

### 3. Previous Policies and Results to Minimise Harm from Gambling

#### Summary of Discussion

State and Territory governments are responding in a variety of ways to the incidence of problem gambling and general community concern in relation to gambling issues. Caps on the number of gaming machines are one such policy. The gaming industry has established voluntary measures through Codes of Practice in each State/Territory. Harm minimisation and responsible gaming practices represent the key policy frameworks under which a host of mandatory regulations, Ministerial decisions, and industry programs have been introduced. Much of this is new and untried, some is borrowed from experience overseas, some is the result of research, some is the result of the application of technology.

There is a very extensive list of intervention strategies, including *inter alia*, smoking bans, limitations on the way winnings are paid, the introduction of clocks and improved lighting, economic and social impact tests, restrictions on the hours of opening, self-exclusion programs, controls on advertising, better information to gamblers, improved counselling access, bans or limits on note acceptors, improved training for gambling staff, and state-wide and regional caps.

In this section we consider the introduction of smoking bans in gaming areas, use of credit cards and ATM usage, the role of advertising and product warnings and the potential impact of reconfiguring gaming machines. A more complete summary of harm minimisation measures in the various States/Territories is included in Report B: Evaluation of Self-exclusion Programs and Harm Minimisation Measures (October 2002) completed by the Centre for the Victorian Gambling Research Panel.

Policies that appear to have had some positive impact on problem gambling include smoking bans, a ban on note acceptors, limiting access to credit, reducing the maximum bet on machines and providing information to players 'in real-time'.

#### 3.1 Bans on Smoking in Gaming Areas

The Victorian Government introduced a ban on smoking in gaming areas of licensed premises from 1<sup>st</sup> September 2002. Under the legislation, a person must not smoke:

- "in a gaming machine area in an approved venue that consists of only one room"; or
- "in a gaming room in an approved venue that consists of two or more rooms".<sup>1</sup>

The purpose of the smoking ban is to improve health outcomes by reducing exposure to environmental tobacco smoke (i.e., passive smoking). One benefit of the smoking ban is that it addressed the well known relationship "that high smoking rates exist in problem and pathological gamblers seeking treatment" (Griffiths, et al, 1998; see also Rodda, et al, 2004; Smart et al, 1996) and so was likely to have an impact on participation and/or time spent gambling. Recent Australian research "found significant linear relationships between problem gambling, measured by SOGS, and the likelihood of participants reporting smoking and nicotine dependence scores. Negative affect (anxiety) was linked to problem gambling and smoking status and may possibly be a causal factor for the

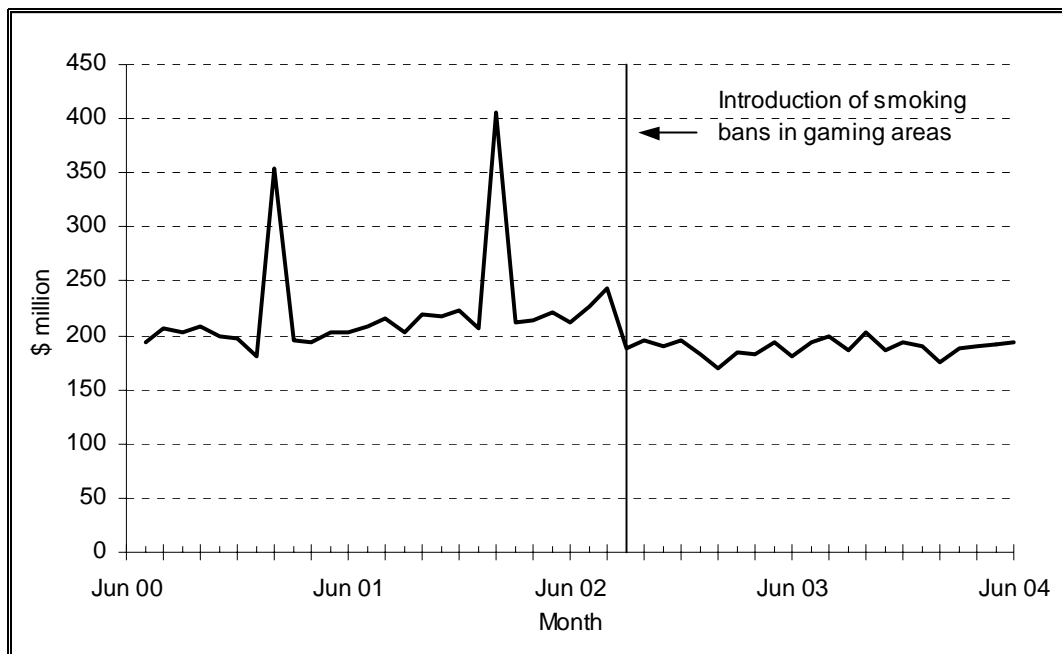
<sup>1</sup> Victoria. 1987. *Tobacco Act 1987*, No. 81 of 1987.

maintenance of both activities” (Rodda, 2004, p. 77). While it was expected that the ban would lead to a drop in gaming revenue because of the association between smoking and gambling, this was not at all certain nor was the scale of the decline anticipated. The following section considers the impact of the smoking ban on gambling activity.

### 3.1.1 Impact on Gambling Expenditure

The impact of the smoking ban on gambling activity is demonstrated by Figure 3.1, which shows monthly expenditure on EGMs for Victoria. Prior to the introduction of the bans on 1<sup>st</sup> September 2002, monthly expenditure on EGMs was running above \$200 million. Following the introduction of the ban average monthly expenditure fell below the \$200 million mark, and has remained below or at this level since this time.

**Figure 3.1**  
Net Monthly Expenditure on Electronic Gaming Machines in Victoria



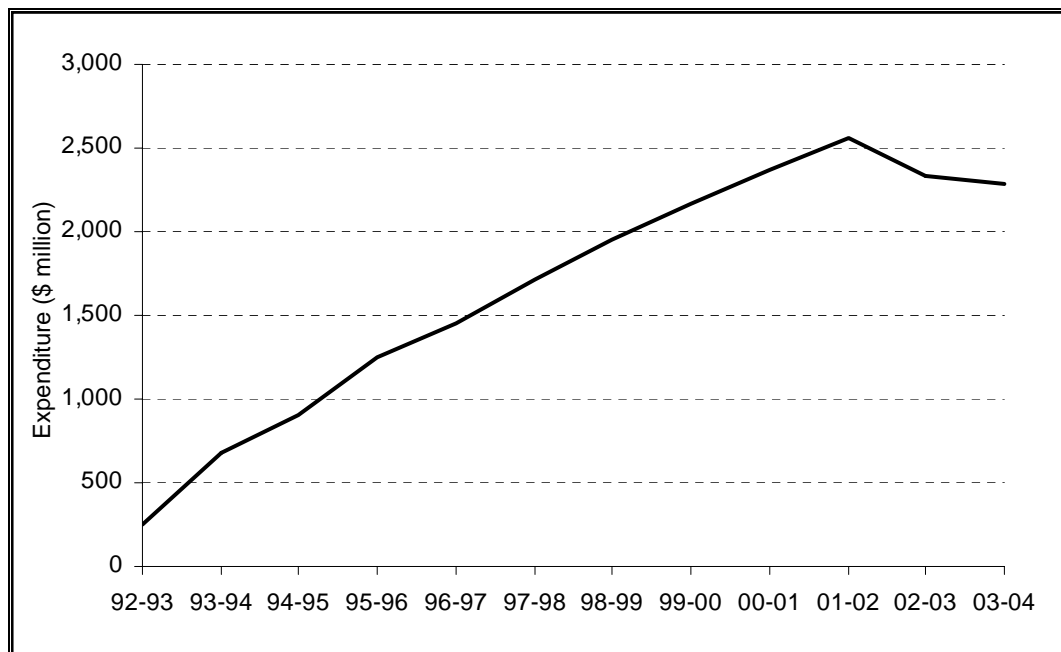
Source: Office of Gambling Regulation.

More specifically, average monthly expenditure for the year to August 2002 — i.e., the year prior to the smoking ban — was \$234 million per month compared to \$188 million per month for the year after the introduction of the smoking ban. Average monthly expenditure was thus almost 20 per cent lower in the year after the ban on smoking in gaming areas was introduced.

The impact of the smoking ban is perhaps better illustrated by the annual EGM expenditure data presented in Figure 3.2. Annual expenditure rose strongly up until 2001-02, but then fell by \$229 million or 8.9 per cent in 2002-03, and by a further \$43 million or 1.9 per cent in 2003-04. The actual impact of the smoking ban on gambling activity would be higher than these figures indicate since the trend in expenditure prior to the ban suggests that expenditure would have continued to rise in 2002-03 and 2003-04 in the absence of the ban, albeit at a slower pace than in previous years.

Other policy responses introduced by the Victorian Government over recent years (see Section 1.3.1 for a list of policy measures) may also have contributed to weaker expenditures in recent years. However, these measures are likely to have had only a slight impact on gambling expenditure and do not explain the sharp fall in expenditure in 2002-03. The monthly data presented in Figure 3.1 confirms this with the dip in expenditures coinciding strongly with the introduction of the ban on smoking.

**Figure 3.2**  
Net Annual Expenditure on Electronic Gaming Machines in Victoria



Source: Office of Gambling Regulation, Tasmanian Gaming Commission.

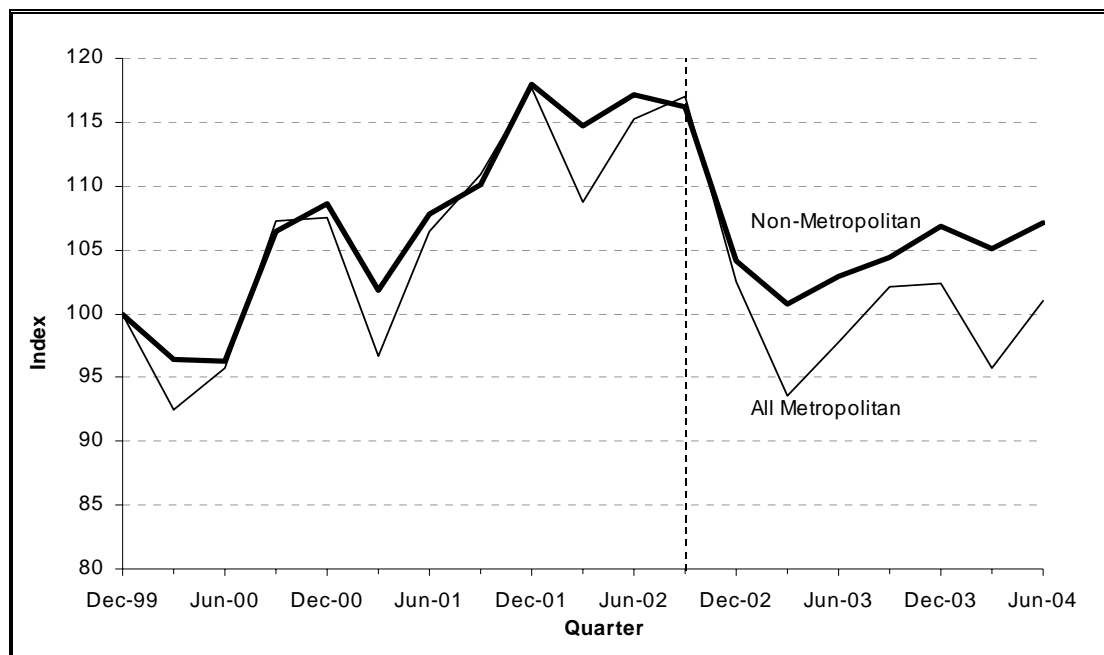
Regional data indicates that the impact of the smoking ban on gambling activity was geographically widespread. Expenditure data from the Office of Gambling Regulation for 60 regional areas indicates that 58 (97 per cent) of these regions experienced falls in EGM expenditure in 2002-03.<sup>2</sup> Only the Shire of Cardinia and City of Casey had a higher expenditure in 2002-03. The fall in expenditure in 2003-04 was also widespread, though more narrowly so, with 44 (73 per cent) of the regions having a lower EGM expenditure in 2003-04 relative to the previous year.

One noticeable difference in the impact of the smoking ban is shown in Figure 3.3, comparing metropolitan and non-metropolitan local government areas. Non-metropolitan areas were less affected by the ban than metropolitan areas. Metropolitan areas experienced a 25 per cent fall in expenditure within the first two quarters after the introduction of the smoking ban, while non-metropolitan areas experienced a 21 per cent fall. Over the first full year of the ban, expenditure fell by 19 and 17 per cent in metropolitan and non-metropolitan areas respectively. Another interesting factor that can be observed from Figure 3.3 is that while Victorian non-metropolitan average net gaming revenue was very close to the metropolitan average prior to the ban on smoking in gaming venues, during the recovery phase the non-metropolitan average was

<sup>2</sup> The regions are mostly made up of individual Local Government Areas (LGAs) with the remainder being composed of amalgamations of LGAs.

consistently above the metropolitan average. Clearly, one possible explanation for this difference is that non-metropolitan areas that include a rural hinterland, have a lower ratio of smokers among EGM players than metropolitan areas. Higher rates of cardiovascular disease and premature death from lung cancer are observed in Maribyrnong (8.9 years lost), Greater Dandenong (6.2 years) and Darebin (7.1 years) relative to the average for non-metropolitan regions and the five wealthiest LGAs (4.6 years lost).<sup>3</sup> It is well documented that smoking and EGM play are frequently associated and that smokers spend more per capita than non-smokers.

**Figure 3.3**  
**Index of Net Gaming Revenue: 1999-2004**  
**Quarterly Average (Base: Oct-Dec 1999 = 100)**  
**All Metropolitan and Non-Metropolitan Regions**



Note: Graph starts from fourth quarter of 1999 and ends at second quarter of 2004.

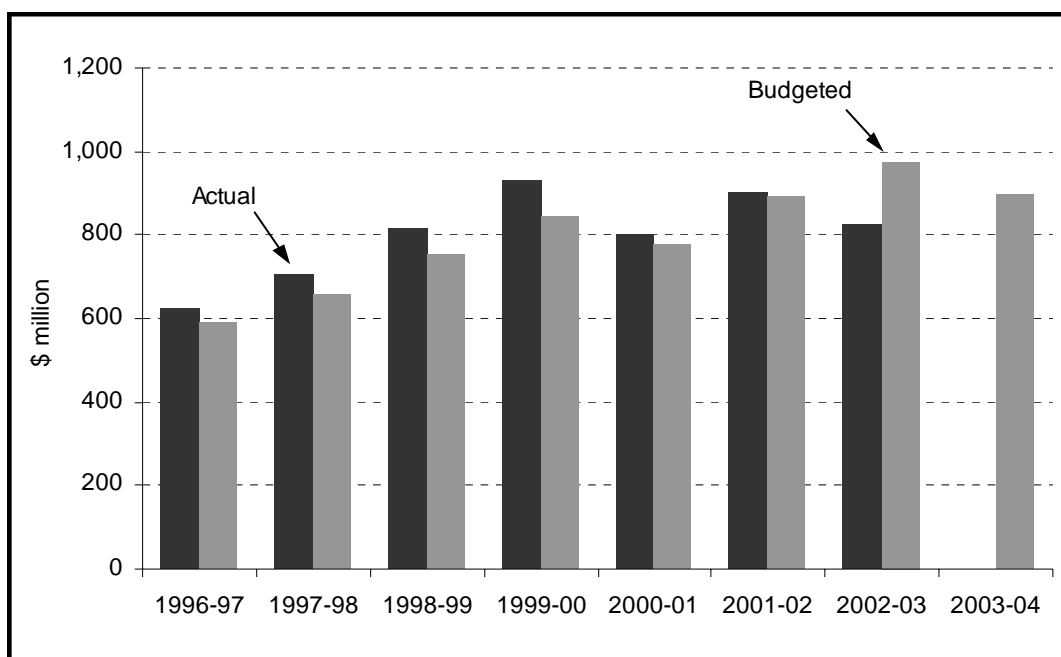
Source: Constructed from data obtained from OGR (2004).

It also appears to be the case, that following the introduction of the smoking ban the Casino was not as affected as the local hotel or club. A major reason for this is that smoking areas are available in the Casino in close proximity to banks of EGMs. A second and important reason is that, in the Casino a player can interrupt play and transfer credit to a card whereas cards are used less in hotels/clubs. In these venues, to interrupt play the player wishing to take a break had to 'cash out' and receive coins. The receiving of coins rather than notes (or the transfer of credit to a card) and the physical interruption to play appears to have provided a stronger psychological incentive to cease play.

### 3.1.2 Impact on Taxation Revenue

The impact of the smoking ban on expenditure means there has also been a direct impact on State taxation revenue derived from EGMs. This is illustrated by Figure 3.4, which shows for each financial year actual EGM taxation revenue versus the original budgeted amount as forecast by the Department of Treasury and Finance.

**Figure 3.4**  
Victorian Taxation Revenue from EGMs: Budgeted and Actual



Source: Department of Treasury and Finance, Annual Financial Reports and Annual Financial Statements, various issues.

Actual taxation revenue derived from EGMs in 2002-03 was \$826 million, which was \$77 million (8.5 per cent) lower than EGM taxation revenue collected in the previous year. Significantly, actual taxation revenue for 2002-03 was \$147 million (15 per cent) lower than originally budgeted. Prior to 2002-03, budgeted taxation revenue from EGMs was consistently lower than the eventual actual amount (at least for the years shown), indicating that gambling activity tended to grow more strongly than anticipated. These outcomes tend to indicate that the impact of the smoking ban on expenditure and taxation revenue was unexpected or at least much greater than expected.

Whether the impact of the smoking ban on taxation revenue was in the order of 15 per cent is debatable. The actual impact of the ban on revenue depends on whether the original treasury forecast represents an accurate measure of the true counterfactual scenario (i.e., what would have happened in the absence of the smoking ban). This is difficult to determine given the uncertainties of evolving household expenditure patterns and the impact of other policy responses on gambling expenditure and hence taxation revenue.

Nevertheless, it is interesting to consider that the Department of Treasury and Finance had forecast that taxation revenue from EGMs in 2003-04 would be \$896 million, which is some \$70 million or 8.4 per cent higher than total actual revenue in 2002-03. Given

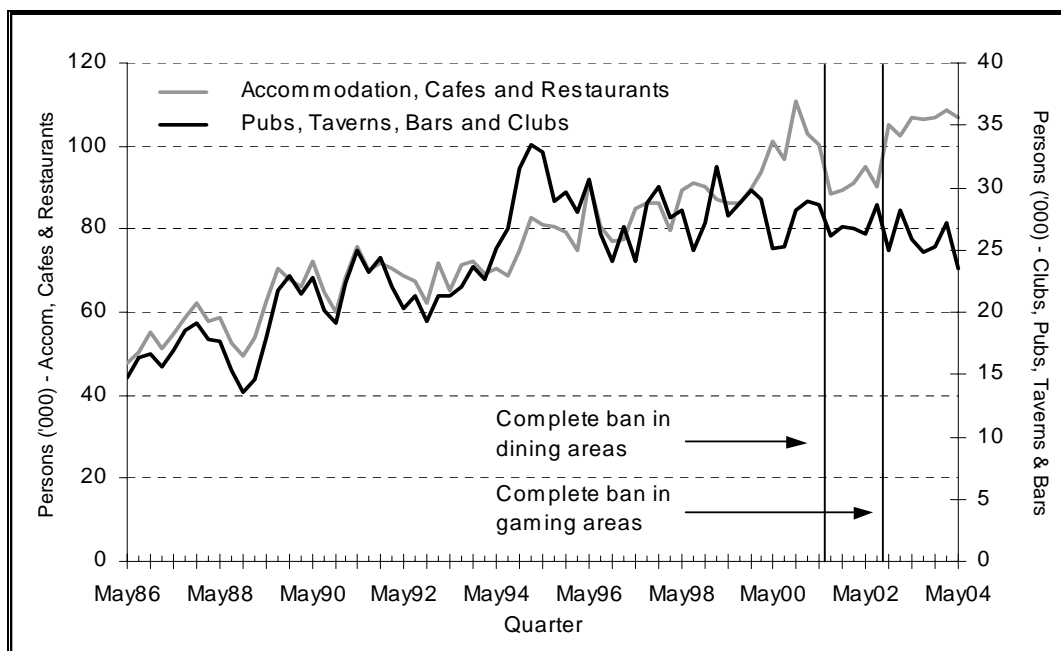
that recent data indicates that total expenditure on gaming machines actually fell again in 2003-04 (by \$43 million/1.9 per cent), this suggests that the forecast for 2003-04 will be an over estimate. This outcome suggests that the smoking ban has had a more prolonged impact than originally expected, or that other policy measures may also have had an impact on gambling activity. It could also reflect that the pace of growth in EGM expenditure would have slowed anyway in the absence of the smoking ban and other policy measures, but this is highly speculative. Whatever the case, the Department of Treasury and Finance expects that gambling behaviour will return to normal in 2004-05:

“...it is expected that gambling behaviour has now adjusted to the impact of the smoking ban and will now grow in line with the economy as revenue did prior to introduction of the smoking ban ”.<sup>4</sup>

### 3.1.3 Impact on Employment

Another dimension of the smoking ban is the impact on employment in relevant venues. Given that the ban has had a significant impact on gambling behaviour, at least temporarily, one may expect that this may have translated into a decrease in employment at gaming venues.

**Figure 3.5**  
Introduction of Smoking Bans and Total Employment in Pubs, Taverns, Bars and Clubs and Accommodation, Cafes and Restaurants  
Victoria- May 1986 to May 2004



Source: ABS, AusStats, Labour Force (Cat. No. 6291.0).

The impact of the smoking ban on employment can be gauged from Figure 3.5, which shows for Victoria the path of employment in pubs, taverns, bars and clubs and accommodation, cafes and restaurants i.e., the broader sector to which pubs, clubs, etc., are classified in the Australian Bureau of Statistics industrial classification. Since the data is derived from a sample survey and for a detailed industrial level, it needs to be

treated with caution since movements from quarter to quarter may reflect changes due to sampling error rather than true movements in the characteristics of the population.

The employment data does not strongly support the view that employment in gaming venues fell following the introduction of the smoking ban. Average employment in pubs, clubs, taverns and bars over the 4 quarters after the smoking ban was introduced (i.e. to August quarter 2003) was only 1.2 per cent lower than average employment for the 4 quarters prior to the ban. Meanwhile, employment in the broader accommodation, cafes and restaurants sector actually rose strongly following the introduction of the smoking ban. It is tempting to conclude that this outcome reflects a scenario whereby consumers have shifted expenditure from gaming venues to other venues in the hospitality sector (e.g., cafes and restaurants). However, in the absence of specific data on expenditure patterns, and given the imprecise nature of the data, one cannot make such a conclusion.

That employment in Victorian pubs, taverns bars and clubs and accommodation, cafes and restaurants fell following the introduction of a ban on smoking in dining areas could be argued to support the view that the smoking ban may have led to a reduction in employment. However, the employment experience of other States following the introduction of smoking bans — which has been quite mixed (see Table 3.1) — tends not to support such a view. Table 3.1 summarises the activity bans and date of introduction in the six States and their impact on retail trade and on employment in accommodation, cafes and restaurants for the four quarters immediately following the introduction of the activity bans.

One reason why the smoking ban may not have had a significant impact on employment in gaming venues is that the intensity of employment associated with gambling expenditure is quite low. This is demonstrated by data presented in Table 3.2. The table shows employed persons by occupation and venue income by source for Victorian pubs, taverns, bars and clubs with gambling facilities and those without gambling facilities in 2000-01. Allocating income to certain occupations means one can estimate the intensity of employment associated with particular venue activities. In this case, income from “sale of liquor and other beverages” is allocated to “bar staff and bar managers”, “gambling income” to “gaming staff and cashiers”, and “takings from meals and food sales” to “catering staff”. While the estimates have a degree of imprecision (e.g., not all staff are allocated to income sources while staff can perform more than one activity and service different areas), the data should nevertheless provide a good indication of the relative employment intensity associated with various venue activities.

The results indicate that \$1 million of gambling income (including income from sources other than EGMs) is associated with 3.2 jobs, which is significantly lower than the number of staff associated with the sale of liquor and other beverages (8.3 persons employed per \$1 million of income) and takings from food meals and sales (20.2 persons per \$1 million). Such a low level of employment intensity would largely explain why the fall in gambling expenditure has not translated into a significant fall in employment in gaming venues. It is even possible that the reduction in expenditure on EGMs induced by the smoking ban may have resulted in a net increase in employment if expenditure has been diverted to other areas of gaming venues or other activities that are more job intensive.

**Table 3.1**  
**Changes in Retail Trade and Employment Following Enactment of Smoking Bans**

	<b>Activity Ban</b>	<b>Date of Introduction</b>	<b>Change in Real Terms Retail Trade: Hospitality and Service Industries*</b>	<b>Change in Employment: Accommodation, Cafes and Restaurants**</b>
New South Wales	Ban on smoking in dining areas	Commenced September 6 <sup>th</sup> 2000 Completed September 6 <sup>th</sup> 2001	+1.3 per cent (4 qtrs to Sept '00 to 4 qtrs to Sept '02)	+8.0 per cent (4 qtrs to Aug '00 to 4 qtrs to Aug '02)
Victoria	Ban on smoking in dining areas	Commenced and completed July 1 <sup>st</sup> 2001	+9.8 per cent (4 qtrs to June '01 to 4 qtrs to June '02)	- 10.3 per cent (4 qtrs to May '01 to 4 qtrs to May '02)
Victoria	Ban on smoking in gaming areas	Commenced and completed September 1 <sup>st</sup> 2002.	- 0.6 per cent (4 qtrs to Sept '02 to 4 qtrs to Sept '03)	+14.7 per cent (4 qtrs to Aug '02 to 4 qtrs to Aug '03)
Queensland	Ban on smoking in dining areas	Commenced and completed May 31 <sup>st</sup> 2002	+11.7 per cent (4 qtrs to June '02 to 4 qtrs to June '03)	- 6.7 per cent (4 qtrs to May '02 to 4 qtrs to May '03)
South Australia	Ban on smoking in dining areas	Commenced and completed January 4 <sup>th</sup> 1999.	+5.0 per cent (4 qtrs to Dec '98 to 4 qtrs to Dec '99)	+1.4 per cent (4 qtrs to Nov '98 to 4 qtrs to Nov '99)
Western Australia	Ban on smoking in dining areas	Commenced and completed March 29 <sup>th</sup> 1999	- 3.6 per cent (4 qtrs to March '99 to 4 qtrs to March '00)	- 10.8 per cent (4 qtrs to Feb '99 to 4 qtrs to Feb '00)
Tasmania	Ban on smoking in dining areas	Commenced and completed September 3 <sup>rd</sup> 2001.	- 5.9 per cent (4 qtrs to Sept '01 to 4 qtrs to Sept '02)	- 0.3 per cent (4 qtrs to Aug '01 to 4 qtrs to Aug '02)

Note: \* Year annual retail trade in seasonally adjusted terms.

\*\* Year average employment in original terms.

Source: ABS, AusStats, Labour Force and Service Industries.

**Table 3.2**  
**Pubs, Taverns, Bars and Clubs: Jobs per \$million of Income**  
 Victoria – 2000-01

	With gambling facilities	Without gambling facilities
<b>Occupation of persons employed:</b>		
Managers and administrative staff	13,922	2,650
Bar managers and bar staff	49,064	11,865
Gaming staff and cashiers	18,866	
Catering staff	23,125	4,486
Other	21,356	3,815
Total	126,332	22,816
<b>Sources of total income:</b>		
Sale of liquor and other beverages	5,885	1,203
Gambling income	5,957	
Takings from meals and food sales	1,145	227
Other	689	198
Total	13,676	1,628
<b>Persons employed per \$ million of income:</b>		
Sale of liquor and other beverages	8.3	9.9
Gambling income	3.2	
Takings from meals and food sales	20.2	19.7

Source: ABS, Clubs, Pubs, Taverns and Bars, Australia (Cat. No. 8687.0).

### 3.1.4 Impact on Problem Gambling

Data on EGM expenditure and taxation revenue indicates that the smoking ban has had a significant impact in terms of reducing gambling activity. However, the direct mechanism through which the reduction in activity has taken place is unknown. For instance, it may reflect that people frequent gaming venues less often, or that patrons spend more time in those areas of a licensed premises where they can smoke at the expense of time in gaming areas, or that patrons spend less time gambling as they decide to leave the venue after interrupting a gambling session to smoke. In all likelihood the reduction in gambling activity reflects a combination of these three factors.

However, what is unknown is the extent to which the smoking bans have eased gambling activity by problem gamblers. Determining this impact is beyond the scope of this report, and little research has so far been conducted into the impact of the smoking ban on problem gambling. Nevertheless, it is likely that the smoking ban has had some modest impact on problem gambling activity.

One reason why the ban would be expected to reduce problem gambling activity is that smoking appears to be higher among problem gamblers. For instance, in a survey of their clients with a personal gambling problem, the South Australian branch of Relationships Australia found that 68 per cent were smokers, which is significantly higher than the proportion of the South Australia adult population (24.7 per cent) that were current smokers in 2001 as indicated by the National Health Survey.<sup>5</sup> Significantly,

<sup>5</sup> Relationships Australia (SA), (2002) *A Submission to the Independent Gambling Authority Enquiry*, and ABS, National Health Survey, 2001, (Cat No. 4364.0)

61 per cent of the clients interviewed indicated they would “spend less time gambling” if smoking was not permitted in gaming rooms, while 35 per cent would “spend the same amount of time gambling”. The results need to be treated with some degree of caution given the small sample size involved (28 persons), while clients’ expectations may not carry over into practice given the difficulty of breaking a gambling addiction.

There is also evidence that smokers tend to spend more on gambling. Data for Victoria indicates that smokers in Victoria spend \$30.39 per capita on EGMs compared to \$13.93 for non-smokers.<sup>6</sup> Part of the reason for this appears to be that smoking plays an important psychological role in sustaining gambling activity. A confidential report commissioned by Tattersall’s stated that “smoking is a powerful reinforcement for the trance-inducing rituals associated with gambling”.<sup>7</sup> On this basis, it is likely that the smoking ban has contributed to some reduction in problem gambling activity. However, the extent of the impact and whether it is significant remains unknown.

### 3.2 Access to Finance – Credit Card and ATM Usage

Ready access to finance can assist problem gamblers in spending beyond their means and it is for this reason that gaming machine operators are prohibited from extending credit to players. Nevertheless, some believe that restrictions on access to finance should be extended.<sup>8</sup>

Automatic teller machines (ATMs) provide ready access to additional cash for gambling. Of particular concern is the ability of gamers to obtain credit for gaming via credit cards. For this reason, codes of responsible gaming and best practice guidelines generally require ATMs to be off the gaming floor or in another room such as in the reception area (IPART, 1998). This is intended to give the problem gambler more time to ponder the implications of increasing her/his expenditure. Nevertheless, in some cases this may still be just metres from gaming machines.

Credit card debt represents a relatively small 4.2 per cent of household debt (the major components are for housing), although it has grown strongly over the last decade and in the most recent five year period to December quarter 2002 (20.9 per cent annual average growth rate compared to all household debt at 14.7 per cent<sup>9</sup>). It is not possible to estimate the proportion of gambling debts in total credit card debt. However, we do know that credit card debt is a significant cause of financial hardship, as reported by problem gamblers to gambling counsellors and financial counsellors.

Increasingly, general financial counselling service providers are assisting clients whose financial situation is (in part at least) due to an underlying gambling problem. In the Centre’s recent survey of general financial counsellors in three States the proportion of those with an ‘underlying gambling problem’ was approximately one-third of all clients in Victoria and South Australia where EGMs are more accessible than compared to

<sup>6</sup> Matterson, H. 2003, “Revenue up in smoke”, *The Australian*, 1<sup>st</sup> September, p 12.

<sup>7</sup> Millar, R. 2003, “Tatts targets the vulnerable”, *The Age*, 19<sup>th</sup> March, [Online]. Available: <http://www.theage.com.au/articles/2003/03/18/1047749770709.html>

<sup>8</sup> By way of example, the Adelaide Central Mission (South Australia) has called for tougher banking laws restricting supply of cash to gambling areas and requiring more rigorous credit checks before issuing credit cards (Sunday Mail, 28/10/2001).

<sup>9</sup> Reserve Bank of Australia (RBA), (2003), “Household Debt. What the Data Shows”, March.

Western Australia where the proportion with a gambling problem was much less, as shown here in Table 3.3.

**Table 3.3**  
**Total Clients and Those With Underlying Gambling Problems**  
**General Financial Counselling**

	Total Clients Per Month	Gambling Problem	Per cent
Western Australia	497	99	19.9
Victoria and South Australia	2,223	748	33.6
Total	2,720	847	31.1

Source: SACES commissioned survey, 2003.

Credit cards and over-commitment using credit cards was the most often reported 'cause' of financial hardship. It may be more correct to suggest, that uncontrolled or excessive use of credit cards led to financial obligations beyond the capacity to pay thus contributing to crisis situations. Consumer lending policies coupled with excessive reliance on credit possibly combine to entrap individuals. Notwithstanding, it is significant that misuse of credit cards and ease of access to ATMs nearby to gaming facilities, is contributing to the severity of problem gambling. Most financial counsellors in Victoria and South Australia for instance, recommend the 'removal of ATMs, reduction in poker machine numbers and ability to limit losses' as important harm minimisation strategies.

There is some evidence that restricting access to ATMs may disproportionately affect problem gamblers compared to recreational gamblers. The Productivity Commission's (1999) survey of gambling patterns and behaviours provided 'some compelling support for action on ATMs'.<sup>10</sup> Problem gamblers and those experiencing severe difficulties reported accessing ATMs often (approximately 60 per cent of this group) compared to only 5 per cent of recreational gamblers.

Blaszczynski (2001) found some evidence that problem gamblers in NSW were more likely than recreational gamblers to make use of ATMs (though the difference was only significant in the hotel sub-sample, not in the larger sample of clubs). A study by Volberg (1996) found that 32 per cent of problem gamblers surveyed in New York had made cash withdrawals from credit card accounts compared to just 3 per cent of the population of non-problem gamblers. Similarly, over 5 per cent of problem gamblers had reached their card's credit limit compared to less than 0.5 per cent of non-problem gamblers.

In the United States, the National Gambling Impact Study Commission found, among other social problems:

"a widespread perception among community leaders that indebtedness tends to increase with legalised gambling, as does youth crime, forgery and credit card theft" (NGISC, 1999).

<sup>10</sup> Banks, G., (2002), "The Productivity Commission's Gambling Inquiry: 3 years on", p. 15.

It also cites gaming industry evidence that 40 to 60 per cent of money bet in casinos in the United States is not brought onto the premises by the gambler. The Commission also found that nineteen percent of bankruptcies in the State of Iowa involved gambling-related debt. Bankruptcies in Iowa increased at a rate significantly above the national average in the years following the introduction of casinos. Nine of the 12 Iowa counties with the highest bankruptcy rates in the state had gambling facilities in or directly adjacent to them.

In support of the NGISC review, the National Opinion Research Centre (1999) conducted a survey on communities in randomly chosen cities (with over 10,000 people) situated within 50 miles of at least one casino containing 500 or more gaming devices. All but one of the ten communities surveyed reported an increase in debt problems and/or bankruptcies. The most likely explanation found for this was that people gamble on their credit cards and take out cash advances at ATMs in or near the casinos.

Most jurisdictions have investigated the possibility of restricting access to Automatic Teller Machines. Legislation came into effect in South Australia from January 1 2002 restricting ATM and EFTPOS facilities to withdrawals of \$200 per transaction,<sup>11</sup> with withdrawals to be restricted to \$200 per day per card at a date yet to be determined and prohibiting the use of credit cards anywhere in the venue where staff could reasonably be expected to know that use was for gambling. Similarly, cash withdrawals at gaming venues are restricted to debit cards in Queensland, while in Tasmania cash via EFTPOS services are only provided where staff are reasonably satisfied that the patron is not experiencing gambling problems. The Victorian Government has requested that the Federal Government investigate using banking control powers to restrict credit withdrawals at club and hotel ATMs.

Nevertheless, there are numerous problems with implementing such a policy; limits on a single transaction may encourage multi-transactions, many gamers hold multiple cards, and many non-gamers have a genuine need for access to cash, particularly in rural areas where local hotels, through ATMs, serve as major providers of banking services to the local community.

### 3.3 Advertising and product warnings

Gaming advertising raises many issues. As noted in Appendix 2, section 2.3.4, there is a common misperception regarding the randomness of gaming machines, difficulty understanding the chances of winning large prizes and a lack of pricing information on which consumers can base their decisions. Some believe that gambling advertising exacerbates unrealistic consumer expectations. The Department of Health and Aged Care (1999) suggested that:

“experience shows that preventive approaches need to be wide ranging. These would include informing the consumer as to the realistic chances of winning (including regulating advertising), and the potential outcomes of problem gambling, including impacts on their immediate family, etc;”

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<sup>11</sup> Victorian Government recently announced the intention to do likewise as well as prohibit cash withdrawals from credit accounts from ATM and EFTPOS facilities at gaming venues.

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Firstly, there is a perceived need to control the advertising of gaming opportunities by venues/operators to:

- ensure that gambling is portrayed accurately, not unreasonably portraying the chances of success (though accepting that it is the nature of advertising to portray the product in a favourable light); and
- limit the extent to which persuasive advertising can introduce potential problem gamblers, particularly minors.

EGMs are by no means the largest perceived problem with respect to the first point, with lotteries and instant scratch games using advertising extensively to alter the communities perception of the chances of success. Nevertheless, some would argue that the risk of developing gambling problems, and the magnitude of such problems, is greater with EGMs due to the more interactive nature of the game, wide availability and rapidity of gambling. The gaming industry in Victoria has responded to concerns, with, for example, the Victorian Gaming Machine Industry Advertising Code of Ethics stating that advertising shall not be false or misleading, shall be in good taste and shall not target minors. This code has been endorsed by the gaming operators, venue associations and the casino operator.

Secondly, there is a perceived need to more appropriately inform consumers of the odds of winning and the mechanics of the EGM. The Productivity Commission (1999) noted that while the minimum payout ratio is regulated, the actual payout ratio is not indicated on machines, nor is this information readily apparent to the consumer from playing the game since the inherent randomness of the machines means that the actual payout from any gambling session will tend to differ significantly from the long-run average. The variability of payouts, that is the proportion of the required payout ratio paid in small frequent prizes compared to large infrequent prizes, is similarly difficult to assess. This may be important, as a “low variability” machine provides a higher chance of breaking even on a single session (a commensurately lower chance of winning or losing large amounts compared to the amount bet). As a result, most players have only a vague understanding of the expected financial cost of playing and financial differences between machines, and some may make decisions to play (or abstain) that they would not make if better informed.

Moreover, there appears to be confusion as to the random nature of successive reel spins, and the player’s ability to influence the outcome. As mentioned above, in studies cited by Walker (1992), slot machines induced more irrational thinking in all players than other games; and when slot machine players were playing their preferred machine the level of irrational thinking was higher than anticipated.

While gaming industry participants have been receptive to requests to provide information<sup>12</sup>, the largest obstacle is finding a vehicle by which to make the wealth of abstract statistics understandable. Moreover, the Australian Gaming Machine Manufacturers’ Association queried whether price disclosure would make any difference, noting that while player return was advertised on machines when initially introduced to the ACT, machine play rates “mirrored results obtained on identical NSW

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<sup>12</sup> Publications such as the “Player Information Booklet” produced by the Australian Gaming Machine Manufacturer’s Association (2000) are readily available.

machines without such signage” (Australian Gaming Machine Manufacturers’ Association 1999). The Productivity Commission concluded that providing player returns in percentages was probably not adequate.

In Victoria, the recently passed *Gaming Machine Control (Responsible Gaming Information) Regulations 2002* requires all gaming venues to display player information posters in gaming areas, “talkers” on gaming machines, and make brochures available from December 1, 2002. These advertisements contain messages like:

*“Every time you play the odds against you are the same”,*

as well as Gambler’s Help contact information. From January 1, 2003, all new machines must display player expenditure, credits won or lost, the time of day and length of playing session.

Thirdly, there is a perceived need to require gaming venues to advertise the risks associated with gaming and the help available for those with gaming problems. In the United States, the NGISC (1999) recommended that warnings regarding the dangers and risks of gambling, as well as the odds where feasible, should be posted in prominent locations in all gambling facilities.

However, the effectiveness of warning signs is questionable. McGowan (2001) argues that there is no apparent difference between the sales profiles of lotteries conducted in Wisconsin (established in 1988) and Minnesota (established in 1990) despite the requirement for warnings at lottery sale venues in Minnesota.

Evidence from the alcohol and tobacco industries is mixed. Borland (1997) explored whether the introduction onto cigarette packs of larger and more prominent health warnings led to an increase in noticing warnings, thoughts about the effects of smoking, and consequent behaviours of not smoking a planned cigarette and/or stubbing out one already lit. Also, evidence was sought linking these effects to smoking cessation. The findings included that 66 per cent of smokers at least sometimes noticed the health warnings (compared with 37 per cent who had noticed the old health warnings) and 14 per cent reported that they had refrained from smoking on at least one occasion as a result (compared with 7 per cent previously). While the effects on aggregate consumption of cigarettes may not be large, they are probably non-trivial. From an alternative perspective, the effectiveness of warning labels on tobacco products is demonstrated by the tobacco industry’s reluctance to embrace this method of informing consumers (Chapman and Carter, 2002).

However, cigarettes are a very different product from gambling in so much as any level of cigarette consumption appears to be related to negative health consequences and hence any reduction in cigarette consumption by any consumer is seen to be a positive outcome. However, consumption of gambling in moderate quantities, as practiced by the overwhelming majority of gamblers, does not have damaging effects. Only when consumed excessively do the effects become harmful. Hence, reduction in consumption of gambling is only viewed as positive if it occurs within the group of problem gamblers.

In this respect, gambling is closer to the alcohol industry. The majority of drinkers do so in moderation the majority of the time, and warning labels will only be successful if they discourage excessive consumption (alcoholism, or spells of binge drinking). Hence, it is more pertinent to consider the effectiveness of warning labels on alcoholic drinks.

The best evidence comes from the US, where warning labels have appeared on alcoholic beverages for over a decade. The following warning label is found on alcohol containers in the United States:

*US GOVERNMENT WARNING:*

*(1) According to the Surgeon General, women should not drink alcoholic beverages during pregnancy because of the risk of birth defects.*

*(2) Consumption of alcohol impairs your ability to drive a car or operate machinery, and may cause health problems.*

Research indicates that public support for alcohol warning labels is extremely high and that awareness of the label's content has increased substantially over time. On the other hand perception of the described risks was high before the labels appeared and has not generally increased, and the labels do not appear to have had important effects on hazardous behaviour, although certain effects may be indicative of the early stages of behavioural change. One study of pregnant women found that after the label appeared, alcohol consumption declined among lighter drinkers but not among those who drank more heavily (NIAAA, 1996). Mosher (1997) found that there was no conclusive verdict on the effects of health warning labels with "only limited evidence of a positive impact on consumer knowledge, attitudes and behaviour." Hence, the effectiveness of warning labels on alcohol containers at reducing consumption among target problem groups is unclear.

More generally, responsible gambling practices including industry codes of practice, have a much wider application than advertising and product warnings. They include harm minimisation strategies such as the location of ATMs and caps, treatment and counselling, and specific initiatives to inform consumers such as product warnings, gambling responsibly and finally, consumer protection (information, odds of winning and losing, advertising practices). To our knowledge there has been no evaluation (i.e., real measure of effectiveness) of responsible gambling programs<sup>13</sup> and codes of practices.<sup>14</sup>

Banks (2002) reported three years on from the Productivity Commission study that:

*"none of the codes contained processes for independent monitoring of their implementation or the collection of independent evidence of compliance rates, and few contained processes for periodic independent review and evaluation".*  
(p. 12)

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<sup>13</sup> One notable exception is the Victorian GRP commissioned evaluation of Self-exclusion programs in that State.

<sup>14</sup> Hing, N and Dickerson, M., (2002), "Responsible Gambling: Australian Voluntary and Mandatory Approaches".

### 3.4 Reconfiguring Gaming Machines

Government regulation can change the mechanical performance requirements of EGMs so that it is physically more difficult to bet large amounts of money in short spaces of time. Increasingly, many jurisdictions are modifying machines in an attempt to reduce the risk of problem gambling. The pertinent question is whether these changes will affect problem gamblers disproportionately, or whether recreational gamblers will be unnecessarily inconvenienced.

As we noted earlier, the Victorian Parliament recently passed the Gaming Legislation (Amendment) Act 2002 requiring that all new EGMs introduced from 1 January 2003 incorporate design changes that:

- ban \$100 note acceptors on machines;
- prohibit the increase of machine spin rates above current levels (2.14 seconds);
- ban autoplay facilities;
- set a maximum bet limit of \$10; and
- display information about the odds of winning, and the amount of time and money spent by the player.

The idea of modifying the performance of electronic gaming machines to reduce harm to problem gamblers has recently been debated in NSW following the NSW Liquor Administration Board's recommendation that certain structural characteristics of electronic gaming machines should be altered. Blaszczyński, *et al* (2001) analysed the likely effects of the changes on behalf of the Gaming Industry Operators Group. The three changes assessed were:

- the prohibition of high-value note acceptors (\$50 and \$100 notes), with consideration to banning note acceptors outright;
- slowing the speed of games by a few seconds. Specifically, the Board recommended a minimum 3.5 second wheel spin and a minimum of 1.5 seconds idle between spins; and
- reducing the maximum bet limit on stand-alone machines from \$10 to \$1 on a trial basis.

It seems likely that problem or heavy gamblers are likely to use high-value note acceptors more often, play more rapidly and place higher bets, and these were the (qualified) conclusions.

The removal of high-value note acceptors has received attention in many states, with, for example, the Queensland Government banning note acceptors from taking \$50 and \$100 notes from December 1, 2001. There has also been support from various community organisations to removing note acceptors. The Uniting Church (2000), amid suggestion of many measures to reduce the rate of loss on each EGM, including *inter alia*, reduce ready access to cash in gambling venues, positively influence cognitive decisions by the gambler and curb further increases in EGM related problem gambling, suggested that the level of problem gambling is lower in the states without note acceptors.

An additional concern, as voiced by the IPART Inquiry (1998) is that, while convenient for the gambler, machines fitted with note acceptors reduce the need for patrons to seek change and so may reduce the potential for gaming venue staff to observe problem gambling characteristics. IPART concluded that the effect of note acceptors on average expenditure and problem gaming habits warrants greater monitoring. Perhaps not surprisingly, gaming venue operators reported that machines with note acceptors have the highest gaming revenue (IPART, 1998).

In particular, the Blaszczynski, *et al* (2001) study found that, of the 514 participants for whom data was available, 13 per cent used high denomination bill acceptors at least once (10 per cent of recreational versus 22 per cent of problem gamblers as measured by a SOGS score of 5 or more). Also, limiting bill acceptors to \$20 denominations affected expenditure more than any other individual modification, reducing take by 42 per cent.

The Blaszczynski, *et al* (2001) study also analysed the effects of modifying machines such that the reel spin was set at 3.5 seconds or 5 seconds. Again, proportionally more problem gamblers played with a rate faster than 5 seconds (14.7 per cent of problem gamblers versus 12 per cent of recreational gamblers). However, using anecdotal evidence, the study concluded that, not only would it be unlikely that slower reel spin speed would reduce problems associated with EGMs, it may actually result in an increase in indirect social/family harm associated with problem gambling for a small proportion of gamblers would adjust to some extent by spending more time at the machines.

The third machine modification assessed in the Blaszczynski *et al* (2001) study was reducing the maximum bet on machines to \$1. Here it was found that 7.5 per cent of problem gamblers placed maximum bets of more than \$1, compared to just 2.3 per cent of recreational gamblers. The study concluded that the number of credits wagered (which relates to the bet size) was a consistent predictor of problems with gambling and severity of problems. However, the Centre for International Economics (2001) in a report prepared for the NSW Gaming Industry Operations Group found that the effects on gaming revenue would be substantial finding that, on average, 17 per cent of club and 39 per cent of hotel machine revenue would be at risk with the introduction of a maximum bet size of \$1.

There is some international experience with reconfiguring the design features of EGMs. Four responsible gaming features were added to new video lottery terminals in Nova Scotia starting in 2001. The features include ways to slow and interrupt play and provide reality checks to players. Specifically, the features include: a permanent clock; a pop-up reminder advising players how long they have been playing, which also asks if they want to continue; showing amounts wagered in dollars rather than credits; and a mandatory cash out whereby players will be forced to cash out their winnings after a prescribed time frame. Research in the Province of Nova Scotia identified many features that regular players associated with problem play including:

- difficulty keeping track of time;
- difficulty keeping track of money spent during a gambling session; and
- the mesmerising lights and sounds of the machines.

However, those interviewed did not feel that the availability of a 'stop' button to speed up play (by interrupting the full reel spin cycle, though not influencing the outcome) contributed to gambling problems (Nova Scotia Alcohol and Gaming Authority, 1999). At the same time, the Government permitted the new machines to accept notes as well as coins.

### 3.5 Review of Voluntary Measures and Mandatory Regulations

Hing and Dickerson (2002) conducted a review of responsible gambling measures for the industry sponsored by the Australian Gaming Council. The conclusions they reached after documenting responsible gaming practices, 'stewardship processes' (such as codes of conduct, self-exclusion deeds), and examining the implementation of various programs were that:

- **on responsible gaming practices:** "no research has been conducted to date that provides conclusive evidence on the *effectiveness of responsible gaming practices*";
- **on mandated practices:** "no research has been published, nor does evidence exist, of the effectiveness of existing mandatory responsible gambling practices"; and
- **on voluntary programs:** "no programs have been evaluated for their effectiveness in addressing problem gambling or in promoting responsible gambling".<sup>15</sup>

What is obvious and it is equally claimed by government, industry, independent researchers, industry sponsored research and service providers is that approximately 90 to 95 per cent of all gamblers gamble responsibly. However, it is the 5 to 10 per cent — those who spend in excess of their means, the at risk gambler, the pathological gambler, the problem gambler, those who are at risk because they tend to engage in continuous forms of gambling, especially EGMs — for whom either few if any strategies exist or "no strategies target this group". And what does exist is comparatively "soft" and/or has not been evaluated for its effectiveness.

Relative to the increasing sophistication of computerised devices, with random number generators, the capacity to provide small but frequent programmed reinforcement to continue play, machines with multi-sound capacity that are designed to provide intermittent reinforcement to encourage continuous play, then the current array of voluntary measures including, *inter alia*, the "soft" interventions or warnings, lag far behind.

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<sup>15</sup> An exception to this is the GRP sponsored "Evaluation of the Victorian Self-exclusion Program".

### 3.6 Conclusion

The introduction of the smoking ban in gaming areas has had a clearly identifiable impact on slowing gaming losses although the exact impact on the gambling activity of problem gamblers is unknown. It is likely that the smoking ban has had some modest impact on problem activity (as it is well documented that smoking rates are high for problem gamblers). Restrictions on credit card and ATM usage are also likely to have had a positive impact — again, because problem gamblers have a higher propensity than recreational gamblers to make use of these facilities to continue gambling.

Overall, the lack of evaluation of the effectiveness of programs and practices (either mandatory or voluntary) and the lack of strategies to target problem gamblers is a matter for serious concern. The true test of effectiveness of policy interventions is that social costs from problem gambling are further minimised — thus widening the gap between benefits and costs. Smoking bans legislated by governments have been the most substantive intervention to date. The most obvious gap in our view is that industry regulators and government are lagging well behind technological advances and growth strategies pursued by a highly sophisticated machinery design industry, and are failing to utilise the very same technologies to address the social and economic impact of problem gambling.

## 4. Caps on Electronic Gaming Machines

### Summary of Discussion

There are significant variations in the degree of regulation of gaming machine numbers. Victoria has imposed an overall state-wide cap and is the first State to trial regional caps, in recognition that EGMs are not distributed evenly across the State, that there are vulnerable communities and that taxation of EGMs is highly regressive.

Responses to binding caps cannot be predicted *a priori*, due in part to different *responses of consumers*, the range of possible responses from machine operators and from venue licensees. The effect of regional caps on gambling behaviour depends critically upon the real impact it has on the accessibility of gambling opportunities. The responsiveness of gamblers to small changes in the gambling environment needs to be examined. Some argue that small reductions in machine numbers will be ineffective, that the impact will largely be felt by casual or recreational gamblers and that problem gamblers will be least sensitive to change in machine numbers (as with price changes).

In this section we consider background issues and research questions related to the imposition of regional caps to guide our research and data collection.

### 4.1 The Australian Gambling Environment

The Australian gambling environment is markedly influenced by State and Territory legislation rather than the Commonwealth. The Commonwealth's involvement in gambling is restricted to legislation governing the regulation and supervision of on-line gambling through the Interactive Gambling Act 2001 (IGA). Effectively this legislation is designed to prohibit access to interactive gaming sites through the platform of the internet. Table 4.1, drawn from the Tasmanian Gaming Commission 2003 data, provides an overview of the types of gambling that are legally permitted by Australian residents in the States and Territories. The major differences between the jurisdictions are that Western Australians do not have access to gaming machines outside of a single site casino, nor access to Keno.

**Table 4.1**  
**Types of Gambling by State Territory**

	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	ACT	Northern Territory
Racing	✓	✓	✓	✓	✓	✓	✓	✓
Sports betting	✓	✓	✓	✓	✓	✓	✓	✓
Lotteries	✓	✓	✓	✓	✓	✓	✓	✓
Gaming machines	✓	✓	✓	✓	✗	✓	✓	✓
Casino gaming	✓	✓	✓	✓	✓	✓	✓	✓
Keno	✓	✓	✓	✓	✗	✓	✓	✓^
Football pools	✓	✓	✓	✓	✓	✓	✓	✓
Interactive gaming*	✗	✗	✗	✗	✗	✗	✗	✓
Minor gaming	✓	✓	✓	✓	✓	✓	✓	✓

**Note:** \* Australian residents are not permitted to access interactive gaming sites under the Commonwealth Interactive gambling Act 2001 that came into effect in August 2001.

^ Keno is permitted in Clubs, Hotels and Casinos in Northern Territory.

Legislation governing the regulation, supervision and control of gaming activities in the various jurisdictions is extensive covering lotteries, racing, totalisator, gaming machines, casinos, tax rates and so on. In New South Wales there are up to twelve relevant pieces of legislation, Western Australia eleven, and in Queensland there are seven.

Accessibility to gaming and wagering opportunities, the scale and scope of the various sectors providing gaming services, the structure of the respective sectors (i.e., ownership, number of venues, type of venue, extent of competition, etc.), are controlled by State and Territory legislation.

Table 4.2 summarises the location and number of machines by venue type for each State/Territory and Table 4.3 shows the total number of machines and adult population and thereby, the ratio of machines per adult population.

**Table 4.2**  
**Estimated Number of Gaming Machines in Australia by Venue Type by State/Territory**  
**2001-02, Number**

Location	In Clubs	In Hotels	In casino(s)	Total Machines
New South Wales	76,830	24,628	1,500	102,958
Victoria	13,671	13,729	2,500	29,900
Queensland	19,280	17,013	3,238	39,531
South Australia	1,690	12,957	850	15,497
Western Australia	na	na	1,318	1,318
Tasmania	193	1,842	1,153	3,188
Australian Capital Territory	4,910	60	0	4,970
Northern Territory	633	238	610	1,481
Total	117,207	70,467	11,169	198,843

Note: Australian Casino Association Annual Report (2004) shows Queensland's casinos held 3,691 machines, Tasmania 1,158 and the Northern Territory 635, a total of 11,652 in 2004.

Source: State/Territory Gaming Authority Annual Reports (2001-02), Australian Casino Association 2002, *Annual Report 2001-02*.

**Table 4.3**  
**Estimated Number of Gaming Machines in Australia**  
**Total Machines, Machines Per capita (Adult)**  
**by State/Territory, 2001-02**

Location	Total Machines	Adult Population (million)	Machines per 1,000 (adults)
New South Wales	102,958	5.031	20.5
Victoria	29,900	3.714	8.1
Queensland	39,531	2.769	14.3
South Australia	15,497	1.169	13.3
Western Australia	1,318	1.442	0.9
Tasmania	3,188	0.354	9.0
Australian Capital Territory	4,970	0.243	20.4
Northern Territory	1,481	0.138	10.7
Total	198,843	14.860	13.4

Source: State/Territory Gaming Authority Annual Reports (2001-02), Australian Casino Association 2002, *Annual Report 2001-02*, Australian Bureau of Statistics and industry interviews.

An area of the current gambling environment that needs to be empirically researched, is whether it is in fact the number of machines per venue that are causing the harm or the convenience of *where* they are available, as is illustrated in Table 4.4. Gambling today has become widely accessible. One can go to almost any club or hotel to play the pokies.

What is unmistakable is that Western Australia has the lowest rate of problem gambling in Australia and the most restricted availability of continuous forms of gambling, it does not permit EGMs in hotels or clubs and it has restricted EGMs to a single casino site. Problem gambling issues in Western Australia principally derive from wagering and table games (for males) and lotto and EGMs at the casino for women.

**Table 4.4**  
**Venues with Gaming Machines in Australia by State/Territory**  
**2001-02, Number**

State	Clubs	Hotels	Casinos	Total
New South Wales	1,388	1,828	1	3,217
Victoria	293	251	1	545
Queensland	610	748	4	1,362
South Australia	87	505	1	593
Western Australia	0	0	1	1
Tasmania	12	94	2	108
Australian Capital Territory	69	6	0	75
Northern Territory	36	29	2	67
Total	2,495	3,461	12	5,968

Table 4.5 shows the capped number of gaming machines by venue for each State and Territory.

**Table 4.5**  
**Capped Numbers of Gaming Machines by Venue, 2003**

Location	Gaming Machines in Clubs (Per Venue)	Gaming Machines in Hotels (Per Venue)	Gaming Machines in Casinos (Per Venue)	State-wide Cap (Machines)
New South Wales	450	30	1,500	104,000
Victoria	105	105	2,500	30,000
Queensland	280	40	3,238	<sup>b</sup>
South Australia	40	40	850	<sup>c</sup>
Western Australia	na	na	1,318	1,318
Tasmania	40	30	1,153	No Cap
Australian Capital Territory <sup>d</sup>	No Cap	13	0	5,200
Northern Territory	45	10	610	<sup>a</sup>

- Notes:
- <sup>a</sup> Total number of gaming machines in clubs and hotels must not exceed 55% of the national average of gaming machine numbers per capita.
  - <sup>b</sup> State-wide cap of 18,843 gaming machines in hotels, but no restriction for clubs.
  - <sup>c</sup> A freeze on the number and location of gaming machines in South Australia was imposed with effect from 7 December 2000. This freeze was placed on applications and, hence, any backlog of applications placed prior to this date may still be processed. Hence, the number of gaming machines was not capped. Current proposal to reduce number of machines by 3,000 and cap at 12,000 state-wide.
  - <sup>d</sup> In the ACT taverns may have 2 machines.

Source: SACES, compiled from AGS note, AGC, and data requests.

In all jurisdictions except the ACT, gaming machines operate in casinos. All jurisdictions have at least some form of cap on the number of gaming machines, although there are significant variations in the degree of regulation of gaming machine numbers. For example, Victoria and New South Wales have determined maximum gaming machine numbers for clubs, hotels and casinos (both state-wide and per venue) as well as an overall, state-wide cap. Alternatively, South Australia, while having a venue cap of 40 machines, has set no state-wide cap for total machine numbers in hotels and clubs and the main form of state-wide restrictions was a freeze on applications for gaming machines. The South Australian Parliament is currently considering a recommendation of the Independent Gambling Authority (SA) that “3,000 gaming machines be removed from the system and that there be a limit on the maximum number of gaming machines in South Australia, fixed initially at 12,000 (down from the present 15,000)”<sup>16</sup> (See earlier discussion in Section 1.3.2.). Further to this, in non-metropolitan regions it has been argued there was a special need to address the disproportionate number of gaming machines and venues.

## 4.2 Regional Issues

The introduction of regional caps in Victoria, which is the principal focus of this study, comes amid pressure from many councils and community groups concerned with the impact that the proliferation of gaming machines is having on their local population. A number of public submissions in response to the Victorian Government’s “Responsible Gaming Consultation Paper” in 2000, including those from Maribyrnong City Council and the Victorian Local Governance Association, were very supportive of the imposition of targeted caps.

The amendment to the Victorian *Gaming Machine Control Act 1991* in 2000 required that the Victorian Casino and Gaming Authority must not grant an application for approval of premises as suitable for gaming, or for additional gaming machines unless it is satisfied that the net social and economic impact of approval will not be detrimental to the community of the municipal district in which the venue is located. This has given a greater role to local councils in influencing applications for gaming licenses, and a number of Councils have sought to use this power to petition against applications for expansion of gaming in the region. For example, the Macedon Ranges Shire Council passed a motion that no further poker machine venues should be permitted into the municipality. There has also been further pressure placed on the Victorian government to reform electronic gaming machine regulations, with, for example, the Knox City Council’s Responsible Gambling Policy urged the State government to remove note acceptors from machines and other policies designed to reduce harm.

The Shire of Yarra Ranges’ Responsible Gambling Policy seeks to restrict any new venues or additional machines; the key objective of the policy is “to reduce the negative social and economic impacts of poker machines gambling on the community”.<sup>17</sup> The Council notes the potential for adverse social and economic impacts and believes that any benefits of the industry are likely to be outweighed by negative impacts. The

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<sup>16</sup> Inquiry into management of gaming machine numbers, IGA (2003), p. 3.

<sup>17</sup> Shire of Yarra Ranges: Responsible Gambling Policy.

Council's policy is based on community attitudes that consider EGMs do more harm than good and that there should be no further increase in existing numbers.

The perceived need for restricting EGM numbers at a regional level stems from an appreciation that gaming losses are not evenly distributed across regions, nor are all regions equally capable of sustaining gaming losses. The Productivity Commission (1999) identified a concentration of EGMs in lower socio-economic areas and an inverse relationship between average regional incomes and the amount spent on gaming machines. The South Australian Centre for Economic Studies (2001) showed that the density of gaming venues per square kilometre and the density of EGMs per adult in local council areas were both positively correlated with gaming expenditure per adult in South Australia. Other socio-economic indicators such as the rate of unemployment, the extent of housing trust housing and the proportion of the population identifying as Aboriginals or Torres Strait Islanders were all found to be positively correlated with gaming expenditure (after controlling for variation in income).

This relationship between net gaming revenue (i.e., losses) and machine density has been confirmed by other researchers. In a study on the distribution of electronic gaming machines (EGMs) and gambling related harm in metropolitan Adelaide (Delfabbro, 2002), it was reported that "there is a very high correlation between the density of EGMs in SLAs and net revenue (or the amount lost). The number of EGMs was also very highly correlated with the number of venues' (p. 100). Interestingly, and similarly as is the case in Victoria, it was concluded that there was a clear positive association between problem gambling clients and EGM density. These findings give voice and support to the conclusions of other researchers (PC 1999; SACES 2001) illustrating again why capping and/or removal of machines may have some importance as a public policy intervention tool.

Gambling taxation is readily identified as a flow of income out of the local community, which may have the effect of stifling consumer spending and economic activity in the regions affected. This in turn would act to reduce employment and increase unemployment in the area. Moreover, there is concern that gambling taxes, and taxation of EGM revenue in particular, is highly regressive, with lower income households remitting a much larger share of their income to government through EGMs than higher income groups. Smith (1999) argues that the effect of gaming taxation will vary significantly from region to region, noting that where

"low income populations and heavy gambler populations coincide in the same geographic area, the adverse social and economic impact of gambling will be heavily concentrated in particular localities".

Of course, just as gaming taxation represents a leakage out of the regional economy, governments return this money to the population in the form of better quality infrastructure, better funded government and community services and/or lower State taxes. However, it is difficult to identify which areas are the major beneficiaries. It is common for gaming revenue to be directed into the governments general revenue pool rather than being earmarked for specific projects. Indeed, some researchers have expressed concern that some governments have used gaming revenues in place of "*more equitable, but perhaps more politically contentious taxes and to defer necessary reform to the taxation and federal finance system*" (Smith, 1999). The implication is that in some cases

communities in lower socio-economic regions may have suffered a net loss of income to other regions when compared to the tax system that would have been implemented in the absence of gaming revenue.

NIEIR (1999) estimated on the basis of assumptions relating to the distribution of revenue and employment throughout the community, and assuming that government expenditure is distributed evenly throughout Victoria on a per capita basis that some of the regions with lower incomes suffered a net fall in economic activity in the area as a result of EGMs (assuming no losses due to the incidence of problem gamblers). In particular, they identified negative net regional impacts (calculated as the present value of the impact over the next five years): Darebin (-\$83 million), Mornington Peninsula (-\$34 million), Maribyrnong (-\$35 million) and La Trobe (-\$2.3 million), Bass Coast (-\$1.4 million), Central Goldfields (-\$1.7 million).

The impacts of the proliferation of electronic gambling machines on the local community will depend upon the socio-economic characteristics of the residents, the size and culture of the area. Moreover, the impacts are likely to be quite different in metropolitan areas compared to country areas. The different impact on rural and metropolitan communities was highlighted by a 1998 study commissioned by the New South Wales Community Charitable Benefit Fund. It found that men and women in country NSW gamble more frequently and spend more than respondents in the city. Moreover, the local club is often the focal point of social activity, placing a larger proportion of the community in the near vicinity of gaming machines, and there is some concern that access to gambling support services may be more difficult in some regional areas (IPART (1998)).

However, a glance at Table 4.6 which shows the cumulative losses for country Victoria and metropolitan Melbourne reveals that cumulative losses per adult since 1992-93 (adjusted to 2003 dollars) were \$4,132 and \$5,709 per adult respectively. A simplifying, 'back of the envelope' calculation shows the average losses per venue calculated from 1992-93 in metropolitan Melbourne<sup>18</sup> are twice that of country Victoria (i.e., metro \$45m : non-metro \$21.4m) and per machine \$780,000 : \$560,840 or approximately 1.4 times the country per machine loss average. It may be that the local club in New South Wales plays a more significant role within the community than the equivalent structure in Victoria, or that the role of hotels in Victoria is quite different to those across the border. Notwithstanding, men and women in country Victoria spend less than their counterparts in the city. In terms of problem gambling however, the critical indicator is expenditure relative to income (or average incomes) where average incomes tend to be lower in non-metropolitan centres relative to the metropolitan area.

In a study commissioned by the Victorian Casino and Gaming Authority, Hames Sharley Consultants (1997) found (using qualitative and quantitative research) that there were firm perceptions in the rural areas surveyed that, EGMs lead to more bankruptcies and that, the proliferation of gaming has resulted in less money being available for retail expenditure. They found that, because a proportion of family budgets is now devoted to gaming, retail spending has tended to be directed towards low cost budget items at the expense of quality. This had resulted in decreased employment opportunities in retail and other leisure/entertainment venues competing against EGMs. These effects were

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<sup>18</sup> Total loss divided by number of venues as at September 2003 and equivalent for machines. Simplifying assumption here is that number of venues and machines was relatively constant over the time period.

also seen – if somewhat diluted – in small rural communities without EGMs since there was a perception that loss of gaming expenditure to “out of town” venues led to loss of employment opportunities in retail and leisure/entertainment venues competing against out of town EGM venues.

The survey picked up a strong perception that the most vulnerable sections of society, including low income groups, single mothers and potential problem gamblers are the most likely to be negatively affected by the introduction of EGMs. Further, a majority of participants considered that there had been an increase in the incidence of minor crimes since the introduction of EGMs. Overall, for all communities, the study found increased demand for government funded social services requiring a compensating increase in funding and social and family problems arising from increased incidence of gambling.

A second study commissioned by the Victorian Casino and Gaming Authority considered the social and economic effects of EGMs on non-metropolitan communities (Deakin Human Services *et al* (1997)). It found that (as pointed out earlier), as a proportion of income, taxation of EGM use is highly regressive – much higher proportions of personal and household income are gambled and taxed by low income respondents than by high income respondents, although the pattern is not linear. One point three per cent of survey respondents in five regional areas of Victoria reported that managing their gambling had been a problem for them and around 80 per cent of all respondents said that gambling does ‘more bad than good’ (including 77 per cent of gamblers and EGM gamblers).

In a further report – also commissioned by the Victorian Casino and Gaming Authority – The Melbourne Institute of Applied Economic and Social Research *et al* (1997) conducted a survey in four municipalities in the inner north and west of Melbourne. Once again, when expenditure was expressed as a proportion of both individual and household income there was a strong regressive pattern. About 62 per cent of respondents indicated that they had ever used EGMs (compared to 68 per cent in the non-metropolitan study). About 70 per cent said that gambling does ‘more harm than good’.

More recently, national and local surveys consistently confirm community concern about the expansion of gambling. The Productivity Commission *National Gambling Survey* found widespread involvement in gambling but that 71 per cent of all Australians, including a majority of regular gamblers considered gambling does “more harm than good”.

The 2003 Victorian *Longitudinal Community Attitudes Survey* found that Victorians continue to hold negative views towards gambling, in particular EGM gambling. They also have negative perceptions of the effects of gambling on the community.

The main findings were as follows:

- A substantial majority of Victorians (85.1 per cent) consider that gambling is a serious social problem in Victoria.
- Similarly, both non-gamblers (87.3 per cent) and gamblers (74.2 per cent) agreed that gambling is too widely accessible in Victoria.

- Victorian residents (gamblers 85.5 per cent and non-gamblers 93.7 per cent) are significantly more inclined to prefer an overall reduction in the number of EGMs/gaming machines than was indicated in the 1999 survey (73 per cent), which suggests robust community support for policy change.

This last finding suggests some support for the Victorian Government's regional caps trial and certainly for the binding cap of 30,000 machines, although many would like to see a reduction in this number.

In fact, the Community Attitude Survey (2003) reported that the majority of respondents were in favour of reducing the number of EGMs located in Victoria:

- support for a reduction in the number of EGMs in Victorian hotels was highest at 91.4 per cent;
- 88.4 per cent of Victorians agreed that the number of EGMs in Victorian clubs should be reduced;
- 63.7 per cent agreed that the number of EGMs in Crown Casino should be reduced.

On average, Victorian residents are less convinced than Australians were in 1999 as to one of the advantages most cited in relation to gambling — increased recreational enjoyment (43.4 per cent of gamblers and 60.8 per cent of non-gamblers disagreed with the statement). Non-gamblers (88.5 per cent) strongly disagreed and gamblers (68.8 per cent) disagreed that gambling has improved the social life in their suburb or local community.

The presence of machines may damage many local businesses by directing funds out of the community. For example, in Victoria, it would appear that the gaming machine operators (Tabcorp and Tattersall's) take almost half of net after-tax gaming machine revenue (ACIL Consulting, 2001). Much of this goes into costs of supply (maintenance, marketing, accounting, etc.) and cost of purchasing machines, most of which is spent outside of the local community. In those communities with low levels of wealth and share ownership, the resulting corporate profits will also tend to be directed out of the local community. A significant share of the gaming revenue also goes to the State government in taxation, and the dispersal of expenditure of these additional funds among the various council districts may not reflect the pattern of collection.

Table 4.6 reports the cumulative losses commencing in 1992-93 for the five cap regions although they are reported here by the LGA area ("minus the plus"). The cumulative losses are shared between the venues, the operators, the government, GST payments and the 8.33 per cent community support fund levy on hotels. Not shown here is a levy of \$1,533 on each EGM payable by the operators which raises \$46 million per annum, which is allocated to the Hospitals and Charities Fund. Notwithstanding, and we stress that cumulative losses or more particularly the government tax take in column two<sup>19</sup> cannot be simply evaluated against one source of earmarked funding, and while it is difficult to estimate "who are the beneficiaries" it is not axiomatic, that government expenditure

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<sup>19</sup> Victorian average tax rates of 24.24 per cent is based on average tax rate paid by two operators, but not including levies.

offsets the basic regressive nature of gambling taxation. Communities may indirectly benefit from expenditure in areas such as the arts, sport and recreation.

**Table 4.6**  
**Cumulative Gaming Losses and Tax Take by EGMs for 5 LGA Regions**  
**(2003 dollars)**

LGA Regions	Cumulative Losses Since 1992-93 (million)	Government Tax Take (million)	Losses per Adult (\$)
Maribyrnong City	554.0	134.3	10,327
La Trobe City	396.0	96.0	7,549
Greater Dandenong City	884.0	214.3	8,660
Darebin City	756.0	183.3	7,124
Bass Coast Shire	126.0	30.5	6,253
<b>Country Victoria</b>	<b>4,116.0</b>	<b>997.7</b>	<b>4,132</b>
<b>Metro Victoria</b>	<b>15,539.0</b>	<b>3,766.7</b>	<b>5,709</b>
<b>Total Victoria</b>	<b>19,655.0</b>	<b>4,764.4</b>	<b>5,286</b>

Source: VLGA Gambling Indicators for Local Areas 2003 and Community Support Fund, Victoria Government.

The local businesses that receive most of the benefits of EGMs are hoteliers and local clubs. Indeed, in a number of states EGMs have been legalised with the benefits to these enterprises in mind, particularly where there are problems with revenue flowing across state boundaries, such as in southern Queensland, to northern NSW, and Canberra, to clubs in Queanbeyan. These local businesses have responded by employing more staff and directing funds to improving facilities and potentially also funding local community activities. But one downside of this is that opportunities for local fundraising by way of bingo tickets and raffles are reduced (Marshall, 1998).

### 4.3 Responses to binding caps

Caps on gaming machine numbers will only influence gambling behaviour where they bind. For many years, some states including Victoria held caps on EGM numbers well above current number of machines. In some other states, accessibility was influenced by limiting the number of machines per venue.

Undermining the efficacy of the regional caps is the likely response (change in behaviour) of gamers and machine operators to the imposition of the caps. The Productivity Commission (1999) has warned that:

“Quantity constraints on gaming machines appear either to face implementation problems or lack effectiveness as measures for ameliorating problem gambling”. (p15.30).

Part of the problem is that, while the number of machines will be restricted, the effects on accessibility of gambling opportunities may be mitigated by travel to alternate venues or the introduction of higher yielding machines in the cap regions.

The most obvious response to a reduction in the number of EGMs is that the remaining machines will be used more intensively, increasing average revenue per machine more noticeably in the cap regions than in the rest of Victoria. The design of gaming machines is such that, even if players needed to wait longer or travel further to access a machine, they could choose to 'make up' for any time lost and spend just as much money by playing multiple lines or increasing their bets. This partly explains why machines in Victoria generally produce much higher levels of revenue than similar machines in New South Wales where there is a much higher concentration of machines per capita.

The *response of consumers* to the reduced availability of machines may take many forms depending upon individual circumstances.

- Queues at busy times would see EGMs remain idle for shorter periods between players. This will disproportionately act to discourage those who place a low value on their time waiting.
- In an effort to avoid crowds, players with more flexible schedules may gamble at less popular times, avoiding busier periods. As such, we would expect to see a wider distribution of gaming revenue by time of day.
- Some players may choose to play less preferred machines to avoid queues for the more popular versions.
- Crowds may encourage some gamblers to search for quieter venues in the cap regions where they have greater access to the machines they prefer, increasing the revenue of previously less popular venues in the regions.
- Similarly, some players may choose to travel out of the cap regions to gamble, to convenient venues. This would be implied by unusually rapid increases in gaming revenue in venues near the boundaries of the cap regions or perhaps on major commuting routes from the cap regions. If this were occurring, it would encourage employment and economic growth in surrounding areas, at the expense of employment in the cap regions. This would be particularly concerning as the cap regions were chosen from among the more economically vulnerable communities in the State.
- Some gamblers may modify their gambling behaviour to shorten the length of time spent gambling, perhaps in response to time constraints (given time already spent queuing) or due to pressure from venue management or fellow gamers.

The Productivity Commission cites Nova Scotia evidence that problem gamblers tend to choose a venue close to home, and the fifth community gambling patterns survey report (VCGA, 1997) suggests that 60 per cent of recreational gamblers and 71 per cent of problem gamblers last gambled within 5km of their homes. Moreover, problem gamblers were quite willing to shift locations, and were much more likely to play at more than one location in a given day.

If the availability of machines drops sufficiently (especially if demand continues to increase) then gamblers may be more likely to visit gambling venues outside of the designated regions. In particular, there might be an increase in gambling revenue at venues near the designated regions, and perhaps on major commuting routes to those

regions. Nevertheless, Roy Morgan Research (2000) find that more than half of all players travel less than 5kms to an EGM venue (non-casino) and around four in five travel to an EGM venue from home. The most recent VCGA community impact study reported that most people who use poker machines, play within 2.5 kilometres of their home. This pattern may change with the introduction of caps.

The *EGM operators* (Tabcorp and Tattersall's) do have an ability to move machines between venues to try to increase their total revenue. Moreover, where revenue per machine is significantly lower at a particular venue than the Victorian average, the operators have contractual ability to remove a number of machines from these venues.

The regional caps may be expected to elicit a range of responses from machine operators (Tabcorp and Tattersall's).

- Movement of higher yielding machines into the area and removal of low-yielding machines. This may take many forms, such as introducing machines that are simply more popular, machines that are more profitable, machines with higher payout ratio or machines with higher minimum bets.
- EGM operators would prefer to be able to move some of the limited number of EGMs out of lower performing venues. The direction of the VCGA is to evenly spread the percentage reductions in EGM numbers across venues within the regions; this may seem to limit their ability to remove machines from lower performing venues. It is not clear whether this has to occur for each of the three years or is the final result at the end of the three year period of phased reductions. However, it seems likely that subsequent to the removal of machines to meet the caps, the operators could further reallocate machines within the regions subject to their contractual arrangements with venue licensees.

All gaming machines in clubs and hotels in Victoria are supplied by either Tattersall's or Tabcorp. These large suppliers have significant control over the numbers and types of gaming machines that go into particular venues. As such, it is possible that these operators may respond to the limits on numbers of gaming machines by replacing some of the existing machines with games that are higher yielding. Moreover, if there is significant spill-over of demand into neighbouring regions, these operators are in a position to supply more machines to these areas (subject to approval of the VCGA) or different types of machines.

The regional caps may be expected to elicit a range of responses from *venue licensees*, including the expectation that venues may apply to extend hours of operation where possible (though noting that the introduction of specific restrictions on 24 hour gaming in Victoria may make this more difficult). Moreover, since all of the venues in the cap regions will be competing on the basis of gaming revenue to maintain their number of a decreasing total number of available machines, it is possible that some venues may allocate fewer resources to the reduction of problem gambling.

All of these responses mean that the actual effect on the community in the designated regions seems likely to be small, at least in the immediate term. However, the longer term effects may be more significant. Reducing the availability of machines may reduce

the number of people introduced to gambling. How many of these may have developed harmful addictions? The decreased pleasure obtained from gambling at the more crowded venues (or travelling further to gamble) may discourage some gamblers. How effectively and in what manner will addicted gamblers be impacted compared to recreational gamblers?

Research findings and insights into these issues will bear directly on the policy choice between targeted regional caps and broad state-wide caps, and other policy instruments.

#### **4.4 Accessibility and regional caps**

The effect of regional caps on gambling behaviour depends critically upon the real impact it has on the accessibility to gambling opportunities.

The Productivity Commission (1999) identifies many dimensions of accessibility to gambling opportunities, including:

- Number of venues;
- Location of venues;
- Opportunities to gamble per venue;
- Opening hours;
- Conditions of entry;
- Minimum outlay
- Ease of use; and,
- Social accessibility.

Some of these dimensions have been addressed by other policies, such as restricting the number of 24 hour venues in regional areas. The implementation of the regional caps is expected to only reduce the number of EGMs per venue.

The regional caps implemented in Victoria have been structured so as to not disproportionately disadvantage any of the groups involved with providing gaming services. In particular, the government has specified that the reductions in machine numbers in the cap regions will fall evenly across clubs and hotels, and across the two EGM operators Tabcorp and Tattersall's. Further, in the four regions where reductions in machine numbers were required, the VCGA directed the operators that the reduction in machine numbers must be evenly spread across licensed venues as far as is possible. (The exception is where a venue voluntarily reduces or ceases its gaming operations, though there is little reason to believe that the cap would motivate this decision).

In particular, the Productivity Commission argues that how gambling opportunities are arranged spatially is important in determining accessibility to gambling opportunities. In particular, it has regard to the average distance to the nearest gambling opportunity. This dimension is not affected by the regional caps.

Nevertheless, the number of EGMs at a given venue may be expected to impact upon gambling behaviour as it provides less anonymity and may reduce the tacit social support provided by being surrounded by similarly motivated players. In particular, the greater prominence of other activities at the venue may affect the role of gambling in the venue vis-a-vis dining, playing pool etc.

#### **4.5 Accessibility and gambling behaviour**

The Productivity Commission (1999) considered the link between accessibility to gambling opportunities via a range of data sources. In particular, they identified only a weak positive correlation between state level data on gambling businesses per capita and prevalence of problem gamblers (defined to be those rating over 5 on the SOGS). Nevertheless, the relationship between numbers of EGMs per adult (or gaming machine expenditure per adult) and the prevalence of problem gamblers appeared to be more robust. Similarly, there appears to be a positive correlation between numbers of gaming machines per capita and the number of clients seeking help from counselling services. This is consistent with international research. For example, Campbell and Lester (1999) find that the number of Gamblers Anonymous groups per capita in the 64 Louisiana parishes was somewhat correlated with the number of video poker machine venues per capita and the per capita spending on video poker (though there was no significant correlation with number of poker machines per capita). By contrast, the number of Gambler Anonymous groups per capita was not significantly correlated with the per capita spending on the lottery.

The Commission rightly highlights the need to be cautious in interpreting these data to mean that accessibility causes gambling problems. Problem gamblers have high levels of gambling expenditure, such that the existence of a higher level of problem gamblers in an area will tend to increase the average expenditure per capita. In the absence of restrictions on gaming machine numbers this will encourage EGM operators to station a larger number of machines in the regions with higher levels of demand because they are more profitable. Where a binding cap applies at the state level, such as in Victoria, these discrepancies across regions would be exaggerated because operators would need to remove machines from other regions to accommodate the expansion in the high-demand regions.

In relation to gambling in general, the Commission concludes that it is likely that higher per capita expenditure, as a proxy for accessibility, causes an increase in problem gamblers (that is, the relationship is unlikely to be wholly attributable to the differing distribution of problem gamblers between states).

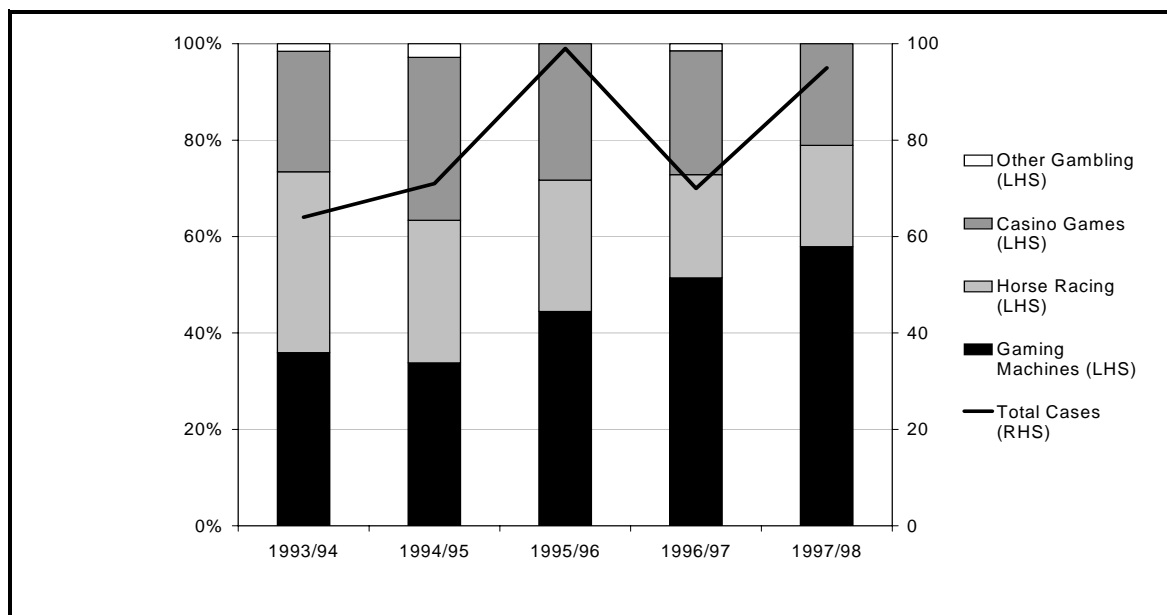
Nevertheless, the Productivity Commission drew the conclusion that:

“there is sufficient evidence from many different sources to suggest a significant connection between greater accessibility – particularly to gaming machines – and the greater prevalence of problem gambling”. (Productivity Commission 1999. p8.31)

The Commission considered that the emergence of new segments of problem gamblers following the introduction of electronic gaming machines to be the most persuasive evidence of a causal link between accessibility and number of problem gamblers.

Firstly, the Commission cites data from Relationships Australia (1999) that the proportion of problem gambling cases in the Gold Coast that were linked to EGM usage increased markedly over the years following the introduction of EGMs in 1992. This would be quite a strong argument but for the very small numbers of cases involved (see Figure 4.1) and short time span of data, thus failing to dispel the hypothesis that the effect of EGMs in this case was simply to shift the proportions of problem gamblers reporting problems due to EGM usage rather than other forms of gambling. The sceptic might attribute the increase in cases to more effective advertising of their services following the set-up of the Gold Coast operation in 1993.

**Figure 4.1**  
Preferred form of gambling as reported by clients (Break Even Gold Coast)  
1993-94 – 1997-98



Source: Relationships Australia Queensland, 1998

Secondly, the Commission cites evidence implying that the groups of gamblers that have problems with EGMs is, at least partially, distinct from other groups of problem gamblers. In particular, the Commission cites data from BreakEven Problem Gambling Services Victoria<sup>20</sup> that more females have gambling problems linked to EGM usage than any other forms of gambling. Data for the period 1999-2003, shows that over 85 per cent of female problem gamblers registering with Gamblers Help in Victoria normally used EGMs. Moreover, 56 per cent of EGM-related problem gamblers were female, compared to just 23 per cent for other forms of gambling. Jackson *et al* (2000) qualify these conclusions by noting that gaming staff in clubs and hotels may be particularly aware of the Gamblers Help services following the adoption of the Responsible Gaming Code of Practice and that, among all problem gamblers, women are disproportionately likely to

<sup>20</sup> Now known as Gamblers Help Services.

turn to counselling services. Moreover, the share of problem gamblers that are female has increased only moderately over recent years.

**Table 4.7**  
**Gaming by type and gender**

Type	Male	Female	Total	Female (Per cent)
EGMs	841	1076	1917	56
Racing (TAB)	275	14	289	5
Card games	83	13	96	14
Lotto/lottery/pools/keno	41	35	76	46
Racing (On-course)	53	10	63	16
Bingo	14	36	50	72
Numbers	32	1	33	3
Other	18	7	25	28
Internet/on-line	2	0	2	0
Not known	84	63	147	
Total	1443	1255	2698	47

Source: Jackson, et al (2000).

**Table 4.8**  
**Counselling Services By Gender and Year of Registration**

Year	Male	Female	Total	Female (Per cent)
1995-96	623	672	1295	51.9
1996-97	883	904	1787	50.6
1997-98	1416	1669	3085	54.1
1998-99	1300	1600	2900	55.2
1999-2000	1537	1879	3416	55.0

Source: Jackson, et al (2000).

More compelling is the fact that Western Australia not only has no EGMs outside of the Burswood Casino, it also has an incidence of problem gambling around half that of other states. At a more detailed level, the Productivity Commission's (1999) survey of problem gambling counselling agencies reveals that 30 per cent of clients in Western Australia were female and 20 per cent of clients had problems linked to EGM usage. By contrast, 47 per cent of clients in Victoria were female<sup>21</sup> and 69 per cent of clients had problems linked to EGM usage. Similarly, Abbot and Volberg (1999) cite studies in jurisdictions with highly accessible EGMs (Montana, Oregon and South Dakota) showing that roughly half of all problem gamblers are female. As the Productivity Commission observed, the existence of separate groups of potential problem gamblers that are only apparent where a form of gambling is readily accessible is persuasive evidence that greater accessibility does cause an increased incidence of problem gambling.

<sup>21</sup> Gamblers Help data for 2001 shows 65 per cent are female using this counselling agency.

International evidence is similarly persuasive but not conclusive. An extensive meta-analysis of problem gambling in the United States and Canada (Shaffer, Hall and Vander Bilt, 1997) showed that the prevalence of gambling related problems both in the past year and over a lifetime have increased significantly since 1977 in line with the increased opportunities to gamble presented. Volberg (1994) shows that the prevalence of problem gambling in jurisdictions which had legalised gambling more than twenty years ago were three times as high as in jurisdictions that had legalised gambling within the past ten years. Ladouceur, Jacques, Ferland & Giroux (1999) conducted two prevalence studies seven years apart, during which gambling activities had increased, and found that the number of pathological gamblers had increased by 75 per cent. However, the data is not clear cut. Surveying fifteen replication studies measuring problem gambling across North America, Abbot (2001) reports that in only seven cases the repeat survey obtained a higher rate than the initial baseline survey and in eight the repeat estimate was lower. Emerson and Laundergan (1996) demonstrate a substantial increase in gambling problems in Minnesota between 1990 and 1994, a period which saw increased accessibility to gambling in the form of lotteries, high-stakes bingo and Native American casinos. The National Opinion Research Center (1999) found that proximity to a casino was a strong determinant of the prevalence of problem gambling – being within 50 miles of a casino was accompanied by a doubling of the prevalence of problem gambling.

#### **4.6 Responsiveness of Gamblers**

The critical issue is whether gamblers, and particularly problem gamblers, are responsive to small changes in the gambling environment.

Even if a causal relationship between accessibility and the incidence of problem gambling is accepted, it is difficult to find hard evidence that a small reduction in accessibility to EGMs will cause a noticeable reduction in the incidence of problem gamblers in a context in which there are thousands of machines. As previously discussed, the five cap regions held 5,494 EGMs across 95 venues at 30 June 2000, and the total reduction in machine numbers by 14 February 2004 is 406, or 7.4 per cent. The largest percentage reduction will occur in the Bass Coast Shire where machine numbers will fall by 15.7 per cent. In descending order, the percentage reductions to occur were then Maribyrnong Plus 11.8 per cent, Greater Dandenong Plus 8.1 per cent; La Trobe 7.2 per cent and Darebin Plus 1.4 per cent.

Some researchers believe that reductions in machine numbers of these orders of magnitude will be ineffective. Symond (2000) argues that there is no firm evidence to support imposing caps on gaming machine numbers at the state level in a bid to reduce the incidence of problem gambling. In particular, Symond argues that, despite a much higher concentration of EGMs per capita, the incidence of problem gambling is not higher in New South Wales than in Victoria. Surveys undertaken as part of the Productivity Commission's (1999) study revealed that the prevalence of problem gambling (SOGS 5+) in New South Wales was a little over 2.5 per cent of the adult population compared to a little over 2 per cent of the adult population in Victoria. At the same time, the density of EGMs per capita in New South Wales was two to three times higher than in Victoria. However, the EGMs in Victoria appeared to be used more

intensively (greater expenditure per machine) in response to the binding state-wide cap. Similar suggestions were made by the Australian Hotels Association (Victoria) (1999) submission to the PC inquiry.

There have been a small number of studies in Australia considering the impact of regional policies on the regions concerned.

A report by ACIL Consulting (2001), commissioned by Tattersall's, considered the impact of local caps on gaming machine numbers on the Ballarat community. In particular, they argued that a restriction on the number of machines in the Ballarat region, if successful in halving the level of gaming expenditure, would cause a loss in gamer welfare worth \$28.9 million. On the other hand, if a removal of the state-wide cap on gaming machine numbers saw expenditure rise by 17.6 per cent (i.e. assuming that current expenditure is at 85 per cent of potential) it would see consumer welfare increase by \$1.5 million. The social costs of problem gaming were subsequently subtracted based upon the national estimates produced by the Productivity Commission (1999).

However, the estimated benefits of EGM usage made by ACIL Consulting appear to be unduly high due in part to the assumption that demand for gaming is quite unresponsive to changes in price (without considering that problem gamblers may be less price sensitive than recreational gamblers). This results in excessive estimates of the consumer benefit of gambling, particularly for large changes from the current level of gambling. For example, they estimated that Ballarat consumers were willing to pay \$347 million for the current level of wagering on EGMs of \$47 million, implying that a ban on gaming machines would decrease consumer welfare by \$300 million. By contrast, Pinge (2001) scales down the national estimates of consumer welfare from EGM usage provided by the Productivity Commission (1999) for the level of usage in Ballarat, suggesting that a ban on EGMs would reduce the level of gross consumer welfare by between \$9 and \$13 million. Even assuming that all consumption by problem gamblers is a gain only doubles these figures. ACIL Consulting's estimate of the effects on employment in the region are much less significant, estimated at a reduction of 12 jobs in the event of a regional halving in gaming revenue or an increase of 13 jobs following the lifting of the state-wide cap.

Perhaps more importantly for the analysis of the current policy of regional caps, the ACIL Consulting study does not estimate the impact of a reduction in EGMs on EGM revenue, nor does it estimate the effects of these reductions on the share of gamblers with problems.

Banks (2002) challenges the regional benefits from EGM gaming asserted by ACIL and the Productivity Commission re-assessed the ACIL study. What they found was that instead of net gains in the millions, "when the Productivity Commission's analytical framework was consistently applied, the outcome for Ballarat ranged from a net *loss* of \$19 million to a maximum gain of only \$8 million — well short of the \$¼ billion gain produced by ACIL".<sup>22</sup> This led Banks (2002) to stress the necessity of independent research to guide public policy in 'this complex and highly contentious area'.

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<sup>22</sup> Banks (2002), "The Productivity Commission's gambling inquiry: 3 years on", p. 6.

Some light may be shone on the responsiveness of gamblers to small changes in accessibility by studies of their responsiveness to price changes. In the case of gambling, the price is the expected loss per play, as determined by the payout ratio. Policies that decrease slightly the availability of gambling opportunities are not that different than a small change in the payout ratio. Restrictions on gambling machine numbers may cause a few gamblers to choose not to gamble, rather than travel a couple of extra kilometres to play the machines they want, because the higher cost now outweighs the enjoyment they gain from playing. These same gamblers may be the first to leave if the payout ratio fell.

In the case of EGMs this might occur, for example, by reducing the payout ratio (increasing the expected loss per play) or by decreasing the number of machines in the local area, thus increasing the cost of waiting to play on a preferred machine, causing consumers to play on less preferred machines or causing consumers to travel outside of the capped region.

Reducing accessibility may be expected to have a larger impact on the behaviour of casual gamers than on existing problem gamers. For example, a research study in Nova Scotia found that regular players engaged in video lottery gaming more than half the time they were in a video lottery terminal site for 'other' reasons, such as having a drink or playing pool. However, problem players are more likely to go to a video lottery terminal site with the express purpose of playing VL games (Nova Scotia Alcohol and Gaming Authority, 1999). If reducing access to gambling opportunities has a greater effect on the initiation of problem gamblers than on existing problem gamblers, then the effect of reducing EGM numbers will be spread over a much longer period of time. For existing problem gamblers, addressing the causes and effects of problem gambling behaviour stretch out over considerable lengths of time, with estimates of the average duration of the problem ranging from 6.5 years in Louisiana (Moore and Volberg, 1999) to 8 to 11 years in New Zealand (Abbott, 2001) and 9 years in Australia (Productivity Commission, 1999, see Table 4.9). Reducing accessibility and any positive effect this might have on reducing initiation to problem gambling would need to be studied over time.

**Table 4.9**  
**The duration of problems amongst clients of counselling services**

	Share of problem gamblers (per cent)
Less than one year	3.1
One to two years	16.5
Over 2 years to 5 years	27.9
Over 5 years to 7 years	12.4
Over 7 years to 10 years	9.8
Over 10 years to 15 years	11.6
Over 15 years	18.6

Source: PC Survey of Clients of Counselling Agencies.

The Productivity Commission (1999) found that recreational gamblers are likely to be more sensitive to changes in the price of gambling products. For these consumers, gambling is just one of a range of recreational activities and thus it is reasonable to

consider that they could more readily shift to alternatives if the price of gambling increased. This category would thus have a higher price elasticity of demand than other gamblers (see Table 4.10).

**Table 4.10**  
**Estimated price elasticities of demand for gambling**

	Low demand elasticity	High demand elasticity
Recreational gamblers	-0.8	-1.3
Moderate problem gamblers	-0.6	-1.0
Severe problem gamblers	-0.3	-1.0

Source: Productivity Commission, 1999.

Moderate problem gamblers are considered to be less sensitive to price changes. Such gamblers report some problems with control of their gambling activity, and thus a lower price elasticity is assumed for this group.

Severe problem gamblers are a more difficult category. They could be expected to be the least sensitive to price changes, as the need to continue gambling is so great. But some may already be gambling with all the money that they have at their disposal, thereby constraining their ability to respond to price changes. It is likely, however, that this situation only arises at the extreme end of the problem gambling spectrum. The Commission therefore assumed that severe problem gamblers are the least sensitive to changes in the price of gambling products.

In New Zealand, Business and Economic Research Ltd. (1997) estimated the elasticity of demand for gaming machines and casinos to be -0.8 (somewhat unresponsive to price). While this estimate is subject to the same caveats applying to other econometric studies, anecdotal evidence tends to suggest that demand for gaming machines may be somewhat unresponsive to price, albeit less so than for lotteries.

Following on from the Productivity Commission's conclusions on price elasticity of demand for different types of gamblers, some extrapolations can be made on different types of gamblers' responsiveness to changes other than price (eg travelling distance to nearest EGM, queue or waiting time for EGM in more crowded hotel/club etc). It would be expected that, once again, recreational gamblers would be more responsive to changes in these costs (travelling costs, waiting costs, loss of anonymity costs) while moderate and severe problem gamblers would be less responsive. Thus, regional caps may have limited impact on reducing the number of current problem gamblers and may more severely reduce the number of current recreational gamblers. However, as discussed earlier, this may still have benefits in the longer term as less people are exposed to EGMs and the incidence of problem gambling declines.

## 4.7 Conclusion

In all jurisdictions in Australia there is some form of cap to limit the number of gaming machines, to provide for an allocation to the casino sector and to ensure geographical coverage between metropolitan and non-metropolitan areas. Various forms of restricting supply or quantity constraints can be viewed as a response to a hardening of community attitudes against the availability of EGMs; while the effectiveness of restrictions is contested by many commentators it is well to be reminded that the ultimate restriction in force in Western Australia has been successful in moderating the surge in problem gamblers.

Quantitative restrictions potentially give rise to different responses by consumers, EGM operators and venue owners. A critical issue is whether gamblers, especially problem gamblers, are responsive to small changes in the gambling environment.

Even if problem gamblers are found not to be responsive to small changes in machine numbers, the regressive nature of EGM taxation, the realisation that gaming losses are not evenly distributed across regions, the net impact on economic activity in a region and the possible imbalance between the pattern of taxation collection and dispersal of expenditure may be reasons to implement a policy of regional caps on machine numbers. The longer term benefit of a restriction policy such as capping is that less people may be exposed to gambling, thus contributing to a lower incidence of problem gambling.