Phelps Centre for the Study of Government and Business

Working Paper
2006 – 10

Merger Review in Canada and the Role of Economics

Paper prepared for the
Competition Law Essentials Program

Organized by:
The Continuing Legal Education Society of British Columbia
Vancouver, BC

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December 5, 2006

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This version:  December 5, 2006

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Abstract

The purpose of this paper is two-fold. First, for those unfamiliar with the way the Competition Bureau (the “Bureau”) reviews mergers, it traces the normal steps of merger review in Canada. The process of reviewing mergers has become more systematic since the overhaul of merger law as part of the new Competition Act of 1986. With the adoption of the Merger Enforcement Guidelines (the “MEGs”) by the Bureau, first in 1991, then in revised form in 2004, the process has become even more well-defined. While there is still plenty of discussion -- and even controversy -- about the way various elements of the law should be applied, the road-map laid out by the MEGs has been generally well-received.

The second purpose is to explain the importance of economic analysis in merger review. Competition law is essentially a form of economic regulation, seeking to control business activity in a way that furthers certain social goals. At each step of merger review, an attempt is made to illustrate how economic reasoning applied by skilled economists can assist in getting to the right result.
Merger Review in Canada and the Role of Economics

I. Introduction

The purpose of this paper is two-fold. First, for those unfamiliar with the way the Competition Bureau (the “Bureau”) reviews mergers, it traces the normal steps of merger review in Canada. The process of reviewing mergers has become more systematic since the overhaul of merger law as part of the new Competition Act of 1986. With the adoption of the Merger Enforcement Guidelines (the “MEGs”) by the Bureau, first in 1991, then in revised form in 2004, the process has become even more well-defined. While there is still plenty of discussion -- and even controversy -- about the way various elements of the law should be applied, I would say that the road-map laid out by the MEGs has been generally well-received. What is certainly true, at least in my experience, is that counsel for merging parties regularly feel compelled to make their cases to the Bureau respecting the processes and procedures laid out in the MEGs.

My second purpose is to explain the importance of economic analysis in merger review. As I argue below, competition law is essentially a form of economic regulation. It seeks to control business activity in a way that furthers certain social goals. At each step of merger review, I will attempt to illustrate how economic reasoning applied by skilled economists can assist in getting to the right result.

II. Some Background: Why do we regulate mergers?

In Canada today, it is widely recognized that competition law represents an important form of economic regulation of the behaviour of firms across the economy. Other mechanisms of control, including direct regulation (e.g. the regulation of prices or
quantities) and public ownership and management of firms, still apply to a select few industries, but to a considerable extent we look to the forces of competition to encourage firms to produce products of high quality, in significant variety and at low prices. This is also true in the United States, Europe and other countries with modern competition laws. Competition law is then the framework law that provides a necessary set of rules such that competition may be maintained and enhanced even though it may not always be in the interests of the firms in respect of which the rules apply.

There are a number of reasons why we value the various effects of competition, but the one to which we most often refer is the desire to enhance economic efficiency. By “economic efficiency”, I am merely referring to the ability of an economy to get the most output from its available inputs. Wealth is created when lower-valued inputs are converted into higher-value outputs and an efficient economy maximizes the wealth possible based on the resources available. Of course, higher levels of wealth translate into higher standards of living (on average).

Economists have recognized for a long time that competitive markets tend to be efficient markets and so competition is valued, not so much for its own sake, but for its contribution to the generation of wealth and the raising of living standards. The purpose clause of Canada’s Competition Act (the “Act”) draws this connection quite clearly.1 While, in some cases other objectives have been attached to competition policy (e.g., redistribution of income, control of inflation, promoting small business), I think it is fair

1 Section 1.1 of the Act provides: “The purpose of this Act is to maintain and encourage competition in Canada in order to promote the efficiency and adaptability of the Canadian economy, in order to expand opportunities for Canadian participation in world markets while at the same time recognizing the role of foreign competition in Canada, in order to ensure that small and medium-sized enterprises have an equitable opportunity to participate in the Canadian economy and in order to provide consumers with competitive prices and product choices.”
to say that the promotion of economic efficiency has developed into the most important objective in, possibly among others, Canada, the United States, Europe, Australia and New Zealand.²

Given the importance placed on competition policy as a tool to increase economic efficiency, it should not be surprising that the design and enforcement of competition law has been – and is increasingly – influenced by developments in the field of economics. The branch of economics known as “Industrial Organization (IO)” or (particularly in Europe) “Industrial Economics” focuses on the microeconomics of firms in markets, explaining why (among other things) firms adopt the strategies they do and why prices are what they are. The theory of industrial organization has provided many explanations for firm behaviour, and the growing empirical literature has been helping us select the best theories.

Modern competition policy is now, therefore, a joint operation involving individuals trained in economics and in law. While most will begin working in the field with expertise in only one of these foundational disciplines, experience has shown that a lot of learning goes on in both directions and to good effect. An economist will be able to provide more relevant and useful advice when she understands at least some of the legal issues in a case. Similarly, lawyers with some appreciation for the economic principles relevant to their case will be able to make much better use of the advice they are getting from economists.

² Of course, this is the view of an economist. In Ross [2004], I argue that economics, which was not always seen as a foundational discipline, has made two major contributions to competition policy. First, it gave it a predominant purpose: to support competition as a means to create efficient markets and maximize an economy’s wealth. Second, it gave it a set of tools (theory and empirical methods to test those theories and measure effects) by which to determine what actions (e.g. mergers) and business behaviours (e.g. price fixing) were likely to increase wealth and which were likely to decrease it.
Perhaps no part of competition law is as economics-intensive as merger law. Virtually every step along the merger review path involves contributions from economists – and this is a path with many steps, as is made clear in the Competition Bureau’s Merger Enforcement Guidelines (MEGs). After a short review (in Section III) of some of the basic economics relevant to merger review, Section IV briefly surveys the various steps in a typical merger review and how economists can help at each step. This is not a comprehensive review in that my coverage will be light and many special issues that can come up will not be discussed. The focus will be on the main issues and what economists do in a more or less typical case. There is a wealth of published work to which the reader interested in more breadth or depth may turn, and while I will not try to list all important sources, I will cite some work that may be helpful.3

III. Some Background Economics

The merger provisions of the Act quite clearly anticipate the need for economic analysis in the review of mergers. This is evident, for example, in the need to assess whether or not a merger will lead to a substantial prevention or lessening of competition (“SLC”) and in the design of the efficiencies defense in section 96, which requires an evaluation of whether or not the gains in efficiency will be greater than, and will offset, the harm from the lessening of competition. As we will see, economists have important contributions to make every step of the way as a merger is evaluated -- right from helping define the very markets of concern to evaluating proposed remedies.

3 Some very good general sources that present the economics of competition policy and/or integrate economic thinking into a legal treatment of competition law include: Trebilcock et al [2002]; Church and Ware [2000], Neumann [2001] and Viscusi et al [2000].
Before proceeding step-by-step through the merger evaluation process, however, it will be useful – for some readers at least – to review some of the basic economics of markets, efficiency and mergers.4

In the past, generally, and to many people still today, the term “market” suggested a physical place in which buyers and sellers gathered to exchange goods and services for money (or for other goods and services).5 Today, however, we recognize that transactions can take place over great distances and buyers may never meet the sellers with whom they transact. So a “market” in economics and competition policy today is not a physical place: a market is simply a collection of buyers and sellers who exchange a good and thereby together determine its price. Markets facilitate the creation of wealth in an economy by providing a mechanism through which goods pass from sellers who value them less (essentially at the cost of their inputs), to buyers who value them more.

In competitive markets, economists typically represent the buyer side of the market with a demand curve like that in Figure 1 below. Here we assume that all buyers are too small to influence price themselves – we say that all buyers in competitive markets are “price takers”, they simply react to the actual price by deciding how many units to buy at that price. The demand curve gives the relationship between the price charged for a good and the quantity of that good that buyers would be willing (and are able) to purchase. We can illustrate an individual’s demand for some good with a demand curve like this, or we can add the demands of all buyers together to construct a

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4 Readers with some familiarity with basic microeconomics, particularly those aspects related to competition policy, may wish to skip ahead to the next section. Very good discussions of the basics of microeconomics useful for competition policy work can be found in a number of intermediate-level textbooks, such as that by Pindyck and Rubinfeld [2005].

5 For simplicity, from this point on, I will generally refer to “goods” rather than “goods and services” though I certainly mean to include services. In some cases there are interesting differences in the economics of typical goods and typical services (e.g. services – like a haircut – can often not be resold) but these differences will not be relevant for any of the discussion here.
market demand curve. By the “Law of Demand”, economists expect demand curves to slope downward: at higher prices, buyers will be willing to buy fewer units (other things being equal).

**Figure 1**

![Demand Curve Diagram](image)

When we are looking at an individual’s demand curve, we can see that the curve tells us what that individual is willing to pay for successive units of the good. For example, if at a price of $10 Bob is willing to buy 1 unit while at a price of $8 he is willing to buy 2 and at $7 he is willing to buy 3, we can see that the first unit must be worth at least $10, the second must be worth at least $8 but less than $10 (he bought it at $8 but would not buy it at $10), and the third must be worth at least $7 but less than $8. So moving down the demand curve, we can read Bob’s willingness to pay for successive units – his “marginal willingness to pay” for units of the good.
The same idea is true if we are looking at a market demand curve. If at a price of $10, there are 450 units purchased, we know that buyers as a group value 450 units at more than $10. If it would take a price reduction to $9.99 to sell 451 units, that 451st unit must have been worth about $9.99 to one of the buyers. Thus, the market demand curve tells us the market’s marginal willingness to pay for units of the good.

When a buyer is able to purchase a unit of a good for $6 for which he would have been willing to pay $10, he earns something akin to profit. Economists refer to this benefit as “consumer’s surplus” (and “consumers’ surplus” when we are talking about multiple consumers) – specifically, the difference between what a buyer would have been willing to pay for some quantity of a good and what he actually had to pay for that quantity. It is this surplus that is the consumer’s share of the wealth created by this market. We can illustrate consumers’ surplus on a graph of a demand curve. In Figure 2, consumers’ surplus associated with the purchase of 200 units of a good at a price of $6 is illustrated as the shaded triangle-shaped area. Since, at each unit of demand, the height of the demand curve tells us the highest value that someone has for that unit, the whole area under the demand curve up to 200 units would be the total willingness of these buyers to pay for 200 units of that good. When we subtract what they actually had to pay -- $6 multiplied by 200, or the striped rectangle -- consumers are left with surplus equal to that in the shaded triangle. If we knew exactly the equation of the demand curve, we could measure this surplus.\(^6\)

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\(^6\) For example, in Figure 2, the demand curve graphed is given by the equation: \(Q = 500 - 50P\). At a price of $6, the consumers’ surplus triangle will have an area equal to $400. For 200 units, then, consumers are willing to pay $1,600 but only have to pay $1,200.
Sellers also derive benefits from their participation in markets, and these are typically recorded as profits. Profits represent the difference between the revenues received by a firm from selling its goods and the full “opportunity cost” of the resources used to produce those goods. Opportunity costs include the real, out-of-pocket costs that the firm must pay for its inputs, but also the value of owned inputs contributed to production. Thus, if an entrepreneur contributes his own time to his firm, time which he could have used to make $100,000 working for someone else, this $100K must be considered a cost of his own business even though he may not have actually drawn such a salary.7 Importantly, a full measure of opportunity costs will include an allowance for a return to shareholders’ invested capital. If shareholders could have earned a return of

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7 Similarly, if a firm owns the building and land on which it produces its output, a real measure of the firm’s profitability must take into account the opportunity cost of the these assets which is measured as the revenue they could have generated if put to some other use.
10% in another venture with similar risk characteristics, then a return of 10% of the invested capital is part of the full opportunity costs borne by the firm.

“Economic profits” – which will not always correspond to accounting measures of profits -- are then defined to be the excess of revenues over the full opportunity costs of resources used in production. It is the pursuit of economic profits that will drive entry and exit decisions. When economic profits are positive we are saying that profits are above normal levels (i.e. above 10% in the above example) for the given risk. When they are negative we are saying that profits are below normal levels. Positive economic profits will then attract entry to these higher returns while negative economic profits (even if positive by accounting measures) will encourage firms to withdraw their investments to seek higher returns elsewhere.

In a competitive market each firm is too small to influence price; like buyers, we say that sellers are price-takers. Sellers observe the market price and simply decide how much they wish to supply at that price. We can then represent the supply side with a simple curve that describes the relationship between the market price and the number of units sellers are willing to supply at that price. Each firm, since it cannot influence price on its own, will simply choose to produce and sell output as long as the additional revenue generated by selling an extra unit (given by the price) exceeds the additional (opportunity) cost of producing that unit. Supply curves are typically drawn as upward-sloping, with the idea that higher prices will encourage higher levels of production. This is reasonable when it is believed that higher rates of production will push up the costs of adding additional output.\(^8\) In other cases, it may be reasonable to believe that the supply

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\(^8\) For example, efforts to expand agricultural output may compel the use of more marginal land that requires more labour and other inputs (e.g. irrigation, fertilization).
curve is flat (i.e. horizontal) -- in other words, that output can be expanded greatly without any increase in the marginal opportunity costs.\textsuperscript{9}

Supply curves can be illustrated graphically for individual firms or for the full set of sellers added together (i.e. market supply). Figure 3 illustrates the case of an industry supply curve in which, at a price of $4, the sellers are collectively willing to supply 300 units. The curve shows what the costs will be of producing each successive unit. The vertical intercept suggests that a price of about $2 will be sufficient to attract the supply of one unit, but that higher rates of outputs will demand higher prices to cover rising marginal costs. Market profits at this quantity will then be the difference between the revenues received ($1,200 in this case) and the opportunity cost of producing the 300 units given by the area below the supply curve up to 300 units. The shaded area in Figure 3, then, represents what is called “producers’ surplus” – essentially profits.\textsuperscript{10}

\textsuperscript{9} There is also a distinction to be made about the length of time given to suppliers to react to price changes. In the short run it may take higher prices to attract additional supply since existing firms may have little or no excess capacity. However, in the long run, the addition of new facilities by existing or new firms could allow for the expansion of output without the need for higher prices. In such cases we may see that the short run supply curve is upward sloping while the long run supply curve is flat (or at least flatter).

\textsuperscript{10} To be precise, some of the producers’ surplus may be what economists refer to as “Ricardian Rents” but this distinction will not be important for our purposes here.
Figure 3

To predict market price in a competitive market, we combine the demand and supply sides. This is done in Figure 4 for the curves we have been using here. Notice that where the two curves intersect, we find a price such that the quantity that buyers wish to buy exactly equals the quantity sellers are willing to supply (in this case, this is at a price of $4). There is balance or “equilibrium” at this price. At higher prices there would be more supply than demand (i.e. surpluses) which we would expect to depress prices. At lower prices there would be more demand than supply (i.e. shortages) which we would expect to push prices upward.
Figure 4

The competitive model therefore predicts the market price to be the one that balances demand and supply, and if we know both of these curves we can predict this price. We can also use the curves to see how surplus (i.e. wealth) is shared – the upper shaded area represents consumer benefits (consumers’ surplus) and the lower striped area represents producers’ benefits (producers’ surplus). Playing with the shapes of these curves a bit quickly reveals that the fraction of benefits going to buyers rather than sellers will depend on the relative steepness of the two curves.

When the supply side of the market is not perfectly competitive – as in almost any merger case that would be of interest to antitrust officials – it will not be appropriate to use a supply curve to illustrate sellers’ behaviour. However, we still commonly assume that buyers are individually small and powerless (i.e. still price-takers) and we continue to represent their tastes and behaviour with demand curves. In the extreme case of monopoly in which there is only one seller (or a group of sellers acting as one), the seller
is able to charge prices above competitive levels. Indeed, the seller essentially has the option to pick any point on the market demand curve she wants.\textsuperscript{11} The ability to raise price profitably above competitive levels is typically referred to as “market power” or “monopoly power”.\textsuperscript{12}

Economists like efficient markets because they generate the most wealth (total surplus) from any set of resources. There are three types of efficiencies that economists most frequently discuss:

(a) \textit{allocative efficiency} requires that the right quantity of goods are produced and that they are consumed by the right people (i.e. those who value them most);

(b) \textit{technical or productive efficiency} requires that whatever quantity of a good is produced, it is produced at the lowest opportunity cost; and

(c) \textit{dynamic efficiency} requires that the optimal level of technical progress is sustained, providing new and improved goods and production processes.

While issues of dynamic efficiency will occasionally arise in the context of merger review, discussions of allocative and technical efficiency typically dominate the discussion and will be my focus here.\textsuperscript{13}

Most mergers are completed for reasons that have nothing to do with market power. Firms will combine their assets and people in order to achieve things together they could not achieve separately. For example, higher rates of output possible post-merger could lead to lower unit costs if production processes exhibit “economies of scale”. In other cases, firms will possess complementary specialized assets that will improve their ability

\textsuperscript{11} It is commonly said that a monopolist can charge whatever price she wants but we must remember that even a single seller is constrained by the market demand curve. If she picks higher prices she will sell fewer units. At a high enough price she will sell nothing.

\textsuperscript{12} When mergers create market power on the buying side, we have the analogous problem of “monopsony power”. Here the concern is that buyers with considerable market power may be able to drive prices below competitive levels.

\textsuperscript{13} On incorporating the consideration of dynamic efficiencies, see, e.g. Gilbert and Sunshine [1995].
to offer consumers products they want at prices they can afford.\textsuperscript{14} Put another way, most mergers are about improvements to productive efficiency.

We recognize, however, that whether intended or not, some mergers have the potential to create market power, either for the merged firm itself or to be held jointly by the firms remaining in the market. When this happens there is a danger that prices will rise above pre-merger levels. Market power threatens all types of efficiency. For example, it will lead to a loss in allocative efficiency, as the higher prices will lead there to be fewer units produced and consumed in the market.

Losses in allocative efficiency can be easily illustrated, as with Figure 5. Here we draw a simple demand curve D and a flat unit cost curve at a level of $10. In this market, firms are capable of producing any number of units for $10 each. This flat cost curve (denoted AC for average cost) would be the supply curve of a competitive industry, thus the competitive price would be $10. Consumers at a price of $10 would collect consumers’ surplus equal to areas A + B + C. Assume now that there is only one firm in this market. The monopolist will not be satisfied with a price of $10, for she will make zero economic profits at that price and she can do better by raising her price. Suppose she raises her price to $15 and quantity falls from 100 to 80. Consumers’ surplus (the area under the demand curve but above the price) will now fall to be area A. Area B represents new profits for the firm ($5 per unit multiplied by 80 units) and so is a transfer from consumers to producers. Notice, however, that area C is surplus that is now not going to anyone, buyer or seller. Total surplus in this market has fallen from A+B+C to simply A+B. Area C is lost to the economy -- a loss we refer to as “deadweight loss”. It

\textsuperscript{14} For example, manufacturers in a number of industries have purchased key input suppliers as a means to assure themselves adequate supplies of important inputs and to give them a greater ability to monitor quality and design decisions.
is lost because the higher price reduced consumption below the efficient level (in this case 100 units).

**Figure 5**

![Diagram showing market power implications](image)

Mergers that create market power may also have additional implications for productive efficiency.\(^{15}\) There is theory and some empirical evidence that suggest that firms in less competitive markets may be less productively efficient. They may suffer from what has been called “X-inefficiency” which occurs when a lack of competitive discipline leads firms to be less aggressive in minimizing costs, with the result that their cost curves creep upward.\(^{16}\) It has also been suggested that, in some cases, firms will expend unproductive (from society’s standpoint) resources in an attempt to secure or maintain market power.\(^{17}\)

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\(^{15}\) In practice, the concern over market power in merger cases has virtually always focused on the potential for a loss in allocative efficiency. The other costs of market power mentioned here have not really found their way into merger review, in my experience, but they are certainly part of what we teach our industrial organization students when we are studying the social costs of monopoly power.

\(^{16}\) The classic reference is Leibenstein [1966]. In a related way, it is sometimes argued that a merger creating market power will reduce the drive to innovation and in this way will damage dynamic efficiency. Of course, in some cases, the whole purpose of the merger is to stimulate research and development (e.g., by combining two labs with complementary skills) and enhance dynamic efficiency.

\(^{17}\) See, e.g., Posner [1975].
Merger review is then, in most cases, about evaluating three effects. First, will the merger create market power that could lead to higher prices and allocative efficiency losses? Second, will the merger improve or damage productive efficiency? Finally, if the merger does lead to market power and higher prices, what redistribution of surpluses will be brought about?  

In Canada, the first hurdle in a merger review is to establish whether a proposed transaction could lead to a substantial lessening of competition (i.e. losses in allocative efficiency). Most of the steps in merger review discussed in the next subsection are related to the need to establish the potential for price increases post-merger. While productive or technical efficiencies may be considered briefly at an early stage (perhaps because they are the proffered motive for the merger), a full analysis of these efficiencies is undertaken typically only after the Bureau is concerned that there may be an SLC.

IV. The Stages of Merger Review and the Role of Economics

Virtually every step of the merger review process will involve some amount of economic analysis. As I walk through them briefly here, my purpose is not to explain everything economists know about each step. Rather, it is to take the reader through the basic process of merger review and to illustrate along the way how economists can help –

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18 If our concern is only with providing the conditions under which markets generate the maximum total (i.e., consumers’ plus producers’) surplus, then this third effect will not be relevant.
19 Market power will often present itself in the form of higher prices, but in some cases it may take other forms such as lower quality or reliability of the product, less timely delivery etc. For simplicity, I will continue to refer to market power as leading to higher prices, but the reader should recall that these other effects are possible.
20 In her recent speech to the Canadian Bar Association Annual Fall Conference on Competition Law (September 28, 2006), the Commissioner indicated her interest in having parties bring forward their efficiency arguments early, and that the Bureau did not see early efficiencies arguments from the parties as an admission on their part that the merger would be anticompetitive. The speech can be found at: http://www.competitionbureau.gc.ca/internet/index.cfm?itemID=2201&lg=e.
where we have theoretical and empirical tools that can contribute positively to the process. To be systematic about this myself, I will proceed here according to the “Parts” of the 2004 MEGs.

MEGs PART 1: Is it a Merger?

The MEGs begin, quite properly enough, by explaining the Bureau’s views as to just what kinds of transactions/agreements constitute “mergers” for the purposes of the Act and these guidelines. Citing section 91 of the Act, in paragraph 1.1 of the MEGs mergers are defined as:

“… the acquisition or establishment, direct or indirect, by one or more persons, whether by purchase or lease of shares or assets, by amalgamation or by combination or otherwise, of control over or significant interest in the whole or a part of a business of a competitor, supplier, buyer or other person.”

Paragraph 1.5 of the MEGs explains that “significant interest” to the Bureau implies that the acquirer obtains the ability to “materially influence” the economic behaviour of the other business.

While, in most merger cases, it is clear to all that two firms which had previously made decisions independently are being combined into one, in other cases it is less obvious -- for example, when one firm acquires a minority position in a rival or when firms enter into joint ventures to combine some but not all of their assets. From the standpoint of a competition review, the key will be whether or not the transaction threatens to create market power. Economists, some of whom study the inner workings of organizations and individual and group incentives, can be helpful in determining how the transaction may influence the incentives of the parties (and their rivals) to compete going forward.

Depending on the nature and terms of a joint venture agreement between two firms, for
example, the partners may or may not continue to compete aggressively. Economists studying those terms and the degree of information shared by the partners will often be able to form an opinion about the degree to which the joint venture reduces the independence of the decision-making of the partners with respect to the relevant market.

**MEGs PART 2: The Anticompetitive Threshold**

This part of the MEGs makes the point that a merger can do harm today and/or into the future, and that the totally of its harm to competition should be considered in merger review. In some cases this harm is essentially immediate, as when the merger instantly reduces the amount of competition in a relevant market resulting in higher prices. If this harm is significant enough we have the “substantial lessening of competition” (or “SLC”) condemned by the Act. In other cases, however, the merger may not have an immediate impact on the level of competition in a market but it may harm competition in the future by impeding the development of new sources of competition. If significant enough, this is referred to as a “substantial prevention of competition” (or “SPC”), which is also condemned by the Act. An SPC would arise, for example, when a likely entrant to a market is acquired by a major player currently operating in the market. But for the acquisition, the market would have become more competitive – hence the transaction has prevented the emergence of greater competition.21

As concerns regarding the potential for an SLC arise much more frequently than those regarding the potential for an SPC, it is common in informal conversations and discussion

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21 If, absent the transaction, the market is expected to become less competitive in the future – perhaps because one of the merging firms was about to fail and exit the market -- we have a different sort of complication, discussed below under MEGs PART 9.
to use the term SLC rather loosely to refer to both, but obviously this should be done with some caution.

The MEGs provide some guidance regarding what it takes to meet the “substantiality” test. The lessening or prevention will in general be viewed as substantial where the price would be materially greater then it would have been in the absence of the merger and the material price increase is not likely to be eliminated by existing or new competitors within two years. The MEGs do not suggest a particular percentage price increase that is just “material”, but rather indicate that this judgment will vary market by market. This sensitivity to market conditions recognizes that in some markets in which margins are low but volumes are high, even a very small (in percentage terms) price increase could have large effects on profits and consumers’ surplus.

**MEGs PART 3: Market Definition**

Since our central interest in a merger review is on the potential for the merger to create market power leading to higher prices, we need to know where price comes from. That is, we cannot predict the effects on price without some “model” of how prices are determined. It is standard practice, then, to begin by defining the markets that are of concern. Once we understand which buyers and sellers determine a price, we will be in a better position to ask how the merger will affect the outcome.

Most modern antitrust agencies use some variant of the “hypothetical monopolist” test as a way to define markets. It is an approach that focuses on the potential for the exercise of market power. As expressed, for example, in the MEGs, this test defines
relevant markets by reference to the smallest set of players who could jointly exert market power.\textsuperscript{22}

“3.4 Conceptually, a relevant market is defined as the smallest group of products, including at least one product of the merging parties, and the smallest geographic area in which a sole profit-maximizing seller (a "hypothetical monopolist") would impose and sustain a significant and non-transitory price increase above levels that would likely exist in the absence of the merger. In most cases, the Bureau considers a five per cent price increase to be significant and a one-year period to be non-transitory.”

As suggested in this extract from the MEGs, there are two key dimensions to a relevant market: the product dimension and the geographic dimension. With respect to products, the question is what set of products are so clearly substitutable that their prices are, in fact, determined together and are linked so intimately that an increase in one will drive large numbers of consumers to switch to the other.\textsuperscript{23} What products are close enough substitutes that they belong in the same relevant market? For example, recently the Bureau had to consider whether wireless telephony belonged in the same market as traditional wired-service telephony.

The geographic market question is about determining over what geographic area a particular price applies: when are two neighbourhoods, cities, provinces or countries in the same geographic market for the sale of a particular good? In some cases, prices are determined by largely local conditions (e.g. housing, haircuts, restaurant meals). In others, prices are more regionally-based (e.g. some telecommunications services appear

\textsuperscript{22} This is sometimes referred to as the “SSNIP” test for market definition: would the hypothetical monopolist profitably impose a “Small but Significant Non-transitory Increase in Price”?

\textsuperscript{23} Occasionally, products are used together so commonly (then called complementary goods) that consumers effectively purchase them together as a package, suggesting that the price of the package is the relevant price in the market. In such cases the product market may include the set of products consumed together.
to be priced provincially or regionally), and in still others, prices are determined on a national or even international basis (e.g. most commodities).

While simple enough to state, the implementation of the hypothetical monopolist approach to market definition requires a great deal of economic analysis. Economists will gather data on prices and quantities of various goods in various places and look for evidence of substitution between products and areas that is indicative of larger markets.

There are a number of sophisticated econometric techniques available to assist in the process of defining markets, many of them variants of price correlation tests which look to see the extent to which prices of two products (for product market definition) or in two different areas (for geographic market definition) move together over time. Close movements of two prices suggest they are determined jointly and that the products or areas they represent may belong in the same market. But this is work that must be done carefully, because high correlations may have their roots in conditions other than a common market and the analyst must be prepared to consider alternative explanations for any observed correlations.

Economists will frequently try to measure demand elasticities to get a sense of how readily consumers will leave a product if its price increases. Elasticities describe the sensitivity of quantity demanded to changes in prices. A product’s “own-price elasticity of demand” tells us how large (in percentage terms) a reduction in demand for a product will be observed after a one percent increase in its price. If the demand elasticity facing a particular hypothetical monopolist is large, price increases will not be profitable, and this may mean that the market must be expanded to include the best substitutes to which consumers would turn. The “cross-price elasticity of demand” between products X and Y
measures how large (in percentage terms) an increase in demand for product X will be observed after a one percent increase in the price of product Y. Thus the size of the cross-price elasticity of demand between two products is a measure of how good a substitute one is for the other. This information can be useful in deciding which products to add as the hypothetical monopolist is constructed.

While every merger review of which I am aware has included a stage in which the relevant market is defined, I do want to note that there is a school of thought that suggests market definition (at least as done with the hypothetical monopolist test) may not always be necessary. Those who advocate the simulation of mergers as a way to predict their effects have presented techniques which do not require that a sharp line be drawn between who is in and who is out of the market. I will come back to this briefly below.

**MEGs PART 4: Measurement of Market Shares and Concentration**

Once we have defined our relevant market, we can begin to determine if the conditions post-merger will be right for the exercise of market power, either by the merged firm acting alone (unilateral market power) or through the combined efforts of sellers (coordinated effects). Typically, the next step is to determine how concentrated the relevant market is and how large a share the merged firm will have.

A first step here involves identifying which firms participate in the relevant market as defined. This will certainly include any firm currently selling into that market, but it may also include firms which would, in response to price increases, divert sales into this market from other markets. This is termed participating in the market through a “supply response”. There are pretty stringent conditions to be satisfied before a firm currently not
selling in the market will be considered to be part of that market; these essentially require that this diversion be very easy and immediate. If entry is less easy and not expected to be immediate, the firms will not be considered as part of the market, though their potential to limit the exercise of market power will be considered later in the process (under “conditions of entry”).

Once the participants in the relevant market have been identified, analysts (possibly economists) will use data collected from the parties or outside sources to determine the total sales in the relevant market and the sales made by each of the firms.\textsuperscript{24} Then, it is usually a simple matter to calculate market shares for each firm, including the combined share of the merged firm.\textsuperscript{25} Concentration in a market is measured by economists in a number of ways. The MEGs make reference to the familiar four-firm concentration ratio (CR4) which is simply the sum of the four largest market shares. The United States’ agencies make use of the Herfindahl-Hirschman Index (HHI), which is the sum of the squares of all market shares.\textsuperscript{26} Economists can explain the significance of various levels of these measures. They may also suggest that shares be calculated based on something other than most recent sales levels. For example, they may suggest five-year average sales as a more representative measure of a firm’s size, or they may suggest using

\footnotesize{\textsuperscript{24} It must be said that the availability of data will sometimes influence market definition for the purposes of a merger review. For example, sales data may come at a provincial level when it appears that, in practice, geographic markets are something smaller than provinces. In such a case, a judgment must be made as to whether the use of provincial data is a reasonable substitute for the more correct but unavailable local data. Here again, the views of economists will be very helpful.}

\footnotesize{\textsuperscript{25} If a firm does not currently sell in the relevant market but is determined to be a participant through a likely supply response, its share is determined based on the likely output or capacity made available to the relevant market.}

\footnotesize{\textsuperscript{26} For example, assume that in a given market, in descending order of size, firms’ shares are 45%, 30%, 15% and 10%. The HHI would be given by: HHI = 45^2 + 30^2 + 15^2 + 10^2 = 3250. The HHI measure can range in value from near zero when there are very large number of firms, each with tiny market shares to 10,000 when there is a single firm with a 100% share. (Some practitioners will enter market shares as decimals in which case, in this example, we would have: HHI = 0.45^2 + 0.3^2 + 0.15^2 + 0.1^2 = .325. Measured this way the HHI can range from 0 to 1.)}
capacity shares or shares of physical units of output (rather than dollar sales). In certain circumstances, each of these possibilities will merit consideration.

In one of the most important parts of the MEGs, the Bureau provides guidance as to what levels of concentration are so low as to not, in general, provide sufficient conditions for the Bureau to be concerned about the possible exercise of market power. Because the Bureau is concerned about market power deriving from two sources (as described more fully in PART 5), there are two “safe harbour” thresholds provided in paragraph 4.12 of the MEGs:

(i) the Bureau will not, in general, be concerned that the merged firm itself will have sufficient market power to raise price\(^ {27} \) if it has a market share less than 35% post-merger; and

(ii) the Bureau will not, in general, be concerned that the merger will lead to a reduction in competition due to the coordinated exercise of market power (by the merged firm in combination with at least some other firms in the market) when the post-merger CR4 in the relevant market would be less than 65% or the post-merger market share of the merged entity would be less than 10%.

The articulation of these safe-harbour thresholds has helped to make the market definition exercise critically important in many cases. Merging parties will frequently argue for expansive market definitions that make the share of the merged firm and general level of concentration low enough to fall within the safe-harbour bounds.

\(^{27}\) This is referred to as a concern about a “unilateral” exercise of market power as described further below.
MEGs PART 5: How could competition be harmed?

(i) Analysis of the potential for unilateral market power effects.

In virtually all merger cases, it is necessary to specify the way the merger will lead to anticompetitive effects – that is, to develop a theory of the harm. As is recognized in the MEGs, there are essentially two mechanisms through which a merger can create market power. In the first, a merger may create a firm large enough that it can profitably raise price on its own, even if its rivals do not cooperate in any way with its price increase. This is referred to as a unilateral market power effect. In the second, a merger may create conditions throughout the market such that the firms in the market may begin to compete less aggressively. They may collude explicitly or their agreement to relax competition could be tacit, arising largely from a mutual recognition of their interdependence.

Discussions of this second mechanism then refer to concerns over “coordinated effects” or “interdependence”.

Economic theory describes a number of scenarios under which the danger of unilateral market power effects is particularly great. An economist will sort through those theories, adapt them to the relevant market, and draw conclusions as to whether the dangers are real and significant. For example, unilateral market power effects are more likely when: (1) the market share of the merged firm is larger; (2) firms other than the merged firm have limited excess capacity; and (3) the merging firms were previously each other’s best substitute.

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28 Ross and Baziliauskas [2000] consider the theories of unilateral market power effects and interdependence as they apply to the review of mergers.

29 Let me explain this with an example. In a market in which there are five different breakfast cereals that differ in only sugar content, each consumer will select her preferred brand based on how much sugar she would like in her cereal. Different consumers will have different views about the ideal amount of sugar, with the result that, if they all charge the same price, each brand will serve those consumers for whom its sugar content is closest to their ideal. In such a market, a merger of the two sweetest brands will likely
Economists can also bring to the study of unilateral market power some important empirical tools. A relatively recent addition to this toolkit has been merger simulation. This is an exercise in which – as its name suggests – the analyst predicts the impact of a merger by creating a model of the industry (using some economic models of how oligopolists behave and data on the particular market at issue) and then using it to generate new prices that would be obtained if any number of firms merged.\footnote{Merger simulations have been employed for a number of years in American antitrust cases and have recently been prepared in only a few Canadian matters (to my knowledge). They are typically difficult, time-consuming exercises in which sometimes heroic assumptions need to be made to generate predictions.} Merger simulations have been employed for a number of years in American antitrust cases and have recently been prepared in only a few Canadian matters (to my knowledge). They are typically difficult, time-consuming exercises in which sometimes heroic assumptions need to be made to generate predictions.

\textbf{(ii) Analysis of the potential for market power created via coordinated effects}

Even when there is not a concern that the merged firm will be able to exercise unilateral market power, we might worry that the merger will create conditions such that the remaining firms might be able to come to an understanding – explicit or tacit – to restrain competition. The economic theory of cartels -- much of it building on the seminal work of Stigler [1964] -- has provided us with some understanding of the conditions conducive to cooperation among rivals, and in antitrust today we typically apply this theory whether we are worried about explicit or tacit collusion.\footnote{Stigler’s model focused on three have a greater competitive impact than a merger of the sweetest and the least sweet brands. This is because the two sweetest brands are more intensely competitive with each other (they are fighting for many of the same consumers). A merger removes this intense competition and allows them to both raise price. The sweetest and least sweet brand, on the other hand, are likely not influencing each other’s price much at all, so a merger of these brands will have a much less significant effect. Shapiro [1996] proposed a simple model to estimate the effects of a merger in differentiated products markets based on how closely substitutable were the combined products in question.} Stigler’s model focused on three

\footnote{See, e.g., Werden and Froeb [1996], Hausman and Leonard [1997] and Overstreet et al. [1996].} Stigler’s theory has been usefully augmented through contributions from game theorists.
problems that cartels have to solve if they want to be successful: (i) they must be able to come to an agreement; (ii) they must be able to monitor the agreement; and (iii) they must be able to punish cheaters. The conditions the theory puts forward relate to factors that make addressing each of these problems easier or harder.

The theory has been generous in its contributions to antitrust – too generous perhaps. From the Stigler work, and that which followed, we now have a rich set of conditions (a “laundry list”, it has been called) that facilitate interdependence and raise the prospect of collective market power being created. I will not repeat or explain the full list here, but to give readers an idea of the kinds of factors that are included, coordinated effects are more likely: (1) in more concentrated markets; (2) the more homogeneous are the products sold by rivals; (3) the more stable are costs and demands; and (4) the more information firms have about their rivals (especially their rivals’ prices).

The Bureau has shown an increasing interest in recent years in evaluating the potential for market power created through coordinated effects so it has become very important for merging parties to be prepared to go through this list of conditions as they make their case (and try to anticipate the Bureau’s concerns). The challenge, for the Bureau or anyone else, lies in answering two questions:

(i) What conditions are necessary and what sets of conditions are sufficient for there to be a real danger of creating market power through coordinated effects? Put another way, are all the conditions equally important or, perhaps, are some necessary and others not?

(ii) What does the merger change such that market power through coordinated effects is more likely post-merger than before?
As with the conditions that support unilateral market power, a careful analysis of coordinated effects should be completed by an economist with the skills to bring the established theory to the data from the relevant markets.

A relatively more recent development in the antitrust treatment of coordinated effects has involved consideration of the potential for a merger to create market power by removing a “maverick” firm. Both the U.S. and Canadian merger guidelines anticipate that “mavericks” might be an issue, and recent cases in both countries have involved potential mavericks.

A maverick is a firm that has a disproportionate and positive effect on competition in a market; a firm that is less inclined to cooperate with other firms, resisting efforts to increase market prices and leading price decreases. Both the American and Canadian merger guidelines recognize the potential role mavericks play in stimulating competition and they define them similarly. The Canadian MEGs explain the importance of mavericks (and define the term) as follows:

“5.31: Pre-merger, effective coordination may be constrained by the activities of a particularly vigorous and effective competitor (a “maverick”). An acquisition of a maverick may remove this constraint on coordination by reducing incentives to behave in an aggressive manner. Such an acquisition increases the likelihood that coordinated behaviour will be effective. [Footnote 75: A maverick is a firm that has a disproportionate incentive to deviate from coordinated behaviour. For instance, such a firm may realize greater gains by deviating or may be less susceptible to punishment mechanisms if its cost structure is lower than its rivals.]”

In a similar way, the American merger guidelines describe mavericks as firms with “a greater economic incentive to deviate from the terms of coordination than do most of their rivals (e.g., firms that are unusually disruptive and competitive influences in the
market).” (paragraph 2.12). There are a number of conditions that may make a firm a maverick, but the key is that there is something different about the firm that leads it to adopt different and more competitively aggressive strategies than its rivals. It could be that it has lower costs, a different technology, that its product is of a distinctly different quality or simply a different “culture”.

If it is true that competition in many markets is largely driven by one or a very small number of firms, it becomes very important to understand the implications of any proposed merger for these mavericks. Most obviously, when a transaction involves the acquisition of a maverick by a larger, traditional firm, the market stands to lose this force for competition. Conversely, if a market has a maverick, but the contemplated merger involves other firms, the implications for competition in the market may be minor. Mergers can work other effects through mavericks as well. For example, a merger involving a maverick might strengthen that maverick’s position, for example by adding additional excess capacity with low variable costs. A merger could weaken a maverick if it facilitates punishments by its rivals. Finally, a merger can create a maverick where one did not exist previously.

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32 United States [1992, partly revised 1997].
33 To assess the impact on a maverick, one needs first to be able to identify the maverick. This is not easy, and is another place in which the services of an economist are typically required. Baker [2002] is a leading resource on this question.
34 This very possibility was argued in the Heinz and Beech-Nut merger in the U.S. where the merging parties argued that the proposed transaction would create a maverick that would be more likely to compete aggressively against industry leader Gerber. Baker [2002] discusses this case at 182-185. The case is from 2000/2001. At the time of the case, Gerber had a market share of at least 65%, Heinz’s share was about 17.4% and Beech-Nut’s share was about 15.4%. While we have had less case experience with arguments about potential mavericks in Canada, the recent acquisition of Microcell Telecommunications Inc. (owner of the Fido brand) by Rogers Wireless Communications Inc. presented an opportunity to consider these questions. The Technical Backgrounder published by the Bureau on its website describes many of the Bureau’s findings with respect to this case and includes discussions of market definition, market shares and unilateral market power effects. Significantly, it also reveals that the Bureau seriously considered the possibility that Microcell was serving as a maverick in wireless telephony markets. See Canada [2005].
To some extent bypassing tricky theoretical questions about the mechanisms through which competition is harmed, economists have, in a number of cases, conducted empirical tests on the potential for a lessening of competition that do not depend on the mechanism. For example, a comparison of markets similar to the relevant market but with fewer firms might indicate whether the reduction in the number of firms is likely to lead to price increases. Similarly, studies of the effects of recent mergers in similar markets might provide guidance. In these cases, the empirical results do not generally allow us to know whether it was unilateral market power or coordinated effects that led to higher prices – it will just tell us that a reduction in the number of firms is associated with price increases. A famous recent example of this approach was the work by the U.S. FTC in its review of the Staples-Office Depot merger where the Commission economists compared different geographic markets to see if the number of office supply superstores in a city had an impact on prices.35

**Evaluation of pre-existing market power**

In some cases, the determination of whether or not there is market power before a merger will be important, for at least two reasons. First, if there is pre-existing market power, we know that conditions to support market power in this market are already “good enough”. This does not assure us that the merger will make things worse, but an economist may make the case that there would be considerable harm in allowing merging firms to “lock in” their market power through merger.

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35 This was partly done as a market definition exercise to show that “office supply superstores” were a relevant market without including other suppliers of office supplies. See, e.g. Dalkir and Warren-Boulton [1999].
Second, if there is market power pre-merger, prices are already above competitive levels. This makes further reductions in output, which might follow an anticompetitive merger, that much more socially damaging.\textsuperscript{36} For this reason, the Bureau might want to be particularly careful about allowing mergers in such markets.

Determining whether or not there is market power being exerted in a market is simple in theory – we can compare current prices or profits to competitive prices or profits – but famously difficult in practice. The difficulties arise largely from the challenges associated with measuring true economic (i.e. opportunity) costs and profits.

This said, economists can often provide some information that is valuable. They may look at prices or estimated margins and compare them to prices and margins for the same products in other geographic areas, being careful to allow for local cost differences. They may also be able to track changes in prices over time within the relevant market, particularly after specific events such as previous mergers or the entry of new firms.

\textit{MEGs PART 6: Evaluation of the Conditions of Entry}

Economists in general believe that there are two conditions necessary before we need fear that a merger will create market power. The first is that the market is concentrated – with large numbers of individually small firms we do not expect market power.\textsuperscript{37} The second

\textsuperscript{36} Let me explain this briefly. In competitive markets we expect prices to be very close to marginal costs (the extra costs associated with making an additional unit). If we start at a competitive situation and withdraw one unit of output from the market, the loss of consumer value which is given by the price (since that is what some consumer was willing to pay for that last unit) is just about equal to society’s resource savings from not producing the last unit. So the overall effect of a small decrease in output starting from a competitive position is fairly small. However, if we begin from a situation in which price is already well above marginal cost, even the reduction of output by just one more unit will have a real social cost since the resource savings (marginal costs) are now less than the lost value (price).

\textsuperscript{37} It is not impossible for large numbers of firms to collude explicitly or implicitly. Indeed, there have been examples of cartels with large numbers of members. However, absent information suggesting there was collusion in the past, we generally view this as so unlikely as to not deter us from using low levels of concentration as a filter for dismissing concerns of market power in such mergers.
is that there be important barriers to entry that would prevent (or slow) the entry of new sellers into a market in which prices had just been increased. Absent such barriers, firms will face potential competition from outsiders which will prevent them from increasing prices. The various barriers to entry identified in the literature can be placed into roughly three categories; (1) those that represent basic structural conditions of the industry; (2) regulatory barriers which represent constraints imposed by governments; and (3) behavioural barriers, which are barriers erected by incumbent firms to discourage entry. While I will not survey the theory and evidence associated with barriers to entry, let me simply list a few of each type as illustrations.

Potential *structural barriers* include:

- High levels of sunk costs relative to the prospective profits from successful entry;\(^{38}\)
- Significant economies of scale that make entry at small scale very costly;\(^{39}\)
- Switching costs which make it difficult for customers to adapt to an entrant’s alternative offering;
- Large capital requirements for entry at efficient scale;\(^{40}\) and
- Absolute cost differences in the favour of the incumbent that make it impossible for the entrant to produce at as low a cost.\(^{41}\)

\(^{38}\) Sunk costs represent investments that will continue to benefit the entrant as long as it stays in the market but which will be lost should the entrant decide to exit. Expenditures on a purpose-built building or piece of capital equipment that has no value outside the relevant market would be an example. Since the entrant cannot recover these costs in the event of exit, they can represent a significant risk.

\(^{39}\) Economies of scale arise in a production process when the average costs (unit costs) of production fall with increasing rates of output. In an industry in which these economies are very pronounced, small firms will have much higher unit costs than larger firms.

\(^{40}\) It can be difficult to raise large amounts of capital even for very good projects when capital markets are imperfect due to imperfect information.

\(^{41}\) For example, an incumbent mining operation may have access to superior (i.e. richer and/or more accessible) mineral deposits than those available to prospective entrants.
Regulatory barriers are those actions by governments that directly or, sometimes indirectly, impede entry. Direct actions with this effect include the establishment of intellectual property protections (e.g. patents, copyrights etc); licensing requirements for certain professions (e.g. doctors) or services (e.g. taxis); tariffs and quotas on imports; quotas issued as part of a government supply-management program and zoning restrictions. Barriers may be erected in an indirect fashion when a government policy imposes higher costs on entrants than incumbents, as in the case of environmental regulations under which new standards are imposed immediately on entrants but with a long phasing-in period for incumbents.

Finally, behavioural barriers are impediments erected through the conscious actions of incumbent firms. These may include:

- Predatory pricing against entrants;
- Deliberate creation of switching costs;\(^{42}\)
- Bundling or tying of products together;\(^{43}\)
- Long term contracts with customers; and
- Exclusive dealing arrangements with key suppliers or customers.

Entry will discipline price increases if it is “likely, timely and sufficient in scale and scope” (MEGs paragraph 6.2). With respect to timeliness, the MEGs indicate (at 6.3) that “the beneficial effects of entry on prices in this market normally must occur within a two-year period.” With respect to the sufficiency of the entry, the MEGs make it clear

\(^{42}\) It has been argued, for example, that airline frequent flier programs (FFPs) make it more difficult for entrants to get travelers to switch airlines as they risk stranding their accumulated FFP benefits.

\(^{43}\) For example, it has been argued that Microsoft’s tying of its internet browser to its operating system (i.e. customers had to buy the products together) makes entry more difficult for alternative producers of internet browser software.
that the entry must be of sufficient scale and scope to eliminate a material price increase and that entry into niche markets may therefore not be viewed as sufficient (6.7).

One of the tasks most commonly given to economist experts in merger review, in my experience, has been to provide views about the height of barriers to entry. These views are then typically combined with the views of industry insiders to establish a position on the likelihood that entry will control price increases.

The economist’s work here can be a very time-consuming exercise if it requires that he/she review the long list of potential barriers in the literature and assess the relevance of each to the current case. Given that the subject market is likely to be quite highly concentrated (or there would no case at all), there is a good chance that there are significant barriers, and in most cases there will be one or two barriers that readily present themselves based on information from industry insiders. While there is no precise way to measure the height of barriers to entry, evidence that there has been no (or very little entry) in recent years, combined with the identification of one or a few significant barriers supported by industry views that these barriers are critical, may be enough to convince the economist that the second necessary condition is met.

**MEGs PART 7: Countervailing Market Power**

In one of the shorter sections of the MEGs, the Bureau makes the point that in many markets large buyers may have sufficient power of their own that they can successfully resist price increases post-merger. In a number of mergers involving

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44 While I will not review here the extensive literature on barriers to entry and how it relates to the review of mergers, I have written some on this topic before. See, e.g., Ross [1993 and 1999]. An excellent review of barriers to entry can be found in Geroski et al [1990].

45 It certainly is possible that there can be high levels of concentration but still lots of entry and exit. Thus, high levels of concentration do not guarantee the existence of barriers to entry.
producers of grocery products, for example, the power of the large retail grocery chains in Canada has been acknowledged as a useful protection against the exercise of market power post-merger.

Quite correctly (in my view), however, the MEGs also make it clear that buyers – even large ones – must have viable and credible options to use to gain leverage in their negotiations with suppliers. Of course, there are often options available to large customers that would not be available to smaller firms, for example large buyers may be able to vertically integrate to provide the products to themselves, or they may have a sufficient volume of purchases that they can guarantee enough demand to induce new entry or expansion by smaller suppliers.

Careful economic analysis of the buyers’ markets can be very helpful in establishing the extent to which they may be able to resist attempts to raise the prices they face post-merger. The question remains, however, whether the countervailing power of a few big buyers will serve to protect smaller buyers as well. If economic conditions in the market are such that sellers can discriminate in price between large and small buyers, the Bureau may remain concerned that the merged entity may be able to exercise market power in a substantial part of the market. (7.3)

**MEGs PART 8: Efficiencies**

Most often, merging firms will anticipate that, by combining their operations, certain “economies” or “synergies” will be realized. To the extent that these represent true resource savings to the economy, it is appropriate that they be factored into decisions made to permit the transaction to proceed or to block the transaction. There are a number of ways the consideration of efficiencies can make its way into merger review in
Canada. Most obviously, Section 96 of the Act provides for an efficiency exception, available to the parties in the event that it has been determined that the merger will lead to an SLC/SPC. Efficiencies may also be considered (though to a less detailed extent) earlier in merger review when they speak to the parties’ motive for the merger.

No matter when efficiencies are to be considered, it will be important to have economists (on both sides) review the claims made by merger proponents. The claimed efficiencies must be seen to be attainable (i.e., not just “wishes”). Further, to count in merger review, they must be attributable to the merger (and not something the firms could do independently without the merger); and they must represent real resource savings and not merely transfers between one part of the economy and another.

As we have seen, a merger that creates market power can redistribute surplus between market players. The higher prices lead to consumer harm equal to the increase in price paid for units still purchased, plus the foregone surplus from units now not purchased due to the higher price (areas B and C respectively in Figure 5). While the loss of area C to consumers is a loss to society as a whole (since it does not flow to anyone else), area B is a pure transfer: the lost consumers’ surplus in B here has become new producers’ surplus (profits). As discussed, efficiencies which lower fixed or variable costs of the merged firms represent another source of wealth to the economy and must be counted in any full evaluation of the social costs and benefits of the merger. Let us refer to the amount of the efficiencies as E.

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46 Obtaining the views of industry experts who understand the technology in use and its potential is usually very important as well.

47 For example, a merger that allowed one firm to take better advantage of the other’s losses for tax purpose will save the combined firms money (so they may call it an efficiency) but these savings come at the expense of tax revenues collected.
In order to be able to pronounce on which mergers may proceed and which may not, merger law and policy must decide how to combine all these factors into a decision-rule. Until the recent *Superior Propane* case, most observers were of the view that the Bureau had adopted a total surplus rule. Such a rule permits mergers that raise total surplus – in the example, this would arise if E was larger than C; B would be ignored because it was just a transfer. Mergers for which E was smaller than C would be blocked.\(^{48}\) Other possible rules include a “price standard” under which no merger would be allowed if it was expected to lead to higher prices (i.e. a positive B+C), regardless of the size of efficiencies, and a weighted-surpluses rule which directs enforcement officials to treat the surpluses earned by some parties differently from surplus earned by others; for example, to give consumers’ surplus more weight than producers’ surplus.

The *Superior Propane* case has sparked a lively debate, not only about what the real standard in Canada is today under the *Act*, but also about what the standard should be. Economists have been active participants in this debate, providing guidance as to the implications of adopting one rule over another and the technical difficulties associated with implementing the various rules.\(^{49}\) Going forward, in the review of actual cases, economists will be needed to help implement these rules, though there will be more work associated with some rules than others. Under a total surplus rule, economists must measure the size of C and E, but they do not have to worry about different weights. If a weighted-surpluses rule is adopted, transfers between various groups must also be measured. And if the weights depend on the income of the various parties, as well they might (e.g., greater weight may be put on losses suffered by those in lower income

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\(^{48}\) This is essentially the approach described in Williamson’s [1968] famous article.

\(^{49}\) Ralph Winter and I review a number of the issues and refer to much of the literature in Ross and Winter [2003 and 2005].
brackets), economists will need to apply data on consumption patterns by income class to build up the weights appropriate to the specific case.

The new version of the MEGs provides a little more detail about how the Bureau contemplates performing a trade-off analysis. Paragraph 8.18 of the MEGs, referring to *Superior Propane*, reminds us that

Subsection 96(1) requires the efficiency gains to be balanced against “the effects of any prevention or lessening of competition as a result of the merger or proposed merger”. The effects to be considered are not limited to resource allocation effects and include all the anti-competitive effects that are likely to arise from a merger, having regard to all of the objectives of the Act.

The MEGs go on to indicate that effects of interest for this purpose would include price effects; redistributive effects; reduction in service quality or choice; loss of productive efficiency; and loss of dynamic efficiency. It goes almost without saying that economists should play a role in the assessment and measurement of all of these effects.

**MEGs PART 9: Failing Firm**

When a firm is failing and its exit seems virtually certain, it is not unusual for it (or at least its assets) to be acquired by one of its competitors. To some extent this will simply involve the efficient reallocation of resources from a firm that will no longer be able to use them to one that can. In such a case, it may seem inappropriate for a competition agency to intervene in the transaction on the theory that the competitor was going to leave the market anyway, so how can the acquisition be seen as preventing or lessening competition?

This section of the MEGs provides guidance as to how the Bureau reviews “failing firm” acquisitions. It defines failing firm and explains what data the Bureau will
need to help it evaluate the true likelihood of failure. In my experience, the Bureau has frequently employed economists and (likely more often) finance/accounting experts to provide it with guidance as to the continued viability of the target firm.

The MEGs also make it clear that the Bureau will not accept failing firm arguments under some circumstances. If it believes that, absent the proposed transaction, the firm would be acquired by a “competitively preferable purchaser” or would undergo a retrenchment or restructuring that permits it to continue to operate and provide competition in the relevant market, the Bureau will be unlikely to accept the failing firm rationale. The Bureau may even require that a third party be involved to “shop” the failing firm around, looking for a competitively preferable purchaser.

MEGs PART 10: Vertical Mergers and MEGs PART 11: Conglomerate Mergers

Typically the kinds of mergers that raise competition concerns combine firms that operate in the same industries and markets. These are called “horizontal mergers”. “Vertical mergers” involve the combinations of firms up and down the distribution chain for a product, as when a grocery chain purchases a dairy, or an automobile manufacturer acquires a manufacturer of car tires. Mergers involving firms that are related in neither a horizontal nor vertical way are termed “conglomerate mergers.”

The circumstances under which the Bureau might be concerned about vertical and conglomerate mergers are, correctly in my view, quite limited – but they do exist. They are described briefly in these parts of the MEGs.

Vertical mergers can create competition problems when they have horizontal implications, perhaps by increasing barriers to entry for new firms or facilitating
coordinated behaviour by firms in a relevant market. For example, an upstream merger might eliminate an important source of supply that may be needed by later downstream entrants, forcing prospective entrants to enter at both stages or not at all.

The MEGs’ treatment of conglomerate mergers is very brief and essentially identifies the main concern as that such a merger may have as its purpose or effect the prevention of *de novo* entry into the relevant market of a firm that was in fact contemplating such a strategy. In this way, a conglomerate merger can be seen as potentially preventing competition.

**Some Additional Remarks on Remedies**

Finally, when a merger threatens an SLC, various remedies might be proposed to remove the harm to competition while retaining as many of the benefits of the merger as possible. For example, in mergers of large retail chain organizations it is not unusual for high levels of concentration in a few local markets to suggest a harm to local competition; however these concerns have often been addressed by having the merged firm sell off a few outlets in the areas of concern.

Economists then have a role to play in evaluating the likely effects of the remedy proposals. In this task, they will need to consider not only the costs and benefits flowing to the merged firm and its customers, but also the costs the various proposals may impose on other parties such as the Bureau or courts.

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50 Mergers between firms that produce complementary products (products that are used together by consumers, such as gasoline and automobiles; or operating systems and applications software) can raise issues of the same sort as those that arise in vertical mergers. The MEGs recognize this, but mention it only in footnote 129.
Broadly speaking, remedies for competition problems come in two general types: structural and behavioural. 51 Structural remedies, which have been the traditionally preferred option in merger cases, involve actions to change the structure of a market. Most commonly, this means divestitures of firms or assets. 52 Behavioural remedies involve imposing on the merged firm a set of rules about its behaviour, such as promises not to raise price for a period of time. Behavioural remedies have been disfavoured, in part because they impose monitoring costs on the Bureau (or the Bureau’s designated monitor) while structural remedies propose fixing the problem up front so that further “regulatory” oversight is not required. 53

In a consideration of remedies, then, economists can make contributions by forming predictions as to the likely effects of various remedy proposals, as well as of the regulatory costs of implementing them.

V. Conclusions

Merger review in Canada, and in other countries with sophisticated antitrust regimes, has become a complicated and sometimes costly business. This said, we have moved toward a largely transparent and understood process that has been informed by the application of modern economic principles. The Canadian MEGs have gone a long way toward providing merging parties and their counsel with some certainty about this process – if

52 A related remedy would involve compelling the merged firm to license important proprietary technology to facilitate entry of a new competitor.
53 However, behavioural remedies have been used in merger cases. For example, the Bureau’s approval of Air Canada’s acquisition of Canadian Airlines was conditional upon Air Canada’s acceptance of a list of required actions and behavioural rules.
not always about the outcome – and permitted them to better prepare their arguments and submissions.

In this paper, I have used the structure of the MEGs to organize a walk through the merger review process, along the way trying to highlight the role that economics and economists have to play. I hope it has become clear that, in merger review as in most of competition law, careful economic analysis is essential most every step of the way to ensure that the application of the *Competition Act* serves the purposes of competition and economic efficiency.
References


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