CT-2006-10

THE COMPETITION TRIBUNAL

IN THE MATTER OF the *Competition Act*, R.S., 1985, c. C-34 as amended;

AND IN THE MATTER OF an inquiry pursuant to subsection 10(1)(b)(ii) of the *Competition Act* relating to the marketing practices of Imperial Brush Co. Ltd. and Kel Kem Ltd. (c.o.b. as Imperial Manufacturing Group);

BETWEEN:

COMPETITION TRIBUNAL
TRIBUNAL DE LA CONCURRENCE
FILED / PRODUIT
CT-2006-010
August 7, 2007
Jos LaRose for / pour
REGISTRAR / REGISTRAIRE
OTTAWA, ONT # 0082

THE COMMISSIONER OF COMPETITION

Applicant/Respondent

-and-

IMPERIAL BRUSH CO. LTD. AND KEL KEM LTD. (c.o.b. AS IMPERIAL MANUFACTURING GROUP)

Respondents/Applicants

Affidavit of Dr. Kenneth Corts
Filed on behalf of the Commissioner of Competition
(Respondent on this Application)

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Affidavit of Dr Kenneth Corts
Filed on behalf of the Commissioner of Competition
(Respondent on this Application)

I, Kenneth S. Corts, of the Municipality of Metropolitan Toronto, MAKE OATH AND SAY:

1. Attached hereto and marked Exhibit A to this Affidavit is a true copy of my evidence ("testimony"), including my findings and opinion expressed therein, which to the best of my knowledge, information and belief, true.

2. I was retained by counsel to the Commissioner of Competition to provide expert economic evidence in this matter.

3. Attached hereto as Exhibit B is a true copy of my curriculum vitae

4. I make this affidavit in compliance with R 47 of the Rules of this Tribunal.

Sworn before me at the City of Toronto,
in the Judicial District of York, this 31st day
of July, 2007.

A Commissioner, etc.

A. CASTRODALE

Kenneth S. Corts

Exhibit A

Testimony of Kenneth S. Corts in the matter of

The Commissioner of Competition

v.

Imperial Brush Co. Ltd. and Kel Kem Ltd.

(c.o.b. as Imperial Manufacturing Group)

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I. Introduction

A. Credentials

1. This testimony is based on my training and experience as a professional economist. Since 2003, I have been an associate professor of business economics with tenure at the Rotman School of Management at the University of Toronto. From 1994 to 2003, I was an assistant professor and then an associate professor at Harvard Business School. I received my PhD in Economics from Princeton University in 1994.
2. Throughout my career, my research and PhD teaching have focused on the field of industrial organization, which includes the study of consumer demand, market structure, competition, the strategic behavior of firms, the organization of firms, the effects of regulation, and the economic foundations of competition policy, among other areas. I have also taught undergraduate and MBA courses in business strategy and managerial economics.
3. I am currently a co-editor of the *Journal of Industrial Economics*. I have also been an associate editor of the *Journal of Industrial Economics* and the *International Journal of Industrial Organization*. I have published my research in all the major journals in industrial organization, including the *Rand Journal of Economics*, the *Journal of Industrial Economics*, the *International Journal of Industrial Organization*, and the *Journal of Economics and Management Strategy*.

B. Scope of testimony

4. I have been retained by the Commissioner of Competition to provide testimony relating to the economic benefits and consequences of the provisions of section 74.01(1)(b) of the Competition Act. This section prohibits sellers from making a claim relating to the "performance, efficacy, or length of life of a product that is not based on an adequate and proper test thereof." I hereafter refer to this requirement as the "substantiation requirement," since the key element of this provision (in contrast to 74.01(1)(a)) is the requirement that performance claims be not only true, but also substantiated through adequate and proper testing of the product. I will also use the phrase "performance claims" to refer the broad set of claims relating to the "performance, efficacy, or length of life of a product" that are covered by 74.01(1)(b).
5. I have been asked to provide testimony specifically on the question of whether this substantiation requirement meets the tests required by the Oakes decision to justify a limit on freedom of expression.[1] The first of these tests is whether the objective of this limit is of "sufficient importance to warrant overriding a constitutionally protected right or freedom," which in turn requires that the limit is related to "concerns which are pressing and substantial in a free and democratic society." It is clear from the legislative history of this provision that the "pressing and substantial concern" it is meant to address is the protection of consumers, competitors, and the proper functioning of the market from the harm caused by misleading claims that may go undetected or unchallenged absent the substantiation requirement:

> When a manufacturer falsifies, adulterates, or degrades his product in such a way as to cause the purchaser to think he is getting something he

[1] R. v. Oakes, 1986, S.C.R. 103.

> is not, that manufacturer is imposing not only on the consumer, but is working harm to all other manufacturers who have to meet his competition... Misleading advertising by one merchant works damage to the trade of all and provokes further falsification and misstatement.[2]

6. I have not been asked to provide testimony relating to other aspects of this case. Since my task is to address only the issue of the benefits and consequences of the substantiation requirement, my testimony does not make any reference to the respondent in this case, its products, or the specific performance claims at issue in this case.

C. Definition of economic terms

7. Economists refer to the problem facing consumers who lack complete information about products that they might potentially purchase as a problem of "asymmetric information." This is because the sellers are presumed to have superior information on product attributes. This is a well-studied area of microeconomic theory. Most of the research in this field frames this as a problem of the consumer being unaware of whether the firm sells a high-quality or low-quality product. I will use this language in my report, so it is important to clarify that this corresponds exactly to the issue of performance claims. To make the link between the conventional economic language and the issue of performance claims, one need only think of high quality as corresponding to a true performance claim and low quality as corresponding to a false performance claim. If a firm, for example, claims that its light bulb lasts twice as long as a standard light bulb, then the consumer must come to some conclusion about

[2] Report of the Royal Commission on Price Spreads, 1935, p. 236.

whether this is a true claim (in which case the bulb is a high-quality bulb) or a false claim (in which the bulb is a low-quality bulb).

8. Note that "quality" in this sense need not be an attribute that is attractive to all consumers; indeed, it could be quite unattractive to some consumers. For example, a firm might claim its soft drink has "twice the caffeine" of soft drinks made by other firms. This might be desirable to some consumers and undesirable to others. Nonetheless, one could say that with respect to the consumers this claim is meant to entice, a soft drink that truly has twice the caffeine is of high quality and a soft drink that does not is of low quality.

9. It is also customary in economic theory to describe firms selling high and low quality products in this sense as, respectively, high and low quality firms. This is simply for convenience, and it is not meant to imply anything about the management of the firm or the quality of the firm's other products. "High quality firm" is meant to be synonymous with "a firm that sells a high-quality version of the product in question."

D. Summary of testimony

10. Section II of this report describes how the substantiation requirement yields significant economic benefits and contributes to the protection of consumers, competitors, and a well-functioning market. The absence of a substantiation requirement, even with the other provisions of the Competition Act remaining in force, is likely to lead to false performance claims by some low-quality firms because of the difficulty consumers have in directly ascertaining product quality and the lack of market mechanisms that effectively debunk or prevent false claims. Consumers may rely on this information in assessing quality and making their purchase decision.

As a result, consumers may make "incorrect" choices, making consumers and sellers of high-quality products worse off. Alternatively, more skeptical consumers may not be fully deceived by these false claims, but instead discount all claims, including those that are in fact true. Again, this prevents consumers from making well-informed decisions and harms the sellers of high-quality products by reducing their demand and profit. Moreover, the inability of consumers to appropriately reward sellers of high-quality products reduces firms' incentives to invest in producing high-quality products. These incentives are a critical component of a well-functioning market, and their absence further harms consumers who may face decreased product variety as a result.

11. Sections III, IV, and V take up in turn the three additional requirements laid out in the Oakes decision—specifically, that the substantiation requirement (1) is rationally connected to this economic goal, (2) minimally impairs protected expression, and (3) is a proportional infringement on protected expression.

II. The Benefits of a Substantiation Requirement in a Market Economy

A. The workings of a well-functioning market economy

i. Consumer product choice of quality maximizes consumer well-being.

12. In a well-functioning market economy, consumers are well-informed about the prices and qualities of products offered by competing firms. Consumers take account of their income, their preferences, and competing demands on their resources and make decisions about how much of what products to buy from whom. Consumers do this in

a way that maximizes their utility, or well-being, given the products available to them and given their knowledge of prices and qualities.

13. Because consumers have limited budgets, they make trade-offs between competing products to decide which serves their needs most cost-effectively. As a result, a firm's demand depends not only on how well its product is perceived to satisfy consumers' needs and desires on some absolute scale, but also on how well its product is perceived to perform relative to other firms' products, and on other firms' prices.

ii. Firms have appropriate incentives to produce high-quality products and to invest in innovation.

14. When individual consumers behave in this way, the aggregate effect of their decisions is to reward firms that produce higher quality products with higher demand, allowing the firm to charge a higher price and/or to sell a greater volume than a firm with a lower quality competing product. The responsiveness of consumer demand to the characteristics, quality, and prices of a firm's products provide powerful incentives for firms to invest in improving product quality and variety. Holding competitors' offerings equal, a firm can expect to increase its profits (gross of costs of the product improvement, such as R&D) through a product quality improvement. Whenever this increase is large enough to cover the costs of the product improvement, the firm will benefit from introducing this higher quality product. Such incentives support innovation in the economy and ensure an improvement in consumers' choices over time as firms respond to the rewards that consumer demand bestows upon high-quality firms.

iii. Well-informed consumers are critical to the proper functioning of the market.

15. A well-functioning market requires well-informed consumers, since it is the consumers' information that underlies their choices. Bad information leads to bad choices, which in turn send incorrect signals to firms about the value of innovation and product quality. False performance claims contribute to poorly informed consumers. I therefore next examine the impact of false claims on the functioning of the market, before returning explicitly to discussing the impact of the substantiation requirement.

B. The impact of false claims

i. Impact on consumers

a. Consumers lack perfect information on product quality.

16. If consumers could easily and confidently verify the quality of a good before purchase, then any false performance claims made by the seller would in principle be irrelevant. Thus, the impact of false claims by sellers depends on the consumer's lack of independent information and inability to easily and confidently verify the seller's claims. Economists commonly group goods into three types according to the availability of this kind of quality assessment to consumers.[3] "Search goods" are goods for which consumers can verify the quality and other attributes before purchase. The styling and color of a piece of clothing are examples of such easily verifiable product attributes. "Experience goods" are goods whose quality is determined by the consumer only after purchase (and, typically, consumption). The

[3] Nelson (1970) and Darby and Karni (1973) are generally credited with coining the labels applied to these three categories.

taste of packaged foods is an example of such a quality attribute of experience goods. "Credence goods" are goods whose quality is never fully revealed to consumers. For example, a consumer who hires an accountant to complete his or income tax forms likely never learns for certain whether the accountant took advantage of every available deduction. If a pure search good existed (one for which every relevant attribute was costlessly verifiable before purchase), the seller's claims would be irrelevant. In fact, virtually every product has at least some characteristics of an experience or a credence good—that is, some attributes that cannot easily be independently verified before purchase. For these goods, the seller's claims are one source of information that the consumer relies on.

b. Consumers overpay and misdirect resources when they mistakenly assess quality.

17. The direct effect of a mistaken quality assessment by consumers is that the consumers fail individually to maximize their well-being. Consider an example in which two goods are in fact of the same quality, but one manufacturer falsely claims to provide a higher quality product. Suppose the firm making the false claim charges a $1 price premium for its product when the claimed performance advantage (believed by the consumer) would be worth $2 to the consumer. Then the consumer will buy the higher-priced product. However, with a correct understanding of the products' qualities, the consumer would have purchased the other product, refusing to pay a price premium for an equivalent product. Compared to that case, the consumer who believed the false claim is worse off, as he or she has $1 less to spend on other goods

and reaps no benefit from having bought the more expensive of the two items. This directly reduces the utility or well-being of the consumer.

ii. Impact on sellers

a. Competitors suffer reduced demand and profit when a firm makes a false claim.

18. The second direct effect of a mistaken quality assessment by consumers is that competing firms are punished with reduced demand because the consumer incorrectly believes that they sell inferior products. In the example above, the firm not making the false claim goes from a situation in which it was on equal footing with the firm in question to a situation in which the consumer believes it to have an inferior product. This will reduce the truthful firm's demand by reducing its relative quality in the eyes of the consumer. In effect, consumers unwittingly punish the truthful firm for not making false performance claims.

b. When consumers no longer trust claims, sellers of high-quality products suffer.

19. Suppose instead that consumers are more skeptical, perhaps because they understand the incentive for a firm to make false performance claims as described above. This leads to what is called an "adverse selection" or "lemons" problem.[4] If consumers are not able to distinguish between high and low quality firms—that is, if the product exhibits at least some characteristics of experience or credence goods—then the consumer must discount the claims of all firms, even if it knows that some of them (but not which of them) are truthful. The result is that consumers assess their

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[4] Akerlof (1970) is the seminal theoretical contribution to the analysis of the lemons problem in the context of uninformed consumers facing sellers offering products of varying quality.

willingness to pay for the goods of both firms at a weighted average of their willingness to pay for each type of good. Again, this is a reduction in demand for the high-quality good compared to the case in which consumers are well-informed (or, equivalently, there are no false performance claims), and an increase in demand for the low-quality good.

c. Firms selling high-quality products may not survive, which in turn indirectly harms consumers as well.

20. Regardless of whether consumers believe false claims (the direct effect above) or discount all performance claims, knowing some are false (the lemons problem), the result is largely the same: high-quality firms suffer a reduction in demand relative to the case in which consumers are well-informed. Over the long run—that is, as firms consider entering and exiting the market—this has additional effects. Since the high-quality firm receives a lower price than it would with well-informed consumers, and since it is likely that the high-quality firm also incurs higher costs of production, it is possible that the high-quality firm is unable to cover its costs as a result of this asymmetric information. Over the long run, this would force out the high-quality firm, leading to the absence of high-quality products in the market. This phenomenon is known as adverse selection because the reduction of the high-quality firm's demand tends to cause "selection" of particular firms into and out of the market over the long run. This selection is "adverse" because it is the high-quality firms that suffer and may exit. This effect of asymmetric information on the composition of goods available in the market is a central component of Akerlof's (1970) contribution:

> There may be potential buyers of good quality products and there may be potential sellers of such products in the appropriate price range; however, the presence of people who wish to pawn bad wares as good wares tends to drive out the legitimate business. The cost of dishonesty, therefore, lies not only in the amount by which the purchaser is cheated; the cost also must include the loss incurred from driving legitimate business out of existence.[5]

21. While I have framed this argument in terms of the exit of high-quality firms, it applies equally to the analysis of firms entering an industry or considering investing in a product innovation. Such a firm considering launching a high-quality product would want to assess whether it would be awarded a price premium by consumers. If not, it will anticipate this demand penalty and resulting lower profits (relative to the case of well-informed consumers) and may determine that it is not worth incurring the costs of R&D and/or entry, depriving the market of a higher-quality product that would have survived if consumers were well-informed.

C. The persistence of asymmetric information absent a substantiation requirement

i. The incentive to make false claims

22. As described above, a firm that produces a low-quality good can increase its demand and benefit directly through false claims of a high-quality product if its claims are believed by consumers. Moreover, even if consumers do not believe these specific claims the low-quality firm can increase its demand by muddying the quality distinction between products and at least partially negating the advantage of high quality firms. In either case, the firm increases its demand through these false claims and stands to benefit directly as a result. This applies as long as the false claims are

[5] Akerlof (1970), p. 495.

not easily debunked or more accurate information easily acquired—that is, as long as the product in question has at least some attributes of experience or credence goods. Thus, when not forced to substantiate their performance claims, firms have a direct incentive to make false performance claims. It is important then to consider whether the actions of consumers, individually or collectively, or other mechanisms of a market economy can offset this incentive and make false performance claims unattractive to low-quality firms.

ii. The difficulty for consumers in verifying or debunking these claims

23. There are numerous reasons that consumers are not able to independently assess product quality or the accuracy of performance claims for many products. For experience goods the consumer must by definition actually use or consume the product in order to assess its quality, perhaps with a significant delay (for example, the durability of a particular paint); thus, there can be no adequate pre-purchase assessment. For some credence goods the consumer may lack the expertise necessary to assess the quality or performance of the product (for example, the environmental friendliness of a household cleaning product). For other credence goods it may be literally impossible to know the quality of the product or service since its consumption precludes comparison to the alternative of non-consumption (for example, an allegedly preventative service performed on a car may lead to a period of operation without problems, but it is impossible to know whether this would have transpired in the absence of the service as well).

24. There are many product attributes that can be determined only through testing or other sophisticated research and not through ordinary consumption. Stark examples

include the efficacy of transportation safety products such as airbags or infant car seats and the safety of pharmaceuticals or food additives. For such products, there is an additional problem beyond the fact that the consumer may lack the relevant expertise to assess quality. This is the "public goods" problem.[6] Even if consumers could hire an expert with the relevant expertise to assess product quality, any individual consumer might find it prohibitively costly to do so, even if all consumers together collectively benefited by an amount that merited the expense of hiring this expert. Information in this context is called a "public good" because it is of value to all consumers. The "public goods problem" is that the aggregate value of this information exceeds the cost, but no individual's portion of that aggregate value exceeds the cost, so that no individual is willing to unilaterally undertake the investment required to provide the public good. This is also sometimes called a "collective action problem." It is a general principle of microeconomics that markets tend to underprovide public goods.

iii. The ineffectiveness of market mechanisms in solving the asymmetric information problem

25. There are a number of market mechanisms that firms can use in some circumstances to lend credibility to their claims about product quality and performance, thereby mitigating or eliminating the asymmetric information problem. The most widely studied market mechanisms fall into three categories—signaling, reputation, and certification—each of which has its shortcomings. Ultimately, these mechanisms are

[6] This is a widely held view that motivates much of the economic analysis of alternative information-provision mechanisms. Tirole (1988) notes this problem in his comprehensive textbook (p. 108); Shapiro (1982) and Biglaiser (1993) cite this argument as one reason they focus on reputation and intermediaries, respectively, as potential solutions to the asymmetric information problem.

not, alone or in combination, sufficient to eliminate the asymmetric information problems across all settings.

26. First, economic theory's classic market solution to the adverse selection or asymmetric information problem is what is known as "signaling."[7] Signaling in this context refers to a situation in which the high-quality firm undertakes some action that, while costly to carry out, is so much more costly for the low-quality firm that the low-quality firm would rather be correctly identified as low-quality than to bear the expense of mimicking the high-quality firm's signal. This makes the signal a self-enforcing information revelation mechanism that high-quality firms can use to credibly convey their product quality. The most commonly studied such signaling strategy is investment in brand name (see Nelson, 1974; Kihlstrom and Riordan, 1984; and Milgrom and Roberts, 1986). If the good is an experience good (that is, consumers learn its quality upon consumption) and is subject to either repeat purchases by the same consumers or strong word-of-mouth dissemination of information among consumers, then the firm can hope to recoup its investment in branding only if consumers are satisfied with the product's quality and continue to make purchases over a span of time. A low-quality firm will not mimic the high-quality firm's investment because its sales will fall quickly as consumers learn the product is low-quality; the firm will therefore not recoup its initial investment.[8]

27. The logic of this signaling mechanism requires that consumers learn the quality of the good over time—that is, it applies to experience goods but not to credence goods. In

[7] Spence (1973) provides the seminal theoretical treatment.

[8] Wernerfelt (1988) and Cabral (2000) develop the analysis of a related strategy in which high-quality firms tie new products to existing successful products through "umbrella branding." In this case, a consumer is meant to infer that the firm would only put its brand image on the line in this way if the new product is in fact of high quality.

addition, it requires that purchases are made sufficiently frequently, or that word-of-mouth is sufficiently strong, that the firm in fact stands to benefit over time from being identified as a seller of high-quality products.

28. Guarantees are another type of signaling mechanism by which the market could limit false performance claims.[9] When guarantees work well, high-quality firms have an incentive to back up their performance claims with guarantees. Low-quality firms will find the guarantees more costly to offer, either because (depending on the nature of the guarantee and the nature of the product) product repairs will be more likely or because more consumers will seek a refund for their purchase.[10] Low-quality firms might therefore either not make the false performance claims or not offer the guarantee (in which case consumers could infer they were low-quality firms by the lack of guarantee). In either case, the low-quality and high-quality firms could be identified by consumers, and the problems of misrepresentation attenuated.

29. Guarantees do not work well in all markets, however. They do not work well in markets where the consumer's behavior has a large impact on the performance of the product. The problem, known as "moral hazard," is that the guarantee reduces the consumer's incentive to take care of the product or use it properly, which in turn makes it difficult for the firm to ensure the performance of the product under those conditions. This can make the guarantee prohibitively costly to offer. In addition, guarantees work very poorly for firms that are not well-established, where consumers

[9] Gal-Or (1989) provides a rigorous treatment of the use of guarantees as a signaling mechanism, which is also discussed in standard textbooks (see, for example, Carlton and Perloff, 2000, p. 426) and reference books (Stiglitz, 1998, pp. 838-839). This signaling function of guarantees is above and beyond their more immediate function of insuring the customer against poor product performance. This more immediate function does not correct the asymmetric information problem, though it can (if taking advantage of guarantees is not too costly or inconvenient for consumers) help to mitigate its negative consequences.

[10] This argument presumes that the guarantee is legitimate in the sense that the firm intends to honor it. I do not consider the further possibility that the offer of a guarantee is itself a false or misleading claim.

may fear that the firm will no longer be around to honor the guarantee when they encounter problems. Finally, guarantees work well as a signaling mechanism only for experience goods, and not for credence goods, since the logic requires that consumers in fact learn product quality upon consumption, which enables them to take advantage of the firm's guarantee.

30. A second type of market mechanism that may alleviate the asymmetric information problem is firm reputation. When it functions well, reputation is a way of aggregating consumer information gathered through experience to discipline a misrepresenting firm over time (see Klein and Leffler, 1981; Kreps and Wilson, 1982; Stiglitz, 1998, pp. 822-831; and Shapiro, 1983). However, this requires two conditions of the market in question. First, consumers must learn about product quality and the validity of performance claims through consumption. Thus, reputation building will be more effective for experience goods than for credence goods. Second, consumers must make frequent repeat purchases so that the firm in fact suffers from its loss of reputation if it misrepresents its product. In other cases, reputation will not be effective.

31. Third-party certification is another market mechanism that can help to solve the asymmetric information problem in some circumstances (see, for example, Viscusi, 1978; Biglaiser, 1993; Biglaiser and Friedman, 1994; Feddersen and Gilligan, 2001). When high-quality firms realize that they have a credibility problem in relaying their performance claims to skeptical consumers (who realize some firms may make false claims), they may seek in some cases to have their performance claims independently validated by a third-party laboratory or certification body. A similar role may be

played by reputable retailers who implicitly or explicitly vouch for the quality of the goods they carry. This is in some sense a voluntary version of the substantiation requirement discussed in this report. The relevant question in this context is whether voluntary certification can solve the asymmetric information problem and render the legal substantiation requirement unnecessary.

32. Viscusi (1978) makes the original argument for the role of certification in helping to reduce asymmetric information. His analysis shows that not all firms will generally choose certification when it is costly. Specifically, since the incentive to obtain certification is higher for high-quality firms, there will generally be some low-quality firms for whom certification is unattractive, and the asymmetric information problem will persist for the uncertified firms. Thus, costly certification provides only a partial solution, even when certification bodies are assumed to be diligent and independent.

33. However, it is not obvious that third-party certification bodies will be diligent and independent, and the credibility of the certifiers is a major obstacle to the use of certification in solving the asymmetric information problem. Just as consumers do not have perfect information on the quality of firms' products, they do not have perfect information on the legitimacy of the independent certification body, and the same collective action problem that limits investment in information-gathering about the product plagues the consumers in this case as well. Some certification bodies may be viewed by some consumers as too friendly to industry or as having their own agenda that diverges from simple certification, which may undermine their credibility.[11]

[11] Feddersen and Gilligan (2001), in particular, make this point with respect to certification bodies that are founded by or affiliated with activists who use this process to further their social agenda.

34. In some circumstances, intermediaries or other certifiers may have an incentive to be diligent in assessing the quality of the products in question due to their concern for their own reputation as a reliable certifier.[12] However, such a reputation-based argument suffers from the same limitations as in the case of the firm's own reputation; such a logic applies only when the products have some experience good characteristics, so that the consumer does ultimately learn the quality of the good and can therefore assess the value of the service provided by the certification body.

35. There are also several practical limitations to existing certification schemes. Many certification bodies attempt to maintain credibility and visibility by focusing on one aspect of a product's performance (for example, Underwriters Laboratories certifies only the safety of a product, while GreenSeal certifies only its environmental friendliness, and so on), which may make it difficult for a firm to certify its claims across a wide array of product characteristics. In addition, many certification bodies use only coarse up-or-down certification schemes and provide relatively little opportunity for firms to use the certification body to vouch for the value or quality of unique and distinguishing product features. These considerations make it difficult for firms to use third-party certification as a general solution to the asymmetric information problem and to credibly communicate the quality of their product.

D. The effect of a substantiation requirement

36. The end result of a lack of a requirement for substantiation of performance claims is likely to be false claims. The lack of a substantiation requirement makes it easy and cheap to make such claims, and low-quality firms clearly have a direct incentive to make these false claims. It is difficult for consumers on their own to verify or debunk

[12] Biglaiser (1993), Biglaiser and Friedman (1994), and Strausz (2005) all make this argument.

these claims, and while some market mechanisms such as signaling, reputation, or third-party certification may mitigate this incentive in some markets, they do not fully eliminate the incentive make such claims. The false claims that ensue have negative consequences for consumers and for competitors as described in Section IIB. A substantiation requirement helps mitigate this problem, as it is a general principle of asymmetric information analysis that improved consumer information improves outcomes.

37. The substantiation requirement, when rigorously enforced, eliminates false claims and encourages the firm to provide accurate information to consumers. It therefore directly overcomes the consumer's lack of access to reliable quality information and, in a sense, it solves the consumers' collective action problem by compelling the firm to undertake research (or to disseminate the results of research) that consumers might have done but for the collective action problem.

38. Even when less than fully enforced, the substantiation requirement helps to eliminate false claims by facilitating the development of market mechanisms that improve consumers' information. For example, the substantiation requirement increases the demand for product testing services and encourages the development of organizations capable of carrying out such tests and credibly communicating the validity of such tests to consumers. These same organizations create the infrastructure that allows voluntary third-party certification to function as a signaling device for high-quality firms, even if their rival low-quality firms disregard the substantiation requirement.

III. The Rational Connection Test

39. The substantiation requirement is clearly rationally connected to the goal of the legislation. I reiterate here the main points of section II relating to the economic benefits of the improvement in information brought about by the substantiation requirement.

A. The goal of the legislation is to protect consumers, competitors, and the proper functioning of the market.

40. As described in section IA, I take the intent of this legislation to be to prohibit firms from making claims that "cause the purchaser to think he is getting something he is not." The legislative history speaks to the effects of such a policy in protecting consumers, competing firms, and the proper functioning of the market itself.[13]

B. The substantiation requirement is directly and rationally connected to this goal.

41. The intent stated above requires both that the firm knows what it is that the consumer is getting (that is, the true performance characteristics of its product) and that the firm truthfully relate that information to consumers. Thus, the substantiation of performance claims, which allow the firm to know the truth of its own performance claims, is an integral part of any ban on false performance claims.

C. A substantiation requirement improves consumer information.

42. Section IIC describes how the absence of a substantiation requirement is likely to lead to false performance claims by low-quality firms because of the difficulty consumers have in individually ascertaining product quality and the lack of market mechanisms that effectively debunk false claims. A clear and well-enforced substantiation

[13] Report of the Royal Commission on Price Spreads, 1935, p. 236.

requirement addresses this shortcoming of the market by ensuring that performance claims are true.

D. The improvement of consumer information benefits consumers, firms selling competing products, and the proper functioning of the market.

43. Section IIB demonstrates that consumers and competing firms benefit from the elimination of false claims. Consumers benefit directly from the elimination of false claims by correcting their purchase decisions to accurately reflect the true quality of competing offerings. Similarly, firms offering competing products experience an increase in demand when a false claim is debunked. Importantly, this is true regardless of whether consumers were being duped by the false claims or not. If they were, then they overestimated their willingness to pay for the item for which false claims were made. If they were not, but rather discounted all performance claims as suspect, then they overestimated their willingness to pay for all low-quality goods and underestimated their willingness to pay for high-quality goods. In either case, the elimination of false claims allows the consumer to correct these errors by basing purchase decisions on an accurate understanding of the characteristics of competing goods. This in turn allows consumers to reward firms for producing high quality products, ensuring proper incentives for innovation and the provision of high quality goods.

IV. The Minimal Impairment Test

44. I consider here four alternative limits on protected expression that might in principle achieve results similar to those of the substantiation requirement but with less

impairment of that expression. None of these four, alone or in combination, improves consumer information to the same extent as the substantiation requirement, for reasons described in the following subsections.

A. Less impairing potential alternatives

i. Onus on consumer to assess truth of claims

45. One such alternative would be to put the burden for verification of performance claims on consumers. As described in section IIC, absent the substantiation requirement consumers are not likely to be able to cost-effectively verify performance claims individually or collectively, due to the public goods nature of this information. Indeed, solving this problem of consumer collective action seems to have been critical to the original motivation of this legislation:

> Few of the evils... by which merchants have been able to impose upon their customers could persist in the fact of an active, intelligent and organized public opinion. The difficulty of consumer action is that it is not an organized or special interest and has no representation other than the state.[14]

ii. Let "the market" weed out misrepresentations

46. A well-functioning economy does weed out underperforming firms in the long run, and it is tempting to think that it could also weed out firms who make false claims. Market mechanisms that could in principle help to sort out the true claims from the false include signaling, reputation, and certification. However, these market mechanisms each have shortcomings as laid out in Section IIC, especially with respect to credence goods (or credence attributes of goods). Reputation and certain

[14] Royal Commission on Price Spreads, 1935, p. 235.

signaling strategies such as guarantees are, in addition, especially ineffective at preventing false claims by new or short-lived low-quality firms.

iii. A "reasonably believes" standard

47. An alternative limit on expression would be to require that the seller must "reasonably believe" its performance claims to be true. This standard would be very difficult to enforce, as it requires verification of the seller's intent.[15] Moreover, a "reasonably believes" standard does not go to the heart of the legislation's objective. Consumers' well-being, and therefore consumers' choice in a well-functioning market, is not dependent on how the seller believes the product will perform, but rather on how the product will actually perform. Suppose that two sellers had identical products to offer, but one seller was an optimist and one was a pessimist. A well-informed consumer would not be willing to pay more for the optimist's product, but under this hypothetical standard the optimist would be allowed to make stronger performance claims than the pessimist, and a poorly informed consumer who relied on the sellers' claims might therefore be willing to pay a premium to the optimist, despite the fact that the products are identical. This clearly does not achieve the goal of providing reliable information to consumers and improving the functioning of the market.

iv. Reliance on ban on false claims

[15] In addition, it is not clear that it is possible to make a specific performance claim without implying that substantiation has taken place. Any specific performance claim such as "lasts twice as long" or "three times as strong" implies that the stated claim has been arrived at by testing. A "reasonable belief" would have to be based on some evidence, and it is not clear whether or why the standard for the evidence that would justify a "reasonable belief" would diverge from an "adequate and proper test" within the meaning of the Competition Act.

48. Another alternative limit on expression would be to rely solely on the prohibition of false and misleading claims by 74.01(1)(a), without a requirement of substantiation. Section II demonstrates that the harmful consequences of a lack of a substantiation requirement arise as a result of false claims that some firms have an incentive to make, which are not easily debunked either by consumers, individually or collectively, or by market mechanisms. A regime that permitted unsubstantiated claims, but in which no false claims were made would indeed not suffer the harm to consumers and producers described in that section. This suggests that the substantiation requirement is in a sense redundant to the false claims prohibition. However, substantiation is an integral part of enforcing the false claims prohibition.

49. Without the substantiation requirement, testing of the performance claim would be required only as part of the charge of a false claim, or as part of the defense against that charge. In either case, this implies that the testing occurs some significant amount of time after the seller began making the claim; in the interim, many consumers and competing producers would already have suffered the harmful effects described in Section II. Indeed, this concern for the timeliness of the substantiation of claims is evident in the legislative history of this provision's origins. The Report of the Royal Commission on Price Spreads noted that, absent a substantiation requirement, "almost any statement concerning performance or efficacy may go unchallenged *unless or until* a successful action is brought under the above mentioned section of the Criminal Code [emphasis added],"[16] where this refers to a criminal provision banning advertisements that were "untrue, deceptive, or misleading."[17]

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[16] Report of the Royal Commission on Price Spreads, 1935.
[17] Section 406 of the Criminal Code, R.S.C. 1927, ch. 36, s. 406 as am. by S.C. 1935, c. 56, s. 6.

V. The Proportional Infringement Test

50. In this section I review the benefits of the substantiation requirement and also consider its possible negative consequences so that these can be weighed against each another. The only potentially significant negative consequence to consider is the possibility that the substantiation requirement limits the communication of true performance claims, which could in turn lessen incentives for the production of high quality products and the pursuit of innovation. However, this is a concern only under very particular circumstances, described below, which are not likely to characterize many products or industries. Thus, the potential negative consequences of the substantiation requirement seem quite limited relative to the significant and broad-based economic benefits.

A. The contribution to a well-functioning market economy

51. Reducing false claims through a substantiation requirement leads to an improvement in the functioning of the market. It improves the information of consumers in markets where they may have difficulty evaluating product quality prior to purchase, and it therefore improves their decision-making and helps them to maximize their well-being. It also levels the playing field for competing firms and prevents firms that do not make false claims from being punished for their honesty through a reduction in demand. Finally, by ensuring that firms are properly rewarded for improvements in quality, it helps maintain firms' incentives for producing high quality products and pursuing innovation.

B. The elimination of false claims

52. This improvement in the functioning of the economy comes from the elimination of false claims. From a societal point of view, false claims serve no useful purpose in a free market. They serve at best to improve the position and the profits of the misrepresenting firm at the expense of both consumers and rival firms. Any transaction that arises due to a false claim in fact destroys value since it represents a misallocation of resources relative to the case of perfect information. If the only expression-limiting effect of the substantiation requirement is to eliminate false claims, then nothing of value is lost in exchange for the improvement in the functioning of the market. Given the desirable effects of the elimination of false claims, it is important to consider the question of whether the substantiation requirement has other expression-limiting effects.

C. The effect on innovation

53. It is important to consider in particular whether, in addition to eliminating false claims, the substantiation requirement might harm high-quality sellers or stifle innovation by making dissemination of (true) information about an innovation more costly. This is a concern only if carrying out testing to satisfy the "proper and adequate" substantiation requirement is more costly than doing the ordinary testing that is normally part of the firm's R&D process. This may or may not be the case, depending on the legal interpretation of "proper and adequate," but it is an economically distinct possibility and I therefore consider it for completeness. There are two reasons that the substantiation requirement is not likely to harm high-quality sellers or stifle innovation even if it requires such incremental spending.

54. First, this is only a concern if the high-quality firm would have been able to successfully survive in or enter the market absent the substantiation requirement. However, in the absence of a substantiation requirement the firm is unlikely to be able to secure an appropriate premium for its product, for the reasons discussed in Section II, and will therefore not capture the value associated with its innovation and will not be able to profitably remain in or enter the market. That is, the benchmark for comparison is not the perfect-information well-functioning market. Rather, it is a situation in which the high-quality firm struggles with adverse selection and the difficulties of communicating its product quality to consumers. If producers of high quality products cannot survive the asymmetric information that persists absent the substantiation requirement, then there is no risk that the substantiation requirement itself will force them out. Put another way, though a substantiation requirement appears to raise the costs of entering a market or introducing a new product, it also increases the attractiveness of doing so for high-quality firms since they will be better able to communicate their product's quality to consumers and therefore will be better rewarded for their product's quality.

55. Second, assume that a high-quality firm could have remained in or entered the market despite the asymmetric information problem that persists absent the substantiation requirement. Even then, a substantiation requirement would force the exit of a high-quality product or prevent innovation only if the cost of testing the product exceeded the portion of the product's value that the firm is able to capture (net of its costs). Only if the costs of product testing accounted for a large portion of R&D and other entry costs, which also must be covered by the firm's revenues to justify entry, would

the requirement to substantiate performance claims be pivotal in determining whether the firm went ahead with its innovation.

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Exhibit B
Curriculum Vitae

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Academic Positions:

Associate Professor (tenured), Rotman School of Management, University of Toronto, 2003-present.
Associate Professor, Graduate School of Business Administration, Harvard University, 2000-2003.
Visiting Professor, Department of Economics, UCLA, 1999-2000.
Assistant Professor, Graduate School of Business Administration, Harvard University, 1994-2000.

Editorial Positions:

Co-Editor, Journal of Industrial Economics, 2005-present.
Associate Editor, Journal of Industrial Economics, 2003-2005.
Associate Editor, International Journal of Industrial Organization, 2004-2005.

Education:

Princeton University, Ph.D., economics, 1994.
Princeton University, M.A., economics, 1992.
Furman University, B.A., *magna cum laude*, economics and philosophy, 1990. *Phi Beta Kappa.*

Citizenship and Immigration Status:

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Publications:

"Teams vs. Individual Accountability: Solving Multi-Task Problems through Job Design," *Rand Journal of Economics*, forthcoming.

"The Interaction of Task and Asset Allocation," *International Journal of Industrial Organization* 24 (5), 2006, 887-906.

"When Altruism Lowers Total Social Welfare," *Economics and Philosophy* 22 (1), 2006, 1-18.

"The Effect of Repeated Interaction on Contract Choice: Evidence from Offshore Drilling," with Jasjit

Singh, *Journal of Law, Economics, and Organization* 20 (1), 2004, 230-260.

"Credible Delegation," with Darwin Neher, *European Economic Review* 47 (3), 2003, 395-407.

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"Focused Firms and the Incentive to Innovate," *Journal of Economics and Management Strategy* 9 (3), 2000, pp. 339-362.

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"On the Robustness of the Argument that Price-matching is Anti-Competitive," *Economics Letters* 47 (3-4), 1995, pp. 417-421.

Teaching Materials:

Harvard Business School Case Studies and Teaching Notes:

The Rise and Fall of Palm Computing in Handheld Operating Systems, 9-703-519 (TN 5-703-520)
A Brief History of the Browser Wars, 9-703-517 (TN 5-703-518)
Judo in Action, 9-703-454 (TN 5-703-455)
Performance Indicator, 9-702-480 (TN 5-703-456)
The Aluminum Industry in 1994 9-799-129 (TN 5-700-014)
Aluminum Smelting in South Africa: Alusaf's Hillside Project 9-799-130
The Offshore Drilling Industry 9-799-111 (TN 5-700-016)
R&B Falcon 9-799-110 (TN 5-700-015)
A Note on Microeconomics for Strategists 9-799-128, joint with Jan Rivkin
Radiology Management Sciences 9-798-009 (TN 5-798-071)
Asymmetric Information 9-797-100 (TN 5-797-101)
The Ready-to-Eat Breakfast Cereal Industry in 1994 (A) 9-795-191 (TN 5-796-133)
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Teaching Assignments:

Rotman School of Management, University of Toronto

Managerial Economics (required MBA course), 2003-present.
Game Theory and Business Strategy (undergraduate elective), 2004-2005.
Economics and Strategy (PhD course), 2004-2005.

Harvard Business School
Game Theory (elective doctoral course), 2003.
Foundations of Strategy (elective doctoral course), 2001-2002.
Changing the Game (elective MBA course), 2001-2003.
Economics of Business Strategy (elective doctoral course), 2000.
Competition and Strategy (required first-year MBA course), 1994-1999.
Economics of Markets (short, required MBA course), 1996-1999.
Competition and Strategy (summer course for doctoral students), 1997-1998.

University of California, Los Angeles
Economics of Business Strategy (upper-level elective for economics majors), 1999-2000.
Topics in Industrial Organization (elective doctoral course), 2000.

Grants and Awards:

NET Institute Research Grant, 2006.
AIC Institute for Corporate Citizenship Research Grant, 2006.
Alfred P. Sloan Doctoral Dissertation Fellowship, 1993-94.
National Science Foundation Graduate Research Fellowship, 1990-93.

Presentations:

2006-2007 The Interaction of Implicit and Explicit Contracts in Construction and Procurement Contracting
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2004-2005 Stacking the Deck: Idling and Reactivation of Capacity in Offshore Drilling
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Capacity Management in Offshore Drilling
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Economics Workshop, Harvard Business School

The Strategic Effects of Vertical Market Structure
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Federal Trade Commission, Washington, DC

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1995-1996 The Effects of HMOs on Conventional Insurance Premiums: Theory and Evidence
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Organization of Conferences:

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Major Committee Assignments:

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Executive Committee, Rotman School of Management, University of Toronto, 2005-2007

Other Professional Affiliations and Activities:

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File No. CT-2006-10

THE COMPETITION TRIBUNAL

IN THE MATTER OF the *Competition Act*, R.S.C. 1985, c. C-34 as amended;

AND IN THE MATTER OF an inquiry pursuant to subsection 10(1)(b)(ii) of the *Competition Act* relating to the marketing practices of Imperial Brush Co. Ltd. and Kel Kem Ltd. (c.o.b. as Imperial Manufacturing Group)

BETWEEN:

THE COMMISSIONER OF COMPETITION

Applicant

- and -

IMPERIAL BRUSH CO. LTD. AND KEL KEM LTD. (c.o.b. AS IMPERIAL MANUFACTURING GROUP)

Respondent

Affidavit of Dr Kenneth Corts
Filed on behalf of the Commissioner of Competition
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