AUSTRALASIAN Gaming Council

Pre-commitment

January 2011

Executive Summary

Introduction

Pre-commitment can be simply described as "any mechanism which may allow a consumer to set a limit around their gambling or help a consumer better control their gambling and avoid overspending on their limit".[1]

While a relatively simple concept, the policy issues central to the current debate are complex. The cost-benefit of using technology to assist consumer decision making and budget adherence with regard to gambling expenditure is at the core of current deliberations. It includes a number of considerations – not least of which are the long term impacts and outcomes for both consumers and industry.

In Australia evaluative studies of voluntary pre-commitment trials undertaken in both Queensland and South Australia are now available but Australian research into pre-commitment remains very limited.

Australian evaluations speak to results of the specific systems implemented and emphasise a need for further research before any policy conclusions may be reached. They do however identify a number of areas for further improvement and indicate that, with further refinement and trialing, voluntary systems may have the potential to assist a wide range of gamblers.

The opportunity to learn from trials and evaluations held internationally is also limited. Those jurisdictions that have implemented a type of pre-commitment, chiefly Norway and the province of Nova Scotia, Canada, have gambling environments and systems in place that differ markedly to Australia. Equally, programs have not been operational for a sufficient period to ascertain long-term impacts.

Pre-commitment policy in Australia is currently being explored through the collaboration of industry, community and government and will, of necessity, be a lengthy process.

Further research into precisely what mechanism may best represent the interests of all stakeholders and trials to ensure that any proposed system delivers the most beneficial outcomes to consumers will be required if Australia is to progress to a solution that represents truly optimal practice.

Modes & Mechanisms for Implementing Pre-commitment

Pre-commitment research in Australia and international jurisdictions has identified a number of recurring themes. There remains marked debate upon:

- whether mandatory measures with compulsory registration offer significantly greater benefit to consumers than voluntary systems;
- whether the application of pre-commitment will assist a great proportion of problem gamblers or, as appears to be the majority view, that it is more appropriately characterised as a tool to assist responsible gambling practices;
- how pre-commitment may best be linked with other responsible gambling initiatives and systems;
- what the actual efficacy of any particular system may be; and
- how available technologies can be made flexible and simple enough to meet the needs of all consumers, gaming venues and gaming systems at a cost that does not outweigh the benefits that may reasonably be expected.

[1] McDonnell-Phillips Pty Ltd (2006) *Analysis of Gambler Pre-commitment Behaviour*, Gambling Research Australia, p2

Equally, an array of pre-commitment mechanisms have been suggested and run the gamut of simple paper-based budgetary aids, to voluntary adjuncts of current card-based loyalty programs and, further, to smart-cards and/or high tech devices/systems requiring player registration.

All these issues point to the need for further, targeted, research. Studies may need to be replicated evaluating player behaviours, further investigating the outcomes of the systems trialed and/or modeling the likely impacts of any proposed policy.

Gambling Reform and Pre-commitment Trials in Australia

National

Pre-commitment is currently the watchword for gambling reform across Australia – however the precise mode, application, linkage and options ensuring the implementation of best practice in any future system remain open to debate and there is not a great degree of empirical research to inform the subject.

As an outcome of discussions following the Federal election of September 2010, it was announced that the Australian Federal Government would commit to a position on gambling reform that included a best practice 'full' pre-commitment scheme, uniform across all states and territories, consistent with the recommendations and findings of the Productivity Commission. Implementation is scheduled to commence in 2012 with the full scheme planned to be operational in 2014

There is a distinct possibility that, in hastening to effect any pre-commitment program, a number of valid concerns, including the Productivity Commission's own recommendations regarding the necessity for research and trials, risk being ignored.

For example, Recommendation 19.2 of the Productivity Commission report recommends that trials:

> "substantiate that full pre-commitment has sufficient advantages over partial pre-commitment to justify proceeding with its implementation in all jurisdictions".

States/Territories

Interest in pre-commitment at a national level has been mirrored by state interest – including legislation in Victoria for the staged introduction of pre-commitment by 2015 and trials/implementation of voluntary systems undertaken in both South Australia and Queensland.

In Victoria public consultation of the first phase of a three stage pre-commitment scheme concluded in September of 2010. Regulation has since been made requiring a pop-up screen that provides play information when a time or net-loss limit is exceeded during a single session of play at individual next generation machines to be in place by 1 December 2010.[2]

In Queensland government approved voluntary pre-commitment systems have been rolled out to 48 venues across the state. Trials began in this jurisdiction as early as 2005 with subsequent trials of Maxgaming's SIMPLAY System at Redcliffe RSL and an Odyessy/eBet system trial at the Sandgate RSL. Both systems were implemented largely through upgrades to existing Central Monitoring Systems (CMS) and the use of loyalty program technology - which greatly reduced the cost of implementation.

The 2010 Productivity Commission review of the Queensland trials noted that while uptake of pre-commitment was low and more work needed to be undertaken to assist player understanding of system features there were many positive aspects.

[2] Pre-commitment 2010 Consultation Paper, Victorian Department of Justice accessed at < http://www.justice.vic.gov.au/wps/wcm/connect/f09ed10043a54ea296a7ff34222e6833/Pre-commitment_consultation_paper.PDF?MOD=AJPERES>; see also Gambling Regulation (Pre-commitment) Interim Regulations 2010 (Vic) <http://www.justice.vic.gov.au/wps/wcm/connect/73e8cc0044799ce9ae15fe8bf720486c/Gambling_Regulation_%28Pre-commitment%29_Interim_Regulations_2010.PDF?MOD=AJPERES >

In South Australia trials using existing loyalty card systems with voluntary pre-commitment options have been undertaken and overseen by the South Australian Responsible Gambling Working Party (SARGWP). An evaluation of the South Australian 'PlaySmart' system found this model to offer a range of distinct benefits that could have been greater realised by optimising player education and marketing materials to maximise awareness of the facility and its features.[3]

Deciding the Policy Principles for Australian Pre-commitment

In their oversight of pre-commitment trials in South Australia the South Australian Responsible Gambling Working Party (SARGWP) identified key minimum requirements that should be considered with regard to the development and implementation of any pre-commitment policy.

South Australian Responsible Gambling Working Party – Minimum requirements for implementing a pre-commitment strategy

Voluntary	Voluntary for the customer and available at all venues.
Informed choice	Accessible and user friendly information to support informed decision making and promotion of pre-commitment as a tool for all gamblers.
Flexible	Flexibility of functions is important to meet the needs of a variety of customers and venues, to encourage future innovation in system design and operation, and to support responsible gambling outcomes.
User Friendly	Ease of use of system and system materials for all gamblers, so that recreational gamblers are not deterred or inconvenienced, and responsible gambling outcomes are supported.
Privacy	Compliance with Commonwealth Privacy Principles.
Cost-effective	Efficient within the context of a sustainable industry and venue viability.
Evidence-based	Relevant research of responsible gambling outcomes is considered and incorporated where appropriate, particularly on-going evaluation supported by a systems data collection and management process.
Integrated	Integrated with existing industry responsible gambling programs i.e. Host Responsibility Coordinators, Gaming Care and Club Safe.
Variety	Not just limited to one solution; a variety of systems to encourage accessibility and innovation.

Source: Responsible Gambling Working Party (August 2010) *Supporting Customer Commitment: Fourth Progress Report to the Minister for Gambling by the Responsible Gambling Working Party*. p8

AGC discussion with regard to these principles and the available research follows below.

Voluntary

Pre-commitment schemes were characterised by the Productivity Commission in its 2010 report as either 'full' – requiring mandatory registration and an identification device to play EGMs with an ability to opt-out of limit setting functionality (subject to some caveats), or 'partial' - where use of the system is voluntary.

As actual limit setting is essentially voluntary under both schemes, the issue of mandatory registration/identification to play an EGM is a key issue. A number of variables, including consumer acceptance, application of the system and the possible efficacy of any system, need to be considered.

i) Consumer Acceptance

Attitudinal research undertaken in Australia indicates that systems with compulsory registration/identification for a card (or any similar device) in order to gamble are unlikely to be readily accepted. Community concerns for the privacy and security of data are high and while studies have found support for limit setting, they have also stressed a preference for voluntary systems.[4]

[3] Schottler Consulting (2010) *Major findings and implications: Player Tracking and Pre-commitment Trial. A program and outcome evaluation of the PlaySmart Pre-commitment System*, South Australian Department of Treasury and Finance p10
[4] McDonnell-Phillips (2006) *Australian National Survey of Gambler Pre-commitment Behaviour*, Gambling Research Australia

ii) Application

In either of the systems discussed by the Productivity Commission, problem gamblers may choose not to effectively limit their play, thereby evading any benefits associated with use. The 2010 report stated that, while a pre-commitment facility would "help many problem gamblers, its target is primarily regular players".[5]

Bearing this target in mind, the necessity that any implementation of pre-commitment be undertaken in a manner that does not disadvantage or alienate recreational EGM players becomes apparent.

iii) Efficacy

While ultimately favoring a system of mandatory registration the Commission noted that pre-commitment could take a variety of forms and that the "detail of any proposed scheme makes a large difference to its effectiveness. This suggests testing systems that have an appropriate set of minimum functions to establish they work as intended".[6]

Evaluations of voluntary systems suggest that with targeted marketing, appropriate staff training and continued refinement such systems may eventually represent a beneficial and cost-effective Australian solution.

McDonnell-Phillips Australian research into gambler attitudes has also suggested that a voluntary system may be effective for problem gamblers if combined with cooling-off periods and a targeted communication and uptake strategy.[7]

Informed Choice

As consumers are those to make the decisions regarding whether in fact to set a limit and then, what that limit may be, responsible decision-making must be seen as an integral component of any pre-commitment system.

Further education concerning gambling products, and increased financial literacy measures may contribute in long-lasting and meaningful ways to greater consumer understanding, control and informed limit setting.

Flexible & User Friendly

Australian trial results have clearly indicated that complexity, or perceived complexity, in using a pre-commitment scheme can impact on both take-up by consumers and possible benefits they may derive from the system.

Solutions need to be simple in order to appeal to and benefit consumers while remaining flexible in order to suit the very varied venues, technologies and systems currently in place across multiple Australian jurisdictions.

Privacy

From a player perspective the perceived threat to privacy and confidentiality of information represented by mandatory registration systems is a significant issue. Concerns about privacy were recognised by the Productivity Commission to constitute "a more fundamental issue affecting consumers' receptiveness to a 'full' pre-commitment system".[8]

Cost- Efficiency

The cost of any system will be dictated by its form and roll-out period. Costs, especially of technology based solutions may show a great deal of divergence dependent upon system functionalities and technical specifications.

Cost remains an important factor in venue viability and the sustainability of an industry which makes a large contribution to employment, tourism and community funding.

> There is no definitive research or economic modeling to answer concerns regarding the cost of proposed nationwide changes in relation to the benefit that may be derived by gamblers.

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[5] Productivity Commission (2010) *Gambling*, Report No 50, Canberra p10.16
[6] Productivity Commission (2010) *Gambling*, Report No 50, Canberra p10.38
[7] McDonnell-Phillips Pty Ltd (2006) *Analysis of gambler pre-commitment behaviour*, Gambling Research Australia p46
[8] Productivity Commission (2010) *Gambling*, Report No 50, Canberra p10.28

Evidence-based Solutions

Evidence based measures providing long-term solutions that integrate with systems/initiatives already in place are required.

Trialing and research is necessary to isolate the ingredients of the system(s) best suited to an Australian environment.

Trials to inform the maximum efficacy of any system were a feature of the Productivity Commission's 2010 recommendations.

> While recommending a timeline for implementation of pre-commitment by 2016 the Commission effectively cautioned against hasty implementation by stating that a key to the ultimate delivery of effective pre-commitment would involve:
>
> - The development of standards, advanced protocols and appropriate design features;
> - The introduction of partial pre-commitment in jurisdictions where central monitoring systems allow its low-cost implementation;
> - A trial of a full pre-commitment system; and
> - The widespread adoption of a full pre-commitment system depending on the lessons from that trial and the partial pre-commitment system.
>
> See: Productivity Commission (2010) *Gambling*, Report No 50, Canberra p 10.38

Research into how adoption of pre-commitment systems may best be encouraged has suggested that there remains much to learn.

The uptake and efficacy of voluntary systems may well be maximised with greater understanding of how best to market and explain the benefits of programs to consumers.

Variety

There are a variety of measures which may operate to reinforce responsible gambling behaviours and bolster the pre-commitment decisions of gamblers.

It is integral that any planned system take an approach that recognizes the diversity of the Australian gambling environment in order to best serve the needs of all gamblers/gambling providers and integrate with the various responsible gambling and harm minimisation measures already undertaken throughout Australia's states/territories.

Summarising the Evidence from Australia

The first national research into pre-commitment was released by Gambling Research Australia (GRA) in 2006. Undertaken by McDonnell-Phillips this study was an analysis of gambler attitudes and revealed that, while there was strong interest in limit setting, pre-commitment would have the greatest impact if offered as a voluntary, rather than compulsory, option and that issues with privacy comprised a barrier to consumer acceptance.

This research also highlighted the need for further education for gamblers, including how to arrive at and stick to affordable limits, develop and monitor budgets for expenditure and awareness raising about goal setting during play.

Trials of voluntary systems have been undertaken and evaluated in Queensland and South Australia. In both jurisdictions trial evaluations have found that, while uptake is not immediate in the early stages of market adoption, consumers have appreciated voluntary use of card-based systems and benefit has accrued to those who do choose to set limits using the system.

> The findings from the South Australian and Queensland trials are specific and somewhat limited to those systems/jurisdictions. They do, however, provide valuable insight into voluntary systems as well as suggesting a number of possible refinements by which voluntary systems may be enhanced to increase player benefit.

Summarising the Evidence from International Jurisdictions

While often cited as a possible template for Australian policy those international jurisdictions that have implemented a type of pre-commitment, chiefly Norway and the province of Nova Scotia, Canada, have gambling environments and systems that differ markedly from Australia. Neither of these systems has been in place for a sufficient period for long term impacts to be known.

Nova Scotia

In Nova Scotia, where gaming is largely operated by state entities, evaluative studies of the recent province-wide implementation of a 'bolt-on' pre-commitment mechanism for Video Lottery Terminals (VLTs) with mandatory registration (termed an Informed Player Choice System or IPCS) are pending.

The IPCS was based upon research undertaken in 2006-07 on a Responsible Gaming Device (RGD) that integrated into the play of VLTs. The device used a compulsory player card, which was designed to encourage responsible gambling by allowing players to set their own spending limits and help them track what they spent over time.

Analysis of the RGD trial was not without issues. In particular, Focal Research of Nova Scotia identified card sharing amongst gamblers and a low uptake of the responsible gambling features, while an analysis conducted in Nevada by the International Gaming Institute revealed significant study participant concerns regarding privacy.

A jurisdiction wide roll-out of compulsory card-use with voluntary take-up of responsible gambling features has only recently been implemented on the 2,234 VLTs in Nova Scotia. Research, recommended to explore player behaviour and responses to the system, is not yet available.

Norway

In Norway, where machine gaming is now controlled by a state monopoly, radical change to both the ownership and nature of EGM gambling occurred when all slot machines were removed from the market from July 2007.

Change was predicated by the previous Norwegian gaming environment which featured widespread access to high intensity gaming machines and an absence of the suite of harm minimisation measures apparent in nations like Australia.

As part of the changes new model server based gambling terminals, known as Interactive Video Terminals (IVTs) were rolled out in very limited numbers from September 2008.

As at January 2011 only 2,500 IVT machines (approx) have been installed in Norway at close to 1100 locations (mainly kiosks) – a significant contrast to the previous number of machines available (in 2003 19,768 slot machine deployment permits existed).

Early evidence from Norway suggested that the changes made may have instigated a degree of movement to less regulated channels – particularly online gambling.

A review from the University of Salford in 2008 sums up what remain some of the major issues in discussion of pre-commitment today. This report spoke of the potentially prohibitive costs of investment in an area still lacking evidence of the net benefit of cashless and card-based technology for customers, the wider gambling industry and importantly, for problem gamblers.

See: Parke, J Rigby, J & Parke, A (2008) *Cashless and card-based technologies in gambling: A review of the Literature*, Centre for the Study of Gambling, University of Salford

Future Considerations for Policy

While a Federal government agreement has been made to hasten the implementation of 'full' pre-commitment in Australia it is important to remember that the Productivity Commission offered up no blueprint for implementation or clear conclusions on a number of issues around pre-commitment.

Recommendations concerning the research, development and trials that must necessarily be undertaken to inform any future pre-commitment system (including recommendations made to that effect by the Productivity Commission itself) – should not be swept aside.

The AGC believes the following considerations integral to furthering a well-planned and reasoned approach:

- The introduction of any pre-commitment strategy should be undertaken as part of a consultative and cohesive process with all stakeholders. Minimum requirements devised by the South Australian Responsible Gambling Working Party should be used as a starting point;

- Evidence-based knowledge must be used to guide responsible policy decisions on pre-commitment strategies that are beneficial for all stakeholders: gamblers, regulators, governments and industry;

- Trial outcomes in an Australian environment need to be properly considered and evaluated before implementation on a wider scale is sought;

- Pre-commitment should be seen as a tool to aid responsible gambling practices rather than as the solution for problem gambling behaviours;

- Pre-commitment strategies should link effectively with other existing responsible gambling and harm minimisation initiatives that work to promote player understanding and informed choice; and

- Any pre-commitment strategy should be voluntary in its application, respecting the rights of recreational players to enjoy gambling in a safe and responsible manner without detraction from the enjoyment of their experience, privacy or choice of venue.

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Introduction

Pre-commitment has traditionally been explained as a decision, made at a time of rationality, which will limit or prevent any future capacity to deviate from a planned course of action:

> When an individual makes a pre-commitment it means that they have chosen in the present to do something in order to alter the way in which they will respond or be able to respond to particular situations in the future. Pre-commitments can achieve this result either by making it physically impossible for the decision maker to respond in certain ways and/or, more usually, by altering the net benefit to the decision maker of various future courses of action.[9]

The notion of pre-commitment as a possible strategy to curb problematic gambling behaviour arose in the Productivity Commission's Inquiry Report of 1999 which stated that:

> "People use pre-commitment strategies when they believe that they will make future impulsive decisions, which are not in their best interests…There are a number of possible pre-commitment strategies that might work for problem gamblers." [10]

The use of pre-commitment to assist individuals in the exercise of control over their gambling is now the subject of study across international jurisdictions. In its simplest terms this form of pre-commitment has been defined as:

> "Any mechanism which may allow a consumer to set a limit around their gambling or help a consumer better control their gambling and avoid overspending on their limit".[1]

While a relatively simple concept, based upon an understanding that problematic gambling may arise when adverse consequences are experienced by gamblers who have difficulties in limiting the time or money they spend upon gambling,[11] the policy issues central to the current debate are complex.

Pre-commitment should not be represented as 'the solution' to problem gambling. Most of the available literature better understands pre-commitment as an aid to responsible gambling - while some problem gamblers may certainly benefit, regular gamblers are more often seen as the core target.

With this target in mind it becomes imperative that systems considered preserve the utility of recreational players whilst offering assistance to all gamblers in keeping with their personal limits and budget.

Pre-commitment stratagems have existed for centuries yet technological solutions have become pre-eminent in Australian discourse regarding possible schemes for Electronic Gaming Machine (EGM) gambling.

The cost-benefit of using technology to assist consumer decision-making and bolster decision adherence with regard to gambling expenditure is at the core of current deliberations and includes a number of considerations – not least of which may be the long term impacts and outcomes for both consumer and industry.

Research and trials from Australia and international jurisdictions covered in the latter half of this paper provide an overview of major findings and opinions available. In some the default to assistance and intervention through technology is marked and yet any mechanism which assists gamblers to remain

[9] Markovits, R (2003) *Pre-commitment Analysis and Societal Moral Identity*, Texas Law Review Vol 81:1 p1
[10] Productivity Commission (1999), *Australia's Gambling Industries*, p16.71
[11] Problem gambling has been defined as characterised by "difficulties in limiting money and/or time spent on gambling which leads to adverse consequences for the gambler, other or for the community". *Problem Gambling and Harm: Towards a National Definition* (2005) Gambling Research Australia p (i)

conscious of, and abide by, their limits may have merit. Pre-commitment decisions for gamblers could be as simple as leaving an ATM card at home or setting a time constraint upon gambling activity. As one commentator has remarked, "Any person who gambles has the ability to set limits on their gambling activities through choosing where, when, the frequency and duration of their visit and how much money they wish to spend".[12]

The 2010 report of the Australian Productivity Commission recommended a system of compulsory registration for a card or device that would subsequently bind EGM players, potentially nationwide, to pre-determined limits, however attitudinal research has indicated that such mandatory systems are unlikely to be greeted with a great deal of consumer acceptance.

Even in the understanding that consumer uptake has not been initially large, trial evaluations of voluntary programs in Australia suggest that with targeted marketing, appropriate staff training and continued refinement such systems may eventually represent a beneficial and cost effective means of implementing long-term reform. These studies have additionally evidenced that measures offered should be simple, in order to achieve maximum use and understanding by consumers and supplemented by other educative measures around budget setting and responsible gambling practices.

In the longer term, the impacts and outcomes of any pre-commitment system for EGM gamblers currently remains unknown. In Australia evaluative studies of voluntary pre-commitment trials undertaken in both Queensland and South Australia are now available. While they speak to results of the specific systems implemented in these regions and the fact that further research is required, they have also identified a number of areas for further improvement and indicate that voluntary systems have the potential to assist a wide range of gamblers.

As discussion progresses regarding possible systems and time frames for implementation, estimates of cost have become a little clearer. However, estimates that take full account of divergences in the operating systems and hardware currently available across Australian jurisdictions and venue types as well as ongoing and associated costs (such as those for marketing, training, maintenance and upgrades) are required to provide real indicia of the financial considerations involved.

The opportunity to learn from trials and evaluations held internationally is hampered by understanding that those jurisdictions that have implemented pre-commitment, chiefly Norway and the province of Nova Scotia, Canada, have gambling environments and systems in place that differ markedly to Australia. Equally, programs have not been operational for a sufficient period to ascertain long-term impacts.

In Nova Scotia evaluative studies of actual results from the recent statewide implementation of a 'bolt-on' pre-commitment mechanism (termed an Informed Player Choice System or IPCS) for Video Lottery terminals (VLTs) are pending.

In Norway, radical changes to both the ownership and nature of EGM gambling has produced results impacted by the complete removal (for a period) of gaming machines and the subsequent reinstatement of a far fewer number of server-based gaming terminals replete with state mandated spending limit. Some evidence from this jurisdiction also suggests that the changes made may have instigated a degree of recourse to other gambling choices – particularly online gambling forms.[13]

Pre-commitment policy in Australia is currently being explored through the collaboration of industry, community and government. Further research into precisely what mechanism may best represent the interests of all stakeholders and trials to ensure that any proposed system delivers the most beneficial outcomes to consumers will be required as Australia progresses to a solution that represents truly optimal practice in this area.

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[12] Kelly, J (2003) '*What if there were no more problem gamblers – Pre-commitment Programs'* Newslink Summer/Fall 2003 p12 Responsible Gambling Council < http://www.responsiblegambling.org/articles/NewslinkSummerFall2003.pdf>

[13] See for example SINTEF, Report A8499, *Gambling Behaviour and Gambling Problems in Norway 2008*, Summary in English p3

Considerations from Pre-commitment Research & Discussion

Pre-commitment research in Australia and international jurisdictions has identified a number of recurring themes including:

1. **Options for use:** voluntary pre-commitment aids versus mandatory measures;
2. **Mode:** the use of a technological device and/or other mechanisms;
3. **Application:** whether a pre-commitment mechanism should be used by all gamblers versus functioning as a tool to assist primarily at-risk or problem gamblers. (The issue of monitoring of play and use of the data gained by any system to potentially identify problem or at risk gamblers is also a concept gaining ground with some commentators);
4. **Linkage:** the compatibility of any system with other responsible gambling initiatives and systems (self exclusion, signage etc);
5. **Outcomes:** the efficacy of systems – including acceptance and usage rates by gamblers and the outcomes for problem gambling in the community;
6. **A requirement for further research:** Studies may need to be replicated targeting player behaviours and/or further investigating the outcomes of systems trialed in differing jurisdictions.

Possible Pre-commitment Modes

A variety of mechanisms have been considered to assist gambler adherence to pre-determined limits. The following are largely drawn from considerations of the South Australian Responsible Gambling Working Party. Some reference the particular EGM environment of that jurisdiction whilst others have been considered further afield or used internationally.

Cashier assisted: Customers set a voluntary limit with a venue cashier on the amount of money they can exchange to play EGMs within a 24 hour period. [14]

***Automatic Coin Machines (ACMs)*:** ACMs dispense coins for use in EGMs. It has been considered that ACMs could be modified to require card activation by customers. Such a card should be able to limit the amount of currency a customer may exchange at the ACM in any 24 hour period. [15]

Second Screen EGM: Upgrading the software of existing EGMs enabling access to a second screen offering player tracking and information data. This functionality has not been envisaged as operating upon more than a single machine per player i.e.: it is not transferable per session and customers cannot be tracked across machines/venues.[16]

Venue/Loyalty Cards: Voluntary sign up to a card available at the venue which has minimal default commitment features and may also have loyalty (reward) features. Reward features could be deactivated at the customers' request for the purposes of

[14] South Australian Responsible Gambling Working Party (October 2007) *Supporting Customer Commitment – A Progress Report to the Minister for Gambling* p14 - This form of limit setting is best suited to jurisdictions where EGM play is operated by coin or token only - transactions are manually assisted by a cashier such as is currently the case in South Australia where Bank Note Acceptors (BNAs) are prohibited on EGMs.
http://www.treasury.sa.gov.au/dtf/policy_analysis/gambling_policy/responsible_gambling_working_party.jsp

[15] This form of limit setting is again best suited to jurisdictions where EGM play is operated by coin or token only and references the current situation in South Australia where EGMs may be operated by coins only.

[16] South Australian Responsible Gambling Working Party (October 2007) *Supporting Customer Commitment – A Progress Report to the Minister for Gambling* p14

supporting customer commitment, effectively altering the net benefit of play beyond limits set. Venue cards enable player tracking across machines within a single venue or could alternatively be employed to track across a group of like-branded venues.[17]

Player Registration: Registration of each gambler entering a venue enabling identification and record keeping of player visitation frequency.[18]

Smart Cards & other devices: A card (much like current ATM magnetic stripe or chip embedded cards) which holds personal information and enables player identification, tracking and limit setting through hardware/software across both machines and venues.[19] Bio-metric devices, including USB sticks and fingerprint scanners, have also been identified by some groups as alternative technologies for this purpose.[20]

Intelligence Software: System software which analyses the betting habits and expenditure of each player – including variation in bet size, the conditions under which bets are placed and the frequency with which money is wagered. Such systems are currently in place to scrutinise on-line gambling in some international jurisdictions.[21]

Server-Based Gaming: A Server-Based Gaming (SBG) system features gaming terminals which connect to a central system in order to function. Games and game changes can be automated through the server and player activity at each terminal monitored. A current example of an operational SBG system is Norway's Norsk Tipping platform. SBG is quite different to current Australian systems. In current Australian EGMs critical game components reside locally in the EGM rather than on a central server. Server-based gaming is not a requirement for pre-commitment but can be used as a vehicle for pre-commitment. The key technological requirement for pre-commitment is a compatible central-monitoring system (CMS)[22]

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[17] South Australian Responsible Gambling Working Party (October 2007) *Supporting Customer Commitment – A Progress Report to the Minister for Gambling* p14

[18] Holland Casino in the Netherlands has mandatory player registration as part of its active Problem Gambling Prevention Policy. Under this system all visitors are required to provide identification and to register at the reception desk. Further elements include information leaflets for guests, special training to enable front-of-house staff to recognize the warning signs of problem gambling, monitoring of the frequency of guests' visits, proactive 'cautionary interviews' with guests, and the strict enforcement of visit restrictions and admission bans. Guests seeking to re-enter the casino after such a ban are also invited for an informal interview. <http://www.hollandcasino.com/en-GB/problem+gambling+prevention+policy/policy/default.htm>

[19] See for example the submission of Regis Controls to the 2010 Australian Productivity Commission Inquiry into Gambling 2009 accessed at <http://www.pc.gov.au/__data/assets/pdf_file/0005/87233/sub082.pdf>

[20] See for example the submission of Responsible Gambling Networks to the Australian Productivity Commission Inquiry into Gambling 2009 accessed at <http://www.pc.gov.au/__data/assets/pdf_file/0008/87461/sub120.pdf>

[21] Svenka Spel, Sweeden's largest gaming company have installed a system developed by Sweden's ICU Intelligence which claims to identify problem gamblers via a complex analysis model. The system is said to have a 90% success rate in identifying problematic gambling behaviours and is currently designed to observe online gambling and bets placed by players using their private Svenska Spel betting cards. Once the system has identified a player as being at risk, Svenska Spel will stop all marketing to that person, recommend to the gambler that they revise their habits, help them to earmark a gambling budget and direct players to undergo a problem gambling screen. '*Svenka Spel are taking measures against gambling problems'* July 24, 2007 accessed at <http://www.onlinecasinoextra.com/casino_news_934.html>
See also systems such as that of iCare(tm) – a joint venture of iView Systems and the Saskatchewan Gaming Corporation (SGC). With its complementary platform (iGap) the system claims to offer an ability to capture and interpret data identifying players at risk. Operators are then notified by the system when players are in the venue, staff are provided with information about the player's behaviour and the appropriate interaction and a tracking module documents interactions between staff and players <http://www.icaregaming.com>

[22] Productivity Commission (2010) *Gambling*, Report No 50, Canberra p10.43

National

Pre-commitment has been discussed by the Council of Australian Governments (COAG) for some time[23] and seen voluntary implementation, of varying degrees and forms, in three Australian jurisdictions over recent years. A 2010 report by the Productivity Commission recommended pre-commitment as the initiative most likely to achieve results in assisting those who experience problems controlling their gambling. Judging it a "strong, practicable and ultimately cost-effective option for harm minimisation", the Commission concluded that while even a 'full' pre-commitment system "cannot be a 'silver bullet' it may ultimately take pressure off other regulations aimed at harm minimisation" and, if sufficiently effective, "some of the more prescriptive regulations could be relaxed or revoked". In taking this view the Commission added that "rigorous evaluation" of the approaches it recommended were neccessary. [24]

The Australian Federal Government, in responding to the Commission's report, selected pre-commitment as a key measure to minimise harm that may arise from problem gambling and in June of 2007 announced the establishment of a time limited COAG Select Council of Ministers to progress pre-commitment within a national framework.[25]

As an outcome of discussions following the subsequent Federal election of September 2010, it was further announced that the Australian Federal Government would commit to a position on gambling reform that included a best practice 'full' pre-commitment scheme, uniform across all states and territories, consistent with the recommendations and findings of the Productivity Commission. Implementation is scheduled to commence in 2012 with the full scheme planned to be operational in 2014.[26]

Pre-commitment is now the watchword for gambling reform across Australia – however the precise mode, application, linkage and options ensuring the implementation of best practice in any future system remain open to debate and there is not a great degree of empirical research to inform the subject.

The 2010 report of the Productivity Commission in discussing implementation possibilities, was clear that careful design is a requirement and that an effective pre-commitment system will need "significant consultation, research and development. It will take time" [27]

There is a distinct possibility that, in hastening to effect any pre-commitment program, a number of valid concerns, including the Productivity Commission's own recommendations regarding the necessity for research and trials, risk being ignored.

For example, Recommendation 19.2 of the Productivity Commission's report recommends that trialing should:

- substantiate that 'full' pre-commitment has sufficient advantages over partial pre-commitment to justify proceeding with its implementation in all jurisdictions.

[23] On the 10 July 2009, the Ministerial Council on Gambling (MCG) agreed to a new MCG Workplan - the first point of which was the development of a national policy standard for pre-commitment.
[24] Productivity Commission (2010) *Gambling*, Report No 50, Canberra p10.44
[25] Media Release of Jenny Macklin MP, Minister for Families, Housing, Community Services and Indigenous Affairs, Senator Nick Sherry, Assistant Treasurer and Senator Stephen Conroy, Minister for Broadband, Communications and the Digital Economy, Productivity Commission Report into Gambling, 23 June 2010
http://minscl.treasurer.gov.au/DisplayDocs.aspx?doc=pressreleases/2010/138.htm&pageID=003&min=njsa&Year=&DocType=
[26] Agreement between the Hon Julia Gillard MP (Prime Minister) and Mr Andrew Wilkie MP (elect), Independent member for Denison, Tasmania 2 September 2010
http://www.austgamingcouncil.org.au/images/pdf/Media_Releases/aw%20mr%20020910.pdf
[27] Productivity Commission (2010) *Gambling*, Report No 50, Canberra p19.9

Victoria

The promulgation of the *Gambling Regulation Act 2003* (Vic) revised loyalty scheme provisions for EGM players by requiring the prohibition of program membership unless participants had the capacity to set voluntary limits on either the amount of time they played gaming machines in any 24 hour period or their net loss in a 24 hour or yearly period.[28]

Pre-dating the legislative change, Victoria's Crown Casino implemented a voluntary pre-commitment system from 1 July 2003. The 'Play Safe' program enables customers to set pre-determined limits on both dollar spend and/or the time spent on EGM gambling. This system operates from existing casino loyalty program technology - designed as part of a suite of responsible gambling services offered.

Under the program, when player limits are reached, a warning is emitted from the machine and player loyalty rewards or other benefits associated with loyalty card-based play cease. EGM players using the system are also provided with 24/7 assistance from trained Responsible Gaming Liaison Officers in those situations where support or referral needs may arise.

In 2008 Victorian Premier John Brumby announced that "from 2010 all new gaming machines will be required to have a pre-commitment mechanism that enables a gambler to pre-set time and loss limits".[29] Victorian policy of the period also provided for a pre-commitment mechanism linking EGMs within the venue by 2013 and roll-out from December 2015 of a state-wide linked system allowing access to a historical record of spending and choice in the consequences of reaching a pre-set time/$ limit (such as a tailored break in play). The Brumby government noted that plans to link EGMs for the purposes of pre-commitment either within a venue or state-wide were conditional on advice that the cost would not be prohibitive.[30]

Regulation has since been made requiring a pop-up screen that provides play information when a time or net-loss limit is exceeded during a single session of play at individual next generation machines to be in place by 1 December 2010.[31]

Queensland

In Queensland government approved voluntary pre-commitment systems have been rolled out to 48 venues across the state. Trials began in this jurisdiction as early as 2005 with subsequent trials of Maxgaming's SIMPLAY System at Redcliffe RSL and an Odyessy/eBet system trial at the Sandgate RSL. The government in this jurisdiction has regarded pre-commitment as a consumer protection measure aiding improved control for all gamblers – rather than as a specific measure for problem gamblers.

The Queensland Government has released analyses of the trials. Both systems feature card-based cashless gaming with pre-commitment features that allow players to set time and expenditure limits. Limits can be revised before they are reached (the eBet system does require a lag period of 24 hours to effect a higher limit) and reaching limits will lock the player out of card-based gaming at the venue until the next gaming day (although this does not preclude the ability of the gambler to continue play

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[28] *Gambling Regulation Act* 2003 (Vic) s3.5.36 (1) A loyalty scheme provider cannot allow participation unless the player is provided with a written statement of prescribed information and person has agreed to receive player activity statement
s3.5.36 (2) loyalty scheme participants must be able to set:
(a) limit on amount of time in any 24 hour period
(b) limit on net loss in any 24 hour period
(c) limit on net loss in any year.
s3.5.36 (3) increases to set time/loss limits must not be effected until at least 24 hours after notification to loyalty scheme provider. s3.5.36 (4) loyalty scheme provider must not allow play to continue under loyalty scheme after limit reached.

[29] Media Release from the Office of the Victorian Premier 25 March 2008 '*New Measures to Combat Problem Gambling Head-On'* <http://www.legislation.vic.gov.au/domino/Web_Notes/newmedia.nsf/955cbeae7df9460dca256c8c00152d2b/de70703e9f9c432fca257417007860ed!OpenDocument>

[30] Productivity Commission (2010) *Gambling,* Report No 50, Canberra pC.13

[31] Pre-commitment 2010 Consultation Paper, Victorian Department of Justice accessed at < http://www.justice.vic.gov.au/wps/wcm/connect/f09ed10043a54ea296a7ff34222e6833/Pre-commitment_consultation_paper.PDF?MOD=AJPERES>; see Gambling Regulation (Pre-commitment) Interim Regulations 2010 (Vic)< http://www.justice.vic.gov.au/wps/wcm/connect/73e8cc0044799ce9ae15fe8bf720486c/Gambling_Regulation_%28Pre-commitment%29_Interim_Regulations_2010.PDF?MOD=AJPERES >

using cash). These systems were implemented largely through upgrades to existing Central Monitoring Systems (CMS) and the use of loyalty program technology – reducing the cost of implementation.

The 2010 Productivity Commission review of the Queensland trials noted that, while uptake of pre-commitment was low and more work needed to be undertaken to assist player understanding of system features, there were many positive aspects. In both trial evaluations it was apparent that consumers may find cashless gaming in itself as a useful form of spending control – even without the adoption of limit setting features.

Today over 35,000 gamblers are enrolled in SIMPLAY. The voluntary take-up rate of this system is over 11% on average with some venues showing uptake as high as 32%.[32]

South Australia

In this jurisdiction a Responsible Gambling Working Party (SARGWP) ccomprised of government, industry and community representatives and reporting to the Minister for Gambling, has been established since 2006. The role of the Working Party is to determine appropriate strategies to support customer commitment in relation to EGMs before, during and after play.

Pre-commitment trials have been undertaken in South Australia based on existing loyalty card systems and overseen by the SARGWP. The first of these trials, conducted by Worldsmart Technology Pty Ltd used the existing Jackpot Club 'J-Card' loyalty scheme. Titled 'PlaySmart' the system allows customers to:

- decide a period (nominated cycle) for limit setting (daily, weekly, fortnightly or monthly);
- set limits on expenditure (with creation of a daily expenditure budget if wished);
- set limits on time (the system allows creation of personalised reminders regarding limits and breaks in play); and
- set a cooling off period before increases to expenditure limits may come into effect.

Players exceeding any of their personally chosen limits during their nominated cycle are provided with a warning tone and receive a message at the card reader. Gaming hosts additionally personally confirm with the player when limits are reached. In this trial exceeding a limit did not forcibly stop play however those exceeding their limits forfeited reward points ordinarily added to the J-Card with play for the remainder of that period. Progress warnings were also displayed to players at the 50% and 75% points at which limits were set.

PlaySmart was trialed at six hotels - including two in regional and four in metropolitan areas. Staff received training in using pre-commitment as a tool to assist gamblers to set limits, as well as how to respond to customers if limits are exceeded. The trial commenced on 15 August 2008 with the period for data collection over three phases of natural uptake, coached recruitment and random recruitment by default message concluding in October of 2009. A further trial conducted by Global Gaming Industries and based on existing Maxetag player cards commenced in this jurisdiction in 2009. The trial, results of which are not yet available, allowed limit setting on a daily and overarching 'master limit' basis. Account summary print-outs were also incorporated.

Results of the PlaySmart Evaluation, undertaken by independent firm Schottler Consulting, showed that while uptake of the program was not initially high, those who signed up for pre-commitment options made use of the features – most (60%) preferring short term daily spend limits. The program was held to offer a range of distinct benefits that could have been greater realised by optimising player education and marketing materials to maximise awareness of the facility and its features.

[32] Bielanowski, Monique (2010) *Development of Evidence-Based Policy – The Queensland Pre-commitment Trials*, Presentation to the 20th Annual National Association for Gambling Studies Conference, Gold Coast Australia 1-4 December 2010

Schottler's evaluative study of PlaySmart[33] was released by the South Australian Minister for Gaming Tom Koutsantonis in September of 2010. The Minister noted that trials had resulted in one in five South Australian EGMs being equipped with technology to enable players to set and track their gambling budget with the companies involved now rolling out the technology system to venues covering almost 20% of gaming machines across the state.[34]

South Australia has also trialed a 'Change Tracker' pre-commitment system. While not recommended for use on a large scale, the change tracker, a simple tool using a patron card marked by venue cashiers to monitor funds converted to coin for gambling, has been the subject of interest from sectors of the gambling help industry for the potential of the card to be applied within a therapeutic setting, to assist people in counseling.[35] It has also been considered that this measure, which does not rely on expensive technological solutions, may be particularly appropriate for smaller, regional South Australian venues.

[33] Schottler Consulting (2010) *Major findings and implications: Player Tracking and Pre-commitment Trial. A program and outcome evaluation of the PlaySmart Pre-commitment System*, South Australian Department of Treasury and Finance
[34] Media release of the Honourable Tom Koutsantonis, South Australian Minister for Gaming, 29 September 2010 accessed at < http://www.treasury.sa.gov.au/dtf/policy_analysis/gambling_policy/responsible_gambling_working_party.jsp>
[35] South Australian Department of Treasury and Finance (2010) *Change Tracker Evaluation: Trial of a Manual Pre-commitment Card*

Deciding the Policy Principles for Australian Pre-commitment

At the outset of their 2010 exploration of pre-commitment and means by which gamblers may better control their gambling activities the Productivity Commission recognised two major issues:

1) How should people be bound by the pre-commitments they make?

   and

2) What characterises useful pre-commitment options for gamblers?

In South Australia the same fundamental questions have been addressed by the South Australian Responsible Gambling Working Party (SARGWP). The SARGWP have considered that any pre-commitment strategy needs to be explored through the collaboration of industry, community, government and customers. The SARGWP has identified and refined a set of key minimum requirements that should be considered in the development and implementation of any pre-commitment policy.

Table 1: South Australian Responsible Gambling Working Party – Minimum requirements for implementing a pre-commitment strategy

Voluntary	Voluntary for the customer and available at all venues.
Informed choice	Accessible and user friendly information to support informed decision making and promotion of pre-commitment as a tool for all gamblers.
Flexible	Flexibility of functions is important to meet the needs of a variety of customers and venues, to encourage future innovation in system design and operation, and to support responsible gambling outcomes.
User Friendly	Ease of use of system and system materials for all gamblers, so that recreational gamblers are not deterred or inconvenienced, and responsible gambling outcomes are supported.
Privacy	Compliance with Commonwealth Privacy Principles.
Cost-effective	Efficient within the context of a sustainable industry and venue viability.
Evidence-based	Relevant research of responsible gambling outcomes is considered and incorporated where appropriate, particularly on-going evaluation supported by a systems data collection and management process.
Integrated	Integrated with existing industry responsible gambling programs i.e. Host Responsibility Coordinators, Gaming Care and Club Safe.
Variety	Not just limited to one solution; a variety of systems to encourage accessibility and innovation.

Source: Responsible Gambling Working Party (August 2010) *Supporting Customer Commitment: Fourth Progress Report to the Minister for Gambling by the Responsible Gambling Working Party*. p8

AGC discussion with regard to these principles and the available research follows below.

Voluntary

***Gamblers should be encouraged to make informed choices that enhance player control*.**

In their discussion of possible pre-commitment options the Productivity Commission recognised two systems. One, in which it was envisaged that use of the system be entirely voluntary, was categorised as 'partial' pre-commitment and the other, requiring mandatory registration with an ability to 'opt-out' of limit setting (subject to some caveats) was termed a 'full' system.

As the Commission recognised, the terminology can be confusing, "both systems are essentially voluntary [as they relate to consumer limit setting] since the gambler can choose whether to set a limit in either".[36]

The issue of registration and compulsory identification for a player card (or some other device) in order to engage in recreational play on an EGM is a key factor in the mandatory versus voluntary debate – a debate that can only be resolved by assessing a number of variables such as the consumer acceptance, application and possible efficacy of both options.

Consumer Acceptance

Consumer attitudes evidenced in the available research suggest that compulsory registration schemes mandating use of a card or device are unlikely to be readily accepted by the Australian public. In their national investigation of attitudes to pre-commitment for Gambling Research Australia (GRA) McDonnell-Phillips found a majority view (63%) that it (card use) should be voluntary.

Interestingly, 53% of EGM players surveyed in McDonnell–Phillips attitudinal research thought that card-based measures may elicit a "strong negative reaction from other players" which tallies with results from this study that suggested, while there was a strong interest in limit setting, gamblers felt that "people should ultimately always self-regulate in managing their expenditure rather being controlled." [37]

Experience from jurisdictions further afield has replicated Australian findings with regard to consumer acceptance. In qualitative follow ups to trials in Nova Scotia[38] participants were noted as appreciative of the voluntary nature of responsible gambling features available for use but showed resistance to mandatory implementation.

In a climate of consumer resistance to mandatory measures exploring pre-commitment as a voluntary process may yield pleasing results. In Norway for example, voluntary player cards were introduced as early as 1992 with the passage of a 15 year period before they were to become mandatory. Reports from this jurisdiction state that most players (92%) signed up for the card during its voluntary introduction period.[39]

Any eventual system must also take into account infrequent and non-domestic use. In Australia a number of large EGM providers are destination venues such as casinos. For occasional visitors required use of a card for EGM play could easily be construed as too great a burden to warrant play.

Application

It has been suggested that if problem gamblers are the core target of pre-commitment then issues arise with both voluntary and mandatory models. Academics such as Blaszczynski and Nower for example have noted that problem gamblers are less likely than others to choose to limit their gambling options.[40]

Essentially, in either of the systems discussed by the Productivity Commission, problem gamblers may choose <u>not</u> to effectively limit their play thereby evading any benefits associated with use. This was not unforeseen by the Commission. The 2010 report stated that, while a pre-commitment facility could "help many problem gamblers, its target is primarily regular players".[41]

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[36] Productivity Commission (2010) *Gambling,* Report No 50, Canberra p10.20

[37] McDonnell-Phillips Pty Ltd (2006) *Analysis of Gambler Pre-commitment Behaviour,* Gambling Research Australia

[38] Bernhard, B., Lucas, A. & Dongsuk J (2006) *Responsible Gaming Device Research Report.* International Gaming Institute University of Nevada, Las Vegas

[39] Sjolstad A (2008) *Norsk Tipping: Setting New Standards in Responsible Gaming*. Presentation to the Responsible Gambling Council Insight Forum 2008 cited in Responsible Gambling Council (2009) *Play Information and Management System*

[40] See for example Blaszczynski, A & Nower, L (2010) 'Gambling Motivations, Money Limiting Strategies, and Pre-commitment Preferences of Problem versus Non-Problem Gamblers', *Journal of Gambling Studies*, 26 (3), 361-372

[41] Productivity Commission (2010) *Gambling*, Report No 50, Canberra p10.16

Bearing this target in mind, the necessity to implement any proposed pre-commitment system in such a manner as not to disadvantage or alienate recreational EGM players becomes apparent.

Efficacy

While ultimately favoring a system of mandatory registration/card-use the Productivity Commission noted that pre-commitment could take a variety of forms and that the detail of any proposed scheme would make a large difference to its effectiveness.[42]

In their review of the evidence the Commission did not dismiss the potential of partial, or wholly voluntary systems which were recognised as providing awareness raising around limit setting and gambling expenditure, encouraging prudence, appearing less paternalistic, imposing no cost on those who have no interest in using the system and having reduced implementation costs (as such a system could be rolled out with natural upgrades and act as an adjunct to cashless gaming systems).[43]

A conclusion of the Australian research of McDonnell–Phillips was that pre-commitment had potential for "the greatest impact if it offered as a voluntary rather than a compulsory option".[44] 40% of EGM players stated that they would voluntarily use limits in the long term. The study authors felt that a voluntary system may also be effective for problem gamblers if combined with cooling-off periods, and a targeted communication and uptake strategy.[45]

Informed choice

Education is imperative to further informed decision making choices

As consumers are those to make the decisions regarding whether in fact to set a limit and then, what that limit may be, responsible decision-making must be seen as an integral component of any pre-commitment system.

In their evaluation of South Australian trials Schottler Consulting noted that "most players (62%) set a spend limit which was actually above their usual expenditure – which may imply that a spend limit is conceived as a higher threshold or safety net".[46]

Further education concerning gambling products, and increased financial literacy measures may contribute in long-lasting and meaningful ways to greater consumer understanding, control and informed limit setting.

Assessment of the Nova Scotia trials saw "education brought up repeatedly as an additional feature that participants would like to see."[47] In Australia, McDonnell-Phillips research into gambler attitudes similarly found that future education should aim to counter the common myths of gambling and gambler awareness should be raised about avoiding goal setting during play.

Information provided to players about their actual EGM spend/time may also assist. The provision of information to players about their EGM gambling expenditure via a Player Activity Statement (PAS) and the ability to track gambling sessions on individual EGMs is already available in some Australian jurisdictions[48]. In a study of NSW gamblers Nisbet found that most (67%) were strongly supportive of the usefulness of the Activity Statement.[49]

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[42] Productivity Commission (2010) *Gambling*, Report No 50, Canberra p10.38
[43] Productivity Commission (2010) *Gambling*, Report No 50, Canberra pp10.21-10.22
[44] McDonnell-Phillips Pty Ltd (2006) *Analysis of gambler pre-commitment behaviour*, Gambling Research Australia p46
[45] Ibid
[46] Schottler Consulting (2010) Major findings and implications: Player Tracking and Pre-commitment Trial. A program and outcome evaluation of the PlaySmart Pre-commitment System, South Australian Department of Treasury and Finance p62
[47] Schottler Consulting (2010) Op Cit p27
[48] In Victoria for example EGMs have a Player Information Display (PID) which enables EGM gamblers to track individual play sessions at the machine.
[49] Nisbet, Sharen (2005) *Responsible Gambling Features of Card-Based Technologies*, International Journal of Mental Health and Addiction Vol 3 No 2 pp 59-60.

Simplicity and flexibility

Systems must be both consumer friendly and flexible enough to work across the whole of the Australian gaming environment

Gambling regulation, gambling venues and gamblers cannot be described as homogenous. Gamblers, may be deterred by overly stringent policy or complex requirements and system efficacy can clearly be impacted by complexity.

As Australian and international trials have indicated, "if patrons cannot figure out the technology, they obviously will not be able to employ its features effectively."[50] Likewise the Productivity Commission has reflected that "too complex a set of options would be likely to be problematic for consumers".[51]

Flexibility is also necessary in the design of any system in order for it to function in each jurisdiction. Gambling is the province of state regulatory systems and the gambling environment in Australia exhibits diversity.

In discussing the implementation of a pre-commitment system across Australia the Productivity Commission noted that a few central monitoring systems currently in use – such as the Qcom system in Tasmania, the Northern Territory and Queensland could be used to provide 'full' pre-commitment across nearly all community venues and machines. However, in Victoria, New South Wales, the ACT, South Australia and casinos in several jurisdictions central monitoring systems as well as software and hardware upgrades may be necessitated.[52]

Privacy

Privacy has been recognised in both Australian and international studies as paramount to achieving consumer acceptance.

From a player perspective the perceived threat to privacy and confidentiality of information represented by mandatory registration systems comprises a significant issue. The Productivity Commission recognised that privacy concerns may be a "more fundamental issue affecting consumers' receptiveness to a 'full' pre-commitment system".

See: Productivity Commission (2010) Gambling Report No 50, Canberra p10.28

Consumer reluctance to accept mandatory measures due to concerns for privacy and a preference for anonymity has featured in the NSW research of Nisbet who concluded that player perception of the security and reliability of a carded system was more essential to gaining acceptance than perceptions about the ability of the card to manage gambling expenditure.[53]

Research undertaken by McDonnell-Phillips reported that "27% of EGM players and 32% of punters were very concerned about the privacy aspect of a gambling card".[54] Similarly, focus group participants who reserved their endorsement of a Nova Scotia card-based pre-commitment system usually did so because of privacy concerns.[55] Gambler reluctance to accept the security and reliability of carded systems was magnified at the suggestion of biometric identification devices. The same study found that gamblers "strongly rejected the idea of using biometric ID, whether through fingerprints, retinal scans or other software".[56]

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[50] Bernhard, B., Lucas, A. & Dongsuk J (2006) *Responsible Gaming Device Research Report.* International Gaming Institute University of Nevada, Las Vegas p18
[51] Productivity Commission (2010) Gambling, Report No 50, Canberra p10.21
[52] Productivity Commission (2010) Gambling, Report No 50, Canberra p10.38
[53] Nisbet, S (2005) 'Responsible gambling features of card-based technologies', *International Journal of Mental Health and Addiction*, 3(2), 54-63; Nisbet, S (2006) 'Modelling consumer intention to use gambling technologies: An innovative approach'. *Behaviour and Information Technology*, 25(3), 221-231
[54] McDonnell-Phillips Pty Ltd (2006) *Analysis of Gambler Pre-commitment Behaviour,* Gambling Research Australia p47
[55] Bernhard, B., Lucas, A. & Dongsuk J (2006) *Responsible Gaming Device Research Report.* International Gaming Institute University of Nevada, Las Vegas p27
[56] Bernhard, B cited in Responsible Gambling Council (2009) *Play Information and Management System*

The potential use of data and play patterns from systems is another concern for some gamblers that flows from mandatory registration systems. Qualitative follow-ups to the Nova Scotia trials by the International Gaming Institute in Las Vegas found "a major concern" of focus group participants to be the privacy and security of their data. The research noted that "despite assurances that personal data would not be linked with their gambling data and despite reassurances that this was not an attempt by the government to monitor gambling behaviors, participants were highly skeptical" and that such concerns could represent "significant barriers to widespread acceptance of the product".[57]

The Productivity Commission reported that "one of the advantages of a introducing a partial pre-commitment prior to adoption of any full pre-commitment is that it would allow gamblers to become familiar with pre-commitment cards or other devices and to build confidence about systems that protect their privacy".[58]

Cost

Cost effective solutions are integral to industry viability and sustainability.

The cost implications of pre-commitment solutions – especially technology-based solutions remain an important factor in venue viability and the sustainability of an industry which makes a large contribution to employment, tourism and community funding.

Pre-commitment mechanisms that have not received sufficient trial in an Australian context run the risk not only of failing to assist gamblers but may additionally impose significant cost to the industry for little result.

Some of the issues to consider when assessing cost include:

- Resource allocation to fund live trials of proposed measures;
- Development of pre-commitment package (could include software and/or hardware);
- Transferability issues across/within jurisdictions/venue types
- Installation of equipment or upgrades to existing equipment;
- On-going management and maintenance;
- Staff training; and
- Consumer education/promotion tools.

In their 2010 report the Productivity Commission considered the economic cost of purchasing, installing and managing any pre-commitment technologies to depend upon many factors.

- Maxetag estimated costs of around $1210 for each smartcard terminal, about $8800 per venue for various computers and peripherals, $4 per gambling card and around $3000 for a 40 gaming machine venue for sundry costs such as cabling and installation. The overall cost was around $1500 per terminal. Existing users of the loyalty card system would face significantly lower costs

- The pre-commitment systems used in the Queensland trials were estimated to cost around $1 to $2 per machine per day.

- Regis Controls estimated Smartcards, $2; readers on all EGMs, $30 fitted; central system, $10 to 20 million per annum on an outsourced basis using a five year contract.

See: Productivity Commission (2010) Gambling, Report No 50, Canberra Appendix C

As in previous inquiries which have sought evidence on the issue, costs involved showed great divergence relevant to the systems proposed, system functionalities, technical specifications/configuration and possible implementation periods or other requirements.

[57] Bernhard, B., Lucas, A. & Dongsuk J (2006) *Responsible Gaming Device Research Report.* International Gaming Institute University of Nevada, Las Vegas p19
[58] Productivity Commission (2010) *Gambling*, Report No 50, Canberra p10.29

Estimates of cost for pre-commitment were also made to a 2005 South Australian Inquiry into Smartcard Technology. At this time there were a little over 12,000 EGMs in clubs and pubs in South Australia. The South Australian Independent Gambling Authority noted the 'significant divergence' (over $100 million) between stakeholders as to what the likely cost of implementation of a smartcard (or other player identification system) would be.

In their submission to this inquiry Aristocrat Technologies estimated "an indicative cost in the range of $100 to 140 million dollars to introduce Smartcard Technology into gaming throughout South Australia",[59] Similarly, the Australasian Casinos Association (ACA) provided a breakdown of technological components and upgrades required which estimated possible costs between $125 and $160million.[60] Technology provider Maxetag estimated costs at $1,500 per EGM for installation of their system but noted that requirements would differ between sites (which would also incur maintenance and further ongoing and upgrade costs).[61] The ACA pointed out that some of the lower estimates claimed were merely quotations for specific components supplied and did not take into account costs for EGM software changes, monitoring system changes, cards and operator terminals".[62]

Cost can also be incurred in reductions to revenue. These costs have a flow on effect upon government revenues as well as the ability for venues to outlay on capital expenditure and/or maintain employment levels, community contributions and sponsorships.

There is no definitive research or economic modeling into the long-term impact of pre-commitment strategies on industry revenues in relation to the benefit that could reasonably be expected to be derived by gamblers.

Gambling researcher and early pre-commitment advocate Mark Dickerson estimated that his vision for a mandatory system could lead to a revenue drop of 30%.[63] In a similar vein an evaluation of the PlaySmart South Australian trial showed that players, on average, decreased their EGM turnover by approximately 31.7%[64] Trials conducted at the Sandgate RSL in Queensland reported a "significant apparent decrease in spending by players who set limits" of about 40%.[65]

Evidence-based Solutions

There is a need for evidence-based measures providing long-term solutions that integrate effectively with systems/initiatives already in place.

The implications of implementing any pre-commitment strategy can only be gauged from the evidence currently available. Dr Robert Williams of the University of Lethbridge has commented that while holding promise as a harm minimisation technique "the empirical research on the effectiveness of pre-commitment is fairly limited".[66]

Trials to inform the maximum efficacy of any system were a feature of the Productivity Commission's recent recommendations on pre-commitment. In recommending a timeline for implementation the

[59] Aristocrat Submission to the IGA Inquiry into Smartcard Technology (2005) p10
http://www.iga.sa.gov.au/pubcons/smartcrd/Aristocrat%201.pdf
[60] ACA submission to the IGA Inquiry into Smartcard Technology (2005) p9
http://www.iga.sa.gov.au/pubcons/smartcrd/ACA%20Submission.pdf
[61] Maxetag Submission to the IGA Inquiry into Smartcard Technology (2005)
http://www.iga.sa.gov.au/pubcons/smartcrd/maxetag%20submission.pdf
[62] ACA submission to the IGA Inquiry into Smartcard Technology (2005) p17
http://www.iga.sa.gov.au/pubcons/smartcrd/ACA%20Submission.pdf
[63] This estimate was provided by Mark Dickerson in discussion of his advocated system of pre-commitment – a universal system based on player cards and credit checks quoted in Kelly J. '*What if there were no more problem gamblers – Precommitment Programs'* Newslink Summer/Fall 2003 p12 Responsible Gaming Council
http://www.responsiblegambling.org/articles/NewslinkSummerFall2003.pdf
[64] Schottler Consulting (2010) Major findings and implications: Player Tracking and Pre-commitment Trial. A program and outcome evaluation of the PlaySmart Pre-commitment System, South Australian Department of Treasury and Finance p22 The authors recommended however that future research undertaken should "include an analysis of whether players are likely to regress to original expenditure levels over time".
[65] Productivity Commission (2010) *Gambling*, Report No 50, Canberra p C.11
[66] Williams, R (2010) *Pre-commitment as a strategy for minimising gambling-related harm*

Commission effectively cautioned against hasty implementation by stating that a key to the ultimate delivery of effective pre-commitment would involve:

- The development of standards, advanced protocols and appropriate design features;
- The introduction of partial pre-commitment in jurisdictions where central monitoring systems allow low-cost implementation;
- A trial of a full pre-commitment system; and
- The widespread adoption of a full pre-commitment system **depending on the lessons from that trial and the partial pre-commitment system.**[67]

Research into the manner by which adoption of pre-commitment systems may best be encouraged has also suggested that there is much to learn. The uptake and efficacy of voluntary systems may well be maximised with greater understanding of how best to market and explain the benefits of programs to consumers.

Writing in 2009 on the adoption of new EGM technologies Australian researcher Nisbet outlined a number of competencies that could be achieved through staff training and venue management which may ultimately improve outcomes in the rate of adoption, range of customer use and the process of product development and enhancement.[68]

McDonnell-Phillips research into pre-commitment attitudes similarly advocated tailored communication strategies to raise awareness of the benefits of card-based gambling.

The requirement for effective staff training and interaction as well as informed marketing to improve consumer uptake and experience of pre-commitment was reinforced by findings of the South Australian trials where evaluations "highlighted the critical importance of effective product marketing in ensuring broader market adoption of pre-commitment".[69]

Similarly, in evaluative studies of trials conducted in Queensland results evidenced that player understanding of both the benefits and use of the technology could be improved.

Variety

***The emphasis upon technology alone detracts from consideration of the range of possible mechanisms that may assist consumer limit-setting around gambling*.**

Pre-commitment mechanisms are seen by some stakeholders as decisive strategies to effect harm minimisation and there is a tendency for this research to be idealised as a 'one stop fix'. Dr Bo Bernhard, in commenting on the Nova Scotia Responsible Gambling Device (RGD), stressed that, "the objective [of the research] was to encourage responsible gambling behaviours not to solve problem gambling".[70]

There are a variety of measures which may operate to reinforce responsible gambling behaviours and bolster the pre-commitment decisions of gamblers.

It is integral that any planned system take an approach that recognizes the diversity of the Australian gambling environment in order to best serve the needs of all gamblers/gambling providers and integrate with the various responsible gambling and harm minimisation measures already undertaken throughout Australia's States/Territories.

[67] Productivity Commission (2010) *Gambling*, Report No 50, Canberra p 10.38
[68] Nisbet, Sharen (2009) 'The role of employees in encouraging customer adoption of new gaming machine payment technologies' *International Journal of Contemporary Hospitality Management*, 21 (4), 422-436
[69] Schottler Consulting (2010) Major findings and implications: Player Tracking and Pre-commitment Trial. A program and outcome evaluation of the PlaySmart Pre-commitment System, South Australian Department of Treasury and Finance p6
[70] Bernhard, B., Lucas, A. & Dongsuk J (2006) *Responsible Gaming Device Research Report.* International Gaming Institute University of Nevada, Las Vegas.

Some Future Considerations

While a Federal government agreement has been made to hasten the implementation of 'full' pre-commitment in Australia it is important to remember that the Productivity Commission offered up no detailed blueprint for implementation or clear conclusions on a number of issues around pre-commitment.

Recommendations concerning the research, development and trials that must necessarily be undertaken to inform any future pre-commitment system (including recommendations made to that effect by the Productivity Commission itself) should not be swept aside.

The AGC believes the following considerations integral to furthering a well-planned and reasoned approach:

- The introduction of any pre-commitment strategy should be undertaken as part of a consultative and cohesive process with all stakeholders. Minimum requirements devised by the South Australian Responsible Gambling Working Party should be used as a starting point;
- Evidence-based knowledge must be used to guide responsible policy decisions on pre-commitment strategies that are beneficial for all stakeholders: gamblers, regulators, governments and industry;
- Trial outcomes in an Australian environment need to be properly considered and evaluated before implementation on a wider scale is sought;
- Pre-commitment should be seen as a tool to aid responsible gambling practices rather than as the solution for problem gambling behaviours;
- Pre-commitment strategies should link effectively with other existing responsible gambling and harm minimisation initiatives that work to promote player understanding and informed choice; and
- Any pre-commitment strategy should be voluntary in its application, respecting the rights of recreational players to enjoy gambling in a safe and responsible manner without detraction from the enjoyment of their experience, privacy or choice of venue.

National Studies

Productivity Commission (1999) Inquiry Report into Australia's Gambling Industries and Productivity Commission (2010) Gambling

In considering various mechanisms which may provide information and control to gamblers the Commission canvassed the idea of pre-commitment as early as 1999.[71] The Commission speculated upon the possibility of a 'financial card' required to be used for either the purchase of gaming tokens or EGM play where information could be stored via a central or venue-based monitoring system. Limit setting, as envisioned by the Commission in this approach, would be optional - although once the pre-commitment had been made the player could not subsequently amend their decision within a set time period.[72]

Three years after the 1999 report Productivity Commission Chairman Gary Banks remarked that "there is a particular need to devote attention to pre-commitment strategies and the ability to cost-effectively harness new technologies".[73] Banks was to remark further in 2007 that the "priority is to develop mechanisms to allow people to set limits on their gambling in advance of entering a venue".[74] Banks at this time suggested that the Australian Government fund a smartcard enabled pre-commitment trial stipulating to a belief that the social costs of problem gambling could be significantly reduced if such measures were to be taken up.[75]

In 2010 the Commission revisited pre-commitment as part of an updated inquiry into gambling and noted from the outset the increased interest that has developed in this measure worldwide. In this later review the Commission differentiated between 'partial' pre-commitment – systems requiring only voluntary registration and use and 'full' pre-commitment - under which registration for a card or device would be required of every EGM gambler with the ability to opt-out of default limit setting functions.

The Commission felt that to achieve maximum benefit from the system there should be real consequences for gamblers upon reaching a pre-determined limit. While limits would be personally defined once reached they would be binding and further play prevented as pre-specified by the gambler.

Ultimately the Commission's recommendations were that each state and territory government should implement a jurisdictionally-based 'full' pre-commitment system for gaming machines by 2016, subject to initial development, trialing and compatible monitoring systems.

Their recommendation was that the system should:

- provide a means by which players could voluntarily set personally-defined pre-commitments and, at a minimum, a spending limit, without subsequently being able to revoke these in the set period;
- allow players to see their transaction history;
- encourage gamblers to play within safe spending and time limits, by specifying default limits;
- include the option for gamblers to set no limit on their spending as one of the system options, but with periodic checking that this remains their preference;
- allow occasional gamblers to stake small amounts outside the system;

[71] Productivity Commission (1999), *Inquiry Report Into Australia's Gambling Industries* p16.72
[72] Ibid Box 16.14
[73] Banks, G. (2002) *The Productivity Commission's Gambling Inquiry: 3 Years On*, Presentation to the 12th Annual Conference of the National Association for Gambling Studies, Melbourne, 21 November 2002.
[74] Banks, G. (2007) *Gambling in Australia: Are we balancing the equation?* Australian Gaming Expo Conference, Sydney, 19 August 2007
[75] Ibid

- include measures to avoid identity fraud;
- ensure players' privacy;
- be simple for gamblers to understand and use;
- present few obstacles to future innovation in the presentation and design of the system; and
- apply to all gaming machines in all venues in a jurisdiction, with an exemption until 2018 for venues with less than ten machines that also face significant implementation costs relative to revenue. The final features of the pre-commitment system should be determined following trials.[76]

The Commission's report makes it clear however that trialing is necessary – both to test the parameters of recommended systems and also to substantiate that 'full' pre-commitment has sufficient advantages over 'partial' forms so as to warrant its national implementation.

Prior to 2016 the Commission recommended the implementation of partial systems in those jurisdictions where it could feasibly be implemented with relatively low cost.

The partial system was recommended to allow players to set spending limits in all venues within a jurisdiction, and to see their transaction histories, but with:

- enrolment in the system being voluntary, so that there would be no requirement that people have a card or identification device;
- strict protection of players' privacy;
- no requirement for those who are enrolled to set limits;
- only those who are enrolled in the system able to earn loyalty points;
- those who are enrolled able to revoke any limits by playing without a player card or other player identification device;
- machine-based warnings when limits are reached (and a temporary incapacity to cash in, or earn further, loyalty bonuses); and
- an exemption for venues with less than ten machines that also face significant implementation costs relative to revenue.

The system should be:

- designed to be compatible with the future introduction of full pre-commitment; and
- evaluated in real-time and base line data collected to assess its impacts.

A summary of the key features of both full and partial systems recommended by the Commission is presented overleaf.

[76] Productivity Commission (2010) *Gambling*, Report No 50, Canberra Recommendation 10.4

Table 2: Characteristics of Full and Partial Pre-commitment Options suggested by the Productivity Commission 2010

Characteristic	Pre-commitment (Full) Key Elements	Pre-commitment (Partial) Key Elements
Mandatory/Voluntary	**Opt-out system –** allows gamblers not to participate in the program but imposes periodical reminders on those who choose not to pre-commit.	**Opt-in system** – allows gamblers to participate if they so choose and encourages opt-in via loyalty program.
Scope/Application	**Jurisdiction wide** – suggests the need for some form of identifier/identification device for all EGM players.	**Jurisdiction wide** – suggests the need for some form of identification for those choosing to use the system
Limit Setting Functionality	**Set by the gambler but has a default setting for 'safe' spending**.	**No requirement for those using the system to set limits** (however only those enrolled may accrue loyalty points).
Limit Parameters	**Limits set are binding –** unable to be revoked within a set period. Gamblers to be locked out upon reaching their limit.	**Limits set are not binding** – players may continue to gamble with cash (but without accruing loyalty points) once limits are reached.
Notification of Limits	**Not mentioned -** presumes that an audible or visual warning is received once limits are reached prior to player lock-out	**Machine based warnings when limits are reached** –and a temporary incapacity to cash in or accrue further loyalty points.
Occasional Gamblers/Tourists	**Small amounts may be spent outside the system**	**Not applicable**
Technological Parameters	**Flexible design** that allows it to grow with changes in technology. The full system should ideally not prevent obstacles to future innovation/design.	**Designed to be fully compatible with the introduction of full pre-commitment**
Privacy	**Strict protection of player privacy.**	**Strict protection of player privacy.**
Security	Measures should be taken to **preclude identity fraud.**	
Complexity	Should be **simple to use and understand.**	Should be **simple to use and understand.**
Research/Development	Final features of the system to be **determined following trials.**	Partial systems to be **evaluated in real time with base line data taken to assess impacts.**
Implementation Date	**2016** – with an exemption until 2018 for venues with less than ten machines that also face significant implementation costs relative to revenue.	**2013** - where providers have compatible gaming machine monitoring systems and associated gaming machines, or other low cost ways of delivering such pre-commitment. An exemption recommended for those venues with less than 10 EGMs where implementation costs would significant in relation to revenues.

McDonnell-Phillips (2006) Australian National Survey of Gambler Pre-Commitment Behaviour

In 2006 the key findings of the *Australian National Survey of Gambler Pre-commitment Behaviour 2005* were released by Gambling Research Australia.[77] This quantitative project was the first phase of a research study to investigate pre-commitment mechanisms in gamblers.

The report included a literature review, a scan of national and international practices relevant to pre-commitment and interviews with gamblers and industry stakeholders on pre-commitment issues. The study was attitudinal and largely exploratory, using small samples. A 45 minute computer assisted telephone interview (CATI) was undertaken with 482 regular gamblers throughout Australia (240 EGM players and 242 TAB punters) who each participated in either EGM play or TAB betting at least once per month. The report itself states:

> "the findings are indicative and as the first study of gambler pre-commitment in Australia, the information gathered represents a key opportunity to learn more about pre-commitment, while still acknowledging that further behavioural research may be necessary".[78]

Specific objectives of the research included the identification of:

1. Different strategies gamblers use/might use to set limits to gambling time and expenditure;
2. How gamblers might react to different pre-commitment strategies;
3. Where and when people pre-commit (i.e. what time and what place); and
4. What people pre-commit to (e.g. time, strategy of play, and/or money).

A number of themes were uncovered in relation to how regular gamblers are likely to pre-commit, the effectiveness of different control strategies, potential "triggers" for over-spending on limits and the likely acceptance of differing pre-commitment options by gamblers in the future.

While acknowledging that there was a strong gambler interest in limit setting the report made it clear that the Australian's surveyed felt that people should self regulate rather than being controlled.

The authors concluded that pre-commitment will have the greatest impact if it is offered as a voluntary – rather than compulsory option. The study noted that a voluntary system may also be effective for problem gamblers if combined with cooling-off periods, and a targeted communication and uptake strategy.

In addition, the report recommended the development of programs to educate regular gamblers on how to arrive at and stick to affordable limits set for gambling, develop budgets in other areas of life and monitor gambling expenditure over a longer period of time.

The authors also flagged a need to counter the common myths of gambling and raise gambler awareness about avoiding goal setting during play and tied these components into any future pre-commitment strategies.

McDonnell–Phillips ultimately recommended that there was sufficient evidence from current research to support a real world trial of limit setting and suggested that any such trial should:

- Enable limit setting over a short term basis as well as options for session (i.e. per visit) limit, weekly, fortnightly, monthly and for those interested, annual limits;

  and

- Allow gamblers to choose their own cooling-off period with a default option of 24 hours and other options ranging from 24-72 hours.

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[77] McDonnell-Phillips Pty Ltd (2006)*Analysis of Gambler Pre-commitment Behaviour,* Gambling Research Australia
[78] Ibid

Table 3: Select Findings – McDonnell-Phillips 'Analysis of Gambler Pre-commitment Behaviour'

Topic	Select Findings and Recommendations
1. **How budgets are set for gambling**	**1a** The affordability of gambling limits does not always receive sufficient consideration by many regular Australian gamblers. In particular, the report found that 51% of regular gamblers did not perceive affordability of limits as a major consideration. It was also found that gamblers who overspend similarly overspend in other areas of their lives. ***It was recommended that education programs be developed to show gamblers how to stick to regular and affordable limits and that a behavioural study be undertaken to examine the decision making steps associated with arriving at a budget/spend limit for both gambling and other areas of life.***
	2b Money is the most important criterion for the setting of limits by regular Australian gamblers and most limits are short, rather than longer term. Problem gamblers in particular were found to set limits later than non-problem groups and a characteristic of more problematic players was that they set their limits at the venue itself. ***It was recommended that future pre-commitment mechanisms be designed to assist EGM players to pre-commit in primarily monetary terms with key priorities as spend and bet size limits.***
	2c Limits set closer in time to gambling with a shorter basis tend to be associated with an overall tendency to exceed gambling speed limits. ***It was recommended that gamblers be targeted for education programs aimed at raising awareness of the need to pre-commit well before arriving at a venue and to monitor gambling expenditure over a longer period of time.***
3. **Gambler experiences with pre-commitment**	**3a** Regular gamblers often report exceeding limits, although it is apparent that this is not reported to occur to a very extreme degree. EGM players were found to be more likely to exceed spend limit, gambling time/session limit, bet size limit and visit limit. ***It was recommended that pre-commitment mechanisms be targeted at EGM gamblers as a key priority population.***
4. **Triggers for exceeding limits**	**4a** Findings suggested that there are many triggers which send gamblers over their limit; however three priority triggers seemed to best explain why people go over limits during gambling. These were: • Sensing that a win is due; • Reserving EGM's to avoid others accessing the next winning game; and • Goal setting to get so many free spins/features before leaving. ***It was recommended that future education programs counter the myths of gambling and that gambler awareness be raised to avoid such goal setting during play. Misdirected goal setting was found to be more responsible for pushing gamblers over their limits than many other triggers.***

5. **Control strategies used to keep limits**	**5a** Findings suggested that both cash restrictions and psychological "control strategies" tend to be quite effective for regular gamblers, however, strategies of a psychological nature (eg. willpower) are notably less effective as control strategies for problem gamblers. ***The implications of this finding were that future pre-commitment mechanisms which allow gamblers to self-restrict access to cash would arguably be of most benefit to problem gamblers. However a range of strategies would be best for regular gamblers (i.e.: a mix of psychological and barrier based strategies).***
6. **Views about future options for limits**	**6c** Responses from gamblers revealed a strong interest in limits. Gamblers felt that: • People should ultimately always self-regulate in managing their expenditure rather than being controlled; • There should be more education about keeping to limits, responsible gambling and the odds of winning; and • Venues should play a more active role in identifying and assisting vulnerable patrons. ***The recommendations were that stakeholders and government should work together to address these priorities with consideration of joint education and intervention initiatives.***
7. **Views about card-based gambling**	**7a** It was held that there was sufficient evidence from the study to support a real-world trial of both a gambling card and a pre-paid gambling card with regular gamblers across Australian jurisdictions. Specifically, it was found that 47% of EGM players and 38% of punters would use limits in the long term and that 30% of EGM players and 28% of punters would use pre-paid gambling cards in the long term. ***The report recommended a trial of 12 months duration with regular EGM gamblers comprising a priority target group covering at least two differing jurisdictions/regulatory environments and multiple sites - including casinos, hotels and clubs.***
	7b **The report found that pre-commitment will have the greatest impact if it is offered as a voluntary – rather than compulsory option**. The study noted that a voluntary system may also be effective for problem gamblers if combined with cooling-off periods, and a targeted communication and uptake strategy.
	7c While there was a reasonable level of consumer interest in both limits and pre-paid gambling cards, the notion of limit setting would **not** appeal to all segments of regular gamblers. The report found that 27% of EGM players and 40% of punters indicated no interest in the concept of limits and that 27% of EGM players and 32% of punters surveyed were very concerned about the privacy aspect of a gambling card.
	7d Research has identified a number of potential design options to consider in future implementation of pre-commitment or card based gambling. Most regular gamblers saw most benefit in monetary based limits with shorter term limits and a cooling-off period.

Source: McDonnell-Phillips Pty Ltd (2006) 'Analysis of Gambler Pre-commitment Behaviour'

GRA subsequently has subsequently undertaken a phase two study into gambler pre-commitment strategies. The phase two study seeks to further knowledge and understanding of the factors which may influence gaming machine player adherence to pre-commitment (personal limits) during play by interviewing and 'shadowing' players in venues. This research is now expected to be released in early 2011.

New South Wales

Nisbet, Sharen (2004) An Assessment of the Advantages and Disadvantages of Cashless Gambling Technologies in NSW

Nisbet undertook an analysis of the perceived advantages and disadvantages of cashless gambling technologies from both supply and demand side perspectives as well identifying those attributes of cashless gambling technologies that affected consumer use/acceptance.[79] The research included a consumer survey of 134 respondents and some twenty interviews with key informants from relevant stakeholder groups.

Nisbet's findings (while qualified as the research was not an inquiry into pre-commitment mechanisms but rather into the use of cashless gambling technologies that enabled limit-setting via a $200 maximum balance) included that only two fifths of respondents in the venues she surveyed felt that card-based gambling would help them manage their spending (38.8%). Two-fifths of the respondents disagreed with the notion and the remainder of respondents remained ambivalent.[80]

Nisbet reported that those whom she had interviewed believed that more frequent, and arguably more at risk gamblers, may be attracted to using a card on the basis of its perceived usefulness. Respondents additionally felt that records of play times and expenditures, such as a player activity statements, were a useful feature. Importantly, Nisbet recognised that EGM gamblers were disposed towards maintaining anonymity. More than two-thirds of survey respondents indicated that they preferred to be anonymous when gambling.[81]

Overall, Nisbet felt it prudent to conclude that card based systems contained features consistent with the ethos of responsible gambling but that their possible impact remained unresolved. Cashless technologies could have benefits however she cautioned that "wide acceptance and use of card based, electronic payment mechanisms for retail transactions does not support acceptance of these technologies [by consumers] for machine gambling".[82] Nisbet ultimately recommended that the voluntariness of the cashless model in NSW be maintained.[83]

IPART (2005) Gambling: Promoting a Culture of Responsibility

In 2005 the Independent Pricing and Regulatory Tribunal of New South Wales (IPART) conducted a review of the effectiveness of gambling harm minimisation measures. As part of their findings IPART considered that pre-commitment facilities could be made available either as a part of the EGM itself, by use of smart card technology or via magnetic swipe cards.[84] The IPART report recommended that:

> "Players should be encouraged to use pre-commitment cards on a voluntary basis where they are available. Research into pre-commitment mechanisms including cards, should be conducted at a national level" [85]

Stakeholder submissions on the subject remained mixed but did not oppose the use of cards on a voluntary basis. IPART remained of the view that there was "not sufficient basis to recommend mandatory use of cards" for gaming machine play. [86] The NSW Government responded to IPART's recommendations by affirming that card technologies had potential to be an effective response to problem gambling but that further regulatory action should await the outcome of national research.[87]

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[79] Nisbet, S. (2004) *An Assessment of the Advantages and Disadvantages of Cashless Gambling Technologies in NSW,* Thesis Paper for the School of Hospitality Management, Southern Cross University
[80] Ibid p88
[81] Nisbet, S. (2005) '*Alternative Gaming Machine Payment Methods in Australia: Current Knowledge and Future Implications'* International Gambling Studies, 5:2 p243
[82] Ibid p31
[83] Nisbet, S. (2004) *An Assessment of the Advantages and Disadvantages of Cashless Gambling Technologies in NSW* p86
[84] Independent Pricing and Regulatory Tribunal NSW (2004) *Gambling: Promoting a Culture of Responsibility* p98
[85] Ibid p100 (Recommendation 57)
[86] Ibid p100
[87] NSW Government (2005) *Towards a Culture of Responsibility in Gambling - Response by the NSW Government to the Reports of the Independent Pricing and Regulatory Tribunal: "Gambling: Promoting a Culture of Responsibility" and "Consequential Report on Governance Structures"* p 41

Queensland

Queensland Office of Gambling Regulation (2005) Card Based Gaming

The Queensland Government undertook a behavioral and attitudinal field trial, conducted by McDonnell-Phillips, to test the feasibility of patrons using card technology whilst playing gaming machines. The trial gave gaming machine players the option to set playing limits and aimed to encourage responsible gaming practices.[88] Queensland Treasury used the outcomes of the trial and assessment of player reactions to develop a document outlining requirements for the implementation of card-based gaming that included technical standards and consumer protection measures.[89]

Schottler Consulting (2008) Major findings of a Trial of a Card-Based Gaming Product at the Sandgate RSL

This report evaluates the trial of the Odyssey/e-Bet system of cashless gaming used at the Sandgate RSL in Queensland. This system operates via an electromagnetic card allowing players to set a daily spend limit, a maximum card balance and transfer limit (from card to EGM meter). Balances are displayed on a card screen connected to the EGM and participants can access expenditure statements via a kiosk. Club members underwent a paper-based application process assisted by a club staff member for card issue and limit setting.

Select findings of the evaluation included that:

- Uptake of card-based gaming was not immediate and may require active promotion by the venue. During the trial, of the 66 persons who opted into cashless gaming some 28% chose to set a daily spending limit;
- Less intrusive processes for player sign-up were favoured and considered much more acceptable by players;
- Players saw the primary benefit of card-based gaming as the convenience of cashless play./ The ease of monitoring spending and using limits were seen as secondary benefits with expenditure limits a preferred option. Session time limits, while available, were of low interest. The majority of participants felt that use of the card itself encouraged them to think about expenditure and affordability – even before limit setting;
- Those who did set limits reportedly decreased their net daily spend by around 40%;
- The introduction of harm minimisation information at the point of limit setting may assist informed decision making. Opt-out (rather than opt-in) systems may also encourage uptake of limits – however participants showed a preference for voluntariness in limit setting and for venue adoption of the system on a voluntary basis;
- Strong support by the venue and quality training assisted consumer acceptance of the program – enhanced staff training (with ongoing information and assistance to players) is necessary;
- Positive feed-back about the ease of use of the system was received. One of the keys to relative success of this system was its simplicity of design with a single main limit and a simple approach to money transfers to and from the EGM; and
- While the system was well designed, even further simplification of terms and additional information to players was recommended.

[88] Queensland Treasury (2005) Annual Report 2004-05 <http://www.treasury.qld.gov.au/knowledge/docs/annual-reports/2004-05/outputs/gambling.shtml>
[89] Queensland Office of Gambling Regulation (2005) *Card Based Gaming* <http://www.olgr.qld.gov.au/resources/gamDocs/cardBasedGaming.pdf>

Schottler Consulting (2009) Major Findings of a Trial of a Card-based gaming product at the Redcliffe RSL

This trial reported on Maxgaming's SIMPLAY system of cashless card-based gaming. SIMPLAY uses an electromagnetic swipe card which is linked to a secure account. EGMs can operate in cash or cashless mode and players wishing to use the cashless functionality must sign up for a player account – of which there are varying levels of identification required depending upon account type.

Players manage their activity and set limits via a player kiosk. Gamblers may set a:

- Daily spend limit
- Cash transfer to machine limit
- Card timeout period
- Session reminder (time)

Player Activity Statements, that report upon recent activity/turnover and provide a daily account of transactions, may also be printed from the same terminal.

The trial evaluation reported relatively low levels of voluntary uptake of the limit setting features (13%) noting that the "uptake of card-based gaming will not be universal or immediate in the early stages of market adoption" [90]

Positive features of the trial were player endorsement of cashless gaming (seen as perhaps of more benefit than pre-commitment alone in facilitating improved monitoring and control over gaming expenditure) and automated play sign up via the SIMPLAY kiosk – which was deemed an attractive feature of this system.

Players were also reported as supportive of the concept of broader roll-out of card-based gaming to allow play at multiple venues and voluntary use of cards at player level.

Player preference for anonymity has been seen in results since the trial. The Queensland government reports that a large take-up of anonymous visitor cards has been experienced (16,580 over the last 6 months).[91]

Further, results since the trial suggest that the voluntary limit setting has worked well for consumers. Some 404 players have reached their limit within the last six month period – none have chosen to increase their limit on the following gaming day and only 64 players have increased their limit over time.[92]

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[90] Schottler Consulting (2009) *Major Findings of a Trial of a Card-based gaming product at the Redcliffe RSL* p3

[91] Bielanowski, Monique (2010) *Development of Evidence-Based Policy – The Queensland Pre-commitment Trials*, Presentation to the 20th Annual National Association for Gambling Studies Conference, Gold Coast Australia 1-4 December 2010

[92] Ibid

South Australia

South Australian Independent Gambling Authority (2005) Inquiry into Smart Card Technology

In 2005 the South Australian Parliament requested specific advice on the subject of pre-commitment, especially with regard to the application of smartcard technology in reducing the incidence of problem gambling.[93]

The subsequent inquiry was conducted by the Independent Gambling Authority (IGA). The IGA was asked to identify "available and practicable technologies" which may be available to facilitate:

(a) the setting of limits on gambler's use of gaming machines; and

(b) the exclusion of particular gamblers (whether voluntary or otherwise) from access to gaming machines or from the ability to play gaming machines.

Additionally, the IGA was asked to set out the cost, ease of implementation and administration as well as the likely impact on problem gamblers of limit setting mechanisms.[94]

The IGA subsequently recommended a mandatory system that enabled tracking of play, the setting of limits and exclusion from play. It was also suggested that a monitoring system based option be considered and that funding be allocated for research into the patterns of play identified by the smartcard system.

The South Australian government considered the recommendations premature. The Minister noted the "many significant issues" raised by the report – including "technology costs and benefits, privacy and cashless gaming, all of which are complex".[95]

Further research was recommended on aspects of smartcards and pre-commitment schemes to provide for more certainty over implementation and operational matters. Key concerns included privacy issues arising from a mandatory scheme and the work required to educate the community on the issue.

The South Australian Responsible Gambling Working Party (SARGWP) subsequently commenced in 2006 to further explore ways in which customer adherence to limits in gambling may be supported.

Schottler Consulting (2010) Major findings and implications: Player Tracking and pre--commitment trial (a program and outcome evaluation of the PlaySmart Pre-commitment System)

This research presents the findings of an independent program and outcome evaluation of the PlaySmart pre-commitment system developed by Worldsmart Technology Pty Ltd and overseen by the SARGWP. The PlaySmart system operates through an existing venue card-based loyalty program (J-Card).

The trial was undertaken from May 2008 until October 2009 and consisted of both natural and coached recruitment of EGM players to the system.

Participation in the trial was voluntary – as was use of the system features which included the ability to set daily, weekly, fortnightly and monthly expenditure limits, time limits, breaks in play and personalised reminder prompts.

On reaching their limit a 'beep' and reminder message were sent to players via the J-Card reader. Staff were also informed and requested to attend the EGM to confirm with the customer that a limit had been reached. Reaching a limit did not preclude a gambler from continuing to play and EGM.

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[93] Independent Gambling Authority (2005) *Inquiry into Smartcard Technology* <*http://www.iga.sa.gov.au/pubcons/smartcrd/SCTInqRep-final-web.pdf*>
[94] Ibid p2
[95] Ministerial Statement Hon Michael Wright MP *Inquiry into Smartcard Technology*, 5 July 2005 p2

The aims of the evaluation were to examine the application of pre-commitment in terms of:

- the value for consumers;
- the behavioural impact of the trial on consumers; and
- the cost-effectiveness of pre-commitment.

Key findings included that:

- While less than 1% of loyalty program participants across the trial sites chose to use PlaySmart (258 participants across 6 sites) use of the PlaySmart features amongst this group was high. Users rated the product well overall with the ability to set expenditure limits regarded as a core benefit (over 94% of players using the system set a primary expenditure limit).

- As in the Queensland evaluations, the report author noted that the low uptake of the system is consistent with that of a product in the very early stages of market adoption.[96]

- Results brought to question how players though about limit setting. The evaluation found that a number of players (62%) reported setting a higher spend limit than they would normally expect to spend - suggesting that some participants saw limit setting as a fail-safe. Further education about choosing a limit and how best to choose a limit may then be advisable.

- Many players were often unaware of the full range of features available in PlaySmart and a high proportion experienced confusion over the limits set. Further benefits could be realised by optimising player education and marketing materials (including refinement of application forms and activity statements) and maximising awareness of the product. For example – while players could set a secondary limit (eg: a per day primary limit with a per week secondary limit) only 9% chose this option and while both web-based and in-venue Player Activity Statements were available none of the trial participants accessed these tools.

- Player survey feedback and player data suggest that PlaySmart and messaging about limits may encourage pre-commitment activity, better money management and more informed decision making about EGM spending. 62% of the trial participants agreed that using PlaySmart encouraged thinking about the affordability of their spending and 57% reported feeling encouraged to think about limits.

- Impacts may be higher for 'at risk' and high-turnover gamblers (particularly moderate risk and problem gamblers) whilst smaller impacts may be experienced on the on the spending of recreational gamblers. 28% of those at moderate risk reported improved limit adherence while using the system while 14% of those at moderate risk and 38% of those classified as problem gamblers reported greater expenditure awareness.

- While results highlight positive effects findings also suggested that higher risk gamblers were more likely to set higher limits, exceed limits set by a higher amount, increase limits and remove limits from cards.

- During the trial 662 spend limits were reached. Staff intercepts at limits being reached may increase efficacy of the system. Staff intercepts and attendance upon those players who had reached their limits resulted in lower levels of expenditure post the budgeted amount. Staff reported no negative interactions on attending these intercepts.

- The need for simplicity in player programs was reinforced. The most challenging aspects for players related to understanding of the range of limits available, understanding of the purpose of a break in play and understanding of a 'cooling-off period'.

- Progress warnings as limits were approached were regarded as a useful checkpoint for gamblers with regard to limit setting and a significant majority of participants reported that

[96] Hare, S (2010) *Insights from the South Australian Pre-commitment Trial – A Real World Application of Pre-commitment in six venues across South Australia*, Presentation to the 20th Annual National Association for Gambling Studies Conference, Gold Coast 1-4 December 2010

default messages about responsible gambling helped them to keep to their spend limit and encouraged care with spending.

- Venues saw PlaySmart as operationally efficient. The main costs involved purchase of the loyalty system and recruitment and sign-up of users. Specifically, overall costs of PlaySmart for the six venues participating in the trial totalled $425,686.00 or an average total cost of $70,947 for a venue with 35-36 EGMs. Capital equipment, as the major cost item, comprised 89% of total cost followed by monitoring/reporting (7%) and establishment costs such as training (3%).

- Revenue impacts were reported. A 31.7% decline in the turnover of those players using the system was found with the mean turnover decrease higher for those gamblers experiencing problems and at moderate risk. However the report notes that further research would be required to ascertain if, over time, expenditure levels reverted or increased.

The findings from the South Australian and Queensland trials provide further valuable insight into voluntary systems as well as suggesting a number of possible refinements by which such systems may be enhanced to increase player benefit. The learning from these trials may also be regarded as integral to informing the parameters and design detail of any future system.

Trial results also reinforce the understanding that voluntary pre-commitment provided in association with other gaming schemes (eg: loyalty systems, cashless gaming) increase cost effectiveness, add value that encourages take-up and offer distinct benefits in assisting players to set limits and to monitor expenditure.

Nova Scotia

Nova Scotia is one of the smallest and least populous provinces in Canada.[97] Several forms of legalised gambling are available including inter-provincial and provincial lotteries, sports betting, Video Lottery Terminals (VLTs), casinos, bingo, charitable lotteries and raffles, harness racing and First Nation gaming activities. Gambling in the province is restricted to adults 19 years or older.

Gaming in Nova Scotia is controlled by the Nova Scotia Gaming Corporation (NGSC) a Crown body charged with leading an economically sustainable and socially responsible gaming industry. The day-to-day operations of NSGC's businesses are carried out by its operators. Video Lottery Terminals (VLTs) are operated by the Atlantic Lottery Corporation (ALC).

VLTs were legalised in Nova Scotia in May 1991. The machines were originally widely distributed among various types of establishments, including corner stores. In 1993, VLTs were restricted to age-controlled liquor licensed establishments including licensed restaurants, bars and pubs. Today a total of 2,234 VLT terminals are located at 412 liquor-licensed retail sites throughout the province (exclusive of First Nation Gaming sites where there has been no trial of the RGD to date).[98]

Nova Scotia Player Card Research Project 2006-2007

In 2006-07 the NGSC and the ALC worked together to conduct field research on a Responsible Gaming Device (RGD) that integrated into the play of VLTs. The device used a player card, which was designed to encourage responsible gambling by allowing players to set their own spending limits and help them track what they spent over time.[99]

The RGD was envisaged as tool to help people manage their play and was "not considered to be a "cure" or treatment mechanism for problem gamblers".[100] Instead, its target groups were held to be the "no or low-risk players as well as some moderate risk players with the capacity to change their behavior".[101]

Techlink Entertainment International developed the card and specific features of the system included:

- An **'Account Summary'** to track spending wins and losses over time;
- A **'Live Action'** feature showing statistics about the current playing session including tracked expenditure, amounts won/lost and any limits set;
- A **'Money Limits'** option enabling the player to set specific spending limits of pre-set or self-selected values for certain periods (eg: until closing, day week or month);
- An option for players to exclude themselves from play for a given period such as until closing, day; month or year called **'Play Limits'**; and
- A 48 hour 'cool-down' option entitled **'48 Hour Stop'** which allowed players to enact an immediate two day exclusion period.[102]

The trial operated for a total of six months during 2006-07. The card system was attached as a separate unit to VLTs (initially to a total of 70 machines at 10 sites. This had reduced to a total of only 53 machines at a total of 9 sites by the conclusion of the study). "For the duration of the research, all those wanting to use a VLT in that area were required to insert a card into the unit and enter a confidential PIN number in order to activate the VLT for play. Use of the card was mandatory in order to access a machine, however use of the associated responsible gaming features was

[97] Note that Nova Scotia is smaller than all Australian States with the exception of the ACT.
[98] http://www.nsgc.ca/videoLottery.php
[99] Nova Scotia Gaming Corporation (2006) *Responsible Gaming Device Research* Project, << http://www.nsgc.ca/reDevice.php >>, accessed 1 November 2008.
[100] Omnifacts Bristol Research (2007) *Nova Scotia Player Card Research Project, Stage III Research Report* pi
[101] Ibid
[102] Omnifacts Bristol Research (2007) *Nova Scotia Player Card Research Project, Stage III Research Report* pii and Focal Research (2007) *VLT Player Tracking System: Assessment of the Behavioural Impact of Responsible Gaming Device Features (Analysis of Nova Scotia Player Card Data – Windsor Trial*) Highlight Report p2

optional".[103] Player data was subsequently drawn from the system and the results achieved augmented by survey results and focus group discussion. Cost of the trial equated to $430,000 CAN.[104]

The NSGC commissioned two independent firms to carry out analysis of the data achieved through this project:

- Omnifacts Bristol conducted the field test and provided primarily a qualitative analysis;
- Focal Research Consultants Pty Ltd was retained to lead the in-depth quantitative analysis of the field test data; and
- Techlink Entertainment, the company that created the RGD, commissioned Dr Bo Bernhard, Director of Gambling Research at the International Gaming Institute (University of Nevada, Las Vegas) to analyse player data through both a qualitative and quantitative review.[105]

Nova Scotia Responsible Gaming Device (RGD) Research Highlights

Consultants	**Omnifacts Bristol Research**
Type of Research	Qualitative research (Self-Report)
Conclusions	• Players who used the features *felt* that they decreased their spending and time played. • Players and the public in the test area strongly supported making these features available to VLT players. • Players said the features encouraged responsible play, helped them set a budget and stick to it.
Recommendations	• Make the system available on a voluntary basis and continue to monitor and evaluate its impact
Consultant	**Focal Research Consultants Ltd**
Type of Research	Quantitative research results
Conclusions	• 71% of all regular players tried the features (68% accessed the Account summary, 59% utilised Live Action, while a further 11% utilised Money Limits, Play Limits and the 48 hr cool down). • About half (48%) of all regular VLT players kept using the features after they had tried them signifying a high continued use in the relevant target populations. • Use of the features helped players to *reduce the amount they spent* each time but they *played longer* indicating they made better decisions about when to stop. This effect was stronger in short sessions with a higher cash-out rate (77% vs. 56%) and a higher rate of winning (28% vs. 20%) • Declines in expenditure were off-set among the higher-risk group by an increase in frequency of play although there was no significant increase in monthly expenditures. • There was a positive impact detected for lower-risk and moderate-risk players. (Note that use of the device differed by risk for gambling problems with problem

[103] Ibid
[104] Nova Scotia Gaming Corporation (Feb 8 2007) *NSGC Announces RFP for the World's First Informed Player Choice System for Video Lottery Terminals* at http://www.nsgc.ca/news.php?news_id+20> Price in AUD is approximately $508,000.00
[105] Nova Scotia Gaming Corporation (February 2007) Factsheets, <<http://www.nsgc.ca/factSheets.php >>

	gamblers using 'Live Action' 3-4 times more frequently than other players. However this group was less likely to use the other responsible gaming features. Lower risk gamblers who adopted the responsible gambling features had higher wagering activity and longer play sessions but had no change in losses or frequency of play). • No negative impacts were found for use of any of the features during the six-month trial. Use of the features was associated with increased play value and decreased losses. Whilst there was a positive impact detected for lower-risk and moderate risk players neither positive nor negative impacts were detected for problem gamblers.
Recommendations	• Introduce a player tracking system for the video lottery program in Nova Scotia with mandatory registration and voluntary access to the features to monitor impact on a continuous basis. • Consider the implementation of a player tracking system as an involuntary safety-net. • Incorporate a communication program and stakeholder education strategy to support use of the responsible gaming features as play management and information tools – especially among high risk players. • After implementing a player tracking system gather baseline information on player behaviours before activating certain responsible gaming features in order to confirm the impact of such feature use amongst various groups. • Continue to conduct additional research to explore player behaviour and response to the system in order to inform and support province-wide implementation of the features and future management of the VLT program as a whole.
Consultant	**International Gaming Institute (University of Nevada)**
Type of Research	Qualitative/quantitative research results
Conclusions	• Players liked the voluntary nature of the features available for use and felt the features gave them more control over their spending. However there was resistance towards mandatory features. • Players who gambled more were more likely to use the features. • Players expressed concerns about privacy and security issues with a card-based system. • Players felt these features would be most useful with "no", "low" or "moderate" risk players – in keeping with the intended target audience.
Recommendations	• Nova Scotia should proceed with further implementation and testing of these features on VLTs as one part of the Province's comprehensive responsible gambling approach. • Additional responsible gambling and education messages should be added to the screens to increase value to players.

Sources: Nova Scotia Gaming Corporation (February 2007) Fact Sheets, <http://www.nsgc.ca/factSheets.php>>; Focal Research Consultants (2007) *VLT Player Tracking System: Nova Scotia Gaming Corporation Responsible Gaming Research Device Project*. Assessment of the Behavioral Impact of Responsible Gaming Device (RGD) Features: Analysis of Nova Scotia Player-card Data – Windsor Trial.

Review of the Nova Scotia Findings

Omnifacts found that "63% of their self-report panelists reported spending less money when using the device, 72% reported a reduction in the amount of minutes played and 63% said they had decreased the frequency of gambling sessions due to use of the RGD"[106]. Findings have been distinguished however on the basis that the behavioural changes reported were assessed by comparing retrospective self-report behaviour with current gambling behaviour. Essentially, the Omnifacts findings "are open to bias since participants often have difficulty remaining cognisant of their actual behaviour".[107]

Focal Research took steps to both acknowledge and counteract the flaws in the Omnifacts data-set. Card sharing between study participants was isolated as a factor of concern and the data bias in Omnifacts research was countered with the creation of a pre-play baseline. Whilst this created greater accuracy for the purposes of comparability the avoidance of self-report material did mean that much of the data gained from players who began using RGD features immediately following registration was discarded. In a review of this study written for the UK Gambling Commission it is reported that "the removal of such a large percentage of participants may reduce the generalisability of the findings". [108]

Focal Research advocated that a system be introduced in Nova Scotia with mandatory registration to ensure functional efficacy of the system. [109] It was stressed however that responsible gaming features should remain voluntary until the impact of use had been more thoroughly assessed in a broader playing group of greater sample size. Even so, this recommendation could be regarded as resting on a small platform of evidence. Focal reported a relatively low uptake of the responsible gaming settings "with only 11.1% of the sample using the spending limits feature once during a six-month trial period, and less than 1% using another parameter setting feature".[110]

The IGI took a qualitative and quantitative approach and considered the RGD to be less intrusive when compared to other interventions but reported that their study participants "even problem gamblers and problem gamblers in recovery disliked systems that forced limits upon them, invoking concerns about "Big Brother" watching over their play". [111] Again, there was no claim made that the RGD may actually be the answer to problem gambling. The institute advocated rather the integration of the device as a useful component of a broader and comprehensive responsible gaming program, or "one tool in the toolbox, rather than a solution to the complex problems that problem gamblers face".[112]

Nova Scotia Future Trends & Applicability of Findings to the Australian EGM Gaming Context

Table 4: Nova Scotia and Australian gambling environments at a glance

	Nova Scotia VLT Gambling Environment	Australian EGM Gambling Environment
Population	938,310	21,563,000[113]
Gaming Machine Type	VLT	EGM (aka casino style slots)
VLT/EGM Numbers	2,234	197,726[114]
Gambling Venues	412	5715[115]
Ownership	State	Private
Regulation	Unified	Varies between jurisdictions

[106] Quoted in Parke, J Rigby, J & Parke, A (2008) *Cashless and card-based technologies in gambling: A review of the Literature*, Centre for the Study of Gambling, University of Salford p48
[107] Ibid p48
[108] Parke, J Rigby, J & Parke, A (2008) *Cashless and card-based technologies in gambling: A review of the Literature*, Centre for the Study of Gambling, University of Salford
[109] Focal Research Consultants (2007) *VLT Player Tracking System: Nova Scotia Gaming Corporation Responsible Gaming Research Device Project*. Assessment of the Behavioral Impact of Responsible Gaming Device (RGD) Features: Analysis of Nova Scotia Player-Card Data – Windsor Trial. February 2007.
[110] Parke, J Rigby, J & Parke, A Op. Cit p49
[111] Bernhard et al, Op Cit p18
[112] Bernhard et al, Op Cit p46
[113] http://www.abs.gov.au/ausstats
[114] Australasian Gaming Council (2010) *A Database of Australia's Gambling Industry* 2009/10 p8. Data is from 2008-09
[115] Ibid p9 Data is from 2008-09

Obvious differences in culture, as well as the provision, type, number and ownership of gaming machines, mark the Australian gambling environment as a much more diverse and significantly larger enterprise than that existing currently in Nova Scotia. Nova Scotia also has a unified regulatory environment whereas variances exist even between Australian jurisdictions. Further variances in the type of operating systems and EGM platforms used distinguish Nova Scotia from Australia.

The Nova Scotia Gaming Corporation decided to proceed with mandatory player registration from April 2010. Under this model all players will be required to register in order to play a VLT – however use of the pre-commitment tools remains voluntary.

The Nova Scotia RGD is now known as an Informed Player Choice System (IPCS). Development and implementation of the IPCS, also called 'My Play', was undertaken by Techlink Entertainment and a province-wide rollout was completed in winter of 2010. Development and implementation of the Techlink system across Nova Scotia is estimated to have annual operating, maintenance and amortization costs between $4 - 5 million in the next five years.[116]

There remain a number of unanswered questions about the uptake, acceptability and consequences of implementing the IPCS system in Nova Scotia.

The NSGC announced in January of 2009 that the province will be spending CAN $125,000 to get survey feedback from VLT players over the next two years to determine what effect the card system will have on gambling habits.[117] The NGSC added that the system is "not intended to help people with gambling addictions" but is rather, "an important preventative tool that will help keep responsible players responsible…people who are problem gamblers need to seek services through counseling and professional treatment".[118]

Focal Research of Halifax, Nova Scotia has advised that evaluative studies will be available shortly – however such studies are yet to be made publicly available.

[116] Website of the Nova Scotia Gaming Corporation < http://www.nsgc.ca/videoLottery.php> accessed on Oct 27 2010
[117] Nova Scotia Chronicle Herald 16 Jan 2009 '*Card-carrying gamblers have say on new system'*
[118] Ibid

Norway

Norway has a population of about 4.9 million. It ranks as one of the wealthiest countries in the world with an average wage of 422,000 NOK (approximately $74, 000 AUD). There is a strong welfare support structure and high levels of education and literacy. The Norwegian approach to gambling regulation has seen some stringent government interventions with regard to EGM accessibility and intensity as part of wider government pressure to reduce gambling in Norwegian society.

The Norwegian Gambling Environment - Background to the Changes

In 2001 the Norwegian Gaming Board (NGB) became the state supervisory and control body for lotteries and betting games in Norway under the auspices of the Ministry for Culture and Church Affairs. At that time ease of access to EGMs was a major feature of the Norwegian gaming environment. Machines were not available solely at licensed gaming venues but in grocery stores and public areas of shopping malls, train station platforms and street frontage locations. Opening hours were restricted only by the hours of the venue where the machine was situated (which enabled 24 hour access in some kiosks and petrol stations).

The EGMs themselves were high intensity with little by way of harm minimisation features. Additionally, findings that age restrictions and proper supervision of the machines were difficult to enforce added to calls for the changes which have since occurred.

From the commencement of the NGB control and supervision of the gaming market increased and EGM numbers declined. On 31 December 2003, 19,768 deployment permits for gaming machines were recorded. Figures from 2003 suggest that at that time more than 80% of the adult population in Norway participated in betting games. About 40% of these took part relatively frequently (at least once a week).

In November 2004 the Global Gambling Report rated Norway by funds spent per inhabitant on gaming as third in the world - outstripping Canada and the US.[119] By 2005 Norwegians were gambling 28 billion NOK on slot machines (gross turn over).[120]

Changes to Gambling Policy in Norway from 2003

In 2003 the NGB commissioned an extensive population study for problem gambling prevalence as well as undertaking a prevalence study among adolescents. These studies found that about 50,000 of people in Norway were assumed either to be pathological gamblers or problem gamblers (approximately 1%). Correspondingly, it was estimated that around 3.2 % or 11,000 teenagers in Norway showed clear signs of problem gambling.

The Norwegian Parliament subsequently adopted a proposal to remove public ownership of the machines and grant Norsk Tipping a monopoly on all gambling terminals provided the number of machines was reduced; their place of deployment changed and harm minimisation measures put into place.

The new model was to be implemented in 2005 however lawsuits claiming the monopoly to be in breach of the EEA treaty[121] continued for some time until resolved by the EFTA court in March 2007.

Restrictions were imposed in the meantime which included:

- A ban on all note acceptors on slot machines (July 2006)
- Warnings posted on all machines (January 2007); and
- Machines entered a forced shutdown for after hours periods (January 2007)

[119] GBGC Analysis November 2004

[120] Norwegian Gaming and Foundation Authority (2009) Facts About Gaming In Norway – Presentation http://www.lottstift.no/dav/33a90bf801.pdf

[121] The EEA treaty refers to the European Economic Area – a zone of economic cooperation between member states of the European Union (EU) and the European Free Trade Association (EFTA), which entered into force in 1994. In essence, the EEA extends the benefits of the single European market to the three non-EU EFTA states of Norway, Iceland, and Liechtenstein.

The Current Situation in Norway

The Norwegian gambling market is now comprised of two entirely state owned monopolies - Norsk Tipping (which controls sports betting, EGMs and certain number games) and Rikstoto (which oversees horse race betting) both of which are controlled via the NGB. Casinos are prohibited and bingo and lotteries require their operators to be provisioned with a license.

All slot machines in Norway were removed from 1 July 2007 resulting in a 50% decrease to the Norwegian gaming market.[122] From September 2008 Norsk Tipping new-model gambling terminals have been deployed. Norsk Tipping has the sole right to deploy up to 10,000 VLT (Video Lottery Terminal) type prize machines, also called IVT (Interactive Video Terminals). All such machines are required to be connected to a network controlled and monitored from the central servers of Norsk Tipping and are restricted in their placement to Norsk Tipping Kiosks and some licensed restaurants and bars.

Further changes to the Norwegian gambling environment with regard to the new machines have included that:

- Machines can only be used with a prepaid card sold to registered players over the age of 18;
- Registered players must be Norwegian nationals only - identified by social security number;
- A strictly regulated, remote-operated (server-based) system limits the amount bet per game to 50 NOK (approx $8.75 AUD), and sets a loss limit of 400 NOK ($70 AUD) per day and 2,200 NOK($385 AUD) per month per player;
- Maximum win is 1550 NOK ($262 AUD); and
- After one hour of continuous play by one user, the machines will refuse that player's bets for a 10-minute cooling-off period.[123]

Outcomes in Norway

The release of Norway's new generation machines (IVT's) has reportedly cost $144 million with an additional $63 million spent on the development of new games for the system.[124] As at January 2011 approximately 2,500 machines have been installed at close to 1,100 locations (mainly kiosks). While the maximum number allowable is 10,000 it is estimated that there will only be 3000 IVTs available by end 2011.[125]

There appears to be no research or evidentiary basis for the stipulated limits and amounts bet under the new system. Additionally PLAYSCAN, a predictive player tracking mechanism, has been put into place to identify problem gambling behaviours - however policy on actions taken once such persons are identified remain unknown.

Long term effects of the Norwegian changes remain to be seen however early reports suggested that some problem gamblers may have migrated to less regulated channels.

A report conducted by Scandinavian Research Group SINTEF found that subsequent to the 2007 machine removals there was little change to the numbers of those experiencing problems with their gambling in 2008. A summary of this report states that "most problematic gamblers in the study were young men who had played the slot machine the year prior to the ban, and a large proportion reported that Internet gambling was their most important form of gambling".[126]

A second report completed by SINTEF in 2010 to follow up on the effects of the slot machine removals found that while more individuals reduced than increased the severity of their gambling

[122] Norwegian Gaming and Foundation Authority (2009) Facts About Gaming In Norway – Presentation http://www.lottstift.no/dav/33a90bf801.pdf
[123] Associated Press, '*Norway Imposes Strict Gambling Rules*' June 12 2008
[124] Responsible Gaming Council (Canada) *Insight 2009 – Play Information and Management System*, p41
[125] Norwegian Gaming Authority – correspondence - 27 Jan 2011.
[126] SINTEF Report A8499 (2008) *Gambling Behaviour and Problem Gambling in Norway 2008*, Summary in English p3

problem "the ban on slot machines had led to about half of slot machine users either significantly reduced or completely ceased to gamble for money. The other half of the sample either gambled as much as before or even played more".[127]

The Norwegian Gaming and Foundation Authority Action Plan for 2010-11 indicates that the new regime has not 'solved' problem gambling in Norway:

> "After the Government prohibited such devices as of 1 July 2007, dependency problems related to gambling machines declined considerably. However, studies carried out since the slot machine ban indicate that many people currently have problems involving other gambling activities, especially in relation to gambling over the Internet". [128]

New Zealand

New Zealand has a progressive public health model in place with regard to gambling regulation. Cashless gambling is an issue of consideration in this jurisdiction and pre-commitment capable technologies (whether cashless or not) were being investigated by the NZ Department of Internal Affairs in 2006. [129] At that time the government regulator noted that there was a significant amount of research planned in Australia and Nova Scotia over the next two years regarding pre-commitment mechanisms and advised that developments would be followed with interest until the planned research provided a more solid platform to make decisions on pre-commitment technology.[130]

United Kingdom

The University of Salford undertook an extensive review of the literature surrounding cashless and card-based technologies in gambling for the UK Gambling Commission in 2008[131]. The report found that empirical evidence regarding the use and impact of such technologies is sparse but may warrant further investigation. The authors recommended a UK feasibility study over at least two different sites to explore actual player behaviour as well as attitudes of players and floor staff to the technology and to assess the impact on commercial appeal and customer enjoyment of the games

The report concluded that the implementation of cashless and/or card-based technologies may require broad review of the current UK legislation on EGMs owing to the "potentially prohibitive costs of investment and the apparently limited infrastructure currently in place. However before any such review is considered there must be convincing evidence of the net benefit of cashless and card-based technology for customers, the wider gambling industry and importantly for problem gamblers".[132]

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[127] SINTEF, Report A16020, *Changes in Norwegian Gambling Habits and the Influence of the Ban on Slot Machines 2010*, Summary in English p3

[128] Norwegian Ministry of Culture and Church Affairs (2009-2011) *Action Plan to prevent problem gaming and problem gambling* p3 http://www.regjeringen.no/upload/KKD/Pengespill%20og%20lotteri/Action_plan_gaming_2009.pdf accessed November 2010

[129] Department of Internal Affairs (NZ) *Cashless Gambling – Interim Position Paper*. September 2006, p 1.

[130] Ibid p15

[131] Parke, J Rigby, J & Parke, A (2008) *Cashless and card-based technologies in gambling: A review of the Literature*, Centre for the Study of Gambling, University of Salford

[132] Ibid p10

Appendix One: Pre-commitment Research/Inquiry Summary Table

	Research	Scope	Author	Published	Focus	Major recommendations and findings
	Gambling: Promoting a Culture of Responsibility[133]	New South Wales	IPART	2004	Discussion of pre-commitment mechanisms allowing EGM players to set monetary or time limit for their gambling over a set period.	• Players should be encouraged to use pre-commitment cards on a voluntary basis where they are available. • Research into pre-commitment mechanism, including cards, should be conducted at a national level'.[134]
	An Assessment of the Advantages and Disadvantages of Cashless Gambling Technologies in NSW[135]	New South Wales	Nisbet, Sharen	2004	Stakeholder interviews and player survey with NSW gamblers using cashless systems	• Regulators must consider incentives for adoption among players and operators. • General adoption/acceptance of card-based technology may be lower in problem gamblers. • Anonymity and privacy are concerns for gambler uptake of card technologies – voluntary system recommended.
	Card based Gaming[136]	Queensland	Queensland Treasury	2005	Field trial to test the feasibility of EGM gamblers using card technology. The trial gave gaming machine players the option to set playing limits and aimed to encourage responsible gambling practices.[137]	• Trial results informed requirements for the implementation of card-based gaming, included industry technical standards and consumer protection measures
	Inquiry into Smartcard technology[138]	South Australia	Independent Gambling Authority (IGA)	2005	Independent Gambling Authority inquiry into how smartcard technology might be implemented with a view to significantly reducing problem gambling.	• The technical capability to support smartcard technology exists (however large divergences were evidenced regarding estimated costs). • Future consultation on the nature and structure of pre-commitment schemes should be undertaken. • Funds should be allocated for research to assess the impact of smartcard systems.[139]

[133] Independent Pricing and Regulatory Tribunal (2005) *Gambling: Promoting a Culture of Responsibility*'.
[134] The NSW government subsequently supported IPART's recommended that technology has the potential to be an effective response to problem gambling. The government stated that further regulatory action in relation to gaming machine pre-commitment mechanisms should however await the outcome of the National Gambling Research Programs two-stage study into analysing the general pre-commitment behaviour of gamblers and the effectiveness of various pre-commitment strategies.
[135] Nisbet, S. (2004) *An Assessment of the Advantages and Disadvantages of Cashless Gambling Technologies in NSW,* Thesis Paper for the School of Hospitality Management, Southern Cross University
[136] Queensland Office of Gaming Regulation (2005) Card based Gaming, << http://www.qogr.qld.gov.au/publications/technical_information/index.shtml >>,
[137] Queensland Treasury (2005) *Annual Report 2004*-05, <<http://www.treasury.qld.gov.au/knowledge/docs/annual-reports/2004-05/outputs/gambling.shtm > >,
[138] Independent Gambling Authority (2005) *Inquiry into Smartcard Technology: Report*.
[139] The South Australian government's response to the inquiry was uncomplimentary stating that the costs of smartcards are not known and the benefits are unproven. The government recommended that further research needed to be undertaken on aspects of smartcards and pre-commitment schemes.[139]

	Research	Scope	Author	Published	Focus	Major recommendations and findings
h	Analysis of Gambler Pre-commitment Behaviour[140]	National	McDonnell-Phillips	2006	Qualitative and quantitative results from study of pre-commitment behaviour of players.	• Develop programs to educate regular gamblers on how to arrive at and stick to affordable limits set for gambling, develop budgets in other areas of life and monitor gambling expenditure. • There is a need to counter the common myths of gambling and raise gambler awareness about avoiding goal setting during play these components should be tied into any future pre-commitment strategies. • There was sufficient evidence from current research to support a real world trial of limit setting (i.e. using card based technologies) • Pre-commitment will have the greatest impact if it is offered as a voluntary – rather than compulsory option. The study noted that a voluntary system may also be effective for problem gamblers if combined with cooling-off periods, and a targeted communication and uptake strategy
	Major findings of a Trial of a Card-Based Gaming Product at the Sandgate RSL	Queensland	Schottler Consulting	2008	Evaluative study of the Odyssey/E-bet voluntary pre-commitment system	• Found consumer perceptions of benefit in card-based systems for monitoring expenditure and benefit accrual to those who do choose to limit set using system features. • Noted low initial uptake of voluntary systems. • Stressed that simplicity of design was a key to consumer understanding and success. • Reinforced the need for further educative materials to be provided on harm minimisation and responsible limit setting at sign-up. • Noted that less intrusive sign-up was more acceptable to consumers.
	Major findings of a Trial of a Card Based Gaming Product at the Redcliffe RSL	Queensland	Schottler Consulting	2009	Evaluative study of the SIMPLAY voluntary pre-commitment system	
	Major findings and implications: Player Tracking and Pre-commitment trial	South Australia	Schottler Consulting	2010	Evaluative study of the PlaySmart voluntary pre-commitment system	• Confirmed many aspects of the Queensland trials especially with regard to initial uptake, the need for simplicity and the benefits to those using the system features. • Confirmed that staff intercept at reaching limits may be a useful strategy and was well-received by gamblers • Costs to venues may be reduced if the technology is linked to existing loyalty programs

[140] McDonnell-Phillips Pty Ltd (2006) *Analysis of Gambler Pre-commitment Behaviour*, Gambling Research Australia

	Research	Scope	Author	Published	Focus	Major recommendations and findings
	Inquiry Report - Gambling	National	Productivity Commission	2010	Harm minimisation in Australia	• While problem gamblers may benefit the core target of pre-commitment systems are regular gamblers. • Gamblers should be bound by pre-determined limit setting. • Each state and territory government should implement a jurisdictionally-based 'full' pre-commitment system for gaming machines by 2016, subject to initial development, trialing and compatible monitoring systems. • Prior to 2016 the Commission recommended the implementation of partial systems in those jurisdictions where it could feasibility be implemented with relatively low cost.
International	Nova Scotia Player Card Research Project: Stage 3 Research Project	Nova Scotia, Canada	Omnifacts Bristol Research	2007	Qualitative research results (self-reported) from live field test of a player card at gaming venues.	• Make the system available on a voluntary basis and continue to monitor and evaluate its impact. • More advice is required about limit setting to ensure that players understand system functionality.
	VLT Player Tracking System: Nova Scotia Gaming Corporation Responsible Gaming Research Device Project[141]	Nova Scotia, Canada	Focal Research Consultants Ltd	2007	Quantitative research results from Nova Scotia Gaming Corporation Responsible Gaming Research Device Project	• Use of the features was associated with increased play value and decreased losses. • Whilst there was a positive impact detected for lower-risk and moderate risk players neither positive nor negative impacts were detected for problem gamblers • Introduce a player tracking system for the video lottery program in Nova Scotia with mandatory registration and voluntary access to the features. • Continue to conduct additional research to explore player behaviour and response to the system in order to inform and support province-wide implementation of the features and future management of the VLT program as a whole.
	Responsible Gaming Device Research Report[142]	Nova Scotia, Canada	International Gaming Institute (University of Nevada, Las Vegas)	2007	Qualitative/quantitative research results	• Nova Scotia should proceed with further implantation and testing of these features on VLTs as one part of the province's comprehensive responsible gambling approach • Additional responsible gambling and education messages should be added to the screens to increase

[141] Focal Research Consultants (2007) *VLT Player Tracking System: Nova Scotia Gaming Corporation Responsible Gaming Research Device Project*. Assessment of the Behavioral Impact of Responsible Gaming Device (RGD) Features: Analysis of Nova Scotia Player-card Data – Windsor Trial.
[142] Bernhard, B., Lucas, A. & Dongsuk J (2006) *Responsible Gaming Device Research Report*. International Gaming Institute, University of Nevada, Las Vegas.

	Research	Scope	Author	Published	Focus	Major recommendations and findings
						value to players. • Did not support using card based technology for diagnosis of problematic gambling. • Emphasised privacy concerns amongst the Las Vegas sample evaluating the device as well as a distinct preference for voluntary over mandatory measures. • Noted jurisdictional influences in player acceptance of intervention.

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