Amendments to the *Competition Act:*

Economic Foundations

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1 Introduction

1. The following is my submission to the Consultation Invitation extended by Senator Howard Wetston. It reflects my academic research, teaching, and experience in competition policy. I have been active in competition policy and competition enforcement in Canada (and elsewhere) since 1995 when I joined the Competition Bureau as the T.D. MacDonald. Attached as Appendix 1 is a recent curriculum vita.

2. I welcome the Consultation initiated by Senator Wetston. The worldwide debates on the alleged dominance and enforcement action against digital platforms, for example Google Search, Facebook, and Apple's App Store, and the goals of antitrust have resulted in attacks on both the limited enforcement record of the Competition Bureau and the limitations of the *Competition Act*. The discussion paper by Professor Iacobucci provides an overview of the issues raised by the rise and prominence of digital markets, focusing on the adequacy of the *Competition Act* to address conduct in digital markets that is *anticompetitive* and the goals of antitrust policy.

3. My remarks only comment on some of the issues and conclusions raised by Professor Iacobucci. In particular I agree with the following three conclusions:

    - The objective of the *Competition Act* should only be economic efficiency.

    - The *Competition Act* is sufficiently flexible to address anticompetitive conduct raised by firms in digital markets. Specific amendments to address anticompetitive conduct by firms participating in the digital economy are not warranted and very likely counterproductive. The lesson learned from aggressive enforcement action based on the notion that "big is bad" from the 1960s in particular is worth remembering: antitrust enforcement not based on economic efficiency is counterproductive, leading not to greater overall welfare, including that of consumers, but instead is harmful to productivity, innovation, economic growth, and ultimately the standard of living of Canadians.

- The concern over the *Competition Act's* ability to address anticompetitive conduct in the digital economy and the confusion over the goals of enforcement provide an opportunity not only to clarify by amendment the objective of competition law enforcement in Canada, but also to address Federal Court of Appeal and Competition Tribunal precedents that are inconsistent with competition policy that seeks to identify and prevent conduct that increases, maintains, or enhances market power, let alone conduct that is *also* economically inefficient.

4. While I agree that the abuse provisions, Section 78 and Section 79, are sufficiently flexible to accommodate developments in the digital economy, for example new business strategies and novel business arrangements and structure, the danger is that they are in fact too flexible. This flexibility has resulted in interpretations of the provisions by the Federal Court of Appeal and the Competition Tribunal that have resulted, and will result, in enforcement actions that are not consistent with efficiency and the welfare of Canadians. The potential for this welfare harming enforcement is perhaps more likely in digital markets, as explained *infra*.

5. The amendments proposed here, as distinct from those of Professor Iacobucci, required to reverse erroneous interpretations of the abuse of dominance provision (Section 79), thereby ensuring that enforcement action is consistent with increasing the probability that conduct that creates, enhances, or maintains market power is correctly identified *and* economic efficiency are:

- Clarify that the control requirement in Section 79(a) consistent with the Tribunal and Federal Court decisions prior to the Toronto Real Estate Board series of cases means market power, as typically defined as the ability to profitably deviate from competitive levels in a market in which the firm operates.

- Clarify that an anticompetitive act required under Section 79(b) is based on its effect on the market power of the dominant firm or firms. An anticompetitive act harms competition because it reduces the constraint that a rival exerts on the market power of a dominant firm or firms.

- Clarify that a substantial lessening or prevention of competition required under Section 79(c) is an increase, enhancement, or preservation of the market power of the dominant firm or firm(s).

- Clarify that efficiencies can be a defence to a finding that anticompetitive acts create enhance, or maintain market power if the effects on market power are less than, and offset by the efficiency enhancing effects of the conduct. Conduct would not be enjoined if it led to an increase in overall economic welfare.

6. These amendments would reverse the interpretations of the FCA and the Competition Tribunal in the Toronto Real Estate case that have detached the abuse of dominance provisions from their economic foundations. Doing so would align enforcement of Section 79 with correctly identifying dominance, conduct that negatively affects competition, and efficiency.

7. The next section explains why efficiency should be the only objective of competition policy: competition is desirable when it results in an increase in efficiency.[1] Enforcement that does not enhance efficiency is costly to Canadians: objectives other than efficiency are likewise costly to Canadians. Section 3 demonstrates the rationale for the four amendments to Section 79 to align its enforcement with correctly identifying dominance, the effect of conduct on market power, and efficiency.[2] Section 4 discusses the negative implication of the current state of the law with respect to abuse of dominance for dominant suppliers in digital markets. Section 5 provides some more context, for those interested, on assessing market power and anticompetitive conduct along a supply chain.

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[1] This section follows closely in some respects, and is based on, J. Church, *Defining the Public Interest in Regulatory Decisions; The Case for Economic Efficiency,* (2017), C.D. Howe Institute Commentary No. 478. Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2965707. It is attached as Appendix 2.

[2] This section follows closely, and is based on, J. Church, "The Lamentable Rise of an Expanded Essential Facilities Doctrine in Canada: the Troubling Economic Foundations and Implications of the Toronto Real Estate Board Decision," *Canadian Competition Law Review,* (2018), 31(1): 122-187. Available online at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3293028. This article contains extensive supporting analysis detailing the rationale for the proposed amendments. It is attached as Appendix 3. If the discussion here seems incomplete or is not persuasive, the more complete discussion in that paper might be more convincing.

2 Economic efficiency

8. This Section begins with a gentle reminder of the underpinnings and meaning of economic efficiency (hereafter "efficiency").

2.1 Willingness to pay

9. The willingness to pay is a fundamental concept in economics. The willingness to pay for good *X* is the maximum amount of a next best alternative (which we simplify and consider expenditure on all other goods, thus we can measure it in dollars, in what follows it is sometimes referred to as "other stuff") an individual is willing to give up for another unit of *X* (this is the opportunity cost of a little more *X*). If an individual had to give up their maximum amount of other stuff for another unit of *X* they would be just as well off: that is why it is the maximum. If they had to give up more, they would be worse off, and hence they would not trade that amount of other stuff for another unit of *X*. If they had to give up less, they would be better off trading that amount of other stuff for the unit of *X*. How do we know? Because by definition the maximum made them indifferent and they had to pay less!

10. Suppose your willingness to pay for *Exile on Main Street* is $75. And you can buy it for $25. Then by purchasing it you are better off by $50. Why? Because you are indifferent between the best other stuff that $75 can buy and listening to the Rolling Stones' best album. So, if you can get *Exile* for $25, then you get the same benefit as what you would have got from $75 of other stuff *plus you still have $50 left to buy the best other stuff*. The trade of $25 of cash in your pocket (that could have bought $25 worth of the best other stuff) for *Exile* results in $50 worth of surplus or a $50 gain in trade.

2.2 Economic efficiency defined

11. The attractiveness of efficiency as a measuring rod is based on the fundamental fact that resources are scarce. This means that society must make choices regarding how its resources are allocated: scarcity means that not all goals can be achieved. Efficiency is achieved when the value of production from society’s endowment of scarce resources is maximized and increases in efficiency increase the value of what is produced from society's scarce resources.

12. Video game programmers, instead of contributing to the production of video games, could instead have their time allocated to digging ditches. In both cases their time would be used productively, but the value of what they produce, how much others in society benefit from their output is not the same. The value to others of the video games produced by the programmers is likely, at least under normal circumstances, higher than the value to others of the ditches they dig. The value others place on the output produced is measured by their willingness to pay.

13. Intuitively, economic efficiency is about using resources in their first-best use and the cost of misallocating resources is the difference in value between using those resources in their second-best use instead of their first-best use. It is important to recognize that economic efficiency and productivity are related: an efficient outcome corresponds to maximizing productivity. Ultimately the standard of living of a society depends upon the extent to which it can maximize the value of its production from its endowment: knowledge, land, natural resources, capital, and labour. Inefficient outcomes result in lower levels of productivity and a lower standard of living.

2.3 Measuring efficiency

14. The concepts of Consumer and Producer Surplus are the basis for assessing or measuring efficiency. Consumer surplus and producer surplus measure, respectively, the extent to which the welfare of a buyer and a seller increase from making a voluntary trade. Consumer Surplus and Producer Surplus in a market measure the gains from trade to all consumers (buyers) and all producers (sellers) respectively.

15. Consumer surplus measures the gains from trade to a consumer in dollars. It is the amount of compensation a consumer must be paid to be as well off as they were if instead of consuming their first-best choice they were forced to consume their second-best choice. If instead of consuming 10 liters of gasoline to drive from Calgary to Banff, the next-best choice was to watch Netflix and order in pizza, Consumer surplus would be the cash payment that would make our hypothetical consumer indifferent between the two options: a trip to Banff and back or the cash, Netflix, and pizza. Hence it is measure of the value of the trip to Banff versus the

next-best alternative. Consumer surplus is the difference between willingness to pay and opportunity cost, typically the price paid.

16. Similarly, producer surplus is the amount of compensation a firm must be paid so that their profits are unchanged if they use resources not in their first-best choice but instead were forced to use their inputs or resources in their next-best alternative use. If oil sold to Chicago yielded profits of $10 per barrel (the first-best), but only $5 per barrel (the second-best) if sold in Sarnia, then the producer surplus from being able to sell in Chicago is $5 per barrel.

17. Buyers and sellers realize surplus on each unit they buy or sell. The total increase in welfare from trading in a market is the gain in surplus aggregated across all units, all buyers, and sellers. Consumer Surplus and Producer Surplus measure, respectively, the aggregate benefit to all consumers from their total consumption of a good and the aggregate benefit to all producers from their total supply of a good. The aggregate benefit of an economic activity is therefore measured, in dollars, by the sum of Consumer and Producer Surplus. This sum is called Total Surplus and corresponds to a Total Welfare standard.

18. Total Surplus measures the value created by economic activity. Changes that enhance economic efficiency increase Total Surplus. The commonly asserted policy goal to “mimic competitive markets” is based on competitive markets outcomes being efficient: at the end of a competitive and voluntary trading process, all trades that are mutually beneficial will be made.[3] A voluntary trade makes both parties to the trade better off or it would not be voluntary. Both parties receive surplus, the amount they are better off by making the trade. If there are no more gains from trade to be realized, then Total Surplus will be maximized.

19. Maximizing Total Surplus results in an efficient outcome.[4] Changes that increase efficiency increase Total Surplus, but they need not increase the welfare of everyone. Instead changes that enhance efficiency may only be Potential Pareto Improvements: a change is a Potential Pareto Improvement if the winners from the change could compensate the losers and still be

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[3] This is Adam Smith's famous invisible hand at work.

[4] An efficient state is socially desirable because it is not possible to make one person better off without making someone else worse off. An efficient state is Pareto Optimal.

winners, i.e., better off. This will be the case if Total Surplus increases from the change (recall that consumer surplus and producer surplus are dollar measures of value to individual consumers and producers, and hence their change represents their willingness to pay for a change if it is favourable, or the amount they must be compensated for a change if it is unfavourable).

2.4 Market power

20. The creation, enhancement, or maintenance of market power is inefficient because of the effects of the exercise of market power. Market power is defined as the ability to profitably raise prices above competitive levels. Market power is defined based on a distortion away from competitive levels and while it is typically defined with respect to price, a firm can exercise its market power by distorting other choices away from competitive levels, including quality, advertising, innovation, variety, and restrictions on the use of its product, i.e., by whom, for what, how much, etc.

21. A firm exercising market power raises its price for its differentiated product, or reduces its quantity for sale of a homogenous product to raise the market price. The advantage of doing so to the firm is that it receives a higher price on units that are sold, but at the cost of the lost margin on units no longer sold. The exercise of market power means that prices will be too high relative to the competitive level.

22. The exercise of market power is inefficient: Total Surplus would go up if resources were reallocated from their next-best alternative use and instead deployed to increase production of the good whose price is greater than its competitive level. The increase in the profits of the firm that exercises market power is less than the total loss to its consumers. The loss to consumers has two parts, the higher price on purchases maintained at the higher price reduces their surplus, and on units they no longer purchase at the higher price, surplus is completely lost. The first loss is a redistribution of surplus from consumers to the firm from its exercise of market power, but the second is an opportunity cost. It is surplus that is no longer created because those units are no longer produced, traded, and consumed at the higher price. The dollar value of the gains from trade lost is the deadweight loss from the exercise of market power by the firm.

2.5 Why efficiency?

23. Adopting the goal of economic efficiency involves identifying the most efficient outcome, that for which value is maximized. Using efficiency as the metric to assess conduct means that antitrust enforcement would be used to prevent conduct that creates, enhances. or maintains market power, a first necessary condition, *and* whose net effect is inefficient. That is, if Total Surplus increases despite an increase in market power from the conduct, the conduct would not be enjoined. This also implies that the distribution of benefits or surplus from economic activity should not be considered in assessing the social desirability or legality of conduct by the Competition Tribunal.

24. The reconciliation of a change being a Potential Pareto Improvement with the public interest even though some individuals might be harmed, is found in the following considerations. These considerations provide the rationale for why efficiency should be the only consideration in assessing the legality of conduct under the *Competition Act* even though it might result in losses to some individuals:

    - Income Distribution. Income distribution is clearly an important concern, the issue is not whether those concerns should be reflected in policy choices, but where and how those concerns should be reflected in policy. It is through elections that conflicting views over income distribution are resolved. It is a sensible institutional design to have most state institutions concerned only with efficiency and leave concern over distribution to those (few) directly accountable to elected officials. The value judgement over the appropriate distribution of income is then made by those accountable to the electorate and legislative branches should be responsible for income distribution.

    Regulatory processes and antitrust enforcement and adjudication are not a substitute, nor are they intended to be a substitute, for the political process to express preferences over the appropriate distribution of income. Regulatory institutions and processes have not been designed, and likely cannot be designed, to arbitrate competing value judgements on fairness and distribution of economic surplus, i.e., income distribution.

If distribution is a legislative concern of the Competition Tribunal, or it has numerous objectives besides efficiency, then the Tribunal panel will have considerable latitude to trade off the various objectives as it deems appropriate. That is the decisions will reflect the preferences not of society nor of elected representatives, but instead the preferences and values of the members of the Competition Tribunal. This implies a high degree of uncertainty regarding outcomes in front of the Competition Tribunal. Uncertain treatment of procompetitive conduct will have a chilling effect that is socially undesirable.

- Wealth Creation. Consistent with the previous observation, the value judgment appropriate for an autonomous unelected body, as is the Competition Tribunal, is economic efficiency and wealth creation, not the determination of the appropriate distribution of the gains from economic activity. The consistent application of the Total Surplus standard (efficiency) will, on average, make everyone better off. If some are consistently left behind (not losers in just one instant, but overall) then distributive branches responsible to elected representatives can transfer income.

- Unnecessary. Those harmed by one policy decision, might well benefit from many others. Piecemeal responses by the Competition Tribunal to address those disadvantaged in one of the infrequent applications it considers are costly and may also be unnecessary.

- Crowding Out. It is important to minimize distributional considerations to preserve the goal of efficiency. Otherwise, efficiency is likely to be trumped by rent seeking and distributional concerns, with the result that on average competition law makes all Canadians consistently worse off. Hence it is important to reduce or eliminate the ability of the Competition Tribunal and the Federal Courts to base their decisions on distributional considerations and commit them to consider only efficiency considerations.

- Negative effect on the adjudication processes. If income distribution is seen to be an issue that is part of the *Competition Act's* purpose, then rent-seeking and lobbying

will dominate enforcement proceedings. Affected special interest groups will be more likely to show up to advance and defend their interests if the *Competition Act* mandates that the Competition Tribunal and the Federal Court are to consider the effect of enforcement on distribution. The result will be contentious, costly, and lengthy adjudication proceedings.

- Legitimacy of the Competition Bureau, the Competition Tribunal, and the *Competition Act*. If competition law enforcement becomes another means by which income can be redistributed, there will be heightened scrutiny of the Bureau and Tribunal, and pressure from organized groups with an interest in its decisions for explicit representation. Without such representation, there will be concern over the legitimacy of the Tribunal and its decisions. The flip side is that with such representation, the broader public might wonder about the value of these institutions if they are seen to be captured by special interests.

- Investment. Adopting Total Surplus (efficiency) provides some assurance to investors that they will not be subject to hold up, at least if Total Surplus is based on long-run costs. The importance of enforcement processes that are stable, predictable, and informed by principles of wealth creation is highlighted by regulatory risk. Regulatory risk arises when investment is large and sunk. In these circumstances, firms will be reluctant to invest unless they have confidence that antitrust enforcement will respect their property rights after their investment is made. If antitrust enforcement is subject to distributional concerns there is always a temptation that the Tribunal, responding to pressure from consumers, workers, environmentalists, politicians, etc., will be induced to engage in regulatory holdup.

  Regulatory holdup occurs when a regulator or court, including the Competition Tribunal, takes measures after investments have been made that make those investments unprofitable. This can be done by mandating allegedly procompetitive measures, such as access to essential facilities, which reduces prices to reflect only variable costs and not total costs, after investments in service are sunk. The effect of this is to expropriate the firm's capital investment and as a result the response by firms

is to reduce their investment and/or demand higher rates of return. Neither of these responses is consistent with efficiency in the long run.

- Competitive markets. Potential Pareto Improvements are the result of the operation of competitive markets. The wonder of competitive markets is not only that given costs and demand, the outcome is efficient. Instead, the greater wonder is that in reality market economies are dynamic, and the competitive outcome changes with shocks to supply and demand. The adaptation to these changes in competitive markets reallocates resources to maximize the value of production, but in doing so creates both winners and losers. The changes in choices by consumers and firms in response to price changes restores efficiency, but in doing so harms some participants.

- Political Inefficiency and Independent Decision Making. Without limitations on what governments are allowed to do, they ended up using their legal power of coercion to redistribute surplus (the benefits of economic activity). Because of the relative differences that different groups affected by policy changes have in reaching a consensus and mobilizing resources, governments can, and do, adopt inefficient policies. These policies benefit the privileged group, but those benefits may be less than the costs imposed on everyone else: the winners cannot compensate the losers! Too much of this and the economy is not very productive. The argument is that decisions that affect wealth creation should be allocated to regulatory agencies and tribunals, taken out of the hands of politicians, and that the decision criteria used should be maximization of wealth, i.e., Total Surplus.

Political inefficiency arises when governments destroy economic value by policy choice. The possibility for political inefficiency arises because politicians and political parties are self-interested and governments have a legal monopoly on the use of force, a resource that can be used to advance private interests. As a result, private interests will seek it, while in exchange for support (in the form of votes, volunteers, financial contributions, etc.) politicians and political parties will supply it. Government policy, from an efficiency perspective, can easily be unduly dominated by redistributive

concerns if doing so is the path to achieving and maintaining political power. But the cost can be a reduction in the value of production, which translates into lower productivity and standards of living.

Political inefficiency arises because of imperfect information and transaction costs. In such a world, competition between competing groups for redistributive policies will favour some groups over others. The result is that those groups who can easily reach consensus, extract resources from their members, and limit free-riding will be able to impose costs on other groups who have limits on their ability to reach consensus, extract resources, and control free riding.

For instance, suppose there are two policies under consideration, *X* and *Y*. Adoption of *X* would increase Total Surplus by 10, but adoption of *Y* would increase Total Surplus only by 6. A government interested in efficiency would adopt policy *X*. Suppose group *A* suffers a loss of 2 under *X*, but a gain of 3 under *Y*. Rival group *B* benefits 12 under *X*, but only 3 under *Y*. In a world of perfect information and zero transaction costs, *B* would be able to compensate *A* and insure the adoption of *X*. That is, group *B* can make adoption of *X* a Pareto Improvement relative to *Y*. Any net payment from *B* to *A* greater than 5 and less than 9 would ensure outcome *X*. It would make *A* at least as well off as in *Y* and *B* would be better off than if the outcome was *Y*.

But in a world of imperfect information and transaction costs, it might be the case that group *B* can only mobilize and transfer to politicians resources of 2 to advocate for *X* and prevent *Y* while *A* can mobilize and transfer to politicians resources of 3 to advocate for *Y* and prevent *X*. In this case the outcome could be policy *Y* as *A* exercises its competitive advantage in the political process. The result is inefficient: the value to *A* is 5, but the cost to *B* is 9. The difference of 4 is the inefficiency, i.e., the difference in Total Surplus between *X* and *Y*.

In addition, if rent seeking uses resources with an opportunity cost, the lobbying costs of 5 are also an inefficiency. The resources used to advocate and lobby for a particular policy could have been used to produce something that could be consumed (which is socially valuable) instead of a change in policy (which is only privately valuable).

> Productive resources used to advocate for a particular policy clearly have a private benefit, but the social benefit in many cases is not so clear. The resources could have been used to produce additional goods and services instead of a change in policy.
>
> This is why sensible institutional design involves allocating authority in such a way that governments are limited in their ability to use their discretion to determine the distribution of income by altering the allocation of resources. Minimizing political interference, and its resulting inefficiency, is an important basis for assigning decisions to independent regulatory agencies. A key advantage of delegating the responsibility for decisions that have significant implications for the efficient allocation of resources is to insulate these decisions from the political process, governments, and politicians. The objective is to immunize them from lobbying and rent seeking behaviour to advance income redistribution at the expense of efficiency.
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> *If distributional considerations are presumed to matter, the decision would not have been allocated to an independent agency. Instead, it would be made by the government. The allocation of adjudication power to the Competition Tribunal is consistent with an objective of efficiency, i.e., a revealed preference for the paramountcy of efficiency.*

2.6 Other objectives than efficiency and income distribution

25. The analysis in the preceding section appears to assume that the choice of objectives is between the distribution of economic gains (income distribution) and efficiency. It does not explicitly consider other objectives, including those in the purpose clause of the *Competition Act*. Others discussed by Professor Iacobucci include concerns over privacy and employment.

26. The important point to recognize is that these other potential objectives can usually be understood as either an efficiency issue *or* a distribution issue. To the extent these concerns enhance the economic wellbeing of a particular group—consumers, small and medium business, workers, exporters, or other identified groups—the ultimate objective can be discerned to be a redistribution of income.

27. To the extent the concern is over attributes of goods and services, for instance privacy, then the efficiency analysis, can be, and should be, expanded to consider the efficient provision of

that attribute. Just like any other quality attribute of a product or service, there is an efficient level of privacy, where the marginal benefit of additional privacy protection equals its marginal cost. The efficiency framework is sufficiently flexible to organize and understand trade-offs involving privacy and other concerns involving, ultimately, the allocation of resources.

3 Abuse of dominance: Sections 78 and 79

28. The abuse of dominance provisions are Sections 78 and 79 of the *Competition Act*. Section 79(1) specifies the requirements that must be met for the Competition Tribunal to make an order upon application by the Commissioner of Competition. The three sections of Section 79(1) are:

    (i) 79(1)(a) requires a demonstration that one or more persons substantially control a class or species of business throughout, or within a particular region of, Canada;

    (ii) 79(1)(b) requires demonstration that the person or those persons are engaged in or have engaged in a practice of anti-competitive acts; and

    (iii) 79(1)(c) requires demonstrating that the practice has had, is having, or is likely to have the effect of substantially preventing or lessening competition in a market ("SPC" or "SLC").

29. An interpretation of these three requirements had developed prior to the *Toronto Real Estate Board* case. The interpretation, by section:

    a. *Control*. The requirements for control had been interpreted to mean dominance. Dominance in turn meant the sustained exercise of substantial market power in a relevant market.

    b. *Practice of Anticompetitive Acts*. A practice of anticompetitive acts involved establishing conduct that is exclusionary or predatory and which does not have a legitimate business justification.

    c. *Substantial Prevention or Lessening of Competition*. The Commissioner must establish that the conduct that creates adverse effects on a competitor has also harmed

competition in a relevant market. In the usual case, the requirement is that the conduct at issue creates, preserves, or enhances the market power of the dominant firm in the same market in which it is dominant. However, that need not be the case: the conduct could create, preserve, or enhance the market power of the dominant firm (directly or indirectly, e.g., an affiliate or it otherwise benefits from the exercise of market power) in another market. If the effect of conduct is to increase market power in a market different from which it is dominate, then two relevant markets *should be defined*.

For an order the *Commissioner* must establish all three conditions—dominance, anticompetitive practice, and substantial lessening or prevention of competition. This judicial interpretation more or less matched the economic foundations if the objective of the abuse provisions was to control conduct by dominant firms that maintains, enhances, or creates market power, though the treatment of efficiencies was problematic.

30. The economics of abuse mean the following should be the requirements for the Commissioner to make a successful application to the Competition Tribunal:

(i) For dominance, it must be the case that the firm whose conduct is alleged to harm competition must have significant market power that is durable, i.e., it should be earning monopoly returns and able to maintain its return in excess of competitive levels in the long run. To maintain its market power, i.e., its control over price, competitors must be excluded. Without exclusion of competitors, the dominant firm will not be able to maintain its control over price or otherwise exercise market power.

(ii) The alleged conduct by the dominant firm must reduce the competitive discipline or constraint on market power of competitors. This occurs if, and only if, the conduct reduces the ability and willingness of consumers to substitute since it is the ability and willingness of consumers to substitute that is a primary determinant of a firm's market power.

(iii) The conduct must have a substantial effect on the exercise of market power. That is, in the absence of the conduct, market power of the dominant firm or from which it

benefits would be substantially less in a relevant market.

(iv) An increase in market power is only a necessary condition for a negative effect on consumer welfare or efficiency. In some cases, the conduct may have *both* a negative effect on rivals that materially reduces their ability to restrain the exercise of market power *and* a positive effect on the costs or quality of the dominant firm. Welfare consistent enforcement will require that these two effects be traded off appropriately, i.e., does Total Surplus on net increase.

31. Unfortunately, the Federal Court of Appeal Decision ("FCA") overturning the Competition Tribunal's initial dismissal of the Commissioner of Competition's application against the Toronto Real Estate Board,[5] and the Competition Tribunal decision on remand ("*TREB*"),[6] have resulted in judicial interpretations of Section 79 that depart from the earlier consensus, and quite frankly, demonstrate an alarming degree of economic illiteracy. The failure to properly understand and apply the relevant economics—following the consensus that had evolved—results in errors of analysis and economic incoherence. This economic incoherence makes the application of the abuse provisions problematic, lowering the probability of correctly identifying a dominant firm and whether its conduct has a negative effect on competition, to say nothing of distinguishing between conduct that is efficient or inefficient.

32. The judicial interpretations in FCA and *TREB* that are problematic include incorrectly defining market power and therefore control as the ability to exclude competitors; determining whether conduct is anticompetitive by assessing its purpose or intent; identifying a substantial lessening or prevention of competition by assessing the effect of conduct on prices or quality, not market power; and not incorporating the overall effects of the conduct on consumers, let alone the efficiency of resource allocation.

33. These errors persist in the Tribunal's *YVR* decision,[7] suggesting that competition law enforcement consistent with efficiency requires amendments to the *Competition Act* defining

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[5] *Commissioner of Competition v. The Toronto Real Estate Board*, 2014 FCA 29 (2014).

[6] *In the Commissioner of Competition v. The Toronto Real Estate Board*, The Competition Tribunal CT-2011-003, (2016).

[7] *The Commissioner of Competition v. Vancouver Airport Authority,* 2019 Comp Trib 6, CT-2016-015 (2019).

the meaning of control, the definition and identification of anticompetitive conduct, the definition and identification of a substantial prevention or lessening of competition, and the incorporation of efficiencies.

3.1 Control

34. Since the first abuse of dominance application, *NutraSweet,* the Tribunal has interpreted control of a class or species of business to mean market power in a relevant antitrust market.[8]

35. The first Tribunal panel dismissed the application against TREB on the basis that TREB did not compete in the provision of residential real estate brokerage and hence its conduct could not harm a competitor, it did not exercise market power in this market, and if it did not have market power in the residential real estate brokerage market its conduct could not create, enhance, or preserve that market power.[9]

36. The Commissioner's strategy to salvage the application was validated by the FCA. The FCA endorsed the possibility that the requirement for control could be satisfied if a supplier of an input could use the terms of access to affect competition in the downstream market. The sole discussion of this in the FCA decision is a single paragraph:[10]

> The Commissioner takes the position that a person that is not a competitor in a particular market nevertheless may control that market substantially within the meaning of paragraph 79(1)(a) by, for example, controlling a significant input to competitors in the market, or by making rules that effectively control the business conduct of those competitors. In my view, the Commissioner's position reflects an interpretation of paragraph 79(1)(a) that its words can reasonably bear, given the statutory context.

37. By resorting to a dictionary definition of "control" instead of following the Tribunal's jurisprudence of equating control to market power, the FCA unleashed all kinds of economic

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[8] J. Church and R. Ware, (1998), "Abuse of Dominance under the 1986 Canadian *Competition Act,*" *Review of Industrial Organization* 13, 85-129 at pp. 98-99. See commentary by the Tribunal in *Canada Pipe*: *Commissioner of Competition v. Canada Pipe,* 2005 Comp. Trib. 3 at ¶65, footnotes omitted.

[9] *In the Commissioner of Competition v. The Toronto Real Estate Board*, The Competition Tribunal CT-2011-003, (2012) at ¶¶ 23, 24, and 25.

[10] FCA at ¶13.

mischief. The Tribunal *TREB* redetermination decision makes things worse by defining market power to include the power to exclude competitors.[11]

38. The Commissioner, the Tribunal and the FCA are simply mistaken: exclusion of competitors is a necessary condition for market power. Exclusion of competitors is not market power, but it can give rise to the ability to exercise market power. The economic reality was clear and ignored in *TREB:* the relevant market for control was the upstream market defined around the confidential price data and in which TREB might have market power; TREB did not participate or have market power in the downstream market, and this is true independent of TREB's discriminatory access to its data; no realtors had market power downstream in the market for brokerage, again independent of TREB's discriminatory access policy to its data; TREB's discriminatory access policy to its data, if it has market power, does affect competition in the downstream market, but this "control" does not correspond to market power by TREB in the downstream market. Despite these facts TREB was still found to have abused its dominant position in the market for brokerage. The same fate might have been true for the Vancouver Airport Authority ("VAA"), except that the Tribunal determined the intent of its discriminatory access policy, because VAA believed that the effect of not allowing access downstream was to maintain market power and profitability required to sustain service in the downstream market (galley handling), was a legitimate business justification and hence not an anticompetitive act.[12]

39. The power to exclude or affect competition in the downstream market only exists if the upstream supplier has market power in the upstream market. The input supplier can only “control” the downstream market if it has market power in the supply of the input, otherwise downstream firms could ignore the rules and restrictions regarding the use of the input. As usual, buyers can evade the exercise of market power if they can substitute to alternatives. The Tribunal’s mistake of conflating market power downstream with the power to exclude arises because it does not recognize that the power to exclude arises only if there is market power upstream. It mistakes the effect of an exercise of market power upstream for market power

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[11] *TREB* at ¶176.

[12] *YVR* at ¶¶ 4, 621, 623, and 624.

downstream. Moreover, the Tribunal's approach is not supported by the legal precedents it relies upon. The economic foundations for defining market power to include the power to exclude are incorrect and likely therefore, so too is its legal foundation.[13]

40. The Tribunal in *TREB* agreed with the Commissioner that market power includes the power to exclude if excluding competitors profitably influences prices and goes onto observe that it is the "exercise of the power to exclude that facilitates a dominant firm's ability to profitably influence the dimensions of competition referred to in *Tervita*."[14] But this is not the correct reading of the Supreme Court.

41. The Supreme Court in *Tervita* defines market power as the following:[15]

> Generally, a merger will only be found to meet the "lessen or prevent substantially" standard where it is "likely to create, maintain or enhance the ability of the merged entity to exercise market power, unilaterally or in coordination with other firms" (O. Wakil, *The 2014 Annotated Competition Act* (2013), at p. 246). Market power is the ability to "profitably influence price, quality, variety, service, advertising, innovation or other dimensions of competition" (*Canada (Commissioner of Competition) v. Canadian Waste Services Holdings Inc*., 2001 Comp. Trib. 3, 11 C.P.R. (4th) 425, at para. 7, aff'd 2003 FCA 131, 24 C.P.R. (4th) 178, leave to appeal refused, [2004] 1 S.C.R. vii). Or, in other words, market power is "the ability to maintain prices above the competitive level for a considerable period of time without such action being unprofitable" (*Canada (Director of Investigation and Research) v. Hillsdown Holdings (Canada) Ltd*. (1992), 41 C.P.R. (3d) 289 (Comp. Trib.), at p. 314);

42. The definition of market power used by the Supreme Court in *Tervita* is in the context of defining when a merger will lessen or prevent competition. As the first sentence makes clear the concern is that the merged entity will be able to exercise market power and a firm has market power, therefore when it—made clear by the third sentence—can profitably influence or maintain price above competitive levels or other dimensions of competition away from competitive levels. The Supreme Court is defining market power: the ability to profitably raise prices above competitive levels by a firm in a market in which it participates by "profitably influence price, quality, variety, service, advertising, innovation or other dimensions of competition". The cite is not support for the proposition that an upstream supplier with market

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[13] See Church, *Lamentable* at pp. 153-155

[14] *TREB* at ¶176

[15] *Tervita Corp. v. Canada (Commissioner of Competition),* 2015 SCC 3 at ¶44.

power has market power in the downstream market because it can profitability influence dimensions of competition in the downstream market.

43. The FCA in *Canada Pipe (Market Power)* provides a summary of the jurisprudence that had developed at that time on the relationship between market power and control, i.e., the requirements of Section 79(1)(a). The FCA made two observations. First that market power, though not mentioned in Section 79(1)(a), was necessary for control,[16] and, second, citing the FCA in *Southam,* that:[17]

> "market power is recognized as the ability to profitably raise prices above competitive levels without losing a significant portion of business to rival firms or firms that may become rivals as a result of the price increase"

44. Instead of substantial and durable market power in a well-defined antitrust market, control post *TREB* also encompasses a monopoly supplier of an input in an upstream firm if it uses the price and terms of supply to limit competition in the downstream market. If it uses the terms of supply to limit or set the rules of competition downstream, the input supplier is deemed to have market power *in the downstream market, when its ability to do so arises because it has market power upstream*. The Tribunal will find that monopoly power upstream means dominance downstream since any exercise of monopoly power will "limit" competition downstream. The FCA and the Tribunal fall into the trap of mistaking the effect of an exercise of market power upstream for market power in the downstream market.

45. The Tribunal engages in the same sort of flawed economic analysis in *YVR,* finding that the Vancouver Airport Authority has market power in the downstream market, galley handling, because it can control the number and identity of firms in that downstream market. But it can only do that because it has market power in the upstream market, airside access to planes requiring stocking of their galleys. As with the Toronto Real Estate Board, the Vancouver Airport Authority does not participate in the downstream market. A firm that does not

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[16] *Canada (Commissioner of Competition) v. Canada Pipe Company Ltd.,* 2006 FCA 236 (2006) at ¶107.

[17] *Canada (Commissioner of Competition) v. Canada Pipe Company Ltd.,* 2006 FCA 236 (2006) at ¶104, the quote is from *Canada (Director of Investigation & Research) v Southam Inc*, 1995 3 FC 557, [1995] at ¶113 and omits citations.

participate directly in the downstream market or indirectly, perhaps through ownership of an affiliate, cannot have, or exercise, market power downstream.

46. In *YVR,* the judicial members of Tribunal appear not to appreciate the implication that it finds VAA to have upstream market power in the market for airside access,[18] (though the economist on the panel does) even though the Tribunal agrees that the mere exercise of that market power, is not subject to sanction:[19]

> The Tribunal considers it appropriate to reiterate that the exercise of pre-existing market power to exclude entry (or even to raise prices) does not necessarily constitute an anticompetitive act, as contemplated by paragraph 79(1)(b). As the Tribunal has previously observed, "[…] section 79 is not intended to condemn a firm merely for having market power. Instead, it is directed at ensuring that dominant firms compete with other firms on merit and not through abusing their market power" (Canada (Director of Investigation and Research) v Tele-Direct (Publications) Inc et al, [1997] CCTD No 8, 73 CPR (3d) 1 (Comp Trib) at p 179). *In this regard, Dr. McFetridge notes that any limitation in the supply of licences for airside access by VAA could be construed as the mere exercise of its pre-existing market power in the Airside Access Market.*

47. The substance of the proposed amendment to Section 79 would equate control with dominance, where dominance is based on the definition of market power in the antitrust literature, the economics literature, and jurisprudence in both Canada and the United States: the ability by a firm to profitably raise price above competitive levels in a market in which it participates or otherwise profitably distort its choices away from competitive levels.

3.2 Anticompetitive acts

48. The ruling interpretation of 79(1)(b) was established by the Federal Court of Appeal in *Canada Pipe (SLC)*. The so-called Canada Pipe Rule defines anticompetitive conduct as conduct that has "an intended predatory, exclusionary, or disciplinary negative effect on a competitor."[20] The *Canada Pipe* rule requires conduct whose *purpose* (i) is exclusionary, predatory, or disciplinary and (ii) against a competitor. The Federal Court of Appeal in *FCA* rejected the *Canada Pipe* rule that an anticompetitive practice required conduct that was exclusionary, predatory, or disciplinary against a *competitor* of the dominant firm.[21]

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[18] *YVR* at 456.

[19] *YVR* at ¶625, emphasis added.

[20] *Canada (Commissioner of Competition) v. Canada Pipe Company Ltd.,* 2006 FCA 233 at ¶66.

[21] FCA at ¶17.

49. The Tribunal's view is that anticompetitive conduct is identified by a purpose that is exclusionary, predatory, or disciplinary on a competitor.[22] But, following the *FCA,* the conduct need not be against a competitor of the party engaged in the conduct, but the party engaging in the conduct must have a plausible interest in the extent of competition in the market where its conduct negatively affects a competitor.[23] The purpose or intent of the conduct can be established by reference to evidence of subjective intent or from the reasonably foreseen effects of the conduct.[24]

50. The FCA in *Canada Pipe* determined that in assessing the purpose of conduct, the Tribunal is to consider whether it has a legitimate business justification. Indications, whether subjective or based on the effects of the conduct, that it has a legitimate business justification are to be weighed against the evidence suggesting the motivation for the conduct was predatory, exclusionary, or disciplinary. A legitimate business justification "essentially provides an alternative explanation as to why the impugned act was performed, which in the right circumstances might be sufficient to counterbalance the evidence of negative effects on competitors or subjective intent in this vein."[25] A legitimate business justification is "a credible efficiency or pro-competitive rationale" for the conduct.[26] This means that the conduct must lead to efficiencies or other advantages for the firm that enable it to more effectively "compete on the merits."[27] Both the FCA and the Tribunal, however, require that the business justification be independent of the anticompetitive effect of the practice.[28]

51. Starting with *Canada Pipe,* the definition and identification of an anticompetitive act becomes divorced from the requirements to assess whether conduct affects the ability of the dominant firm to exercise market power or is socially harmful. It does so for the following reasons:

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[22] *TREB* at ¶272.
[23] *TREB* at ¶279.
[24] *TREB* at ¶274.
[25] *Canada Pipe (Market Power)* at ¶87.
[26] *Canada Pipe (Market Power)* at ¶¶73 and 90-91, *TREB* at ¶294.
[27] *TREB* at ¶304.
[28] *TREB* at ¶294, *Canada Pipe (Market Power)* at ¶90, *YVR* at ¶519.

- The focus should be on the effects of the conduct, not subjective intent. If the Tribunal finds the motivation was legitimate, then it will find no abuse of dominance regardless of its effect on market power or how negative on efficiency its effects. Indeed, the FCA and the Tribunal have held that effects on market power from the conduct are not to be considered in determining whether the conduct is anticompetitive.[29] The absence of market power or a change in market power should be definitive when determining whether the act was anticompetitive. This is not the case.

- The jurisprudence gets worse: the business justification must be independent of the anticompetitive effect and therefore in instances where the conduct both has an efficiency enhancing effect and an anticompetitive effect, the business justification is not relevant for determining whether the intent was anticompetitive. The framework developed by the FCA and the Tribunal for assessing whether conduct is anticompetitive or not prohibits an objective balancing of the effects of the conduct on resource allocation, which is especially problematic when the conduct both relaxes the competitive constraint of rivals and benefits consumers or realizes efficiencies.

  In these instances, the efficiency benefits of the conduct must be traded off against its anticompetitive effects. This can be done by considering the net effect of the conduct on consumer welfare or Total Surplus (depending on the standard adopted). But it cannot be done by determining the intent or purpose of the conduct. Ultimately what should matter if the goal of antitrust enforcement is to promote efficiency or consumer welfare is the net effect of the conduct.[30]

52. Without an effect on competition between firms there cannot be an effect on competition. Without an effect on competitors of the dominant firm (either direct or indirect competitors) there is not an anticompetitive incentive for the dominant firm to engage in the conduct. So,

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[29] *Canada Pipe (SLC)* at ¶¶ 80 and 81; *TREB* at ¶276.

[30] The jurisprudence goes so far as to assert that a positive effect on consumer welfare does not establish a legitimate business justification. See *YVR* at ¶519.

the conduct or act must negatively affect the incentives or ability of a firm that competes with the dominant firm or a related entity. Anticompetitive conduct must ultimately benefit the dominant firm from increasing its market power and monopoly profits or it is not anticompetitive.

53. An anticompetitive act can be defined by going back to first principles. It is not harm to the rival per se that defines anticompetitive conduct. The relevant harm is to the rival's ability to discipline the exercise of market power, either by reducing its ability to expand or reducing the willingness of consumers to substitute to its products.

54. This interpretation incorporates conduct that softens price competition between rivals. Conduct that softens price competition does so by making demand more inelastic and to do so it must reduce the ability of consumers to substitute. For instance, the expansion in sales from a price reduction may be much less when there are best price clauses, since the effect is to reduce the price of all suppliers. A common price decrease will not be met with the same expansion in volume if it is matched by all suppliers. As a result, demand for all firms will be less elastic with best price clauses.

55. The proposed amendments to Section 79(b) would implement the following:

- An anticompetitive act affects the competitive constraint exerted by a competitor (direct or indirect) of the dominant firm in the market which it controls or another market in which it competes (either directly or benefits from the exercise of market power).

- Business justifications are not to be considered in determining whether conduct is anticompetitive. Instead, the overall effect of the conduct on efficiency should be assessed to determine whether it should be subject to sanction. See below with respect to proposed amendments to Section 79(4).

3.3 Substantial lessening or prevention of competition

56. The Tribunal in TREB and the Commissioner have eviscerated Section 79(1)(c) by adopting a new definition of an SLC. Traditionally an SLC was assessed by observing the effect of the

conduct on market power. Was market power enhanced, created, or maintained by the conduct? And the effect had to be substantial. The Commissioner's burden was to show a link from the anticompetitive practice to an effect on the market. In *TREB* the Commissioner and the Tribunal look from an effect *possible* from an increase in market power to presume such an increase. They thus ignore that there might be other reasons for the assessed effects they rely upon to find an SLC. The logic of the Tribunal in TREB is to (i) observe exclusion; (ii) conclude that by definition there must be a decrease in product diversity and innovation; and therefore (iii) that there must be a SLC.

57. The pre *TREB* jurisprudence required an effect on competition of the anticompetitive conduct: did the harm to a competitor's ability to restrain the market power of the dominance firm translate into an effect on market power of the dominant firm. Prior jurisprudence made it clear the requirement to find a substantial effect on market power by comparing market power with the conduct to market power in the but for world, the world in which the conduct was absent—in the case of a substantial lessening of competition, when the conduct has occurred.[31] In a substantial prevention of competition case the but for level of market power compared to the prevailing level of competition—the level of market power—is the level of competition that would exist with the conduct.

58. In *TREB,* the Tribunal understood its objective, that the requirement for liability is a materially greater exercise of market power as a result of the conduct.[32] The problem is the evidence it relies upon is incorrect. The Tribunal makes a fundamental error of inferring an effect on market power by looking at the outcome in the downstream market from the conduct.[33] It confuses evidence on the level of prices, quality, and product diversity with the state of competition, i.e., the level of market power.[34]

59. The Tribunal's approach would identify a change in market power if the *competitive level* of prices and quality does not change. If that is the case then it is sufficient to ask what happens

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[31] See *Canada Pipe (SLC)* at ¶43 and ¶58.

[32] *TREB* at ¶460. See also ¶¶473 and 474 where the test for an SLC and SPC focuses, correctly, on market power.

[33] *TREB* at ¶464.

[34] *TREB* at ¶480. A similar mistake is made in *YVR.* See *YVR* at 642.

to the prices and qualities and infer this is caused by a change in market power. But the conduct could change both prices and non-price outcomes without affecting market power. Conduct can result in higher prices or a reduction in non-price competition without first creating, enhancing, or maintaining market power. Prices could be higher and product diversity and innovation lower not because the conduct is anticompetitive but because it is the exercise of market power upstream. The inference from higher prices or reduced innovation and product diversity to anticompetitive behavior can therefore easily result in a false positive: a finding of a substantial lessening or prevention of competition under this approach does not require the creation, enhancement, or maintenance of market power either upstream or downstream. In particular higher prices downstream or a reduction in innovation and product diversity downstream can occur without a change in market power or competition upstream and even if there is no market power downstream by actual suppliers in the downstream market. This is the error made by the Tribunal in *TREB*.

3.4 Efficiencies

60. As discussed *supra,* the Tribunal's treatment of efficiencies has been dominated by concerns over intent rather than effect, and incorporated into the assessment of whether conduct is anticompetitive or has a legitimate business justification.

61. The *Competition Act* should require the Competition Tribunal to determine the overall effect of conduct that simultaneously increases market power and achieves efficiencies. The ruling interpretation by the Federal Court of Appeal, reflected in TREB prohibits a balancing of effects—see discussion *supra*. Instead, amendments to the *Competition Act* should make Section 79(4) explicit. It should be an efficiency defense for the conduct that mirrors Sections 90.1(4) and 96.1: conduct that leads to a substantial lessening or prevention of competition (enhances, maintains, or preserves market power) is only a necessary condition for abuse of dominance. In addition, the conduct should harm efficiency (under a total welfare standard). The *Competition Tribunal shall not make an order if the gains from efficiency are greater than, and will offset, the effects of the increase in market power*. The balancing required is an assessment of the effect of the conduct on Total Surplus.

4 Digital economy

62. The upshot of the above analysis is that, as in *TREB* and *YVR,* without amendments the Commission of Competition and the Competition Tribunal will have the ability to engage in excessive enforcement of abuse. In particular, any input supplier with substantial market power, is exposed to an abuse application that is more likely than not to be successful, with a remedy of non-discriminatory access. The prevailing interpretation makes any input supplier with legitimate market power subject to sanction if it exercises its market power by discriminating in its dealings with downstream firms, its customers.

63. Many so-called digital products are characterized by direct and indirect network effects.[35] In the case of direct network effects, consumer welfare from adoption is increasing in the number of other adopters of a product. For instance, as with a telephone network, the larger the number of users on Facebook, the more valuable joining is to an individual. An indirect network effect exists when consumers of a product prefer that other consumers consume the same product *because the greater demand for a product, the greater the supply of variety of complementary products*. Many platforms are characterized by indirect network effects: the greater the number of sellers on a platform that creates a market, the more likely a match for a buyer and the more valuable using the platform for a buyer. But the number of sellers depends on the number of buyers. Or the more purchasers that carry and prefer to use a credit card, the more merchants are willing to accept the card. And vice-versa. Two sided platforms are often defined by indirect network effects on both sides of the platform.

64. Network effects, whether direct or indirect, can often result in monopolization. The loss of network effects and other costs associated with switching networks means that incumbent networks will have market power. This market power makes these networks or platforms a public policy concern. But to the extent that their market power is not attributable to anticompetitive conduct, but innovation and business acumen, their market power should not

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[35] See J. Church, N. Gandal, and D. Krause, (2008) "Indirect Network Effects and Adoption Externalities," *Review of Network Economics* 7: 325-346 for discussion of indirect and direct network effect and externalities.

be mitigated or punished by antitrust law. The current state of abuse of dominance jurisprudence puts successful firms at risk of just such enforcement.

65. Competition policy and its enforcement and adjudication institutions are designed to prevent conduct that creates, enhances or maintains market power. They are ill suited to the different task of controlling the exercise of market power. The control of the exercise of market power involves regulation of prices, innovation, entry, product offering, product qualities etc. Bringing an access case against an upstream firm that is dominant and discriminates in the supply of its monopolized input is politically attractive (something is being done), but likely has negative effects on innovation, the availability of platforms and their quality, and to the extent mandating access requires investment or is to services that require significant investment, is unlikely to be successful without price regulation or vertical separation. The track record of regulators in setting access prices to upstream facilities to encourage competition downstream, replacing downstream price regulation with upstream price and access regulation is not encouraging. Vertical separation is not often attempted or advocated because of its effect on costs and, in particular, innovation.

5 Vertical integration, foreclosure, and market power

66. For the most part this submission has focused on *TREB* to illustrate the false economic reasoning of the Tribunal and the FCA and to illustrate the efficiency advantages of the proposed amendments. The *TREB* case is more straightforward than *YVR*. The reason is that the downstream market in *TREB,* real estate brokerage is as close to perfect competition as is likely possible in reality. Regardless of TREB's conduct with respect to access to the confidential price data, the downstream supply of brokerage is perfectly competitive: no broker has market power. The effect of the exercise of market power upstream by TREB effects competition downstream: it affects costs and product quality and by doing so *shifts the downstream supply curve*.

67. *YVR* is much less obvious. The difference lies in the extent of competition in the downstream market. In *YVR* there are only two suppliers authorized to provide service, so surely allowing more suppliers to access planes to supply catering would reduce the market power of the two existing suppliers? *The answer is obviously yes*. But the question is wrong: the market power

of the downstream firms does not exist independently of the VAA's monopoly power in the upstream input. If service requires airport access—it is essential—then the number of downstream firms depends on VAA. The source of VAA's market power is the scarcity of the upstream input, the inability or unwillingness of downstream firms to substitute to other inputs, and the unwillingness of consumers in the downstream market to substitute to other goods that do not use the upstream input controlled by VAA, e.g., flights out of YVR without catering or flights from a different airport. If VAA is truly a monopolist in the supply of access to airplanes, then VAA has the ability to be the only supplier of catering if it precluded supplying access to any other catering firms. Allowing more competitors downstream does not change VAA's market power: instead, it exercises it upstream in the market for airplane access rather than downstream in the provision of catering.

68. VAA might open up access, perhaps limited access, because by doing so it can extract more profit from its monopoly: independent suppliers may have lower costs or access to other inputs that allow them to create surplus above and beyond what VAA can do on its own and which may also benefit consumers in the downstream market. Indeed, the Chicago School's single profit theorem suggests that VAA should never restrict access. But if the simple conditions of the single profit theorem do not hold, then to ensure that more of this extra surplus is captured by it, and not downstream consumers, VAA will have an incentive to manage competition between suppliers of catering.

69. The problem with the economic analysis of the Competition Bureau and the Tribunal in these vertical cases where there is dominance upstream is that the instinct to consider the downstream market independent of the upstream market is wrong and misleading. When the concern is access to an upstream monopoly supplied input by downstream competitors, i.e., it is vertical along a supply chain, as in *TREB* and *YVR*, conduct by the dominant firm is only anticompetitive if it maintains, enhances, or preserves its market power in the input. It can do this by engaging in conduct that eliminates the constraint on its market power of other suppliers in the upstream market. This conduct can involve reducing the extent of substitution by downstream firms to other inputs, but of course in both *TREB,* and especially *YVR*, the allegation is that there is no alternative to the confidential price data or airside access if downstream firms are to provide service.

70. Alternatively, the anticompetitive conduct can reduce the constraint of downstream firms that do not use the input of the upstream monopolist. This conduct reduces the indirect constraint on upstream market power by downstream consumers substituting away from suppliers that respond to the exercise of market power upstream by their supplier by raising their price downstream. Again, in both *YVR* and *TREB* the allegation is that there are not downstream suppliers who do not use airside access or the confidential price data.

Appendix 1: Curriculum Vitae of Jeffrey Church

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Citizenship

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Education and Professional Qualifications

- Ph.D., Economics, University of California, Berkeley 1989, specialization in Industrial Organization and International Trade. Supervisory Committee Richard Gilbert, Michael Katz, and Jeffrey Perloff.
- B.A. First Class Honours (Economics), University of Calgary 1984.
- Qualified as an expert witness before the Copyright Board of Canada, Competition Tribunal, the National Energy Board, the Alberta Energy Utilities Board and the Alberta Utilities Commission, the Canadian Radio-Television and Telecommunications Commission, the Federal Court of Canada, the Federal Court of Australia, and the Supreme Court of British Columbia.

Positions Held

Academic Appointments

- Undergraduate Director, Department of Economics, University of Calgary (since July 1, 2017 to June 30, 2020).
- Professor, Department of Economics, University of Calgary (since July 1, 2001).
- Program Director, Digital Economy Program, School of Public Policy, University of Calgary (May 1, 2013-June 30, 2015).
- IAPR Professor, Institute for Advanced Policy Research, University of Calgary, *Coordinator of the Markets, Institutions, and Regulation* Working Group (July 1, 2006 to June 30, 2009).
- Associate Professor, Department of Economics, University of Calgary (1994-2001).
- Assistant Professor, Department of Economics, University of Calgary (1989-1994).

Other Appointments

- Chairperson, Terra Nova Reference Price Committee, Newfoundland (2007 and 2010-2014).
- Founding Academic Director, Centre for Regulatory Affairs in the Van Horne Institute for International Transportation and Regulatory Affairs, University of Calgary (1998-2001).
- T.D. MacDonald Chair in Industrial Economics, Competition Bureau, Industry Canada, Hull, Quebec (1995-1996).
- President, Church Economic Consultants Ltd. (1992-).
- Managing Director, Berkeley Research Group (2010-)
- Member, C.D. Howe Institute Competition Policy Council (2011-2020).

Academic Awards and Distinctions

Teaching Awards

- Faculty of Social Science Distinguished Teacher Award, University of Calgary 1994 and 2004.
- Superior Teaching Award, Department of Economics, University of Calgary, 1997, 1999, 2000, 2002, 2003, 2004, 2011, 2013, 2015, 2017.
- Students' Union Teaching Excellence Award, University of Calgary 1994-95.

Major Distinctions

- Faculty of Social Sciences Gold Medal, University of Calgary 1984.
- *Who's Who Legal Canada*, 2015-2019. London: Global Competition Review.
- *The International Who's Who of Competition Lawyers and Economists*. London: Global Competition Review annually from 1998-2021.
- Behavioural Matter of the Year – Americas Team Award, Global Competition Review 2014 for *The Commissioner of Competition v. Visa Canada Corporation and MasterCard International Incorporated* (Winner).
- Behavioural Matter of the Year – Americas Team Award, Global Competition Review 2014 for *The Commissioner of Competition v. The Toronto Real Estate Board* (Nominated).

Research Interests

- Industrial Organization
- Economics of Regulation
- Competition Policy

Publications

Google Scholar Page: https://scholar.google.ca/citations?user=8EbOoNEAAAAJ&hl=en

Refereed Journal Articles

- “Direct and Indirect Network Effects are Equivalent: A Comment on “Direct and Indirect Network Effects: Are They Equivalent?” (with N. Gandal), *International Journal of Industrial Organization* 30: 708-712, 2012.
- “Indirect Network Effects and Adoption Externalities.” (with N. Gandal and D. Krause) *Review of Network Economics* 7: 325-346, 2008.
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- "Abuse of Dominance under the 1986 Canadian *Competition Act*." (with Roger Ware) *Review of Industrial Organization* 13, 85-129, 1998.
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- “The Lamentable Rise of an Expanded Essential Facilities Doctrine in Canada: the Troubling Economic Foundations and Implications of the Toronto Real Estate Board Decision,” *Canadian Competition Law Review* 31(1): 122-187, 2018. Available online at

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- “Too Many Tweets: Internet Billing Practices in Canada,” *Policy Options* May 2011: 54-59.
- "Trade-Dress and Pharmaceuticals in Canada: Efficiency, Competition and Intellectual Property Rights," (with Roger Ware) *Policy Options* 18: 9-12, 1997.

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- *The Impact of Vertical and Conglomerate Mergers on Competition* Brussels: European Commission, 2004 at http://bookshop.europa.eu/en/the-impact-of-vertical-and-conglomerate-mergers-on-competition-pbKD7105158/. Published as European Commission, 2006, *The Impact of Vertical and Conglomerate Mergers on Competition* Luxembourg: Office for Official Publications of the European Communities.
- *Industrial Organization: A Strategic Approach* (with Roger Ware) San Francisco: IRWIN/McGraw-Hill, 2000.
- *Traditional and Incentive Regulation: Applications to Natural Gas Pipelines in Canada* (with Robert Mansell) Calgary: Van Horne Institute, 1995.
- *Econometric Models and Economic Forecasts: A Computer Handbook Using MicroTsp* New York: McGraw-Hill, 1990.

Chapters in Books

- "Conglomerate Mergers." in W.D. Collins ed., *Issues in Competition Law and Policy* Volume 2 Chicago: American Bar Association, pp. 1503-1552, 2008.
- "Vertical Mergers." in W.D. Collins ed., *Issues in Competition Law and Policy* Volume 2 Chicago: American Bar Association, pp. 1455-1502, 2008.
- "Platform Competition in Telecommunications." (with N. Gandal) in M. Cave, S. Majumdar, and I. Vogelsang eds., *Handbook of Telecommunications* Vol. 2 Amsterdam: North-Holland, pp. 119-155, 2005.
- "Mergers and Market Power: Estimating the Effect on Market Power of the Proposed Acquisition by The Coca-Cola Company of Cadbury-Schweppes’ Carbonated Soft Drinks in Canada." (with A. Abere, O. Capps, Jr. and H.A. Love) in D. Slottje ed., *Economic Issues in Measuring Market Power*, Contributions to Economic Analysis, Vol. 255, Amsterdam: North-Holland, pp. 233-294, 2002.
- "The Economics of Coordinated Effects and Merger Analysis." in D. Houston ed., *CBA Competition Law Conference 2000* Juris Publisher: Yonkers, N.Y., pp. 561-575, 2001.
- "Network Industries, Intellectual Property Rights, and Competition Policy." (with Roger Ware) in N. Gallini and R. Anderson eds., *Competition Policy, Intellectual Property Rights and International Economic Integration* Calgary: University of Calgary Press, pp. 227-285, 1998.

Papers and Proceedings

- “The Interface Between Competition Law and Intellectual Property in Canada: An Uneasy Alliance or Holy War?” on CD-ROM, *2005 Annual Fall Conference on Competition Law*. Ottawa: Canadian Bar Association, 2005.
- “The Economics of Exclusionary Contracts and Abuse of Dominance in Canada.” on CD-ROM, *2003 Annual Fall Conference on Competition Law*. Ottawa: Canadian Bar Association, 2003.
- "Competition Policy and the Intercity Passenger Transportation System in Canada." in M. Duncan, ed. *Directions: A New Framework for Transportation* Calgary: Van Horne Institute, pp. 21-25, 1993.
- "Commodity Price Regulation in Canada: A Survey of the Main Issues." (with Robert Mansell) *Papers and Proceedings of the Fifth Annual Regulatory Educational Conference,* Canadian Association of Members of Public Utility Tribunals, 1991.

Public Reports

- *Defining the Public Interest in Regulatory Decisions; The Case for Economic Efficiency*. C.D. Howe Institute Commentary No. 478, May 2017. Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2965707.
- *Wireless Competition in Canada: Damn the Torpedoes! The Triumph of Politics over Economics* (with A. Wilkins). School of Public Policy, University of Calgary Research Paper, 7(20), 2014. Available at http://policyschool.ucalgary.ca/sites/default/files/research/church-wirelessupd2014-v6.pdf.
- *Wireless Competition in Canada: An Assessment* (with A. Wilkins). School of Public Policy, University of Calgary Research Paper, 6(27), 2013. Available at http://www.policyschool.ucalgary.ca/sites/default/files/research/j-church-wireles-online.pdf.
- *Transmission Policy in Alberta and Bill 50* (with William Rosehart and John MacCormack). School of Public Policy, University of Calgary Research Paper, 2009.
- *Buyer Power: Background Note*. Competition Committee, Directorate for Financial and Enterprise Affairs, OECD, Paris, 2009, Available at http://www.oecd.org/dataoecd/38/63/44445750.pdf.
- *Vertical Mergers: Background Note*. Competition Committee, Directorate for Financial and Enterprise Affairs, OECD, Paris, 2007. Available at http://www.oecd.org/dataoecd/25/49/39891031.pdf.
- *An Evaluation of Traditional and Incentive Regulation for Canadian Natural Gas Pipelines*. (with Robert Mansell) Study submitted to, and available from, the National

Energy Board of Canada, 1992.

- *Methodology for Evaluating Natural Gas Transmission System Reliability Levels and Alternatives*. (with Robert Mansell) Study prepared for, and available from, the Canadian Petroleum Association, 1991.

Public Regulatory Interventions

- Submission of The Director of Investigation and Research to Industry Canada re: Canada Gazette Notice No. DGTP-008-95 Review of Canadian Overseas Telecommunications and Specifically Teleglobe Canada's Role October 27, 1995 (with David Smith).
- Reply Comments of The Director of Investigation and Research to Industry Canada re: Canada Gazette Notice No. DGTP-008-95 Review of Canadian Overseas Telecommunications and Specifically Teleglobe Canada's Role December 11, 1995 (with David Smith).
- Submission of The Director of Investigation and Research to The Canadian Radio-Television and Telecommunications Commissions re: Telecom Notice CRTC 95-36 Implementation of Regulatory Framework, Local Interconnection and Network Component Unbundling January 26, 1996 (with Cal Gundy and Patrick Hughes).
- Final Argument of The Director of Investigation and Research to The Canadian Radio-Television and Telecommunications Commissions re: Telecom Notice CRTC 95-36 Implementation of Regulatory Framework, Local Interconnection and Network Component Unbundling October, 1996 (with Cal Gundy and Patrick Hughes).
- Final Oral Argument of The Director of Investigation and Research to The National Energy Board in PanCanadian Petroleum Limited application dated 26 July 1996 for an order requiring Interprovincial Pipe Line Inc. to transport natural gas liquids for PanCanadian Petroleum Limited from Kerrobert, Saskatchewan (MH-4-96) November 1996 (co-author).
- Opening Statement to the Alberta Utilities and Energy Board in Federated Pipe Lines Ltd. Application to Construct and Operate a Crude Oil Pipeline from Valhalla to Doe Creek, Alberta Energy and Utilities Board March (Decision 98-12) March 1998.
- Final Argument of The Director of Investigation and Research to The Canadian Radio-Television and Telecommunications Commissions re: Telecom Notice CRTC 98-10 Local Competition Start-Up Proceeding November, 1998 (with Cal Gundy).
- *Commissioner of Competition Intellectual Property Enforcement Guidelines,* Hull, Quebec: Competition Bureau. External member Commissioner of Competition's Drafting Team, first draft released in June 1999, second draft released April 2000, final version released September 2000.
- Final Argument of The Commissioner of Competition to The Canadian Radio-Television

and Telecommunications Commissions re: Telecom Notice Public Notice 2001-37 - Price Cap Review and Related Issues October 2001 (with Cal Gundy).

- Comments of The Commissioner of Competition to The Canadian Radio-Television and Telecommunications Commissions re: Telecom Notice Public Notice 2001-47 Framework for the expansion of local calling areas and related issues November 2001 (with Cal Gundy and Masood Qureshi).
- Written Comments of the Competition Bureau to the Alberta Electricity Industry Structure Review February 2002 (with David Krause and Mark Ronayne).
- Final Submission of the Commissioner of Competition to the Ontario Energy Board's Natural Gas Forum Consultation on the Ontario Natural Gas Market November 2004 (with Mark Ronayne).
- The Commissioner of Competition Evidence, Final, and Reply Argument, The Canadian Radio-Television and Telecommunications Commissions re: Telecom Notice Public Notice 2005-2, Forbearance from Regulation of Local Exchange Services June, September, and October 2005 (part of the Competition Bureau's drafting team).
- *Market Power and the Mackenzie Gas Project,* Evidence filed before the National Energy Board, Mackenzie Gas Project, GH-1-2004, June 2005.
- The Commissioner of Competition Evidence, Supplementary Material, Final Argument, and Reply Argument, The Canadian Radio-Television and Telecommunications Commissions re: Telecom Notice Public Notice 2006-14, Review of Regulatory Framework for Wholesale Services and Definition of Essential Service 2007 (part of the Competition Bureau's drafting team).
- Commissioner of Competition, *Abuse of Dominance Provisions as applied to the Telecommunications Industry,* Hull, Quebec: Competition Bureau. External member Commissioner of Competition's Drafting Team, first draft released September 2006, final version released June 2008.
- *Foreign Ownership Restrictions of Canadian Telecoms: An Analysis of Industry Canada's Proposals* (with assistance of BRG), re Industry Canada Consultation on Opening Canada's Doors to Foreign Investment in Telecommunications: Options for Reform, July 2010. Available online at http://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/Rogers.pdf/$file/Rogers.pdf.
- *Spectrum Policy as Competition Policy: A Good Choice for Canada?* (with assistance of BRG) re Industry Canada Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum Gazette Notice SMSE-018-10, February 2011. Available online at http://www.ic.gc.ca/eic/site/smt-

gst.nsf/vwapj/smse-018-10-jeffreychurch-rogers.pdf/$FILE/smse-018-10-jeffreychurch-rogers.pdf.

- *Economic Principles and Usage Based Billing,* The Canadian Radio-Television and Telecommunications Commissions re: Telecom Notice of Consultation CRTC 2011-77 Review of billing practices for wholesale residential high-speed access services March 2011. Available online at https://services.crtc.gc.ca/pub/ListeInterventionList/Documents.aspx?ID=156065&Lang=e.
- *The Competitive Effects of Vertical Integration: Content and New Distribution Platforms in Canada* (with assistance of BRG), The Canadian Radio-Television and Telecommunications Commissions re: Broadcasting Notice of Consultation CRTC 2010-783 Review of the regulatory framework relating to vertical integration, April 2011. Available online at https://services.crtc.gc.ca/pub/ListeInterventionList/Documents.aspx?ID=156953&Lang=e Documents.aspx?ID=156065&Lang=e.
- *In the Matter of a Complaint by Imperial Oil with Respect to Enbridge Southern Lights GP (ESL) Tariffs No. 1 and 2 Expert Evidence* (with assistance of BRG)*,* The National Energy Board, Hearing Order RH-1-2011, July 2011 and *Reply Evidence* September 2011. Available online at https://www.neb-one.gc.ca/ll-eng/livelink.exe?func=ll&objId=704264&objAction=browse and https://www.neb-one.gc.ca/ll-eng/livelink.exe?func=ll&objId=718914&objAction=browse.
- *Western Alberta Transmission Line Application Evidence of Dr. Jeffrey Church and Mr. John MacCormack,* Application No. 1607067, Proceeding ID 1045, Alberta Utilities Commission, September 2011.
- *Market Definition and Competitive Effects in Air Freight,* December 22, 2011 and *Reply* August 16, 2012 *Australian Competition & Consumer Commission v. Air New Zealand Limited, Federal* Court of Australia, NSD534/2010.
- *Critical Transmission Review Committee Request for Information*, Submission of Dr. Jeffrey Church and Mr. John MacCormack, January 2012.
- *In the Matter of The Ontario Energy Board Act, and in the Matter of an Application By Toronto Hydro- Electric System Limited for an Order Pursuant to Section 29 of The Ontario Energy Board Act, Expert Report of Jeffrey Church*, June 2013. Available online at http://www.rds.ontarioenergyboard.ca/webdrawer/webdrawer.dll/webdrawer/search/rec?sm_udf10=EB-2013-0234&sortd1=rs_dateregistered&rows=200.
- *Review of Wholesale Services and Policies Expert Report,* The Canadian Radio-Television and Telecommunications Commissions Review of Wholesale Services and Policies Telecom

Notice of Consultation 2013-551, January 2014. Attachment 1 to the Intervention of Bell Canada. Available online at https://services.crtc.gc.ca/pub/ListeInterventionList/Documents.aspx?ID=212344&Lang=e.

- *The Competitive Effects of TransAlta's Timing of Discretionary Outages, Expert Report and Reply Report,* Application of the Market Surveillance Administrator File No. 0630, March 2014. Available online at https://www.auc.ab.ca/eub/dds/eps_Query/ProceedingSubmissionSearch.aspx?ProceedingId=3110.
- *Competitive Royalties for Retransmitted Distant Signals in Canada Expert Report and Reply Expert Report,* Copyright Board of Canada, Television Retransmission (2014-2018), 2015.
- *The Competitive Effects of the Historical Trading Report: A Response to the MSA's Application* and *Update,* Market Surveillance Administrator Section 51(1)(b) Notice and Application, Alberta Utilities Commission Proceeding 21115, 2016.
- *Revocation of the Offer Behaviour Enforcement Guidelines*, Consultation re Revocation of Offer Behaviour Enforcement Guidelines, Market Surveillance Administrator May 2017. Available online at albertamsa.ca/uploads/pdf/Archive/00000-2017/2017-05-09%20IPPSA%20Comments%20and%20Paper.pdf.
- *Direct Evidence of Jeffrey Church*, Pacific Northern Gas Ltd and Triton LNG Limited Partnership Letter Agreement Application, Project No. 1598957 British Columbia Utilities Commission, 2018.
- *Evidence of Jeffrey Church*, Application for approval of a settlement agreement between the Market Surveillance Administrator and the Balancing Pool, Alberta Utilities Commission Proceeding No. 23828, 2018.
- *Evidence of Jeffrey Church,* Appendix 6, Enbridge Pipelines Inc., Canadian Mainline Contracting Application, Canada Energy Regulator, December 19, 2019. Online at https://apps.cer-rec.gc.ca/REGDOCS/File/Download/3895065.
- *Reply Evidence of Jeffrey Church,* Canadian Mainline Contracting Application, Canada Energy Regulator, April 21, 2021.

Public Expert Competition Filings

- *Expert Report of Jeffrey Church* in *The Commissioner of Competition v. Visa Canada Corporation and MasterCard International Incorporated*, The Competition Tribunal CT-2010-010, April 2012. Available online at http://www.ct-tc.gc.ca/CMFiles/CT-2010-010_Expert%20Report%20of%20Jeffrey%20Church_239_45_4-10-2012_4211.pdf
- *Expert Report of Jeffrey Church* in *The Commissioner of Competition v. The Toronto Real Estate Board,* The Competition Tribunal CT-2011-003, July 2012. Available online at

http://www.ct-tc.gc.ca/CMFiles/CT-2011-003_Expert%20Report%20of%20Jeffrey%20Church_202_53_7-27-2012_7764.pdf

- *Expert Report of Jeffrey Church* in *The Commissioner of Competition v. The Toronto Real Estate Board,* The Competition Tribunal CT-2011-003, May 2015. Available online at http://www.ct-tc.gc.ca/CMFiles/CT-2011-003_Expert%20Report%20of%20Jeffrey%20Church_332_38_6-15-2015_4965.pdf
- *Report of the Technical Advisor, In Re: Domestic Drywall Antitrust Litigation,* MDL No. 2437, for the United States District Court for the Eastern District of Pennsylvania, 2017.
- Brief Amici Curiae of 37 Economists, Antitrust Scholars, and Former Government Antitrust Officials in Support of Appellees and Supporting Affirmance, *United States v. AT&T Inc., Direct TV, and TimeWarner Inc.,* United States Court of Appeals for the District of Columbia Circuit, 2018.

Book Reviews

- *The Political Economy of Pipelines* (by Jeff Makholm) for *The Energy Journal,* 36, 355-357, 2015.
- *Competition Policy: A Game -Theoretic Perspective* (by Louis Phlips) for *The Economic Journal,* 107, 1590-1592, 1997.

Websites

- *Industrial Organization: A Strategic Approach*. URL: http://www.econ.ucalgary.ca/iosa/
- *Industrial Organization: A Strategic Approach Instructor's Manual*. URL: http://www.econ.ucalgary.ca/iosa/IM/

Research in Progress

- "Network Externalities, Technological Progress, and Competitive Upgrades." (with Michael Turner) Mimeo, Department of Economics, University of Calgary 2002.
- "Direct and Indirect Strategic Effects: A Taxonomy of Investment Strategies." (with L. Moldovan) Mimeo, Department of Economics, University of Calgary 2006.
- "Exclusive Provision and Standardization in a Two-Sided Market." (with J. Mathewson) Mimeo, Department of Economics, University of Calgary 2009.
- "Asymmetries, Simulation and the Assessment of Input Foreclosure in Vertical Mergers." (with A. Majumdar and M. Baldauf) Mimeo, Department of Economics, University of Calgary 2010.
- "Capacity Constraints in Durable Goods Monopoly: Coase and Hotelling." (with John Boyce and Lucia Vojtassak) Working Paper 2012-07, Department of Economics, University of Calgary 2012.
- "The Market Consequences of 'Mad Cows'." (with Dan Gordon) Mimeo, Department of

Economics, University of Calgary 2014.

- "Market Power in the Alberta Electric Industry." (with Richard Kendall-Smith) Mimeo, Department of Economics, University of Calgary 2014.
- "Residential Wireline Telecommunications Services in Canada: Primary Exchange Services and Broadband." (with Andrew Wilkins) Working Paper, Department of Economics, University of Calgary, 2014-34, January 2014. Available on line at http://econ.ucalgary.ca/sites/econ.ucalgary.ca/files/unitis/publications/1-4876092/Wireline_Database_January_2014.pdf.
- "Residential Wireline Telecommunications Services in Canada: Primary Exchange Services and Broadband 2015." (with Andrew Wilkins) Working Paper, Department of Economics, University of Calgary, 2015-07, March 2015. Available on line at http://econ.ucalgary.ca/sites/econ.ucalgary.ca.manageprofile/files/unitis/publications/1-6291150/DEP_Wireline_Database_2015_March_25_2015.pdf.
- "The Alberta Utilities Commission Fails Principles: A Review of the Alberta Utilities Commission Decision 21115-D01-2017 Application by the Market Surveillance Administrator Regarding the Publication of the Historical Trading Report," Mimeo, Department of Economics, University of Calgary 2019.
- "Splitting the Spectrum: Spectrum Allocation and Auctions in Canada's Wireless Market. (with Kent Fellows) Mimeo, Department of Economics, University of Calgary 2019.

Presentations

- "Oil Production in Alberta: Curtailment and Congestion." Annual Meeting of the Canadian Economics Association, Banff, May 2019.
- "Intervention in Electricity Markets." Annual Workshop on the Economics of Electricity Policy and Markets, Ivey Energy Policy and Management Centre, Toronto, October 2018.
- "Competition Issues in Markets Involving Platforms." Economist Roundtable with the Competition Bureau, Toronto, May 2018.
- "Essential Facilities in Canada: the Lamentable Rise of an EF Doctrine in Canada." Canadian Bar Association National Competition Law Section 2017 Annual Competition Law Fall Conference, Ottawa, October 2017.
- "Economic Foundations of Abuse of Dominance." The Forum on Competition Law, Toronto, November 2016.
- "Scholars Panel: Loyalty Programs—Risks & Rewards," Moderator, Canadian Bar Association National Competition Law Section 2016 Annual Competition Law Fall Conference, Ottawa, September 2016.
- "Timing of Discretionary Outages and Market Power in the Alberta Electricity Industry."

Australian Competition and Consumer Commission, Melbourne, August 2016.

- "Implications of OTT Services for the Regulation of Telecommunication Services." ACCC/AER Regulatory Conference 2016, Brisbane, August 2016.
- "Managing Competition in Local Telecommunications: Regulatory Failure at the CRTC." Association Canadian General Counsel Conference , Vancouver, May 2016.
- "Economic Analysis for Merger Review." CBA Economics and Law Committee, TeleSeminar, March 2016.
- "Where Did My Monopoly Go?" Canadian Association of Managers of Public Utilities Tribunals Annual Conference, Calgary, May 2015.
- "Defining the Public Interest." Energy and Resources Council, C.D. Howe Institute, Calgary, March 2015.
- "Economic Fundamentals of Abuse of Dominance." Canadian Bar Association National Competition Law Section Economics & Law and Young Lawyers Committee, TeleSeminar, March 2015.
- "Top 10 Changes That Should be Made to Canadian Competition Law and Institutions," Canadian Bar Association National Competition Law Section 2014 Annual Competition Law Fall Conference Ottawa, September 2014.
- "Market Power in the Alberta Electric Industry." Annual Meeting of the Canadian Economics Association, Vancouver, May 2014.
- "To Regulate or Not to Regulate—Is that the Question?" Canadian Bar Association National Competition Law Section Spring Forum, Toronto, May 2014.
- "Vertical Mergers under Canadian Competition Law." Panel Discussion, Canadian Bar Association National Competition Law Section Mergers Committee, TeleSeminar, March 2014.
- "How Competitive is Canada's Wireless Sector?" Panel Discussion, International Institute of Communications (Canadian Chapter), Ottawa, November 2013.
- "Presentation to the Critical Transmission Review Committee." Critical Transmission Review Committee, Calgary, January 2012.
- "Spectrum Policy as Competition Policy." Workshop on Auction Design and Competition in Canadian Wireless Markets, Centre for Digital Economy, University of Calgary, Ottawa, September 2011.
- "Issues in the Economic Regulation of Pipelines in Canada." Canada's Pipeline and Energy Transportation Infrastructure, C.D. Howe Institute, Banff, June 2011.
- "Competition Issues in Network Industries." Canadian Bar Association National Competition Law Section, Competition Law Spring Forum 2011: Focus on Civil, Toronto, May 2011.

- “Regulatory Governance and the Alberta Integrated Electric System.” 11th Annual Alberta Power Summit, Calgary, November 2010.
- “Asymmetries, Simulation and the Assessment of Input Foreclosure in Vertical Mergers.” Bates White Seventh Annual Antitrust Conference, Washington, D.C., June 2010 and Annual Meeting of the Canadian Economics Association, Ottawa, June 2011.
- “The Competition Act and the Fair Efficient and Open Competition Regulation.” Workshop for the Alberta Utilities Commission, Calgary, April 2010 (with Barry Zalmanowitz).
- “Transmission Policy in Alberta and Bill 50.” School of Public Policy Workshop, Electricity Transmission Policies: Issues and Alternatives, Calgary, October 2009 and the National Energy Board, Calgary, February 2010.
- “Economics of Vertical Mergers.” British Institute for International and Comparative Law, 7th Annual Merger Conference, London, November 2008.
- “Telecommunications in Canada: Market Structure and the State of the Industry.” 2008 Telecommunications Invitational Forum, Landgon Hall, Ontario, April 2008.
- “Cartel Cases Under Section 45: Is Proof of Market Definition the Achilles Heel?” Panelist, Competition, Crime and Punishment, Canadian Bar Association National Competition Law Section Spring Conference, Toronto, April 2008.
- “Forbearance of Local Telecommunications in Canada: One Back, Two Forward?” Telecommunications and Broadcasting Current Regulatory Issues and Policy Insight Communications Conference, Ottawa, April 2007.
- “The Economics of Non-Horizontal Merger Guidelines.” ENCORE Workshop on the Assessment of Non-Horizontal Mergers, The Hague, April 2007.
- “Stumbling Around in No Man’s Land is Dangerous: Competition Policy, the CRTC, and Deregulation of Local Telecom in Canada.” Competition Policy in Regulated Industries: Principles and Exceptions, C.D. Howe Institute Policy Conference, Toronto, November 2006.
- “Competition in Local Telecommunications in Canada: Grading the CRTC.” Delta Marsh Annual Conference, Department of Economics, University of Manitoba, Winnipeg, October 2006.
- “Grading the CRTC: Forbearance from the Regulation of Retail Local Exchange Services Telecom Decision 2006-15.” part of the Panel on Local Competition at the Annual Meetings of the Canadian Economics Association, Montreal, May 2006.
- “The Interface Between Competition Law and Intellectual Property in Canada: An Uneasy Alliance or Holy War?” Presented at the Canadian Bar Association Annual Fall Conference on Competition Law, Gatineau, November 2005.

- “Game Theory and Industrial Organization: An Introduction.” Competition Tribunal, Knowlton, Quebec, October 2005.
- “The Impact of Vertical and Conglomerate Mergers on Competition: An Overview of the Survey And Implications for Competition Policy.” DG IV European Commission, Brussels, July 2004, UK Competition Commission, London, September 2005, British Institute of International and Comparative Law/Competition Law Forum, Brussels, September 2005 and Conference on Economics in Competition Policy, Ottawa, April 2006.
- “The Economics and Competition Policy of Exclusionary Agreements.” Competition Bureau, Gatineau, April 24-25, 2005.
- “Intellectual Property Issues and Abuse: The IP/Competition Policy Interface in Canada.” 2004 Competition Law and Policy Forum, Langdon Hall, Cambridge, Ontario, April 2004.
- “Efficiencies Gained and Paradise Lost? Or the Inverse? Comments on the Propane Case.” Economics Society of Calgary Seminar Regulation vs. Competition: Different Shades of Grey, Calgary, October 2003.
- “The Economics of Exclusionary Contracts and Abuse of Dominance in Canada” Presented at the Canadian Bar Association Annual Fall Conference on Competition Law, Hull, October 2003.
- “Network Externalities, Technological Progress, and Competitive Upgrades” Presented at PIMS-ASRA Alberta Industrial Organization Conference, Calgary, November 2002.
- Panelist, The Changing Competition Law Landscape, Osler, Hoskin & Harcourt, Calgary, June 2002.
- Panelist, Efficiencies in Mergers Under the Competition Act, Annual Meeting of the Canadian Economics Association, Calgary, June 2002.
- "Specification Issues and Confidence Intervals in Unilateral Price Effects Analysis" Presented at the Annual Meeting of the Canadian Economics Association, Calgary, June 2002.
- “The Economics and Econometrics of Unilateral Effects Analysis.” Competition Bureau, Gatineau, January 7th and 8th, 2002 (with Oral Capps, Jr. and H. Alan Love).
- “Economics and Antitrust of Network Industries.” Competition Bureau, Gatineau, January 2001.
- "The Economics of Coordinated Effects and Merger Analysis." Presented at the Canadian Bar Association Annual Fall Conference on Competition Law, Ottawa, September 2000.
- "Network Externalities, Technological Progress, and Competitive Upgrades." Presented at the Annual Meeting of the Canadian Economics Association, Vancouver, June 2000.
- "Competition Policy for Network Industries." Presented at Centre for the Study of

Government and Business New Challenges for Competition Policy Panel, Annual Meeting of the Canadian Economics Association, Vancouver, June 2000.

- "Applying Antitrust Concepts in IT Industries." Presented at Roundtable on Reassessing the Role of Antitrust in Mega-Mergers and IT Industries Faculty of Law, University of Toronto, June 2000.
- "The Economics of Electricity Restructuring: The Case of Alberta." Canadian Law and Economics Conference, Toronto, September 1999.
- "Refusals to License and the IP Guidelines: Abuse of Dominance and Section 32." McMillan Binch Symposium on Intellectual Property Rights and Competition Policy, Toronto, June 1999.
- "The Economics of Electricity Restructuring: The Alberta Case." presented at Economic Society of Calgary conference Alberta's Electricity Market—Moving Towards Deregulation, Calgary, May 1999.
- "Competition in Natural Gas Transmission: Implications for Capacity and Entry." presented at Van Horne Institute conference The New World in Gas Transmission: Regulatory Reform and Excess Capacity, Calgary, April 1999.
- "Bill 27: The Regulatory Framework." presented at Canadian Institute of Resources Law conference on Restructuring Alberta's Electricity System: How will It Work?, Calgary, June 1998.
- Panelist, Antitrust and Telecommunications, Global Networking '97 Conference, Calgary, June 1997.
- "Network Industries, Intellectual Property Rights, and Competition Policy." presented at Author's Symposium on Competition Policy, Intellectual Property Rights and International Economic Integration, Ottawa, May 1996.
- Panelist, Symposium on Barriers to Entry, Bureau of Competition Policy, Ottawa, March 1995.
- "Branded Ingredient Strategies," presented at the Summer Conference on Industrial Organization, University of British Columbia, Vancouver, August 1994.
- "Equilibrium Foreclosure and Complementary Products," the Annual Meetings of the European Association for Research in Industrial Economics, Tel-Aviv, September 1993, the Annual Meeting of the Canadian Economics Association, Ottawa, June 1993 and the Mini-Conference on Network Economics at Tel Aviv University, July 1992.
- "Competition Policy and the Intercity Passenger Transportation System in Canada," presented at the Van Horne Institute for International Transportation and Regulatory Affairs symposium on *The Final Report of the Royal Commission on National Passenger Transportation,* The University of Calgary, February 1993.

- "Integration, Complementary Products and Variety," presented at the Annual Meeting of the Canadian Economics Association, Prince Edward Island, June 1992 and Telecommunications Research Policy Conference, Solomons Island, MA, September 1991.
- "The Role of Limit Pricing in Sequential Entry Models," presented at the Twenty-Fifth Annual Meeting of the Canadian Economics Association, Kingston, June 1991.
- "Commodity Price Regulation in Canada: A Survey of the Main Issues," presented at the Fifth Annual Regulatory Educational Conference, Canadian Association of Members of Public Utility Tribunals, May 1991.
- "Complementary Network Externalities and Technological Adoption," at the Twenty-Fourth Annual Meeting of the Canadian Economics Association, Victoria, June 1990 and at the Fifteenth Canadian Economic Theory Conference, Vancouver, June 1990.

Invited Seminars

- Department of Economics, University of Montreal, June 2011
- Faculty of Commerce and Business Administration, University of British Columbia, April 2002
- Department of Economics, University of Toronto, March 2002
- School of Business & Economics, Wilfred Laurier University March 2002
- Competition Bureau, January 2002
- Department of Economics, University of Laval, April 1996
- Department of Economics, Carleton University, Ottawa, January 1996
- Stern School of Business, New York University, December 1995
- Bureau of Competition Policy, Industry Canada, Ottawa, March 1994
- Department of Economics, Simon Fraser University, November 1992
- Department of Economics, University of Victoria, November 1992
- Department of Economics, University of Toronto, October 1991
- Department of Economics, Queen's University, Kingston, October 1991
- Department of Economics, University of Alberta, February 1990

Refereeing

Alberta Law Review, American Economic Journal: Microeconomics, American Economic Review, Canadian Competition Law Review, Canadian Journal of Agricultural Economics, Canadian Journal of Economics, Canadian Journal of Political Science, Canadian Public Policy, Canada Research Chairs, C.D. Howe Institute, Econometrica, Energy Journal, European Economic Review, FCAR, Information Economics and Policy, International Economics and Economic Policy, International Economic Review, International Journal of the Economics of Business, International Journal of Industrial

Organization, Israel Science Foundation, Journal of Competition Law & Economics, Journal of Econometrics, Journal of Economic Behavior and Organization, Journal of Economic Education, Journal of Economic Psychology, Journal of Economics, Journal of Economics and Business, Journal of Economics and Management Strategy, Journal of Industrial Economics, Journal of International Economics, Journal of Law, Economics, & Organization, Management Science, Marketing Science, National Science Foundation, RAND Journal of Economics, Journal of Economic Surveys, Review of Industrial Organization, Review of Network Economics, Routledge, SSHRC, University of Calgary School of Public Policy, University of Cambridge Press.

Professional Service

- Chair, Canadian Bar Association National Competition Law Section Economics and Law Committee, 2005-2007.
- Vice-Chair Canadian Bar Association National Competition Law Section Economics and Law Committee, 2004-2005.
- Juror, James M. Bocking Memorial Award, Canadian Bar Association National Competition Law Section, 2006-2018.
- Co-Editor, *Journal of Economics & Management Strategy,* 2001-2007.
- Editorial Board, *Canadian Journal of Economics*, 1993-1996.
- Theme Head Economics Sessions and Programme Committee, International Telecommunications Society and the International Council for Computer Education Global Networking '97 Conference, Calgary, June 1997.
- Organizer, Roundtable on Vertical Mergers, Competition Committee, Directorate for Financial and Enterprise Affairs, OECD, Paris, 2007. See http://www.oecd.org/dataoecd/25/49/39891031.pdf
- Organizer, Roundtable on Buyer Power, Competition Committee, Directorate for Financial and Enterprise Affairs, OECD, Paris, 2008. See http://www.oecd.org/dataoecd/38/63/44445750.pdf
- External Examiner for E. Croft Ph.D., Policy Programme, Faculty of Commerce and Business Administration, University of British Columbia, April 1999, B. Isaacs Ph.D., Department of Economics, Simon Fraser University, May 2000, J. Landa Ph.D., Department of Economics Carleton University, May 2001, J. Latulippe Ph.D, Department of Economics, University of Montreal, June 2011.
- House of Commons Standing Committee on Industry, Science and Technology Roundtable Participant on Competition Policy, December 2001.
- House of Commons Standing Committee on Industry, Science and Technology,

Deregulation of Telecommunications, February 2007.

Teaching Experience

Graduate

- Ph.D. Micro Theory
- Industrial Organization
- Regulatory Economics
- Markets and Public Policy (School of Public Policy)

Undergraduate

- Regulatory Economics
- Competition Policy
- Honours Micro Theory
- Industrial Organization
- Intermediate Microeconomics

Professional

- Regulatory economics through the Centre for Regulatory Affairs.
- Principles of Microeconomics, Industrial Organization and Competition Policy for the Competition Bureau.

Graduate Student Supervision/Examination

Completed

- Supervisor, M. Ec. Programme, Mark Larsen, "Calgary Crossfield Sour Gas: A Case Study in the Costs of Regulation," Department of Economics, University of Calgary, 1993.
- Supervisor, M. A. Programme, George Given, "The Dynamics of Industries Characterized by Complementary Network Externalities," Department of Economics, University of Calgary, 1994.
- Supervisor, M. Ec. Programme, R. Allan Wood, "Subsidies to Municipal Golfers in Calgary, AB.," Department of Economics, University of Calgary, 1995.
- Supervisor, M. A. Programme, Marcy Cochlan, "Branded Ingredient Strategies," Department of Economics, University of Calgary, 1995.
- Supervisor, M. Ec. Programme, Shaun Hatch, "Optimal Pricing and the Allocation of Water Under Uncertainty: A Stochastic Nonlinear Programming Approach," Department of Economics, University of Calgary, 1995.
- Supervisor, M. A. Programme, Denelle Peacey, "Priority Pricing," Department of Economics, University of Calgary, 1995.
- Supervisor, M.A. Programme, Michael Turner, "Analysis of Product Upgrades in Computer Software," Department of Economics, University of Calgary, 1999.

- Supervisor, M.A. Programme, Kurtis Hildebrandt, "Market Dominance and Innovation in Computer Software Markets," Department of Economics, University of Calgary, 1999.
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- Supervisor, M. A. Programme, Kevin Wipond, "Market Power in the Alberta Electrical Industry," Department of Economics, University of Calgary, 2008.
- Supervisor, M.A. Programme, Nicholas Janota, "Introducing Competition into Regulated Network Industries: From Hierarchies to Markets in Canada's Railroad Industry," Department of Economics, University of Calgary, 2009.
- Supervisor, M.A. Programme, Cory Temple, "A Beggars' Banquet? Copyright, Compensation Alternatives, and Music in the Digital Economy," Department of Economics, University of Calgary, 2010.
- Supervisor, M.A. Programme, Susan Baker, "Loyalty Programs: A Review of the Competition Commissioner versus Canada Pipe Case," Department of Economics, University of Calgary, 2011.
- Supervisor, M.A. Programme, Michael Ata, "A Bayesian Approach to Antitrust Liability: Exclusive Dealing and Predation," Department of Economics, University of Calgary, 2011.
- Supervisor, M.A. Programme, Richard Kendall-Smith, "An Analysis of Market Power in the Alberta Electricity Market," Department of Economics, University of Calgary, 2013.
- Supervisor, M.A. Programme, Grant Freudenthaler, "The Implications of Uniform Pricing in Restructured Electricity Wholesale Markets: Evidence from Alberta," Department of Economics, University of Calgary, 2016.
- Supervisor, M.A. Programme, Lars Renborg, "Implications of Implementing an Efficient Residential Transmission and Distribution Tariff and an Efficient Reimbursement Price for Excess Rooftop Solar Production in Alberta," Department of Economics, University of Calgary, 2018.

- Supervisor, M.A. Programme, Adam White, “Google’s Antitrust Woes and Google Shopping,” Department of Economics, University of Calgary, 2019.
- Supervisor, Master of Public Policy Programme, Jennifer Rumas, “Economic Evaluation of Wind Power in Alberta,” School of Public Policy, University of Calgary, 2012.
- Supervisor, Master of Public Policy Programme, Nicolaas Jansen, “A Review of Alberta’s Default Rate for Electricity,” School of Public Policy, University of Calgary, 2016.
- Supervisor, Master of Public Policy Programme, Marko Daljevic, “The Regulatory Compact and the Treatment of Stranded Assets.” School of Public Policy, University of Calgary, 2016.
- Supervisor, Ph.D. Programme, David Krause, "Internalizing Network Externalities," Department of Economics, University of Calgary, 2002.
- Supervisor, Ph.D. Programme, Hongru Tan, "The welfare implication of lifting the no surcharge rule in credit card markets," Department of Economics, University of Calgary, 2016.
- Supervisor, Ph.D. Programme, Michael Ata, “Essays on Endogenous Behaviour in Antitrust Litigation,” Department of Economics, University of Calgary, 2019.
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- Supervisory Committee, Ph.D. Programme, G. Kent Fellows, “Select Issues in Applied Regulatory Theory,” Department of Economics, University of Calgary, 2015.
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- Examination Committee Member, M.Ec. Programme, Merrill Whitney, "Economic Espionage as a Form of Strategic Trade Policy" Department of Economics, University of Calgary, 1994.
- Examination Committee Member, M.Ec. Programme, Robert Richardson, "North-South Disputes Over IPRs" Department of Economics, University of Calgary, 1994.
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University Service

- University Research Grants Committee 1994/95
- Dean's Academic Appointment Committee, Department of Mathematics and Statistics 2001
- ISEEE Tier II Chair in Energy and Climate Change Search Committee 2005/06
- Faculty of Social Sciences Academic Program Review Committee 2000/01
- Faculty of Social Sciences Executive Council 2002/03
- Department of Economics, Ad Hoc Outreach Committee 2001/02
- Curriculum Fellow, Department of Economics, 2001
- Department of Economics Representative on Van Horne Institute Sub-Committee on Centre for Regulatory Affairs 1997/98
- Department of Economics Advisory Committee 1997/98, 2013/14, 2017/2018, 2018/2019
- Department of Economics Undergraduate Curriculum Committee 1993/94, 1994/95, 1996/97, 1997/98, 1999/00, 2000/01, 2001/02, 2010/11, 2017/18, 2018/19
- Department of Economics Honours Advisor 1992/93, 1993/94, 1994/95, 2006/07
- Department of Economics Hiring Committee 1990/91, 1991/92, 1994/95, 1998/99, 1999/00, 2002/03, 2003/04, 2004/05, 2005/06, 2015/2016
- Department of Economics Computer Committee 1992/93, 1993/94, 1996/97, and 1997/98
- Department of Economics Ph.D. Ad Hoc Committee 1990/91 and 1992/93
- Department of Economics Ad Hoc Committee on the Status of Women 1991/92
- Department of Economics Striking Committee 1991/92
- Department of Economics Guest Lecturers Committee 1990/91 and 1991/92
- Department of Economics Graduate Curriculum Committee 1989/90
- Department of Economics Library Coordinator 2006/07
- Department of Economics Graduate Studies Committee 2007/08 and 2008/09
- Department of Economics Graduate Admissions Committee 2016/17
- Department of Economics Fund Raising Coordinator 2006/07, 2007/08, 2008/09, 2012/13 and 2013/14
- Department of Economics Microeconomics Coordinator 2013/14, 2014/2015, 2015/2016
- Department of Economics Policy and Planning Committee, Future Directions External Review 2016/17, 2017/2018
- University of Calgary Appointment Appeals Committees 2008
- Haskayne School of Business, Academic Appointment Review Committee 2007/08,

2008/09

- Haskayne School of Business, Advisory Decanal Selection Committee for the Dean, 2012/2013
- Haskayne School of Business, Senior Recruiting for Finance, 2013/14
- Haskayne School of Business, Recruiting for Accounting, 2014/15, 2015/2016
- General Promotions Committee, University of Calgary 2008/2009, 2010/2011
- Selection Advisory Committee, Headship Department of Economics, 2017
- Faculty of Arts Curriculum Academic Review Committee 2017/18, 2018/19, 2019/2020
- Faculty of Arts Appeals Committee 2018/19

Consulting Experience

President of Church Economic Consultants Ltd., for whom I have written consulting reports and provided advice on issues in regulatory and antitrust economics for a number of companies and agencies, including the Alberta Beef Producers, Apotex, Australian Competition and Consumer Commission, Bell Canada Enterprises, Bayer CropScience, BC Ferries, BP Canada Energy Company, the Canadian Association of Petroleum Producers, the Canadian Cattlemen's Association, the Canadian Competition Bureau, The Coca-Cola Company, The Conference Board of Canada, Enbridge Pipelines, ENMAX, EPCOR, European Commission, Foothills Pipelines, Google Inc., James Richardson International Limited, Mackenzie Explorers Group, Maple Leaf Foods, Marine Atlantic, Market Surveillance Administrator Alberta, MasterCard, Microcell, Nokia, Nova Gas Transmission, OECD Competition Division, Pacific Gas & Electric, Pan Alberta Gas, PanCanadian Petroleum, Peace Pipe Line, Perimeter Transportation, Rogers Communications, Superior Propane, Toronto Hydro-Electric System, Toronto Real Estate Board, TransAlta, TransCanada Pipelines, Williams Energy, Visa, and eight major motion picture film studios.

Other

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Appendix 2: J. Church, *Defining the Public Interest in Regulatory Decisions; The Case for Economic Efficiency,* (2017), C.D. Howe Institute Commentary No. 478.

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COMMENTARY
NO. 478

Defining the Public Interest in Regulatory Decisions: The Case for Economic Efficiency

Canada's public utility regulators are under mounting public and judicial attack. Many of the concerns regarding regulatory decisions would vanish, or be minimized, if governments clearly articulated in law that regulators should base their decisions solely on economic efficiency grounds.

Jeffrey Church

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The Study In Brief

Canada's public utility regulators – in sectors ranging from energy to telecommunications – are under attack. Regulators and their decisions have been subject to withering commentary, hostility, disbelief, contempt and even disobedience.

Many of the concerns regarding regulation arise because their enabling legislation does not clearly articulate the purpose of regulation. The goal of regulation should be to maximize the value of production from Canada's scarce resources, its land, natural resources, capital, and labour. The only goal of regulation should be economic efficiency: maximizing the wealth of the nation. But, it usually is not.

In circumstances when markets do not deliver efficiency, for instance when firms degrade the environment without paying or have monopoly power, intervention by an independent regulator can promote investment, economic growth, and rising standards of living. For intervention to be more likely to have these positive effects, the sole mandate of the regulator needs to be promoting efficiency.

Instead, many governments provide regulators with a vague mandate to act in the public interest, or multiple, often conflicting objectives. That leaves regulators with far too much latitude to be influenced by lobbying, rent seeking, and political influence. Indeed, to minimize the potential for exchanges between politicians and special interest groups involving favourable policy in return for cash and votes, it is important that governments delegate regulatory decisions to independent regulators (handcuffed by an efficiency mandate), and not leave regulatory decisions to politicians.

Issues such as income distribution are too important for governments to delegate to autonomous unelected regulators. The issue of the appropriate distribution of income, which fundamentally involves taking from one group of citizens and giving to another, should be determined in the political process. Regulatory processes are not a substitute forum for the expression of preferences over the distribution of income and resource development. Some of today's social frustration with regulation is a result of it being asked to decide whose preferences are more worthy, a task for which regulators are ill-suited. Instead, regulators with an efficiency mandate would focus only on aggregate costs and benefits. Such a renewed focus would have important, beneficial, implications for the practice of regulation.

An advantage to society of an economic efficiency mandate is that a regulator can more readily resist demands that, in the short run, have immediate benefits for some, but in the long run destroy the incentive for investment and wealth creation. It is time that governments across Canada refocus regulators with an explicit and singular mandate to improve economic efficiency.

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Canada's public utility regulators – those responsible for prices and entry permits in electricity transmission, telecommunications and petroleum pipelines, among others – are under mounting public and judicial attack.

The perception, reflected in the large number of court challenges and public protests, is that public utility regulation is, in many cases, broken. Regulator decisions and the conduct of regulatory hearings have been subject to withering commentary, hostility, disbelief, contempt and even disobedience.[1] Examples of negative commentary on regulatory decisions are not hard to find, crossing jurisdictions and sectors, including: pipeline approvals by the National Energy Board (NEB) (Doucet 2012; Colton et al. 2016); wireless contracts, bundling of television channels, and mandated access to incumbent telephone networks at the Canadian Radio-television and Telecommunications Commission (CRTC) (Dachis and Schwanen 2016); and pricing and facilities approval of electricity transmission by the provincial regulator in Alberta (Church et al. 2009).

The perception that economic regulation is broken has invited an unproductive political response that realigns authority and responsibility away from traditional independent regulatory boards and tribunals to governments. Examples of this government involvement include the pricing and availability of electricity transmission in Alberta,[2] the roaming rates paid by smaller wireless companies when their customers utilize another provider's network,[3] the approval of interprovincial

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1 Some examples of disobedience and contempt with respect to regulatory process and decisions are shown in Box 1. In addition, Colton et al. (2016, p.1) document other public protests over regulatory decisions and court challenges to NEB decisions.

2 The Government of Alberta overruled the Alberta Energy and Utilities Board's locational-pricing decision for electricity transmission, replacing it with a scheme that recovers most of the transmission costs directly from consumers, and it moved approval authority for critical transmission infrastructure from the Alberta Utilities Commission to cabinet. See Church et al. (2009) for details.

3 The Government of Canada's 2014 budget limited the amount a wireless carrier can charge for domestic roaming services provided to rivals (Canada 2014).

pipelines,[4] and even the volume of grain railroads are required to move in a week.[5]

I attribute the turmoil around regulation – both its institutions, processes and decisions – to a fundamental misunderstanding of the rationale for regulation and, hence, a failure to define, or correctly identify, the objectives of regulation. Many of the concerns regarding regulatory decisions and the regulatory process would vanish, or be minimized, if governments clearly articulated in law that regulators should base their decisions solely on economic efficiency grounds. With this change in law, regulators would instead focus their efforts on economic efficiency rather than on the usual appeal to the public interest, which is typically undefined, and other vague objectives found in existing legislation, such as "just and reasonable tolls."[6] Economic efficiency simply means the maximization of the value of production, or in Adam Smith's terms, maximization of the wealth of the nation.

It is poor institutional design for legislatures to allocate responsibility for other important issues that may arise in regulatory decisions to the regulators, in particular a decision's income-distribution implications. Regulators are also not the appropriate bodies to consider environmental goals and the definition and scope of Aboriginal rights outside of the efficient allocation of resources.[7] Instead, there should be an institutional division of labour. Legislative branches should be responsible for determining public policy matters, such as appropriate income distribution, and implementing policy measures to that effect. The objective appropriate for an autonomous, unelected regulatory body is economic efficiency. Moreover, when efficiency is the objective, regulatory authority should not reside with governments, since distributional considerations will likely then dominate the decision-making process.

4 The previous government expanded cabinet oversight of the NEB in 2012. Prior to amendments introduced in the 2012 federal budget, interprovincial pipelines were required to obtain a certificate of public convenience and necessity as a condition of operation. The NEB issued such certificates subject to the approval of cabinet. However, in 2012 cabinet oversight expanded to include both NEB approval and denial of certificates (Canada 2012). The current federal government has promised a new environmental assessment process it argues is necessary to restore public trust and has also promised to modernize the NEB (Canada 2016a). Meanwhile, as an interim measure, the federal government imposed additional conditions on two proposed oil pipelines. For the Trans Mountain Expansion Project – which had already been approved by the NEB – Ottawa delayed cabinet approval until after it undertook "deeper consultations with Indigenous peoples" and appointed a "Ministerial Representative" to "engage communities" and "seek their views and report back to the Minister of Natural Resources" (Canada 2016a). The federal government approved the Trans Mountain Expansion Project after additional consultations and Ministerial review (Canada 2016b and 2016c). For the Energy East Pipeline, the federal government will not only undertake and fund "deeper consultations with Indigenous peoples," but it will "facilitate expanded public input into the National Energy Board review process" (Canada 2016a).

5 See Dachis (2015) for discussion and analysis of the federal government's minimum quantity grain shipping order.

6 Under the *National Energy Board Act*, the NEB is instructed to use its powers to further the public interest. Under Section 12(1)(b) "where it appears to the Board that the circumstances may require the Board, in the public interest, to make any order or give any direction, leave, sanction or approval that by law it is authorized to make or give, or with respect to any matter, act or thing that by this *Act* or any such regulation, certificate, licence, permit, order or direction is prohibited, sanctioned or required to be done." Also, when considering approval of a permit application, the NEB is to "consider any public interest that in the Board's opinion may be affected by the issuance of the certificate or the dismissal of the application." But when it comes to tolling, the NEB is instructed to insure that they are "just and reasonable" and do not "unduly discriminate" (Sections 62 and 67). As with the public interest, "just and reasonable" and "undue discrimination" are not defined.

7 As noted later in this *Commentary* these are legitimate public policy concerns but to the extent they do not involve the efficient allocation of resources, they are related to the appropriate distribution of income.

Public Interest and Regulation

Box 1: Regulatory Roadblocks in Canadian Energy

Electricity in Alberta	Chaos and alleged physical abuse of Alberta Energy and Utilities Board (AEUB) staff at a hearing to determine the routing of high voltage transmission lines. Security concerns led the AEUB to hire private investigators who infiltrated landowners opposed to the lines and who had been effectively excluded from the first stage of the two-stage process, determining the need for the lines. The three members of the AEUB panel subsequently resigned and the AEUB was divided into the Energy Resource Conservation Board and the Alberta Utilities Commission (CBC News 2007). For a detailed account of this hearing and an analysis of the regulatory procedure, see Woolley (2008).
Energy East	The NEB was forced to suspend its hearing over the proposed Energy East pipeline due to security concerns after violent protestors disrupted the first day of hearings (see Cattaneo 2016a and National Energy Board 2016a). Opponents of the Energy East pipeline, based on concerns over panel bias, were successful in having the initial panel replaced (because two members of the NEB panel had meet, unbeknown to them, with a lobbyist employed by the proponent, TransCanada Pipelines) and the hearings delayed. The Chair and Vice-Chair recused themselves from exercising their administrative duties of appointing a replacement panel because of their participation in engagement meetings that included the TransCanada lobbyist (Cattaneo 2016b; National Energy Board 2016b; National Energy Board 2016c). The federal government has appointed three new members to the NEB and they were assigned by the Acting Chair of the National Energy Board to review the Energy East proposal. (National Energy Board 2016d and 2017a). The new panel has voided all of the decisions of the previous panel and the hearing process will start anew (National Energy Board 2017b).
Northern Gateway	The Federal Court of Appeal overturned the regulatory approval for Northern Gateway. The previous federal government had issued a permit based on the findings and recommendations of the NEB (McCarthy and Lewis 2016). However, the BC government made it clear that unless five conditions were met, it would actively oppose and seek to block construction of Northern Gateway, as well as expansion of the Trans Mountain pipeline (British Columbia 2012). Indeed, the BC Environment Minister responded to the NEB's conditional Northern Gateway approval with threats to withhold provincial permits if the five conditions were not met (Hunter and Stueck 2014). The federal government determined that the Northern Gateway Pipeline was not in the public interest and overturned the NEB's approval (Canada 2016b).
Trans Mountain	The NEB limited access to its hearing rooms during oral summary arguments in the Trans Mountain expansion proceeding based on "the past history of disruptions and the publicly available information regarding occurrences of civil disobedience associated with the Project" (National Energy Board 2015). Public protest over the Trans Mountain Expansion resulted in numerous arrests and comment by observers that the NEB process was "fundamentally flawed" and a "sham" (McSheffrey and Uechi 2016). Ottawa's endorsement of the NEB's Trans Mountain approval resulted in demonstrations in Vancouver and the filing of a request for judicial review, bringing the total number of legal challenges contesting the approval to at least eight (Cheadle 2017). The Government of British Columbia has confirmed that its five conditions have been met (Government of British Columbia 2017) and it issued an environmental assessment certificate. To satisfy the five conditions, the proponent of the Trans Mountain Expansion agreed to another 37 environmental conditions above and beyond the 157 of the NEB, to spend $150 million on enhanced oil spill response measures, and to payments of up to $1 billion to the B.C. government. Environmental groups have sued for a judicial review of the environmental assessment certificate. Their grounds for it being overturned are $560,000 in donations to the governing party from the project's proponent and others with an alleged commercial interest in the pipeline sector (Bailey 2017).

There are three fundamental issues related to the definition and role of the "public interest" in the context of public utility regulation. Understanding these issues explains why economic efficiency should be the sole objective of regulation, as well as insight and guidance into the importance of designing regulatory institutions that implement economic efficiency.

The first issue is, why regulate in the first place? That is, what is the rationale that justifies restricting the choices made by willing buyers and sellers in markets? It is worth emphasizing that the accumulated wisdom of successful economies is that markets, in most cases, are effective in allocating resources, providing consumers with many choices at reasonable prices; i.e., prices that track costs.[8]

The second issue is, if regulatory intervention is justified, why allocate regulatory decisions to regulators? Why would governments ever delegate the authority and responsibility for making such decisions to independent, non-elected, third parties? Governments could make these decisions and be responsible for their outcome, rather than assign them to a regulator, especially when these decisions potentially have an enormous impact on the lives of Canadians, as in the case of the price, reliability and availability of electricity.[9]

Finally, the third issue is, how should governments provide instruction to independent regulators when they apply their decision-making authority. Should governments define the public interest in enabling legislation or simply specify that regulation is to be in the public interest? In defining the public interest, should the legislation contain specific goals that inform how the regulator is to determine the public interest, like requiring prices to be just and reasonable or non-discriminatory? Alternatively, the enabling legislation could contain detailed rule making that is prescriptive. For instance, the enabling legislation could instruct the regulator on how it is to set prices so that they are equal to cost of service, where the determination of the cost of providing service is specified in more or less detail in the legislation.

The answer to these three questions should be based on an analysis of how governments actually make choices, as opposed to how we would like them to make choices.

Public Choice and Regulation

The field of Public Choice is the study of how governments make decisions. Its application to regulation begins with two simple, but powerful, premises.[10] First, politicians and political parties are self-interested economic actors. Second, government has a monopoly on the legal power of coercion. Only the government can legally use force to achieve an outcome it deems desirable.

The implication of these two premises is that there will be a market for this legal coercive power. Private interests will seek it, while governments and political parties, in exchange for votes and resources, will offer it.[11] This suggests that there should be narrow bounds on government authority in general and on regulatory discretion in particular. It is naïve

8 See Watson (2015, xii-xiii), Acemoglu and Robinson (2012, Chapter 3) or Ferguson (2011).

9 In Ontario, the provincial government oversees electricity provision. The results have been sufficiently perverse that its regulatory oversight is a campaign issue and the topic of editorials in the *Globe and Mail*. See for example Globe and Mail (2016) and Wente (2016).

10 For a discussion of the foundations of Public Choice and its history, see Mueller (2003, Chapter 1). The discussion in this *Commentary* is based on the development and application of Public Choice to regulation. Seminal works are Stigler (1971), Posner (1972) and Petlzman (1976). For an introduction to the topic, see Noll (1989) or Church and Ware (2000, Chapter 24).

11 Recent news reports have highlighted provincial and federal politicians selling access to private donors in Ontario and BC. See, for example, Coyne (2016), Morrow (2016) and the *National Post* (2016).

to ignore the potential for government discretion to be used to promote private interests.

The successful bidders in the market for coercion purchase the ability to influence policy and its implementation in their favour, either through an increase in their incomes or by promoting an allocation of resources consistent with their preferences.[12] Viewed from this perspective, much of government policy and regulatory discretion is seen as a redistributive exercise – redistributing income either directly or indirectly.

When an environmental lobby group is able to influence policy to restrict development of a resource, the redistribution is indirect. The effect of the policy restriction is the same as if the government had transferred income to the lobby group members, they used their higher income to buy the resource and then, as its owners, restricted its development. In this way, income and government policy are substitutes – either can be used to control the use of resources.

The danger, given the importance of institutional design for economic development and relative national prosperity, is that distribution choices will dominate policy discussions (Acemoglu and Robinson 2012). Indeed, this has been a very important consideration in explaining the poor performance of regulated industries (Spiller and Tommasi 2005). With inappropriate institutions, groups that are powerful politically end up with a veto over policy, and economic efficiency is crowded out by distributional concerns, with long-run implications that are decidedly negative for a society's standard of living and economic development. The solution to this problem is not only to try and make the exchange – cash and votes for favourable policy – between governments and special interest groups more difficult. The answer should also encompass efforts to reduce, or limit, the ability of governments to use their discretion to affect the allocation of resources.

Efficiency and Regulation

What is Economic Efficiency?

An outcome is economically efficient if the value of production from society's endowment of resources – its capital, labour and natural resources – is maximized. For example, in determining whether land should be used for a park, housing, agriculture or transport of petroleum products, the efficient outcome is to use the land to produce what society values the most. If drivers of automobiles value transportation sufficiently, then demand for gasoline will be sufficiently high that oil companies can outbid lovers of green space and the land will, and should, be used for a pipeline. Intuitively, economic efficiency is about using resources in their first-best use, and the costs of misallocating resources is the difference in value between using those resources in their second-best instead of first-best use.[13]

As Adam Smith observed, a voluntary trading process that is competitive results in an efficient state: at the end of the trading process, all trades that are mutually beneficial will be made as a result of the "invisible hand." The consequence is that the value of resources is maximized: no one is willing

12 In a world of imperfect information and transaction costs, the competition among special interest groups will favour those groups that can more quickly and effectively reach consensus as well as extract more resources from its members and limit free riding (i.e., when individuals with similar interests are made better off by the lobbying and monitoring efforts of a special interest group but do not support it financially). Because of these differences, lobbying by special interest groups will not result in efficiency (Church and Ware 2000, pp. 773-774).

13 Any society's standard of living depends upon the extent to which it can maximize the production value from its endowment: land, natural resources, capital and labour. Inefficient outcomes result in lower levels of productivity and a lower standard of living.

to outbid anyone else to reallocate resources.[14] Any reallocation may benefit one person, but only at the cost of harming another. In practice, however, market economies are dynamic, and the competitive outcome changes with shocks to supply and demand. Those changes create both winners and losers, but the adaptation to them in competitive markets reallocates resources to maximize the value of production. Efficient adaptation results in situations where the winners from a change can compensate the losers and still be winners; that is, be better off.[15]

NEB practice and controversy over the role of economic efficiency in one of its recent tolling decisions makes clear the need for legislative reform that equates economic efficiency and the public interest in the *NEB Act*. Such an amendment would preclude the NEB from following its practice of defining the public interest as (NEB 2016e, 1):

> The public interest is inclusive of all Canadians and refers to a balance of economic, environmental, and social interests that changes as society's values and preferences evolve over time.

This approach allows the NEB the flexibility to trade off various considerations as it deems appropriate. This includes the flexibility to ignore economic efficiency. In a recent decision on tolling methodology the NEB held that it is not required to consider economic efficiency in assessing whether tolls are in the public interest under the *NEB Act* (NEB 2017c, 9-10). Moreover one of the factors it must consider, whether tolls are just and reasonable, is a matter of its "informed judgment and opinion" (NEB 2017c, 4) and not their effect on economic efficiency. The argument in this *Commentary* is that the NEB's definition of the public interest and the provisions of the *NEB Act* that purport to provide direction with respect to the public interest are not in the public interest.

Adopting the goal of economic efficiency for public utility regulation involves identifying the most efficient outcome; that for which value is maximized. There are two common objections to this approach. The first is that many important regulatory concerns, in particular environmental and safety concerns, would be excluded from regulatory consideration. The second is that it ignores the distributional consequences of regulatory policy.

For example, the NEB is concerned with the exercise of monopoly power by pipelines, but its regulatory scope also extends to safety and environmental concerns associated with pipelines. These issues, and not whether tolls are too high, are more likely the concern of landowners and communities near proposed facilities regulated by the NEB. However, such a safety or environmental objection fundamentally misunderstands the nature of efficiency analysis. Efficiency analysis addresses differences in values over resource use by translating differences in preferences and intensity of preferences into dollars. Determining whether a pipeline should be permitted to cross a river or the appropriate thickness of a pipeline's walls should not be viewed as a "clash of values" requiring mediation by regulators or politicians. Instead, these

14 An efficient state is socially desirable because it is not possible to make one person better off without making someone else worse off. An efficient state is Pareto Optimal.

15 If the winners from such a change can compensate those harmed by the change and still be better off, then the change is a Potential Pareto Improvement. A change where one person is made better off and no one is made worse off is a Pareto Improvement. If no Pareto Improvements are possible, then the allocation is Pareto Optimal.

16 An activity might be "priced" by governments to reflect any negative external effects on others. In this case, the externality would be incorporated explicitly in private decisions, and the regulator would not require extra accounting for those external effects.

issues should be viewed as questions regarding resource allocation and resolved by the regulator determining efficient use.

Concerns over environmental impact often arises because of the imposition of costs on others through the use of resources that are not priced. But there is no reason why, in principle, these "external costs" cannot be incorporated into a regulator's efficiency analysis.[16] If, for example, the presence of high-voltage transmission lines reduces property values, then an efficiency mandate requires the regulator to take that loss into account in determining the social costs of those lines. And when it does so, it may be in a position to determine the compensation to those whose resources would be used, or whose value would be reduced, and require that compensation be paid, leaving both the proponents of the project and those harmed by its environmental consequences better off.

The analysis of safety considerations should also be based on economic efficiency. The extra costs of enhanced safety should be compared to the expected benefits. For example, in the case of oil spills from a pipeline rupture, efficiency requires that the marginal cost of enhanced safety equal its expected marginal benefit. If the marginal cost exceeds the benefit, then society is better off if the resources allocated to extra safety are used instead in their next-best alternative use. In many cases, the risk of an oil spill will be reflected in nearby property values, and the value of enhanced safety expenditures will be reflected in reduced impacts on property values of a pipeline.[17] The effect on property values of pipelines or changes in pipeline safety regulations can be used to determine external costs and to assess compensation to those harmed.

A second objection to adopting the policy goal of efficiency is the potential for the distributional consequences of the efficient outcome to be undesirable: a focus on efficiency requires that those that benefit could compensate those made worse off, not that they must. Indeed, to the extent safety and environmental concerns are not about appropriately internalizing negative effects on others, but instead over whether efficient development of natural resources should proceed, the concern is not about the efficient allocation of resources. Instead, it is about income distribution and that is better left to governments. While income distribution is important, its consideration should not be part of the regulatory process. As noted below, there are better mechanisms to address income distribution.

Rationales for Regulation

There are two distinct rationales for intervening in the market provision of services by a public utility. The first is to enhance economic efficiency. In general, markets allocate resources to maximize value and are efficient. But sometimes they are not, in which case regulation can be a response to this market failure and is justified because it improves economic efficiency. Well-designed and implemented regulation may be able to increase the value of resources in situations where markets do not result in maximization of the value of the output of resources.

Consider natural gas distribution. Natural gas distribution is a natural monopoly: cost minimization requires a single provider to avoid wasteful duplication of large sunk investments in a network of pipelines. Regulation achieves cost minimization by restricting production to a single

17 To see the logic of efficiency, suppose that existing regulatory measures impose a $1 million cost on a pipeline, but the reduction in the expected cost of a rupture is only $250,000. The pipeline and the landowners would be better off if the regulator relaxed safety measures and instead required the pipeline to pay the landowners $500,000. Both the pipeline and the landowners would be better off, and the cost to society of the expected oil spill in terms of resource use is minimized.

provider. Price regulation is required to control the resulting monopoly power and promote allocative efficiency. In such circumstances, regulation can result in the efficient level of output produced at minimum cost.

Alternatively, in the absence of regulation, a pipeline may well underinvest in safety, thereby imposing external costs on others. Regulatory intervention can improve the efficiency of resource allocation by forcing the pipeline to take into account not only its private costs, but also the external costs it imposes on others, leading to the requirement that a pipeline's social benefits exceed its social cost.

The second rationale for intervention is to redistribute the gains from economic activity. In this way, regulation is justified as a policy mechanism to transfer effective resource control to favoured groups, while regulatory decisions use the state's coercive power to reallocate the benefits of economic activity to those groups.

Political inefficiency arises when governments destroy wealth by misallocating resources in exchange for the inputs that contribute to acquiring and maintaining political power. For instance, when telephony was subject to price regulation, it was common practice to build cross subsidies into the regulated service rates. Regulators mandated high prices for long-distance telephone calls and business services and then used the profits to subsidize rates for local residential service. In the US, the loss in value from the inefficient pricing of telecommunications services by regulators was estimated to be $8 billion per year (Crandall and Waverman 1995). A second example of how a government destroys wealth is a decision to prohibit construction of a pipeline, even if landowners have reached an agreement to provide access and the construction is economically efficient. In this case, the resource, land, is restricted by regulation to a lower value use.

Politicians versus Regulators: the Delegation of Authority

Public Choice analysis makes clear the danger, even if policymakers implement regulation with the best of intentions, to correct market failure and enhance economic efficiency. Inevitably, politicians and special interest groups will try to subvert the process. The accumulated wisdom of how governments actually make choices indicates the importance of limiting potential political inefficiency when designing non-market regulatory institutions, as well as the allocation of authority and the design of regulatory institutions. Minimizing political interference and its resulting inefficiency is an important basis for leaving decisions to independent regulatory agencies when the rationale for regulation is economic efficiency; i.e., wealth creation.

A key reason for delegating responsibility for decisions that have significant implications for the efficient allocation of resources is to insulate these decisions from the political process. It is much more difficult for governments to intervene or change regulatory decisions if those decisions are based on economic efficiency. The reason is that the pressure for intervention or disagreement will not be based on economic efficiency, but on the decision's distribution implications; i.e., who is more deserving. This means that governments will likely be much more cautious about intervening on distributional grounds because it is much harder to argue that their intervention is in the public interest. Moreover, even if the redistribution is warranted, there are much less costly ways to redistribute income than through regulatory decisions.

Implications for Regulatory Practice

Clearly, the design of regulatory agencies should reflect the advantages of insulating their independent decisions from the political process. One characteristic of an effective regulatory process

– one that is relatively more immune from political considerations – is that its enabling legislation has a clear emphasis on efficient resource allocation. The public interest that regulation is intended to serve should be clearly articulated as the promotion of economic efficiency. Regulators should not be concerned with the distributional implications of their decisions. A legislative requirement that regulators and the regulatory process should be concerned only with determining the effect of decisions on resource allocation would have a number of important beneficial implications.

The first positive from such a focus is that it defines, and constrains, the relevant evidence. The focus of relevant evidence would be on the effect of alternatives on the efficient allocation of resources. This makes the only relevant evidence the aggregate benefits and costs of different alternatives. An immediate implication is that regulatory processes which were never intended to be a substitute political process to express preferences over the appropriate use of resources will cease to be so. Instead, the preferences of society are represented, from the perspective of the regulator, by aggregate costs and benefits. Regulators would then have no need to consider evidence that does not inform the costs and benefits of alternatives. The regulatory process would no longer be concerned with the fairness of the outcome or with providing everyone with an equal opportunity to participate. The result would be less expensive and more timely decision-making, with a lower probability of an error.

The second benefit of a focus on economic efficiency is that it implies regulators would need to have the relevant expertise and background, precluding most patronage appointments (Martin 2015).

Third, a focus on economic efficiency and competent regulators would minimize the temptation for the government to intervene and constrain a regulatory board's powers by writing detailed rules into the legislation or accompanying regulations. Indeed, regulation by government legislation is usually inefficient in a world of change and uncertainty. Detailed legislation that specifies how regulators are to exercise their authority limits the flexibility of the regulator to adapt as (i) circumstances change, (ii) the legislature's assessment of what is important turns out to be wrong, or (iii) there are unforeseen developments. Changing legislation is likely to be either difficult or reactionary, resulting in a regulatory policy that is out of date and out of touch.

A fourth and final benefit of an economic-efficiency focus is that it avoids the temptation to change regulatory institutions based on a perception that they are costly and/or ineffective. The perception can be true, but the source is not the regulatory institutions, but their use. Regulatory institutions and processes have not been designed, and likely cannot be designed, to arbitrate competing preferences. Elections for public office are how competing preferences should be reconciled, subject of course to constitutional protection of rights.

Preserving Incentives for Investment

The importance of a regulatory process that is stable, predictable and informed by principles of wealth creation is highlighted by the regulatory risk that can arise when investment is large and sunk. In these circumstances, firms will be reluctant to invest unless they have confidence that regulators will respect their property rights. If the regulatory process is subject to distributional concerns, there is always a temptation that the regulator will be seduced by pressure from consumers, or others, to essentially expropriate a firm's sunk capital investment.

Regulatory holdup occurs when the regulator takes measures after investments have been made that make those investments unprofitable. This can be done by reducing prices after the investment

in sunk capital to reflect only variable costs and not total costs. The latter includes return on, and of, capital, but the former does not if capital investment is sunk. It can also occur if the regulator liberalizes entry conditions, and competitive entry results in lower prices and stranded investment, or if the regulator imposes new obligations that raise service costs.

An example of regulatory holdup is the evolution of the CRTC's policy with respect to competitors' access to the incumbent telephone companies' investment in high-speed Internet access facilities, in particular, fibre optic broadband to the home.

The CRTC mandated access to competitors at regulated rates after investment in these facilities had commenced (CRTC 2015, 136 and 144). This was a flip flop. In 2008, the CRTC found that fibre access facilities were non-essential and mandated access was to be phased out (CRTC 2008, 119). The CRTC had also confirmed in its matching speed decision that fibre to the home was not included in the set of facilities for which mandated access was required (CRTC 2010, 121).

Another regulatory holdup example is the CRTC's decision to prohibit simultaneous substitution of Canadian commercials for US ones on the American network Super Bowl broadcast, starting in 2017. The CRTC ruled that this ongoing "simsub" is "not in the public interest" and rejecting it was necessary to fulfill "the policy objectives of the *[Broadcasting] Act*" (CRTC 2016, 40 and 24) based on its determination that the US ads are "integral to the event itself" (CRTC 2016, 5 and 26). In issuing its order prohibiting the usual practice by Canadian networks, the CRTC acknowledged that Bell Media had entered into a multiyear contract with the National Football League for the Canadian broadcast rights for the Super Bowl based on the expectation of simultaneous substitution. However, the CRTC rejected Bell Media's claim that its resulting lost advertising revenue and the existence of a contractual right should impact its decision (CRTC 2016, 56). Bell Media estimated it would lose $80 million in unrealized advertising revenue over the length of the contract (CARTT 2016).

The NEB's approval of the Canada-US Alliance pipeline is a third example (Daljevic 2016). The effect of this approval resulted in the transfer of large volumes of natural gas from TransCanada's mainline to the Alliance pipeline and the creation of substantial excess pipeline capacity. The result was an extended regulatory battle between the NEB and TransCanada over tolling changes to the mainline that would reduce the non-recovery of investments in the mainline.

Finally, regulatory holdup occurs when the regulator strands investment by non-regulated firms whose sales depend on timely development of supporting infrastructure. This occurs when non-regulated firms invest in sunk capacity with the expectation that sufficient infrastructure will be available on a timely basis, but the regulator delays or effectively prohibits the expected investment in regulated assets. The constraints in Canada on pipeline export capacity for oil sands production is an important, and topical, example.

The advantage to society of an economic-efficiency mandate for regulators is that it enhances the likelihood that the regulator will not hold up regulated companies who invest in sunk capital. That is, the regulator can more readily resist demands that, in the short run, have immediate benefits for some, but in the long run destroy the incentive for investment and wealth creation (Spiller and Tommasi 2005). Moreover, its efficiency-enhancing decisions are less likely to be appealed, or overturned, by the courts. A reputation for not succumbing to short-run interests is easier for a regulatory institution to develop and maintain than a government. Furthermore, it is important to have credible regulatory institutions looking at the

longer run, especially in systems where parliament is paramount and policy can be reversed with a change of government or even by a single vote.[18]

Distributional Concerns

Income distribution is clearly an important concern, so legislators should not allocate its responsibility to regulators. Instead, there should be an institutional division of labour with the legislative branch responsible for income distribution.[19] The value judgment appropriate for an autonomous unelected body is economic efficiency and wealth creation, not the determination of the appropriate distribution of the gains from economic activity.[20]

A consistent focus on economic efficiency as the objective of regulation will, on average, make everyone better off in the long run. If some people are consistently disadvantaged and left behind, then distributive bodies responsible to elected representatives can transfer income to them. Moreover, those harmed by one decision might well benefit from others. Piecemeal responses within the regulatory system to address those disadvantaged are costly and may be either ineffective or redundant. Finally, if regulation is seen simply as another means to engage in rent seeking and redistribution, then it will lose legitimacy, even if it was justified on the basis of economic efficiency.

A Hopeful Sign for Economic Efficiency

Last year, the Senate's Standing Committee on Transportation and Communications released a report on pipeline regulation, highlighting the inefficiency – the lost value to the Canadian economy – arising from a reluctance to build new pipelines to export crude oil. In its view the benefits outweigh the costs (Senate 2016, 8) and it urged regulatory reform to develop a consensus that additional pipeline capacity is in the public interest (Senate 2016, 6).

The committee advocated four important reforms to institute an apolitical, fact-based, inclusive process for pipeline approvals (Senate 2016, 1). They are:

- Remove the requirement that pipelines are subject to federal government approval. Instead, allow for NEB decisions to be subject to cabinet appeal (Senate 2016, 2).

18 Ironically, this is illustrated by the Super Bowl broadcast debacle. In the absence of a narrowly defined efficiency mandate, the CRTC determined that the policy objective of "allowing subscribers to view complete (i.e., unaltered) programming" overcomes the negative effect on advertising revenues for Canadian broadcasters (CRTC 2016, 39) and the cost of increased regulatory risk. In response to lobbying by the National Football League, the Prime Minister's Office responded that the CRTC was an independent agency, its regulatory decision was not reviewable by the government and its policy decisions under the *Broadcasting Act* could not be reversed (Jackson 2017). This nicely illustrates the point that allocating responsibility to independent decision-makers provides a shield to governments, which could, if they wanted, amend the offending legislation.

19 There is a long tradition in the economics literature supporting the desirability of such division of labour (see Wicksell 1896, Musgrave 1959, and Buchanan and Tullock 1962; for a summary of the discussion, see Mueller 2003, Chapter 29).

20 For a discussion of how the Canadian Competition Tribunal has incorporated distributional considerations without making its own assessment on the appropriate distribution of income, see Ross and Winter (2005). The Federal Court of Appeal required the Competition Tribunal to adopt considerations other than economic efficiency despite its legislative mandate, though not a sole mandate, to consider economic efficiency in its decision-making. In its *Superior Propane* redetermination, the Tribunal incorporated distributional considerations, using evidence about redistribution from Canada's taxation and public expenditure regimes. The Tribunal adopted an efficiency standard except that they counted as a cost transfers (lost surplus from higher propane prices) from consumers in the bottom quintile of the income distribution.

- Allow for more participation by Canadians in NEB hearings by expanding participation beyond those either directly affected by the pipeline or with specific information or expertise (Senate 2016, 14-15).
- Increase the scope of NEB reviews to encompass all environmental costs specific to a pipeline (Senate 2016, 14-15).
- Align and integrate consultations between Indigenous peoples and the federal government with the NEB regulatory review (Senate 2016, 14-15).

The committee's recognition that the benefits of pipeline expansion exceed the cost is a welcome acknowledgement. This economic efficiency focus and the finding that the public interest can be assessed by comparing costs and benefits should be enshrined in the *NEB Act*. The suggestion to include broader environmental concerns is also consistent with the recommendations in this *Commentary*.

While the committee's desire for expert consideration and an apolitical process is also reflected here, these goals are more likely to be achieved by adopting an efficiency objective. It is unlikely that substituting appeals to cabinet for the current required government approval will be effective in eliminating lobbying, rent seeking and political inefficiency. Similarly, broadening the scope for participation is likely to be counterproductive, more likely to give rise to frustration and hostility by those who are given a voice but whose preferences are ignored, and it is at odds with the desired efficiency focus.[21]

Finally, and perhaps most importantly, the issues related to Indigenous peoples is a dispute about control of resources, which is properly characterized as a dispute about income distribution. This is not, and should not, be addressed by the NEB. Instead, it will eventually have to be addressed by the federal government and will likely not be resolved until the property rights of Indigenous peoples are settled.

Conclusion

The implication of this analysis is that the controversy over pipelines and other regulated industries will not be reduced, let alone eliminated, by expanding the scope of consultations and widening public participation.[22] Regulatory processes are not substitutes for the political process. Instead, regulators should be concerned with economic efficiency: maximizing the value of the goods and services produced by the Canadian economy. The distribution of those goods and services should not be a consideration in regulatory decision-making. Instead, concerns over distribution should be addressed by legislatures. Limiting the public-interest mandate of an independent regulator to questions of economic efficiency is more likely to result in regulation that contributes to increased productivity, enhanced real incomes and a higher standard of living.

21 See Cattaneo (2017) for a discussion of environmental groups' response to Ottawa's approval of the Trans Mountain Expansion and the Enbridge Line 3 Replacement Project, including arranging a visit to the oil sands by Jane Fonda.

22 The debacle of the Energy East proceedings before the NEB is seen as evidence by some that the problem is not that the process was not "fair and robust" or provided limited opportunity for participation, but the exact opposite (Hislop 2016; Cattaneo 2016c; O'Neil 2016). Indeed, at least one Senator has observed that the NEB is not the appropriate venue to address issues that are more appropriate for the federal government to resolve and that its mandate should be narrowed (Yedlin 2016).

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THE LAMENTABLE RISE OF AN EXPANDED ESSENTIAL FACILITIES DOCTRINE IN CANADA: THE TROUBLING ECONOMIC FOUNDATIONS OF THE TORONTO REAL ESTATE BOARD DECISION[†]

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This paper documents the successful, if lamentable, rise of a made-in-Canada essential facilities doctrine. This made-in-Canada essential facilities doctrine is a consequence of recent enforcement of the abuse of dominance provisions of the Competition Act *in the* Toronto Real Estate Board *case. The analysis in this paper finds that the rise of the made-in-Canada essential facilities doctrine is one implication of the developing jurisprudence of the Federal Court of Appeal and the Competition Tribunal with respect to all three of the elements required for a finding of abuse of dominance: control, practice of anticompetitive acts, and a substantial prevention or lessening of competition. This paper explains the error made in the* Toronto Real Estate Board *case for all three of these required elements and how they combine to result in the made-in-Canada essential facilities case. The policy and economic incoherence of this made-in-Canada essential facilities doctrine are fully manifested in the current abuse of dominance case against the Vancouver Airport Authority. This paper explains that this made-in-Canada essential facilities doctrine is inconsistent with the economics of vertical foreclosure and the economic foundations of the abuse of dominance provisions in the* Competition Act. *The problem in both of these cases is not conduct that creates, enhances, or maintains market power, but instead exclusion downstream is possible because of market power upstream and it may enhance efficiency.*

Cet article traite de l'implantation – malheureusement réussie – d'une doctrine canadienne des installations et équipements essentiels, résultat de la récente application de dispositions de la Loi sur la concurrence *concernant les abus de position dominante dans l'affaire du* Toronto Real Estate Board. *À la fin de cette analyse, je conclus que l'implantation de la doctrine des installations et équipements essentiels au Canada est une conséquence de la jurisprudence qui émerge à la Cour d'appel fédérale et au Tribunal de la concurrence en ce qui concerne les trois critères permettant de conclure à un abus de position dominante : contrôle, agissements anticoncurrentiels, empêchement ou diminution sensible de la concurrence. J'explique l'erreur commise dans l'affaire du* Toronto Real Estate Board *pour ces trois critères*

et en quoi leurs effets combinés donnent vie à la doctrine canadienne des installations et équipements essentiels. L'incohérence économique et politique de cette doctrine se manifeste pleinement dans l'affaire actuellement en instance d'abus de position dominante intentée contre l'administration de l'aéroport international de Vancouver. J'explique aussi pourquoi cette doctrine est contraire aux dispositions de la Loi sur la concurrence *concernant la dynamique économique de forclusion verticale et les fondements économiques de l'abus de position dominante. Dans ces deux cas, le problème n'est pas qu'il y a conduite qui crée, augmente ou maintient l'emprise sur le marché, mais plutôt qu'une emprise en amont rend possible une exclusion en aval, malgré que cela puisse entraîner un gain d'efficacité.*

1 Introduction

The thesis of this paper is that the recent decision by the Competition Tribunal in *Toronto Real Estate Board* ("*TREB Redetermination*") and the subsequent application by the Commissioner of Competition against the Vancouver Airport Authority ("*YVR*") represent a made-in-Canada version of the essential facilities doctrine.[1] While the Commissioner has prevailed, at least to date, in the Toronto Real Estate Board matter, the theory of vertical foreclosure advanced and accepted by the Competition Tribunal in the *TREB Redetermination* and the Commissioner's application in *YVR* are inconsistent with the economics of foreclosure and the economic foundations of the abuse of dominance provisions in the *Competition Act*. Fundamental errors of economics made by the Competition Tribunal in the *TREB Redetermination* provide the foundation for this made-in-Canada essential facilities doctrine. Those fundamental errors are discussed in detail in this paper. The Tribunal's fundamental errors incorporate all three requirements for a finding of abuse of dominance: control, practice of anticompetitive acts, and a substantial lessening or prevention of competition. The negative implications of the Tribunal's findings for future enforcement include, but are not limited to, the made-in-Canada essential facilities doctrine. The fundamental errors have the potential to result in successful enforcement in any abuse of dominance case being inconsistent with consumer welfare or efficient resource allocation.

The Commissioner's application against the Toronto Real Estate Board ("TREB") was initially dismissed by the Competition Tribunal on the basis that TREB did not compete in the provision of residential real estate brokerage and hence its conduct could not harm a competitor,

it did not exercise market power in this market, and if it did not have market power in the residential real estate brokerage market its conduct could not create, enhance, or preserve that market power.[2] The initial decision by the Tribunal was overturned by the Federal Court of Appeal (*FCA 2014*) on the basis that the anticompetitive conduct did not have to be directed against a competitor and that it was possible to "control" a market without being a participant, i.e., it was possible to have market power in a market without participating in that market.[3] On remand, a second panel was constituted to reconsider the Commissioner's application. The second panel's decision (*TREB Redetermination*) found that the Toronto Real Estate Board had abused its dominant position by not including in its data feed made available by brokers on their websites, so called Virtual Office Websites ("VOWs"), some listing data found in its multiple listing service database. In particular information on the historic sold price of a listing, pending listings, and withdrawn, expired, suspended, and terminated listings ("confidential price data") were excluded from the TREB data feed, and there were restrictions on displaying this information on websites by brokers.[4]

Sections 78 and 79 of the *Competition Act* establish the reviewable offense of abuse of dominance. Under these provisions the Competition Tribunal can make an order enjoining the conduct of a firm if, upon application by the Commissioner of Competition, the Tribunal finds that a firm has control of a market, has engaged in a practice of anticompetitive acts, and the practice has had, or is likely to have, the effect of substantially preventing or lessening competition in a market.[5]

The fundamental problem in TREB and YVR is that the conduct at issue is the exercise of market power in an upstream market, the effect of which is to raise prices and reduce output in a downstream market. The means by which prices increase and output is reduced in the downstream market is indeed a negative effect on the costs and quality of competitors in the downstream market. But this is not a substantial lessening or prevention of competition because there is no maintenance, creation, or enhancement of market power, instead it is the result of the exercise of market power upstream. The conduct by the upstream supplier in these two cases, restricting access to the confidential price data in the case of TREB and restricting airport access in the case of YVR, did not, and does not, affect the ability of any firm, either upstream or downstream to exercise market power. Negatively affecting the costs, quality, and number of downstream firms, real estate brokers in the case of TREB, and suppliers

of galley handling services and caterers to airlines in the case of YVR, is not the same as a negative effect on competition in the downstream market, rather it is the effect of the exercise of market power upstream.

The exclusion of downstream suppliers in the two cases does not negatively effect competition in the downstream markets: it does not create, enhance, or maintain market power in the downstream market. In TREB this is obvious: the provision of residential real estate brokerage services in the Greater Toronto Area is close to textbook competitive, with thousands of agents and very low entry barriers. This is true whether the confidential price data is supplied to brokers as part of the data feed or not and with, or without, restrictions on their ability to share it with their clients on a website. The effect of not supplying the confidential price data and permitting it to be searchable by clients of a broker is to reduce the supply of residential brokerage services—perhaps quality adjusted—and hence to change the competitive equilibrium in residential real estate brokerage, perhaps raising prices and lowering quality, but it has no effect on market power in the supply of real estate brokerage. The reason, as explained *infra*, for the restrictions on access, lies not in creating, enhancing, or maintaining market power but instead in realizing efficiencies, including in this particular case preventing free riding and providing incentives for investment by protecting quasi-rents.[6]

The YVR case is not quite as obvious as the TREB case. The difference lies in the extent of competition in the downstream market. In YVR there are only two suppliers authorized to provide service, so surely allowing more suppliers to access planes to supply catering would reduce the market power of the two existing suppliers? The answer is obviously yes. But the question is wrong: the market power of the downstream firms does not exist independently of YVR's monopoly power in the upstream input. If service requires airport access—it is essential—then the number of downstream firms depends on YVR. The source of YVR's market power is the scarcity of the upstream input, the inability or unwillingness of downstream firms to substitute to other inputs, and the unwillingness of consumers in the downstream market to substitute to other goods that do not use the upstream input controlled by YVR, e.g., flights out of YVR without catering or flights from a different airport. If YVR is truly a monopolist in the supply of access to airplanes, then YVR has the ability to be the only supplier of catering if it precluded supplying access to other catering firms. Allowing more competitors downstream does not change YVR's market power: instead it exercises it upstream in

the market for airplane access rather than downstream in the provision of catering.

YVR might open up access, perhaps limited access, because by doing so it can extract more profit from its monopoly: independent suppliers may have lower costs or access to other inputs that allow them to create surplus above and beyond what YVR can do on its own and which may also benefit consumers in the downstream market. Indeed the Chicago School's single profit theorem suggests that YVR should never restrict access. But if the simple conditions of the single profit theorem do not hold, then to insure that more of this extra surplus is captured by it, and not downstream consumers, YVR will have an incentive to manage competition between suppliers of catering.

In both the TREB and YVR case the ability to exclude downstream competitors by foreclosing access to an input upstream arises only if TREB and YVR have market power in the supply of the input. In the absence of monopoly power in the supply of the input, downstream firms could substitute to other inputs and not be disadvantaged in the supply of the downstream product. In both cases, the "exclusion" of some downstream suppliers does not create, enhance, or maintain market power, but instead reflects the exercise of market power upstream and the form in which the exercise occurs, exclusion, will both be optimal for the upstream monopoly and often efficiency enhancing and beneficial for downstream consumers. To be clear, the upstream owner of the essential facility is using its market power upstream to restrict access to downstream competitors but it does so to realize efficiencies, not to create, enhance, or maintain its market power either upstream or downstream.

The thesis advanced here is that the effect on competition in the downstream market is not relevant for whether the exclusion is anti-competitive.[7] The thesis of this paper is that a well-founded enforcement action against either TREB or YVR under the abuse provisions of the *Competition Act* for their exclusionary conduct requires evidence that it creates, enhances, or maintains the market power of TREB in the market that includes the confidential price data and YVR in the market for access to airplanes, i.e., *the upstream market defined around the essential facility*. This can either be because the conduct restricts the competitive discipline of alternatives to the essential facility upstream or the competitive discipline of alternatives in the downstream market that do not use the essential facility.

The analysis in this paper shows a degree of economic illiteracy that is troubling. The failure to properly understand and apply the relevant economic concepts and analysis results in errors of analysis and economic incoherence. This economic incoherence makes the application of any provisions in the *Competition Act* requiring a demonstration of a negative economic effect problematic, with resulting costs to Canadians from the ensuing uncertainty and it is likely to weaken support for competition policy enforcement in the long run.

The confusions identified in this paper include not just appreciating the difference between the exercise of market power and conduct that creates, enhances, or maintains market power, but also encompass a failure to correctly (i) define market power; (ii) define and identify anticompetitive conduct; and (iii) define and identify a substantial prevention or lessening of competition.

The Tribunal incorrectly: defines market power as the ability to exclude competitors; determines whether conduct is anticompetitive by assessing its purpose; and identifies a substantial lessening or prevention of competition by assessing the effect of conduct on prices or quality, not market power. Beyond this, it does not incorporate the overall effects of the conduct on consumer welfare or the efficiency of resource allocation.

The result of these errors of economics and law results in a made-in-Canada version of the essential facilities doctrine.[8] The made-in-Canada essential facilities doctrine created by the FCA and the Tribunal in TREB maps the following into an abuse of dominance:

- The Commissioner must establish that a firm supplies an input that is necessary for production in a downstream market. This involves establishing that the firm is dominant in the input market, i.e., an upstream monopolist. Hence upstream monopolists will be found to control downstream markets that use their input.

- If the upstream monopolist discriminates in the supply of an input or excludes some downstream firms from supply, it will be found to have engaged in a practice of anticompetitive conduct. If conduct is explicitly exclusionary, then its intent is to harm downstream rivals and prevent them from using the input and competing downstream; in the case of discrimination, the intention is to limit rivals' ability to compete. Consideration of the effect of the

exclusion or discrimination on consumer welfare or resource allocation is irrelevant.

- If the result of the exclusion or discrimination of downstream rivals is a marked increase in prices; a marked reduction in product quality and diversity; or a marked reduction in innovation in the downstream market there is a substantial prevention or lessening of competition. The Tribunal will likely have a high prior that the effect of exclusion will be these effects if the exclusion is "widespread".

- The remedy is an order requiring non-discriminatory access.

The made-in-Canada version of the essential facilities doctrine is particularly troubling since under it the Commissioner of Competition can ask the Competition Tribunal to order access to the assets of an upstream supplier if control of those assets provides it with dominance in the supply of an input to a downstream market. In making this determination the Competition Tribunal will not consider whether a denial of access or discriminatory access will create market power or even whether it would result in an increase in consumer welfare or total welfare (efficiency). That is, the Tribunal will not consider that mandating access to the assets of a firm will have negative ramifications on incentives for investment or other efficiency justifications for why a supplier of an input upstream might restrict competition in the market for services that use its input.

Section 2 is a review of Sections 78 and 79, the relevant provisions of the *Competition Act*. Section 3 is a first-principles discussion of the economics of abuse of dominance and develops an economic implementation of the abuse of dominance provisions of the *Competition Act*. Section 4 is a review of the relevant economics of vertical foreclosure and monopoly power in the supply of an input. Section 5 is a critique of the Federal Court of Appeals first TREB decision ("*FCA 2014*"), as well as the Competition Tribunal's second TREB decision ("*TREB Redetermination*"). Section 6 maps the cumulative impact of these decisions into a Canadian essential facilities doctrine and discusses the Commissioner's application in *YVR*.

2 Abuse of Dominance: the Legal Framework

The abuse of dominance provisions are Sections 78 and 79 of the *Competition Act*. Section 79(1) specifies the requirements that must be met

for the Competition Tribunal to make an order upon application by the Commissioner of Competition. The three sections of Section 79(1) are:

- 79(1)(a) requires a demonstration that one or more persons substantially control a class or species of business throughout, or within a particular region of, Canada;
- 79(1)(b) requires demonstration that the person or those persons are engaged in or have engaged in a practice of anti-competitive acts; and
- 79(1)(c) requires demonstrating that the practice has had, is having, or is likely to have the effect of substantially preventing or lessening competition in a market ("SPC" or "SLC").

An interpretation of these three requirements had developed prior to TREB. The interpretation by section:

(a) *Control*. The requirements for control had been interpreted to mean dominance. Dominance in turn meant the sustained exercise of substantial market power in a relevant market.

(b) *Practice of Anticompetitive Acts*. A practice of anticompetitive acts involved establishing conduct that is exclusionary or predatory and which does not have a legitimate business justification.

(c) *Substantial Prevention or Lessening of Competition*. The Commissioner must establish that the conduct that creates adverse effects on a competitor has also harmed competition in a relevant market. In the usual case, the requirement is that the conduct at issue creates, preserves, or enhances the market power of the dominant firm in the same market in which it is dominant. However, that need not be the case: the conduct could create, preserve, or enhance the market power of the dominant firm in another market.

For an order the *Commissioner* must establish all three conditions—dominance, anticompetitive practice, and substantial lessening or prevention of competition.

3 Abuse of Dominance: the Economic Framework

This section builds up an economic interpretation of the abuse of dominance provisions. The objective is to develop an economic implementation of Sections 78 and 79 that identifies circumstances when

enforcement of the *Competition Act* will increase consumer welfare or enhance efficiency. That is, the concern is identifying conduct that creates, enhances, or maintains market power (a condition necessary to establish abuse of dominance), where the effect of the increase in market power is to reduce consumer welfare or the value of output (efficiency).

3.1 Understanding the Source and Consequences of Market Power

The abuse provisions—and indeed all of the provisions—of the *Competition Act* embody an important distinction: they are not intended to address the exercise of market power, but conduct that under certain conditions enhances, maintains, or creates market power.[9]

3.1.1 Market Power

Market power is typically defined as the ability of a firm to profitably raise price above competitive levels.[10] In the case when the products of firms are homogenous, a firm has market power if the market price increases when it reduces its supply below competitive levels and the increase in the market price increases its profits. In the case of differentiated products, the profit of the firm rises when it raises its price over competitive levels. More generally, a firm has market power if it can profitably alter other aspects of its behavior away from competitive levels, such as quality, advertising, innovation, variety, and, importantly, restrictions on the use of its product.

3.1.2 Determinants of Market Power

The substitution alternatives available to the customers of a firm determine its market power. Customers discipline, and thereby constrain, the market power of a firm by substituting away from its products when it raises its price. When a firm increases its price, it gains increased revenues from its higher price on inframarginal sales (sales it continues to make), but loses the profits on marginal sales (sales no longer made). A price increase will be profitable if the gain in revenues from the inframarginal units exceeds the loss on marginal units. The loss on marginal units equals the product of the reduction in volume from consumers substituting to other alternatives and the firm's prevailing profit margin on those sales. The greater the losses at the margin are the more effective substitution by consumers is in limiting the profitability of the firm raising its price. The decrease in sales of a product when a firm

increases its price depends on its elasticity of demand.[11] The greater the firm's elasticity of demand and the greater its margin, the greater its profit loss at the margin from raising its price and the less its market power.

The extent of demand substitution depends on whether a firm's customers are willing, or able, to divert their demand. Consumers may be able to switch, or divert their demand, to other products or other suppliers of the same product. Their *willingness* to switch to other products depends on how close a substitute consumers view alternative products. Their *ability* to substitute to another supplier of the same product depends on whether other suppliers of the same product will find it profit maximizing to increase their output.

The more the possibilities for substitution are limited, the greater the ability of a firm to exercise market power. Conduct that creates, enhances, or maintains market power must, therefore, restrict the possibilities for substitution. Conduct that increases market power does so by reducing the willingness and ability of consumers to substitute away from a firm that attempts to exercise market power.

For market power to persist in the long run there must be barriers to entry and asymmetries that provide incumbent firms with a competitive advantage vis-à-vis entrants. Barriers to entry are factors that tend to reduce the profitability of entry. In the absence of asymmetries that provide incumbents with a competitive advantage, economic profits from the exercise of market power (pricing above competitive levels) will, in the long run, attract entry of either other producers of the same product or the development of new substitute products. Both types of entry will create additional avenues of substitution for a firm's customers, reducing or even potentially eliminating its returns in excess of a competitive level and the exercise of market power. Any barriers to entry will limit the number of firms, but the number of firms will adjust such that prices reflect long-run average costs and firms earn competitive returns. Asymmetries between entrants and incumbents post entry can result in situations where entry is not profitable, but incumbents are able to exercise market power and earn monopoly profits.[12]

Canadian competition law has avoided the potentially problematic aspects of the classic U.S. Supreme Court definition of monopoly power in *du Pont* as the "power to control prices or the power to exclude competitors" (emphasis added).[13] Instead it is understood in Canada that dominance involves substantial and durable market power. In assessing

market power, the requirement to exclude competitors is incorporated in the definition of market power by including a time dimension: the ability to raise prices above competitive levels for a "considerable period of time." The Tribunal in its decisions in assessing market power has typically considered barriers to entry in assessing market power.[14]

In fact, as is discussed in academic commentary on the U.S. definition and indeed in the *du Pont* decision itself, there are not two separate tests for market power in the U.S., but instead the two components are to be treated as one. As commentators have observed, it is the exclusion of competitors that is the source of the power to raise price over competitive levels. Without the exclusion of competitors, a firm will not be able to maintain its power to control prices.[15] The source of its market power is exclusion of competitors. The asymmetries that in conjunction with entry barriers exclude competitors and maintain a firm's market power and above average profitability are often due to its control of a unique input. The source of a firm's market power is its ability to exclude other firms from using the input that they cannot replicate. The firm's source of market power in the production of goods and services that use the input is its control of the input. For it to have the power to exclude, it must also have market power in the input. That is implied by the inability of other firms to replicate it, or enter downstream and compete using other inputs. Market power upstream provides the firm in these circumstances with the ability to exclude entry downstream.

The less competitive downstream firms are that use other inputs, the greater the market power of a firm that controls an input that cannot be replicated. In an essential facilities case, presumably, competition from downstream firms that use other inputs is virtually non-existent and the upstream firm is a monopoly or dominant in both the upstream and downstream markets.

Exclusion of entrants is an important source of market power downstream and it can be informative regarding the existence of market power (that is, it can be used as evidence for the existence of market power), but the power to exclude entrants is not market power in the market from which they are excluded, rather it is the source of market power in the downstream market. Consequently, entry deterrence—or "the power to exclude"—is necessary but not sufficient alone to infer a substantial and durable exercise of market power in a downstream market.

3.1.3 The Effects of Market Power

For markets in which the product is sold to final consumers, the effects of the exercise of market power—the increase in price above competitive levels—are two-fold.[16] First, there is a transfer of some of the gains from the production and exchange of the inframarginal units from consumers to the firm exercising market power. Consumers pay higher prices on units they continue to purchase, so consumers will receive less benefit and the firm more. Second, there is a loss in economic value as consumers reduce their purchases of the good. The lost value arises because less of a good for which market power is exercised is produced relative to competitive production.

The lost value from the substitution by consumers to their second-best choice when market power is exercised, and the price of the good rises above the competitive outcome, is called the deadweight loss. It is a quantitative measure of the allocative inefficiency created by the exercise of market power and is equal to the extent to which the value of production has not been maximized (as it would be if markets were perfectly competitive). The deadweight loss arises because the gain to the firm from exercising market power arises from the transfer on inframarginal units, but the total loss to consumers includes both the loss on inframarginal and marginal units. The inefficiency of market power results from this quantity distortion: the exercise of market power raises prices and induces a reduction in consumption and output, with a diversion of resources to less valued alternatives.

Many products are inputs and are traded in wholesale, or upstream, markets where the buyer is a firm who uses the input to produce a product it sells in a downstream market. In the simplest case the downstream market involves sales to final consumers and the downstream suppliers are perfectly competitive. As with retail markets, there are two effects from the exercise of market power in an upstream input, or wholesale, market. The first is a transfer of profits from downstream firms to the upstream supplier on inframarginal units—the units that the downstream firms continue to purchase even though price has risen. The second is the loss in economic value as downstream firms reduce their purchase of the input.

The downstream firms reduce their demand for two reasons. First, as the price of the input rises, they may substitute to alternative inputs. Second, to the extent they pass through the price increase of the input to

their customers, downstream demand will fall, reducing the demand for the input by the downstream firms. Hence when the good in question is an input, there is the possibility of direct substitution by the downstream firms to another input, and indirect substitution by consumers downstream who divert demand to goods that do not use the input.

The lost value as firms and consumers in the downstream market substitute to their second-best choice when the price of the input rises again gives rise to a deadweight loss and inefficiency. This inefficiency is from the exercise of market power in the upstream market. The deadweight loss from the exercise of market power in an input market is the change in total surplus (the harm) in the downstream market that uses the input less the increase in profits in the supply of the input.[17]

The increase in the upstream price from the exercise of market power does harm the downstream market: it results in higher prices and lower quantities. The higher prices downstream are a result of the higher marginal costs downstream from the exercise of market power upstream. If the market downstream is competitive, the exercise of market power upstream raises marginal costs downstream and shifts the supply curve downstream up and in, leading to higher prices and reduced output downstream. But this occurs without a change in market power in the downstream market. Instead it reflects the exercise of market power in the upstream market. A similar causal effect from the exercise of market power upstream would result in higher prices and less output downstream even if the market downstream is not perfectly competitive.[18]

3.1.4 Classic vs. Exclusionary Market Power

In recognizing the potential for raising rivals' cost strategies, Steven Salop and his coauthors introduced the notion of exclusionary market power, in contrast to classic market power.[19] Exclusionary market power is defined as the power to raise prices above competitive levels by raising the costs of rivals and thereby reducing their output. Classic market power is the ability of a firm to profitably raise price by reducing *its* output.

But in fact a closer examination of exclusionary market power indicates that this distinction is misleading. Exclusionary market power has two aspects. First, it involves conduct by firms to create market power in an input or upstream market. This often involves vertical integration and foreclosure: a downstream firm acquires an upstream supplier and

by ceasing to supply its downstream rivals creates market power for the remaining suppliers of its downstream rivals. Second, the result is an increase in the price of the input used by its competitors in the output or downstream market. The increase in the price of the input arises from the exercise of market power that arose from the *conduct* that created, enhanced, or maintained market power in the input market. It raises the costs of rivals in the downstream market, relaxing the constraint they exert on market power in the downstream market. Raising rivals' costs therefore involves conduct that creates, enhances, or maintains market power in an input market and the exercise of that market power in the supply of the input to downstream rivals.[20] Exclusionary market power involves the creation and the exercise of classic market power.

Calling the exercise of market power in an upstream market exclusionary because of the effect of its exercise on rivals in the downstream market obscures the two-step nature of exclusionary market power: (i) some conduct that creates, enhances, or maintains market power in the upstream market and (ii) the effect of the exercise of that market power on the downstream market. It also obscures that the market in which the firm acquires market power is an upstream market and that the conduct that therefore should be the focus of an antitrust analysis is the conduct that creates, enhances or maintains market power upstream, i.e., the conduct that gives market power over the input price paid by its rivals.

3.2 Anticompetitive Conduct

The objective of legal prohibitions on unilateral conduct is to deter firms with substantial antitrust market power—market power that is significant and durable—from engaging in certain kinds of conduct that creates, enhances or maintains market power. Conduct that does this typically reduces the extent to which customers are willing or able to substitute. If the conduct increases the market power of a firm, the firm's elasticity of demand should be reduced, i.e., it becomes more inelastic as consumers response to an increase in price falls.[21] Typically, the conduct increases a *firm's* market power by reducing the extent to which *its* customers are willing or able to substitute, reducing *its* demand elasticity.[22]

The conduct that Section 79 seeks to enjoin either reduces the attractiveness of the products of a dominant firm's competitors, thereby reducing the willingness of its consumers to substitute; raises the costs of its competitors, thereby reducing the extent to which its consumers can substitute; or both. Conduct is anticompetitive if it enhances, creates, or

maintains market power by targeting rivals or reduces the likelihood of entry and hence future rivals. To enhance, create, or maintain market power, conduct must reduce the extent to which a firm's customers are able to substitute to rivals by reducing the ability or incentives of rivals to expand their output in response to an attempt to increase price, or customers' willingness to substitute by reducing the quality of the products of rivals.

Decreasing the ability of a rival to respond to the exercise of market power typically involves reducing the elasticity of supply of rivals by raising their marginal costs of production, reducing their capacity, preventing their entry, or inducing their exit. By reducing the profitability of output expansion, increases in a firm's marginal cost will typically make it less willing to expand output in response to a reduction in output or increase in price by its rivals. Decreasing a firm's available capacity reduces its ability to increase production, and therefore, the ability of consumers to substitute.

Alternatively, conduct that reduces the willingness of consumers to substitute to the products of competitors may also reduce the elasticity of firm demand and thereby increase market power. Conduct that reduces the quality of competitors' products is an example. For instance, where the willingness to pay for one good ("hardware") depends on the variety of compatible complements ("software"), reductions in the variety of software available to a rival—by merger and foreclosure—may increase the market power of the integrated firm.[23]

Notice that it is not harm to the rival per se that defines anticompetitive conduct. The relevant harm is to the rival's ability to discipline the exercise of market power, either by reducing its ability to expand or reducing the willingness of consumers to substitute to its products. Moreover, it is insufficient to establish only a negative effect on the ability of a rival to respond. It is also typically required that the negative effect on a rival allows the firm whose conduct is at issue to exercise *more* market power. That is the negative effect on the rival must also translate into a negative effect on the market, resulting in a SPC or SLC.

3.3 Substantial Lessening or Prevention of Competition

The premise of competition law and enforcement is that competition for market power, competition for the market (Schumpeterian competition), results in innovation and investment whose benefits dominate

price competition and is therefore to be encouraged. Market power that is the result of enhancing choices and providing value superior to competitors is the cost of progress. Competition policy is directed at market power that results instead from eliminating competitors or agreeing not to compete. The logic of Section 79 is that 79(1)(b) requires that a dominant firm engages in a practice of anticompetitive acts that harms rivals in a way that reduces their ability to discipline the dominant firm's ability to exercise market power; 79(1)(c) is a check to make sure that the effect matters in the market.

The abuse provisions require that the effect of the conduct on competition be substantial. This requires measuring and comparing the extent of competition with, and without, the conduct. The concern for why a market outcome may not be competitive, or the operation of the market not competitive, is the exercise of market power. The extent to which the market outcome is not competitive depends on the ability of firms to exercise market power. The extent to which firms can exercise market power is a measure of the extent to which the market is not competitive.

Changes that reduce competition increase market power: a positive effect on market power, all else unchanged, is a reduction in competition. This is reflected in changes to prices and qualities relative to their competitive level, but not necessarily observed changes in price levels. An increase in price or reduction in quality is consistent with an SLC if they are the result of an increase in market power. Changes in price or quality may indirectly signal an increase, maintenance, or enhancement of market power. But the inference from increases in price or lower quality depends on the competitive level not changing. If the competitive level changes, then any inference from a change in prices or quality to market power is subject to error. This is a key error in the logic of the Tribunal in the *TREB Redetermination*, as discussed *infra*, and opens the door to the made-in-Canada essential facility doctrine.

A corollary that follows is that without an effect on market power, the anticompetitive practice cannot result in a substantial lessening or prevention of competition. As indicated above the effect of the exercise of market power in an upstream market is to raise the marginal costs of production downstream and reduce supply, resulting in an increase in price in the downstream market. But the negative effects arise from the exercise of market power upstream, not an increase in market power in the downstream market. The negative effects are a consequence of the

exercise of market power upstream, not an increase in market power in the downstream market from exclusionary conduct. The change in prices downstream do not reflect a change in market power downstream, but instead a change in the downstream equilibrium from the exercise of market power upstream. They reflect a change in the competitive level downstream, not an increase in market power downstream.

Finally, it may be the case that the conduct of the dominant firm both reduces the competitive constraint of rivals and increases the competitiveness of the dominant firm. In these instances, the efficiency benefits of the conduct must be traded off against its anticompetitive effects. This can be done by considering the net effect of the conduct on consumer welfare or total surplus (depending on the standard adopted). But it cannot be done by determining the intent or purpose of the conduct. Ultimately what should matter if the goal of antitrust enforcement is to promote efficiency or consumer welfare is the net effect of the conduct.

For instance, a dominant firm might enter into an exclusive supply agreement with a significant supplier of an input. In particular, in exchange for a lower price and agreement that the supplier will not supply other downstream firms it agrees to purchase a minimum volume. This allows the supplier to achieve economies of scale, lowering its average cost. Both the dominant firm and the supplier are made better off from this agreement. The lower costs and minimum volume also give the dominant firm an incentive to increase its output in the downstream market, benefiting the customers of the dominant firm. If this was all there was, then the conduct would be efficiency enhancing.

However, it could be the case that since the exclusive supply arrangement precludes other downstream firms from supply, there is an increase in the market power of the other input suppliers. As a result, there may be an increase in the input price to the rivals of the dominant firm downstream, raising their costs and reducing their ability to discipline the market power of the dominant firm.

Which of the two effects dominates, the efficiency effect of lower costs on the dominant firm or the anticompetitive effect of raising rivals' costs, will determine the net effect on the price in the downstream market. If it rises, consumers are likely harmed, but if it falls, consumers would likely benefit. Even if consumers are harmed because the downstream price rises, total surplus might still increase if the cost savings from the economies of scale upstream are sufficiently large.

As discussed *infra*, the Tribunal's treatment of efficiencies has been dominated by concerns over intent rather than effect. This is particularly problematic when the conduct is exclusion from accessing services made possible by investment, as in an essential facilities case. The made-in-Canada essential facilities doctrine has been developed out of jurisprudence that does not adequately recognize and incorporate that the same conduct can have competing effects and gives short shrift to efficiencies.

What matters is that the Tribunal does determine the overall balancing of the effect of the conduct that simultaneously increases market power and achieves efficiencies. The ruling interpretation by the Federal Court of Appeal, reflected in the *TREB Redetermination* prohibits a balancing of effects—see discussion *infra*. But there are two alternatives, that the overall effect be considered in whether the conduct is an anticompetitive practice (79(1)(b)) or that an SLC requires not only an increase in market power (a necessary condition), but also that the conduct results in a harm to consumers (under a consumer welfare standard) or a reduction in efficiency (under a total welfare standard). Failure to even consider the benefits to consumers and efficiency of denying access to competitors of a firm's input is a particularly problematic aspect of the made-in-Canada essential facility doctrine that has been fashioned by the Federal Court of Appeal and the Competition Tribunal.

3.4 Abuse of Dominance: Conceptual Summary

If the objective of the abuse provisions is to control conduct by dominant firms that maintains, enhances, or creates market power, with a negative effect on consumer welfare or total welfare, then the economic review suggests the following are the requirements for the Commissioner to make a successful application to the Competition Tribunal:

- For dominance, it must be the case that the firm whose conduct is alleged to harm competition must have significant market power that is durable, i.e., it should be earning monopoly returns and able to maintain its return in excess of competitive levels in the long run. To maintain its market power, i.e., its control over price, competitors must be excluded. Without exclusion of competitors, the dominant firm will not be able to maintain its control over price or otherwise exercise market power.
- The alleged conduct by the dominant firm must reduce the

competitive discipline or constraint on market power of competitors. This occurs, typically if, the conduct reduces the ability and willingness of consumers to substitute.

- The conduct must have a substantial effect on the exercise of market power. That is, in the absence of the conduct, market power would be substantially less.

- An increase in market power is only a necessary condition for a negative effect on consumer welfare or efficiency. In some cases, the conduct may have *both* a negative effect on rivals that materially reduces their ability to restrain the exercise of market power *and* a positive effect on the costs or quality of the dominant firm. Welfare consistent enforcement will require that these two effects be traded off appropriately, i.e., does consumer surplus or total surplus on net increase.

4 The Economics of Vertical Foreclosure

Mandated access to an input of a firm to its rivals typically involves the following fact pattern. There is an upstream supplier of an input that is vertically integrated downstream or has a commercial interest in some of the downstream firms. The integrated firm then engages in vertical foreclosure by denying access or refusing to supply the input to its unintegrated rivals, places restrictions on the use of the input by its unintegrated rivals, or otherwise discriminates between its use or access to the input and the use or access of all or some its unintegrated rivals in the downstream market.[24] The alleged conduct is full or complete foreclosure: the integrated firm's denial of access means that potential downstream rivals cannot enter the market. It is this that makes the input "essential": without access downstream rivals are either ineffective or precluded from competing.

In TREB the allegation is that "full information" Virtual Office Websites ("VOWs") require access to confidential price data, data that was not provided in the VOW data feed provided by TREB to realtors, including historic sold prices.[25] Without access to the confidential price data, the website of a broker cannot provide the data to its clients and any results in response to a search done by the client will not include these listings or information. Thus without the confidential data in the VOW feed and permission to include this data on their websites, "full information" VOW brokerages allegedly cannot exist. Similarly, in YVR,

without access to the airport, competing galley handling and caterers cannot provide service.

There are two threshold issues with regard to an allegation of complete vertical foreclosure. The first is whether the vertically integrated firm has the power to foreclose: this will require it to have market power in the supply of the input. The second is whether it has the incentive to do so. In this section both of these issues are addressed.

4.1 Monopoly Power in the Supply of an Input

In an essential facilities case, the incumbent firm must provide a unique input: it is essential for rivals to have access if they are going to compete in the downstream market. This means that the two types of substitution, both direct and indirect, are very limited, providing the input supplier with monopoly power. Limited direct substitution means that some downstream firms are unable or unwilling to substitute to alternative inputs. Dominance in the provision of the services provided by the upstream input, the essential facility, also implies that competitors cannot profitably duplicate the "same" facility and discipline the market power of the monopolist upstream.

For an input to be essential, it must not be duplicable. What this means is that there must be sufficient barriers to entry that duplication is not economically possible. That is, an entrant that tried to duplicate the input would not earn revenues equal to the opportunity cost of its inputs. Hence while it might be physically possible to replicate the input, it is not economically feasible. The Competition Bureau has suggested that it is not enough for entry to be profitable, it must also be effective—that is, even if entry is profitable, the entrant must be an effective competitor, capable of disciplining the market power of the incumbent input supplier.[26]

It is important to recognize that even if there are some firms in the downstream market whose ability to substitute to other inputs when denied access is limited, this does not mean that the input supplier is a monopolist whose input is essential. The possibility exists for indirect substitution to discipline the exercise of market power by the only supplier of an input. This might be the case when the downstream products are differentiated in part by their use of different inputs. If so, then the extent of competition between differentiated products downstream will be an important determinant of the elasticity of demand downstream, and hence the elasticity of demand for the input. When the supplier of

an input exercises market power, it raises the costs of suppliers in the downstream market that utilize its input. They in turn pass through some of this increase in costs to their buyers in the downstream market by increasing their prices. If the buyers in the downstream market can substitute to other suppliers who provide service without utilizing the input, and can do so sufficiently, then indirect substitution will discipline the exercise of market power by the input supplier. Its input will not be essential.

As an example, consider a local telephone network that provides wholesale access to its network. Assume that only the local telephone network provides access to entrants, either voluntarily or by regulation, which allows the entrants to provide broadband service to their residential retail customers. Under this assumption the local telephone network operator is the sole provider in the wholesale market for network access. However, demand by entrants for access may be quite elastic if they face competition from other networks. In these circumstances, demand for wholesale access may be elastic if homeowners are sufficiently able and willing to substitute to broadband access over an alternative network, such as a cable television network or a wireless network. An increase in the wholesale price, to the extent it is passed on by entrants to downstream consumers, will raise the entrants' price, and result in consumers substituting to the other networks. Indirect substitution in this case undercuts the alleged market power in the upstream input.

More importantly, competitors cannot invest in an alternative input that would permit supply by downstream competitors that would discipline the market power of a vertically integrated firm that controlled the alleged essential facility. That is, suppose the owner of the essential facility was vertically integrated downstream and did not supply any other downstream firms. The key issue is would there be other differentiated inputs available that downstream competitors could access, either in wholesale markets or by self-supply, that would allow them to compete and discipline the market power of the vertically integrated firm in the downstream market. If there is no "dominance" in the downstream market, the input is not essential upstream, and the integrated firm is not dominant in the upstream market: indirect substitution downstream disciplines the market power upstream and means that the market upstream includes the alternative inputs used by downstream competitors.[27]

The example of the competition from cable companies in the provision

of local telephony and broadband services with the telecommunication services providers should at least indicate that the copper loop network of the latter is not obviously an essential facility. Indeed it has been argued that the circumstances are such that relative to the direct and indirect costs of regulation, competition between the two networks (cable and telco) in Canada means that the telco networks are not essential facilities and that the optimal governance structure is deregulation at both the wholesale and retail levels.[28] With approximately equal market shares in the provision of local telephony, starting from telco shares of 100%, and active rivalry to provide network services to a location, it is very difficult to argue that the telco copper loops are an essential facility.[29]

4.2 The Effects of the Exercise of Market Power Upstream

The effect of the foreclosure in the downstream market from the denial of access will be an increase in costs or a reduction in quality of downstream firms. It is important to recognize that in many instances the effect of a reduction in quality is formally identical to an increase in costs. If foreclosure prevents the introduction of higher quality products, the effect on downstream consumers is often that they must consume *more* of a lower quality product. This increases the cost to them, just as an increase in an input price from an exercise of market power would raise the price paid by consumers in the downstream market.

To understand the effects of the exercise of market power upstream, consider two cases. In the first case, the downstream market is perfectly competitive both with and without the exercise of market power upstream. In the second case, the exercise of market power upstream, by discriminating or excluding some firms downstream, does affect market structure downstream and market power.

4.2.1 Competition Downstream

Suppose that an input supplier has monopoly power. Suppose further that they are not vertically integrated into the downstream market, but that they discriminate between downstream suppliers. If the downstream suppliers are competitive, then this discrimination will simply be a manifestation of the exercise of market power. The exercise of market power upstream will reduce the number of suppliers (those excluded) or effectiveness of some suppliers (those discriminated against) and as a result the supply curve downstream will shift up and to the left. The

result will be an increase in the price downstream, a decrease in output, and possibly a reduction in quality.

The difference between the downstream outcome with, and without, foreclosure is the difference between one competitive equilibrium and another. The rise in the equilibrium price and reduction in quality is the result of the exercise of market power upstream and its effect on reducing supply in the downstream market. Certainly, consumers in the downstream market are harmed and there is a reduction in output downstream, but this is the *effect* of the exercise of market power upstream. There is not an increase in market power downstream and there is no antitrust harm. The increase in price downstream is not the result of conduct that creates, enhances, or maintains market power, but the effect of the exercise of market power *upstream*.[30]

4.2.2 Oligopoly Downstream

It might be the case that the upstream monopolist affects the extent of competition downstream when it discriminates against, or refuses to supply, some downstream firms. The question that arises is whether the conclusion in the preceding section is robust to situations when downstream firms have "market power". The answer, developed below, is that it is robust, because the source of market power is control of the essential facility, and while increasing the number of firms downstream might appear to decrease their market power, it has no effect on the market power upstream, i.e., in the supply of the services of the essential facility. Instead the monopolist of the input may find that allowing some competition downstream increases the profitability of its upstream monopoly, i.e., enhances its ability to extract profits from its upstream monopoly relative to it being vertically integrated and being a monopolist downstream.

The owner of the alleged essential facility could simply extend its monopoly downstream by vertically integrating and never supplying any rivals downstream with access. There would not be any market transactions: there would not be discrimination in the terms of supply or some downstream firms provided with access and others precluded. If the vertically integrated firm has not provided wholesale access to any rivals that provide service in the downstream market, it is difficult to argue that antitrust enforcement should play the role that regulators might, identifying essential facilities, mandating unbundling, and setting regulated access prices and terms of service, in order to control the exercise

of market power. If there was a policy issue with the exercise of market power in the downstream market, the response would be regulation, either of downstream prices or mandated wholesale access at regulated prices to the input, not antitrust enforcement.[31]

Why would the owner of an essential facility provide supply to non-affiliated downstream firms at all? It would if providing supply or access to unaffiliated downstream firms creates value, i.e., by lowering costs or increasing quality. That is, relative to zero access to unaffiliated firms, limited or discriminatory access may increase the profits of the monopolist and value for final consumers. In doing so, the monopolist might discriminate or restrict access to some downstream firms, but it is doing so not to create, enhance, or maintain its market power but to create and extract more value from the supply chain it controls because of the essential facility.

The most obvious cases of when a monopolist upstream would invite some downstream firms to supply are when they have lower costs or can provide higher quality. But, the monopolist could limit supply downstream or discriminate in the terms of access to internalize competition and service externalities between downstream firms. Internalizing or restricting these externalities is intended to align incentives and restrict dissipation of value. For instance, if there are economies of scale downstream, the monopolist will have an incentive to restrict entry to avoid higher average costs and prices downstream. The monopolist could do this by either explicitly limiting the number of downstream firms it supplies or by setting an optimal two-part tariff. A two-part tariff involves both a usage charge per unit of service supplied and a fixed fee. The fixed fee when set optimally transfers profits from the downstream firms to the upstream monopolist. It implicitly controls the number of downstream suppliers: too many suppliers mean that there is too much competition and insufficient profits to pay the fixed fee. Hence the number of suppliers downstream reacts to the level of the fixed fee and makes sure that the competition downstream is sufficiently restricted to generate sufficient quasi-rents. If the downstream firms are differentiated or provide services that enhance quality, the upstream monopolist will have an incentive to optimize the range and diversity of products available downstream: it could easily do so by restricting and discriminating its terms of access.

There is a well-known and accepted distinction that conduct that is extractive, which more effectively utilizes existing market power

is acceptable, but conduct that extends market power, conduct that enhances, maintains, or enhances market power, is the legitimate target for antitrust enforcement.[32] That same principle is illustrated here: discrimination or exclusion by an upstream monopolist in the supply of an input to downstream firms is not conduct that extends market power, but instead it is extractive and may increase efficiency. It does not create, enhance, or maintain the monopolists' upstream market power.

There are two points worth emphasizing. First restrictions on downstream competition do not affect the market power of the essential facility. Hence there is not an antitrust case based on conduct that has extended the market power of the upstream dominant firm. Second, in terms of welfare, the relevant comparison is between consumer or total welfare with some access and some exclusion relative to consumer or total welfare when the owner of the essential facility monopolizes the downstream market. That is in assessing the welfare consequences of conduct that enhances extraction, the use of existing market power, this is the relevant comparison.

4.2.3 Summary of the Economics of Monopoly Upstream

This section can be summarized as follows:

- If a facility is essential, then its owner has monopoly power and it is dominant, not only upstream but also downstream.
- Conduct that appears to restrict competition in the downstream market can easily be the exercise of market power upstream. If it is, then it is not conduct that should be reachable under the *Competition Act*. Exclusion downstream is possible because of market power upstream, but the exclusion downstream might well enhance efficiency.
- Conduct that restricts access to the essential facility should only be reachable under the *Competition Act* if it creates, enhances, or maintains market power. This has to be the market power of the dominant upstream supplier in the upstream market defined around the essential facility. This can either be because the conduct restricts the competitive discipline of alternatives to the essential facility upstream (direct substitution) or the competitive discipline of alternatives in the downstream market that do not use the essential facility (indirect substitution).

4.3 Regulation vs. Antitrust Enforcement

There is an important distinction between the role that monopoly power or dominance in the supply of an input (an essential facility) plays in antitrust enforcement under Section 78 and 79 of the *Competition Act* and the role that it plays in regulation. In a regulatory context the policy choice to regulate involves, as a necessary condition, the establishment of monopoly power in the downstream market. The issue is then whether retail rates are regulated, as was done traditionally, or instead access to some facilities or services of the incumbent mandated with regulated terms and prices of service.

If the market power downstream is because of control of an essential facility upstream, then market power downstream might be better controlled through enabling competition from rival service providers by mandating access to the essential facility. Hence downstream regulation at retail is replaced by wholesale regulation. The monopoly power of the incumbent—necessarily attributable to the control of the essential facility—is controlled by regulating the facility and not the services that are enabled by access to it. The benefit from providing access is the entry downstream enabled and its disciplining effect on the market power in downstream services provided by the vertically integrated firm. An advantage of mandated access in the wholesale market to control market power in the downstream market is that providing downstream competitors with access to the essential input might—and this is a big might—spur innovation and product diversity downstream, as well as lead to lower prices. The competition created downstream by mandating access is the goal of the regulatory intervention and it is enabled by regulating the upstream market power of the vertically integrated firm. In the absence of regulation, the upstream market power might not be reflected in high wholesale prices for the access charged to downstream rivals but rather in high, unregulated retail prices and no supply of access to downstream rivals. This is likely to be the case if independent downstream providers do not add much value.

In the case of enforcement under the *Competition Act*, the objective of the *Act* is not to regulate the exercise of market power. Instead its objective is to prevent conduct that creates, enhances, or maintains market power. Hence from the perspective of the *Competition Act*, the importance of denial of service is whether it creates, enhances, or maintains market power upstream relative to the but-for world. Unlike in the

context of regulatory mandated access and unbundling that creates a market and access is priced at competitive levels, the relevant but-for is access to the input provided by a monopolist.[33] The focus of antitrust enforcement should be on how the refusal to provide access creates, enhances or maintains the market power of the monopolist upstream, not whether access reduces its ability to exercise market power.

4.4 Anticompetitive Conduct by the Monopoly Supplier of an Input Upstream

Anticompetitive conduct by a monopoly supplier of an input must, therefore, involve conduct that creates, enhances, or maintains its market power in the relevant upstream market. There are two possible scenarios:

- The conduct reduces the constraint, actual or potential, of other suppliers in the upstream market. The conduct reduces the extent of direct substitution by downstream firms.
- The conduct reduces the constraint of other suppliers in the downstream market who do not use the essential input in a downstream market. The conduct reduces the extent of indirect substitution by downstream consumers and this increases the market power of the firm in the upstream market.

An upstream monopolist without the threat of entry or actual competition upstream is unlikely to have an incentive to foreclose access to its input for market power reasons. First, coherent theories—i.e., explanations that are consistent with profit maximization and that identify market power creation, enhancement, and/or maintenance to explain conduct that harms competitors downstream—are scarce. The Chicago School critique of leveraging based on the single profit theorem must be refuted or shown to be inapplicable. The single profit theorem states that profits arise because of the single monopoly, it is upstream, and hence market power and profits are unlikely to be enhanced by foreclosing competition downstream. If foreclosure is observed, it is because of efficiency reasons or to more effectively exploit the market power it has by facilitating price discrimination, not to extend market power. Second, the few coherent post-Chicago theories that exist are often not consistent with the facts.

4.4.1 Single Profit Theorem

The single profit result is based on the observation that by appropriate choice of the wholesale price, the upstream monopolist can ensure the

price in the competitive market downstream is identical to the price a vertically integrated monopolist would set, and its profits in the upstream market equal the profits of the vertically integrated monopolist.[34] The vertically integrated monopolist can monopolize the downstream market by refusing to supply the input to the other downstream firms. If its monopoly price is P^M, then its integrated profit margin will be $I=P^M-c-d$, where c is the unit cost of production upstream and d are the additional costs downstream to transform a unit of the upstream good into a unit of the downstream good.[35]

In the absence of vertical integration, the price in the perfectly competitive downstream market will equal the marginal cost of production downstream: $P^C=w+d$, where w is the monopolist's wholesale price. The unintegrated monopolist can earn the same profit as if it were vertically integrated by setting its wholesale or upstream price such that the downstream price under competition is the same as it would be if there were vertical integration. Setting $w=P^M-d$ insures that $P^C=P^M$ and yields the same profits as integration and foreclosure. The assumption of fixed proportions ensures that sales of the upstream input equal sales of the downstream good, and hence the quantity demanded will be the same as the vertically integrated quantity. The upstream monopolist's profit margin will also be the same as if it were integrated ($I=P^M-c-d$). The downstream price, quantity, and the profits of the monopolist are identical whether the monopolist integrates or not.

If it integrates, it provides the downstream services and incurs cost d to do so. If there is vertical separation, competitive downstream firms provide the downstream services for the monopolist at a cost of d. The monopolist earns the monopoly profit by realizing the monopoly margin in the wholesale market. Because of fixed proportions and competition downstream, this margin is simply passed on to final consumers by the downstream sector. Vertical integration does not increase profits, and a vertical merger is not required to realize monopoly profits.

Since increased profits and market power are not the reason for the vertical merger, the argument is that the rationale for the vertical merger must be based on realizing efficiencies that lead to lower per unit costs or integration and foreclosure can be a means to implement price discrimination. Lower per unit costs, whether upstream or downstream, lead to an increase in the monopolist's profits on its prevailing sales. It can

further increase its profits by increasing sales. It can only increase sales by lowering the price to consumers, thereby making them better off as well.

4.4.2 Anticompetitive Conduct by an Upstream Input Monopolist

Coherent theories of anticompetitive conduct by an upstream input monopolist are not impossible, just scarce. These theories escape the Chicago School critique based on the single profit theorem by assuming that competition is imperfect downstream, i.e., downstream firms have market power. The coherent theories typically involve integration and foreclosure by an upstream monopolist downstream to prevent entry by a rival upstream, thereby preserving market power upstream. At the core of these theories is the interaction between economies of scale upstream and denial of demand downstream by integration. The integration and foreclosure by the incumbent monopolist reduces demand downstream for a rival by foreclosing customers and, if there are economies of scale, this can make entry unprofitable for it.[36]

Even if the result is entry deterrence and maintenance of the foreclosing firm's upstream monopolist, it might benefit consumers downstream and increase total welfare. The reason is that with imperfect competition downstream, there will be double marginalization: in the absence of integration the upstream monopolist will charge a wholesale price above its marginal cost and the downstream firms when they exercise their market power will mark up over their marginal cost, which will include the upstream monopolist's mark up. Hence there is double marginalization. A vertically integrated firm will have lower marginal costs downstream, since it will transfer the upstream input at marginal cost *not marginal cost plus a mark up*: this provides it with an incentive to lower prices and expand output relative to its unintegrated rivals. The effect of internalizing double marginalization from integration can make integration and foreclosure good for consumers or increase total surplus.[37] Vertical integration and foreclosure is an example of conduct that can both create market power (by reducing the competitive constraint of rivals) and lower costs (improving resource allocation and creating incentives to lower prices downstream).

5 Errors in Economics: the FCA and Tribunal in *TREB*

In this section, the interpretation of the abuse provisions in *TREB* by the Federal Court of Appeal and the Tribunal (second panel) are assessed

based on the economic framework of the preceding section. The errors of economics committed by the FCA and the Tribunal establish the foundation for the made-in-Canada essential facilities doctrine.

5.1 Control

Since the first abuse of dominance application, *NutraSweet*, the Tribunal has interpreted control of a class or species of business to mean market power in a relevant antitrust market.[38] In *Canada Pipe* the Tribunal observed:[39]

> A "class or species of business" has been interpreted by the Tribunal in abuse of dominance cases to mean the relevant product market. The expression "Canada or any area thereof" is to be understood as the geographic market, while "control" has been found to be synonymous with market power *(Canada (Director of Investigation and Research) v. D&B Companies of Canada Ltd.; Canada (Director of Investigation and Research) v. Laidlaw Waste Systems Ltd.; Canada (Director of Investigation and Research) v. NutraSweet Co.; Canada (Director of Investigation and Research) v. Tele-Direct.*

The Commissioner alleged that TREB controlled the downstream market, residential real estate brokerage, because it (a) controlled the multiple listing service, including setting the rules for access to the multiple listing service, and (b) without access to the multiple listing service, realtors cannot provide residential real estate brokerage.

The FCA endorsed the possibility that the requirement for control could be satisfied if a supplier of an input could use the terms of access to affect competition in the downstream market. The sole discussion of this in the FCA decision is a single paragraph:[40]

> The Commissioner takes the position that a person that is not a competitor in a particular market nevertheless may control that market substantially within the meaning of paragraph 79(1)(a) by, for example, controlling a significant input to competitors in the market, or by making rules that effectively control the business conduct of those competitors. In my view, the Commissioner's position reflects an interpretation of paragraph 79(1)(a) that its words can reasonably bear, given the statutory context.

The Tribunal in the *TREB Redetermination* agreed with the Commissioner that market power includes the power to exclude if excluding competitors profitably influences prices and goes onto observe that it is the "exercise of the power to exclude that facilitates a dominant firm's

ability to profitably influence the dimensions of competition referred to in *Tervita*."[41]

The Tribunal correctly observes that the exclusion of competitors is a necessary condition for classic market power, but conflates the exclusion of competitors with market power. As discussed above, in an essential facilities scenario, market power upstream gives the power to exclude downstream, but it is not market power downstream. Exclusion of competitors is not market power, but it can give rise to the ability to exercise market power. It can be the case that the exclusion of competitors does not give rise to classic market power. Hence evidence on exclusion is not sufficient to conclude that a firm has market power.

This is the case in *TREB*: the realtors in the downstream market do not have market power. Indeed, it is hard to imagine a market that more closely resembles that of textbook competition. There were over 36,000 realtors in Toronto, there was lots of entry and very low entry barriers, concentration levels by neighbourhood were very low, market shares were unstable and there was considerable turnover of the market leader.[42] The Tribunal agreed:[43]

> [500] The Tribunal acknowledges that individual real estate brokers and agents in the Relevant Market do not have market power.
>
> . . .
>
> [501] The Tribunal also acknowledges that there is a high degree of competition in the Relevant Market, as reflected in considerable ongoing entry and exit, a significant degree of discounting activity with respect to net commissions, and a significant level of ongoing technological and other innovation, including with respect to quality and variety and through Internet-based data- sharing vehicles.

Given the almost free entry and exit into the downstream market, realtors and brokers do not earn profits above the competitive level and the conduct by TREB did not increase the profits of some brokers and realtors above competitive levels. In asserting that TREB's conduct "profitably influenced dimensions of competition" in the downstream market, the Tribunal appears to confuse quasi-rents and Ricardian rents with above average returns attributable to the exercise of market power.[44]

Moreover, the Tribunal and Commissioner do not understand that the power to exclude or affect competition in the downstream market only exists if the upstream supplier has market power in the upstream market.

The input supplier can only "control" the downstream market if it has market power in the supply of the input, otherwise downstream firms could ignore the rules and restrictions regarding the use of the input. As usual, buyers can evade the exercise of market power if they can substitute to alternatives. And, of course, determining whether the input supplier has market power will require defining an upstream market where the input supplier is dominant. If it is not, then the facility is not essential, and the upstream firm cannot affect competition in the downstream market.[45]

The Tribunal's mistake of conflating market power downstream with the power to exclude arises because it does not recognize that the power to exclude arises only if there is market power upstream. Moreover, it is also not supported by the legal precedents it relies upon. The economic foundations for defining market power to include the power to exclude are incorrect and likely so too is its legal foundation.

The Supreme Court in *Tervita* defines market power as the following:[46]

> Generally, a merger will only be found to meet the "lessen or prevent substantially" standard where it is "likely to create, maintain or enhance the ability of the merged entity to exercise market power, unilaterally or in coordination with other firms" (O. Wakil, *The 2014 Annotated Competition Act* (2013), at p. 246). Market power is the ability to "profitably influence price, quality, variety, service, advertising, innovation or other dimensions of competition" (*Canada (Commissioner of Competition) v. Canadian Waste Services Holdings Inc.*, 2001 Comp. Trib. 3, 11 C.P.R. (4th) 425, at para. 7, aff'd 2003 FCA 131, 24 C.P.R. (4th) 178, leave to appeal refused, [2004] 1 S.C.R. vii). Or, in other words, market power is "the ability to maintain prices above the competitive level for a considerable period of time without such action being unprofitable" (*Canada (Director of Investigation and Research) v. Hillsdown Holdings (Canada) Ltd.* (1992), 41 C.P.R. (3d) 289 (Comp. Trib.), at p. 314);

The definition of market power used by the Supreme Court in *Tervita* is in the context of defining when a merger will lessen or prevent competition. As the first sentence makes clear the concern is that the merged entity will be able to exercise market power and a firm has market power, therefore when it—made clear by the third sentence—can profitably influence or maintain price above competitive levels or other dimensions of competition away from competitive levels. The Supreme Court is defining classic market power: the ability to profitably raise prices above competitive levels.

This is made clear by the full text of the decisions cited by the Supreme Court in *Tervita*. In *Hillsdown* the full cite is:[47]

> Market power in the economic sense is the ability to maintain prices above the competitive level for a considerable period of time without such action being unprofitable. In a competitive market, prices will tend towards marginal cost. Market power can be viewed as the ability of a firm to deviate profitably from marginal cost pricing.

In *Waste* the full cite identifies the key concern as the ability of the merged entity to exercise more classic market power post transaction:[48]

> The main issue to be decided by the Tribunal is to determine whether the acquisition of the Ridge is likely to result in a substantial prevention and/or lessening of competition, or in other words, whether the merger will create or enhance market power. Market power is the ability to profitably influence price, quality, variety, service, advertising, innovation or other dimensions of competition.

Moreover, the definition used by the Tribunal in *Waste* is identical to that from the *Merger Enforcement Guidelines ("MEGs")* in force at the time:[49]

> *Market power refers to the ability of firms* to profitably influence price, quality, variety, service, advertising, innovation or other dimensions of competition in the manner described below. In evaluating whether the *market power of the merging parties* is likely to be greater than if the merger does not proceed, the focus is primarily on the price dimension of competition.

The *MEGs* identify that "the manner described below" is either a unilateral increase in the market power of the merged entity or a coordinated effect:[50]

> A merger can lessen competition in two different ways. The first is where it is likely to enable the merged entity to unilaterally raise price in any part of the relevant market. The second is where it is likely to bring about a price increase as a result of increased scope for interdependent behaviour in the market.

This further makes clear that the Tribunal and the Supreme Court are defining classic market power: an SLC arises when the merged entity has a greater ability to profitably raise prices above competitive levels.

The FCA in *Canada Pipe (Market Power)* provides a summary of the

jurisprudence that had developed at that time on the relationship between market power and control, i.e., the requirements of Section 79(1)(a). The FCA made two observations. First that market power, though not mentioned in Section 79(1)(a), was necessary for control,[51] and, second, citing the FCA in *Southam*, that market power is classic market power:[52]

> "market power is recognized as the ability to profitably raise prices above competitive levels without losing a significant portion of business to rival firms or firms that may become rivals as a result of the price increase"

The result of the FCA's cursory analysis and the Tribunal's mistake in the *TREB Redetermination* is economic mischief. Instead of substantial and durable market power in a well-defined antitrust market, control now also encompasses a monopoly supplier of an input in an upstream firm if it uses the price and terms of supply to limit competition in the downstream market. If it uses the terms of supply to limit or set the rules of competition downstream, the input supplier is deemed to have market power *in the downstream market, when its ability to do so arises because it has market power upstream*. The Tribunal will find that monopoly power upstream means dominance downstream since any exercise of monopoly power will "limit" competition downstream.[53] The FCA and the Tribunal fall into the trap of mistaking the effect of an exercise of market power upstream for market power in the downstream market.

5.2 Practice of Anticompetitive Acts

5.2.1 The Canada Pipe Rule

The ruling interpretation of 79(1)(b) was established by the Federal Court of Appeal in *Canada Pipe (SLC)*. The so-called Canada Pipe rule defines anticompetitive conduct as conduct that has "an intended predatory, exclusionary, or disciplinary negative effect on a competitor."[54] The Canada Pipe rule requires conduct that (i) is exclusionary, predatory, or disciplinary and (ii) against a competitor.

The Federal Court of Appeal in *FCA 2014* rejected the Canada Pipe rule that an anticompetitive practice required conduct that was exclusionary, predatory, or disciplinary against a *competitor* on two grounds:

- Competitor does not necessarily mean a competitor of the dominant firm, defined as the target of the Commissioner's application.[55]
- Section 78(1)(f) is an example of an anticompetitive practice that

> is "not necessarily taken by a person against that person's own competitor."[56] Section 78 lists a non-exhaustive list of examples of anticompetitive acts. Section 78(1)(f) includes "buying up of products to prevent the erosion of existing price levels" in the list of anticompetitive acts. The presence of Section 78(1)(f) provides the latitude to conclude that the intention of Parliament was *not* to limit the application of Section 79 to actions taken by a dominant firm against its competitors.[57] Such an interpretation, that the action has to be directed against a competitor, would be "manifestly wrong" due to "flawed reasoning".[58]

The second prong of the FCA's rationale suggests the first part of the Canada Pipe rule is also in doubt. Just like the FCA's finding that Section 78(1)(f) is not necessarily directed at a competitor, and indeed perhaps more so, Section 78(1)(f) is also not necessarily disciplinary, exclusionary, or predatory.

Section 78(1)(f) is exclusionary if the conduct involves overbuying of an input to raise the costs of a rival.[59] But it might involve buying up the output of competitors, its most straightforward interpretation.[60] A dominant firm might find it profitable to purchase the product of its rivals to prevent price erosion if by doing so it reduced the competitive constraint of those rivals on its ability to exercise market power. In such circumstances, its competitors will likely benefit from higher prices as a result of this conduct.

It is not so apparent therefore, that Section 78(1)(f) undermines the *competitor* portion of the Canada Pipe rule. If the overbuying is in an input market and raises the cost of a rival, there is clearly a competitor that is (partially) excluded. If the overbuying is in the output market, it must be from, or involve, a competitor or it does not benefit the dominant firm. Indeed, to the extent the dominant firm buys some or all of the output of its competitor, the competitor is partially or fully *excluded* from the market but it is not harmed.

Section 78(1)(f), does, however, serve as *sufficient* grounds for rejecting the "exclusionary, predatory, or disciplinary" part of the Canada Pipe rule, *at least if exclusionary means that the competitor is harmed*. Overbuying in the downstream market can benefit rivals, i.e., result in a higher price and profits, even though it reduces their competitive constraint on the dominant firm.

The reason that a dominant firm would engage in any of the conduct

listed in Section 78 is not because the harm is "experienced by a competitor". Instead what is relevant is that for all of the eight acts where there is a predatory, exclusionary, or disciplinary object or purpose, the intent is to reduce the ability of competitors to constrain the exercise market power by the dominant firm. Within the logic of the abuse of dominance provisions, the conduct that is to be deterred is conduct that creates, maintains, or enhances the market power of the dominant firm by reducing the ability and willingness of its customers to substitute, where this effect arises from reducing the ability of competitors to expand output or by reducing the quality or attractiveness of competitors' products. All of the acts listed have the feature that they involve reducing the ability of consumers of the dominant firm to substitute to competitors by preventing or impending the ability of competitors to expand or eliminating them from the market. From this perspective it is not that the common purpose has a negative effect on a competitor per se that is important, but that it has a negative effect on the ability of a competitor to constrain the market power of the dominant firm by removing their output from the market.

In this context Section 78(1)(f), "buying up of products to prevent the erosion of existing price levels", has exactly the same effect. A dominant firm would only purchase the product of its rivals to prevent price erosion if by doing so it reduced the competitive constraint of those rivals on its ability to exercise market power. Buying up product in the downstream market—by buying it from suppliers who are competitors (to it or an affiliated/related firm)—so that the price does not fall in the downstream market prevents consumers from benefiting from competition, i.e., prevents competitors from competing. By taking the output of its rivals off the market, it is able to reduce the ability of its customers to substitute to alternatives when it exercises market power and raises its price. This will be profitable if the value of the purchases is less than the gain in profits from being able to raise prices. In this sense, the conduct in 78(1)(f) is similar to a merger: it involves eliminating the competitive constraint of the dominant firm's competitors. Instead of buying the firm, i.e., the capability to product output, as in a merger, the dominant firm instead buys its rival's output.

Without an effect on competition between firms there cannot be an effect on competition. Without an effect on competitors of the dominant firm or *related affiliates* there is not an anticompetitive incentive for the dominant firm to engage in the conduct. So, the conduct or act must

negatively affect the incentives or ability of a firm that competes with the dominant firm or a related entity. This means that the FCA's first ground for excluding the competitor requirement discussed above is economically illiterate, the conduct must affect a competitor of the dominant firm or a related firm. Anticompetitive conduct must ultimately benefit the dominant firm (or related firms) from increasing market power and monopoly profits or its purpose is not anticompetitive.

This interpretation would incorporate conduct that softens price competition between rivals.[61] Conduct that softens price competition does so by making demand more inelastic and to do so it must reduce the ability of consumers to substitute. For instance, the expansion in sales from a price reduction may be much less when there are best price clauses, since the effect is to reduce the price of all suppliers. A common price decrease will not be met with the same expansion in volume if it is matched by all suppliers. As a result demand for all firms will be less elastic with best price clauses.

5.2.2 Legitimate Business Justifications

The Tribunal in the *TREB Redetermination* followed the jurisprudence developed by the Federal Court of Appeal in *Canada Pipe* and *FCA 2014*. In the Tribunal's view the legal requirement is that the conduct's purpose must be exclusionary, predatory, or disciplinary on a competitor.[62] Following *FCA 2014*, the conduct need not be against a competitor of the party engaged in the conduct, but the party engaging in the conduct must have a plausible interest in competition in the market where its conduct negatively affects a competitor because it is exclusionary, predatory, or disciplinary.[63] The purpose or intent of the conduct can be established by reference to evidence of subjective intent or from the reasonably foreseen effects of the conduct.[64]

The FCA in *Canada Pipe* determined that in assessing the purpose of conduct, the Tribunal is to consider whether it has a legitimate business justification. Indications, whether subjective or based on the effects of the conduct, that it has a legitimate business justification are to be weighed against the evidence suggesting the motivation for the conduct was predatory, exclusionary, or disciplinary. A legitimate business justification "essentially provides an alternative explanation as to why the impugned act was performed, which in the right circumstances might be sufficient to counterbalance the evidence of negative effects on competitors or subjective intent in this vein."[65]

The Tribunal in *TREB Redetermination* summarized its view of how it was to determine whether conduct was anticompetitive:[66]

> In conducting this balancing exercise, the Tribunal will endeavour to ascertain whether, on a balance of probabilities, the actual or reasonably foreseeable anti-competitive effects are disproportionate to the efficiency or pro-competitive rationales identified by the respondent; or whether sufficiently cogent evidence demonstrates that the respondent was motivated more by subjective anti-competitive intent than by efficiency or pro-competitive considerations. In other words, even where there is some evidence of subjective anti-competitive intent on the part of the respondent, such evidence must convincingly demonstrate that the overriding purpose of the conduct was anti-competitive in nature. If there is evidence of both subjective intent and actual or reasonably foreseeable anti-competitive effects, the test is whether the evidence is sufficiently clear and convincing to demonstrate that such subjective motivations and reasonably foreseeable effects (which are deemed to have been intended), taken together, outweigh any efficiencies or other pro-competitive rationale intended to be achieved by the respondent. In assessing whether this is so, the Tribunal will assess whether the subjective and deemed motivations were *more important to the respondent* than the desire to achieve efficiencies or to pursue other pro-competition goals.

The FCA, with some considerable clarification by the Tribunal in the *TREB Redetermination*, defined a legitimate business justification to be "a credible efficiency or pro-competitive rationale".[67] This means that the conduct must lead to efficiencies or other advantages for the firm that enable it to more effectively "compete on the merits."[68] Both the FCA and the Tribunal, however, require that the business justification be independent of the anticompetitive effect of the practice.[69]

As has been remarked in the United States by Judge Posner, the focus on intent is very unfortunate in and of itself:[70]

> The importance of intent in such fields as tort and criminal law makes it natural to suppose statutory tort. But here is an insoluble ambiguity about anticompetitive intent that is not encountered in the ordinary tort case . . . If firm A through lower prices or a better or more dependable product succeeds in driving competitor B out of business, society is better off, unlike the case where A and B are individuals and A Kills B for B's money. In both cases the 'aggressor' seeks to transfer his victim's wealth to himself, but in the first case we applaud the result because society as a whole benefits from the competitive process. That Western Union

> wanted to 'flush those turkeys' tells us nothing about the lawfulness of its conduct.

But perhaps more important is the view that the business justification must be independent of the anticompetitive effect and therefore in instances where the conduct both has an efficiency enhancing effect and an anticompetitive effect, the business justification is not relevant for determining whether the intent was anticompetitive. While there is an inherent problem of balancing two competing explanations underlying intent to determine which dominates, there is an even more significant problem that renders this balancing of intent impossible and harmful when the same conduct has both effects, i.e., it enhances a firm's efficiency and it reduces the competitive constraint of rivals.

The problem created in the context of an upstream facility for which access is "essential" for competition downstream is that exclusion of others from the asset protects the flow of quasi-rents that justifies the investment in the asset. Firm investment in the real world often involves expenditures on capital that is specific in terms of where it can be used and what it can produce. This specificity gives rise to sunk costs, i.e., the opportunity cost of the investment is much less than its historic cost. The difference between unrecovered historic cost and the salvage value of the asset, its value in its next best alternative use, is the sunk cost of the investment. These sunk costs are recovered, if at all, from using the asset in its specific use. Using the asset in its specialized use generates quasi-rents, the difference between revenues and avoidable costs. For the firm to break even, including earning a competitive rate of return on its investment, the quasi-rents earned will have to equal its sunk expenditures.

Mandated access, to the extent it leads to lower prices from more competitors, will reduce quasi-rents. An expected reduction in quasi-rents will reduce the expected returns from the investment. This would be expected to reduce the incentives to invest in a facility that might be deemed ex post essential. And for facilities that already exist, mandating access that has the effect of reducing quasi-rents to incumbents is regulatory hold up: it is a change in policy that makes sunk investments unrecoverable. Developing a reputation for changing the rules after investment is sunk will make firms wary to invest, resulting in both higher rates of return and limits on investment.

The relationship between private property rights—which typically include the right to exclude others—and incentives for investment is

both well understood and obvious. It may be the case that others could benefit from accessing a firm's assets. But there must be a very high hurdle for efficient competition policy to mandate access to the assets of either an individual or a group of individuals. The essence of competition is investment in production of a good or service that is valued higher or has lower cost than competitors. The expectation of sales provides the incentive for the investment and implicit in the expectation of sales is providing at least some consumers a better option than their next best alternative. Competition is driven by the investment incentives created by offering consumers a cheaper, better mousetrap. Mandating sharing of the mousetrap is, as Judge Hand observed years ago, akin to urging a firm to win the race, but then penalizing them when they do.[71]

The exclusion of others from accessing the assets and facilities of a firm is intended to exclude them and to maximize the benefits from the investment. The Tribunal's approach in *TREB Redetermination* suggests that exclusion of others from using an asset will be deemed an anticompetitive act, just because it is intended and has the effect of exclusion, regardless of its efficiency benefits. Indeed, the Tribunal used the evidence that some brokers were concerned about an increase in competition from entry by full information VOWs and the effect on commissions to justify the TREB VOW policy as evidence that it was intended to be anticompetitive.[72] Exclusion to protect quasi-rents and exclusion to protect monopoly rents from market power should not be treated the same.

There may be other efficiency rationales besides protecting the returns to investment of the upstream firm that may underlie restrictions imposed by it on downstream competition. As discussed above, these may involve internalizing externalities, avoiding rent dissipation, and providing incentives for downstream firms to make investments.

Not only does the framework developed by the FCA and the Tribunal for assessing whether conduct is anticompetitive or not prohibit an objective balancing of the effects of the conduct on resource allocation, which is especially problematic when the conduct both relaxes the competitive constraint of rivals and benefits consumers or realizes efficiencies, it does not even recognize that the exclusion may not have any effect on market power.

The Tribunal and the FCA have held that information regarding the exercise of market power cannot be used to assess whether conduct is anticompetitive. For instance, the FCA in *Canada Pipe (SLC)* was critical

of the Tribunal in *Canada Pipe* for looking for a link between the conduct and a decrease in competition.[73] The Tribunal in *TREB Redetermination* summarizes this as follows:[74]

> To the extent that past pronouncements of the Tribunal may have suggested that it is necessary for an adverse impact on competition be demonstrated before it can be concluded that impugned conduct is anti-competitive within the meaning of paragraph 79(1)(b), (e.g., *Canada Pipe CT* at para 171; *Nielsen* at p. 257; *Laidlaw* at p. 333), they should be disregarded.

This refusal to look at the ultimate effect of the conduct on competition leads to incorrect categorizations of conduct and decision errors. The most obvious error occurs in *TREB*. The consensus of the evidence (shared by the Tribunal) is that there is no exercise of market power downstream by realtors either with, or without, the restrictions on the confidential data. Thus, there is no way that the restrictions on the confidential price data should be deemed an anticompetitive practice. Without market power downstream, there is no way that those restrictions can relax the competitive discipline on brokers, creating, maintaining, or enhancing their market power. In the absence of market power downstream, the rational for the exclusion must be efficiency enhancing: it cannot be anticompetitive. And the efficiency rationale in *TREB*, as in any, essential facility case included the preservation of incentives for investment by protecting quasi-rents and preventing free riding by competitors.

5.3 Substantial Lessening or Prevention of Competition

The Tribunal in the *TREB Redetermination* and the Commissioner have eviscerated Section 79(1)(c) by adopting a new definition of an SLC. Traditionally an SLC was assessed by observing the effect of the conduct on market power. Was market power enhanced, created, or maintained by the conduct? And the effect had to be substantial. The Commissioner's burden was to show a link from the anticompetitive practice to an effect on the market. In *TREB Redetermination* the Commissioner and the Tribunal look from an effect *possible* from an increase in market power to presume such an increase. They thus ignore that there might be other reasons for the assessed effects they rely upon to find an SLC.

The logic of the Tribunal in the *TREB Redetermination* is to (i) observe exclusion; (ii) conclude that by definition there must be a decrease in

product diversity and innovation; and therefore (iii) that there must be a SLC.

But this is wrong on the face of it since the Tribunal agrees that there is no market power in the downstream market either before or after the conduct. Instead the exclusion is based on efficiency rationales and the negative effects they believe they find on the market are attributable not to an increase in market power, but are the results of the exercise of market power upstream. Exclusion downstream is possible because of market power upstream, arises because of its exercise, and enhances efficiency. There is nothing untoward with TREB acting to protect the investments of its members by preventing the dissipation of quasi-rents from lower prices enabled by competitors accessing the investments made by its members.

5.3.1 Pre-*TREB* Jurisprudence on SLC

The requirement for an effect on competition of the anticompetitive conduct requires that the effect on the conduct of rivals translate into an effect on market power. The Competition Bureau recognizes this in their discussion of what constitutes a substantial lessening of competition in its *Abuse of Dominance Guidelines*:[75]

> Generally speaking, a substantial lessening or prevention of competition creates, preserves, or enhances market power. A firm can create, preserve, or enhance market power by erecting or strengthening barriers to expansion or entry, thus inhibiting competitors or potential competitors from challenging the market power of that firm. In examining anti-competitive acts and their effects on entry barriers, the Bureau focuses its analysis on determining the state of competition in the market in the absence of these acts. If, for example, it can be demonstrated that, but for the anti-competitive acts, an effective competitor or group of competitors would likely emerge within a reasonable period of time to challenge the market power of the firm(s), the Bureau will conclude that the acts in question result in a substantial lessening or prevention of competition.

The FCA in *Canada Pipe* confirmed the relationship between the requirements for an SLC or SPC and an effect on market power, noting the Tribunal's findings in *NutraSweet*:[76]

> "The factors to be considered in deciding whether competition has been or is likely to be substantially lessened are similar to those that were discussed in concluding that NSC [NutraSweet Co.] has market power [that is, market share and entry barriers]. In essence, the question to be

> decided is whether the anti-competitive acts engaged in by NSC preserve or add to NSC's market power."

And, in Nielsen:[77]

> "The central issue to be decided in determining whether the Director has satisfied this third element [of subsection 79(1)] is the effect of the exclusives with retailers and the long-term contracts with customers on the conditions of entry into the market. Or, to paraphrase the words of the Tribunal in *NutraSweet*, in essence, the question to be decided is whether the anti-competitive acts engaged in by Nielsen [D & B] preserve or add to *Nielsen's market* power. "

The FCA in *Canada Pipe* confirmed the assessment of the meaning of Section 79(1)(c) in the academic literature and its assessment is consistent with the economic discussion *supra*.[78]

The focus of the Commissioner's appeal in *Canada Pipe* was the Tribunal's finding that there could not be a substantial lessening of competition during the time period of the alleged anticompetitive practice (the Stocking Distributor Program (SDP)) because despite the practice there was evidence of competitive pricing due to increases in the extent of imports and entry.[79] The FCA overturned the Tribunal on the basis that it had not done a "but-for analysis". Under a but-for analysis the Tribunal must compare the extent of market power given the practice against the extent of market power in a counter factual that assumes away the practice. In the words of the FCA:[80]

> In summary, the Tribunal should have turned its mind to the question of whether, in each of the relevant markets, *competitiveness was substantially lessened in the presence of the SDP, as compared to the likely state of competition in the absence of this practice*. In other words, the Tribunal should have considered whether, without the SDP, the relevant product market would be substantially more competitive. Proper examination of this question might include the following considerations: whether entry or expansion might be substantially faster, more frequent or more significant without the SDP; whether switching between products and suppliers might be substantially more frequent; whether prices might be substantially lower; and whether the quality of products might be substantially greater. In this regard, identification of the occurrence of entry, or reference to evidence of competition subsisting in the presence of the impugned practice, is insufficient. I conclude therefore that the Tribunal erred in law in its analysis, for the purposes of paragraph 79(1)(c),

as to whether the SDP has had, is having or is likely to have the effect of preventing or lessening competition substantially in the relevant markets.

The lower prices and greater quality in the but-for world indicate an SLC only if the higher prices and lower quality are the result of an *increase in market power relative* to the but-for world. That is, they, as well as the other considerations mentioned, are relevant *only* because they may be indirect signals of an increase, maintenance, or enhancement of market power. This is the import of the but-for test, highlighted in the first sentence: how has competitiveness changed relative to the but for? *Competitiveness or the state of competition is not measured by service levels or the level of prices*. Instead the state of competition is measured by market power. In this regard, an SLC or SPC is based on an increase in the difference between the levels of these indicators and their competitive level, not from a change in their competitive level.

The logic of Section 79 is that under 79(1)(b) a dominant firm engages in a practice of anticompetitive acts that reduces the ability of rivals to discipline the dominant firm's ability to exercise market power; 79(1)(c) is a check to make sure that the effect matters in the market. Hence the Bureau's traditional focus on barriers to entry and expansion. But it is only if these barriers to expansion and entry have an effect on the market that there will be an SPC or SLC. This is reflected in changes to prices and qualities relative to their competitive level. If the *competitive level* does not change, then it is possible to just to ask what happens to the prices and qualities and infer this is caused by a change in market power.

But the conduct could change both prices and non-price outcomes without affecting market power. Conduct can result in higher prices or a reduction in non-price competition without first creating, enhancing, or maintaining market power. As discussed above prices could be higher and product diversity and innovation lower not because the conduct is anticompetitive but because it is the exercise of market power upstream and competitors downstream are excluded for efficiency reasons. The inference from higher prices or reduced innovation and product diversity to anticompetitive behavior can therefore easily result in a false positive: a finding of an SLC or SPC under this approach does not require the creation, enhancement, or maintenance of market power either upstream or downstream. In particular higher prices downstream or a reduction in innovation and product diversity downstream can occur without a change in market power or competition upstream and even if there is no market power downstream by actual suppliers in the

downstream market. This is the error made by the Tribunal in the *TREB Redetermination*.

5.3.2 Tribunal Assessment of SLC in *TREB Redetermination*

The Tribunal started well in its *TREB Redetermination* deliberations. It observes that the requirement for liability is a materially greater exercise of market power as a result of the conduct.[81] But then the Tribunal falls into the trap discussed above and makes the fundamental error of inferring an effect on market power by looking at the outcome in the downstream market from the conduct:[82]

> When assessing whether competition with respect to *prices* has been, is or is likely to be prevented or lessened *substantially*, the test applied by the Tribunal is to determine whether prices were, are or likely would be, materially higher than in the absence of the impugned practice. With respect to *non-price* dimensions of competition, such as quality, variety, service, advertising or innovation, the test applied is to determine whether the level of one or more of those dimensions of competition was, is or likely would be materially lower than in the absence of the impugned practice (*Tervita* at para 80; *CCS* at paras 123-125 and 376-377).

The reference to the Supreme Court is not supportive of the Tribunal's position that it can rely on whether the level of one or more dimension of competition has been lowered. The referenced paragraph and the beginning of the next discuss using a "but for analysis" to assess the effect of the conduct, in *Tervita* a merger, on market power:[83]

> [80] The Tribunal's analytical framework and conclusion that the merger will likely substantially prevent competition are, in my view, correct. The Tribunal correctly applied the analytical framework set out above. It used a forward-looking "but for" analysis to determine whether the merger was likely to substantially prevent competition. The Tribunal identified the acquired party, the Vendors, as the focus of the analysis. The Tribunal then assessed whether, but for the merger, the Vendors would have likely entered the relevant product market in a manner sufficient to compete with Tervita.
>
> [81] The Tribunal concluded that the merger "is more likely than not to maintain the ability of [Tervita] to exercise materially greater market power than in the absence of the [m]erger, and that the [m]erger is likely to prevent competition substantially" (para. 229(iv)).

Similarly, the Tribunal's approach in the same matter also clearly

identifies that the effect on price must be a result of an increase in market power from the merger:[84]

> [377] Accordingly, the degree of market power used in assessing whether competition is likely to be prevented or lessened substantially must be recalibrated downwards. That recalibrated degree of market power is a level of market power required to maintain prices *materially* higher, or to depress one or more forms of non-price competition to a level that is *materially* lower, than they likely would be in the absence of the merger.

The Tribunal in discussing the "but for approach" correctly observes that it is required to compare the "state of competition" with and without the conduct.[85] But it again immediately confuses evidence on the level of prices and non-price competition with that state of competition, i.e., the level of market power:[86]

> That is to say, the Tribunal compares, on the one hand, the level of competition that exists, or would likely exist, after the implementation of the impugned practice, and on the other hand, the level of competition that likely would have existed "but for" the impugned practice. As stated in the preceding section of these reasons, the test contemplated by this paragraph is whether the difference between those two levels of competition is, was, or would likely be, *substantial*; and this test is met when the price of the relevant product is likely to be materially higher, or the level of one or more significant dimensions of non-price competition is likely to be materially lower, than in the absence of the impugned practice.

The Tribunal does appear to recognize the link between market power and an SPC. In particular, its test in the *TREB Redetermination* focuses on the effect of exclusion from the confidential data (the essential facility in this matter) on market power in the downstream market (real estate brokerage):

> [475] Where the respondent is a trade association, the Tribunal will consider whether the impugned practice is likely to facilitate the exercise of new or increased market power by some or all of the members of the association, or to preserve their market power, relative to the situation that would likely have prevailed in the absence of the respondent's impugned practice. Where the Tribunal determines that this is not likely to be the case, it generally will conclude that competition is not likely to be prevented or lessened at all, let alone substantially.

The Tribunal, moreover, "acknowledges that individual real estate brokers and agents in the Relevant Market [residential real estate brokerage do not have market power."[87] That should have been enough to deny

the application, since if the downstream firms do not have market power, there cannot be any increase in market power, and without an increase in market power there cannot be an SLC or SPC.[88]

Instead the Tribunal insists that if the conduct by TREB, on behalf of its members, has prevented "a material increase in quality, variety or innovation, or a material reduction in price," it has prevented "a material reduction in one's market power", i.e., there is an SPC.[89] The Tribunal found that denial of the confidential information resulted in an SPC precisely because of the negative effects on quality, variety, and innovation.[90]

The Tribunal implicitly acknowledges the inconsistency of determining that TREB has acted on behalf of its members to preserve their market power in the downstream market even though they do not have any. For instance, in the *TREB Redetermination*, the Tribunal states:

- "When a group of rivals, whether through their trade association or otherwise, insulates itself from increased competition, they are in essence exercising a cognizable form or market power."[91]

- "the Tribunal is satisfied that TREB has exercised, and continues to exercise, such market power on behalf of its Members who sought to be insulated from innovative forms of competition."[92]

- "However, to the extent that the VOW Restrictions insulate TREB's Members from increased competition from new entrants and from Members who would like to provide additional service offerings through their existing VOWs, or through new VOWs, those restrictions are maintaining what is in essence the *collective market power* that TREB's Members are able to exercise through their control of TREB and its rule-making functions. This *collective market power* is manifested in the form of materially less brokerage service offerings, innovation, quality and variety than would exist "but for" the VOW Restrictions."[93]

The Tribunal in its justifications is actually acknowledging that the SPC it has found is not because there is an increase in market power downstream, but instead the effects on competition in the downstream market arise from the exercise of market power by TREB in the upstream market, the supply of the confidential price data.

The effect of raising the cost of provision of full information VOWs in the downstream market (if any) is simply the result of the exercise of market power by TREB in the relevant market that contains the

confidential price information. The exercise of market power (if any) could result in a reduction in competitive supply in the downstream market, with higher prices and lower quality in the competitive downstream equilibrium. But this is not conduct that creates, enhances, or maintains market power in the upstream market or the downstream market. Hence there cannot be a substantial lessening or prevention of competition even if TREB has market power, exercises it and it materially affects the costs of full information VOWs.

The Tribunal started by looking for an increase in market power: unfortunately in the case of denial of access to an essential facility for a well-founded case it should have been looking for an increase, maintenance, or creation of market power in the market in which the essential facility provides services, i.e., the upstream input market. When the downstream market, with and without mandated access to the essential facility downstream is competitive, as in *TREB*, finding an increase in market power in the downstream market is going to be an illusion.

5.3.3 Efficiencies and Denial of Access to the Confidential Data

The Tribunal agreed with the evidence that there is no market power in the downstream market either before, or after, the conduct. The question then arises as to why TREB would restrict the use of the confidential data. The typical Chicago School answer would be in this case that there must be an efficiency rationale for the restrictions on the use of the data. Of course the efficiency restrictions can only have an effect if TREB has market power in the confidential data: without market power the downstream firms could ignore the restrictions by substituting to substitute data provided by other suppliers. But the important point is that the restrictions are not anticompetitive: the exclusion by TREB is part and parcel of realizing efficiencies.

The negative effects the Tribunal found in the downstream market are attributable not to an increase in market power, but are the results of the exercise of market power upstream that are joint with realizing efficiencies. In the case of TREB's restrictions on the confidential price data, the exclusion is based on promoting investment and protecting quasi-rents, lowering costs of the MLS, and promoting trade and liquidity.[94]

Real estate agents make a number of investments. These include investments in building up their reputation, acquiring and valuing

listings, and developing and operating the multiple listing service (MLS). In particular agents incur costs in acquiring listings and valuing properties. These investments create de facto property rights in listings, which include the confidential price data. The agents then contribute those listing to the MLS database.

Mandating access to the confidential price data, under the theory of the Commissioner and the belief of the Tribunal, will result in full information VOWs that will have a significant impact on the revenues of existing agents. Existing agents will see decrease in prices and their sales. Thus the full information VOWs will benefit from the investments in listings at the expense of existing agents. That is free riding.

Moreover the agents have made their investments in the context of TREB's Rules, without considering that revenues would be reduced by facilitating movement to a more competitive equilibrium by enabling brokerages with full information VOWs. Free-entry by agents means that the marginal entrant expected zero economic profits. If revenues are reduced by providing access to VOWs with display and search of all MLS information then existing agents are held up and suffer financial losses to competitors that require their cooperation and access to their inputs. This is *not* the normal dynamics of a competitive market. In competitive markets firms do not have to share inputs in which they have property rights with competitors even if the result is lower prices. The transfer of revenues to brokerages with full information VOWs and consumers by mandating access is regulatory holdup—expropriation of sunk investments by changing the framework. The risk of holdup, as discussed above, both reduces the extent of investment and raises the required rate of return.

The MLS is a two-sided platform: more participants on one side benefit participants on the other side, i.e., the more buyers, the more attractive for sellers to participate and vice versa. Restrictions that promote liquidity on the MLS may be pro-competitive if they limit negative effects that reduce participation by buyers or sellers. Listing of the confidential price data might give rise to privacy concerns, strategic interference and bargaining advantages, and create a mix of price and non-price competition that reduces the pool of buyers and sellers. The concern with the latter is that full information VOWS might encourage price competition for inframarginal participants instead of non-price competition for marginal participants.

Mandating equal access transforms the MLS into a non-discriminating

joint venture. Non-discriminating joint ventures are fragile: they have to reconcile opposing interests between different groups. If they are unable to do so, then they may splinter and larger firms could go it alone, with the result that there is competition between competing pools of listings and the efficiency advantage of a single MLS are lost.

Information can be copied at low cost, use of it is non rivalrous and hard to monitor, and there are incentives to use the confidential price data for commercial purposes. In these circumstances TREB has an incentive to limit distribution of the confidential price data. If access is required for the public instead of the 35,000 agents, then searching will be provided by TREB not on mirrored servers and will be costly.

The extensive theoretical discussion of efficiencies is not matched by the same degree of supporting factual evidence. This is because many of the costs associated with mandated access are not observable without mandated access *and* a large effect on the market for residential brokerage from full information VOWS. In Toronto there has not been mandated access to the confidential information, the available evidence suggested a limited impact, a limited impact borne out by the experience in the U.S. The U.S. experience shows the irrelevancy of VOWS and the importance of search portals such as Zillow.

6 A Made-in-Canada Essential Facilities Doctrine

6.1 Is *TREB* an Essential Facilities Case?

The Tribunal in *TREB Redetermination* held that this was not an essential facilities case, since realtors that would like to offer full information VOW services still had access to the confidential price data, just not in the VOW data feed and there were restrictions regarding what they could do with the data.[95] Hence the Tribunal found that "this is not a case in which an upstream input supplier is denying customers *access* to an input."[96] The irony is that the Tribunal determined that TREB's VOW policy resulted in a substantial prevention of competition because it reduced the extent of innovation and product diversity. This must mean that it was the Tribunal's view that the existing access to the confidential data was not a good substitute for including the confidential data in the VOW feed and relaxing the rules on how brokers would manipulate and display that data. That is, precisely *because* the two inputs, data under the TREB VOW policy and data not subject to the TREB VOW policy, are not sufficiently good substitutes, that data not subject to the TREB

VOW policy is required to allow for a different downstream product, full information VOWs. The existing input that was available for which there was access did not allow for downstream brokers to offer full information VOW products, i.e., without access to the confidential price data full information VOWS are foreclosed from the downstream market.[97]

The Tribunal cannot have it both ways: there is a glaring logical inconsistency between finding that restricting access to the confidential price data results in a substantial prevention of competition because it makes it impossible for the product—full information VOWS—to be offered downstream and a finding that this is not a case about denying downstream firms access to an input. The prevention of competition in the Tribunal's view arises from the inability of full information VOWS to enter because they do not have access to an input, the confidential price data without restrictions.[98]

6.2 Mapping the *TREB Redetermination* into a Made-in-Canada Essential Facilities Doctrine

The made-in-Canada essential facilities doctrine created by the FCA and the Tribunal in *TREB* maps the following into an abuse of dominance:

- The Commissioner must establish that a firm supplies an input that is necessary for production in a downstream market. This involves establishing that the firm is dominant in the input market, i.e., an upstream monopolist. Hence upstream monopolists will be found to control downstream markets that use their input.
- If the upstream monopolist discriminates in the supply of an input or excludes some downstream firms from supply, it will be found to have engaged in a practice of anticompetitive conduct. By the nature of its conduct, exclusion, the intent is to harm downstream rivals and prevent them from using the input and competing downstream, or in the case of discrimination it is to limit their ability to compete. Consideration of the effect of the exclusion or discrimination on consumer welfare or resource allocation is irrelevant.
- If the result of the exclusion or discrimination of downstream rivals is a marked increase in prices; a marked reduction in product quality and diversity; or a marked reduction in innovation in the downstream market there is an SLC. The Tribunal will likely have

a high prior that the effect of exclusion will be these effects if the exclusion is "widespread".

- The remedy is an order requiring non-discriminatory access.

6.3 *YVR* is the Unfortunate Legacy of *TREB*

The Commissioner's application against the Vancouver Airport Authority provides evidence of the existence of the made-in-Canada essential facilities doctrine and the unfortunate perversion of the abuse of dominance provisions by the FCA and the Tribunal in the *TREB Redetermination*. Presently YVR restricts the choice of airlines to only two suppliers of catering and galley services. The Commissioner has applied for an order from the Tribunal requiring that YVR provide open access to airplanes for other suppliers of catering and galley services.

The Commissioner's case can be briefly summarized as follows:[99]

- YVR is a monopoly supplier of airside access and hence it has control of the downstream market (catering and galley handling).
- YVR has denied access to entrants.
- There is likely an SLC since the conduct has reduced competition in the downstream market (catering and galley handling) because competitors have been excluded.
- The Commissioner is requesting an order as remedy that YVR provide non-discriminatory access.

The YVR case demonstrates that the concerns over the errors made by the FCA and the Tribunal in the *TREB Redetermination* have opened the door for further applications by the Commissioner which fundamentally are incompatible with the economic foundations of the abuse of dominance in the *Competition Act* and, more importantly, the welfare of Canadians and efficient resource allocation.

The effect of the exclusion on downstream competition, in catering and galley handling, is irrelevant: the focus of an abuse case should be on whether the conduct by YVR creates, enhances, or maintains its market power in airside access, the upstream market. The exclusion downstream is possible because it has market power upstream and likely creates value for either it, the airlines, or both.

The application of the abuse provisions, in these made-in-Canada

essential facilities cases, substitute antitrust enforcement for regulation of market power. In doing so the Commissioner and the Tribunal have expanded their jurisdiction with unfortunate consequences. The objective of the *Competition Act* is not the regulation of market power, but some types of conduct that creates, enhances, or maintains market power, conduct in particular that does not benefit consumers or the efficient allocation of resources. The remedy under the *Competition Act* achieved in *TREB* and sought in *YVR* appears to be costless, but it is not.

There are two important costs that are ignored. The first is that the remedy is behavioural: access is to be open and non-discriminatory. This will require that the price, quality, and terms of service be determined and enforced. Industry-specific regulators find the task of setting efficient access prices difficult, if not impossible. How the Competition Bureau or Tribunal are to do so is not clear. Second, a successful application under the abuse framework does not provide for the "balancing" between controlling market power through widening access versus the benefits of denying and restricting access. Those benefits include incentives for investment in the essential facility and exercising market power upstream to limit the number of competitors, or otherwise discriminate against some competitors, downstream to realize efficiencies.

7 Conclusion

This paper has provided an economic critique of the Tribunal's *TREB Redetermination* decision. It has explained why the analysis by the Tribunal in the TREB matter is incorrect with respect to the three requirements for an order under the abuse of dominance provisions in the *Competition Act*: control of a market, anticompetitive practice, and SLC or SPC. While of concern in its own right regarding the foundation for all Section 79 applications and other provisions requiring demonstration of market power and economic effect, the paper has highlighted how these errors have resulted in a made-in-Canada essential facilities doctrine, an assessment confirmed by the Commissioner's application in *YVR*. This doctrine is unlikely to be consistent with enforcement that makes consumers better off or increases the efficiency of resource allocation. In particular, the doctrine makes it far too easy for an order requiring access to the assets of a dominant firm: the short-run benefits of increasing competition in the downstream market are the only factor considered. The effect on the incentives of the dominant firm to make the investments in the first place are not considered. In the long run

consumers will not benefit and political support for competition policy will be undermined.

It is possible to distinguish *TREB* and *YVR*, though the enforcement action by the Commissioner does not. In *YVR* the upstream facility is owned only by YVR and the exclusion is unilateral. In *TREB*, the upstream asset, the confidential price data, is an aggregation of the assets of the members of TREB, i.e., the listings of each agent, and the refusal to allow access is concerted. There is clearly something more going on in the *TREB* matter than in *YVR*, but by proceeding under the abuse provisions and treating TREB as if it was a vertically integrated firm and ignoring the conduct that creates the confidential price database, the cases are considered under the same economic and legal framework. Traditionally there has been more support for mandated access to facilities that are created by pooling the assets of competitors: the focus of such a case is on whether the benefits of the pooling, the efficiency advantages, exceed the cost associated, where the cost is the market power created by the combination of assets of the competitors, a pooling that happens by agreement.[100]

Endnotes

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1 *The Commissioner of Competition v The Toronto Real Estate Board and the Canadian Real Estate Association* (15 April 2013), CT-2011-003, online: Competition Tribunal <http://www.ct-tc.gc.ca/CMFiles/CT-2011-003_Reasons%20For%20Order%20and%20Order_238_38_4-15-2013_3949.pdf> [*TREB I*]; *The Commissioner of Competition v The Toronto Real Estate Board*, 2014 FCA 29, 456 NR 373 [*FCA 2014*]; *The Commissioner of Competition v The Toronto Real Estate Board* (27 April 2016), CT-2011-003, online: Competition Tribunal <http://www.ct-tc.gc.ca/CMFiles/CT-2011-003_Reasons%20for%20Order%20and%20Order_385_66_4-27-2016_7296.pdf> [*TREB Redetermination*]; *Toronto Real Estate Board v Commissioner of Competition*, 2017 FCA 236 [*FCA 2017*]; The Toronto Real Estate Board appealed the most recent Federal Court of Appeal decision upholding the Competition Tribunal's

2016 decision to the Supreme Court of Canada, see: <https://www.scc-csc.ca/case-dossier/info/dock-regi-eng.aspx?cas=37932>; *The Commissioner of Competition v Vancouver Airport Authority*, CT-2016-015 (Notice of Application filed 29 September 2016), online: <http://www.ct-tc.gc.ca/CMFiles/CT-2016-015_Notice%20of%20Application_2_66_9-29-2016_5321.pdf> [*YVR*].

[2] *TREB I, supra* note 1 at paras 23-25.

[3] *FCA 2014, supra* note 1 at paras 13, 20.

[4] I provided two expert reports on behalf of the Toronto Real Estate Board and I appeared before the Competition Tribunal twice.
The second panel observed in their decision that I was less helpful than the expert on the other side and occasionally evasive and prone to speculation. See: *TREB Redetermination, supra* note 1 at paras 108-109. No evidence in the decision of my evasiveness is provided, but two instances of speculation are discussed in relation to market definition, see: *TREB Redetermination*, *supra* note 1 at paras 229, 248-249. Market definition is based on identifying reasonable substitutes, which based on the hypothetical monopolist test involves identifying those products that make a small, but significant and non-transitory increase in price above competitive levels non-profit maximizing. The first instance of speculation identified by the Tribunal was demonstrating that the database of the largest corporate franchise group contained virtually the same information as the entire TREB multiple listings dataset. Using information from it alone to estimate a hedonic pricing model versus using the entire MLS database resulted in an average difference in predicted house values of less than 4%. To me this suggested that the data of the larger brokerage groups should be considered a substitute for the entire database. Second, I observed that the absence of alternative suppliers of the confidential price data to brokers that would like to display and have it searchable on their websites might be attributable to a lack of demand by consumers. That agents might demand it does not necessarily mean that home buyers and sellers will be influenced by its availability when selecting a real estate agent. There might be other reasons why an agent might demand this data that is independent of their competitive position in the market for real estate brokerage: in particular they might instead demand it to be "the" web destination for anyone interested in real estate values and hence be a supplier of eyeballs to advertisers.
The panel in the *TREB Redetermination* engaged with my evidence on market definition, in particular whether it was required to define two markets, an upstream market that includes the input (the confidential price data) and a downstream market where the input is used (residential real estate brokerage) and the evidence regarding whether there are alternatives to the confidential price data. My evidence on whether the denial of access to the confidential data resulted in a substantial lessening or prevention of competition is not discussed in the *TREB Redetermination*, though the Tribunal notes that the Commissioner's expert "did not have a good understanding of the legal test for what constitutes a "substantial" prevention or lessening of competition"

and the Tribunal "refrained from accepting" the evidence of the expert on that issue. See: *TREB Redetermination, supra* note 1 at para 108. The Federal Court of Appeal remarked that "Dr. Church's evidence on the issue of whether the prevention of competition was "substantial" is neither referred to nor mentioned in the Tribunal's reasons." See: *FCA 2017, supra* note 1 at para 174. This paper does not comment on the factual findings in the *TREB Redetermination*: its focus is on the economic logic of the decision and its ramifications, in particular the foundations for a made-in-Canada essential facilities doctrine. Just as the evidence is not supportive that full information Virtual Office Websites ("VOWS"), i.e., brokerages who provide electronic access to the confidential data on the multiple listing service (MLS) of the Toronto Real Estate Board, would have a material effect on commission rates (prices) in real estate brokerage (see *TREB Redetermination, supra* note 1 at paras 625, 639), in my view it is also not consistent with a material effect on non-price competition in the market for real estate brokerage. The evidence in my view is not consistent with realtors who operated full information VOWS being preferred by home buyers and sellers who demand residential real estate brokerage services.

The point of this paper is that the actual effect of the TREB data policy on competition in the residential real estate brokerage market is irrelevant. As a matter of economics, the TREB data policy could not result in a substantial lessening of competition in that market.

[5] The Tribunal is not limited to cease and desist orders. It can also impose a monetary penalty (up to $10 million for the first order and $15 million for subsequent orders), and/or require the firm to otherwise take actions, including divestiture of assets, to overcome the effects of the conduct.

[6] Quasi-rents are the difference between revenues and costs that are avoidable in the short-run. For a firm to break even quasi-rents must be at least as large as sunk costs. Firms will invest if they expect quasi-rents to be greater than sunk costs.

[7] If the concern is market power in the downstream market, as in *TREB*, it is sufficient that downstream competitors even with a refusal do not have market power for it not to give rise to an anticompetitive effect consistent with that concern.

[8] The made-in-Canada essential facilities doctrine is implied, since the Competition Tribunal in the *TREB Redetermination* found that confidential price data was not an essential facility. See discussion at Section 6.1.

[9] The distinction between the exercise of market power and the focus of competition law on prohibiting conduct that creates, enhances, or maintains market power is fundamental to Canadian competition policy. See generally Jeffrey R Church & Roger Ware, "Abuse of Dominance under the 1986 Canadian *Competition Act*" (1998) 13 Rev of Industrial Organization 85 [Church & Ware 1998]; *Canada (Commissioner of Competition) v Canada Pipe Co*, 2006 FCA 233, 268 DLR (4th) 193 [*Canada Pipe (SLC)*]; Canada, Competition Bureau, The Abuse of Dominance Provisions, (Ottawa:

Competition Bureau, 2012), online: <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03497.html>; Michael Trebilcock et al, *The Law and Economics of Canadian Competition Policy* (Toronto: University of Toronto Press, 2002) at 507 [Trebilcock et al].
All discuss the Canadian distinction that monopoly power is not reachable under the *Competition Act*, only abuse, which is conduct that creates, enhances, or maintains market power.

[10] See Canada, Competition Bureau, *Merger Enforcement Guidelines*, (Ottawa: Competition Bureau, 2011) at s 2.3, online: <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03420.html>; See generally Gunnar Niels, Helen Jenkins & James Kavanagh, *Economics for Competition Lawyers* (Oxford: Oxford University Press, 2011) at 116; Dennis W Carlton & Jeffrey M Perloff, *Modern Industrial Organization* (Boston: Pearson/Addison Wesley, 2005) at 783; Jeffrey R Church & Roger Ware, *Industrial Organization: A Strategic Approach* (New York: McGraw-Hill, 2000) at 29, 603-604 [Church & Ware 2000].
The competitive price level usually refers to long-run average cost. The exercise of market power involves profitably raising price above long-run average cost and earning monopoly profits. In the long run the price in the market must at least equal long-run average cost or production will not be viable and firms will exit. Economists typically define market power as the ability to profitably raise price above marginal cost, the price that would prevail in perfectly competitive markets. However, the definition used by economists is less useful for policy analysis since many firms will be able to exercise market power based on this definition—indeed any firm whose demand curve is downward sloping—but they will not be able to raise price above average cost levels, i.e., earn greater than a competitive return. Indeed, if a firm's unit cost declines as it expands output, the firm will have to be able to profitably raise price above marginal cost in order to break even. The ability to profitably raise prices over average cost reflects the requirement of firms to break even and is a useful definition of a competitive level even when firms are not perfectly competitive. An alternative, and equivalent distinction, is to adopt the economic definition of market power and distinguish between the inefficient and efficient exercise of market power. Only the exercise of market power that raises the price above long run average cost levels is inefficient or harmful.

[11] The own-price elasticity of demand (which when there is no possibility of confusion with cross-price elasticity is sometime referred to as the elasticity of demand) for a firm is the percentage decrease in its sales volume (quantity) from a one percent increase in its price. The smaller is the change in sales volume, the more inelastic is its demand. The market elasticity of demand refers to changes in quantity demand in the market from a change in the market price.

[12] See Church & Ware 2000, *supra* note 10 at s 14.3 (for a discussion of entry

barriers and profitable entry deterrence. For market power to persist that enables prices to be above long run average cost levels, incumbents must have an advantage that entrants cannot profitably match.)

[13] *United States v EI du Pont de Nemours & Co*, 351 US 377 at 391 (1956).

[14] See *Canada (Director of Investigation & Research) v NutraSweet Co* (4 October 1990), CT-1989-002, online: Competition Tribunal <http://www.ct-tc.gc.ca/CMFiles/CT-1989-002_0176a_38IHV-12202004-3351.pdf> at 28; *R v Nova Scotia Pharmaceutical Society*, [1992] 2 SCR 606, 93 DLR (4th) 36; *Commissioner of Competition v Canada Pipe* (3 February 2005), CT-2002-006, online: Competition Tribunal <http://www.ct-tc.gc.ca/CMFiles/CT-2002-006_0079b_38KCZ-9272006-4715.pdf> at para 65 [*Canada Pipe Tribunal*]; Dany H Assaf & Brian A Facey, *Competition and Antitrust Law: Canada and the United States*, 3rd ed (Markham: LexisNexis Butterworths, 2006) at 238-240.

[15] See Franklin M Fisher, "Detecting Market Power" in Wayne D Collins & Joseph Angland, eds, *Issues in Competition Law and Policy* (Chicago: ABA Section of Antitrust Law, 2008) 353 at 359-360; George A Hay, "Market Power in Antitrust" (1992) 60 Antitrust LJ 807 at 820; Richard Schmalensee, "Another Look at Market Power" (1982) 95:8 Harv L Rev 1789 at 1795; Herbert Hovenkamp, *Federal Antitrust Policy: The Law of Competition and Its Practice*, 3rd ed (St Paul: Thomson/West, 2005) at 79; American Bar Association Section of Antitrust Law, *Monopolization and Dominance Handbook* (Chicago: American Bar Association, 2011) at 59 (for the definition of market power and recent case cites), 62 (for discussion of the definition of monopoly in *du Pont and* discussion indicating that it is not "either or" but an "and"), 86-89 (for the discussion on the legality of exercising market power and the definition of monopolization—"monopolization means conduct that, in violation of Section 2, unlawfully allows a firm to gain, maintain, or extend monopoly power").

[16] A broader discussion of the welfare effects of market power includes its effect on cost efficiency and the costs of acquiring market power (rent seeking). See Church & Ware 2000, *supra* note 10 at ch 4.

[17] See Herman C Quirmbach, "Input market surplus: the case of imperfect competition" (1984) 16:3-4 Economics Letters 357 (for references for the case of perfect competition); For more recent analysis of the relationship between harm in the downstream market and the exercise of market power in the upstream market, see Frank Verboven & Theon van Dijk, "Cartel Damages Claims and the Passing-On Defense" (2009) 57:3 The J of Industrial Economics 457; Leonardo J Basso & Thomas W Ross, "Measuring the True Harm from Price-Fixing to Both Direct and Indirect Purchasers" (2010) 58:4 The J of Industrial Economics 895.

[18] There would not be a price increase downstream, but there would be an effect on output if demand downstream was perfectly elastic. There would be no effect on output if demand downstream was perfectly inelastic.

[19] See Thomas G Krattenmaker, Robert H Lande & Steven C Salop, "Monopoly Power and Market Power in Antitrust Law" (1987) 76 Geo LJ 241 at 249.

[20] See Jonathan B Baker, "Exclusion as a Core Competition Concern" (2013) 78:3 Antitrust LJ 527 at 562-564; Timothy J Brennan, "Understanding 'raising rivals costs'" (1988) 33 Antitrust Bull 95 at 96, 99, 110; Timothy J Brennan, "Vertical Market Power as Oxymoron: Horizontal Approaches to Vertical Antitrust" (2004) 12:4 Geo Mason L Rev 895 at 902-903; David T Scheffman, "The application of raising rivals' costs theory to antitrust" (1992) 37:1 Antitrust Bull 187 at 188-189, 196.

[21] If the conduct has decreased the elasticity of firm demand, then it will have increased the firm's market power, suggesting the possibility of an SLC. In the case of a prevent case, the effect of the conduct on the elasticity of firm demand is in the future. If the conduct means that the elasticity of firm demand will decrease in the future, then the increase in the firm's market power will be in the future, suggesting the possibility of an SPC.

[22] A key issue in the TREB case was whether a dominant firm's conduct can be abusive if it increases the market power of firms in a market in which it does not participate.

[23] See Jeffrey Church, "Vertical Mergers" in Wayne D Collins & Joseph Angland, eds, *Issues in Competition Law and Policy* (Chicago: ABA Section of Antitrust Law, 2008) 1455 [Church]; Jeffrey Church, "Conglomerate Mergers" in Wayne D Collins & Joseph Angland, eds, *Issues in Competition Law and Policy* (Chicago: ABA Section of Antitrust Law, 2008) 1502.

[24] The economics of vertical foreclosure is summarized in Church, *supra* note 23. The literature distinguishes between partial foreclosure and complete foreclosure. A vertically integrated firm engages in partial foreclosure when it charges a higher price to rivals than if it was unintegrated. A vertically integrated firm engages in complete foreclosure when it refuses to supply or provide access to its downstream rivals. The focus of the discussion here, matching the usual concern with essential facilities cases, as seen in *TREB* and *YVR*, is refusal to supply or provide access at all to at least some firms wishing to provide service in the downstream market.

[25] The confidential price data included not just historic sold prices for a property, but also data on pending sales and WEST listings. WEST listings are listings that have been withdrawn, expired, suspended, or terminated.

[26] *Telecom Public Notice: Review of regulatory framework for wholesale services and definition of essential service* (9 November 2006), 2006-14, online: CRTC <https://crtc.gc.ca/eng/archive/2006/pt2006-14.htm> (Evidence of the Competition Bureau filed 15 March 2007, online: <https://crtc.gc.ca/PartVII/eng/2006/8663/c12_200614439.htm#4b> at 60, 61); Canada, Competition Bureau, *Information Bulletin on the Abuse of Dominance Provisions as Applied to the Telecommunications Industry*, (Ottawa: Competition Bureau, 2008) at s 4.2.2, online: <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/02690.html> [Competition Bureau Telecommunications].

[27] This is the rationale for the Bureau's historical requirement for a double dominance criteria. Without dominance downstream, the input cannot be essential, and it can be an easier task analytically to assess dominance in

the downstream market than determine whether a firm is a hypothetical monopolist upstream. Hence the Bureau's further recommendation that dominance downstream should be an initial screen in essential facility cases. See *Telecom Public Notice: Review of regulatory framework for wholesale services and definition of essential service* (9 November 2006), 2006-14, online: CRTC <https://crtc.gc.ca/eng/archive/2006/pt2006-14.htm> (Argument of the Competition Bureau filed 23 November 2007, online: <https://crtc.gc.ca/PartVII/eng/2006/8663/c12_200614439.htm#4b> at 60, 61) [Competition Bureau Argument].

[28] *Telecom Notice of Consultation: Review of wholesale services and associated policies* (15 October 2013), 2013-551, online: CRTC <https://crtc.gc.ca/eng/archive/2013/2013-551.htm> (Expert Report of Jeffrey Church, attachment 1 to the Intervention of Bell Canada filed 31 January 2014).

[29] *Ibid*; Competition Bureau Argument, *supra* note 27.

[30] There is an old literature that considers the incentive for a monopolist upstream to integrate downstream and foreclose supply to existing downstream firms when the firms downstream are competitive, i.e., price takers, and production downstream is not fixed proportions. This means that the input ratio used to produce the downstream product can, and will, be adjusted, as input prices change. The upstream monopolist when it exercises market power in the wholesale market will be disciplined by both direct substitution (the downstream firms will substitute to other inputs) and indirect substitution (downstream consumers will substitute to other goods). When the monopolist integrates and forecloses it eliminates the direct substitution, thereby increasing its market power, but at the same time it will produce efficiently, lowering costs. Whether integration and foreclosure is harmful or beneficial depends on a trade off between these two effects: the effect on the downstream price depends on the relative magnitude of the ease of substituting inputs in production and the demand elasticity downstream, the determinants respectively of the cost reducing and market power increasing effects of integration. The policy implications do not favour antitrust enforcement:

> The traditional view has been that the relationship between the two [cost decreasing effect and the market power enhancement effect] is complex and measurement problems sufficiently formidable that the trade-off implied is likely subject to considerable error. Moreover, given the incentive problems associated with internalizing transactions, a vertical merger, it is argued, is likely not the optimal response to what is primarily a pricing problem. There are other less costly vertical restraints and alternative pricing schedules that prevent inefficient input substitution and avoid the costs of vertical integration. Hence, the motivation for vertical integration is unlikely to be the elimination of input substitution and enhancement of market power, but instead the transaction is intended to realize other efficiencies.

See Church, *supra* note 23, at 1471, footnotes omitted.

[31] See the discussion in Section 4.3.
[32] Dennis W Carlton & Ken Heyer, "Extraction vs Extension: The Basis for Formulating Antitrust Policy Towards Single-Firm Conduct" (2008) 4:2 Competition Policy Intl 285.
[33] Competition Bureau Telecommunications, *supra* note 26 at s 4.2.2.
[34] The discussion of the single profit theorem is based on, and similar, to that in Church, *supra* note 23 at 1469.
[35] The assumption is that downstream production technology is fixed proportions. Downstream output requires a single unit of the upstream services provided by the essential facility and one unit of other inputs whose cost is d. The case of variable proportions was discussed above at footnote 30.
[36] See Church, *supra* note 23 at s 5.3.
[37] *Ibid* at ss 4.1, 5.3.
[38] Church & Ware 1998, *supra* note 9 at 98-99.
[39] *Canada Pipe Tribunal*, *supra* note 14 at para 65, footnotes omitted.
[40] *FCA 2014*, *supra* note 1 at para 13.
[41] *TREB Redetermination, supra* note 1 at para 176.
[42] It is true that the top five large corporate franchises had over a 70% market share based on transactions. But that perspective is misleading. It does not recognize the distinction between franchisors (the corporate brands), the franchisees (individual brokerages), and agents, assuming that franchisees and agents under the same corporate banner do not compete with each other. In fact franchisees do compete against other franchisees operating under the same corporate brand and agents within the same brokerage do compete between themselves for transactions. The largest market share for a brokerage in the GTA was around 4%. The share of the top 20 accounted only for about 30% of transactions. See *TREB I, supra* note 1 (Expert Report of Jeffrey Church s 4).
[43] *TREB Redetermination, supra* note 1 at paras 500-501.
[44] Quasi-rents are the difference between revenues and avoidable costs in the short run. They are the contribution earned to cover the firm's sunk costs. Competitive firms break even in the long run if their quasi-rents cover their sunk costs. Ricardian rents accrue to suppliers who are low cost suppliers or high quality suppliers of the product. If the market is competitive, the market price will be determined by the low quality and/or high cost suppliers, i.e., the price equals the marginal cost of low quality output and the marginal costs of high cost suppliers such that at the market price there is sufficient supply to meet demand. Low cost suppliers and high quality suppliers will earn premiums relative to their costs that may well show up as high operating profits and be reflected in high operating profit margins. Firms with higher qualities and lower costs can be price takers: they do not necessarily have either the incentive or the ability to raise the market price by withholding output. If their ability to produce is limited relative to the size of the market, they will find it profit maximizing to produce to capacity.
If a low cost producer reduces its sales volume when its capacity is limited, the

price does not change, but its profits fall as it losses the margin on the reduced sales volume. Hence there is not the familiar trade off of a firm with market power: the gain on inframarginal units from a higher price against the loss in profits from units withheld from the market. Instead the loss in profits is always higher, the firm does not have market power, and it always produces to capacity.

The analysis is the same when there are not capacity issues, all firms produce where price is equal to marginal cost and they earn Ricardian rents on their inframarginal units. The extent of these Ricardian rents will be greater for low cost or high quality firms, since by definition they will be able to produce more than high cost or low quality firms.

The "profits" earned by a higher-quality price-taking supplier or low cost price-taking supplier are not attributable to market power, but their superior inputs that enable them to produce higher quality output or low cost output. Their above competitive profits are earned because they have control of these inputs and the profits above competitive level are really rents earned by these inputs.

These apparent profits above competitive levels are called Ricardian rents, in honour of David Ricardo, who observed in the early 1800's that the price of vegetables sold in London were the same whether they were produced close or far away from London. The delivered, or landed, cost of distant production set the price, the difference between this price and all other costs for production close to London except for land was the rent paid for the land close to London. Thus the rent premium for land close to London relative to land far away equals the differential in transport costs—if all other costs are the same.

[45] The Tribunal, following the Commissioner, denies the requirement to define an upstream market around the confidential data or assess market power by TREB in its supply. Of some interest is that the Commissioner, after denying the requirement to define an upstream and downstream market in the *TREB* matter, does define upstream and downstream markets in *YVR*. See *TREB Redetermination, supra* note 1 at para 252; *Commissioner of Competition v The Toronto Real Estate Board*, CT-2011-003, (Further Closing Submissions of the Commissioner of Competition 12 November 2015 at para 93, online: <http://www.ct-tc.gc.ca/CMFiles/CT-2011-003_Closing%20Argument%20of%20the%20Commissioner%20of%20Competition_358_38_11-12-2015_2619.pdf>), and *YVR, supra* note 1 at para 11.

[46] *Tervita Corp v Canada (Commissioner of Competition)*, 2015 SCC 3 at para 44, [2015] 1 SCR 161 [*Tervita*].

[47] *Director of Investigation and Research v Hillsdown Holdings (Canada) Limited* (9 March 1992), CT-1991-001, online: Competition Tribunal <http://www.ct-tc.gc.ca/CMFiles/CT-1991-001_0155a_38IEP-4142004-5100.pdf> at 314.

[48] *Commissioner of Competition v Canadian Waste Services Holdings Inc* (28 March 2000), CT-2000-002, online: Competition Tribunal <http://www.ct-tc.gc.ca/CMFiles/CT-2000-002_0059a_49PXE-982004-5523.pdf> at para 7.

[49] Canada, Director of Research & Investigation, *Merger Enforcement*

Guidelines, (Ottawa: Industry Canada, 1991) at Part 2 (footnotes omitted and emphasis added).

[50] *Ibid* at Part 2.2. In Part 2.3 there is a similar discussion in the context of a prevention of competition. A prevention of competition can arise either because of a unilateral or coordinated effect.

[51] *Canada (Commissioner of Competition) v Canada Pipe Company Ltd*, 2006 FCA 236 at para 107, 268 DLR (4th) 238 [*Canada Pipe (Market Power)*].

[52] *Ibid* at para 104. The quote is from *Canada (Director of Investigation & Research) v Southam Inc*, 1995 3 FC 557, [1995] 127 DLR (4th) 236 at para 113, and omits citations.

[53] This discussion neglects that the Tribunal and the Commissioner focused on TREB's market power in the provision of the MLS, not the confidential price data. See *TREB Redetermination, supra* note 1 at paras 252 and 253. Access to the MLS and TREB's market power in the provision of the MLS is irrelevant to the conduct in the TREB matter. TREB did not deny access to MLS or tie the use of the MLS to another input it provided (there is no allegation that if a realtor used outside information it would be excluded from use of the MLS). It is the ability to impose restrictions on the use of the confidential price data that was relevant. These rules can only result in "harm" to realtors if they cannot be avoided. That requires market power by TREB in the provision of the confidential price information.

[54] *Canada Pipe (SLC), supra* note 9 at para 66.

[55] *FCA 2014, supra* note 1 at para 17.

[56] *Ibid* at para 19.

[57] *Ibid* at para 20.

[58] *Ibid* at para 20.

[59] See Trebilcock et al, *supra* note 9 at 535-536.

[60] This possibility is explicitly noted by the Tribunal in the first *TREB* decision. See *TREB 1, supra* note 1 at para 16.

[61] An implication is that post *FCA 2014* there may no longer be a gap in the *Competition Act* with respect to facilitating practices that are adopted unilaterally by firms, i.e., without an agreement. See Ralph A Winter, "The Gap in Canadian Competition Law Following Canada Pipe" (2004) 27:2 Can Competition L Rev 293 for a discussion of this gap.

[62] *TREB Redetermination, supra* note 1 at para 272.

[63] *Ibid* at para 279.

[64] *Ibid* at para 274.

[65] *Canada Pipe (SLC), supra* note 9 at para 87.

[66] *TREB Redetermination, supra* note 1 at para 293, emphasis added.

[67] *Ibid* at para 294 and *Canada Pipe (SLC)* at paras 73 and 90-91.

[68] *Ibid* at para 304.

[69] *Ibid* at para 294; *Canada Pipe (SLC), supra* note 9 at para 90.

[70] *Olympia Equipment Leasing Co v Western Union Telegraph Company*, 797 F2d 370 at 379 (7th Cir 1986).

[71] Judge Hand observed in the famous Alcoa decision, "The successful

competitor having been urged to compete, must not be turned on when he wins the race." *United States v Aluminum Corporation of America*, 148 F2d 416 at 427 (1945).
[72] *TREB Redetermination, supra* note 1 at paras 332, 344, 362, 371, 390, 391.
[73] *Canada Pipe (SLC), supra* note 9 at paras 80-81.
[74] *TREB Redetermination, supra* note 1 at para 276.
[75] See Canada, Competition Bureau, *Abuse of Dominance – Enforcement Guidelines*, (Ottawa: Competition Bureau, 2012) at 13.
[76] *Canada Pipe (SLC), supra* note 9 at para 43, emphasis original.
[77] *Ibid* at para 43, emphasis original.
[78] The FCA confirmed the assessment in the academic literature. See Trebilcock et al, *supra* note 9 at 78 (distinguishing control (market power) from a substantial lessening in competition (increase in market power).
[79] *Canada Pipe (SLC), supra* note 9 at para 49.
[80] *Ibid* at para 58, emphasis added.
[81] *TREB Redetermination, supra* note 1 at para 460 and at paras 473-474 where the test for an SLC and SPC focuses, correctly, on market power.
[82] *Ibid* at para 464.
[83] *Tervita, supra* note 46 at paras 80-81.
[84] *Commissioner of Competition v CCS Corporation et al* (29 May 2012), CT-2011-002, online: Competition Tribunal <http://www.ct-tc.gc.ca/CMFiles/CT-2011-002_Reasons%20for%20Order%20and%20Order_189_38_5-29-2012_5291.pdf> at para 377 (The Commissioner's challenge was to the acquisition by CCS Corporation of Complete Environmental. By the time the case was considered by the Supreme Court of Canada, CCS had changed its name to Tervita).
[85] *TREB Redetermination, supra* note 1 at paras 478-479.
[86] *Ibid* at para 480.
[87] *Ibid* at para 590.
[88] The Commissioner's allegations and the Tribunal's findings do not consider whether there was an effect of TREB's conduct on the market power of TREB in the supply of the confidential data. Of course even with such a finding, that the market power of the downstream firms was enhanced by the exclusion, perhaps as in *YVR*, this is not sufficient or necessary for the exclusion to be an abuse of dominance. What is necessary is an effect on the market power of the upstream firm.
[89] *TREB Redetermination, supra* note 1 at para 500.
[90] *Ibid* at para 702.
[91] *Ibid* at para 500.
[92] *Ibid*.
[93] *Ibid* at para 709, emphasis added.
[94] For extensive discussion, see *The Commissioner of Competition v The Toronto Real Estate Board and the Canadian Real Estate Association* (15 April 2013), CT-2011-003, online: Competition Tribunal <http://www.ct-tc.gc.ca/CasesAffaires/CasesDetails-eng.asp?CaseID=347> (Expert Report of Jeffrey

Church, filed on 27 July 2012, ss 3.4, 10; Testimony of Jeffrey Church, Volume 12A: 2015:6-2029:5; Expert Report of Jeffrey Church, filed on 15 May 2015, s 5; Testimony of Jeffrey Church, Volume 5: 891:3-896:7).

[95] *TREB Redetermination, supra* note 1 at paras 212-213.

[96] *Ibid*.

[97] It is for this reason that it is very unclear that, despite the Tribunal's findings, TREB actually has market power in the supply of the confidential price data in the VOW feed. All brokers have access to the confidential price data and can share it with their clients in other ways. When clients have reached the valuation stage, that is when it is time to make an offer or to set a list price, the confidential price data will be important and they will have access to it, though they will have to request it from their agent and they will not have the ability to search it themselves. At the search phase, that is when clients are becoming familiar with valuations, it is not clear that there are not good substitutes for the confidential price data, in particular list prices. A very good predictor of the sale price for a property is to multiply its list price by 0.95, i.e., 95% of the list price is the likely sale price. See *The Commissioner of Competition v The Toronto Real Estate Board and the Canadian Real Estate Association* (15 April 2013), CT-2011-003, online: Competition Tribunal <http://www.ct-tc.gc.ca/CasesAffaires/CasesDetails-eng.asp?CaseID=347> (Expert Report of Jeffrey Church, filed on 15 May 2015 at footnote 51). The Tribunal appears to misinterpret the meaning of a regression coefficient, claiming that it is 95% of the average list price in a community. *TREB Redetermination, supra* note 1 at para 223.

[98] This inconsistency has not gone unmarked:

> At the outset, the Tribunal also rejected the proposition that this was an essential facilities case (that is, a case relating to whether, and on what terms, a firm should be granted access to a competitor's facility or asset), holding that TREB was not denying access to its MLS data but merely restricting how its data could be used. It is not clear that this narrow finding is correct in principle, given that the essence of this case relates to access to inputs owned by other competitors and that the Tribunal itself held some of which (sold information) had no close substitutes. The Tribunal also provided no jurisprudential basis for its essential facilities finding (for example, no international law to support its conclusion). The Tribunal's finding, however, means that there remains no explicit decided essential facilities case in Canada (unlike in the United States, where the doctrine has been developed by lower courts). This case is, however, an essential facilities case in substance in many ways.

Practical Law Canada Competition, "Landmark TREB Abuse of Dominance Case May Open the Door for New Real Estate Models in Toronto", Case Comment, on *TREB Redetermination, supra* note 1, online: <https://ca.practicallaw.thomsonreuters.com/w-002-2822?transitionType=Default&contextData=(sc.Default)&__lrTS=20180705171147510&firstPage=true&bhcp=1> (13 May 2016).

[99] *YVR, supra* note 1.
[100] See the discussion in W Michael G Osborne, "Build It and You Must Share It? Essential Facilities in Canada", Canadian Competition Law Review [forthcoming in 2018].