

Taxation and revenue implications of the introduction of a \$1 maximum bet for poker machine gambling in Victoria.

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The paper and associated research are intended to contribute to public discussion and debate around the issue of regulatory reform of poker machine gambling, with a focus on implementation of harm minimisation measures. The paper does not purport to provide advice in relation to investment or financial issues and should not be relied upon for any such purpose.

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Background and introduction

This paper examines state revenue issues arising from the hypothetical introduction of a specific regulatory reform, \$1 maximum bets, also referred to as 'the 1/120 reform', focused on minimising harm amongst those who use poker machines (also known as electronic gambling machines, or EGMs) in Victoria. This reform was recommended by the Australian Productivity Commission in its 2010 report (1) and has been the subject of inquiry by Parliamentary Committees at state and federal levels in Australia in recent years (2, 3). It was also the focus of research attention in 2001 (4-6) when it was unsuccessfully proposed as part of a package of reform measures by the NSW gambling regulator.

This paper does not address the merits of the 1/120 reform, nor does it address the costs of implementing such a reform. It is focused on examining the likely revenue effects of the introduction of a \$1 maximum bet in Victorian poker machine venues. There are two aspects to this issue: firstly, the effects on net poker machine gambling revenue associated with the introduction of a \$1 maximum bet; and secondly the reforms required in the poker machine tax system to ensure that state revenues do not decline significantly as the result of the implementation of such a reform.

Any successful harm minimisation reform implemented in respect of poker machine gambling is very likely to result in a reduction in net gambling revenue. This is because the principal locus of gambling related harm is, in the first instance, excessive expenditure by those who gamble problematically, whether as an established 'problem gambler', as an escalating 'moderate risk' gambler, or intermittently in a 'binge' style. Estimates of the proportion of poker machine expenditure associated with gambling harm vary but the Productivity Commission demonstrated reasonable grounds for fixing the proportion attributable to 'problem gamblers' at around 40% of total revenue, with an additional 20% attributable to 'moderate risk' gamblers (1).

Not all expenditure attributable to 'problem' or other 'at-risk' gamblers, or associated with harm, would be curtailed by the introduction of any single reform. We therefore describe assumptions inherent in this model and available research to identify the likely parameters of revenue reduction and the impacts of revenue reduction on particular classes of venue and tax revenues.

This study will provide an overview of EGM gambling taxation in Australia states with a focus on Victoria. It will then estimate the impact of \$1 maximum bets on EGM revenue at the venue level across Victoria, and develop an amelioration plan to ensure that the reform's impact on EGM gambling taxes is revenue neutral.

We refer to gambling expenditure or losses here as *net gambling revenue (NGR)*, that is *gross wager* minus prizes. A *gross wager* is the total amount of bets, which arguably overstates expenditure as this would include 'winnings' or credits which are often immediately re-expended, particularly during EGM gambling (7).

Gambling taxation revenue in Australia

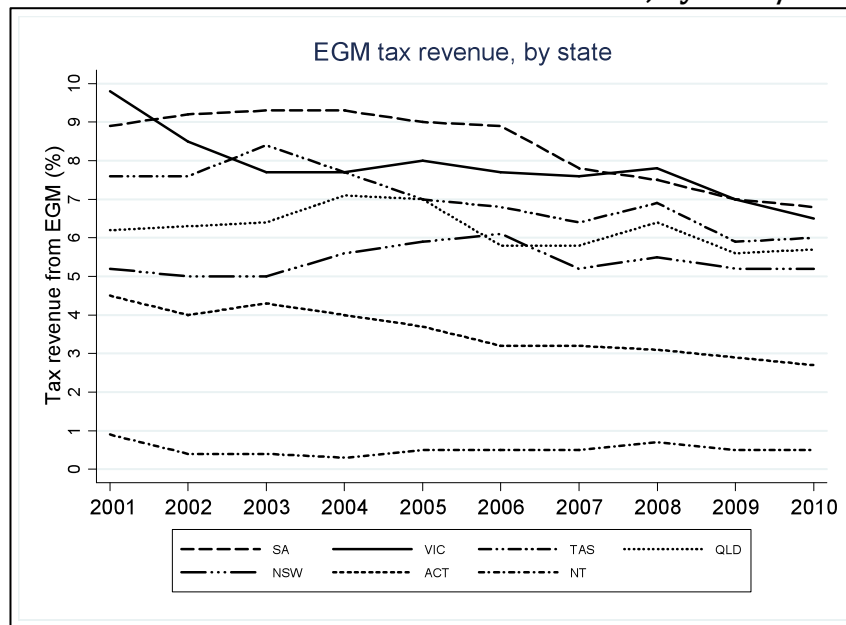
Tax systems should be designed to ensure equity and fairness; they influence the way people work, spend, save and invest (8). Federalism is a key feature of the Australian taxation system which is characterised by vertical fiscal imbalance. During the 1980s this imbalance increased with grants from the Commonwealth to the States falling from around 60% to 45% of total state revenue in the decade to 1990 (8). As a result, many state governments sought new ways to raise revenue. At the same time, gambling industries were seeking to expand. It was under these circumstances that liberalisation of gambling occurred and state gambling taxation revenue increased.

In Australia, gambling taxes are paid by licensed operators; generally, with the exception of a very small number of 'professional' gamblers, income tax is not levied on the 'winnings' of consumers, unlike the US where winnings are treated as income (7). In most Australian jurisdictions, gambling taxes are paid directly to the State Revenue Offices. In Victoria, these are paid to the Victorian Commission for Gambling and Liquor Regulation (VCGLR). This flow of revenue arguably creates a conflict of interest for state governments, in balancing the need to raise revenue with its responsibility (as legislative authority and regulator) to protect the public from potentially harmful products such as EGMs (9).

The three Australian jurisdictions deriving the largest proportion of state own tax revenue from all forms of gambling are the Northern Territory (NT) (12.2%), Victoria (10.8%) and Tasmania (10.1%). Revenue from EGMs forms the largest share of total gambling tax revenue by a substantial margin in most states (range 58%-72% in 2011). The exceptions are the NT (4%) and Western Australia where EGMs are not permitted in community venues (10). In the 2011 fiscal year, EGM tax as a proportion of state tax revenue was highest in South Australia (6.8%), followed by Victoria (6.5%) and Tasmania (6.0%) (see figure 1).

In the financial year to 2011 the Victorian government derived \$1.65b in gambling taxes, with over \$1b of this from EGM taxes (10). However, gambling tax revenue as a proportion of total Victorian state tax revenue has declined over the past decade from 14.8% (\$1.37b) in 2001 to 10.8% (\$1.65b) in 2011. Similarly, EGM tax revenue also declined as a proportion of state own tax revenue from 9.7% (\$903m) to 6.5% (\$1b) (10). Nonetheless, Victoria derives a greater proportion of its tax income from gambling than the Australian average of 8.4% in 2011.

Figure 1: EGM Tax revenue as % of state tax revenue, by state/territory



South Australia applies the highest EGM tax of all jurisdictions. Casino EGMs are typically taxed at a lower rate than hotel and club based machines, presumably as they have a greater ability to negotiate with governments due to their status as destination venues. Clubs claim to provide additional social capital to communities and these arguments have been accepted by state governments to date. In all Australian jurisdictions except Tasmania, clubs pay lower tax rates than hotels.

The recent review of Australia’s taxation system - the Henry Tax Review - recommended a redistribution of taxes across the gambling industry, arguing that while the current tax burden is appropriate, gambling taxes should be structured in such a way as to ensure that economic rent is maximised (11). The review also recommended abolishing corporate tax concessions for gambling businesses such as clubs. In the context of the multi-million dollar revenue some clubs derive from EGMs the basis on which they are distinguishable from commercial gambling businesses is questionable. Given these recommendations, and the arguably clear imperative on governments to improve consumer protection around EGMs, this study describes an option for ameliorating EGM taxation revenue losses to the Victorian government in the event of a state wide mandate of \$1 maximum bets.

EGM tax policies across Australia and selected international jurisdictions

There are significant differences in gambling taxation rates across jurisdictions as well as between different forms of gambling and different types of venues.

Appendix 1 provides a comparative overview of EGM tax rates across Australian state and territories, for community based EGM venues (i.e., hotels and clubs, as distinct from casinos). Because it has no such venues, WA is excluded from Appendix 1. In all relevant Australian jurisdictions, a progressive taxation system applies to EGM revenue taxation (see Appendix 1).

Compared to other high income democracies such as the UK, NZ, Canada and US, Australia has a higher density of EGMs (12) the highest per capita expenditure on gambling (13), and as described above, also derives a large proportion of tax revenue from gambling.

Relative to Australia, New Zealand derives a far smaller share of tax revenue from gambling. Clubs and hotels in NZ pay the same tax rate which is 20% of gaming machine revenues and a Problem Gambling Levy of 1.48% on revenues, plus GST (14). In Canada, provincial governments own and manage gambling activities through lottery corporations. The Ontario Lottery Corporation pays 20% of slot machine revenue to the Province of Ontario.

In Britain, machines are currently subject to a combination of amusement machine licence duty (AMLD) - which varies according to the type of game, and the number of machines operated at the premises - and licence fees and VAT (20%) on net takings. However changes were announced to the tax regime in March 2012. Although the timing of its introduction is unclear, it appears that both AMLD and VAT will soon be replaced with a new machine gaming duty (MGD). The new MGD tax would be set at 20%, with a lower rate of 5% for some category D machines (maximum 10 pence stake and £8 prize). Only machines offering only non-cash prizes would remain subject to VAT instead of the new MGD. Treasury reportedly anticipate this change to be revenue-neutral.

Taxes on slot machines in Nevada, USA, are multiple but generally relatively modest. EGM are subject to an annual tax of \$250 per machine and a quarterly license fee of \$20 per machine, as well as a progressive monthly percentage fee of 3.5% of gross revenue up to \$50,000, plus 4.5% of the next \$84,000, plus 6.75% of the amount above \$134,000. Venues offering live entertainment also pay an additional tax of 10% on the value of all food, drink and admission fees paid during the provision of live entertainment (15).

Reducing harm from EGMs

Public pressure to better regulate gambling in Australia has grown in recent years. However, to date, Federal and State governments have been reluctant to introduce significant harm reduction measures. At the state level, reluctance to introduce these measures may be related to concerns about potential decreases in gambling taxation revenue.

While governments tax tobacco and alcohol to deter consumption, gamblers, particularly EGM gamblers, are not sensitive to increases in gambling taxes (12). This is largely a function of the uncertainty of price in gambling (7).

There were reductions in the value of gambling consumption in many jurisdictions when prohibitions on the consumption of tobacco were introduced in EGM venues. For example, in Victoria EGM losses declined after the introduction of a smoking ban in September 2002, with monthly revenue from EGM gambling dropping on average 14% (16).

Australia is almost globally unique in the amount that can be wagered per spin in non-Casino EGM venues. This ranges from a maximum of \$5 in NT and Victoria, to \$10 in NSW. This is considerably more than in New Zealand where the maximum EGM bet size of \$NZ2.50 per spin, and similarly across all provinces in Canada, where the maximum bet outside casinos is \$CA2.50 (17). The maximum bet on a UK FOBT is £100 with a 20-second spin. However most machines have a maximum bet of £1 (28).

While research on consumer impacts of reducing bet limits is limited, a University of Sydney study conducted in 2001 did find a \$1 maximum bet would have little impact on recreational gamblers who rarely bet above \$1, but would support problem gamblers to reduce the intensity of their gambling (6).

Two previous studies have attempted to model the revenue impacts of a \$1 maximum bet. The Parliament of Tasmania recently conducted an investigation into the likely impact on revenue for gambling operators and the Tasmanian government tax base (2). Data obtained from the gambling industry for the purposes of this inquiry revealed that 82-85% of gamblers bet at or below the \$1 per spin, with an average of 64 cents, and that most gamblers selected a minimum bet with maximum lines as reported in previous studies (29, 30). Around 37% of revenue was derived from bets above \$1 per spin. The decline in revenue in Tasmania should the \$1 bet be introduced was estimated at 20%. Although the Chair of this committee did provide a dissenting statement, the committee ultimately recommended not to proceed with \$1 bets, citing federal reforms initiatives in the 2012 National Gambling Reform Bills.

In 2001, the Centre for International Economics (CIE) investigated the potential effects of introducing \$1 maximum bets. Using a sample of data from 22 clubs and 7 hotels, CIE estimated that restricting bets to a maximum of \$1 would have a greater impact on hotel revenue (39% decline), compared with that of clubs (17% decline) (5). However, this model assumes that all bets above \$1 would be lost; that is, that gamblers who bet above \$1 would not gamble at reduced intensity. This assumption is implausible to the extent that it discredits the estimates provided in this report.

Methods

Data

We obtained hotel and club venue level poker machine net gambling revenue (NGR) data from the Victorian Commission for Gambling and Liquor Regulation (VCGLR) for the financial year 2011-2012. In Victoria, these data are publicly available and are published on the internet at the website of the VCGLR (33).

In 2011-12, Victorian EGMs in clubs and hotels generated (respectively) aggregate NGR of \$919.4 million and \$1,762 million from 13,203 club and 13,524 hotel EGMs. Average NGR per EGM was thus \$69,638 and \$130,289 respectively. Overall, Victoria's 26,727 hotel and club EGMs generated total NGR of \$2,681.5 million, an average of \$100,327 per EGM.

For the purposes of this paper, we modelled the effects of the introduction of the \$1 maximum bet reform at the individual venue level. We also modelled the imposition of altered tax arrangements at this level. We then aggregated these effects in order to assess the overall impacts of these changes. The effects of such a reform are discussed below.

Data pertaining to the NGR generated by poker machines operated at Crown Casino are not publicly available. However, we estimated NGR for these machines on the basis of the 2012 Crown Ltd. Annual Report (31) which identifies revenue of \$930,657,000 from 'main floor gaming' and \$418,236,000 from 'VIP program play'. Casinos typically generate 60- 70% of revenue from EGMs (32). We therefore conservatively estimate that 60% of 'main floor gaming' NGR is attributable to EGMs. 'VIP' revenues may be less dependent on EGM use (although we understand that a proportion of the expenditure of VIPs relates to high spending EGM users who are VIPs by virtue of their membership of the Crown loyalty scheme) and we conservatively estimate that the proportion of VIP NGR attributable to EGMs is likely to be 50%. It should be noted that Crown Ltd operates VIP programs including access to VIP EGM areas in which 'unrestricted' EGMs are located, accessible to patrons who are members of the casino's loyalty program. This class of users is distinct from 'commission-based players' who are more likely to be international visitors gambling large sums and who are less likely to utilise EGMs.

On this basis, total EGM NGR for the financial year 2011-12 was about \$767.5 million, or an average of \$307,000 per EGM for each of Crown Ltd's 2,500 EGMs. This estimate is consistent with industry reports, although we note that it is likely to be conservative.

These data and the estimates of casino EGM NGR are set out in Table 1.

Table 1: EGMs and net gaming revenue, Vic, 2011-12

	EGMs	NGR	NGR/EGM
Clubs	13,203	\$919,426,792	\$69,638
Hotels	13,524	\$1,762,024,923	\$130,289
<i>Sub-total</i>	<i>26,727</i>	<i>\$2,681,451,715</i>	<i>\$100,327</i>
Casino*	2,500	\$767,512,200	\$307,005
TOTAL	29,227	\$3,448,963,915	\$122,187

Sources: VCGLR 2013, Crown Ltd 2012

* Estimated

Because these data are in the public domain, do not describe or relate to any characteristics of individuals, and cannot be used to identify any individuals, we sought and obtained human research ethics approval for a low-risk project from the Monash University Human Research Ethics Committee.

Ownership and taxation arrangements

Club and hotel EGM venues

In Victoria, the ownership and taxation of EGMs in clubs and hotels has been recently modified. Between 1992 (when EGMs were introduced into Victorian hotel and club venues) and September 2012, two EGM 'operators' (Tattersall's and Tabcorp Ltd) owned and operated an equal number of non-casino EGMs, entering into agreements with clubs or hotels for the deployment of these EGMs in accordance with applicable legislation and regulations.

From September 2012, these arrangements ceased. In their place, individual venues (or chains of venues) were able to purchase EGM entitlements up to statutory maximums (105 per venue, with some ceilings on specific geographic regions). From this time, the two gambling operators ceased to operate EGMs.

The result of this was that the previous three-way division of NGR (between government via gambling taxes, the gambling operators, and the venues) ceased. In place of this arrangement, a new EGM tax regime was implemented, with NGR now divided between only between government and venues.

Under previous arrangements, venues retained 33.33% of NGR (in the case of clubs) and 25% of NGR (in the case of hotels). Although the expenses of maintaining and operating EGMs were met by the gambling operators, the effective tax rate faced by venues was 66.66% in the case of clubs and 75% in the case of hotels.

From September 2012, the tax rates applicable to EGM venues were as set out in Table 2.

Table 2: Gambling tax applicable to club and hotel EGM venues, Victoria, from September 2012

Average Monthly NGR per EGM	Hotel	Club
0 - \$2,666	8.33%	Tax free
\$2,667 - \$12,500	50.83%	42.50%
\$12,501 +	58.33%	50.00%

Source: DoJ 2012

In annualised terms the tax 'brackets' set out in table 2 commence at NGR per EGM of \$31,992 and \$150,000.

Applying these tax rates to EGM data for 2011-12, we calculate that EGM tax would have provided state tax revenue of \$936.9 million (of which \$215.5 million would have been derived from clubs and \$721.4 million from hotels). The venue share of NGR would have been \$1,744.5 million or 65.1% of NGR. Clubs' share of NGR would have been \$703.9 million (76.6% of NGR), and that of hotels \$1,040.6 million (59.1%). These represent a significant increase in venue share of EGM NGR, which under previous taxation and ownership arrangements would have been for clubs \$306.4 million and for hotels \$440.5 million.

The proportional increase in the share of NGR retained by clubs and hotels under the tax arrangements introduced in September 2012, based on 2011-12 NGR data, was, respectively, 129.9% and 136.2%, amounting in total to an additional \$997.9 million in NGR being directed to venues.

It should also be noted that EGM venues are required to pay additional charges and levies independent of gambling tax, and are also currently in the process of making periodic payments for the purchase of poker machine entitlements. These payments are not dependent on actual NGR and would not vary under any reformed tax structure.

It should also be noted that the process under which the purchase of entitlements was undertaken was heavily criticised by the Victorian Auditor General in a 2010 report into the process. This report found that the value of entitlements was very much less than their actual fair market value:

... the allocation was not value for money for taxpayers. The amount of revenue raised was only a quarter of the fair market value of the EGM entitlements. Around \$3 billion in potential revenue was foregone. Large venue operators, rather than the community, were the beneficiaries of this windfall gain. (34)

Thus, the taxation arrangements, including the price paid for the 'auctioned' EGM entitlements, represents a very modest impost on NGR, and has provided EGM venues with significantly increased revenue, whilst providing the state with no increased taxation, and a very modest return on the sale of entitlements to operate EGMs.

Casino-based EGMs

As noted above, the taxation arrangements for casino-based EGMs have also recently been modified, although ownership arrangements are unchanged. From 2009-10, the rate of tax applicable to EGMs operated at the casino has increased by 1.75 percentage points per annum, so that by 2011-12 the effective EGM tax rate was 25.69%. An exception to this tax rate is provided in the case of 'commission-based players' (i.e., high-spending gamblers usually recruited from overseas) whose losses are taxed at a concessional rate of 9%. We have been advised by VCGLR staff that the proportion of such players using EGMs in their capacity as 'high rollers' is very small and accordingly have allowed that 5% of VIP EGM revenue is taxed at this concessional rate. On this basis and using the estimates set out at table 1, the amount of EGM tax collected from the casino in 2011-12 would have been \$195.5 million.

Total EGM tax estimates – 2011-12 using 2012 system

On the basis outlined above, total state taxation revenue derived from EGM tax would have been \$1,132.4 million in 2011-12. The highest average tax rate would have been that applying to hotels, at 40.9% of NGR, and the lowest that applying to clubs, at 23.4%. Interestingly, despite having the highest NGR per EGM, the casino paid tax at a rate (25.5%), only marginally above that of clubs, which had the lowest average NGR per EGM by a substantial margin. The overall average tax rate for Victoria's EGMs (based on 2011-12 data) is 32.8% of NGR

Details of these estimates are shown at Table 3.

Table 3: Estimates of EGM tax in 2011-12, using tax rates applying from September 2012.

Venue type	NGR	Gambling tax	Tax % of NGR	Venue % of NGR	'Old' venue share (pre-Sep 2012 tax arrangements)	'New' venue share (post Sep 2012 tax arrangements)
Clubs	\$919,426,792	\$215,524,165	23.4%	76.6%	\$306,444,950	\$703,902,627
Pubs	\$1,762,024,923	\$721,400,394	40.9%	59.1%	\$440,506,230	\$1,040,624,529
<i>Sub-total</i>	<i>\$2,681,451,715</i>	<i>\$936,924,559</i>	<i>34.9%</i>	<i>65.1%</i>	<i>\$746,951,180</i>	<i>\$1,744,527,156</i>
Casino*	\$767,512,200	\$195,504,500	25.5%	74.5%	-	-
TOTAL	\$3,448,963,915	\$1,132,429,059	32.8%	67.2%	-	-

Sources: VCGLR 2013, Crown Ltd 2012.

*Estimate

Net Gambling Revenue impact of introduction of \$1 maximum bet

NGR impact on club and hotel venues

As discussed above a recent analysis of industry data by officers of the Tasmanian Treasury on behalf of a Parliamentary Committee (2) concluded that the most likely impact of the introduction of a \$1 maximum bet would be a decline of about 10% in club NGR and about 20% in hotel NGR.

This appears to be a reasonable estimate of the impact of introducing \$1 bets and with some modifications we adopt this approach for the purposes of this paper.

The basis on which we modify the Tasmanian impact estimate is that instead of categorising EGM venues into club and hotel categories for the purposes of assessing impact, we argue that it would be more appropriate to categorise venues on the basis of NGR per EGM. Under the Victorian regulatory regime, EGM venues are permitted to operate relatively large numbers of EGMs (up to 105) and, largely as a consequence of jurisdictional and regional 'caps' on EGM numbers, generate far higher average NGR per EGM than is the case in other Australian jurisdictions. Although the average club EGM venue in Victoria generates NGR per EGM at about half that of the average hotel venue, some hotels generate relatively low NGR per EGM and some club venues generate relatively high NGR per EGM. In fact, field examination of 'high performing' club venues suggest that they are managed and operated in a manner similar to hotel venues, so that the distinction between the venue types can sometimes be unclear.

Given this, we believe that it is realistic to suggest that venues generating relatively high NGR per EGM are more likely to experience a significant impact from the introduction of \$1 maximum bets, and those operating at less intensity (i.e., lower NGR per EGM) are likely to experience a lesser impact.

We calculate the median venue level NGR per EGM across Victorian EGM venues at about \$83,000, and for the purposes of this paper have estimated that the impact of the introduction of \$1 maximum bets would be lowest in venues generating less than median NGR per EGM, and highest in venues generating NGR per EGM in excess of that median. More than three quarters (76.7%) of club EGM venues in Victoria in 2011-12 generated NGR per EGM at less than \$83,000 p.a., compared to a little more than a fifth of hotel venues (21.9%).

We therefore assume that 78.1% of hotel venues and 23.3% of club venues would experience a decline of 20% in NGR following the introduction of \$1 maximum bets, and the balance would experience a decline of 10%, in line with the findings of the Tasmanian Treasury estimate and Parliamentary committee.

NGR impact on casino EGMs

We assume that the imposition of a \$1 maximum bet would be modified for the Melbourne casino, this being the historical practice in relation to various harm minimisation measures (e.g., smoking prohibitions and removal of ATM facilities) introduced more generally into the regulatory regime for EGM venues in Victoria. The basis for such modification derives from the assumption that unrestricted EGMs would be permitted to continue subject to the casino's loyalty card system being modified to institute an effective pre-commitment system. Victorian regulations currently require that unrestricted EGMs may only be used by patrons using a loyalty card system to record their use of these EGMs. At present, the loyalty system has a 'soft' limit set by patrons, above which loyalty points are no longer earned for continued use. Under current arrangements, the continued use of the EGMs is not disrupted at this point. It would be straightforward to modify this to permit patrons to set limits above which access to unrestricted EGMs could not continue until periodic resetting of a patron's spending limits (whether daily, weekly or annual, for example). This would have some effect on NGR but we assume that its effect would be less than that associated with the introduction of the \$1 maximum bet to the 'main floor' machines.

On this basis, we assume that the introduction of a \$1 maximum bet would be applied to EGMs operated on the 'main floor'. We assume a 20% reduction in NGR for 'main floor' EGMs operated at the casino. NGR generated by unrestricted EGMs would be reduced by 10% arising from the introduction of effective pre-commitment via the loyalty card system.

Quantifying the estimated NGR impact of a \$1 maximum bet

On the basis outlined above, we estimate that club venues would experience an aggregate decline in NGR of 14.5% (from \$919.4 million to \$786.2 million). We estimate that hotel venues would experience an aggregate decline in NGR of 19.3% (from \$1,762 million to 1,422.1 million). Overall, NGR from club and hotel venues would decline by 17.6%, from \$2,681.4 million to \$2,208.3 million. We estimate that casino EGM NGR would decline by 17.3%, from \$767.5 million to \$634.9 million.

The estimated impact on NGR of the introduction of \$1 maximum bets is summarised at table 4.

Table 4: Estimated impacts of \$1 maximum bet on Victorian EGM NGR

	Current NGR	Est. NGR	Impact (\$)	Impact (%)
Club	\$919,426,792	\$786,164,413	\$133,262,379	14.5%
Hotel	\$1,762,024,923	\$1,422,130,541	\$339,894,382	19.3%
<i>Sub-total</i>	<i>\$2,681,451,715</i>	<i>\$2,208,294,954</i>	<i>\$473,156,761</i>	<i>17.6%</i>
Casino	\$767,512,200	\$634,921,560	\$132,590,640	17.3%
TOTAL	\$3,448,963,915	\$2,843,216,514	\$605,747,401	17.6%

Sources: VCGLR 2013, Crown Ltd 2012

Overall, the impact of the introduction of a \$1 maximum bet is estimated to reduce EGM NGR by \$605.7 million, or 17.6%. The single largest impact in both proportional and absolute terms would be in hotel NGR. The smallest proportional impact would be in club NGR.

We believe the face validity of these estimates is high (i.e., Victorian club venues for the most part can be observed to operate less intensive gambling sites than either hotels or the casino) and accordingly believe the estimated impacts calculated above are reasonable and plausible.

Estimating the gambling tax impact of \$1 maximum bets

Provided that the current EGM tax regime remained in place, and based on assumptions outlined above, the impact of a \$1 maximum bet on hotel and club NGR at 2011-12 NGR levels would produce a reduction in EGM tax revenue of \$235.5 million or 25.1%, from \$936.9 million to \$701.5 million.

Under current arrangements, and based on assumptions outlined above, the introduction of a \$1 maximum bet to casino EGMs on the basis outlined above would produce a reduction in EGM tax from \$195.5 million to \$161.6 million, a decline of 17.3%.

The overall reduction in EGM tax resulting from the introduction of a \$1 maximum bet without any change to the existing EGM tax regime would be a decline in EGM tax of 23.8%, or \$269.4 million.

Details of these reductions are set out in table 5.

Table 5: Effects on EGM tax of introduction of \$1 maximum bet under current tax arrangements

Venue type	Current arrangements		Current tax rates, \$1 max bet		Reduction	
	NGR	EGM tax	NGR	EGM Tax	%	\$
Clubs	\$919,426,792	\$215,524,165	\$786,164,413	\$159,874,185	25.8%	\$55,649,980
Hotels	\$1,762,024,923	\$721,400,394	\$1,422,130,541	\$541,582,222	24.9%	\$179,818,172
<i>Sub-total</i>	<i>\$2,681,451,715</i>	<i>\$936,924,559</i>	<i>\$2,208,294,954</i>	<i>\$701,456,406</i>	<i>25.1%</i>	<i>\$235,468,153</i>
Casino	\$767,512,200	\$195,504,500	\$634,921,560	\$161,603,319	17.3%	\$33,901,181
TOTAL	\$3,448,963,915	\$1,132,429,059	\$2,843,216,514	\$863,059,726	23.8%	\$269,369,334

Source: VCGLR 2013, Crown Ltd 2012

Protecting tax revenue by a modified EGM tax regime

From the point of view of government, a reduction in state EGM tax revenues consistent with reduced NGR arising from implementation of a \$1 maximum bet would be unwelcome, given the continuing vertical fiscal imbalance which puts pressure on state budgets. It is likely that this alone may provide sufficient disincentive for state governments to pursue significant harm reduction reforms in relation to EGM gambling.

However, modification of the EGM tax regime can clearly provide a means to maintain state revenue whilst targeting the burden of EGM tax more clearly towards those venues most able to pay a reasonable share of NGR.

For the purposes of this paper, we developed a tax model that would largely maintain current levels of EGM tax but do so in a more carefully targeted way. In order to achieve this, we propose new EGM tax brackets based on the level of average NGR, as set out in table 6.

Table 6: proposed EGM tax structure

Average Annual NGR per EGM	Hotel	Club	Casino*
Tax rate 0-\$30,000	8.33%	<i>Tax free</i>	40.0%
Tax rate \$30,001-\$60,000	55.00%	46.67%	40.0%
Tax rate \$60,001-\$100,000	65.00%	56.67%	40.0%
Tax rate \$100,001+	75.00%	66.67%	40.0%

Casino tax would also provide a 9% rate for commission-based users, as is current practice.

The proposal set out at table 6 alters the thresholds at which different rates of EGM tax apply (for hotel and club venues), but maintains a tax free category for those venues generating modest NGR and also maintains the current 8.33% differential between hotel and club venues (on the basis that clubs provide evidence of contributions to community purposes equivalent to 8.33% of NGR)

Applying these rates to the reduced NGR for club and hotel venues following the introduction of the \$1 maximum bet reform, we estimate that EGM taxes from hotel and club venues would be \$873.7 million based on 2011-12 NGR data. This is a reduction from current levels of \$63.2 million but a much more modest reduction than that demonstrated at table 5.

We propose a new higher flat tax rate of 40.0% for casino based EGMs.

Table 7 sets out the effects of applying the proposed tax structure to hotel, club and casino EGM venues.

Under the proposal, 34 club venues would be liable for no tax, and seven would be liable for payment of at least some tax at the highest rate. The average EGM tax for clubs would be equivalent to an average of 25% of NGR, so that clubs would retain 75% of NGR. This is an increase in retained NGR of 41.7 percentage points compared to the tax and ownership regime in effect until September 2012.

Hotels would be liable for an average tax rate of 47.6% of NGR, with four hotel venues paying only the lowest rate (8.33%) and 115 paying at least some tax at the highest rate. Hotels would retain revenue equivalent to 52.4% of NGR. This represents an increase of 27.4 percentage points compared to the tax and ownership regime in effect until September 2012.

In keeping with the practice of differentiating tax rates between hotel, club and casino EGMs in Victoria, we propose a new slightly higher flat rate of tax for the

casino. At present the tax rate for casino EGMs is on track to reach 32.57% of NGR by 2014-15. The current (2012) rate of tax is 25.7%. We propose an increase in the tax rate for casino EGMs to 40% whilst retaining the highly concessional tax rate of 9% for commission based EGM users (who we understand contribute a small proportion of EGM NGR). On this basis, EGM tax revenue derived from the casino would amount to \$251 million, or an average EGM tax rate of 39.5% (almost equivalent to the overall average EGM tax rate of 39.6% achieved through our proposal).

In total, the proposed tax structure would yield EGM tax of \$1,124.7 million; about \$7.7 million less than the current tax regime would have yielded if applied to 2011-12 EGM NGR for Victoria. This represents a decline in EGM tax of 0.68%, i.e., about two-thirds of one percent.

Table 7: Application of proposed EGM tax structure to Victorian EGM venues

Venue type	NGR	EGM tax	% of NGR as tax	% of NGR retained by venue
Clubs	\$786,164,413	\$196,424,844	25.0%	75.0%
Pubs	\$1,422,130,541	\$677,271,894	47.6%	52.4%
Sub-total	<i>\$2,208,294,954</i>	<i>\$873,696,738</i>	<i>39.6%</i>	<i>60.4%</i>
Casino	\$634,921,560	\$251,051,428	39.5%	60.5%
TOTAL	\$2,843,216,514	\$1,124,748,166	39.6%	60.4%

Conclusions

We were asked to develop a new EGM tax structure for Victoria, having firstly estimated the likely revenue impact of introducing a \$1 maximum bet to EGMs operating in that state. The introduction of a \$1 maximum bet without amending the EGM tax arrangements would result in an estimated tax revenue decline of \$283.5 million, or about 25% of current EGM tax.

However, amending the progressive rates of EGM tax applying to EGM venues would result in an almost neutral result, and would provide hotel and club EGM venues with an increased share of revenue as compared to the ownership and taxation arrangements in place until September 2012. This would, in effect, correct some of the errors identified by the Auditor-General and allow the state to recoup losses realised as a result of the flawed process implemented to auction EGM entitlements under the previous Victorian Government (34).

It would also permit the government to implement a major reform that would (in the opinion of the Productivity Commission, and on the basis of available research evidence as noted above) significantly reduce the harms associated with EGM gambling. On this basis alone, the reform would be cost effective, since the amount of EGM tax revenue foregone by applying the \$1 maximum bet reform and the proposed new tax structure (\$7.7 million) would be equivalent to between 0.00% and 0.5% of the economic and social costs of problem gambling in Victoria, as estimated by the report of the Victorian Commission for Efficiency and Competition in their recent report into this issue (35). Even a very modest

reduction in the harm associated with EGM gambling would offset any reduction in EGM tax revenue associated with these reforms.

Further, VCEC was clear in its report that there were no broader economic or employment consequences associated with reduced EGM expenditure. As the PC argued, gambling is not a unique economic activity (1). Funds spent on EGMs would readily be diverted into other areas of economic activity and employment lost in the gambling arena would be made up for, and in all likelihood, more than made up for, given that EGM gambling is estimated to generate 3.2 jobs per \$ 1 million of expenditure, whereas restaurants generate 20.2 per \$1 million of expenditure (36).

The proposed reforms would establish a sustainable EGM industry enjoying high levels of revenue and providing an appropriate level of tax revenue for government. It would also permit the development of a best-practice regulatory regime for EGMs, in keeping with Victoria's tradition of effective regulatory interventions for the reduction of avoidable harms.

References

1. Productivity Commission. Gambling Inquiry Report. Canberra: 2010 Report No. 50.
2. House of Assembly Select Committee. The Gaming Control Amendment Bill 2010 (\$1 bet limit). Hobart, Tasmania 2010.
3. Parliamentary Joint Select Committee on Gambling Reform. The design and implementation of a mandatory pre-commitment system for electronic gaming machines: First report. Canberra: Commonwealth of Australia, 2011.
4. Sharpe L WM, Coughlan MJ, Enersen K, Blaszczyński A. Structural changes to electronic gaming machines as effective harm minimization strategies for non-problem and problem gamblers. *J Gambl Stud.* 2005;21:503-20.
5. Centre for International Economics. Gaming machine revenue at risk: The impact of three proposed modifications to gaming machines in NSW. Canberra: The NSW Gaming Industry Operators Group, 2001.
6. Blaszczyński A, Sharpe L, Walker M. The Assessment of the Impact of the Reconfiguration on Electronic Gaming Machines as Harm Minimisation Strategies for Problem Gambling. Sydney: University of Sydney Gambling Research Unit, 2001.
7. Clotfelter CT. Gambling Taxes. In: Cnossen S, editor. *Theory and Practice of Excise Taxation.* Oxford: Oxford University Press; 2005.
8. Attorney-General's Department. Architecture of Australia's tax and transfer system. Canberra: August 2008.
9. Livingstone C, Woolley R. Risky Business: A Few Provocations on the Regulation of Electronic Gaming Machines. *International Gambling Studies.* 2007;7(3):361-76.
10. Taxation Revenue 2010-11, Australia, Cat No: 5506.0 2012 Accessed: 2013-01-09
<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/5506.02010-11?OpenDocument> [database on the Internet]. 2012.
11. Attorney-General's Department. Australia's future tax system Report to the Treasurer Part 2: Vol 2. Canberra: December 2009.
12. Productivity Commission. Australia's Gambling Industries. Melbourne 1999.
13. The Economist online. Gambling: The biggest losers
<http://www.economist.com/blogs/dailychart/2011/05/gambling> Accessed: 2011-08-26 (Archived by WebCite® at <http://www.webcitation.org/61DagLdT4>) 17 May 2011.
14. Australasian Gaming Council. Chapter 6: Gambling taxation. A Database On Australia's Gambling Industry. Melbourne,
www.austgamingcouncil.org.au/images/pdf/2011_12.../chp_6.pdf retrieved 14 January 2013
15. Nevada State Gaming Control Board Gaming Commission. License Fees and Tax Rate Schedule Las Vegas 2013 [14 January 2013
<http://gaming.nv.gov/index.aspx?page=94#non-slot-annual>].
16. Lal A, Siahpush M. The effect of smoke-free policies on electronic gaming machine expenditure in Victoria, Australia. *Journal of Epidemiology and Community Health.* 2008;62(11-15).

17. Harrigan K, MacLaren V. The House Rules: Gaming Regulations and Their Effects on Gambling and Problem Gambling Across Canada. Waterloo: University of Waterloo, 2011.
18. Parliamentary Library Research Service. Research Brief: Casino Legislation Amendment Bill 2009. August 2009.
19. Department of Families Housing Communities and Indigenous Affairs. A National Snapshot of Harm Minimisation Strategies Canberra 2012 [10 January 2013 <http://www.fahcsia.gov.au/our-responsibilities/communities-and-vulnerable-people/publications-articles/a-national-snapshot-of-harm-minimisation-strategies?HTML>].
20. New South Wales Office of Liquor Gaming and Racing (NSWOLGR). Registered club gaming machine tax rates. 2013 [9 January 2013 http://www.olgr.nsw.gov.au/gaming_info/taxrates/regclubs.asp].
21. New South Wales Office of Liquor Gaming and Racing (NSWOLGR). Hotel gaming machine tax rates. 2013 [9 January 2013 http://www.olgr.nsw.gov.au/gaming_info/taxrates/hotel.asp].
22. Queensland Office of Liquor and Gaming Regulation (QOLGR). Casino Fees and Charges. 2013 [9 January 2013, <http://www.olgr.qld.gov.au/industry/FeesAndCharges/casino-fees.shtml>].
23. Queensland Office of Liquor and Gaming Regulation (QOLGR). Machine Gaming Fees and Charges. Brisbane: Queensland Government; 2013, [cited <http://www.olgr.qld.gov.au/industry/FeesAndCharges/machine-gaming-fees.shtml> 9 January 2013].
24. Gaming tax booklet, Section 72 - Gaming Machines Act 1992, (2009).
25. Tasmanian Gaming Commission. Annual Report 2011-12. Hobart, Retrieved 9 January 2013 [http://www.treasury.tas.gov.au/domino/DTF/DTF.nsf/LookupFiles/TGC-Annual-Report-2011-12.pdf/\\$file/TGC-Annual-Report-2011-12.pdf](http://www.treasury.tas.gov.au/domino/DTF/DTF.nsf/LookupFiles/TGC-Annual-Report-2011-12.pdf/$file/TGC-Annual-Report-2011-12.pdf): 2012.
26. Northern Territory Department of Business. Gaming machine regulations. Darwin 2010 [9 January 2013 <http://notes.nt.gov.au/dcm/legislat/legislat.nsf/linkreference/GAMING%20MACHINE%20REGULATIONS>].
27. Gaming Machine Act 2004 Retrieved 11 January 2013 <http://www.legislation.act.gov.au/a/2004-34/current/pdf/2004-34.pdf>, Republication No 20 (2013).
28. Gambling Commission (UK) Industry Statistics 2008-11. Current report (2009-12) available at: (<http://www.gamblingcommission.gov.uk/PDF/Industry%20stats%20April%202009%20-%20March%202012%20-%20December%202012v18.pdf>)
29. Australian Institute for Primary Care The Changing EGM Industry and Technology 2006 Gambling Research Panel/Dept. of Justice Melbourne
30. Dixon M. Harrigan K. Sandhu R. Collins K. Fugelsang J. Losses disguised as wins in modern multi-line video slot machines. *Addiction* 2010. 105: 1819-1824
31. Crown Limited, Annual Report 2012. Available at <http://www.crownlimited.com/Assets/Files/09.26%20-%20Annual%20Report%20-%20FINAL%20-%202019%20September%202012.pdf>

32. see, for example, Schwartz D. Atlantic City Gaming Revenue: Statistics for Casino, Slot, and Table Win, 1978-2011. Las Vegas: Center for Gaming Research, University Libraries, University of Nevada Las Vegas, 2012
33. See
<http://www.vcgr.vic.gov.au/CA256F800017E8D4/research/7A16A720C176F940CA2577810018432D?Open>
34. Victoria Auditor General's Office. Allocation of Electronic Gaming Machine Entitlements. 2010-11:36. 2011, VAGO Melbourne. Available at:
http://www.audit.vic.gov.au/reports_and_publications/latest_reports/2010-11/20110629_electronic_gaming.aspx
35. Victorian Competition and Efficiency Commission Counting the Cost: *Inquiry into the Costs of Problem Gambling*, 2012. draft report, Melbourne
36. South Australian Centre for Economic Studies (SACES) The South Australian Gambling Industry – Final Report. 2007 Independent Gambling Authority South Australia. Adelaide