found that the relationship between substitution and less firm-level differences in productivity holds beyond ready-mix concrete. See: Chad Syverson, "Product substitutability and productivity dispersion" (2004) 86:2 *Review of Economics and Statistics* 534.

[30] For surveys, see: Syverson, *supra* note 21; Holmes & Schmitz, *supra* note 26; Carl Shapiro, "Competition and Innovation: Did Arrow hit the Bull's Eye?" in *The rate and direction of inventive activity revisited*, (Chicago: University of Chicago Press, 2011) 361; and Centre for the Study of Living Standards, *Competitive Intensity as driver of innovation and productivity growth: a synthesis of the literature*, CSLS Research Report No. 2008-3 (Ottawa: June 2008), online: <http://www.csls.ca/reports/csls2008-3.pdf>.

[31] Porter, s*upra* note 18.

[32] Daniel Trefler, "The long and short of the Canada-US free trade agreement" (2004) 94:4 *Am Econ Rev* at 870–895.

[33] James A Schmitz, Jr, "What Determines Productivity? Lessons from the Dramatic Recovery of the U.S. and Canadian Iron Ore Industries Following Their Early 1980s Crisis" (2005) 113:31 *J of Political Econ* 582 [Schmitz].
[34] US, Federal Reserve Bank of Minneapolis Research Department, Benjamin Bridgman, Shi Qi & James A. Schmitz, Jr, *The Economic Performance of Cartels: Evidence from the New Deal U.S. Sugar Manufacturing Cartel, 1934–74*, Staff Report 437 (2009).
[35] Schmitz, *supra* note 33 at Figure 4.
[36] Nicholas Bloom and John Van Reenen, "Measuring and explaining management practices across firms and countries" (2007) 122:4 *The Quarterly J of Econ* 1351.
[37] Beyond competition, the study found that whether management of the firm had been passed to the eldest son was another factor that affected the quality of management practices. Firms where the CEO was chosen by primogeniture tend to be very badly managed.
[38] Scott Wallsten, "The Competitive Effects of the sharing economy: How is Uber Changing Taxis?" (2015) 22 Technology Policy Institute.
[39] See Appendix 2 of CSLS Research Report No. 2008-3, *supra* note 30.
[40] David A Matsa, "Competition and Product Quality in the Supermarket Industry" (2011) 126:3 *The Quarterly J of E* 1539.
[41] There was significant variation around that average effect: Walmart's entry spurred large chain stores to decrease their stockout rates by 33% while independent stores responded by cutting price and were less likely to survive. Interestingly, Walmart's entry, which caused increases in quality and decreases in price, disproportionately benefited low-income consumers.
[42] Mark Sieling, Brian Friedman & Mark Dumas, "Labor productivity in the retail trade industry, 1987–99" (2001) 124 *Monthly Lab. Rev* 3.
[43] Lucia Foster, John Haltiwanger & Cornell J Krizan, "Market selection, reallocation, and restructuring in the US retail trade sector in the 1990s" (2006) 88:4 *The Review of Economics and Statistics* 748.
[44] Carl Shapiro, "Antitrust in a Time of Populism" (2018) 61(C) *Intl J of Industrial Org.*
[45] Philippe Aghion et al., "Competition and innovation: An inverted-U relationship" (2005) 120:2 *The Quarterly Journal of Economics* 701.
[46] Peter Howitt, "Innovation, Competition and Growth: A Schumpeterian Perspective on Canada's Economy" (April 2007) C.D. Howe Institute Commentary No. 246, online: <https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed//commentary_246.pdf>.
[47] Peter Howitt, "Mushrooms and Yeast: The Implications of Technological Progress for Canada's Economic Growth" (September 2015) C.D. Howe Institute Commentary No. 433, online: <https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/Commentary_433.pdf>.
[48] See: Carl Shapiro, "Competition and Innovation: Did Arrow Hit the Bull's Eye?" in *The Rate and Direction of Inventive Activity Revisited* (Chicago: University of Chicago Press, 2011) 361 at ss 7.2 and 7.4.1. See also: Michael D

Whinston, "Comment on 'Competition and Innovation: Did Arrow Hit the Bull's Eye?'" in *The Rate and Direction of Inventive Activity Revisited* (Chicago: University of Chicago Press, 2011) 404 [Whinston]. See also Jonathan Baker, "Beyond Schumpeter vs. Arrow: How Antitrust Fosters Innovation" (2007) 74 *Antitrust LJ* at s II.C.

[49] Whinston, *supra* note 48, gives a very clear and succinct description of the intuition behind this result.

[50] Holmes & Schmidtz, *supra* note 26.

[51] Giulio Federico, Gregor Langus & Tommaso Valletti, "A Simple Model of Mergers and Innovation" (2017) 157 *Economics Letters* 136.

[52] Joseph Farrell and Carl Shapiro, "Antitrust Evaluation of Horizontal Mergers: An Economic Alternative to Market Definition" (2010) 10:1 *The BE Journal of Theoretical Economics*.

[53] Bruno Jullien and Yassine Lefouili, "Horizontal Mergers and Innovation" (2018) Toulouse School of Economics Working Paper No 18-892.

[54] *United States v. Von's Grocery Co.*, 384 US 270, 275 (1966). Excerpt: "Like the Sherman Act in 1890 and the Clayton Act in 1914, the basic purpose of the 1950 Celler-Kefauver Act was to prevent economic concentration in the American economy by keeping a large number of small competitors in business."

[55] See, generally: Barry Lynn, "Testimony before the Senate Committee on the Judiciary: Subcommittee on Antitrust, Competition, and Consumer Rights" (delivered at the Senate Committee on the Judiciary: Subcommittee on Antitrust, Competition, and Consumer Rights, Dirksen Senate Office Building 226, Washington, DC, 13 December 2017), online: <https://www.judiciary.senate.gov/imo/media/doc/12-13-17%20Lynn%20Testimony.pdf>. See also: Lina M Khan, "Amazon's antitrust paradox" (2016) 126:3 *Yale LJ* 710.

[56] Diego Restuccia and Richard Rogerson, "Policy distortions and aggregate productivity with heterogeneous establishments" (2008) 11:4 *Review of Economic Dynamics* 707.

[57] Chang-Tai Hsieh and Peter J Klenow, "Misallocation and manufacturing TFP in China and India" (2009) 124:4 *The Quarterly Journal of Economics* 1403.

[58] Section 96 has also been interpreted to allow for different weights to be placed on the surplus of consumers and producers, and for consideration of "socially adverse" wealth transfers. Having said that, the "Tribunal expects that in most cases, it will be readily apparent that the wealth transfer should be treated as neutral." See: *CCS Corporation et al., supra* note 6 at para 283. In any event, for simplicity, we abstract from these considerations here.

[59] Joseph Farrell and Michael L Katz, "The Economics of Welfare Standards in Antitrust" (2006) 2:2 *Competition Policy International* 3 [Farrell & Katz] at 4. Excerpt: "We believe that total surplus is an appropriate ultimate objective because, as others have argued, there is a natural division of labor between efficiency-oriented policies and policies aimed at improving the distribution of income, and antitrust policy fits much better into the first category. Thus, we conclude that a sensible final goal of antitrust policy is to maximize total surplus without regard to distributional considerations."

[60] *Tervita, supra* note *5* at paras 85–86.
[61] Michael J Trebilcock and Ralph A Winter, "The State of Efficiencies in Canadian Merger Policy" (Winter 1999–2000) 19 *Canadian Competition Record* 106. Excerpt: "Commentators have often claimed that Canada's competition legislation is among the most economically sophisticated in the world. In large part, this claim is based on the explicit recognition given to efficiency as an overall criterion in the *Competition Act* … and as a specific criterion in the treatment of mergers."
[62] Farrell & Katz, *supra* note 59 at 4. See also: Mark Armstrong and John Vickers, "A Model of Delegated Project Choice" (January 2010) 78:1 *Econometrica* 212, discussing situations where "a regulator wishing to maximize total welfare is better off if he imposes a consumer welfare standard." See also: Russell Pittman, "Consumer Surplus as the Appropriate Standard for Antitrust Enforcement" (2007) 3:2 *Competition Policy International* 205. It cites various authors as support for the proposition that "given various factors in the process of merger investigation and enforcement, a total-welfare-maximizing outcome might be more likely to result from an agency's use of consumer surplus rather than total welfare as its own standard."
[63] Brian Facey and Joshua Krane, "Promoting Innovation and Efficiency by Streamlining Competition Reviews" (2 March 2017) C.D. Howe Institute E-Brief, online: <https://www.cdhowe.org/public-policy-research/promoting-innovation-and-efficiency-streamlining-competition-reviews>.
[64] Of course, headcount reductions benefit the Canadian economy only if terminated employees can find jobs that allow them to contribute as much to the Canadian economy. When efficiencies create job losses, there is a cost to the Canadian economy. See: OECD Competition Committee, *The Role of Efficiency Claims in Antitrust Proceedings*, Policy Roundtables, F M Scherer, "Merger Efficiencies in Competition Policy", DAF/COMP(2012)23 (2012) online: <http://www.oecd.org/competition/EfficiencyClaims2012.pdf>.
[65] Kumbhakar and Lovell describe how the development of stochastic frontier analysis relates to X-inefficiency while noting that while the developers of the former were aware of the latter, "it did not exert the impact that hindsight suggests that it should have." See: Subal C Kumbhakar and CA Knox Lovell, *Stochastic frontier analysis*. (Cambridge: Cambridge University Press, 2003) at 6.
[66] See: *Canada (Commissioner of Competition) v Superior Propane Inc* (4 April 2002), CT-1998-002 at para 232, online: Competition Tribunal <https://www.ct-tc.gc.ca/CMFiles/CT-1998-002_0238a_45QDJ-5222007-3468.pdf>. Excerpt: "The Commissioner [quotes authors] who make the point that the redistributive effects [of a merger] can have additional negative implications for efficiency. Citing articles by R. Posner and by R. Lande, these authors argue that the redistributed income will eventually be transformed into efficiency losses because the merged firm may become complacent and allow costs to rise. To the Tribunal, this interesting observation suggests that the estimated deadweight loss from the instant merger is too low. However, these inferences are unsupported by anything on the record and the Tribunal will not consider

them further." See also: *Canada (Commissioner of Competition) v Superior Propane Inc.* (CA), 2003 FCA 53 at para 51, [2003] 3 FC 529. Excerpt: "The question is one of evidence. If the condition of monopoly resulted in additional effects that had not already been taken into account by the Tribunal, there had to be evidence of those effects. In the absence of the Commissioner providing evidence of additional effects resulting from monopoly that had not already been introduced, I cannot say that the Tribunal erred in finding that a monopoly condition did not give rise to additional anti-competitive effects."

[67] Arguably, the Tribunal adopted this approach in the *CCS* case in the way that it interpreted the "offset" requirement under section 96. In particular, the Tribunal stated that the "loss of dynamic competition [from a merger] will *always* merit some non-trivial qualitative weighting in the trade-off assessment. Indeed, dynamic efficiencies and dynamic effects can have a *major* impact on the trade-off assessment." (emphasis added). See: *CCS Corporation et al.*, *supra* note 6 at paras 247-248. While the Supreme Court did not specifically address this notion of default qualitative anticompetitive effects arising due to a loss of dynamic competition between merging parties—the word "dynamic" appears in the Supreme Court's decision exactly once—it nevertheless overturned the Tribunal's decision and generally lessened the importance of qualitative effects in section 96. Moreover, the Supreme Court's emphasis on quantification casts further doubt on the idea that dynamic effects can ever have a "major" impact on the trade-off analysis in merger cases. As the Tribunal has more recently opined, "dynamic competition is generally more difficult to measure and to quantify". See: *The Commissioner of Competition v The Toronto Real Estate Board* (27 April 2016), CT-2011-003 at para 471, online: Competition Tribunal <https://www.ct-tc.gc.ca/CMFiles/CT-2011-003_Reasons%20for%20Order%20and%20Order_385_66_4-27-2016_7296.pdf>.

[68] *Tervita, supra* note 5 at para 151. Excerpt: "Despite the flexibility the Tribunal has in applying this balancing approach, I cannot accept that more than marginal efficiency gains are required for the defence to apply. Had Parliament intended for there to be a threshold level of efficiencies, qualifying language could have been used to express this intention. The Commissioner's argument essentially asks this Court to read into the statute a threshold significance requirement where the statute does not provide a basis for doing so. In addition, it is not clear to me when efficiency gains become more than marginal. Determining when proven efficiency gains meet a more than marginal threshold would require overly subjective analysis."

[69] *Ibid* at para 146. Excerpt: "As the Federal Court of Appeal held, the overall analysis 'must be as *objective* as is reasonably possible, and where an objective determination cannot be made, it must be *reasonable*' … As such, in most cases the qualitative effects will be of lesser importance." Justice Karakatsanis' dissent, at para 185, strongly objected to this strong preference for quantified over qualitative evidence. She wrote, "However, I do not agree that the need for 'reasonable objectivity' justifies Justice Rothstein's hierarchical approach to quantitative and qualitative aspects under the efficiencies defence. Nor do

I accept his assessment that 'qualitative effects will be of lesser importance' … I see no value in prioritizing quantitative over qualitative efficiencies. Both are relevant to the statutory test, and their significance depends on the circumstances of the case. The statutory language makes no such distinction. Moreover, many of the purposes set out in s. 1.1 of the Act may not be quantifiable …"

[70] See also Ralph Winter, "Tervita and the Efficiency Defence in Canadian Merger Law" (Fall 2015) 28:2 *Canadian Competition Law Review*. Excerpt: "*Tervita* creates a hierarchy of quantitative evidence over qualitative evidence … I believe that in its categorical prioritization of quantitative evidence, the Court in *Tervita* fails to recognize the potential limitations of this class of evidence. Meaningful estimation of parameters that are quantifiable in principle may be impossible, *even where data are plentiful*." (emphasis added)

[71] If anything, one would expect to find the opposite types of documents as the literature suggests that managers tend to be overconfident about the synergies likely to be realized from post-merger integration. See, for example: Bruce A Blonigen and Justin R Pierce, "Evidence for the Effects of Mergers on Market Power and Efficiency" (2016) Federal Reserve Board Divisions of Research & Statistics and Monetary Affairs Finance and Economics Discussion Series Working Paper No 2016-082 at 24, online: <https://doi.org/10.17016/FEDS.2016.082>. Excerpt: "We find that evidence for increased average markups from M&A activity is significant and robust … In contrast, we find little evidence for plant- or firm-level productivity effects from M&A activity on average, nor for other efficiency gains often cited as possible from M&A activity, including reallocation of activity across plants or scale efficiencies in non-productive units of the firm."; Scott A Christofferson, Robert S McNish & Diane L Sias, "Where Mergers Go Wrong" (May 2004) *McKinsey Quarterly*, online: <http://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/where-mergers-go-wrong>. Excerpt: "The average acquirer materially overestimates the synergies a merger will yield." Laura Miles, Adam Borchert & Alexandra Egan Ramanathan, "Why Some Merging Companies Become Synergy Overachievers" (13 August 2014) Bain & Company E-Brief (Aug. 13, 2014), online: <http://www.bain.com/publications/articles/why-some-merging-companies-become-synergy-overachievers.aspx>. Excerpt: "In a Bain & Company survey of 352 global executives, overestimating synergies was the second most common reason for disappointing deal outcomes." Johannes Gerds, Freddy Strottmann & Pakshalika Jayaprakash, "Post merger integration: Hard data, hard truths" (1 January 2010) 6 Deloitte Review, online: <https://www2.deloitte.com/insights/us/en/deloitte-review/issue-6/post-merger-integration-hard-data-hard-truths.html>. Excerpt: "Empirical studies indicate that one of every two PMI [Post Merger Integration] efforts fares poorly."

[72] Michael E Porter, "Competition and Antitrust: Toward a productivity-based approach to evaluating mergers and joint ventures" (2001) 46:4 *The Antitrust Bulletin* 919.

[73] Report of the Advisory Panel on Efficiencies, *supra* note 4 at 55. Excerpt:

"The Superior Propane case had the paradoxical result of authorizing a merger that led to a near-monopoly. The irony of having the *Competition Act* justify a monopoly was not lost on most observers. An efficiency defence should not apply in cases in which a merger leads to the creation of a monopoly. The Panel believes that monopolies inevitably lead to a loss of productive efficiency. This is in addition to the loss of allocative efficiency (deadweight loss) resulting from the higher post-merger price of the monopoly's products or services (although this can be prevented with the proper regulations). Given that evidence suggests that competitive pressure contributes both to efficiency in general and to dynamic efficiency in particular, it would be inappropriate to allow efficiency gains to justify a merger when competitive pressure was all but removed. Among other things, the Panel notes that serious concerns respecting x-inefficiency may arise when a merger leads to a monopoly."

CANADA'S EFFICIENCY DEFENCE: WHY IGNORING SECTION 96 DOES MORE HARM THAN GOOD FOR ECONOMIC EFFICIENCY AND INNOVATION

Brian A Facey and David Dueck[1]

Canada has a defence that allows efficiency enhancing mergers and collaborations between competitors. In another paper published in this edition of the Canadian Competition Law Review, Chiasson and Johnson argue that the efficiencies defence should be repealed because it reduces innovation and causes inefficiencies. In our view, Chiasson and Johnson take an overly simplistic view of the relationship between market concentration and innovation that misses a fundamental point: mergers between competitors often increase efficiency and innovation. We also argue that efficiencies are not given enough weight and anticompetitive effects are overemphasized under the Competition Bureau's approach to merger review, which creates a bias against efficiency enhancing mergers. Removing this bias would help the Competition Act function as Parliament intended. In the words of the Supreme Court of Canada: "the efficiencies defence is Parliamentary recognition that, in some cases, consolidation is more beneficial than competition."

Au Canada, il existe une défense fondée sur les gains en efficience qui permet les fusions et les alliances entre concurrents importants dans certaines circonstances. Dans leur article qui paraît dans cette édition de la Revue canadienne du droit de la concurrence, Chiasson et Johnson font valoir que ce recours devrait être éliminé au motif qu'il étouffe l'innovation et induit des inefficiences. À notre avis, les auteurs offrent une vision trop simpliste du rapport entre concentration du marché et innovation, omettant ainsi une réalité fondamentale : les fusions entre concurrents sont, de fait, souvent porteuses d'innovation et de gains d'efficience. En outre, nous estimons que la méthode d'examen des fusions du Bureau de la concurrence accorde trop de poids aux effets anticoncurrentiels des fusions, et pas assez aux efficiences qu'elles induisent, ce qui crée un préjugé défavorable envers celles qui améliorent l'efficience. L'élimination de ce préjugé contribuerait à rendre le fonctionnement de la Loi sur la concurrence plus conforme à l'intention du législateur, que la Cour suprême du Canada résumait en ces mots : « le législateur reconnaît par la défense fondée sur les gains en efficience que, dans certains cas, le regroupement est plus avantageux que la concurrence. »

The *Competition Act* is often considered one of the most economically sophisticated competition laws in the world, largely due to the recognition of efficiencies in Canadian merger review under section 96.[2] However, for over 20 years, a variety of inconsistent and contradictory statements from the Competition Bureau have made the role of efficiencies in merger review "disturbingly uncertain."[3]

Although the Supreme Court of Canada's decision in *Tervita* clarified the paramountcy of efficiencies in Canadian merger review,[4] recent speeches[5] and a draft *Efficiencies Guide*[6] from the Competition Bureau have heightened the uncertainty[7] associated with the application of the efficiencies defence.[8] A recent paper by Matthew Chiasson and Paul Johnson from the Competition Bureau advocating for the repeal of section 96[9]—and building on recent comments along the same lines from the previous Commissioner of Competition[10]—could increase the uncertainty surrounding the efficiencies defence.

Chiasson and Johnson's core argument is that "*competition spurs innovation and efficiency of enormous magnitude*," and as a result, the efficiencies defence authorizes "*anticompetitive mergers in the name of economic efficiency even though such mergers are more likely to reduce efficiency overall*."[11]

The fundamental premise of Chiasson and Johnson's paper, however, contradicts conclusions reached by the Competition Bureau, the U.S. Federal Trade Commission, and many commentators. Innovation takes place in a variety of market structures. Research shows that more competitive environments often have much *lower* levels of innovation. As the Competition Bureau concluded recently after hosting an innovation and antitrust workshop for over 100 participants, "*There is no definitive answer as to whether increased scale and consolidation affect innovation negatively or positively*."[12] Likewise, a presentation on innovation at the Canadian Bar Association's Economist Roundtable with the Competition Bureau in 2017 stated, "*Does more competition lead to more innovation? Not necessarily*."[13] Christine Wilson, a Commissioner at the U.S. Federal Trade Commission, recently suggested that the U.S. adopt a total surplus standard to emulate Canada's efficiencies defence, which would "*better capture dynamic efficiencies*" and promote the spread of "*innovations and cost-saving measures*."[14] In fact, Commissioner Wilson went so far as to say:

> We should consider the experience of other jurisdictions that apply the total welfare standard. It has been noted that the welfare standard employed in Canada lies somewhere between a consumer welfare and a total welfare standard. The 1986 Competition Act of Canada expressly provides for an

> efficiencies defense for mergers that may increase prices for consumers. Their experience could be instructive.[15]

In Part I of this paper, we focus on Chiasson and Johnson's arguments about competition and innovation,[16] explaining that they adopt an overly simplistic view of the relationship between economic concentration and innovation that misses half of the story. Mergers can promote innovation and productivity improvements through dynamic efficiencies, increased economies of scale, and greater incentives to develop new products and services. The empirical evidence shows a complex relationship between concentration and innovation, suggesting that more competitive environments may be less innovative in many circumstances. Competition in a narrowly defined antitrust market may also have no relationship to innovation across an industry as a whole. The complex relationship between competition and innovation has been widely recognized by the Competition Bureau, the U.S. Federal Trade Commission, and others.

In Part II, we focus on Chiasson and Johnson's arguments about X-efficiency in the context of the efficiencies trade-off, explaining that there is no evidence of a systematic bias in favour of efficiencies—if anything, the bias in practice is often *against* mergers likely to bring about net gains in efficiency to the Canadian economy:

- Chiasson and Johnson state that the Competition Bureau will be challenged to adduce evidence of X-inefficiency, which could be a future harm from a merger. However, a theoretical concern of unknown magnitude does not justify an approach that would ignore proven benefits from a merger through increased efficiencies. Moreover, the Competition Bureau has tools to collect evidence relating to potential X-inefficiencies under the SIR process for merger review, if in fact they are likely to arise.

- Mergers also generate dynamic efficiencies, improvements in product quality, and other benefits for consumers and the Canadian economy as a whole that are challenging for the merging parties to quantify *ex ante* and are often ignored. One cannot assume that potential X-inefficiencies will be greater than dynamic efficiencies, improvements in product quality, and/or other qualitative benefits from a merger, since the magnitude of each factor is often unknown in advance.

- In practice, the bias, if there is one, is *against* efficiencies in merger reviews. The Competition Bureau's methodology significantly

overestimates the size of potential anticompetitive effects in many cases, which we refer to as the "*X-deadweight loss reduction*."

- There is no evidence that any merger cleared on the efficiencies defence has reduced innovation and productivity in Canada. Based on our experience, mergers relying on the efficiencies defence are often likely to significantly increase innovation and productivity in Canada.

In Part III, we explain why the efficiencies defence remains an underutilized mechanism for promoting innovation and productivity in Canada.

I. The Other Half of the Story

a. Why More Competition Does Not Necessarily Promote Innovation and Productivity

Concentrated markets often have greater levels of innovation, not less, and mergers can be a powerful mechanism for promoting greater innovation and productivity. However, by largely ignoring the complexities of the relationship between concentration and innovation, Chiasson and Johnson's paper is missing an important part of the story. As discussed in greater detail below, the empirical evidence on innovation and market structure shows a complex relationship where greater competition can both increase and decrease the level of innovation in an industry depending on a range of factors. Opportunities and incentives for greater innovation may increase as competition decreases for a variety of reasons:

Dynamic efficiencies from mergers and acquisitions. Mergers and acquisitions can be an especially effective mechanism for fostering innovation and spreading better business practices throughout the rest of the economy. There are often broader economic forces bringing together merging parties, such as the growth of a highly productive competitor or removal of a stagnant competitor. In this way, mergers may generate dynamic efficiencies from greater innovation and productivity while also resulting in greater market concentration. As Roberts and Salop (1995) explain:

> Mergers can increase the financial returns from investment in innovative activities by increasing the speed and magnitude of cost savings. First, a merger may combine complementary assets in a way that increases efficient resource use. Second, a merger may allow the merged entity to spread unit cost savings over a larger output base. Third, a merger may reduce the risk associated with the investment. Fourth, a merger may allow the

> combined firm to implement efficiency improvements more rapidly than the two firms could independently.[17]

Similarly, Jullien and Lefouili (2018) explain that mergers can reduce wasteful duplications in R&D efforts by better coordinating research projects, substantially increase investment (and the resulting likelihood of success) for key research projects, and increase incentives to develop innovations with spillover effects between the operations of the merging parties.[18] However, Chiasson and Johnson's argument does not take into account the fact that mergers can generate dynamic efficiencies that increase innovation following a merger.

Economies of scale. Economies of scale are an important driver of innovation and productivity, but increased competition can make it more difficult for firms to achieve economies of scale in their operations.[19] Economies of scale give firms the financial resources to make the significant investments in R&D required for innovation, as well as the opportunity and incentive to apply such technological improvements across their operations. Denicolò and Polo (2018) explain how mergers in particular can enhance incentives for innovation and productivity by increasing the size and scale of a firm.[20] As a firm's aggregate output increases by combining two firms, so does the value of innovation and process improvements over the merged firm's output, increasing incentives to innovate.[21] Consistent with this, Statistics Canada data shows a strong and positive relationship between firm size and innovation, with the smallest manufacturing firms (having less than 20 employees) reporting innovation at roughly half the rate of the largest firms (having more than 2000 employees).[22] Statistics Canada data also shows that large enterprises are significantly more likely than small enterprises to use advanced technologies and introduce organizational innovations.[23]

The extraordinary innovation carried out at Bell Labs in the middle of the 20th century provides a remarkable example of how economies of scale in the absence of competition can facilitate technological progress. Among its many achievements, Bell Labs created the transistor (which is the building block of all digital products today), the silicon solar cell, the first patent for a laser, the first communications satellites, the theory and development of digital communications, the first cellular telephone systems, the charge-coupled device that forms the basis for digital photography, the first fiber optic cable systems, and the Unix and C computer programming languages.[24] Researchers at Bell Labs published ground-breaking papers in the fields of physics, chemistry, astronomy, and mathematics, and nine Nobel Prizes were awarded for work completed at Bell Labs.[25] It is therefore hardly

an exaggeration to describe the research undertaken at Bell Labs as an "*effort that rivals the Apollo program and the Manhattan Project in size, scope and expense*."[26] However, in discussing the many scientific and technological achievements at Bell Labs, what is sometimes overlooked is that Bell Labs was the research and development division at AT&T, a monopolist until its breakup by U.S. antitrust regulators in 1982. As a result, Bell Labs had a "*large and dependable income ensured by its monopoly status*" to devote to research and greater time and flexibility in the absence of short-term competitive pressure to pursue long-term research goals.[27]

In addition, a careful reading of a number of the studies discussed by Chiasson and Johnson suggests that the key driver of the increased innovation and productivity being analyzed was actually the achievement of economies of scale. For example, the study by Foster, Haltiwanger, and Krizan (2006) concludes:

> [T]he dominant role of net entry is associated with the entry of more productive establishments that are part of large, national firms displacing the much less productive exiting establishments that are single-unit establishments. Our results suggest that the enormous restructuring of the retail trade sector towards large, national chains has been at the core of the productivity gains in the retail trade sector.[28]

Chiasson and Johnson also refer to the entry of Uber as an example of competition improving quality, but it was actually Uber's economies of scale and network effects that gave it an important advantage over traditional taxi drivers and allowed it to provide such beneficial services for consumers.[29]

Greater incentives for innovation. As discussed above, mergers can enhance incentives for innovation by increasing the value of innovation as the size and scale of a firm's aggregate output increases.[30] Mergers will also increase incentives to develop innovations with spillover effects between the operations of the merging parties.[31] As Schumpeter first observed, greater competition reduces post-innovation profits, which reduces the incentive to innovate relative to an industry with fewer competitors,[32] and which, as Shapiro notes, must be considered in conjunction with Arrow's observation that competition may also motivate a firm to disrupt the status quo.[33] Firms will receive a greater benefit from innovation when they have a greater share of the market. Moreover, a firm developing an innovative product will be able to sell it at a higher price when there are fewer competitors, which increases the returns to investment in research and development and increases a firm's incentive to innovate.[34] In fact, this is a key reason why we grant "monopolies" in the form of patents to innovators who create

new inventions, as there would be less incentive to innovate if the benefits of such inventions were cannibalized by competitors.[35] The same principle also applies to new productive techniques, operational practices, or organizational structures that may generate critical gains in productivity and innovation but not necessarily qualify for patent protection.

Peter Howitt also points out that intensified competition is particularly likely to reduce innovation by technologically laggard firms, since such competition will reduce the anticipated profits from catching-up on innovation. The established technology leaders in the same industry, on the other hand, will continue to earn profits regardless of competition levels because rivals cannot match their cost structure and product offering, and therefore competition does not have a significant impact on the leaders' incentives to innovate. As a result, industry-wide innovation will fall as competition increases.[36]

b. Empirical Evidence on Complex Relationship Between Innovation and Concentration

i. Selective Examples and the "Inverted-U" Relationship

A number of economists (including Johnson)[37] have noted that there generally appears to be a complex, non-linear relationship between innovation and economic concentration across an industry that resembles an upside down "U" shape (see the "inverted-U" illustrated in Figure 1 below). The ambiguous impact of concentration on innovation is a fundamental flaw in Chiasson and Johnson's argument that the efficiencies defence is unequivocally bad for innovation.

In a seminal paper titled *Competition and Innovation: An Inverted-U Relationship*, Aghion, Bloom, Blundell, Griffith, and Howitt (2005) carried out an empirical study showing this "inverted-U" relationship between innovation and competition/concentration in an industry.[38] More specifically, they found that competition may increase innovation in certain circumstances, but after a certain point, greater competition only decreases innovation. They also noted that this evidence is inconsistent with the theory (discussed by Chiasson and Johnson)[39] that a lack of competition may induce managerial laziness or "satisficing", since such a theory fails to adequately explain the half of the "inverted-U" where increased competition reduces innovation.[40] Bérubé, Duhamel, and Ershov (2012) applied the empirical approach of Aghion et. al. (2005) to the Canadian economy and also found the

existence of an "inverted-U" relationship between competition and innovation in Canada.[41]

Figure 1: The "Inverted-U" Relationship Between Competition and Innovation

As a result, Chiasson and Johnson do not incorporate a key part of the story. The studies and various other examples referenced by Chiasson and Johnson—such as the impact of NAFTA, increased iron ore mining competition in the Great Lakes region in the 1980s, the elimination of a sugar cartel in the U.S. in 1974, etc.—all appear to come from only one-side of the "inverted-U" in Figure 1 (i.e., the half of the curve where innovation is increasing with greater competition). Chiasson and Johnson therefore appear to only focus on one part of the picture. Their story is accurate to the extent such examples simply reflect the fact that more competition may lead to more innovation in certain circumstances (a proposition we do not disagree with). However, relying on these examples to make a blanket claim for all industries in all circumstances would be a mistake, requiring one to extrapolate from a collection of examples on only one side of the "inverted-U" to claim that a certain relationship between competition and innovation always exists. Based on the empirical evidence, it clearly does not, and this should not be surprising given how concentration can promote innovation through increased incentives for innovation, economies of scale, and dynamic efficiencies from mergers and acquisitions.

Perhaps anticipating a possible counterargument regarding the existence of a complex "inverted-U" relationship between innovation and concentration, Chiasson and Johnson suggest that, if an "inverted-U" relationship

does exist, then "*the only portion of that relationship relevant for antitrust enforcement is likely that portion where innovation is increasing in competitive activity*."[42] This assumption is flawed for several reasons.

First, this ignores the fact that the shape and size of the "inverted-U" itself depends on the underlying structure and unique facts in each industry, as well as the fact that greater competition is particularly likely to have adverse effects on innovation in the Canadian context. Both Aghion et. al. (2005) and Bérubé, Duhamel, and Ershov (2012) found that the shape of the "inverted-U" differs depending on the nature of the industry in question.[43] Because every industry is different, it would be a mistake to assume that competition enforcement would always take place at the point of the "inverted-U" where innovation is increasing in competitive activity.

In particular, competition was found to have a more negative impact on innovation the more there exist certain firms that are technological laggards in their industry (effectively resulting in a flatter "inverted-U" that peaks at lower levels of competition).[44] Although competition may sometimes motivate firms to innovate to a greater extent when they are relative equals who are competing "neck and neck", if an industry is characterized by the presence of both technological leaders and laggards, then increased competition only decreases the incentive of firms to innovate by reducing the expected incremental profit they could gain from innovating.[45] In other words, "*competition intensity has a strong positive impact on business R&D only when competition in the industry is among equals*,"[46] and as Bérubé, Duhamel, and Ershov found, "*competition in Canadian industries is mostly <u>not</u> among equals*."[47] This observation is very important: it indicates that greater competition is more likely to lead to reduced innovation in most Canadian industries and that the majority of antitrust enforcement in Canada may take place where innovation is *decreasing* in competitive activity.

Second, even a merger to monopoly can have a positive impact on innovation. As discussed above, mergers (including mergers to monopoly) can generate significant dynamic efficiencies that increase innovation, and innovation in one industry from dynamic efficiencies can generate positive spillover effects in other industries. Moreover, Jullien and Lefouili (2018) show that a merger to monopoly can increase innovation even without efficiencies or spillover effects.[48] For instance, innovation levels post-merger will be influenced by how the increased incentive to innovate in order to increase demand (as profit margins increase) compares to the reduced

incentive to innovate as output falls (from higher prices for a given innovation level).[49]

Third, concentration levels in a particular market are irrelevant where innovation is driven by factors outside of a relevant market. This is particularly likely to be the case given the distinction between concentration in an industry versus concentration in a "market" for purposes of competition law:

> Every product has some alternatives, if only because a consumer can keep the "cash" to purchase other commodities and services. Market power is a matter of degree, so a "monopoly" is not categorically defined … Under the Bureau's hypothetical monopolist test, products sold by two merging firms constitute a market if the merging firms, in the absence of a change in their unit costs, could profitably raise prices by five percent. This yields the following. Whatever the actual cost savings and resulting price effects, a merger is a "merger to monopoly" if the merging firms would have raised price by five percent with unchanged costs. This meaning of merger to monopoly … is important because it applies to a much broader range of circumstances than might appear to be the case for someone inexperienced in competition policy.[50]

An industry could have many competitors overall—and be well on the side of the "inverted-U" where innovation is decreasing with more competitors—while simultaneously also having high levels of concentration in certain narrow product or geographic "markets" from a technical competition law standpoint. Similarly, there are many circumstances in which a merger could reduce competition in an antitrust "market" without significantly impacting the overall level of concentration in an industry. For example:

- A merger could result in a monopoly for retail pharmacy stores in a particular community district (and generate significant efficiencies) without materially impacting overall concentration in the pharmaceutical industry as a whole. Innovation in the pharmaceutical industry is driven by global factors and certainly not concentration in a local Canadian antitrust market.

- A merger could lead to a monopoly for IT consulting in a particular city (and generate significant efficiencies) without materially impacting overall concentration in the IT industry as a whole.

- A merger could result in a monopoly for sales of chemicals in Canada (and generate significant efficiencies) without materially impacting

overall concentration in the chemicals industry worldwide, where Canadian firms also compete heavily.

Such mergers could generate large gains in efficiency to the benefit of the Canadian economy without having any material impact on overall industry concentration or innovation (whether positive or negative). When innovation is driven by factors outside the relevant market, competition in the market is irrelevant to innovation.

ii. Mergers Provide Additional Mechanisms to Promote Innovation and Productivity

Chiasson and Johnson also note that a debate has emerged following the European Commission's decision in *Dow / DuPont*, which ignored the literature on the "inverted-U" relationship on the basis that it was not readily applicable in the merger context.[51] While we agree that the "inverted-U" literature does not explicitly consider the impact of mergers, the key underlying mechanisms discussed in the literature that drive incentives for innovation are still relevant in the merger context.[52] Moreover, the dynamic efficiencies and spillover effects generated by many mergers create additional ways in which mergers may increase innovation relative to the static, non-merger context.[53] Although Chiasson and Johnson reference a paper by Federico, Langus, and Valletti (2017) with a simple theoretical model predicting that a merger will reduce incentives to innovate,[54] Jullien and Lefouili (2018) and Denicolò and Polo (2018) both point out many important factors left out of Federico, Langus, and Valletti's model.[55] For example, mergers can also reduce wasteful duplications in R&D efforts by better coordinating research projects, substantially increase investment (and the resulting likelihood of success) for key research projects, increase the development of products appealing to different customers than those of competitors, increase incentives to innovate in order to increase demand as profit margins increase, and increase incentives to develop innovations with spillover effects between the operations of the merging parties.[56]

Ultimately, Jullien and Lefouili observe that there is "*no consensus among economists about a presumed (negative or positive) sign of a horizontal merger's impact on innovation.*"[57] Chiasson and Johnson acknowledge that the "*theoretical relationship between innovation and competition is ambiguous*,"[58] but suggest that their examples constitute empirical evidence of the beneficial impact of competition on innovation. As discussed above, it would be a mistake to rely on a collection of examples to make a blanket claim for all industries in all circumstances. Moreover, none of the examples

discussed by Chiasson and Johnson analyze the impact of *mergers* on innovation and productivity (and certainly not any mergers cleared based on the efficiencies defence). The complex relationship between competition and innovation represents a fundamental flaw in the argument that the efficiencies defence should be repealed.

c. Wide Recognition of the Complex Relationship Between Innovation and Concentration

The evidence demonstrating that increased market concentration leads to *greater* innovation in many circumstances is not based on a fringe economic theory—in fact, it has been recognized by the Competition Bureau, the U.S. Federal Trade Commission, and many others.

Following a workshop on innovation and antitrust hosted on November 4, 2014 with approximately 100 participants, the Competition Bureau concluded: "*There is no definitive answer as to whether increased scale and consolidation affect innovation negatively or positively*,"[59] while noting that "*academics have found that the relationship between innovation and competition is an 'inverted U-shape', whereby innovation is lowest in markets either dominated by a single firm or fragmented among many, and is highest in markets where the number of firms is somewhere in between*."[60]

The U.S. Federal Trade Commission has taken the same view, relying on studies in its review of the *Genzyme / Novazyme* merger finding that "*economic theory and empirical investigations have not established a general causal relationship between innovation and competition*."[61] Moreover, Christine Wilson, a Commissioner of the Federal Trade Commission, recently suggested that the U.S. emulate Canada by adopting a total surplus standard for antitrust review, with the promotion of dynamic efficiencies as a key justification.[62]

Similar conclusions were reached by the Advisory Panel on Efficiencies cited by Chiasson and Johnson, which was commissioned by the Competition Bureau to assess the role that efficiencies should play in the merger review process with a particular focus on dynamic efficiencies and innovation. The Advisory Panel on Efficiencies came to the following conclusion about the relationship between concentration, efficiencies, and innovation:

> [C]ompetition policy by itself may not have a predictable and replicable impact on innovative capacity. In some cases, a merged firm's larger scale—and the resulting higher concentration in an industry—may lead to more innovation and benefit the economy; in other cases, increased

> concentration may have a negative effect. A one-size-fits-all approach to enhancing dynamic efficiency through competition policy will not work.[63]

In addition, in a report on *Innovation and Dynamic Efficiencies in Merger Review* prepared for the Competition Bureau, Sanderson and Tepperman (2007) noted:

> When incorporating innovation issues into merger review several considerations arise. First, there is no settled economic model that relates the extent of market concentration to the extent of innovation and as a result, we do not know how concentration today affects firms' levels of innovative activity, which differs from the clear link that exists between concentration and pricing.[64]

Finally, a presentation by a senior Competition Bureau official at the Canadian Bar Association's Economist Roundtable in May 2017 stated the following:

> Does more competition lead to more quality? Not necessarily. As competition lessens, quality can go up or it can go down.
>
> …
>
> Does more competition lead to more innovation? Not necessarily.
>
> …
>
> Efficiency effect: Competitive environments foster less innovation.[65]

In summary, Chiasson and Johnson's argument that increased market concentration inevitably reduces innovation is not supportable. While we agree that competition may promote innovation in certain circumstances, this only tells half of the story. Research shows that greater concentration often promotes greater innovation through increased incentives for innovation, economies of scale, and the dynamic efficiencies generated by many mergers and acquisitions. Moreover, when innovation is driven by factors outside of a market, then competition in that market is irrelevant to innovation. These are fundamental flaws in Chiasson and Johnson's argument that the efficiencies defence is inherently bad for innovation because it enables greater market concentration. On the contrary, the efficiencies defence provides a useful mechanism to promote productivity and innovation in the Canadian economy, allowing for a consideration of each merger on its own merits to determine if the proven benefits of a merger on productivity and innovation outweigh its potential costs.

II. The Bias Against Efficiency Enhancing Mergers

Chiasson and Johnson also claim that "*the efficiencies defence has a bias towards authorizing anticompetitive mergers in the name of economic efficiency*"[66] because there will often not be case-specific evidence available regarding the negative impacts of reduced competition generally. However, many of the positive impacts of a specific merger from dynamic efficiencies, improvements in product quality, and other benefits may also not be quantifiable, and, if anything, the bias in practice is often *against* mergers likely to bring about net gains in economic efficiency to the Canadian economy.

First, the statement by Chiasson and Johnson that the negative impacts of X-inefficiency "*are often not susceptible to ex ante prediction and so there often will not be case-specific evidence to lead in merger cases*"[67] acknowledges that the Competition Bureau will not be able to provide any actual evidence of the concerns they are raising. However, ignoring proven benefits to the Canadian economy through efficiency gains because of a theoretical concern about unprovable harms of an unknown magnitude is not good public policy. A theoretical concern—particularly one of unknown magnitude—does not justify an approach to merger review that would never take into account the potential positive impacts of a merger through increased efficiencies and innovation under section 96.

Second, many of the beneficial impacts of a merger on innovation and productivity are also very challenging for merging parties to prove. As discussed above, mergers can lead to significant dynamic efficiencies, improvements in product quality, and other benefits for consumers and the Canadian economy as a whole. However, like X-inefficiencies, these benefits of a merger are often challenging to quantify because the exact nature and timing of new or better products and processes—and the extent to which they will benefit consumers and/or result in cost savings—may not be known in advance.

One cannot assume that any potential X-inefficiencies will be greater than the dynamic efficiencies, improvements in product quality, and/or other qualitative benefits from a merger, since the magnitude of each factor will often be unknown in advance. Chiasson and Johnson provide no evidence of the magnitude of potential X-inefficiency in the merger context and no evidence as to how potential X-inefficiency compares to the dynamic efficiencies frequently created by mergers. As a result, it would be a mistake to suggest that the efficiencies defence should be repealed simply because certain negative impacts of mergers may not be quantifiable *ex ante*. Similar

reasoning could be used to suggest that the Competition Bureau must clear every merger raising the efficiencies defence simply on the basis that mergers often generate significant benefits for the Canadian economy that are not susceptible to *ex ante* quantification.

Third, there is already significant scope in the *Competition Act* to take into account the potential impact of a merger on productivity and innovation. For example, the Competition Bureau has significant powers to gather extensive evidence from merging parties and third parties through Supplementary Information Requests under section 114(2) and judicial orders under section 11 of the *Competition Act*. Using such powers, the Competition Bureau could readily uncover evidence in internal documents that the parties were innovating, improving production processes, and/or improving product quality in reaction to one another. Internal documents are often given significant weight before the Competition Tribunal,[68] and documents indicating that innovation was driven by competition with a specific competitor could constitute highly probative evidence of the impact of a merger on innovation.

Even if such evidence of the impact on productivity and innovation is not always capable of quantification, the Supreme Court of Canada's decision in *Tervita* requires that "*qualitative efficiencies should be balanced against the qualitative anti-competitive effects, and a final determination must be made as to whether the total efficiencies offset the total anti-competitive effects of the merger at issue*."[69] This gives the Competition Tribunal a significant degree of discretion to assess the value of such evidence. Of course, as Chiasson and Johnson note, the Supreme Court of Canada also stated that the assessment should be as objective as possible.[70] We agree. As a matter of procedural fairness, merging parties must know the case they have to meet.[71] Moreover, any decision seeking to block a merger generating significant efficiencies for the benefit of the Canadian economy should be based on concrete evidence.

Fourth, the bias in practice is often actually *against* efficiencies in merger reviews. The Competition Bureau's methodology for estimating anticompetitive effects when carrying out the efficiencies trade-off systematically overestimates the size of those effects by assuming that short-term competitive dynamics will continue far into the future. The failure to take into account this bias—call it the "*X-deadweight loss reduction*", if you will—makes it significantly more difficult for merging parties to demonstrate that a merger will generate efficiencies offsetting the anticompetitive effects.

Consistent with the Competition Tribunal's approach in *Superior Propane*,[72] efficiency gains are typically compared to anticompetitive effects over a ten-year period when carrying out the section 96 trade-off analysis. However, the Competition Bureau assesses the impact of entry and expansion into an industry over a much shorter time frame (typically two years).[73] The practical result of this is that the impact of entry and expansion in an industry after the second year is completely ignored in the estimation of anticompetitive effects, and entry is ignored in its entirety if the Bureau is not convinced that it will take place on a sufficient scale within two years. This is despite the fact that significant entry and expansion is much more likely to take place over a ten-year period than a two-year period.[74] For example, the Competition Tribunal accepted the Commissioner's arguments regarding barriers to entry in *Superior Propane* and ignored the potential for entry and expansion in the industry when assessing the anticompetitive effects.[75] However, the *Propane Market Review* jointly prepared by the Competition Bureau and National Energy Board a number of years later found "*a significant amount of entry into local propane markets*" and noted that "*it appears likely that local propane markets are not subject to the same level of market dominance as may have been the case immediately following the Superior Propane-ICG Propane merger*."[76]

Similarly, the Competition Bureau typically calculates the elasticity of demand based on consumer behaviour in the short-run. However, the elasticity of demand is almost always more elastic in the long-run than the short-run.[77] For example, consumers using electricity to heat their homes may be less likely to switch to natural gas when the price of electricity rises in the short-run (which could require a substantial investment in new equipment). In the long-run, though, consumers would be much more likely to switch to natural gas when their system needs replacement or a new system is being installed. As a result, using elasticity estimates based on short-run consumer behaviour is likely to significantly overstate the size of the estimated anticompetitive effects over the ten-year period typically used for the efficiencies trade-off.[78]

Moreover, a careful reading of the studies cited by Chiasson and Johnson[79] (and the Bureau's draft *Efficiencies Guide*)[80] on the likelihood of achieving efficiencies claims suggests that productive efficiencies are highly likely to be achieved, but anticipated revenue increases are in fact rarely achieved in practice. This is due to a conflation of cost savings (i.e., productive efficiencies) with revenue synergies, which often include anticipated price increases and are generally not counted as valid efficiencies under the *Competition Act*. For example, the McKinsey (2004) study they refer to finds that 75% of

mergers achieve more than 80% of their expected cost savings and that 36% of mergers achieve more than 100% of their expected cost savings.[81] Conversely, the study found that only 38% of mergers achieve more than 80% of their expected revenue synergies.[82] This suggests that anticipated productive efficiencies are much more likely to be achieved than anticipated price increases.

Fifth, the approach to the efficiencies trade-off in section 96 that is proposed in the Bureau's draft *Efficiencies Guide* would deepen the bias against efficiencies in merger reviews. Much of the Bureau's draft *Efficiencies Guide*[83]—in addition to being inconsistent with the *Competition Act* and jurisprudence from the Competition Tribunal and Supreme Court of Canada—is also internally inconsistent.[84] As explained in greater detail elsewhere, the draft *Efficiencies Guide* (i) fails to consistently follow the intention of Parliament and plain reading of section 96, (ii) adopts a "market-by-market" approach to the trade-off (explicitly rejected by the Competition Tribunal)[85] that will be inconsistently applied and often unworkable in practice, (iii) fails to consistently adopt an approach that would maximize total surplus, and (iv) fails to apply a consistent level of scrutiny to estimates of anticompetitive effects as compared to efficiencies calculations.[86]

We therefore disagree with Chiasson and Johnson's statement that "*[r]epealing the efficiencies defence would likely go some way towards simplifying merger reviews, clarifying goals, and reducing overall administrative burden on businesses.*"[87] Parliament intended the application of the efficiencies defence to be a simple and straightforward comparison of the overall gains in efficiency to the Canadian economy from a merger with the overall anticompetitive effects resulting from the merger.[88] However, this is not reflected in the draft *Efficiencies Guide*.

The draft *Efficiencies Guide* also adopts a much more expansive view of the role of wealth transfers that increases the bias against efficiency enhancing mergers and decreases predictability for merging parties.[89] However, the Competition Tribunal has stated it "*expects that in most cases, it will be readily apparent that the wealth transfer should be treated as neutral in its analysis* …"[90] Justice Rothstein stated on behalf of the majority of the Supreme Court of Canada in *Tervita* that there were economic arguments in favour of a total surplus standard.[91] The literature cited by Justice Rothstein on this point explains how taking into account wealth transfers would lead to many absurd outcomes. For example, the acceptability of a merger could change if a teachers' pension fund bought the shares of the purchaser from a wealthy family. In addition, a merger involving wealthy consumers

and less wealthy shareholders (e.g. luxury goods) could be acceptable due to a positive wealth transfer to low income shareholders even if it led to negative efficiencies and a deadweight loss.[92] As a result, Justice Rothstein later stated he had intended *Tervita* to enshrine total surplus standard as the only standard but removed those paragraphs from the decision because a law clerk pointed out that "*no one in the case argued about that issue*."[93]

Sixth, a common misunderstanding regarding the law on merger-specificity in Canada, which appears to be shared by Chiasson and Johnson, raises further obstacles for parties seeking to rely on the efficiencies defence. For example, Chiasson and Johnson suggest that merging parties relying on the efficiencies defence "*frequently claim substantial savings from headcount reductions*"[94] that may not be merger-specific because they "*can, in principle, be achieved without a merger*."[95] Although Chiasson and Johnson then note that the remainder of their paper assumes the usual efficiencies claims are merger-specific, their references to a requirement that efficiencies not be achievable "*without a merger*" or "*in other less anticompetitive ways*"[96] reflects a common misunderstanding. The approach to merger-specificity in Canada is different from the approach in the U.S.[97] As the Competition Tribunal explained in *Superior Propane III*:

> [147] As stated in the [US] Horizontal Merger Guidelines, claimed efficiency gains must be "mergers-specific". Although those Guidelines do not elaborate, this requirement appears to mean that a claimed efficiency gain is not cognizable if it could be achieved in another, presumably less anti-competitive, way.
>
> [148] The Tribunal found that the gains in efficiency in the instant merger would not be achieved absent the merger (i.e. if the order were made) and hence could be included in the test under subsection 96(1) (Reasons, at paragraph 462). This requirement is not the same as the one used by the American enforcement agencies. After satisfying itself that the two approaches were not identical, the Tribunal noted the same distinction was addressed in Hillsdown, supra, which supported the view that the Act did not require that claimed gains in efficiency not be achievable in another, less anti-competitive way, although this was the requirement of the Commissioner's Merger Enforcement Guidelines ("MEGs") …[98]

In other words, the question in Canada is simply whether the efficiencies *would* likely be attained "but for" the merger (as opposed to whether the efficiencies *could* theoretically have been achieved some other way).[99] This approach also represents sound public policy given the goal of determining whether a merger will result in a net gain in efficiencies accruing to the

Canadian economy. As long as the cost savings are not likely to be achieved in the absence of the merger, it should be irrelevant if the cost savings could *theoretically* have been achieved in some other way—a way that may never even be a realistic consideration for the merging parties for a variety of reasons.

Finally, we are not aware of any merger in Canada that reduced innovation or X-efficiency but was still cleared on the basis of the efficiencies defence. While such instances would understandably be rare given the relatively small number of mergers that have explicitly relied on the efficiencies defence, the absence of such evidence is a fundamental weakness in their central argument that the efficiencies defence may be "*doing more harm than good*."[100] In fact, there are often broader economic forces bringing together merging parties, such as efficiencies from opportunities to incorporate a stagnant business into the operations of a more dynamic firm, as discussed above. This makes mergers and acquisitions particularly likely to lead to gains in innovation and productivity. Mergers relying on the efficiencies defence are often likely to significantly increase innovation and productivity in Canada.

For example, Superior Propane offers high-tech SMART Tank sensors on their propane tanks, which creates significant benefits for the businesses and consumers using their products, including an ability to remotely monitor tank levels, greater control over fuel costs, and cost savings from fewer deliveries.[101] Canwest Propane and many other competitors did not offer similar products, and the vendor looking to sell Canwest Propane noted that although they had "*identified further growth opportunities within this business line, allocating resources to pursue these opportunities falls outside our corporate strategy …*"[102] As a result, the *Superior/Canwest* merger that was cleared by the Competition Bureau in 2017 had the potential to enable Superior to achieve significant efficiencies from applying its innovative technology to the business operations of a less advanced competitor. In fact, Superior has had even greater than expected success to date in achieving the efficiencies from that transaction.[103]

In addition, if Chiasson and Johnson's thesis was correct, one would have expected Superior Propane to be one of the least innovative propane distributors in the world following what the Competition Bureau alleged to be a "merger-to-monopoly" with ICG Propane in 1998.[104] Instead, Superior went on to become one of the most innovative and technologically advanced propane distributors in the marketplace.[105] Ironically, the fact that Superior was a far more innovative competitor than rivals like Canwest Propane may

have itself been a result of the economies of scale generated by the *Superior/ICG* merger many years earlier.

III. The Efficiencies Defence is Particularly Important for Innovation and Productivity in Canada

The efficiencies defence in section 96 remains a critical tool for promoting innovation and economies of scale in Canada, particularly given a number of unique characteristics of the Canadian economy.

As explained in the guidebook created by the Ministry of Consumer and Corporate Affairs when it tabled the Bill that introduced section 96 of the *Competition Act* before Parliament:

> The relatively small size of the Canadian market and the overall importance of international trade to the economy dictates that certain industries have to be concentrated in order to achieve scale or other efficiencies necessary to compete in world markets.
>
> …
>
> To the extent that a merger may result in efficiency gains … mergers in certain industries that lessen competition may, on balance, be beneficial to the economy.
>
> …
>
> It is important for the performance of the economy that significant cost savings brought about by mergers, for example, through scale economies or other efficiencies, be allowed.[106]

The importance of the efficiencies defence for a small, open, trading economy like Canada was also emphasized before the Canadian Senate in 2003, which ultimately failed to enact a Bill supported by the Competition Bureau to limit the application of the efficiencies defence by amending the *Competition Act*.[107]

As explained in Part I of this paper, economies of scale are an important driver of innovation and productivity by giving firms the financial resources to make the significant investments in R&D required for innovation as well as opportunities and incentives to apply new technologies across their operations. Greater economies of scale will help generate the R&D budgets necessary to develop large scale innovations that are deployable broadly across the Canadian economy. Moreover, Canada is a small, open economy, and for larger players looking to use it as a platform, any reduced

competition in domestic markets is especially unlikely to dampen incentives for the innovation needed to compete globally. On the contrary, economies of scale will provide such firms with the room necessary to properly invest and develop a strong global offering, which will also benefit Canadian consumers. Moreover, studies have shown that the smaller scale of Canadian firms is a key factor explaining the relatively slower productivity growth in Canada compared to the U.S.[108] Economies of scale are also critical for the survival of many key Canadian industries, including potash, refining, pulp and paper, and newsprint.

The Canadian government has therefore made achieving economies of scale a key policy goal, consistent with a key purpose behind Canada's efficiencies defence. It has discussed the importance of helping Canadian enterprises to "scale up, ensuring they are able to benefit from trade opportunities,"[109] and stated that these goals include "helping businesses scale up and go global."[110] An explicit aim of the Canadian government's recent Innovation Superclusters Initiative is to energize and grow the Canadian economy by helping to build industry superclusters that will operate at scale, attract foreign talent, develop intellectual property, and position the Canadian economy as part of integrated global supply chains. As the Canadian government explains:

> Funding is being delivered to industry-led consortia with strategic plans to … [i]ncrease business expenditures on research and development (R&D) and … commercialize new products, processes and services that position firms to scale, connect to global supply chains, transition to high-value activities and become global market leaders.[111]

The Competition Bureau recognized this in its 2017 Annual Report, stating that "Through our enforcement, promotion and advocacy work, we ensure a level playing field for innovative companies to attract funding, commercialize their ideas and scale up to compete globally."[112] As the Supreme Court of Canada stated in *Tervita*:

> A stand-alone efficiencies defence was considered "appropriate for Canada because a small domestic market often precludes more than a few firms from operating at efficient levels of production and because Canadian firms need to be able to exploit scale economies to remain competitive internationally" (Campbell, at p. 152; see also *House of Commons Debates*, vol. VIII, 1st Sess., 33rd Parl., April 7, 1986, at p. 11962; Minister of Consumer and Corporate Affairs, *Competition Law Amendments: A Guide* (1985), at p. 4). In the context of the relatively small Canadian economy, to which international trade is important, the efficiencies defence is Parliamentary

> recognition that, in some cases, consolidation is more beneficial than competition (*ibid*., at pp. 15–17).[113]

In line with this goal, the *Compete to Win* report prepared in 2008 by the Competition Policy Review Panel at the request of the Ministers of Industry and Finance suggested making a consideration of efficiencies central to all Canadian merger reviews:

> Indeed, the Panel is of the view that the achievements of efficiencies through mergers is sufficiently important for the Canadian economy that the Competition Bureau should review mergers with this in mind from the outset, rather than limiting its assessment of efficiency considerations to cases where it has determined that the merger is likely to prevent or lessen competition substantially.[114]

IV. Conclusion

The argument that greater competition inherently increases innovation is based on an overly simplistic view of the relationship between economic concentration and innovation that misses half of the story. Mergers can generate dynamic efficiencies, increased economies of scale, and greater incentives to develop new products and services that promote innovation and productivity. In fact, empirical evidence shows that more competitive environments often have much *lower* levels of innovation, particularly for economies similar to Canada's.

Moreover, the Competition Bureau's inability to prove X-inefficiency in the context of a specific merger does not justify an approach to merger review that would minimize proven gains in efficiency from a merger. As with X-inefficiency, merging parties face corresponding challenges proving dynamic efficiencies, quality improvements, and other benefits of unknown magnitude resulting from many mergers. The Competition Bureau's methodology significantly overestimates the size of the potential anticompetitive effects in many cases, creating a systematic bias against efficient mergers that we refer to as the "X-deadweight loss reduction."

Correcting this bias against efficiencies would go a long way towards ensuring the *Competition Act* helps Canadian companies to achieve economies of scale and to be better able to innovate and compete. The efficiencies defence enables a consideration of each merger on its own merits to determine if the proven benefits of a merger on productivity and innovation outweigh its potential costs. This provides an important mechanism to promote productivity and innovation in the Canadian economy, which is

why efficiencies should be given a more prominent role in Canadian merger review, as Parliament intended.

ENDNOTES

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[2] Michael Trebilcock & Ralph A. Winter, "The State of Efficiencies in Canadian Merger Policy," (Winter 1999–2000) Canadian Competition Record 106 at 106.

[3] *Ibid*.

[4] *Tervita Corp v Canada (Commissioner of Competition)*, 2015 SCC 3, at paras. 110–111 and 85 [*Tervita*].

[5] See e.g., John Pecman, "Populism, Public Interest and Competition," (Speech delivered at the C.D. Howe Institute, April 27, 2018), online: https://www.canada.ca/en/competition-bureau/news/2018/05/john-pecman-commissioner-of-competition---populism-public-interest-and-competition.html, and John Pecman, "Strengthening competition: Innovation, collaboration and transparency," (Paper delivered at the Canadian Bar Association's Competition Law Fall Conference, October 6, 2016), online: http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04148.html.

[6] Competition Bureau, *A Practical Guide to Efficiencies Analysis in Merger Reviews* (March 20, 2018), online: http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04350.html [Draft *Efficiencies Guide*].

[7] See Brian Facey & Joshua Krane, "Promoting Innovation and Efficiency by Streamlining Competition Reviews" C.D. Howe Institute E-Brief (March 2, 2017) at 6–7, online: https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/e-brief_254_0.pdf.

[8] For detailed critiques of the draft *Efficiencies Guide*, see Blake, Cassels & Graydon LLP, "Blakes Comments on the Bureau's Draft Guide on Efficiencies," *Responses to the Consultation on a Practical Guide to Efficiencies in Merger Reviews* (May 2018), online: https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04379.html and the Canadian Bar Association, "Re: Practical Guide to Efficiencies in Merger Reviews," *Responses to the Consultation on a Practical Guide to Efficiencies in Merger Reviews* (May 3, 2018), online: https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04379.html.

[9] Matthew Chiasson & Paul A. Johnson, "Canada's (In)efficiency Defence: Why Section 96 May Do More Harm Than Good for Economic Efficiency and Innovation" (2019) 32:1 Canadian Competition Law Rev 1. Matthew Chiasson is a Senior Officer and Paul A. Johnson is the T.D. MacDonald Chair in Industrial Economics at the Competition Bureau.

[10] John Pecman, "Unleash Canada's Competition Watchdog: Improving the effectiveness and ensuring the independence of Canada's Competition Bureau" (2018) 31:1 Canadian Competition Law Rev 1, and Pecman, "Populism, Public Interest and Competition," *supra* note 5.

[11] Chiasson & Johnson, *supra* note 9 at 2–3.

[12] Competition Bureau, "Highlights: Competition Bureau's innovation and antitrust workshop" (November 5, 2015), online: http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03864.html ["Highlights"] [emphasis added].

[13] Paul A. Johnson, "Competition, innovation, and quality" (Presentation delivered at the Economists Roundtable with the Competition Bureau, May 8, 2017), at 10 [unpublished] [emphasis added].

[14] Christine S. Wilson, "Welfare Standards Underlying Antitrust Enforcement: What You Measure is What You Get" (Luncheon Keynote Address delivered at the George Mason Law Review 22nd Annual Antitrust Symposium, Arlington, VA, February 15, 2019), online: https://www.ftc.gov/system/files/documents/public_statements/1455663/welfare_standard_speech_-_cmr-wilson.pdf.

[15] *Ibid.* [emphasis added].

[16] Note that much of Chiasson and Johnson's paper focuses on the introduction of better business practices, discussing the impact of competition on both innovation and X-efficiency. Technically, innovation and X-efficiency are distinct but closely related factors: innovation refers to the introduction of new products, services, and processes, while X-efficiency refers to the relationship between the theoretical maximum productive efficiency achievable by a firm and its actual productive efficiency. The development and introduction of better business practices represents both an improvement in innovation and in X-efficiency. In analyzing many of the arguments in Chiasson and Johnson's paper, we also discuss both innovation and X-efficiency, at times focusing primarily on one factor and at times discussing both. For instance, Part I of this paper focuses more heavily on Chiasson and Johnson's arguments about innovation, while Part II focuses more directly on their arguments about X-efficiency in the context of the efficiencies trade-off in section 96.

[17] Gary L. Roberts & Steven C. Salop, "Efficiencies in Dynamic Merger Analysis: A Summary," (1995) 19:4 World Competition 5 at 8 [emphasis added], also noting that over time (i.e., in a dynamic framework) the implications of the total welfare and price-down standard converge.

[18] Bruno Jullien & Yassine Lefouili, "Horizontal Mergers and Innovation" (2018) Toulouse School of Economics Working Paper No 18–892 at 11–26.

[19] See e.g., Jeffrey R. Church & Roger Ware, *Industrial Organization: A Strategic Approach* (Toronto: McGraw-Hill, 2000) at 249–254.

[20] Vincenzo Denicolò & Michele Polo, "The Innovation Theory of Harm: An Appraisal" (2018) IEFE Working Paper No 103 at 13.
[21] *Ibid*.
[22] See Statistics Canada, "Innovation Analysis Bulletin: Vol 5, No 3" (October 2003) at 5, online: https://www150.statcan.gc.ca/n1/pub/88-003-x/88-003-x2003003-eng.pdf, which measures innovation as reported by firms across a variety of industries, finding the effect is pervasive across most industries.
[23] Statistics Canada, *Table 27-10-0054-01: Innovation and business strategy, types of organizational innovation introduced*, online: https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=2710005401, which measures the reported introduction of new business practices, new methods of organizing work responsibilities and decision making, and new methods of organizing relationships with other firms and institutions; and Statistics Canada, *Table 27-10-0122-01: Innovation and business strategy, advanced technology use by industry and enterprise size*, online: https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=2710012201, which measures the reported use of advanced technologies like computerized design and engineering, advanced communication technologies, advanced automated material handling technologies, etc.
[24] Jon Gertner, "True Innovation," *The New York Times* (February 25, 2012), online: https://www.nytimes.com/2012/02/26/opinion/sunday/innovation-and-the-bell-labs-miracle.html [Gertner]. See also Jon Gertner, *The Idea Factory: Bell Labs and the Great Age of American Innovation* (Penguin Books Ltd, 2013).
[25] *Ibid*. The Nobel Prizes were often awarded many years later for the work carried out at Bell Labs during this period.
[26] *Ibid*.
[27] *Ibid*.
[28] Lucia Foster, John Haltiwanger & Cornell J. Krizan, "Market selection, reallocation, and restructuring in the US retail trade sector in the 1990s" (2006) 88:4 Rev Economics & Statistics 748 at 749 [emphasis added].
[29] Judd Cramer and Alan B. Krueger, "Disruptive Change in the Taxi Business: The Case of Uber" (2016) 106:5 American Economic Rev 177.
[30] Denicolò & Polo, *supra* note 20 at 13.
[31] Jullien & Lefouili, *supra* note 18 at 11–26
[32] Joseph A. Schumpeter, *Capitalism, Socialism & Democracy*, 5th ed (George Allen & Unwin Ltd, 1976).
[33] Carl Shapiro, "Competition and Innovation: Did Arrow Hit the Bull's Eye?" in Scott Stern & Josh Lerner, eds, *The Rate and Direction of Inventive Activity Revisited* (Chicago: University of Chicago Press, 2012). Shapiro argues one should take into account the principles of Contestability, Appropriability, and Synergies in assessing innovation from mergers. The Contestability principle fits well with both the Schumpeter effect and the Arrow effect, while the Appropriability principle fits well with the Schumpeter effect. The Synergies principle recognizes the fact that combining assets can enhance a firm's ability to innovate, and as a result, the potential for synergies to enhance innovation

is especially critical to keep in mind when discussing the role of the efficiencies defence.

[34] See e.g., Jullien & Lefouili, *supra* note 18.

[35] See e.g., Competition Bureau, *Intellectual Property Enforcement Guidelines* (March 31, 2016), online: http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04031.html ("*This claim on the rewards flowing from IP enhances the incentive for investment and future innovation in IP, just as it does for other forms of private property*.)

[36] Peter Howitt, "Mushrooms and Yeast: The Implications of Technological Progress for Canada's Economic Growth," C.D. Howe Institute, Commentary No. 433 (September 2015), at 5–6, online: https://www.cdhowe.org/sites/default/files/attachments/research_papers/mixed/Commentary_433.pdf.

[37] Johnson, *supra* note 13 at 10 [emphasis added].

[38] Philippe Aghion, Nick Bloom, Richard Blundell, Rachel Griffith & Peter Howitt, "Competition and Innovation: An Inverted-U Relationship" (2005) 120:2 Quarterly Journal of Economics 701.

[39] Chiasson & Johnson, *supra* note 9 at 7–8.

[40] Aghion et al, *supra* note 38 at 711.

[41] Charles Bérubé, Marc Duhamel & Daniel Ershov, "Market Incentives for Business Innovation: Results from Canada" (2012) 12:1 J Ind Compet Trade 47 at 58.

[42] Chiasson & Johnson, *supra* note 9 at 15–16.

[43] Aghion et al, *supra* note 38 at 717–718; Bérubé et al, *supra* note 41.

[44] See e.g., Aghion et al, *supra* note 38 at 717.

[45] Bérubé et al, *supra* note 41 at 58, 60–61.

[46] *Ibid*., at 58.

[47] *Ibid*., at 58 [emphasis in the original].

[48] Jullien & Lefouili, *supra* note 18

[49] *Ibid*., at 3.

[50] Trebilcock & Winter, *supra* note 2 at 108 [emphasis added].

[51] European Commission, Case M.7932—*Dow/DuPont*, Annex 4 to the Commission Decision at para. 83 ("*Based on its review of the relevant economic literature, the Commission considers that the alleged inverted-U relationship depends on a specific theoretical model of innovation that cannot be readily applied to merger analysis to conclude that a merger between rival innovators is generally likely to have an ambiguous effect on innovation. The alleged inverted-U relationship is therefore not suitable to the analysis of the current Transaction.*")

[52] See e.g., Jullien & Lefouili, *supra* note 18 at 6.

[53] *Ibid*., at 7. See also Roberts & Salop, *supra* note 17 at 8 [emphasis added].

[54] Giulio Federico, Gregor Langus &Tommaso Valletti, "A Simple Model of Mergers of Innovation" (2017) 157 Economics Letters 136.

[55] Jullien & Lefouili, *supra* note 18 at 11–26 and Denicolò & Polo, *supra* note 20 at 4–12.

[56] *Ibid.*

[57] Jullien & Lefouili, *supra* note 18 at 7.

[58] Chiasson & Johnson, *supra* note 9 at 16.
[59] Competition Bureau, "Highlights," *supra* note 12.
[60] *Ibid*.
[61] Timothy J. Muris, "Statement of Chairman Timothy J. Muris in the matter of Genzyme Corporation / Novazyme Pharmaceuticals, Inc" (January 13, 2004) Federal Trade Commission, online: https://www.ftc.gov/system/files/attachments/press-releases/ftc-closes-its-investigation-genzyme-corporations-2001-acquisition-novazyme-pharmaceuticals-inc./murisgenzymestmt.pdf [emphasis added].
[62] Wilson, *supra* note 14.
[63] Report of the Advisory Panel on Efficiencies, Submitted to Sheridan Scott, Commissioner of Competition (August 2005) at 5, online (pdf): http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/01954.html [emphasis added].
[64] Andrew Tepperman & Margaret Sanderson, "Innovation and Dynamic Efficiencies in Merger Review," Final Report Prepared for the Competition Bureau (April 9, 2007), online: http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/02376.html [emphasis added].
[65] Johnson, *supra* note 13 at 8, 10, and 11 [emphasis added].
[66] Chiasson & Johnson, *supra* note 9 at 3.
[67] *Ibid*., at 20.
[68] See e.g., *Canada (Director of Investigation and Research, Competition Act) v Hillsdown Holdings (Canada) Ltd*, [1992] CCTD No 4 and *Canada (Commissioner of Competition) v CCS Corp*., 2012 Comp Trib 14, [2012] CCTD No 14 at paras. 293–294 [*CCS*].
[69] *Tervita*, *supra* note *4*. at para. 147.
[70] *Ibid*., at para. 146.
[71] *Ibid*., at para. 125
[72] *The Commissioner of Competition v Superior Propane Inc*, 2000 Comp Trib 15 at paras. 370–372, 463, and 468 [*Superior Propane I*].
[73] Prior to the 2011 version of the Merger Enforcement Guidelines, the Bureau's standard for assessing likely entry was clearly stated to be two years (see Competition Bureau, *Merger Enforcement Guidelines* (Ottawa: Industry Canada, 2004) at para. 6). The 2011 revisions to the Merger Enforcement Guidelines removed the explicit reference to two years, but state "*the beneficial effects of entry on prices in this market must occur quickly enough to deter or counteract any material price increase owing to the merger, such that competition is not likely to be substantially harmed*" (see Competition Bureau, *Merger Enforcement Guidelines* (October 6, 2011), at s. 7.4, online: https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03420.html).
[74] See e.g., Church & Ware, *supra* note 19 at 129 and 373; and *Director of Investigation and Research v Southam Inc*, [1992] CCTD No 7, 43 CPR (3d) 161 at para. 402. ("*While the barriers to the entry of these vehicles are less than for full-scale entry, the length of time required for them to achieve the same effects in disciplining the incumbent is also much longer.*")
[75] *Superior Propane I, supra* note 72 at paras. 175 and 211.

[76] Joint Report by the National Energy Board and the Competition Bureau, *Propane Market Review—Final Report to the Minister of Natural Resources and the Minister of Industry* (April 25, 2014) at 7.24 and 7.26, online: http://www.nrcan.gc.ca/energy/crude-petroleum/15927.

[77] See e.g., Church & Ware, *supra* note 19 at 36–37.

[78] See e.g., Michael Trebilcock, Ralph A. Winter, Paul Collins & Edward M. Iacobucci, *The Law and Economics of Canadian Competition Policy* (Toronto: University of Toronto Press Incorporated, 2003) at 153–154. As Trebilcock et. al. explain, although a more inelastic demand results in a lower deadweight loss for a given price increase, this effect is more than offset by the fact that a more inelastic demand also generates higher price increases, resulting in greater overall deadweight loss.

[79] Chiasson & Johnson, *supra* note 9 at fn. 71.

[80] Competition Bureau, Draft *Efficiencies Guide*, supra note 6, at fn. 13.

[81] Scott A. Christofferson, Robert S. McNish & Diane L. Sias, "Where mergers go wrong," (2004) *McKinsey Quarterly*, online: https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/where-mergers-go-wrong.

[82] *Ibid*.

[83] Competition Bureau, Draft *Efficiencies Guide*, *supra* note 6.

[84] For a critique of the Draft *Efficiencies Guide*, see Blake, Cassels & Graydon LLP, *supra* note 8 and Canadian Bar Association, *supra* note 8.

[85] *Canada (Commissioner of Competition) v Superior Propane Inc*, 2002 Comp Trib 16 at para. 140, aff'd 2003 FCA 53 [*Superior Propane III*]. ("*By contrast, section 96 of the Act applies to the transaction in its entirety. There is no requirement that gains in efficiency in one market or area exceed and offset the effects in that market or area. Rather, the tests of "greater than" and "offset" in section 96 require a comparison of the aggregate gains in efficiency with the aggregate of the effects of lessening or prevention of competition across all markets and areas. Accordingly, the Act clearly contemplates that some markets or areas may experience gains in efficiency that exceed the effects therein, while others may not.*")

[86] Blake, Cassels & Graydon LLP, *supra* note 8 at 11.

[87] Chiasson & Johnson, *supra* note 9 at 5.

[88] See e.g., Blake, Cassels & Graydon LLP, *supra* note 8, at 6–12 and Brian Facey et. al., "Mind the Gap: Merger Efficiencies in the United States and Canada" (2018), 32:2 *Antitrust*, at 66. The Canadian *Competition Act* also has nearly parallel efficiencies provisions in sections 86 and 90.1, and the language in section 86(1)(a) in particular is very clear that the efficiencies are to be considered in connection with the specialization agreement as a whole, and not just the part of the agreement subject to a hypothetical "order". We do not see any reason why Parliament would have intended for efficiencies generated by merger or competitor collaborations to be treated differently than efficiencies generated by specialization agreements.

[89] Competition Bureau, Draft *Efficiencies Guide*, *supra* note 6 at s. 2 ("*… the Bureau has, for example, considered wealth transfers from government-funded entities to constitute socially adverse wealth transfers.*")
[90] *CCS*, *supra* note 68 at para. 283.
[91] *Tervita*, *supra* note 4 at para. 99, citing Trebilcock et. al., *supra* note 78 at 146–151.
[92] Trebilcock et. al., *supra* note 78 at 146–151.
[93] Richard Vanderford, "Retiring Canadian high court justice attacks 'balancing weights' test in merger cases" (October 1, 2015), *MLex*. See also Marshall Rothstein, "Afterword" in Brian A. Facey and Cassandra Brown, *Competition and Antitrust Laws in Canada: Mergers, Joint Ventures and Competitor Collaborations*, 2d ed (Toronto: LexisNexis Canada Inc., 2017) at 412–413.
[94] Chiasson & Johnson, *supra* note 9 at 19.
[95] *Ibid.* at 5.
[96] *Ibid.*
[97] See Facey & Brown, *supra* note 93 at 286–287.
[98] *Superior Propane III*, *supra* note 85 at paras. 147–148 [emphasis added]. See also *Superior Propane I, supra* note 72 at para. 462.
[99] See e.g., *Competition Act*, R.S.C. 1985, c. C-34, s. 96 ("*has brought about or is likely to bring about gains in efficiency … and that the gains in efficiency would not likely be attained if the order were made*"); *CCS*, *supra* note 68 at para. 262 ("*The second screen narrows the claimed efficiencies to those that the Tribunal is satisfied are likely to be brought about by the Merger …*); and *Tervita*, *supra* note 4 at para. 107 ("*A distinction should be drawn between efficiencies claimed because a merging party would be able to bring those efficiencies into being faster than would be the case but for the merger (what could be called "early-mover" efficiencies), and efficiencies that a merging party could realize sooner than a competitor only because the competitor would be delayed in implementing those efficiencies because of legal proceedings associated with a divestiture order (what the Tribunal identified as OIEs).*")
[100] Chiasson & Johnson, *supra* note 9.
[101] See e.g., Superior Propane, "For your Business: Tank Monitoring," online: https://www.superiorpropane.com/for-your-business/tank-monitoring/ and Superior Propane, "For your Home: Tank Monitoring," online: https://www.superiorpropane.com/for-your-home/tank-monitoring/.
[102] See e.g., Gibson Energy, "Gibsons to Explore a Potential Sale of Its Industrial Propane Business" (July 20, 2016), online: https://www.gibsonenergy.com/news/press-releases/2016/gibsons-to-explore-a-potential-sale-of-its-industrial-propane-business/.
[103] Superior Plus Corp., "Superior Plus Corp. Announces Record Fourth Quarter and Full Year Results, and Confirms 2018 Results at the Higher End of the AOCF per share and Adjusted EBITDA Guidance" (February 14, 2019), online (pdf): http://www.superiorplus.com/wp-content/uploads/2019/02/2018-Annual-Combined.pdf ("Superior exceeded its previous target of $15.0 million in run-rate synergies related to the Canwest Propane acquisition, achieving

$16.5 million in run-rate synergies exiting 2018. Superior now expects to achieve $21.5 million in run-rate synergies by the third quarter of 2019.").

[104] See e.g., *Superior Propane I, supra* note 72 at para. 386.

[105] See e.g., BCE Inc, "*Superior Propane implements advanced fuel tank monitoring solution from Bell*," (June 14, 2018), online: http://www.bce.ca/news-and-media/releases/show/Superior-Propane-implements-advanced-fuel-tank-monitoring-solution-from-Bell-1?page=1&month=&year.

[106] Consumer and Corporate Affairs Canada, *Competition Law Amendments: A Draft Guide* (December 1985), at 4, 15 and 17 [emphasis added].

[107] Senate, Standing Committee on Banking, Trade and Commerce, *Evidence*, 37-2, No 32 (November 6, 2003) at 32:10—32:11 (Brian Facey).

[108] See e.g., Andrew Sharpe, "Why Are Americans More Productive than Canadians" (June 2003) Centre for the Study of Living Standards, online (pdf): http://www.csls.ca/reports/10-03-03_can-us.pdf; Wulong Gu and Michael Willox, "Productivity Growth in Canada and the United States, Recent Trends and Determinants" (2018) 35 Intl. Productivity Monitor 73 at 78.

[109] Office of the Prime Minister, Press Release, "Prime Minister Justin Trudeau meets with Mark Carney, Chair of the Financial Stability Board" (November 30, 2018) online: https://pm.gc.ca/eng/news/2018/11/30/prime-minister-justin-trudeau-meets-mark-carney-chair-financial-stability-board.

[110] Campbell Clark, "Trudeau cabinet's voice of business aims to bridge needs of old and new economies" *The Globe and Mail* (November 22, 2015) online: http://www.theglobeandmail.com/news/politics/trudeau-cabinets-voice-of-business-aims-to-bridge-needs-of-old-and-new-economies/article27434937/.

[111] Innovation, Science and Economic Development Canada, "Innovation Superclusters Initiative" (September 4, 2018) online: https://www.ic.gc.ca/eic/site/093.nsf/eng/home [emphasis added].

[112] Competition Bureau, "Annual Report of the Commissioner of Competition for the Year Ending March 31, 2017" (March 2, 2018), online: http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04328.html [emphasis added].

[113] *Tervita*, *supra* note 4 at para. 87 [emphasis added].

[114] Competition Policy Review Panel, "Compete to Win: Final Report" (June 2008) at 56, online (pdf): https://www.ic.gc.ca/eic/site/cprp-gepmc.nsf/vwapj/Compete_to_Win.pdf/$FILE/Compete_to_Win.pdf [emphasis added].

COMMENTS/COMMENTAIRES

OHIO ET AL V AMERICAN EXPRESS CO ET AL— POTENTIAL EFFECTS ON THE COMPETITION BUREAU'S AND COMPETITION TRIBUNAL'S VIEWS OF 'MULTI-SIDED PLATFORMS'

Elad Travis[1]

'Multi-sided platforms' and 'Big Data' are given significant attention by the Competition Bureau's guidelines and discussion papers. Both regulators and practitioners are debating the appropriate lens through which 'Multi-Sided Platforms' should be viewed, whether through the traditional approaches of market definition and the Hypothetical Monopolist Test (the SSNIP test) or through novel, specialized tools and methods. On June 25, 2018, the US Supreme Court ruled in a 5/4 decision that American Express' 'anti-steering provisions' with merchants did not violate U.S. antitrust laws. The Majority opinion defined the relevant market as the credit card network—a transaction platform constituting both sides of a two-sided platform, facilitating a single simultaneous transaction between merchants and cardholders. The Majority rejected the plaintiff's argument that increasing merchant fees was proof of anticompetitive acts, because it did not demonstrate anticompetitive effects on both sides of the credit card market. The Dissent, however, dismissed such a non-traditional market definition as un-precedented in antitrust law. This article analyzes how the US Supreme Court's decision may affect the way Canada's Competition Bureau and Competition Tribunal perceive 'Multi-Sided Platforms'. Will the traditional or novel approach to competition law prevail?

« Plateformes multifaces » et « mégadonnées » sont des sujets récurrents dans les lignes directrices et les documents de travail du Bureau de la concurrence. Les autorités de réglementation et les praticiens débattent encore de la question de savoir sous quel angle il convient d'aborder ces plateformes : par les méthodes traditionnelles de définition des marchés et le critère du monopoleur hypothétique (de la SSNIP), ou bien par des méthodes et outils spécialisés d'un genre nouveau? Le 25 juin 2018, la Cour suprême des États-Unis statuait, dans une décision partagée à cinq voix contre quatre, que les clauses « anti-incitatives » imposées aux commerçants par American Express ne contrevenaient pas aux lois antitrust américaines. Dans l'opinion majoritaire, on définissait le marché en cause comme étant le réseau de cartes de crédit—une plateforme transactionnelle qui constitue les deux versants d'une plateforme biface, facilitant une transaction unique

instantanée entre le commerçant et le titulaire de la carte. La majorité a rejeté l'argument du demandeur selon lequel la majoration des frais payés par les commerçants constituait une preuve d'agissements anticoncurrentiels, estimant que l'existence d'effets anticoncurrentiels de part et d'autre du marché n'avait pas été démontrée. Les juges dissidents, pour leur part, ont rejeté cette définition non traditionnelle du marché, invoquant l'absence de précédent en droit antitrust. Le présent article analyse en quoi la décision de la Cour suprême des États-Unis pourrait changer le regard que portent le Bureau de la concurrence et le Tribunal de la concurrence du Canada sur les « plateformes multifaces ». Tradition contre modernité : quelle approche triomphera?

Introduction

> 'Big Data' is a term that describes collection and commercial use of large quantities of information by technology companies such as Alphabet (Google), Facebook and Amazon.[2]

'Multi-Sided Platforms'/'Two-Sided Platforms' (collectively MSPs) are often mentioned in the context of 'Big Data'. MSPs sell distinct products or services to two or more distinct but interdependent customer groups and connects them. The coordination facilitated by the platform creates value for all participants which could not be offered through traditional means of market interaction.[3] To name a few examples of MSPs: the credit card network that connects cardholders and merchants, a ride sharing platform such as Uber that connects drivers and passengers, and Airbnb that connects owners and renters.

'Big Data' and innovation's pervasiveness in the Canadian and global economy affects the day-to-day life of Canadians, and therefore MSPs are given significant attention by the Competition Bureau (the "**Bureau**") in guidelines and discussion papers.[4] Both regulators and practitioners are debating the appropriate lens through which MSPs should be viewed, whether through the traditional approaches of market definition and the Hypothetical Monopolist Test (the SSNIP Test)[5] or through novel specialized tools and methods such as a single market definition encompassing two sides of a MSP.

The debate has been furthered in the recent U.S. Supreme Court decision, *Ohio v American Express ("**Amex**")*. A divided Court ruled in a 5/4 decision that American Express' 'anti-steering provisions' with merchants did not violate U.S. federal antitrust laws.[6] The Majority opinion defined the relevant market as the credit card network—a transaction platform constituting

both sides of a MSP, facilitating a single simultaneous transaction between merchants and cardholders.[7]

The *Amex* Majority rejected the plaintiff's argument that increasing merchant fees was proof of anticompetitive acts because it did not demonstrate anticompetitive effects on *both* sides of the credit card market.[8] *Amex* resonated locally and globally and sparked economic and political debate between supporters of the traditional views and approaches to antitrust and those advocating for more specialized methods and approaches.[9]

How might *Amex* affect the way Canada's Bureau and the Competition Tribunal (the "**Tribunal**") perceive MSPs? Will the traditional or alternative approach to competition law prevail? This article will address these questions. First, an explanation of the nature of MSPs and the competition issues they raise will be presented. Second, the Bureau's discussion papers and guidelines, as well as Tribunal decisions dealing with MSPs will be examined. Third, a more detailed analysis of *Amex* will be offered, followed by; Fourth, an analysis of *Amex*'s potential implications on Canadian competition law.

1. 'Multi-Sided Platforms'—What They Are, And What Competition Issues Do They Raise

MSPs (such as Airbnb, American Express and Uber) sell distinct products or services to two or more distinct but interdependent customer groups and connect them. The coordination facilitated by the platform creates value for all participant groups, which could not be offered through traditional means of market interaction.[10] To illustrate further, another example of a MSP is the credit card network—a 'transaction platform' run by credit card companies that brings card holders and merchants together. When a cardholder uses a credit card to purchase a product or a service from a merchant, the credit card network facilitates the transaction by providing separate but inter-related services to cardholders and merchants. For cardholders, the credit card network extends them credit which allows them to defer payments and earn rewards based on the amount they spend. To merchants, the credit card network processes the transaction, guarantees the payment and increases the number and value of sales.[11]

Competition law scholars found 'Feedback Effects' between MSP users: steps taken by the platform may affect one user group, which necessarily affects the second user group and in turn affects the first user group again.[12] For example, price increases on one side of the platform risk losing participants on the other, which in turn, would decrease the value for the first

side and create a feedback loop of declining demand. In the context of the credit card network, increasing costs for cardholders would mean fewer purchases, thereby decreasing the platform's value for merchants.[13]

MSPs are usually discussed in the context of merger review and monopolistic practices. These platforms as well as their users, like traditional businesses, may conspire to fix prices, acquire market power through mergers and attempt to obtain monopoly power through unilateral practices.[14] Nevertheless, the traditional tools of analysis may need to be modified in handling MSPs.[15] For instance, prices below variable cost on one side of a MSP cannot be evidence of predatory pricing, because it is a constant characteristic of many such platforms seeking to attract users to the platform, unrelated to competitive conditions.[16]

2. The Current Views of The Competition Bureau And Tribunal On MSPs

MSPs have been addressed by the Tribunal and Bureau through cases, discussion papers, and guidelines. The 2013 *Visa-Mastercard*[17] and 2016 *TREB*[18] Tribunal decisions are covered below, followed by a review of the Bureau's Abuse of Dominance Enforcement Guidelines (The "**Dominance Guidelines**")[19], and the Big Data and Innovation Discussion Paper (the "**Big Data Paper**")[20].

2.1 Visa-Mastercard

The Bureau alleged that Visa and MasterCard's 'merchant rules' (no discrimination, honour all cards and no surcharge rules) discouraged the reduction of 'merchant discount fees' (interchange, acquirer network and acquirer service fees) and breached the civil prohibition against price maintenance in s. 76 of the *Competition Act,* RSC 1985, c C-34 (the "**Competition Act**").[21] The Tribunal considered *one* side of the MSP as the relevant product market and applied the SSNIP test to the price charged to the merchant.[22] The Tribunal mentioned, however, that when a hypothetical monopolist may profit from a price increase, it may be necessary to account for cross platform demand interdependence and feedback effects and changes in profit on both the customer and acquirer sides of the platform.[23]

2.2 The Toronto Real Estate Board Tribunal Decision (the "*TREB* Tribunal")[24]

The Bureau alleged that certain information sharing practices of TREB prevented competition substantially in the supply of residential real estate

brokerage services in the Greater Toronto Area, while disadvantaging innovative brokers who operate virtual offices breaching s. 79(1) of the Competition Act.[25] The Tribunal expressed its opinion that it will often be neither possible nor necessary to define the product market in s. 79 cases.[26] The *TREB Tribunal* decided that the supply of real estate brokerage services to both home sellers and home buyers constitutes a single market. In other words, it included both sides of the platform in a single market definition, somewhat similarly to the *Amex Majority's* market definition.[27]

2.3 The Dominance Guidelines:

In 2019, the Bureau published its *Dominance Guidelines*, which discuss the Bureau's view of the appropriate way to analyze a MSP when assessing dominance under S. 79 of the Competition Act. Specifically, these guidelines propose different strategies in how to approach market definition, which is an analytical process used to assess whether a participant has dominance within it. The Dominance Guidelines offer the following strategies:

a) Not define the market at all: The Bureau recognizes that the market is at times impossible to define, nor is its definition necessary in every case. As an example, when services are free ('Zero Monetary Price'—e.g. free use of search engines by a MSP user), then prices are irrelevant and thus the SSNIP test would be unusable;[28]

b) Define the market as one side of a MSP,[29] which effectively defines the market the traditional way.

c) When a hypothetical monopolist would profit from a price increase, the Bureau may define the market as one side of a MSP while accounting "for the interdependence of demand, feedback effects and changes in profit on all sides of the platform".[30]

d) Define the market to include multiple sides of a MSP.[31]

In the *Dominance Guidelines*, the Bureau left all options on the table and is open to novel approaches to market definition, such as defining the market as multiple sides of a MSP.

2.4 The Big Data Paper

In 2018, the Bureau released its *Big Data Paper*, which states that the traditional and fundamental analytical frameworks of Canadian competition law, including market definition, market power and competitive effects, continue to apply to 'Big Data' and MSPs.[32] However, it also accepts that

examining MSPs may require specialized tools and methods if the nature of the transaction or price differs from non-platforms.[33]

To illustrate this point, the Bureau provides a scenario in the paper in which a "high" price on one side of the platform might not be indicative of market power or anti-competitive effects when resulting from a "low" price on the other side.[34] As an example, a ride sharing platform bringing together drivers and riders might charge the passenger a higher rate during high demand times—the difference would be paid to the driver, while the benefit to the platform remains unchanged.[35] In this example, there is no apparent competitive harm—the change in rate is a means to regulate the platform by lowering demand and increasing supply to better allocate the scarce supply of drivers.[36]

The *Big Data Paper* also discusses 'Network Effects', which exist where the value of the MSP to a group of participants depends on how many members of the group participate.[37] As an example, a search engine user benefits from use of other users which improves matching search results to searchers' queries, based on the search result's popularity. Thus, there is benefit to the customer when the consumer base increases.[38] Importantly, 'Network Effects' can be both an efficiency and a barrier to entry. Just as competition law enforcement does not challenge use of economies of scale to develop an innovative product while raising barriers to entry if anti-competitive acts are not involved, it would not challenge a firm using 'Network Effects' in a similar fashion, absent an anti-competitive act.[39]

It is apparent from the *Visa-MasterCard* and *TREB Tribunal* decisions, as well as the *Dominance Guidelines* and *Big Data Paper*, that the Bureau and Tribunal are open to novel and specialized market definitions such as a market definition that includes two sides of a MSP, similar to the opinion of the *Amex* Majority, as will be elaborated below.

3. OHIO ET AL v AMERICAN EXPRESS CO ET AL

The issues in *Amex* centred on agreements between merchants and American Express,[40] Visa and Mastercard, that included anti-steering provisions that prevented merchants from discouraging the use of some cards while encouraging the use of others. In 2010, all three credit card companies were sued by the Department of Justice and several U.S. states. In response, Visa and MasterCard withdrew their anti-steering provisions, but American Express pursued litigation. The District Court ruled for the plaintiffs, but the Court of Appeal of the Second Circuit subsequently ruled in favour of American Express and reversed the lower court's decision. On June 25,

2018 the U.S. Supreme Court affirmed the 2nd Circuit's decision (5/4), finding no violation of federal antitrust laws.[41]

The Majority opinion, written by Justice Thomas, stated that market definition is usually necessary, especially when vertical restraints are involved (as they were in *Amex*). Vertical restraints pose no risk to competition without market power, which can only be evaluated based on market definition.[42] The relevant market was defined as the credit card network—a transaction platform constituting both sides of a two-sided platform, facilitating a single simultaneous transaction between merchants and cardholders.[43]

The Majority also found that there were 'Indirect Network Effects', where the value of the platform to one side depends on the number of participants on the other side. Recall, this differs from 'Network Effects' described above, where the value of the platform to a user depends on the number of participants from the same group. In the context of *Amex*, the Court recognized 'Indirect Network Effects' because a credit card is more valuable to cardholders when more merchants accept it, and more valuable to merchants when more cardholders use it.[44] Due to 'Indirect Network Effects', MSPs cannot raise prices without risking a feedback effect loop of declining demand; the Court established that this serves as a check on market power.[45]

In contrast, when the 'Indirect Network Effects' are minor, one-sided, or not simultaneous, there is no need to consider a market definition consisting of both sides of a MSP. For example, newspaper platforms sell advertisements on a MSP that brings together advertisers and readers. Advertisers will receive higher value if more readers use the news platform, but readers are more often indifferent to the number of ads.[46]

The Majority denied the Department of Justice's argument that increasing merchant fees was proof of anticompetitive effects in the relevant market.[47] As the Majority explained, the market must be defined to include *both* merchants and cardholders, and that the plaintiff must demonstrate anticompetitive effects on both sides of the credit card market. This would require showing an increase in the overall cost of credit card transactions above the competitive price, a reduced number of transactions or the stifling of competition in the market. The Department of Justice failed to adduce evidence of such effects.[48]

In fact, the Majority held that the increased merchant fees reflected increases in the value of American Express' services and the cost of its transactions, not an ability to charge above competitive prices.[49] The Majority explained that due to 'Indirect Network Effects', higher merchant fees help

American Express fund its rewards program which increases the value for their customers and attracts more of them to use its cards; this then encourages card holders to make higher-value purchases, thus increasing the value of the MSP for merchants.[50] The Majority also found that American Express' rewards program affected the card holder side of the platform positively by stimulating competitive innovations and improving the quality of services.[51]

It is important to note, however, that the Court in *Amex* by no means reached a consensus; a 5/4 split demonstrates how contentious an issue MSPs can be in antitrust law. While the majority represents a more novel approach to market definition, the dissent was steadfastly against it.

Justice Breyer's dissent stated that market definition is not always required, especially when there is strong direct evidence of adverse effects on competition—as was found by the District Court. This was enough to prove market power.[52]

But more importantly, the Dissent strongly objected to "abandoning traditional market definition approaches" and adopting special market definitions which consider the relevant market as two sides of the platform,[53] because such an approach is unprecedented and unsupported in U.S. antitrust law.[54] The Dissent determined that the relevant market is only the side of the platform that is *directly* affected by a challenged restraint; in *Amex,* such a market would only be merchant related card services, which is not a part of the same market as the other side of the platform—shopper related services (despite the two markets complementing each other).[55]

Furthermore, the Dissent rejected the Majority's premise that 'Indirect Network Effects' cause shopper related services to serve as a check on the price of merchant related services and therefore did not see *Amex as* an 'unusual' case that warrants a market definition that includes two sides of a MSP.[56]

Amex represents a dichotomy of discourse between those jurists who believe that a time of 'Big Data' and innovation calls for more specialised tools and methods and others who believe that the traditional tools and methods of antitrust law suffice. The *Amex* Majority supported specialized measures to define the market. The Canadian Bureau and Tribunal seem to be open to these novel approaches and be more on par with the Majority, as will be discussed below.

4. How *Amex* May Affect The Bureau's And Tribunal's View Of 'Multi-Sided Platforms'

As is evident from statements by Bureau officials at Canadian Bar Association competition law conferences, the Bureau has followed all the developments in the Amex case very closely. The Bureau (as well as the Tribunal), can thus be expected to consider both the majority and dissenting opinions in its future decisions, discussion papers and guidelines.

As mentioned above, *Amex* presents a split between traditional and alternate approaches to market definition in the context of MSPs. The Majority stated that market definition is usually necessary, especially when vertical restraints are involved,[57] and that a market can be defined to include both sides of a MSP, when facilitating a single simultaneous transaction.[58] The Dissent, on the other hand, stated that market definition is not always required, especially when there is strong direct evidence of adverse effects on competition,[59] and strongly objected to adopting special market definitions inclusive of two sides of a platform.[60]

As seen above, the Bureau seems to be open to novel approaches to market definition, and has left all options on the table including: a) not defining a product market at all (suggested as possible by the *Amex* Dissent); b) defining one side of a MSP as a product market (similar to the *Amex* Dissent); c) defining one side as the product market while considering effects on multiple sides; and d) defining multiple sides of the platform as part of the same product market (similar to the *Amex* Majority).[61]

The *TREB Tribunal* also included two sides of the market in a single market definition, somewhat similar to the *Amex Majority's* market definition and displayed an openness of the Tribunal to accept such specialized measures.[62]

According to the *Amex* Majority, significant 'Indirect Network Effects' led to the market definition of two sides of a platform. In contrast, when the 'Indirect Network Effects' are minor, one-sided or not simultaneous, there is no need to consider such market definition.[63] The Dissent, however, rejects that such market definition is warranted because of the existence of 'Indirect Network Effects'.[64] The Bureau's *Big Data Paper* emphasizes that not all MSPs "are created equal",[65] and that the strength of the 'Indirect Network Effects' would be a determining factor in defining the market.[66] The Bureau's approach, therefore, seems to be on par with and may be reinforced by the *Amex* Majority.

On the other hand, when discussing the credit card network in particular, the Tribunal in *Visa-MasterCard* found that demand interdependence and feedback effects are minimal and following a SSNIP test, very few merchants would cease to accept the relevant credit card—which would not diminish its attractiveness to card holders.[67] This view is more similar to the view of the *Amex* Dissent. Contrast this with the *Amex* Majority, which relied on demand interdependence and feedback effects as checks on market power.[68]

While there are a few similarities, the Bureau's overall approach to MSPs is markedly different from the dissent in *Amex*, which may give competition reformers some solace: Justice Breyer's dissenting opinion stated that even "[t]he phrase 'two-sided transaction platform' is not one of antitrust art—I can find no case from this court using these words".[69] Fortunately, the Bureau has already used such terms as a given, and has expressed an openness to the idea that MSPs may require specialized tools and methods,[70] such as a market definition of two sides of a platform.

Furthermore, the *Amex* Majority considered not only the effects of the American Express rewards program and anti-steering provisions on merchants, but also the benefit of these provisions to consumers by stimulating competitive innovations and bettering quality of services.[71] The Big Data Paper follows a similar evaluation, and mentions that the Bureau would not challenge exploiting 'Network Effects' that raise barriers to entry just as it would not challenge a company using economies of scale or develop innovative products which are attractive to the consumer and raise barriers to entry, if anti-competitive acts are not involved.[72] The Bureau's approach to the importance of innovation when regarding MSPs seems to be level with, and may be reinforced by, the *Amex* Majority.

Finally, the *Amex* Dissent implied that contrary to 120 years of antitrust law, the Majority was affected by state capitalism and political power rather than the free market.[73] The 5/4 decision was a result of serious disagreement between the conservative and liberal factions of the US Supreme Court. In Canada, the courts and the political system are less likely to be so polarised.[74] Even if the Bureau and the Tribunal are open to novel approaches, they would likely be more hesitant than the *Amex* Majority to use such market definitions, to find major 'Indirect Network Effects' and decide that a restraint imposed by a MSP did not prevent or lessen competition substantially.

5. Conclusion

In times when 'Big Data's' and innovation's effect on Canadian and global economy surrounds our every day lives, MSPs will continue to be a topic of legal and economic debate by regulators and practitioners alike. It is inevitable then, that Canadian competition law will have to respond to the new challenges that MSPs will raise. This paper has highlighted how the Bureau is beginning to adapt to these new challenges, as it develops the early stages of a consistent MSP policy.

The U.S. Supreme Court's decision in *Amex* highlights the split between traditional and more novel approaches to antitrust law on MSPs. The Bureau and Tribunal have demonstrated openness to novel approaches to market definition and will more likely follow the lines of the Majority rather than the Dissent.

However, the Bureau and Tribunal, while open to discussing specialized tools and methods, would likely be more tempered in their market definitions and considerations of major 'Network Effects' than the Majority in *Amex,* and are expected to also consider the dissenting opinion in *Amex*. The Bureau and Tribunal's approach will likely, then, be guided by the nature of the platform, 'Network Effects', the levels of interdependence between the different sides of the platform, and its effects on innovation.

ENDNOTES

[1] Elad Travis is an associate at Bennett Jones LLP in Toronto. Prior to joining Bennett Jones and the Ontario bar, Elad worked as a competition lawyer in Tel Aviv for nearly seven years. The author would like to thank Mark Katz and Shira Sasson for their insightful comments on earlier drafts of this article.

[2] US Department of Justice, *"'Big Data' and Competition for the Market: Deputy Assistant Attorney General Antitrust Division U.S. Department of Justice",* remarks as prepared for delivery at the Capitol Forum and CQ: Fourth Annual Tech, Media & Telecom Competition Conference (New York: Department of Justice, 2017) at 3.

[3] David S. Evans and Michael Noel, "Defining Antitrust Markets When Firms Operate Two-Sided Platforms" (2005) Colum Bus L Rev 102 [*Evans & Noel*].

[4] Competition Bureau, *The Abuse of Dominance Enforcement Guidelines* Mar 7, 2019 (Ottawa: Industry Canada, 2019) at paras 1.3, 1.16–1.17 [*Dominance Guidelines*]. Competition Bureau, *The Big Data and Innovation: Key Themes for Competition Policy in Canada* (Ottawa: Industry Canada, 2018) at 4–6 [*Big Data Paper*].

[5] 'SSNIP': the hypothetical monopolist test—imposing and sustaining a small

but significant and non-transitory increase in price. See: Competition Bureau, *Merger Enforcement Guidelines* (Ottawa: Industry Canada, 2011) at 11, para 4.3.

[6] *Ohio v American Express Co.,* 585 US at 20 (2018) Thomas J [*Amex*].

[7] *Ibid* at 11–12, Thomas J.

[8] *Ibid* at 15, Thomas J.

[9] As examples of such polarised debate, see: Noah Feldman, "Conservative Justices Don't Much Care For Antitrust Law " *Bloomberg Opinion* (25 June 2018), online: <https://www.bloomberg.com/opinion/articles/2018-06-25/supreme-court-curbs-antitrust-law-in-american-express-case>. The Editorial Board, "Another Antitrust Bust" *WSJ—Opinions* (25 June 2018), online: <https://www.wsj.com/articles/another-antitrust-bust-1529968151>.

[10] *Evans & Noel*, *supra* note 3 at 102.

[11] *Amex, supra* note 6 at 1–2, Thomas J.

[12] *Evans & Noel, supra* note 3 at 103.

[13] *Amex*, *supra* note 6 at 12, Thomas J.

[14] *Evans & Noel, supra* note 3 at 104.

[15] *Ibid*.

[16] *Ibid*.

[17] *The Commissioner of Competition v. Visa Canada Corporation and MasterCard International Incorporated* (23 July 2013), CT-2010-010, online: Competition Tribunal <https://www.ct-tc.gc.ca/CasesAffaires/CasesDetails-eng.asp?CaseID=333> [*Visa-MasterCard*].

[18] *The Commissioner of Competition v The Toronto Real Estate Board* (27 April 2016), CT-2011-003 at para 471, online: Competition Tribunal <https://www.ct-tc.gc.ca/CMFiles/CT-2011-003_Reasons%20for%20Order%20and%20Order_385_66_4-27-2016_7296.pdf> [*TREB Tribunal*].

[19] *Dominance Guidelines, supra* note 4 at paras 1.3, 1.16–1.17.

[20] *Big Data Paper, supra* note 4 at 4–6.

[21] *Visa-MasterCard*, *supra* note 17 at paras 29, 46. For further analysis of the *Visa-MasterCard* decision in the context of S. 76, see: Mark Katz & Erika Douglas, "Resale Price Maintenance in Canada: Where Do We Stand After the Visa/Mastercard Case?" (2013) 1 CPI Antitrust Chronicle, online: <http://www.albertasenator.ca/flashblocks/data/BT%20Money%20Matters/VisaMastercardCase13November2013.pdf>.

[22] *Visa-MasterCard*, *supra* note 17 at para 205.

[23] *Ibid* at para 189.

[24] *TREB Tribunal*, *supra* note 18.

[25] *Ibid* at para 2.

[26] *Ibid* at para 132.

[27] *Ibid* at para 138.

[28] *Dominance Guidelines, supra* note 4 at paras 1.3, 1.17. Citing *TREB* Tribunal, *supra* note 18 at para 132.

[29] *Dominance Guidelines, supra* note 4 at paras 1.3, 1.16.

[30] *Ibid* at para 1.15, n 16 cites *Visa-MasterCard, supra* note 17 at para 189.

[31] *Dominance Guidelines, supra* note 4 at para 1.16.

[32] *Big Data Paper, supra* note 4 at 4–7.
[33] *Ibid* at 7.
[34] *Ibid*.
[35] *Ibid*.
[36] *Ibid*.
[37] *Ibid*.
[38] *Ibid*.
[39] *Ibid*.
[40] American Express provides credit card services to merchants and card holders. "When a cardholder buys something from a merchant who accepts Amex credit cards, Amex processes the transaction through its network, promptly pays the merchant, and subtracts a fee"—*Amex, supra* note 6 at 1, Thomas J.
[41] *Ibid* at 1, 7–8, n 5, Thomas J.
[42] *Ibid* at 10–11, n 7, Thomas J.
[43] *Ibid* at 11–12, Thomas J.
[44] *Ibid* at 4–5, n 1, Thomas J.
[45] *Ibid* at 12, Thomas J.
[46] *Ibid* at 10–14, Thomas J.
[47] *Ibid* at 15, Thomas J.
[48] *Ibid* at 15, Thomas J.
[49] *Ibid* at 15, Thomas J.
[50] *Ibid* at 4–5, 7, 16, Thomas J.
[51] *Ibid* at 6, 18, Thomas J.
[52] *Ibid* at 12, 14, Breyer J, dissenting.
[53] *Ibid* at 18, Breyer J, dissenting.
[54] *Ibid* at 2, 15, 18–19, Breyer J, dissenting.
[55] *Ibid* at 2, 9–10, Breyer J, dissenting.
[56] *Ibid* at 11–12, 17, Breyer J, dissenting.
[57] *Ibid* at 10–11, n 7, Thomas J.
[58] *Ibid* at 11–12, Thomas J.
[59] *Ibid* at 12, 14, Breyer J, dissenting.
[60] *Ibid* at 2, 15, 18–19, Breyer J, dissenting.
[61] *Dominance Guidelines, supra* note 4 at paras 1.3, 1.16–1.17
[62] *TREB Tribunal*, *supra* note 18 at para 138.
[63] *Amex, supra* note 6 at 10–14, Thomas J.
[64] *Ibid* at 11, 17, Breyer J, dissenting.
[65] *Big Data Paper, supra* note 4 at 6–7.
[66] *Big Data Paper, supra* note 4 at 7.
[67] *Visa-MasterCard, supra* note 17 at paras 244–245.
[68] *Amex, supra* note 6 at 10, Thomas J.
[69] *Amex, supra* note 6 at 15, Breyer J, dissenting.
[70] *Big Data Paper, supra* note 4 at 7.
[71] *Amex, supra* note 6 at 6, 18, Thomas J.
[72] *Big Data Paper, supra* note 4 at 7.

[73] *Amex, supra* note 6 at 1, Breyer J, dissenting.
[74] Sean Fine, "U.S. Supreme Court's partisan rhetoric should be 'toned way down,' Justice Kagan says" *The Globe and Mail* (12 November 2018), online: <https://www.theglobeandmail.com/canada/article-us-supreme-courts-partisan-rhetoric-should-be-toned-way-down/>.

BOOK REVIEW/COMPTE RENDU

ANTONIO DI DOMENICO: COMPETITION ENFORCEMENT AND LITIGATION IN CANADA

By Michael Binetti, Affleck Greene McMurtry LLP

Readers of the *Canadian Competition Law Review* who practise competition law have likely faced the following question from clients and friends: "What is competition law?" The answer is not always easy to explain, at least not for me, especially when attempting to describe what is involved in litigating competition matters. Antonio Di Domenico's book, *Competition Enforcement and Litigation in Canada*, gives its readers the tools that are helpful in that endeavour.

The book targets different audiences. To the competition lawyer who is not a litigator, it gives an end-to-end study of what happens in various contested competition scenarios. To the senior competition litigator, it provides an easy-to-find resource to brush-up (or learn) what may be required at any particular stage of a litigious competition matter. Most importantly, each senior competition litigator should hand a copy of this book to their junior competition lawyers to give them a jump start on what they need to know in this practice.

The first section of the book is a pithy description about the history and origins of competition law in Canada. Di Domenico then describes the key actors in competition enforcement: the Competition Bureau, the Director of Public Prosecutions, the Competition Tribunal, provincial courts, and private persons who can bring competition-related actions. These first twenty-one pages should be required reading if anyone wants an answer to the question about what exactly competition law is all about.

The book then moves into the sometimes opaque world of competition investigations. Having worked at the Competition Bureau, Di Domenico takes the reader through the process by which the Commissioner of Competition decides whether to commence an investigation into alleged anti-competitive conduct or a proposed merger. How does the Commissioner decide? Can anyone else pressure the Commissioner to commence an investigation? What happens after an investigation is commenced? On this last point, Di Domenico's book describes the how the Competition Bureau will gather information and from whom, which is invaluable insight for anyone intending to practise in competition law to know.

What happens when the Competition Bureau exercises its powers under the *Competition Act* to obtain information pertinent to an investigation? Here, Di Domenico takes the reader through the applicable tests and arms the competition litigator with the knowledge required to be able to respond to such an application and protect the client's interests.

A large part of the book, and indeed competition litigation, involves competition law offences: conspiracies, bid-rigging, false or misleading representations, deceptive telemarketing, and others. Di Domenico takes the reader through the applicable test (for a conspiracy, it would involve defining competitors, agreements, and conspiracies) and then he discusses the applicable case law. What is different about this book is that Di Domenico marries the tests and the case law with the Competition Bureau's own pronouncements on such matters. In this way, he saves the reader from having to look up the statute, read the cases, and then read the Competition Bureau's *Competitor Collaboration Guidelines,* for example, to understand where particular alleged anti-competitive conduct falls in the analysis. Very helpful is the inclusion of the defences to alleged anti-competitive conduct available for the competition litigator to advance on behalf of their client. When faced with a complaint, the competition litigator will be able to look-up in Di Domenico's book the conduct in question and have ready possible defences as supported by the case law.

If a matter proceeds to litigation, then the competition litigator can use this book to understand how the case against a client will proceed and how to defend it. Criminal competition law cases are not frequent and thus, having this book by the wayside will help the competition litigator to know how a criminal prosecution will proceed and the procedure to follow from the trial through to sentencing. Very helpful.

It takes at least two persons to conspire (from the latin, *conspirare,* to breathe together). When one of those persons wants to cooperate with the Competition Bureau in exchange for immunity from prosecution for competition offences, Di Domenico's book helps the competition litigator navigate the Competition Bureau's immunity and leniency program: what is required to co-operate, when information must be shared and what kind, who must help, when the Competition Bureau can decline to grant immunity. This part of the book is particularly useful because there is no guidance in the statute as to what is involved when a client wants to apply

for immunity (or leniency if they are not the first to approach the Competition Bureau).

On this point, I especially liked the guidance Di Domenico provides on interviewing the employees of one's corporate client, how to warn them about your role as lawyer for the company, how to collect and use their documents. The guidance moves into the world of making a proffer to the Competition Bureau and what a *Queen for a Day* actually is (when a witness provides information to the Bureau on the promise that it will not be used against them). This is the kind of information that some of us learned first-hand from senior litigators. It would have been nice to have all of the options in one place.

Another large part of the book is devoted to unilateral conduct (refusing to deal with a business, price maintenance, tied selling, market restrictions, abuse of dominant position/monopolization) and merger review. Di Domenico breaks down the applicable tests into easy-to-understand pieces and shows—as supported by the case law. For example, in an abuse of dominant position case, the Di Domenico discusses what is required for the Competition Bureau to make-out a case against a person in a market who is allegedly abusing its dominant position. How does this person control the market? What percentage of market share leads to a finding of dominance? How does technology and innovation play into the analysis? How is a market defined geographically?

What I most enjoyed about the book is the next-to-last chapter dealing with proceedings before the Competition Tribunal. Just as with criminal matters, there are not a lot of matters before the Competition Tribunal. This book expands upon and helps the reader understand the Competition Tribunal rules of procedure through the pleadings stage, timetabling of matters, discovery, experts and trial. This is perhaps the only book that does this in such detail.

The book ends with a how-to for private actions and class actions with a great procedural chart similar to ones that appear in our *Rules of Civil Procedure* books. Di Domenico's book lays out all the expected steps in private actions and class actions in a user-friendly format.