

30 June 2009

Gerry Sutcliffe MP
Minister for Sport
Department for Culture Media and Sport
2 – 4 Cockspur Street
London
SW1Y 5DH

Dear Gerry,

High-stake high-prize and other gaming machines

In March last year you asked the Commission to prioritise our work to identify what further research is needed to understand the impact of high-stake, high-prize gaming machines on problem gamblers. I wrote to you in July 2008 indicating that we would update you this summer after we had:

- carried out immediate qualitative work using the at-risk and problem gambling contacts made in the British Gambling Prevalence Survey 2007¹, looking at specific gaming machine features
- reanalysed data from that and other studies in the light of recent research findings
- established panels of international and British experts to help the Commission develop a research programme focused on gaming machine regulation and minimising harm in the Great Britain context
- developed proposals for the extension of this work to study a larger number of regular gamblers, subject to the advice of the expert panels and the necessary funding.

Since last July, after extensive consultation, we have also set up the Responsible Gambling Strategy Board (RGSB) to provide independent advice on research, education and treatment programmes that are needed to support a national responsible gambling strategy. The RGSB is chaired by Baroness Neuberger and has nine members with a wide range of expertise including: knowledge of the gambling industry, social research, counselling, preventative education, public health and addiction.

Rather than impose a levy payable to the Commission, you have accepted commitments from the industry to provide at least £5 million per annum for research, education and treatment and for that money to be distributed within the strategy recommended by the RGSB. We have therefore passed the proposals for the longer term work on machine gambling and the risks associated with gaming machines to the RGSB with the request that it takes these into account when advising in the autumn on the best use of the available funds for research, education and treatment.

¹ We subsequently learnt that there were not enough machine gamblers in this sample and the participants to the qualitative research were recruited at venues.

Summary of main findings

We recognise the public concern about potential harm from high-stake, high-prize gaming machines and have over the past year, as promised, strengthened our capacity to regulate these and other gaming machines:

- We have identified the main research findings here and abroad that are relevant to the kind of machine gambling we have here in Great Britain.
- Our work over the past year has reinforced a number of working hypotheses including:
 - The crucial importance of player education including dispelling player misconceptions, an area highlighted for additional funding in our review of gambling research, education and treatment².
 - Stakes and prizes should not be the only focus when looking at harm prevention; regulatory measures for high-stake, high-prize gaming machines need to be part of a wider prevention and harm mitigation framework which addresses risk mitigation in the context of machine and other gambling more generally.
- We now have a panel of international as well as British gambling experts up to speed on gaming machine provision in Great Britain to help advise on regulation of gaming machines and more particularly on any stakes and prizes review and the proposed research programme.
- Working with the panels and using our other qualitative work we have suggested priorities for a focussed research programme targeted on producing regulatory, educational and treatment improvements to minimise the harm from machine gambling.
- Priority areas for further research include information provision, education and access to funds in venues.

The RGSB is now in place as are the industry funding commitments; working together with the new distributor the RGSB will be able to take forward these proposals and consider their priority as part of their forthcoming proposals for a strategic research, education and treatment programme.

The remainder of this letter is structured as follows:

- overview of our activity over the past year
- research implications of machine gambling in Great Britain
- the findings relating to our exploration of:
 - the evidence of harm factors associated with machine gambling (including personal, structural and situational factors)
 - the potential effectiveness of available harm minimisation measures
- our recommendations for a future research programme.

² See Review of Gambling Research, Education and Treatment: Final report and recommendations, published October 2008 (available at www.gamblingcommission.gov.uk).

Activity over the past year

Through our work over the last year – drawing together evidence from a wide range of sources and commissioning some small scale primary research in this area – the Commission has developed a better understanding of factors affecting the impact of gaming machines on players in Great Britain. As a result we have a far better awareness of the key issues that need consideration in the British context and the priority areas which should be the focus for the development of a research programme into machine gambling.

Generally the range of permitted stakes and prizes for British machines is relatively low by international standards. Our focus throughout this review therefore has been to identify the full range of potential harm factors in relation to all forms of machine gambling and consequently what factors might require regulatory policy development. In addition we have considered how specific these harm factors are to machine gambling since, if the harm factors were common to other forms and types of gambling, that could affect the regulatory response required.

We have undertaken a small-scale qualitative study (with a sample of 48 gamblers) of the impact of structural and situational characteristics on machine play and players' views on social responsibility measures. We have also begun to explore data on machine play held by the industry which could be used by researchers to better explain patterns in machine gambling behaviour. Dr Jonathan Parke from the University of Salford (Centre for the Study of Gambling) was appointed to provide academic advice across the programme including the facilitation of the international and British panels established to advise on machine gambling research. Details of the approach taken to the component parts of the review are set out in Annex A. Summaries of the key findings from the expert panels and qualitative study are set out in Annexes B and C respectively.

Research implications of machine gambling in Great Britain

As planned, by working with both the international and British expert panels we have been able to ascertain to what extent the international research evidence applies to the British context. We now have, for the first time, a group of experts familiar with both the issues and the research findings worldwide that are relevant to gaming machine use in Great Britain; in addition to helping in relation to general policy developments, they are well placed to advise us on issues arising from the forthcoming review of category B stakes and prizes.

With their help, we have been able to identify such research evidence as is currently available to support any such advice. The work we have undertaken in the last year with the expert panels has reinforced a number of working hypotheses relating to stakes and prizes and to machine gambling related harm:

1. Generally the range of permitted stakes and prizes on British machines is relatively low by international standards. The existing body of international research provides only a limited basis for evaluating the likely impact of changes to stakes and prizes, especially given the range of stakes and prizes likely to be considered acceptable here.
2. The levels of stakes and prizes on their own are not the only important considerations when looking at potential harm factors from machines. The interplay with other related factors such as speed, patterns of payout and volatility³ is important.
3. Reviews of stakes and prizes should therefore continue to look at a wide range of structural machine characteristics such as those set out in item two above. This approach has already been taken, for example in the recent category C and D review by looking concurrently at speed of play restrictions.

³ Volatility of a gaming machine refers to how a gaming machine's pay-table is set up to meet its expected return to player percentage, for example whether it is designed to pay more large prizes, with correspondingly fewer smaller prizes (more volatile), or a greater spread of prizes with correspondingly fewer large prizes (less volatile).

4. A review of a range of gaming machine features (structural characteristics) must take account of their interaction with other environmental factors (situational characteristics) and gamblers' personal motivations. The regulatory response must also take account of this combination of factors to ensure that regulation is effective and proportionate.
5. Better data on gaming machine player participation and patterns of play would allow for more robust monitoring of the impact of future changes to stakes and prizes.

Evidence of harm factors

We have previously noted that there is very little consensus from the available research about the extent to which gaming machines *cause* gamblers to become problem gamblers and about whether this is greater than for other forms of gambling. Similarly our liaison with a range of problem gambling help groups throughout the review has shown that the limited evidence which they hold is consistent with this lack of consensus about the extent to which machine play contributes to an individual's development of problem gambling.

The research available tends to indicate that, if there is any kind of causal relationship between gaming machines and problem gambling, it is likely to be highly complex. It has however begun to provide some insights into which factors might be priorities for future research. Developing a full understanding of the risks would require significant investment of resource and time in longer term research.

In the time available we have, however, looked at a range of factors which might contribute towards a person's propensity to experience gambling related harm from machine gambling. These can be categorised as personal, structural (eg game features) and situational factors (the gambling environment).

Personal factors

From the evidence review and from our small scale qualitative work we have identified that the following personal motivational factors are likely to be important.

- Our qualitative research supported other research findings which show that there are differences between different groups of gamblers playing for excitement (more prominent in problem gamblers) compared with playing for escape⁴ (more prominent in regular non-problem gamblers). There is clearly a need for more research to examine how these motivational factors drive machine gambling and how these are affected by structural characteristics. Where such distinctions exist, the extent to which these are driven by gender or other differences and therefore whether there are implications for gambling related harm should be explored.
- There is a body of evidence which suggests that many players like to believe that they apply a level of skill to their gaming machine play. This means that players often try to predict patterns in winning opportunities which then drive their propensity to continue playing. Where machines operate using compensated logic⁵, this perception of skill can be driven by a belief that the player is able to judge the periods when payouts are more likely. Such perceptions are nearly always fallacious and there thus appears to be a wider educational challenge to ensure that players fully understand the chances of payout.

⁴ As a leisure time diversion.

⁵ Category B3, B4, C and D gaming machines can be 'compensated' or random, Category B1, B2 and B3A must be random. With 'compensated' machines the game software is constantly checking to see how much has been paid out in winnings in the recent past; and, knowing what the correct %RTP (return to player) figure should be, the software either varies the odds of achieving a win, or varies the value of any win given, for the subsequent series of games. However, all outcomes must be available in all games, even though the likelihood of them occurring may vary. Thus the machine will pay out more or less often, or pay out greater or lesser amounts, depending upon whether the actual %RTP is currently below or above the target % RTP of the machine. Random machines rely purely on the statistical hit frequency for each winning outcome to achieve the required %RTP. The odds of achieving that win are constant, and are not affected by previous wins or losses.

- Another important factor is the relationship which players form with particular machines, whereby certain machines are favoured largely because of previous win and loss experiences. Taking this and the previous factor together there are potential implications when players ask operators to reserve machines, for example while they seek additional funds, such as whether operators should actively combat fallacious beliefs in such circumstances.
- The relationships that players develop with venue staff and other customers emerged as a theme in our qualitative research. Regular non-problem gamblers tended to prefer the social aspect of playing machines and attending these venues. Conversely problem gamblers reported that they preferred playing alone and not interacting with others, including venue staff. There may therefore be practical consequences for how effectively operator staff can observe behaviours and undertake their regulatory social responsibilities in relation to customer interaction and offering effective self-exclusions to those who might need it.

Structural factors

As already stated our focus on structural characteristics went beyond the impact of stakes and prizes and focused on a number of other interrelated factors. Our findings are set out below.

- It is well established that stake is an important factor in understanding the impact that machine gambling can have on players as it determines the cost of playing the machine over time. However, participants in our qualitative study said that they tended to choose machines based on their currently available funds, so players who often choose higher stake machines indicated that they readily played a lower stake machine if that was what their available funds dictated.
- The size of prize is also the focus of a range of research. However, there is no consensus as to the extent to which the availability of larger prizes drives problem gambling behaviour. Within the qualitative study, it was felt that the target amount that the player wanted to win was not necessarily the full jackpot amount. The frequency of wins along the route to a larger prize tended to be a more important motivator in play rather than the size of the available jackpot itself.
- Speed and complexity of the game are also important factors. Problem gamblers within the qualitative study tended to prefer fast and simple games in contrast to regular non-problem gamblers who seemed to prefer slower and more complex games⁶.
- As stated above, the frequency with which smaller incremental wins are paid out is important to players' motivations to continue playing and enhances their enjoyment of the game. However, what is less understood is the impact that unpredictability in the frequency and size of these incremental payouts (ie volatility) has on players. The expert panels cited this as a particularly weak area in existing research and one which merits further examination.
- Throughout the review we examined a number of other structural characteristics commonly suggested as relevant to problem gambling, such as payment methods, sounds and lights. There was however no consensus among the experts and the players in the qualitative study regarding the motivational impact of such factors.

⁶ In general random machines tend to be simple and fast whereas compensated machines are more likely to be slower and more complex.

Situational factors

- Participants in the qualitative study thought that the single biggest situational motivation was the accessibility and availability of machine gambling. They commented on the large number of opportunities to gamble on machines. In this context there were differences between regular non-problem gamblers and problem gamblers. The regular gamblers tended to stick to familiar venues and enjoy the social side of the gambling. The problem gamblers in the study conversely did not tend to see machine gambling as a social activity, and were more likely to gamble in unfamiliar venues. These factors present challenges for the effectiveness of self-exclusion policies and the potential to introduce player tracking technologies.
- The international panel also noted the extent of machine availability in Britain. While they acknowledged that machines had relatively low stakes and prizes they observed that it was also the case that machines were available in a large number of different venues with a relatively high level of accessibility. They also commented on the extent to which machine gambling was available as a secondary activity, firstly in other gambling venues such as betting shops and bingo, and secondly, in other leisure venues such as pubs and clubs.
- The availability of additional funds within venues was highlighted by the expert panels as being an important factor which could affect players, by providing opportunities for unplanned spending.

Harm minimisation measures

The existing regulatory framework⁷ already contains a number of measures to protect players against potential harm from machines, including but not limited to:

- limits on the number of machines per premises
- restrictions on size of stakes and prizes
- controls on speed of play
- limits on 'near-miss' features
- restrictions on autoplay
- making available information on responsible gambling and how to seek help.

These are primarily focused on the structural and situational factors outlined above. We are considering what additional measures might enhance player protection beyond these regulatory requirements and also incorporate preventive education programmes. For example, current regulatory requirements such as signage and labelling regarding return to player and random or compensated status might not be sufficient. These might usefully be complemented by wider education programmes among gamblers about chances of winning and enhanced by improved labelling or other forms of information provision to gamblers. Operator-led harm prevention measures may need to be complemented with wider preventive strategies to be proposed by the RGSB. The importance of this was emphasised in our recent review of gambling research, education and treatment⁸, and prevention and education have both been subsequently highlighted as high priority by the RGSB⁹.

⁷ These are covered by the relevant sections of the Licence Conditions and Codes of Practice, Gaming Machine Technical Standards and the Gaming Machine (Circumstances of Use) Regulations 2007 (also known as Section 240 regulations).

⁸ See Review of Gambling Research, Education and Treatment: Final report and recommendations, published October 2008 (available at www.gamblingcommission.gov.uk).

⁹ The RGSB has already established an expert panel focussing on education and prevention.

Clearly the effectiveness of existing harm prevention measures within the regulatory framework also needs to be better understood in order to assess whether additional requirements could be effective or proportionate. In addition, in considering the impact of gaming machines on problem gambling and problem gamblers, including high-stake, high-prize machines (as you requested in March 2008¹⁰) and whether regulatory measures offer effective harm prevention, we also need to take account of research findings on the potential impact of regulatory measures on other gamblers.

There is a growing body of research and development work internationally on the collection and use of player data to support processes of providing informed consumer choice and effective customer interaction procedures. Such data give the potential for both the operator and player to monitor play patterns and for players to set pre-commitment levels in either time or money spent and to be notified if either is exceeded.

Through operator monitoring there is opportunity to evaluate whether providing such information to players (eg via automated messages) has an impact on patterns of play. Some of the factors which would affect the viability of such systems in the British context were explored in our recent review of cashless and card-based technologies¹¹.

A number of harm minimisation measures were put forward by the expert panel as potentially effective in combating the harm factors identified. As highlighted above our existing regulatory framework already contains a number of such measures. The international panel's views on the need for limits on stakes and prizes are also already provided for in existing regulations and the stakes and prize review mechanism allows limits to be periodically reviewed.

There was a degree of consensus among panel members on a number of measures which they felt worth further exploration. These include (with respective identified harm factors in brackets):

- use of card based technology giving players opportunities for pre-commitment and information about how much they are spending (impact of stake)
- large prizes not paid out in cash (impact of prize)
- changes to access to additional funds through both the availability and positioning of on-site ATMs (opportunities for continuous play)
- restrictions on highly volatile machines (volatility)
- limits on the number of play lines (impact of stake).

There was no consensus on whether the removal of note acceptors would have an impact by reducing the opportunities for continuous play.

An important theme identified by the participants in our qualitative research was the effectiveness of customer self-exclusion for machine players. It was pointed out that this is only a viable option if applied and enforced across venues. The effectiveness of current self-exclusion requirements and practices emerged as a priority for further consideration in our last review of the Commission's Licence Conditions and Codes of Practice and we are considering what work we might commission to evaluate the effectiveness of self-exclusion.

¹⁰ The focus of this work was to explore what research evidence exists in Great Britain and internationally in relation to:
1) any causal links between the availability of high-stake, high-prize gaming machines and the development of problem gambling
2) the attraction of such machines to problem gamblers
3) the exacerbation of gambling problems from access to such machines.

¹¹ See Cashless and card-based technologies in gambling: A review of the literature (Parke et al 2008).

Further research

The exercise with the internationally recognised machine gambling research experts on the panels has for the first time produced the coordinated views of which research should be prioritised to allow the harm associated with machines and the appropriate harm prevention approaches to better be understood in the British context. The topics proposed by the panel, ranked in the panel's order of priority, along with their suggestions for the most suitable methodological approaches, are set out below:

1. What scope is there to improve education, information and player control to make decisions about their gambling? This would require a scoping study to test the feasibility of implementing card-based technology for these purposes and research to evaluate the potential for pre-commitment features to minimise gambling related harm. The importance of exploring and evaluating the use of customer communication through educational and warning messages was also highlighted.
2. What is the impact of the availability of ATMs and the positioning of ATMs within the gambling venue, including the proximity of ATMs to gaming machines and the potential impact on revenue and wider player utility of removing on-site access (for example the impact on safety and security of bringing cash to venues)? Moreover, this would also need to look at the impact of using debit cards to load cash on to machines.
3. What is the impact of those machine structural features that appear important and where there is currently little conclusive research particularly the impact of event frequency, continuity of play, the expectation of winning (including near misses) and the impact of volatility?
4. How do various geographical, socio-economic and cultural factors impact on gambling related harm? This should include understanding differences between machine gamblers at different venue types and among different cultural groups.
5. What causes the development of or inhibits gambling related harm in relation to machine gambling, including the impact of exposure to machine gambling in adolescence and understanding the transition to problematic play?

Some of the questions posed here would require lengthy approaches to establish answers; in others the questions can be addressed at least partially by different approaches with various lengths – from on-site interviews with gamblers (one year) to trials using player data (one to two years) and using any available longitudinal information (up to five years). The Commission will share views with the RGSB on how these projects should be specified. In addition, consideration is to be given to how the approach to research can best explore the potential impact of different harm prevention measures on both problem and non-problem gamblers.

This proposed programme is extensive and raises issues of cost and priority given the other areas on which the Commission would also welcome research input. For example the need for assessment of effectiveness of existing prevention and treatment provision and of social responsibility measures and devising strategies for evaluating new approaches.

When we discussed our approach with your department last year, we and they had assumed that the RGSB and funding arrangements would be in place in time for the RGSB to contribute to our response to you before the Summer recess. In the event this took longer than expected. I am therefore asking the RGSB, when developing its proposed research, education and treatment strategy, to take into account the proposals and priorities of the machine expert panels alongside those wider priorities that the Commission put to and discussed with the RGSB earlier in the year.

We will now work closely with the RGSB to enable it to explore these proposals further. In particular, we will share our work on how industry data could be used to inform research. We hope that the work that the Commission has taken forward with the panels and other researchers over the past year will help the RGSB to come forward with proposals covering both improved provision of education and treatment and the development of a research programme that will include:

- assessment of the extent to which existing regulatory measures are effective at minimising potential harm from machine gambling
- exploration whether further regulatory measures are likely to be effective and proportionate in reducing harm from machine gambling where it occurs
- as part of the research, consider any counterproductive or adverse impacts of particular measures on different types of gamblers.

Apart from the development of enhanced understanding of what research tells us about minimising harm from machine gambling and the development of research priorities targeted on the regulatory framework in Great Britain, the other achievement of the past year's work is that we now have the international expert panel members up to speed on issues here. We will be able to draw upon their expertise as well as those of the British experts when contributing to the forthcoming review of stakes and prizes for category B machines as well as other regulatory policy matters.

I am copying this letter to Baroness Neuberger as Chair of the RGSB.

*Yours sincerely,
Brian*

Brian Pomeroy
Chairman, Gambling Commission

Cc Baroness Neuberger, Chair of the RGSB

Annex A

Summary of projects undertaken July 2008 – June 2009

Qualitative investigation of structural and situational characteristics of machine play and views on social responsibility measures

The Commission conducted a tailored piece of research gathering the views of machine gamblers on a number of issues. Following a tendering exercise the research company GfK NOP was appointed to undertake interviews, observations and focus groups with 48 participants including five venue managers across different British locations. The participants included a mixture of regular non-problem gamblers, at risk and problem gamblers and explored the personal, structural and situational motivations to their machine gambling and their use of and views on a range of social responsibility measures. A summary of findings is set out at Annex C and a full peer reviewed report will be published by the autumn.

Revisiting existing data sets

We have explored a number of existing research datasets for further information about machine gambling. Our secondary analysis of data from the British Gambling Prevalence Survey (BGPS 2007)¹² offers further insights into problem gambling behaviour. The original BGPS 2007 report (page 95, table 5.4a) tends to suggest, in the absence of a consideration of frequency, that a higher level of problem gambling is linked with spread betting, fixed odds betting terminals (now category B2 machines) and betting exchanges. This secondary analysis found that when frequency of play is taken into account the ranking of the activities most linked with at risk and problem gamblers (horse racing, scratchcards and slot machines) is not the same as the BGPS 2007. This must be interpreted very carefully, as the estimation technique does not allow us to say whether these gambling activities are *significantly* more closely linked with problem gambling than other activities.

We also explored with the Association of British Bookmakers whether any further insights could be gained from reanalysis of the FOBTs research undertaken in 2005 and 2006. The study provides some useful insights into how to undertake situational research with machine gamblers in betting shops and could act as a pre-Act benchmark were a future study needed to assess the impact of a new regulatory intervention.

Using industry data

In our letter of July 2008, we indicated that we would continue to monitor developments in the field of player tracking, but that results would not be available for some time. In October of last year we published our review of existing cashless schemes¹³ and have continued to monitor the emerging body of research being produced particularly in Canada. This research explores the use of data held on player cards used on machines to identify problematic patterns of gambling and offer information and intervention to gamblers with a view to preventing the problems from developing further.

We also said that we would look at what data could be made available from the industry to help understand player behaviour with a view to securing agreement on targeted, more quantitative research. Research based on real-time player behaviour would provide a much better basis for monitoring trends in machine play and allow for more accurate assessment of the impact of different regulatory interventions.

We have identified with the industry a number of areas where better data collation could show trends and patterns in the British machines sector at a macro level. In addition, we have explored with the industry what data items are available and could be explored to show patterns in individual gamblers' behaviour on machines. There is more promise in this area where data is linked to individual gamblers through some form of card-based system for example loyalty cards.

¹² See British Gambling Prevalence Survey 2007: Secondary analysis (Vaughan Williams et al 2008).

¹³ See Cashless and card-based technologies in gambling: a review of the literature (Parke et al 2008).

Expert panels

We established international and British panels of academic experts in the field of problem gambling and gaming machines research using Dr Jonathan Parke as a facilitator. The international panel has contributed through three written exercises which sought their views firstly on the evidence base which supported the association between gaming machine factors and gambling related harm. Secondly, we invited their views on the evidence base which supports the implementation of harm minimisation measures to address these factors. Thirdly, we invited recommendations on future research topics and approaches which should be included within a British research programme going forward. We have engaged with the British panel through a meeting and a written exercise to allow the British academic community to validate the findings and test that the recommendations are fit for purpose within the British context. A summary of findings is set out at Annex B and a full report will be published by the autumn.

Annex B

A medium to long-term programme of research for investigating gaming machines in Great Britain: Recommendations from international and British expert panels¹⁴

This exercise consisted of three stages of consultation with eleven academic experts across different jurisdictions. All chosen experts have an in-depth knowledge of gaming machines.

- Stage one focused primarily on collecting views on the relationship between certain structural factors of gaming machines and their association with harm.
- Stage two was primarily concerned with assessing the level of consensus among panellists regarding the associations of structural factors and harm, and how they relate to harm mitigation approaches.
- Stage three was used to pull together themes from stages one and two, while seeking to refine and prioritise ideas for future research.

An additional panel of academic experts in Britain was set up to seek their expertise in the above areas and to ensure that that all information and ideas were considered in the context of gaming machines in Great Britain. This was essential to give this exercise a firm grounding regarding the potential utility and challenges of implementing the suggested programme of research.

This process was facilitated by Dr Jonathan Parke from the University of Salford (Centre of Gambling Studies).

The aim of stage one was to collect opinions of panel members regarding the potential association between certain structural and situational characteristics such as stake size, size of prizes, game speed, continuity of play, access to additional funds, return to player, location, proximity and random versus compensated determination of outcomes. Panellists returned a wide range of ideas for each of the structural characteristics under consideration. While the extent of consensus on these issues was the focus of stage two, initial indications were that the views from the panel were extensive and varied, and that each panel member made a unique and valuable contribution to this exercise.

Although this stage resulted in a useful summary of the views of the panel it was limited to the extent to which we can infer consensus among the panel experts, and also to what extent these issues should be prioritised. For example, this summary only indicates the number of panellists who originated a proposition and does not necessarily indicate consensus among the panel. A panel member may not have originated an idea for reasons other than simply not considering it to be a priority (eg they may not have considered the proposition before it had been suggested by another panel member).

The aim of stage two was to present the panel with relevant propositions identified by other panel members, and assess the extent to which these propositions were prioritised in relation to creating, facilitating and mitigating gambling-related harm. Stage two also gave panellists the opportunity to give further explanation where appropriate. Overall there was a general lack of consensus among the panel on these issues. A high level of consensus was apparent only for a few propositions for certain structural characteristics under consideration.

Regarding the role of size of stake, there was a high level of consensus among the panel relative to other characteristics. It was suggested that the main risk for players experiencing harm was that higher stakes normally involve a higher financial cost to play a gaming machine in any given timeframe.

¹⁴ A full report will be published by autumn 2009.

Panellists were also in agreement that potentially the best options to mitigate gambling related harm would be to apply an upper limit on stake size, or to help extend control for the player over their expenditure through the use of responsible gambling features enabled by card-based or other tracking technologies. The panel were also in general agreement that having a lower limit on a stake (ie restricting minimum stake levels so they are not 'too low') would probably be among the least effective options for promoting responsible and safe play.

Overall there was a low level of consensus regarding the importance of the size of prizes in relation to creating and facilitating harm, but there was a high level of agreement regarding the most effective approaches for mitigation in relation to size of prize. Although receiving some support in stage one, there was little priority attached to the role of small prizes in the creation and facilitation of gambling related harm. It was suggested that players may not actually perceive small prizes as rewarding, and even in some cases may see these as frustrating. The highest level of agreement among the panel related to two approaches of harm mitigation in relation to size of prize: a) putting an upper limit on the size of prizes and; b) paying out large wins using cash alternatives so that they could not be immediately reinvested as the most appropriate protective measures in relation to size of prize.

In terms of game speed, there was some consensus that the greatest risks posed by faster games are that they allow less time for reflection on the implications of the gambling, and that they lead to a higher level of spending per hour since players can lose money at a faster pace. Banning 'autoplay' and reducing reel spin speed were considered priorities for harm mitigation, although the panel also suggested that reducing speed of play may make a game less appealing for all, reducing the quality of the player experience.

Banning access to additional funds through ATMs and other similar facilities was considered as potentially the most effective harm mitigation measure relating to continuity of play. Imposing withdrawal limits and restrictions on location for ATMs also received some support; however, this was not as strong as support for a complete ban. Support for using 'cooling-off' periods, however, was mixed, as were suggestions by the panel for the appropriate length of time for such periods. Suggested durations for effective 'cooling-off' periods ranged from 30 seconds to 30 minutes. Furthermore, there was concern from the panel that 'cooling-off' periods might have a significant impact on player experience and that such an approach would not work unless there was significant investment in the appropriate infrastructure (eg centrally linked machines in order for the 'cooling-off' period to apply to all machines in one location).

The highest degree of uncertainty and disagreement among the panel applied to the role of volatility and return to player (RTP). This seemed to be a result of a lack of empirical evidence in this area, and/or some lack of understanding of the concepts being considered. The only item where there seemed to be consensus was the banning of near misses as a protective measure, and here, agreement was strong. However, there was also acknowledgement that such an approach would be both difficult to implement (since many near misses are naturally occurring) and would be likely to impact negatively on the player experience.

There are two limitations that apply to considering the findings from stage two. Firstly, by asking panellists to engage in a ranking task there may be a risk of panellists arbitrarily assigning ranks to different propositions even though they may consider them all to be equally important. Secondly, there seems to be an absence of depth of explanation even where there seems to be consensus. For example, even though there is significant agreement that an upper limit on prizes may be effective in protecting players from experiencing harm, it is not made precisely clear why this may be the case.

It seems that, if high prizes do contribute to the determination of harm, we currently do not have answers to important questions such as:

- At what point does a prize become too high?
- To what extent does it depend on type and category of gaming machine?
- In exactly what way do higher prizes and higher jackpots create, facilitate and maintain harm?

Indeed similar questions could be asked in relation to all of the structural characteristics under consideration. Unavoidably, it seems that precise and reliable information on these issues will need to be gathered through further research. Certainly the general lack of consensus across most areas suggests that there is a need for future research, and that the research agenda should be at this stage wide open.

Although, stages one and two were limited in helping to shape a research agenda for examining gaming machines, there was some consensus among the international panel in stage three regarding research priorities and appropriate methodologies for a medium to long-term research programme for gaming machines in Great Britain. Player tracking technologies with their responsible gambling features and access to additional funds were the specific topics which received the most support. In terms of player tracking technologies, the following research aims were identified as priorities:

- Scoping cost and feasibility of implementation and operation of player tracking technologies in Great Britain
- Evaluating the potential for pre-commitment features to minimise gambling related harm
- Initial exploration of the data collected through such technologies and exploring the potential regulatory, academic and clinical benefits of its analysis.

Panel members suggested that such research could use both comparative (ie comparing different groups of players based on different criteria) and longitudinal (ie following the same group of players of specific period of time) designs. It was argued that this information will be important in developing an understanding of how harm develops in relation to gaming machines, may provide a means of identifying risky and harmful play and could shed new light on the effectiveness of harm minimisation initiatives and their overall impact on player behaviour and experience.

The panel identified a need to investigate the impact on gambling behaviour from having access to additional funds (ATMs in particular) in the gambling venue. The suggested research focus here was multifaceted:

- To what extent can we determine if access to additional funds generates or facilitates harm
- In terms of the different harm mitigation options (banning, relocating or limiting) which are the most effective
- What are the potential adverse consequences of the different mitigation approaches on player experience and industry revenue.

A wide range of methodological approaches were identified as relevant here including comparative experimental designs, surveys and in-depth qualitative interviews. It was suggested that such research will help clarify the current speculation regarding the access to additional gambling funds in the venue and provide a more solid evidence base to help develop regulatory policy.

The panel supported the need to examine the impact of gaming machine structure on gambling related harm, with panellists either identifying at least one structural factor which should be prioritised for research (eg volatility; note acceptors) or suggesting that a general exploration of structural factors is required. Research from a cultural and socio-spatial perspective was also prioritised, with panellists suggesting that the impact of the availability and density of machines and the impact of different venues and sites should be investigated in relation to problem gambling. It was suggested that it would be useful to explore the cultural and ethnic variation in how problem gambling is conceptualised and experienced. Finally, the panel supported longitudinal research investigating temporal dimensions of problem gambling, most notably, the impact of early exposure to gaming machines on gambling behaviour in later life and the transition or flow in and out of gambling related harm.

The British panel generally endorsed the research priorities as identified by the international panel with the highest priority being given to research involving player tracking technology and tracking enabled responsible gambling features, just as in the international panel. It was highlighted that a broad view of 'harm' should be adopted that also incorporates environmental and demographic features of machines so that player tracking, important as it may be, is not explored in isolation. Research investigating the impact of having access to additional funds was also strongly supported by the British Panel.

Challenges identified by the British panel related to the distinctiveness of the British gaming machine industry and regulatory framework. Firstly, there was concern that the industry would not be co-operative on issues such as sharing access to data or to venues to conduct research (experiments in particular). Secondly, it was expressed that the complex structure of the gaming machine sector in Great Britain (eg various categories of machine, various types of venues and various operators) would make it difficult to implement and follow any research using tracking technologies or any research examining cultural or situational variations in gaming machine play. For example, if a player reaches a self-set spending limit on a certain type of machine, in one venue for one operator, would they be able to use a different type of gaming machine, in a different venue, supplied by a different operator?

The British panel also suggested that British researchers should be the main beneficiaries of British research funding and that research funding should be allocated on a more collaborative rather than competitive basis given the limited expertise within Great Britain. It was also suggested that operators should be forced (via licensing conditions) to share data and permit responsible research using their premises or customers. Finally, the panel volunteered the recommendation that research should receive levels of funding equivalent to both treatment (which currently receives significantly more) and education and prevention (which currently receives less).

Recommendations

Based on information provided by the international and British panels of experts, there are some clear issues which should be considered for a medium to long-term research programme investigating gaming machines in Great Britain. These issues relate to both research topics which should receive attention and to strategic actions which should facilitate such research.

The key recommendations are as follows:

1. The following five areas as identified by the international panel (as discussed in stage three), and supported by the British panel (as discussed in stage four), be considered as research priorities for a long-term research programme investigating gaming machines in Great Britain:
 - a. The promotion of player control – player tracking technologies
 - b. Impact of access to additional funds on site and other situational features
 - c. Impact of machine structural features
 - d. The role of the socio-spatial and cultural environment
 - e. Understanding the development of gaming machine related harm.

2. Research using player tracking technologies investigating player behaviour and tracking enabled responsible gambling features should be given the highest priority. In doing so the following issues should also be considered:
 - a. A scoping study should be carried out immediately assessing the feasibility and willingness of operators to implement and operate such technology in Great Britain. This is particularly important given that gaming machines vary considerably in their structure, site and provision. Therefore, the acceptance and regulation of such technology in this country may be particularly challenging. This recommendation is consistent with the Review of Research on Aspects of Problem Gambling (Abbott, Volberg, Bellringer and Reith, 2004), with the UK Scoping Study for assessing gaming impacts (May-Chahal, Volberg, Forrest, Bunkle, Paylor, Collins and Wilson, 2008) and with the latest review of the literature on cashless and card-based technology recently commissioned by the Gambling Commission (Parke, Rigbye and Parke, 2008).
 - b. This research should not be done in isolation but should be accompanied by concurrent research which focuses on wider issues at the individual, situational or cultural level. In other words, if player tracking data is being analysed to explore gaming machine related harm, this analysis should also consider variables which exist outside of the player tracking data (eg socio-economic status, location, ethnic and cultural background; type and situation of local gambling venues). It was argued that by adopting this broad approach the validity and reliability of research findings will be increased.
3. A relationship needs to be developed between the gambling industry and other stakeholders which cultivates a two-way flow of information and openness that will facilitate research which will improve our understanding of gaming machine related harm, and ultimately promote effective regulatory policy which will be effective yet not unnecessarily restrictive. It is clear that co-operation is required from the industry in order to:
 - a. Obtain access to various forms of data that could be analysed
 - b. Obtain access to venues, and customers therein, for conducting research on site, particularly live ecologically valid experiments
 - c. Use their knowledge and experience to help identify the most appropriate lines of empirical enquiry which will save significant resources.
4. While the feasibility of researching gaming machines using offline player tracking data is being considered, there may be some advantages, in the mean time, to using online player tracking data, which we know is already available, to help answer key questions regarding structural factors in gaming machines (eg what role do stake size, size of prizes and game speed play in creating or facilitating harm). While the applications of findings from Internet gaming machines to land-based gaming machines should remain tentative, online research in this area may prove a fruitful line of enquiry until the same level of information is available for analysis for land-based gaming machines.
5. Finally, it is recommended that a mixed method approach to understanding the impact of gaining access to additional funds in the gambling venue be given top priority in any medium to long-term research programme. This research should empirically examine:
 - a. If such access to additional funds makes a significant contribution to the creation or facilitation of harm
 - b. What kinds of restrictions (eg banning, relocating or limiting withdrawals) would be the most effective in minimising harm but would have the lowest overall negative impact on the customer experience in the affected venue.

International panel members and their affiliation

Prof Max Abbott	Professor of Psychology and Public Health, Dean of Faculty of Health and Environmental Sciences	Auckland University of Technology
Prof Alex Blaszczyński	Professor of Clinical Psychology	University of Sydney
Prof Paul Delfabbro	Associate Professor of Psychology	University of Adelaide
Dr Charles Livingstone	Senior Lecturer, Health Science	Monash University
Prof Jan McMillen	Independent researcher and former Professor of School of Social Sciences	Australian National University
Sharen Nisbet	Associate Lecturer in the School of Tourism and Hospitality Management	Centre for Gambling Education & Research, Southern Cross University
Dr Tony Schellinck	CEO of Focal Research	Focal Research and Dalhousie University
Arve Sjolstad	Communications Manager	Norsk Tipping
Dr Nigel Turner	Research Scientist	Centre for Addiction and Mental Health, Ontario
Dr Rachel Volberg	President of Gemini Research	Gemini Research
Dr Richard Wood	Chartered Psychologist	Gamres

British panel members and their affiliation

Prof Corinne May-Chahal	Professor of Applied Social Science	University of Lancaster
Prof Mark Griffiths	Professor of Gambling Studies	International Gaming Research Unit, Nottingham Trent University
Prof Peter Collins	Professor of Public Policy Studies	Centre for the Study of Gambling, University of Salford
Prof Gerda Reith	Professor of Social Sciences	University of Glasgow ¹⁵
Dr Crawford Moodie	Researcher	Institute of Social Marketing, University of Stirling
Dr Adrian Parke	Lecturer	University of Lincoln

¹⁵ Professor Gerda Reith is also a member of the RGSB and a chair of the RGSB's Research Panel.

Annex C

Key findings from qualitative study into machine gamblers

This was a small-scale piece of qualitative research aimed to provide the Commission with an exploratory look at the impact of gaming machine features on problem and non-problem gamblers in Great Britain. It explored the personal, structural and situational motivations to players' machine gambling and their use of and views on a range of social responsibility measures.

The research used interviews, observations and focus groups with 48 participants across several locations in Great Britain, including 11 problem gamblers, 15 at risk gamblers and 17 regular non-problem gamblers. In addition five venue managers were interviewed.

Overall, the research found that participants felt the following characteristics of machine playing were important to participants' gambling behaviour:

Personal
<ul style="list-style-type: none">• Enjoyment: including escapism from everyday life and the thrill and excitement of instantaneous gambling; real time risk.• Social: for some participants machine gambling was part of a social activity for example, part of a night out with friends. For others it was a more isolated activity.• Mastery: participants perceived that through learning to play the machine and by identifying 'tricks' they could minimise the risk of the gamble, and increase the likelihood of winning.• Financial: some participants were winning to facilitate continued play whilst others were chasing the jackpot/ their debt.
Structural
<ul style="list-style-type: none">• [Perceived] near miss: this encouraged participants to continue playing and sometimes to extend their pre-defined budget for that particular day.• Speed and simplicity: the instantaneous thrill and real time risk of machine playing was intensified by speedier and simpler games. Slower and more complex games were favoured by those participants looking to kill time.• Frequency of payout: many participants were encouraged to continue playing when they won small payouts as it made them feel that they were on a lucky streak. Incremental payouts added to this and sometimes led to more aggressive gambling behaviour.• Familiarity and skill: many participants reported that they chose to play a specific machine or game as they felt they knew it – this provided a feeling of comfort and control for some. Others felt that they increased their likelihood of winning because they knew how to play the machine/ game.
Situational
<ul style="list-style-type: none">• Machine density and access: players believed that machines were easy to access and cited a range of venues where they could play the slot machines in their local area. The availability of machines was not considered a barrier to machine gambling.• Presence of others and familiarity: some were attracted to a specific venue due to the social aspects – the opportunity to meet friends and socialise. Others chose their venue based on the availability of a specific machine or game that they were familiar with.

This qualitative research also indicated that there may be some distinctions between problem and regular gamblers. In particular, the following differences emerged from participants:

- **Excitement v escapism.** Problem gamblers were more likely to cite gambling as an exciting activity whilst regular gamblers tended to focus on it as a way of escaping realities of everyday life. Escape and excitement are not however mutually exclusive. It is possible, that for problem gamblers, excitement can enhance escape.
- **Chasing money (jackpot, debt) v money to facilitate play.** Overall, problem gamblers were more likely to talk about chasing the jackpot or their debt when compared to regular gamblers. Problem gamblers fantasised about the way in which they would spend their winnings. However, regular gamblers often sought to win money to facilitate continued play – these players were looking to play for a long period of time using as little money as possible.
- **Isolated v social.** Regular gamblers discussed the social aspect of machine gambling – some noting that gambling was important to their social life. Others viewed machine gambling as part of a night out when they would socialise with friends. On the other hand, problem gamblers viewed machine gambling as more of an isolated experience with some noting that they preferred to gamble alone.
- **Itinerant v familiar venues.** Continuing from the point made above, problem gamblers tended to be more itinerant in their choice of gambling venue. Their venue choice tended to be driven by machine/ game type rather than on the basis of familiar social interaction. Regular gamblers, as noted above, played at familiar venues where they knew fellow gamblers and staff and felt comfortable.

Interestingly, the research did not find that participants felt problem gambling was related to jackpot size. Whilst jackpot size was considered important, availability of funds tended to be a stronger driver of behaviour, with funds dictating which category of machine was played.

When it came to exploring reactions to *social responsibility* measures, it was agreed that where social relationships exist within the gambling environment, there is an opportunity for gamblers to be supported in changing their behaviour. However, it was equally noted that these types of social relationships do not always exist – and the research found that stronger social relationships were more likely to be found amongst regular gamblers than problem gamblers. With this limitation in mind, it was suggested that there is potential for venues and staff to take responsibility in two respects:

1. Identifying and addressing changes in behaviour or character
2. Enforcing self-exclusion measures

Restricting access via self exclusion programmes was only considered to be a viable option if applied and enforced across venues. Self exclusion from one venue alone was not considered very helpful as there were many venues where people could machine gamble in their local area.

Breaking up play and pop-up messages were positively received by some regular gamblers, but overall breaking up play was disliked and many cautioned that they could provoke annoyance.