Submission to 'The future of gaming in Tasmania'

Consultation Paper 2021

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This submission

This brief submission focuses on (1) the harm creating aspects of electronic gambling machines (EGMs), (2) their regressive distribution, and (3) on the market concentration potential of the proposed new legislative arrangements canvassed by the Consultation Paper.

Part 1 – How harmful are EGMs, and what harms are associated with them?

1. All gambling forms have the potential for harm, although some forms are more likely to be harmful to more people than others. High impact Australian-style EGMs are undoubtedly amongst the more harmful forms of gambling, as noted by the PC in its 1999 and 2010 reports. It is notable that EGMs in Australia are far and away the most lucrative form of gambling (for their operators) with net revenue of $12.7 billion, from a total of $25 billion, equivalent to 51%. This does not include net revenue from EGMs in casinos (AGS 2020). In Tasmania, EGMs had gross revenue of $171,603,745 in 2018-19 (the last 'normal' year), of which $67,331,915 was generated by the 1,185 EGMs in the state's two casinos. A further $14 million came from other casino gambling activities in that year (see AGS). Total gambling expenditure in 2018-19 was $306.9 million, so that EGMs accounted for 56% of all Tasmanian gambling expenditure. In 2020-21, EGMs generated gross revenue of $191.95 million, of which $74.66 million was generated by the casino and the 36 TT-line ferry-borne EGMs.

2. It is clear that EGMs are the major contributor to gambling harm in Australia and in Tasmania. In Tasmania, the latest Socio-Economic Impact study estimated that 0.4% of the Tasmanian adult population experienced a high risk of harm ('problem gamblers') and a further 1.7% of adult Tasmanians were at moderate risk. Thus, at any one time, about 1,500 Tasmanians are experiencing significant harm from gambling, and 6,800 are experiencing moderate, but still significant harm. However, it is also now understood that every high risk gambling affects 6 others (family, friends, employers etc.) and every moderate risk gambler, 3 others. At any one time over 38,000 Tasmanians are experiencing gambling related harm, over 30,000 of them non-gamblers.

3. The PC undertook a study to identify the nature of gambling harms as a component of its 1999 inquiry into Australia's gambling industries.

4. The framework for the PC's assessment of the harms of gambling adopted multiple domains, or areas where it was thought that measurement of harm could be undertaken. These domains were:

1. Personal, including stress, depression and anxiety, poor health, and suicide;
2. Financial, including financial hardship, debts, asset losses, bankruptcy, and use of loan sharks;
3. Legal, including crime and imprisonment, as well as bankruptcy and use of loan sharks;
4. Interpersonal, including intimate partner violence, relationship breakdowns, impacts on others and impacts on families, including children;
5. Community, including impacts on charities and the public purse; and
6. Work and study, including job loss, absenteeism, and poor performance (PC 1999: 7.3).

5. The PC used a variety of sources to measure the prevalence of these harm categories, including its own survey of Australians, and information from gamblers in treatment. Amongst those surveyed who were classified as 'problem gamblers', 52.7% reported past year depression, 4.7% contemplation of suicide, and 69.1% reported a desire to stop gambling which they couldn't implement. Amongst 'problem gamblers' seeking help, 13.6% reported ever having attempted suicide.

6. Citing a US study, the PC reported that 'pathological gamblers' had an incidence of poor physical health 2.2 times greater than 'low risk' gamblers. The PC also assessed the proportion of gamblers who experienced the range of harms canvassed in their framework, noting that gambling harms were transmitted between generations (p.7.36), and that impacts on work and study were significant (p. 7.38), that 44.1% of the clients of counselling agencies admitted to criminal activity to fund gambling, and so on. The PC attempted to quantify these harms (as 'costs') in five broad categories – financial, effects on productivity, crime, personal and family, and treatment. This attempt included a costing of the economic value of intangibles such as depression, emotional costs, relationship breakups, etc. The total was reported in a range from $1,800 m to $5,586 m p.a.

7. Subsequent academic research has broadened the PC's approach and produced divergent frameworks and more detailed examination of particular aspects of harm, including discussion of better conceptual models for harm (Latvala et al 2019), examination of the harms accrued by others (Li et al, 2017, Dowling et al 2014), the significant effects of gambling problems on physical health (Morasco et al 2006), the relationship between gambling related debt and suicide (it is clear) (Yip et al 2007), an assessment of the financial and other impacts of gambling on Singaporean families (Matthews and Volberg 2012), and examination of the effects of locally high density of EGMs on intimate partner violence (it significantly increases it) (Markham et al 2016).

8. A Swedish longitudinal study has assessed the rate of suicide mortality in Swedish gamblers classified with gambling disorder as 15.1 times the general rate, with a rate of 19.3 times the population rate for those aged 20-49 years. Suicide was the leading

cause of death for the sample of 2,099 people, at 33% of all mortality. All-cause mortality for this group was also elevated by a factor of 1.8 (Karlsson and Hakensson 2018).

9. Bischoff et al, in a study of 442 gamblers classified as disordered using the DSM-IV concluded that 'gambling on EGMs (but not other types of gambling) is related to an increased risk of lifetime suicidal events' (p. 267), at an odds ratio (OR) of 2.85, independently of mood or personality disorders.

10. Cowlishaw and Kessler (2016) report that 'problem gambling' in their UK sample of 7,403 was associated with over-representation in health care settings, including primary care, and were at greater risk of suicidal ideation (odds ratio 4.22), suicide attempts (OR 5.51) and financial difficulties (OR 3.96)(pp. 93-95).

11. Wardle et al (2019) report that 'problem gamblers' report past year suicidality at a rate of 19.2%, at an OR of 5.3, or 2.9 once co-morbid psychological conditions are adjusted for.

12. Muggleton et al, using banking data, calculate that 'High levels of gambling are associated with a likelihood of mortality that is about one-third higher, for both men and women, younger and older' (Muggleton et al 2021, p. 321). These authors also catalogue a range of financial, lifestyle and well-being harms, as well as employment and disability, demonstrating increasingly negative consequences across these as gambling intensity increases (p. 322).

13. Browne et al (2016) report that, in Victoria, the Health Related Quality of Life decrement for high risk gamblers was 0.44, for moderate risk gamblers, 0.29, and for low risk gamblers, .013. Thus, the decrement was, respectively, equivalent to losing 44% of the full enjoyment of life for high risk gamblers, 29% for moderate risk, and 13% for low risk.

14. Browne et al (2017a) also undertook a cost of harm exercise for the state of Victoria, which produced an estimate of $6,973 million in social costs attributable to gambling harm. Total annual expenditure on gambling in Victoria in 2014-15 was $5,800 million, and net taxation revenue to Government $1,600 million (Browne et al 2017a).

15. The estimates produced by Browne et al (2016) located the harms of gambling at about two thirds of the equivalent values for major depressive disorder and alcohol use and dependence, and at over four time the value of type 2 diabetes, five time that of chronic obstructive pulmonary disease, 20 times that of cannabis dependence (Browne 2016, pp. 136-137).

16. The most harmful forms of gambling have been identified as electronic gambling machines, casino games, and betting, in both terrestrial and online forms.

17. The PC concluded that

> The prevalence of problem gambling varies by the mode of gambling, with higher prevalence for regular players of gaming machines, racing and casino table games. For example, around one in five weekly gaming machine players have significant problems. The prevalence of problem gambling is much lower among lotteries. (PC 1999: 6.1)

18. Binde (2011) identified strong associations between a high risk of harm and the use of interactive internet games, casino gambling, and EGMs. This article also found that lotteries were relatively harmless, while bingo, horse and sports betting were moderately associated with high risks of harm. This research draws on analysis of 18 mainly European prevalence studies.

19. Castren et al (2018), researching Finnish gamblers, identified gambling on scratch cards, betting, or slot machines as predictors of high risk of gambling harm, along with high frequency of engagement. Mazar et al (2020) using a sample from Massachusetts (USA) report casino gambling as highest risk. Gambling forms engaged in within casinos are not disaggregated, but it is notable that EGMs are common in casinos in most settings. Delfabbro et al (2020), analysing 10 years of prevalence study data from Australian jurisdictions, conclude that regular users of EGMs are most clearly associated with high risk of gambling harm. Mravčík et al (2020) report EGMs, particularly online EGMs, as most closely associated with high risk gambling in a Czech study.

20. Gainsbury et al (2019), in an Australian study, conclude that 'online and land-based EGMs are strongly associated with gambling disorder severity'. These authors further conclude that venue EGMs, sports betting and casino gambling are all significantly implicated in gambling harm. In an earlier study, Gainsbury et al (2015a) concluded that land-based gamblers had a higher proportion of high-risk gamblers than either multi-mode (i.e., both online and terrestrial) gamblers or internet gamblers, with land-based gamblers 'overwhelmingly more likely to attribute problems to EGMs' (p. 39). Overall:

> Land-based gamblers were most likely to nominate EGMs to be associated with gambling problems, while sports and race betting appears to be related to problems for online gamblers (Gainsbury et al, 2015: 40).

21. In a Canadian context, McLaren (2016) reports that users of video lottery terminals (a form of electronic gaming machine widely utilised in Canada) reported higher expenditures with harmful gambling significantly more likely than amongst other forms. McLaren's conclusion was that 'EGM gambling, particularly VLT gambling, has high potential for harm even at modest levels of involvement by frequent players.' (p. 472)

22. Binde et al (2017), in a significant Swedish study, report that

> Among all forms of gambling, EGM gambling stood out in this study as the form most closely associated with PG. This is consistent with results from many other studies which have concluded that EGMs are a high-risk form of gambling (p. 500)

23. Further,

> There was a general tendency across all of the forms of gambling, except regular EGM gambling, for participation in each additional form to increase the probability of having a gambling problem (p. 501)

24. Interestingly, this finding was independent of the number of gambling forms engaged in. This study also found that there were fewer than average high-risk

gamblers engaged in lotteries and number games. Bischoff et al (2016) identified EGMs as increasing risk of suicide events by an odds ratio of 2.85, independently of mood or personality disorders.

25. Most studies discussed above also referred to gambling frequency and involvement (i.e., the number of different gambling forms engaged in) as predictors of gambling harm. However, Binde et al (2017) concluded that in their large sample, high risk gamblers typically utilised between 2.1 and 2.5 products (drawn from a number of studies). Most gamblers using EGMs were experiencing most harm from that form. In 1999, the Australian Productivity Commission estimated that the overall share of gambling expenditure attributable to those they termed 'problem gamblers' was 33%. However, the share of revenue attributable to this category of user was variable depending on the mode of gambling. For example, those in this category using EGMs accounted for over 42% of revenue, whereas those using lottery products accounted for 5.7%. The equivalent proportions for scratch card users and wagering users were 19.1% and 33.1%, respectively (PC, 1999 p.7.46).

26. The capacity of a gambling form to inflict harm is related to its structural characteristics. More purposively, the characteristics of gambling forms are intended to make gambling attractive and encourage continued participation, and in some cases addiction. As Schüll expresses it, in the context of EGMs, structural characteristics facilitate time on device (TOD) and to maximise revenue per available customer (REVPAC)(Schüll 2012). Structural characteristics vary between gambling forms, and have evolved rapidly in relation to automated forms of gambling (e.g., EGMs, online casino games, automated bingo machines).

27. As noted above some forms of gambling are more likely than others to bring about addictive behaviour, and accordingly increased harm. Addiction models suggest that stimulation of the brain's reward centres provide the basis for this form of addiction. Earlier models identified forms of conditioning (classical and operant conditioning) which provided a basis for observing specific characteristics of games that were associated with addiction.

28. The advent of functional MRA imaging and other developments has now led to identification of a dopamine model to account for addiction. In this model, reward stimuli lead to increased flows of dopamine and other pleasurable neurochemicals that provide relief from stressful or unpleasant life circumstances, and re-form some neural connections (Yücel et al 2018).

29. Operant conditioning is a concept that relates to the provision of irregular or random rewards or prizes, or as Skinner puts it, a schedule of reinforcement (Skinner 1953). Reinforcement is simply a stimulus that induces a response in the subject of the stimulus. Just as dogs will learn to obey particular commands when rewarded, humans and other animals will learn to continually undertake specific activities when *intermittently* rewarded. Animals, including humans, are more likely to develop habitual behaviour when exposed to an unpredictable series of rewards under specific conditions.

30. Classical conditioning relates to another addictive mechanism, whereby animals (including humans) will come to associate specific rewards or pleasurable events with auditory or visual stimuli, or odours, sensations, or colours. Thus, Pavlov's

experiments with dogs (Pavlov 1927) demonstrated that a dog that was fed whilst a metronome was operated would associate the metronome with being fed, and salivate in response, even if food was not provided. Humans are similarly susceptible to such stimuli.

31. These forms of stimuli can be readily observed in EGMs, where the combination of a high speed of operation, relatively high stake size, carefully signalled random reward events, and multiple visual and auditory stimuli, produce apparent high engagement and apparently high rates of addictive behaviour. The consequence of this, of course, is significant harm (Livingstone 2017).

32. EGMs, being computerised, allow for endless modification and redesign to provide multiple streams of stimuli. For example, EGMs may offer multi line betting, whereby a low denomination bet may be scaled up dramatically, in some cases by a factor of 50 or more. Multi line EGMs also permit what are referred to as 'losses disguised as wins', whereby a bet on one line may win a prize, but the overall effect is a net loss. Such events are rewarded with celebratory sounds and visual stimuli, although the gambler has indeed lost most of their stake. This function may increase the rate of reinforcement by as much as double, thereby providing significant additional reinforcement at no cost to the operator (Harrigan et al 2014). Losses disguised as wins are currently prohibited on Tasmania. This prohibition should continue.

33. Similarly, near misses (where it may appear that a 'win' was narrowly missed by the location of symbols on a reel) provide stimulus that may also add significantly to the reinforcement rate (Harrigan 2008).

34. The effect of event frequency is also significant. EGMs allow for an almost continuous flow of bets, often at intervals of as little as two or three seconds. They may also permit high bets and thus significant expenditure. For example, at a maximum of $5 per bet, an Australian-style EGM can readily consume an *average* of $600 per hour, and potentially significantly more.

35. EGMs thus provide a prototype of the 'idealised' gambling form. Increasingly, other forms of gambling are adopting the characteristics of these devices in order to pursue the goals of maximising revenue and maintaining continuing engagement with the gambling form.

36. I consider that the use of contemporary EGMs is harmful or potentially harmful to many people who use them, most notably those who use them regularly. The characteristics of gambling games that make them more or less likely to be harmful can be summarised as follows:

1. **Event frequency** – (EF) (i.e., speed at which bets can be placed). High EF forms will permit bets at intervals of seconds and will most likely be digitised. Moderate EF forms will allow wagers every few minutes. Low EF will permit wagers to be placed at intervals of several hours to a day. Very low EF forms (e.g., lotteries) will have days or in some cases weeks between events on which wagers can be placed.
2. **Structural characteristics** – event frequency, multiple bet capacity, and bet size are important structural characteristics, but some gambling forms have

additional characteristics that raise concerns via increasing rate of betting and level of reinforcement. These include capacity to bet on multiple wagers within a single game, ability to increase rate of betting, losses disguised as wins (LDWs), 'near misses', audio-visual effects, and illusion of control.

3. **Stakes** – (i.e., the amount that may be bet on each wager). Low stakes games will have modest limits placed on wagers (e.g., up to $1.00). High stakes games will have limited wagers up to significant sums (e.g. up to $10.00). Very high stakes games will be unlimited.
4. **Average expenditure** – the amount lost by those who use that game form. Games with high average expenditure are likely to be characterised by high reinforcement rates and high EF.
5. **Multi-bets** – the ability to place more than one wager on a specific event simultaneously or concurrently, as in casino table games such as roulette, or on some EGMs.
6. **Accessibility** – (i.e., the ability to get access to a specific gambling form). An example of assessment of accessibility might be a proposal to open a large new casino in a population centre. Increased accessibility to a range of high impact gambling forms may be a serious harbinger of increased harm.

Part 2: The regressive distribution of EGMs in Tasmania

37. In 2017, using data available from the Tasmanian Liquor and Gambling Commission, we (colleagues and I) assessed the extent to which the distribution of EGMs is regressive – that is, the extent to which it extracts greater revenue from the disadvantaged. We provided the data to a Joint Select Committee of the Tasmanian Parliament, which was, at that time, inquiring into the gambling industry.

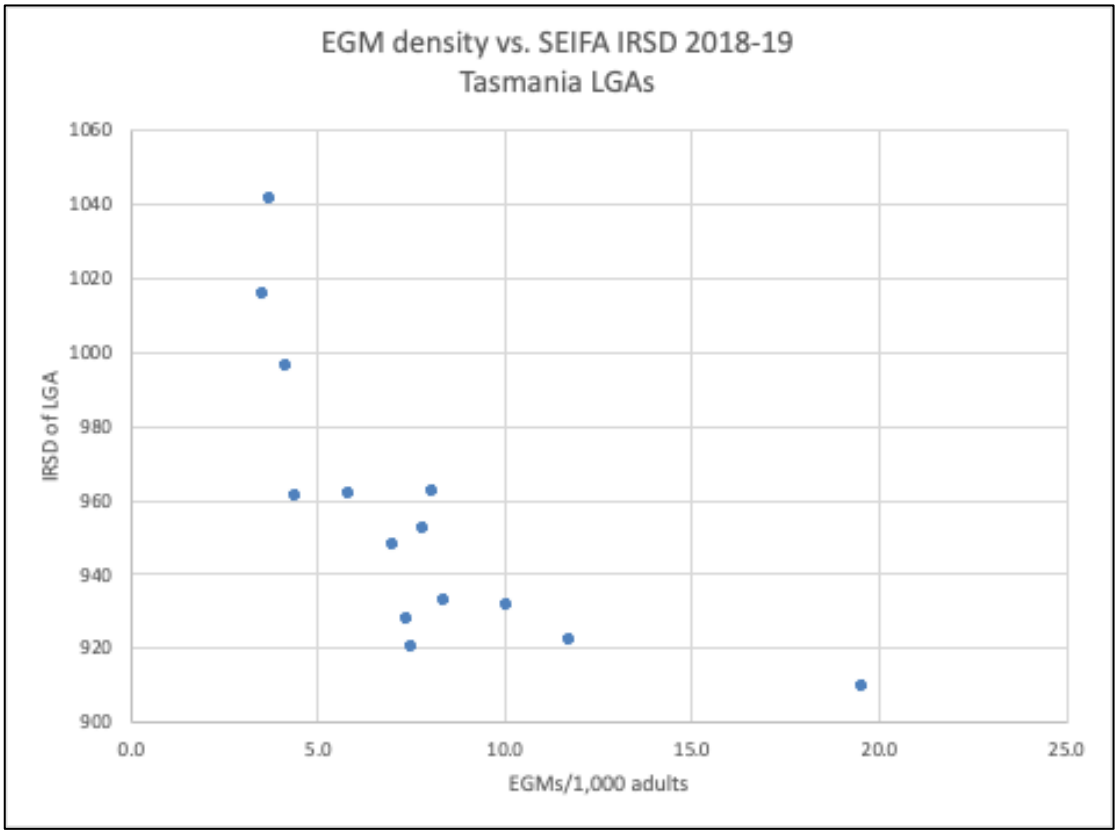
38. As we said at the time '…allowing pokies to continue to be concentrated in Tasmania's most stressed local areas will continue to cause preventable harm to tens of thousands of Tasmanians every year.'

39. This situation has not changed. We note that the distribution of EGMs in Tasmania at December 2020 followed the pattern shown in Figure 1.

40. Figure 1 demonstrates that the distribution of EGMs in Tasmania remains regressive. Thus, the most disadvantaged LGAs continue to have the highest concentration of EGMs.

41. The proposed changes to EGM legislation and regulation do not appear to impose any constraints on the continuation of this pattern, which will impose significant burdens on the most disadvantaged members of Tasmanian society.

Figure 1



Sources: ABS IRSD, Tas. Dept of Treasury & Finance.

Part 3: Potential for concentration of EGM ownership.

42. The proposed legislative and regulatory changes purport to reduce the number of EGMs operating in Tasmania and to impose a cap on the number of 587 entitlements operated by any single operator, or associated entities. This cap is set at 'about' 25% of the total number of entitlements, which is to be 2,350. As at December 2020 there were 2,305 EGM entitlements operating in local venues in Tasmania.

43. Of the EGMs operated in Tasmania's local venues as at December 2020, 2,208 (95.8%) were located in 126 hotels. Another 97 (4.2%) were operating in 23 club venues.

44. Further, 360 (15.6%) of the EGMs operating at December 2020 were located in 12 Vantage Hotel Group venues. This is a subsidiary of the Farrell group companies, operators of Tasmania's two casinos. Under the proposed legislation, it would be open to this company to acquire a further 227 EGMs, which could be located in as few as 8 additional hotels.

45. Australian Leisure and Hospitality Group Ltd (ALH) currently operates 4 venues in Tasmania, with a total of 120 EGMs. This company is a key element of the Endeavour Group, which recently demerged from Woolworths. ALH is Australia's largest operator of EGMs and is noted as being 'in the hunt' for more hotel properties to expand its EGM operations.

46. It is open to ALH under the proposed legislation to acquire an additional 467 EGM entitlements, which could be operated in as few as 16 hotels.

47. While competition for hotel properties might prove a windfall for publicans and licensees, it could readily deliver a system of oligopoly that would not be in the interests of Tasmanians. The market and lobbying power of these operators would prove difficult for any government to resist, and would be on par with that of the Federal group, which has arguably had an immoderate influence on Tasmanian gambling policy over a long period.

48. It is clearly not in the Tasmanian public interest for any single operator to control Tasmania's casino gambling (with the exception of niche 'high roller' casinos) as well as to control a significant proportion of the state's local EGMs and venues.

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