Should Provinces Expand Gambling?

LENNART E. HENRIKSSON
Faculty of Commerce and Business Administration
University of British Columbia
Vancouver, British Columbia

RICHARD G. LIPSEY
Simon Fraser University and
The Canadian Institute for Advanced Research
Vancouver, British Columbia

Le jeu parrainé par l'État est maintenant chose commune au Canada et aux États-Unis. L'objet de cet article est de fournir une analyse critique du jeu en tant qu'instrument générateur de revenus pour le gouvernement. Nous traçons d'abord les grandes lignes puis démontrons comment évaluer de façon réaliste les effets d'une expansion sur l'emploi et l'économie. Ensuite nous évaluons le jeu en tant que source de revenus et d'emplois. Des questions relatives aux coûts et un bref traitement du jeu chez les autochtones sont également discutés. Des recommandations concluent l'article.

State-sponsored gambling is now widespread in both Canada and the United States. The purpose of this paper is to provide a critical analysis of gambling as a revenue-raising instrument for government. We begin by outlining key principles, and then demonstrate how a realistic appraisal of the economic and employment effects of expansion can be achieved. Next, we evaluate gambling as a source of revenue and jobs. A discussion of cost issues and a brief treatment of First Nations gambling follows. Recommendations complete the paper.

INTRODUCTION

During recent decades, governments throughout Canada have expanded the scope of legalized gambling to include lotteries, casinos, slot machines, and similar devices from which they collect significant revenues. The advantage is obvious: what appear to be "new" revenues, without increases in generally applicable taxes. The disadvantages are less obvious but nonetheless significant: the diversion of resources from other activities that might ultimately be more productive, the risk of social ills such as increased crime and problem gambling, and the encouragement of undesirable social attitudes and behaviour patterns.

The expansion of gambling has not gone unchallenged. But the balance of power is overwhelmingly in favour of well-financed promoters, who seldom "give up" because the potential for private profit and perceived increases in tax revenues is immense. In British Columbia, the government revived destination casinos and video slot machines only three years after a prolonged public outcry forced it to abandon both. In Ontario, while the government has been forced to forego plans for a network of "charity"

casinos, it has proposed four new mega-casinos as a substitute.

Yet the prospects for using gambling as a substitute for modest increases in taxes or modest reductions in expenditures are waning. Public resistance has forced provincial governments to reduce the availability of video gambling devices in Alberta and the Maritimes, and vigorous opposition to expansion continues in British Columbia and Ontario. More importantly, increasing competition from other jurisdictions and the Internet threatens the ability of governments to reap monopolistic levels of profit. This threat will become more pronounced over time as technology advances.

The preponderance of studies funded by pro-gambling interests has stimulated unreasonable expectations about the economic and human consequences (Goodman 1994). The purpose of this paper is to study the use of increased government-sponsored gambling as a tool for raising additional revenue (and for achieving other social objectives such as increased employment). This requires that we estimate the net incremental revenues from an expansion of government-sponsored gambling, and offset these against the costs that governments will incur as a result of such an expansion.[1] We begin by outlining the principles. Next, we demonstrate through a case study how a realistic appraisal of the incremental economic and employment effects of gambling can be achieved. A discussion of cost issues and a brief treatment of First Nations gambling follows. Recommendations complete the paper.

Gambling as a Revenue Raiser

The gambling-derived funds that go to pay government taxes, operating costs, and profits to the owners (if they are not the government) must all come from the losses that gamblers suffer.[2] After all, winnings are monies "spent" on gambling but returned to the players. Thus, the amount that a dollar wagered generates in government revenue and incomes for operators and their employees in gambling depends on the loss ratio — the proportion of each dollar wagered that is *not* paid out in winnings. (The more familiar expression is the payout ratio, which is the proportion of the amount wagered that *is* paid back in winnings.) This point is important because assessments of the impact of gambling sometimes confuse the amount wagered with the total revenue that will be generated.

Economic evaluations of gambling ventures frequently report the gross revenue earned by the government (and any charities that share in these proceeds). This is total revenues minus operating and management costs. However, net new revenue, which is called *incremental revenue*, is lower than gross revenue by two adjustments. First, the amount of revenue of new gambling establishments that is diverted from other domestic gambling activities must be deducted. Second, when money is diverted from other purchases within the jurisdiction, taxes that these lines of spending would have generated are lost. The net addition to provincial revenues is the government's take on each dollar lost *minus* the taxes that would have been generated by a dollar spent on other lines of expenditure.

Canadian gambling promoters often argue that casinos will attract large volumes of tourist dollars. They frequently claim that the taxable status of gambling winnings in the United States and the attractive exchange rate on the Canadian dollar will lure American gamblers northward. Sometimes, promoters suggest that Canadian cities are safer than US cities and therefore attractive places in which to gamble.

We do not find any of these claims to be persuasive. First, US tax regulations effectively exempt a great deal of domestic gambling winnings from taxation. While all world gambling income is taxable for US residents, only winnings exceeding thresholds of $600 (for casino games), $1,200 (for bingo and slot machines) or $1,500 (for keno games) must be reported by the payor to the Internal Revenue Service using Form W-2G. Furthermore, because the *Internal Revenue Code* includes provisions for the

deduction of gambling losses, serious gamblers will often be able to reduce their exposure to taxes levied on winnings.

Although the Canadian dollar is probably undervalued in relation to its purchasing power, this cannot be expected to continue indefinitely. As it always has in the past, the exchange rate will eventually return to a level that equates the purchasing powers of the two currencies (which is probably in the range for the C$ of about US$0.78-0.83). Finally, although Windsor might enjoy a substantial margin over Detroit in safety and general amenities, it is not so obvious that other Canadian cities have a major advantage in this respect over US sites just south of the border in attractive towns such as Bellingham, Washington.

Most studies of the benefits of gambling expansion have been authored by proponents in government, or by private sector consulting firms working on government contracts. In many cases, the benefits to governments are greatly overstated (Goodman 1994; Henriksson 1996). The following case studies from British Columbia and Ontario illustrate the nature of the problem.

Case Study 1: The British Columbia Gaming Review

In late 1996, the British Columbia Ministry of Employment and Investment launched a six-week study that was evidently intended to provide a foundation for more gambling in the province. In many ways, the resulting report (British Columbia. Ministry of Employment and Investment 1997*a*; hereafter cited as *Gaming Review*) is representative of similar studies funded by gambling promoters in other jurisdictions.

The text of the *Gaming Review* did not provide an overall revenue estimate because its authors did not have a mandate to choose a specific expansion option. Instead, eight options and sub-options were analyzed, with estimates of new government revenue running from a low of $3.2 million for the "status quo" option to a high of $267.7 million for the "greatly expanded charitable gaming" option, whereby *all* of the increased revenues would go to the government.[3]

The government's projections were drawn from an Appendix prepared by KPMG Management Consultants.[4] The authors of the text (not the Appendix) noted, "the options developed by KPMG provided an assessment of the likely impacts of *incremental levels* of new gaming in the province" (*Gaming Review,* p. 7 [italics added]). This might lead the unwary reader to think that the estimates did allow for the fact that the increment to total revenue and employment would be significantly less than the gross amounts generated because of the cannibalization from existing gambling sources and the diversion of BC residents' expenditures from other taxable sources.

This was not the case. KPMG had conceded that the incremental tax and employment impacts of expanded gambling are often overstated because of the diversion from other sectors in the economy. But they then indicated that in "discussing the incremental impacts we limit ourselves to qualitative comments" (*Gaming Review,* p. 42, Appendix A). This turns out to be their way of saying that the quantitative estimates made *no allowance whatsoever* for the diversions that reduce incremental revenue below the net operating revenues of the new gambling sources. Nowhere did the authors try to deal with the question*: To what extent would these net operating revenues be raised from other sources in the absence of expansion?*

Case Study 2: Ontario's "Charity Casinos"

In 1996, the Government of Ontario announced plans to implement a network of charity casinos throughout the province. In December of that year, a consulting firm released a report projecting the financial results (Coopers & Lybrand 1996). The figures presented are overstated for reasons that mirror the British Columbia example. Although the authors discuss the various types of gambling available in the province, their numerical estimates do not include any allowance for revenues diverted to charity casinos from other gambling outlets, such

as horseracing, commercial casinos, lotteries, and bingo. Instead, they claim that "while the expansion of existing forms of gaming, such as the proposed Charity Gaming Clubs, may impact upon these other forms of gaming, the potential impacts from a province-wide basis are not considered significant" (ibid., p. 10). While they concede that there may be "localized impacts," they argue that these could be mitigated somewhat by further gambling expansion, such as "the proposed implementation of VLT's at Ontario racetracks and the introduction of a province-wide electronic bingo network" (ibid.).

As in the British Columbia case, estimates of revenues at Ontario's proposed charity casinos did not consider diversion from other local businesses. This is of particular concern, as the authors were careful to stress that most charity casino gamblers were expected to come from within a 40-kilometre radius of the facility (Coopers & Lybrand 1996, p. 13). We suspect that the scope of the consultants' terms of reference was limited to the charity casino project, so their failure to address the issues raised here is understandable, at least from their point of view. So far, however, there is no indication that the government took account of this diversion in projecting the economic benefits of the proposed charity gambling facilities to the province.

Calculating Incremental Revenue

Gross gambling revenues are the amount left after the operating and management expenses have been deducted. The Appendix demonstrates how the forecast gross revenues from gambling expansion can be converted to a reasonable estimate of "incremental" revenues using the data for British Columbia, along with some fairly simple assumptions. The calculations show why actual results are often much lower than the expectations. Too often, predictions are based on gross revenues generated by the new sources, without taking account of the significant proportion that is diverted from other sources.

The calculations also explain why misleadingly rosy figures can often be presented, even after the fact. They reflect direct revenues and neglect the losses as tax revenues fall elsewhere. Only a careful study of the overall changes in revenues can provide useful evidence about incremental revenues. Our rough calculations suggest that, *as a maximum*, only about $0.70 of each $1 of gross revenue is genuine incremental revenue. Since operating and management expenses have already been deducted to get gross revenue, no more than about 50 cents of each dollar lost by gamblers ends up as incremental revenue for the government.

When realistic incremental revenue figures are calculated, the limitations of gambling-derived taxes compared with other revenue-raising mechanisms become more apparent. In the BC case, the amount of operating profits that will be raised by new gambling activities will depend on which of the various scenarios in the *Gaming Review* the government decides to implement. More than one of the options listed may be introduced at the same time. The effects of doing so were not estimated in the *Review* because, as the authors say, "the outcomes and implications are not necessarily additive."[5]

For our purposes, it does not matter which option we consider since we are interested only in illustrating the significance of realistic estimates of incremental revenues. So for purposes of illustration we assume that the BC government adopts "4 destination-style casinos" (Option 5A). The net revenues that these would generate if introduced on their own are estimated at $76.2 million (*Gaming Review*, p. 14). We take this as our overall estimate of the direct gross revenues generated by new gambling sources. Taking our estimate of $0.72 of incremental revenue for every $1 of gross revenue, this produces incremental revenue of just under $54.9 million for a cost to gamblers of just over $100 million.

Employment Effects of Gambling Expansion

Often, politicians endorse gambling expansion because of supposed increases in employment.

Employment is a matter of great public concern and it is not surprising that those who would push for increased gambling use increased employment as an argument to buttress their case — although that is never the main reason that motivates either private promoters or governments.

As pointed out earlier, the losses from gambling are partly monies transferred from expenditures that the losers would otherwise have made. For the same reason, most of the jobs created in gambling only substitute one for one (at best) for the jobs destroyed when expenditure switches from other activities (*Economist* 1997; Kimber 1997). Some of the "new" gambling-related jobs will be taken from other parts of the existing gambling sector. For example, a 1997 article in the *Financial Post* asserts that 30,000 jobs in Ontario's horse racing industry may be in jeopardy because of the proximity of casinos to racetracks (Livesey 1997). More generally, Shapiro reports that a

> *U.S. News* computer analysis of 55 US counties that got casinos between 1990 and 1992 suggests that casinos do not create significant economic expansion. The increase in new businesses in these counties — about 4 percent — matched that for the rest of the nation.... William Hall, who came to a similar conclusion in a study for Illinois' Economic and Fiscal Commission, says economic development tends to be a wash because 'most places overestimate the amount of tourism they eventually get. Most gambling appears to be by local people. In that case you're moving money around in the economy, rather than bringing in new money'(1996, p. 56).

It would be amazing if the results were otherwise! It is easy to point to jobs created in gambling because they are localized and visible; it is difficult to track the jobs destroyed by the diversion of expenditures from other lines of expenditure because they are diffused over all of the activities that were supported by those expenditures. Only careful studies of overall employment trends, not just those in gambling, have any chance of uncovering the true full effect — and, by and large, such studies typically find little effect.

Our estimates of job creation are as follows. British Columbia's "Request for Proposals" document (British Columbia. Ministry of Employment and Investment 1997*a*) states that of every dollar that is lost in a new destination casino, $0.30 will go to the casino operators to cover wages, other costs, and profits.[6] But as Table A2 in the Appendix shows, only $0.275 of each dollar of this amount comes from new expenditure in the province. The rest is diverted from other gambling or other expenditures on locally produced goods and services, all of which would have produced at least as much employment. So the new employment effect is at best generated by $0.275 for each dollar lost. (The other $0.725 is diverted from local-employment-creating expenditure.) Of course, the province will spend the money it gains from gambling and these expenditures will create employment. But the message is clear: the optimistic projections of new employment *directly* created by new gambling establishments are overstated. The new casinos, offset against the employment sources from which the money they earn will be re-directed, create a net change in employment to the value of -$0.725 for every dollar lost in gambling. The government's subsequent spending of this money may reduce the employment effects to zero. But to argue that the net effects are positive is nothing more than a leap of faith.

So much for totals. In addition, the jobs that are created are often of lower value than the jobs destroyed. A Statistics Canada report states that:

> Nearly one-third of those employed in the gambling industry work part time; just 19% of employees in other industries do so. On average, both full- and part-time employment in gambling pay less than in other industries.... the median earnings for full-time employment in gambling in 1994 were $4,300 less than those for non-gambling employment. Part-time workers in the gambling industry earned an average of $1,300 less than those in other industries (Marshall 1996, p. 38).

The British Columbia *Gaming Review* presents glowing expectations for gambling-related employment. A major Vancouver-area destination casino is expected to produce 3,512 new jobs directly and indirectly related to the operation of the casino and 2,155 jobs directly and indirectly related to its construction (*Gaming Review*, p. 15). Again, although it is mentioned verbally, diversion is not taken into account in making these estimates. Given the reduction in revenue estimates that occurred when we allowed for diversion, it would seem that half of this figure, that is, around 1,000 jobs, would be a more reasonable, but still high-side, estimate of net job creation.

These are trivial contributions to the employment problem, and amply demonstrate the limitations of gambling as an "engine" for economic development. Construction jobs are temporary while 1,000 new permanent jobs amount to what has been created on average in British Columbia each ten days over the four-year period from 1992 to 1996. Even if we take the *Review*'s figure of 2,155 permanent jobs, this amounts to what has been created each 21-day period over that four-year period. Although any new job is to be welcomed, these are not the sort of increments that justify accepting significant costs to obtain.[7]

Many Canadian gambling proponents (including the authors of the British Columbia *Gaming Review*) offer the example of the casino at Windsor, Ontario as evidence that gambling expansion can produce positive results for other businesses (*Gaming Review*, p. 4). While the Windsor casino does seem to be associated with net increases in employment and taxation revenue, it is of little relevance elsewhere in Canada. Over 82 percent of the Windsor casino's visitors and 90 percent of its revenues come from the United States. (Thus, most of the attendant social costs of this facility are "exported" back to the United States.) Further, competing casinos have now been approved for Detroit, events which can hardly avoid reducing the profitability of the Windsor facility (Livesey 1997).

Often, casinos are touted as "saviours" for economically depressed communities. These claims deserve a healthy degree of scepticism, particularly in the medium- to long-run. As demonstrated earlier, the revenues and jobs that are "created" at casinos have to come *from* somewhere. When dollars migrate to slot machines away from more labour-intensive activities (such as bars, restaurants, or horse racing), the effect upon the local economy is negative. This could, of course, be offset by legitimately new "incremental" spending, as described earlier. Whether one effect cancels out the other is a question that deserves more careful study than promoters (and most governments) have undertaken.

Costs of Gambling Expansion

The relatively meagre revenue benefits of gambling do not come costlessly. There are substantial *monetary* costs imposed upon those activities that are supported by expenditures that residents reduce in order to finance their gambling losses. While the proceeds from new gambling are easy to measure because of their concentration and visibility, the losses from expenditure switching are difficult to measure because they are spread over many activities, across a broad geographic area.

Pecuniary and employment costs are incurred by those who engage in the activities from which the money lost on gambling is diverted. Because casinos reap large profits from gambling, it makes good business sense to encourage patrons to remain in the facility by cross-subsidizing ancillary food, beverage, and restaurant services. It is no surprise that competing businesses without access to gambling revenues frequently experience difficulty (Goodman 1994; Kimber 1997).

There are also substantial *social costs*. Again, because these are diffuse and difficult to measure, they are easy to ignore in making the case for increased gambling. This does not, however, make them any less real to those who bear them, which

includes families and city governments. Charities who rely on competing forms of gambling may find themselves faced with financial distress and forced to curtail outputs or find other funding mechanisms. In some cases, governments may find themselves faced with increased costs as a result.

In spite of the conceptual and data-collection difficulties, several researchers have attempted to make measurements of social costs (Grinols 1994; Wisconsin Policy Research Institute 1996). For example, Grinols suggested that raising revenue through gambling results in $1.50 in social costs for every tax dollar raised (1994, p. 8). Although we accept that it is nearly impossible to put a figure on these costs with any degree of accuracy, estimates such as these show that the costs may be large. Also, as we show below, there is some harder knowledge on certain specifics of the overall social costs.

Crime

The comparative newness of large-scale casinos in Canada makes it inappropriate to dismiss the crime issue on the basis of the paucity of Canadian evidence, particularly in light of unfavourable experiences in other countries (Burke 1996; Friedman, Hakim and Weinblatt 1989; Illinois State Police 1992). Nonetheless, Canadian gambling promoters often understate or ignore crime issues (Nicol and Nolen 1998, p. 45). For example, the authors of the British Columbia *Gaming Review* claim that "fears of increased crime have not materialized in other locations in Canada where the availability of gambling has increased" (p.3), and cite the Montreal casino as a positive example. They ignore recent problems that have arisen at that location because of loansharking and the attendant violence (*Vancouver Sun* 1997). As in many promotional documents, the costs of crime itself — incarceration, justice administration, higher insurance rates, and preventive measures — are ignored.

One author has suggested that the "incubation period" for problem and pathological gambling is roughly ten years (Miller 1996, p. 623). In other words, a good deal of time may pass before criminal behaviour associated with these disorders occurs. Moreover, a recent literature review notes that accurate rates of the prevalence and extent of gambling-related criminal behaviours are difficult to obtain, and may tend to understate the problem:

> Arrest and conviction rates are inadequate [indicators] because gambling is not necessarily identified on conviction records as underlying the offence, and not all gambling-related offenses are detected or offenders apprehended. Therefore, the true prevalence rate is likely to be underestimated (Blaszcynski and Silove 1996, p. 360)

Problem and Pathological Gambling

There is evidence that expanding legalized gambling increases the prevalence of problem and pathological gambling generally (Room, Turner and Ialomiteanu 1998; Volberg 1994). Overall estimates of the social costs incurred by *each individual* problem gambler vary greatly. At the low end, Goodman estimates US$13,200 (1994, p.64). At the high end, Tudiver estimates C$56,000 (*Vancouver Sun* 1994). On total costs, Politzer, Yesalis and Hudak (1992) estimate for the United States a total social cost of pathological gambling of US$80 billion.

The BC *Gaming Review* authors describe the impact of expansion on the incidence of problem and pathological gambling as "inconclusive" (p. 3). They also suggest both disorders can be minimized through prevention, treatment and ongoing research (and suggest the allocation of some gambling revenues to these purposes). In reality, a great deal remains to be learned in these matters.[8] If the experience from alcohol and other drug addiction is any indication, it is likely that the recidivism rate will be significant. Many more will never find their way to the treatment process,[9] and it bears repeating that in general, diagnosing mental health disorders is far from an exact science.[10] Meanwhile, evidence shows that a substantial proportion of casino revenues come from problem and pathological gamblers (Miller 1996). The expectation that gambling industry

employees will enthusiastically implement prevention measures is probably unwise.

Measures for the incidence of disorders such as problem and pathological gambling are evolving, and fraught with uncertainty (Ferris, Stirpe and Ialomiteanu 1996, p. 6; Shaffer, Hall and Vander Bilt 1997). Both gambling promoters and their opponents have been known to make misleading presentations in this regard. For example, in suggesting that surveys of problem gambling behaviour may be overstated, the authors of the British Columbia *Gaming Review* neglect to mention that they may also be understated (Smart and Ferris 1996).

Very recently, Shaffer and his colleagues (1997) conducted a meta-analysis of some 152 problem and pathological gambling prevalence studies.[11] One hundred and twenty studies were included in their final work. They found that the proportion of adults who qualify as pathological gamblers has risen substantially, from 0.84 percent before 1994 to 1.29 percent since. However, an overwhelming proportion of the studies used self-report data collected by telephone interviews. As the authors note, non-response error becomes an important issue; they conclude that "sample response rates of less than 50% are unscientific and offer little to our understanding of disordered gambling" (p. 118). This finding casts doubt on the usefulness of the studies that have been done in provinces such as British Columbia.[12]

Additionally, when a sample of people is asked questions about sensitive topics, it is likely that many will consciously or unconsciously bias their responses toward the socially acceptable answer. The result is an underestimate of true prevalence (Holden 1998; Streiner, Norman and Monroe-Blum 1989, p. 97). Although several techniques have been developed to detect and remedy the "social desirability bias," we are not aware of any studies that have applied these to the case of problem gambling self-reports.[13]

Finally, many authors have attempted to calculate the social costs of problem and pathological gambling. Often, these are borne by local governments, and so are not of direct concern to provincial or state authorities (City of Vancouver 1994). Examples include policing, crime and infrastructure costs.

The important point is that social costs associated with gambling expansion can easily outweigh the financial benefit. For example, British Columbia's health-care budget was just over $7 billion for 1998-99. Our estimate of the incremental revenues from extended gambling is 0.8 percent of this amount and 2.9 percent of the outside possibility for incremental revenue mentioned above.

More General Social Effects

Many who are opposed to the extension of legalized gambling fear the encouragement of an overall climate of opinion, social attitudes, and behaviour patterns which they feel will follow. Although these more general concerns are impossible to quantify, they are real. The impossibility of measuring them does not make them unimportant or unsuitable matters for consideration when policies are being altered. To illustrate by a different example, the great Canadian debate about the Free Trade Agreement with the United States was as much a matter of how this agreement would affect such things as national loyalty or the "caring society" as it was about the direct effects on trade.

Consequences Associated with Problem Gambling

Problem gamblers are an easy target for those in organized crime. They can be lent money which they lose, and then forced into such illegal activities as couriering drugs. The existence of a supply of problem gamblers may actually attract the criminals who would exploit them. And, when the consequences come home to roost, suicide may increasingly appear to be an easy out (Lesieur 1998; Phillips, Welty and Smith 1997).These are the kinds of developments that people often have in mind when they

express concerns about the corrupting effects of an expansion of legalized gambling, particularly in casinos.

Gambling promoters often deflect attention from these problems by encouraging a focus on the opportunity for "new" revenue. For example, the Appendix to the *Gaming Review* notes that "the average estimated per capita expenditure on gaming by British Columbians ($231) is over one-third lower than the national average" — a possible reflection of the more limited gambling opportunities available in the province (Appendix A, p. 1).[14] The authors see this as an opportunity to increase the public's gambling activities and hence government revenues derived from gambling. Opponents see the present situation as a desirable social characteristic to be maintained and as evidence that low availability of legalized gambling does strongly affect behaviour — and in ways that they think desirable.

Political Integrity

Another social concern lies in the integrity of the political process. As governments increase their dependence on gambling, they will encourage citizens to make unwise spending decisions. As the Auditor General for British Columbia noted, the provincial government's dual role of regulator and promoter of gambling creates a huge potential for conflict between what is politically expedient and what is economically (or socially) optimal (1997, p. 42). There is, thus, a very real need to develop expertise outside the industry because if this does not occur, experience suggests that the agenda of regulatory agencies will easily be "captured" by promoters, to the detriment of society at-large. The evidence that this often happens on a large scale with regulatory agencies is well documented in the economics literature.

A degree of corruption is a very likely product of expanded gambling (Martz 1997; Padavan 1994).[15] To be sure, some jurisdictions seek diligently to prevent corruption in the regulatory process through mechanisms such as conflict-of-interest rules, the appointment of persons who are above suspicion, or requirements for open procedures.[16] But the effectiveness of these practices is limited. The licences that a commission awards are extremely valuable, and decisions it makes governing day-to-day operation of gambling facilities will often involve large amounts of cash. In many cases, there will be a lack of clearly articulated, determinative standards. Hence, as Breyer notes in his discussion on regulation, commissions will often have to exercise substantive, unfettered discretion. Under these circumstances, "suspicion of corruption and its occasional appearance are inherent in the process" (1982, p. 89).

Limitations of Gambling as a Revenue Source

The ability of any gambling enterprise to sustain large profits, and hence, large tax yields, depends upon the ability to keep would-be competitors out of the market. The most important barrier is undoubtedly government licensing requirements. Governments can prohibit competitors from entering the industry, but only within their area of jurisdiction. Everywhere in North America the effectiveness of these barriers is declining, and it will continue to do so for several reasons.

Lotteries and casinos are spreading. Virtually every state and province has a government-sponsored lottery, and casinos are already operational in several Canadian provinces and American border states. More importantly, virtual gambling on the Internet is in its infancy but is spreading quickly. This trend will accelerate with the full solution of the security problems associated with giving credit card details over the Internet. The Internet is beginning to transform many industries, running from banking to grocery retailing (Harris 1998), and there is no reason to believe that gambling will escape its influence. Indeed, at a recent meeting, a major casino executive told his industry colleagues, "the Internet scares me to death" (Impoco 1996).

As the US National Association of Attorneys-General has noted, one of the most important aspects of Internet gambling is that its proprietors can operate from anywhere in the world and hence can choose jurisdictions where income taxes and regulations on such things as minimum age of gamblers and maximum limits on bets are non-existent (National Association of Attorneys-General 1996). A second important aspect is that the costs of operating a virtual gambling operation are a minute fraction of the costs of setting up and operating a casino. Since Internet gambling firms can also avoid both taxes and regulations, they can provide higher payoff ratios than can competitors operating from fixed locations in Canada or the United States. These operators will have to react if they are to maintain their customer bases.

As competition intensifies, existing gambling outlets will be pressured to fight the "cannibalization" of their incomes and profits. Operators of casinos and other gambling establishments as well as provincial/state lottery corporations will be pressured, slowly but inexorably, to raise prize payouts and to relax those regulations that were initially put in place to quell public concerns. The zeal with which jurisdictions enforce prohibitions against the resale of lottery tickets outside their borders may decline as decisionmakers search for ways to maintain an uninterrupted flow of dollars.

The increasing trend of profit-motivated liberalization is already easy to see. Betting limits, hours of service, and similar restrictions are fading in many jurisdictions. New, more interactive, products such as keno games are increasingly being introduced as the popularity of "traditional" lottery games diminishes (British Columbia Lottery Corporation 1996; Kindt 1995). Often, these products are placed in drinking establishments despite the reality that many problem and pathological gamblers also suffer from disorders related to alcohol and other drugs (Lesieur 1998; Murray 1993).

In many jurisdictions, prize payouts and advertising have increased. For example, recent annual reports from the British Columbia Lottery Corporation reveal steady increases in advertising costs and the ratio of prizes to sales. Increased payout ratios, along with rising defensive advertising and marketing expenses, will erode profitability and hence the total provincial tax revenues obtained from gambling (Livesey 1997; Standard and Poor's 1995).

First Nations Concerns

No discussion of gambling in Canada would be complete without at least a brief treatment of First Nations concerns. Leaders of many First Nations have endorsed gambling as an avenue for economic development. As evidence, they cite the good financial results that have been achieved at *Casino Rama* (in Orillia, Ontario) and many Native American casinos in the United States (Stephenson 1996). To be sure, some of these casinos have been very profitable, and have enabled aboriginal groups to fund needs such as health care and infrastructure beyond what they could otherwise afford.

Three caveats to what was said in the previous paragraph seem to be in order. First, only a small proportion of First Nations in Canada are located in areas that would allow them to reap large sustainable profits from gambling. Second, some Canadian and American research suggests that the prevalence of problem and pathological gambling among aboriginal groups is higher than it is among the general population. Particular problems have been found among youth (Alberta Alcohol and Drug Abuse Commission 1995).

Finally, the observations regarding the uncertainty of gambling revenues and profits apply equally to First Nations groups. A casino is a costly, long-lived asset. A degree of risk is associated with this asset because of the emergence of Internet gambling and an expansionist mood in provincial governments. Increased competition from other casinos or gambling ventures will slow the flow of dollars (Stephenson 1996). Indeed, there is some concern

among Native American groups that governments, faced with declining revenues from their own gambling enterprises, will fail to renew casino franchises granted in easier times.

Ultimately, as Chief Justice McEachern noted in the *Delgamuukw* decision, the answer to social questions as they affect First Nations "will be found in the good health and education of young Indian people, and the removal of the conditions that have made poverty and dependence upon public funding their normal way of life" (p. 300). It seems unlikely that these goals will be well served by an extension of gambling, particularly in the long run.

Conclusions and Recommendations

There has been a "bandwagon" atmosphere around gambling in Canada, and an unfortunate stifling of healthy public debate. Canadian provincial governments have expanded gambling through regulatory commissions, Orders-in-Council and, less frequently, by legislation. Even when the latter occurs, the high degree of party discipline in Canadian provincial legislatures leaves little doubt about the outcome of gambling bills once they are introduced.

Recent North American experience indicates that when voters are left to decide the matter, the outcome is only rarely in favour of gambling and casino expansion (Nicol and Nolen 1998). Experience also shows that it is very difficult to reverse expansion once it has been implemented. Hence, we recommend a moratorium on gambling expansion in Canadian provinces until a sufficient opportunity for research and debate has been afforded.

The ongoing erosion of protective measures can be discouraged by legislation that is relatively inflexible. Further, barriers to entry that are not subject to change at the mere whim of Cabinet will facilitate better investment decisions in both the private sector and First Nations groups. These will allow a better assessment of the degree of risk attached to long-lived assets such as casinos or other projects that rely upon the same market.[17]

More impartial assessments are needed of the mass of existing research results to establish the merits of gambling as a way of funding government obligations. An interdisciplinary approach is needed to generate credible assessments (Henriksson 1996; Seelig and Seelig 1998). For this reason alone, no decisions should be taken without major, arm's-length studies over which the government exerts no direct influence. Analysis is also needed on how best to provide effective oversight of the gambling industry. When government is both regulator and beneficiary of gambling activities, conflict-of-interest is inevitable (Nicol and Nolen 1998).

Advertising represents a special concern. Canadian governments have been eager to impose controls on the marketing of potentially hazardous products such as alcohol and tobacco. But on the whole, there is a lack of similar standards for gambling. This deficiency is troubling at a time when the British Columbia Lottery Corporation ranks among the largest advertising accounts in the province. Research is needed to determine the consequences of advertising on populations such as youth, the mentally challenged, problem gamblers, and the poor. Some attempt might be made to apply the growing body of research that has been completed on the tobacco industry.

To put our estimates of net new gambling revenues into perspective, note that BC raises about $10,000 million in personal and corporate income taxes, provincial sales taxes (PST), and capital taxes. The incremental revenues from the proposed expansion alternative that we have studied are 0.55 percent of this amount. If we make the conservative estimate that marginal and average rates of tax are the same, obtaining this amount by increasing the PST and provincial income tax (PIT) would require an increase in the rates by roughly half of one percent.[18] This would mean an increase in PST from 7 to 7.035 percent and in PIT from 50 percent of the

federal tax to 50.25 percent. Even if a massive expansion of gambling led to incremental revenues of $200 million, this would be only 2 percent of current PIT and PST revenues. To increase these revenues by that amount on our assumptions would require increasing the existing rates by 2 percent. This would raise the PST from 7 to 7.14 percent and PIT from 50 to 51 percent.[19]

Although these increases might be politically unpopular, they are economically trivial. Even if it were politically impossible to effect these small rate increases, equivalent sums could be produced by very modest spending economies amounting to a reduction of between 0.3 percent and 1 percent of total provincial program expenditures.

Nonetheless, to avoid increasing tax rates or economizing on expenditures by these trivial amounts, many provincial governments are willing to impose the large social costs of increased gambling on an electorate, the majority of whom are revealed by local referenda to oppose the expansion. We are left to wonder at what political scientists may someday be able to explain: why governments with such widely divergent political and social philosophies as the Progressive Conservatives in Alberta and Ontario, and the New Democratic Party (NDP) in BC have opted for an unpopular and socially costly policy of gambling expansion.

All in all, the best gambles are those in which one risks a relatively small sum in the hopes of winning a relatively large sum. The bet the public is being asked to make on extended gambling violates that basic principle. They risk a large economic and social loss that is uncertain and open-ended. No one knows how big it may be. The potential return must be described, even by the most favorable calculations that can be defended, as relatively small gains in terms of new government revenues and private-sector employment — revenues that could be generated by very small increases in rates of existing tax rates, or could be freed up by small economies in other spending programs. All in all, this is neither an efficient nor an effective way to fund public policy goals. As *The Economist* stated, "without resorting to moralising and even without mentioning organised crime, those who would clamp down on gambling can now make a formidable economic case" (1997, p. 28).

Notes

[1]We do not attempt a broader socio-economic analysis of the costs and benefits of such new gambling. This would require estimates of the consumer satisfaction it brings (as measured, say, by consumer surplus) and of such offsetting costs as arise from consumers' misinformation of gambling odds, and the long-term risks to themselves and their families of engaging in gambling. Account would also have to be taken of the extra cost incurred in society from outcomes such as crime, police protection, and legal and insurance costs. A revealing economic analysis was completed by Cyrenne (1995).

[2]All statements are made for today's population and income. Of course, if population and incomes continue to rise, any given tax will raise more money. So, when we speak of some policy raising or lowering revenues, we mean raising or lowering them below what they would be with today's population and income, and making them more or less than they would be at any future population and income if that policy were not operating.

[3]It is interesting that the "status quo" was defined as "moderate expansion of the number of charitable casinos and bingo halls," and "the introduction of electronic bingo into charitable bingo halls" (British Columbia. Ministry of Employment and Investment 1997*a*, p. 8).

[4]The numbers do not always correspond exactly because in some cases, the government makes assumptions about the details of these options that differ from those made by KPMG in its Appendix.

[5]In making this statement, the authors of the text admit what is denied in the very assumptions they are using: that the revenues generated by any new source will not all be incremental revenues because much of it will merely be transferred from other sources.

[6]The proprietors take 40 percent of table game profits and 25 percent of the profits from slot machines. Since

most of the profit will come from slot machines, we have taken an overall figure closer to the "slot" profit than the table game profit.

[7]These figures were calculated as follows. The increase in total BC employment over the four-year period from 1992 to 1996 was 1,417 million – 1,259 million = 158 million. Dividing by four gives a figure of 39.5 million per year. The employment estimates of 1,000 represent an increase of 1/39.5 = 2.53 percent which multiplied by 365 gives 9.24 days worth of employment generation. Similar calculations make the government's figure of 2,125 equal to 19.74 days of employment creation. Almost identical figures that differ by less than one day are obtained if the comparison is made against the average BC job-creating figures over the last ten years. (Source for employment data: Statistics Canada 1997).

[8]In a recent review, López Viets and Miller concluded that "empirical outcome data ... provide an encouraging picture of treatment outcome for pathological gamblers" (1997, p. 697). However, the authors subsequently pointed out several serious shortcomings in the literature, including the absence of clear outcome measures and lack of post-treatment follow-up in many studies (ibid., p. 698). The need for better, more consistent research standards is echoed by Canada's National Council of Welfare (1996, p. 60).

[9]This point is alluded to in the BC *Gaming Review* (Appendix A, pp. 58-59).

[10]There is a co-morbidity of pathological gambling with other disorders, such as depression, alcoholism, and a number of others (e.g., López Viets and Miller 1997, p. 698).

[11]Meta-analysis is a research procedure for aggregating the findings of empirical studies. It has been used to estimate the prevalence of mental health disorders (e.g., Ritchie, Kildea and Robine 1992). It is often suggested as a way to "round out" the defects that are inevitable in any one study. However, meta-analysis does not attenuate defects that are pervasive throughout the set of included studies.

[12]The response rate for the 1994 BC study was only 25 percent (Gemini Research 1994, p. 15). A similar study completed two years later (Angus Reid Group 1996) failed to report the response rate.

[13]When the public is repeatedly presented with what could be artificially low prevalence measures, they are encouraged to trivialize the disorder because prevalence by itself conveys no cost information. This may explain the very heavy proportion of recent prevalence studies (including the meta-analysis by Shaffer and his colleagues) that are sponsored or funded by state lotteries and pro-gambling interests.

[14]A recent report reveals that BC has the lowest per capita revenues from gambling of the ten Canadian provinces (National Council of Welfare 1996, p. 9, Table 4).

[15]One researcher found that gambling promoters had contributed about $100 million to state political races between 1992 and 1996 (Lynch 1997). Another noted that in Virginia, casino proponents hired 48 lobbyists who represented practically every lobbying firm in the state capital in an attempt to prohibit any anti-gambling lobbyists from competing (Kindt 1998, p. 86).

[16]Effective oversight will likely require the selection of regulatory commissioners with experience in the gambling industry. This increases the likelihood of conflict-of-interest (Breyer 1982, pp. 344-45), as demonstrated recently in the Ontario "charity casino" project (*Toronto Star* 1998).

[17]Some risk factors are exogenous to government. These include competition from neighbouring jurisdictions, changes in consumer taste, and technological change.

[18]Because of exemptions, the marginal rate of both PIT and PST will exceed the average rate. Thus, the necessary increase will be somewhat less that we have estimated.

[19]These calculations assume 1998 federal tax rates.

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APPENDIX
Estimating Incremental Revenues

In this Appendix, we show what is needed to calculate incremental revenues. To illustrate, we use estimates for the case of British Columbia. We define "gross gambling revenue" as that revenue to the government that remains after deduction of operating and management expenses. We identify three sources of gross revenue. The first source is money diverted from other gambling activities within the jurisdiction, called "gambling diversion" or "GD." There is little evidence from other jurisdictions on the magnitude of this diversion. We select a 25-percent rate, which seems to be a reasonable figure on the low side. The contribution to incremental revenue from this source is zero.

The second source is funds diverted from other spending in the jurisdiction, called "spending diversion" or "SD." This money would have generated sales and income taxes if it had continued to be spent on locally purchased goods and services. Here we need to know the amount of PST (provincial sales tax) and PIT (provincial income tax) generated by each dollar of local spending. The PST rate is 7 percent. We estimate the figure for PIT as total PIT revenue as a percentage of total provincial taxable income, which is 6 percent. This makes the contribution to incremental revenue from this source 87 percent of each dollar of gross revenue.

The third category is spending, which would not otherwise have been made within the jurisdiction, and called "new spending" or "NS." For tourists, this is money they would not have otherwise spent within the jurisdiction. This covers additional spending by tourists who would have visited BC anyway and spending by tourists who would not have come in the absence of new gambling establishments. For locals, this is money they would have saved or would have spent outside the jurisdiction but is now lost on new local gambling activities. Here each dollar of gross revenue generates a dollar of incremental revenue.

Next, we divide these spending categories into spending by locals and by tourists (where locals are those who live within the jurisdiction that is local for purposes of taxes and other gambling establishments). In this case, the locality is the province of BC. Now we need to know what proportion of gross revenue is generated by tourists and locals and how much of each comes within our three categories. The province estimates that up to 50 percent of Lower Mainland revenues might come from tourists. In light of experience elsewhere, this seems wildly out of line as an average for all new provincial gambling sites. So we have taken a more conservative estimate of 75 percent of total gross revenue coming from locals and 25 percent from tourists, an estimate that we regard as being on the high side for tourists. We apply the gambling diversion of 25 percent discussed above only to local spending and allow only 10 percent for tourist spending. Next, we assume that new spending is 20 percent of spending by locals. This seems on the high side for locals, who cannot be assumed to find much of their losses out of savings and most of whom are not gambling locally as an alternative to a visit to Las Vegas or some other non-local site. There is almost no evidence on how much of tourist losses is money they would not have spent there otherwise. So our estimate of 50 percent for tourists is just a guesstimate. Finally, we assume that diverted spending is 40 percent of total tourist spending and 55 percent of local spending. The local spending estimate is a residual after allowing for 25 percent gambling diversion and a generous 20 percent for new spending.

Table A1 shows our estimates of how $1 lost by tourists and locals is divided between gambling diversion, spending diversion and new spending. Table A2 multiplies the figure in row 1 of Table A1 by 75 percent and row 2 of Table A1 by 25 percent to reflect our estimate of how a dollar of gross revenue is divided between losses by locals and by tourists. Table A3 takes the estimates of gross revenue in each expenditure class from the bottom row of Table A2 and multiplies them by our estimates of the proportion of gross revenue that becomes incremental revenue to produce the estimates of incremental revenue in the last row. The net result is an estimate of just over $0.72 of incremental revenue for each $1 of gross gambling revenue after administration costs have been deducted.

TABLE A1
Sources of Each $1 Lost by Locals and by Tourists

	Gambling Diversion	*Spending Diversion*	*New Spending*	*Total*
	$	*$*	*$*	*$*
Locals	0.25	0.55	0.20	1.00
Tourists	0.10	0.40	0.50	1.00

TABLE A2
Sources of $1 of Gross Provincial Revenue

	Gambling Diversion	*Spending Diversion*	*New Spending*	*Total*
	$	*$*	*$*	*$*
Locals	0.1875	0.4125	0.150	0.75
Tourists	0.0250	0.1000	0.125	0.25
Total	0.2125	0.5125	0.275	1.00

TABLE A3
Incremental Revenue from $1 of Gross Revenue

Expenditure Class	*Gross Revenue*	*Incremental Revenue as a % of Gross Revenue*	*Total Incremental Revenue*
	$	*$*	*$*
Gambling Diversion	0.2125	0	0
Spending Diversion	0.5125	0.87	0.4459
New Spending	0.2750	1.00	0.2750
Total	1.00	–	0.7209