



The Stake of the Nation - Balancing the Bookies

Review of the Association of British Bookmakers' Impact Assessment

Published by the Campaign for Fairer Gambling

April 2014

CONFIDENTIALITY

We understand that the maintenance of confidentiality with respect to our clients' plans and data is critical to their interests. NERA Economic Consulting rigorously applies internal confidentiality practices to protect the confidentiality of all client information.

Similarly, our approaches and insights are proprietary and so we look to our clients to protect our interests in our proposals, presentations, methodologies and analytical techniques. Under no circumstances should this material be shared with any third party without the prior written consent of NERA Economic Consulting.

© NERA Economic Consulting

Contents

Executive Summary	i
1. Introduction	1
2. Background	3
2.1. Context	3
2.2. Concerns About FOBTs	11
3. Questions Raised By The ABB’s Impact Assessment	13
3.1. The ABB’s Assumed Impact Of Lower Maximum Stakes	13
3.2. Will FOBT Yields Fall By As Much As The ABB Expects?	14
3.3. Will Some Spending Transfer To Other LBO Products?	16
3.4. How Many LBOs Are Really “At Risk”?	19
3.5. What Are The Overall Impacts On Taxes And Employment?	21
3.6. Wider Impacts	24
4. Alternative Impact Estimates: Illustrative Calculations	26
4.1. Methodology	26
4.2. Estimated Impact on LBOs	28
4.3. Estimated Impact on Total UK Employment	32
5. Conclusions	33
Appendix A. LBO Model: Data Sources and Assumptions	35
A.1. General inputs	35
A.2. Revenues	36
A.3. Costs	36
A.4. Calibration	38

Executive Summary

1. This independent report by NERA Economic Consulting, published by the Campaign for Fairer Gambling, considers the economic impact of a reduction in the maximum stake for B2 gaming machines. There are now more than 33,000 B2 machines, which allow players to stake up to £100 per play, in betting offices (LBOs) in Great Britain. They generate gross profits of more than £1.5 billion a year, which represents about half of LBOs' total gross profits. The commercial success of these machines, combined with a limit of four machines per shop, has seen the number of LBOs increase since 2000, reversing the gradual decline observed over most of the last 40 years.

2. There are widespread concerns about the links between B2 machines and problem gambling, and also about connections with money laundering and organised crime. With the recent confirmation that the Irish government intends to continue to prohibit fixed odds betting terminals, the UK is claimed by critics to be the only country where a £100 per spin game is permitted on the high street. A number of responses to the Government's recent consultation argued for a significant reduction in the maximum stake for B2 machines. However, the subsequent Government statement noted that such a reduction would have an adverse economic impact on the betting industry, while it was not clear how great an impact it would have on gambling-related harm. The Government is therefore waiting for further evidence on the latter, but critics have argued that harm is continuing and therefore the maximum stake should be reduced now, subject to a further review when additional evidence on the social impacts becomes available.

3. Key evidence on the adverse economic impact was provided by the consultation response from the Association of British Bookmakers (ABB), which claimed that around 7,900 betting offices and 39,000 jobs would be "at risk" if the maximum stake for B2 machines were reduced to £2. There are several reasons why the ABB has overstated the likely impact:

- it assumed a very large (68.6 per cent) reduction in the gross profits from B2 machines. We have identified a number of reasons to believe the impact could well be less than this;
- it ignored the likelihood that at least some of the money no longer spent on B2 machines would switch to over-the-counter betting, thus mitigating the overall impact; and
- its approach of defining shops as "at risk" is seriously flawed. It does not mean that a shop is likely to close in practice, and the definition of "at risk" is far too wide.

4. Our illustrative calculations suggest that the number of shop closures could be between 700 and 1200. This would leave the industry with just 5 to 10 per cent fewer shops than in 2000, before the introduction of B2 machines. And the overall impact on employment and tax revenues for the UK could well be positive, perhaps a net increase of between 1,200 and 2,400 jobs, as a result of increased spending in other sectors of the economy.

5. The likely impact on the betting industry is therefore very substantially smaller than that suggested by the ABB's submission. Despite a slow long-term decline, off-course bookmaking was a significant and relatively stable industry before the introduction of B2 machines. And even with a maximum stake of £2, gaming machines could still generate significant additional profits for bookmakers on top of their traditional core business.

6. Moreover, if some of the fall in revenues reflects lower spending by problem gamblers or reduced money laundering, and if some of the betting shops that close are shops that were set up simply to increase the number of gaming machines (thus not representing an efficient use of retail space), then there could be wider benefits to society as a result of these closures.

1. Introduction

This independent report by NERA Economic Consulting, published by the Campaign for Fairer Gambling, considers the economic impact of a reduction in the maximum stake allowed for category B2 gaming machines. In particular, we review an impact assessment carried out by the Association of British Bookmakers (ABB) and included in its submission to the Government's triennial review of gaming machine stake and prize limits. We also provide some alternative estimates of the likely impact. Though these estimates are described as illustrative, as we have not had access to the detailed data that were available to the ABB's advisors, we believe they represent a much more realistic assessment than the ABB's estimates, which portrayed a very high percentage of LBOs and associated jobs as being "at risk".

More than 33,000 B2 machines are located in licensed betting offices (LBOs). While other gaming machines available in the UK have a maximum stake of £2 or lower, the maximum stake for B2 machines is £100. Despite widespread concern about the potential impact of B2 machines on problem gambling, the consultation document on gaming machine stake and prize limits published by the Department for Culture, Media and Sport (DCMS) in January 2013 put forward four sets of proposals, each of which either retained or increased the £100 limit for B2 machines. Explaining this decision, DCMS stated that:

"While there is wide consensus that there is some link between problem gambling and machine gambling, and it is indisputable that some people are at risk of spending far too much time and money on them (which is why there are controls on numbers and stakes and prize), there is no consensus as to the nature of that link, how great the risks are or what actions would mitigate the risks without having disproportionate impact on those not at risk. The difficulty for the government in deciding whether to act in response to public concern about B2 machines is the lack of evidence on whether B2 gaming machines in themselves have had any significant effect on the level of problem gambling in Britain. The government has a duty to ensure that any policy or regulatory changes it considers are based not on concern or anecdote alone, but supported by firm evidence and factual foundation."¹

While stating that research into the risk factors associated with gambling and the most effective harm prevention and treatment measures would be commissioned by the Responsible Gambling Trust, DCMS also invited respondents to submit evidence on a possible "precautionary reduction" in maximum stake or prize levels, including both the social impacts on gambling related harm and the economic impacts on LBOs. In response, the ABB's submission included an impact assessment that concluded that reducing the maximum stake to £2 would place around 7,900 LBOs and 39,000 jobs "at risk".

Having considered the responses to the consultation, DCMS stated that "While we have a clearer understanding of the likely economic impact of a reduction in stake by different

¹ Paragraph 3.56 of DCMS, *Proposals for Changes to Maximum Stake and Prize Limits for Category B, C and D Gaming Machines*, January 2013.

degrees – which vary depending on the level of stake reduction – the likely social impact remains less clear”.² To the extent that DCMS’ “clearer understanding” of the economic impact is based on the ABB’s submission, we argue in this report that this significantly overstates the likely economic impact in practice of a reduction in the maximum stake for B2 machines.

Regarding the social impact, DCMS confirmed that “there remains a very serious case to answer in relation to potential harm caused by B2 machines” and recognised the concerns expressed by problem gambling charities. However, it also stated that “it is currently not clear how great an impact a reduction would have on gambling related harm”. Rather than reducing the maximum stake, therefore, DCMS called on the betting industry to make “real and rapid progress” on understanding harm and developing “much better harm mitigation measures”. Its proposals describe the future of B2 machines as “unresolved pending further work which is already underway”.

It is by no means certain that the research currently under way will provide significant additional clarity about the relationship between B2 machines and problem gambling. NatCen’s December 2013 scoping report for The Responsible Gambling Trust reported a number of gaps and inconsistencies in the available data, agreeing with the suggestion that they are “data rich; information light”, and referred to the need to manage expectations about the questions that can be addressed (as the data are largely transactional rather than providing information about individuals and individual patterns of play).³ Especially as the social impact may remain unclear, therefore, it is important to establish a more realistic view of the likely economic impact of a reduction in maximum stakes.

While we briefly summarise the concerns expressed about the social impact of B2 machines (see Section 2.2), the main focus of this report is the economic impact. Section 3 addresses a number of specific aspects of the ABB’s impact assessment, then Section 4 puts forward our alternative estimates, covering the UK economy as a whole as well as the specific impact on shops and jobs in the betting industry.

² Page 19 of DCMS, *Government Response to Consultation on Proposals for Changes to Maximum Stake and Prize Limits for Category B, C and D Gaming Machines*, October 2013.

³ NatCen, *Scoping the Use of Industry Data on Category B Gaming Machines*, December 2013.

2. Background

Key Findings

- *From 2001, following a change in way that betting is taxed, fixed odds betting terminals (FOBTs) have been installed in many betting shops. The vast majority of these are B2 machines, which have a maximum stake of £100 per play.*
- *There are now more than 33,000 B2 machines in betting shops. They generated a gross yield of more than £1.5 billion in 2012/13, representing about half of the total gross profits from betting shops.*
- *The number of betting shops has also increased since 2001, in contrast to the slow decline experienced during most of the last 40 years. But over-the-counter betting has fallen, at a much faster rate than during the previous decade.*
- *There are widespread concerns about the links between B2 machines and problem gambling.*

2.1. Context

For much of the post-war period, betting at LBOs, mainly on horse racing, accounted for a high proportion of total gambling in the UK. There were a relatively small number of licensed casinos, and “softer” forms of gambling were available through football pools and bingo clubs. But over-the-counter (OTC) betting in LBOs accounted for much of the gambling activity that took place before the launch of the National Lottery.

The regulatory framework established in the 1960s allowed gambling to be carried out under strictly controlled conditions, but did not seek to encourage gambling or to allow businesses to offer an attractive product to potential players. For much of this period, there were strong restrictions on the facilities (such as the availability of refreshments, shop front and window displays) that could be offered by LBOs, though these were relaxed to some extent following the launch of the National Lottery. And until the implementation of the Gambling Act 2005, there was a demand test which restricted opportunities for operators to open new LBOs.

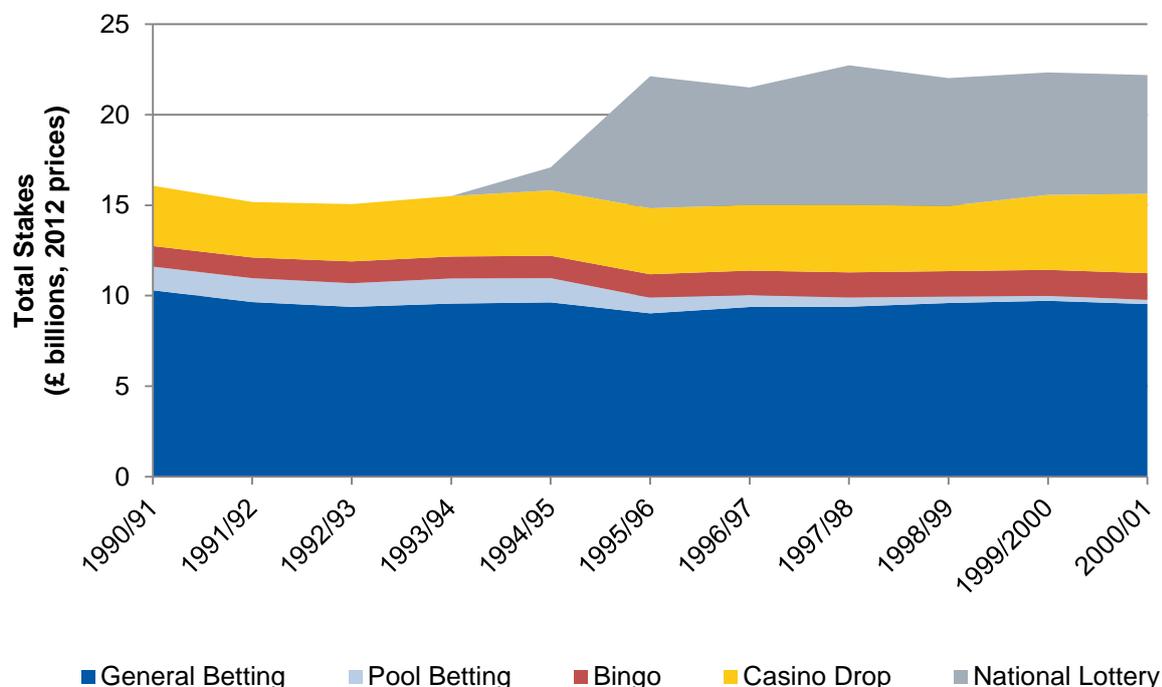
Figure 2.1 shows the amount staked in the UK on different forms of gambling during the 1990s.⁴ The main change during this period was the launch of the National Lottery in 1994. Not surprisingly, given the similar nature of the products (low entry price, little or no specialist knowledge required, large jackpots), this led to a significant decrease in pool betting.

While there was also a decrease in general betting following the launch of the National Lottery, this was small and stakes quickly stabilised and grew (in real terms) throughout the

⁴ Note that all the graphs included in this section show data in real terms (at 2012 prices).

late 1990s.⁵ This was helped by a loosening of restrictions on LBO facilities, including allowing amusement with prizes machines (i.e. standard fruit machines) in LBOs.

**Figure 2.1
Gambling Stakes in the 1990s**



Source: HMCE, Gaming Board for Great Britain

A further change, with more important implications for LBOs, was a switch in the way that general betting duty was levied. In 2001, this became a tax on bookmakers’ gross profits (i.e. turnover less winnings),⁶ rather than a tax on the amounts staked. Among other things, this allowed LBOs to introduce new, low margin products, including roulette and similar games on fixed odds betting terminals (FOBTs).

Until the implementation of the Gambling Act 2005, FOBTs in LBOs were not subject to specific regulatory controls. Related to this, there are no official industry-wide data showing the speed at which FOBTs were introduced into LBOs, or their commercial impact. But some information about the initial growth of FOBTs, and the profits generated by them, is

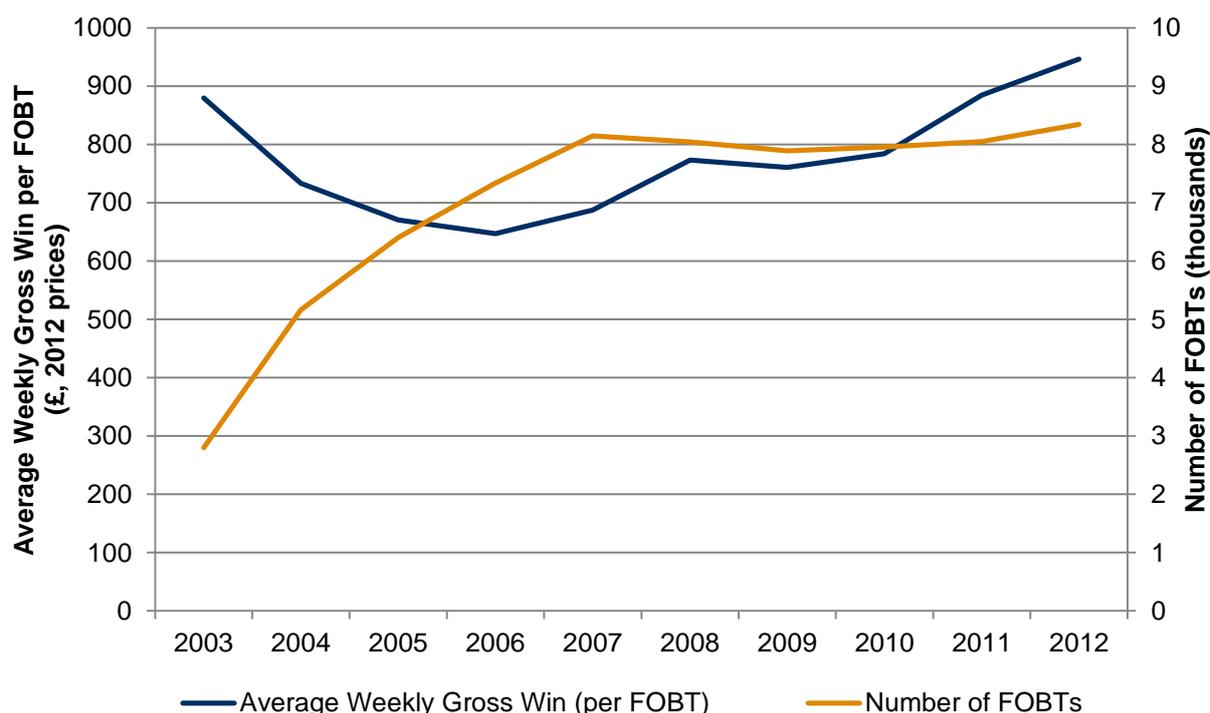
⁵ By 1998/99, general betting stakes were higher in real terms than they had been in 1993/94, the year before the launch of the National Lottery.

⁶ In the betting industry, gross profits, gross win and gross gambling yield have the same meaning. We use the terms interchangeably in this report, usually following the terminology used in the relevant source document.

provided in the annual reports for individual bookmakers. Ladbrokes, in particular, provides information that we believe is broadly representative of the industry as a whole.⁷

Figure 2.2 shows that the number of FOBTs in Ladbrokes shops increased rapidly up to 2007, at which point they were close to the maximum limit of four per shop. The average gross win (per machine) fell during this period, as the number of machines increased. But FOBTs remained highly profitable and the average gross win per machine has increased strongly since 2006, reaching a level of more than £900 per week per machine.

Figure 2.2
Fixed Odds Betting Terminals in Ladbrokes LBOs

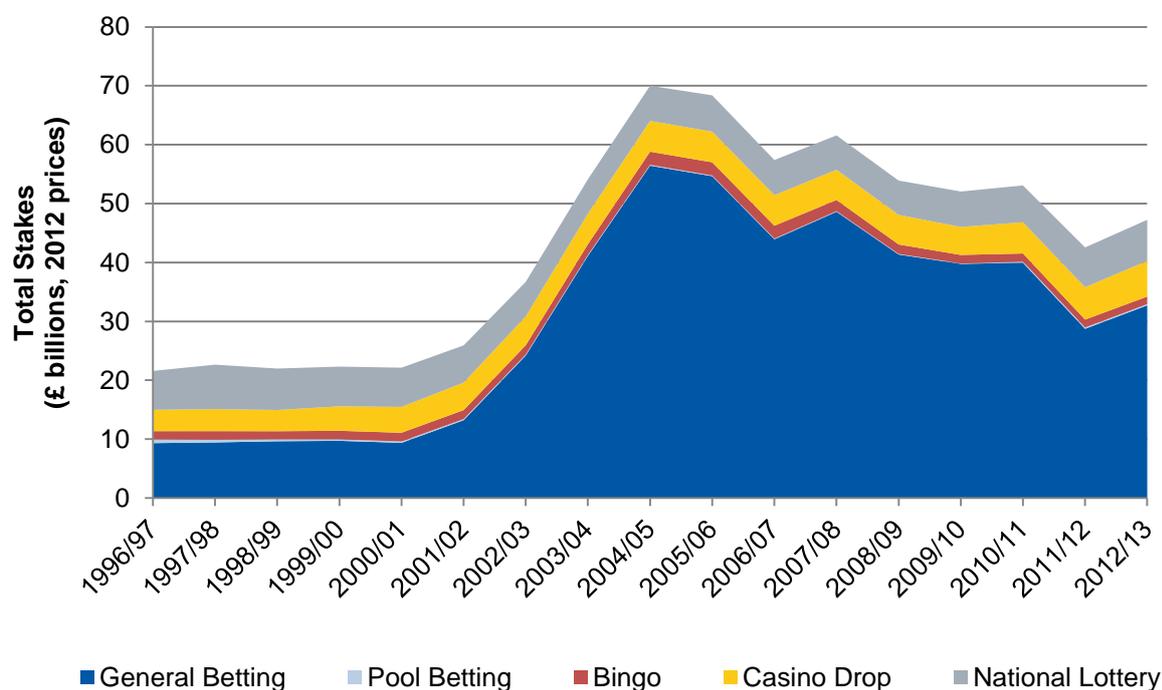


Source: Ladbrokes Annual Reports

The rapid growth of FOBTs, and other low margin products that bookmakers could offer following the switch to a gross profits tax, led to a very substantial increase in the total amounts staked. This is shown in Figure 2.3, alongside data for other forms of gambling. Within four years, general betting stakes (including both OTC betting and FOBTs) increased by more than 500 per cent in real terms. General betting stakes now exceed the amounts staked on all other forms of gambling, and indeed have accounted for more than three-quarters of total gambling stakes in every year from 2002/03.

⁷ The speed at which individual bookmakers installed FOBTs will have reflected individual arrangements with their suppliers. The rapid increase in Ladbrokes’ machines (which led to a temporary decline in gross win per machine) reflected major orders placed with Cyberview Technology (subsequently acquired by IGT). Other bookmakers entered similar arrangements, for example William Hill placed major orders with LeisureLink (now renamed Inspired Gaming).

**Figure 2.3
Gambling Stakes since 1996**

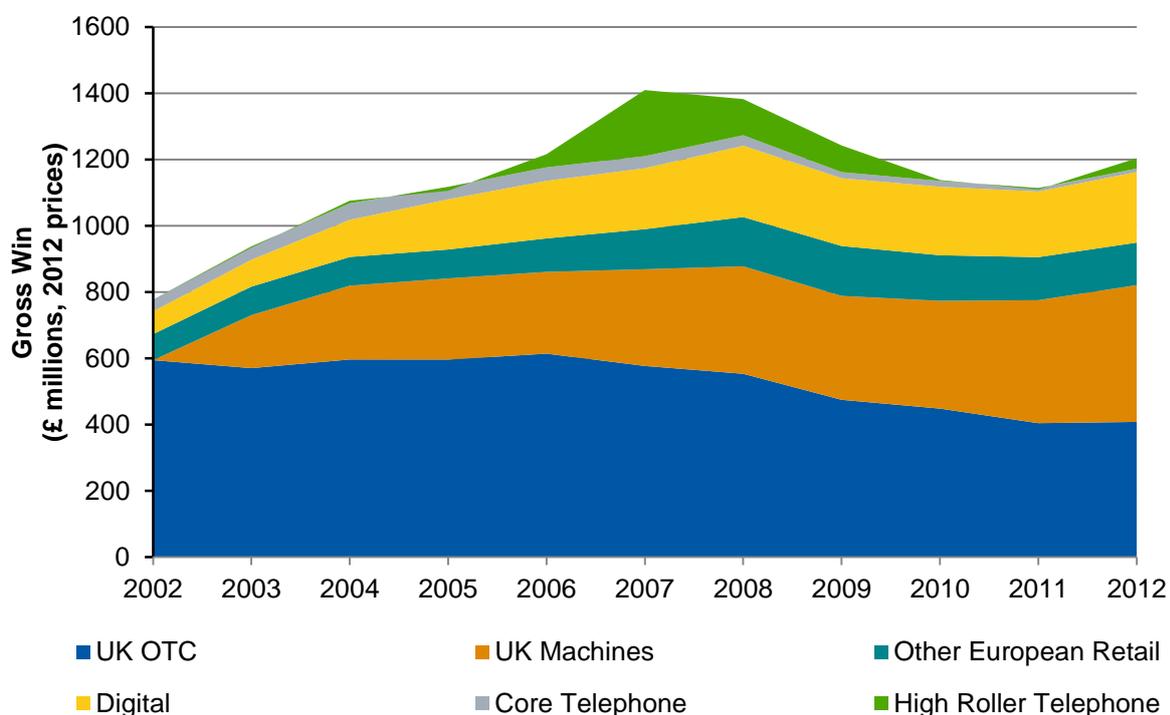


Source: HMCE, Gaming Board for Great Britain, Gambling Commission, NERA analysis
 Note: For casinos, the chart shows the drop (i.e. the amount of money exchanged for chips) rather than total stakes.

However, as this increase in total stakes followed the introduction of new low margin products, there was not an equivalent increase in bookmakers’ gross win. Detailed industry-wide data on the level and composition of LBOs’ gross win are not available for the period before the implementation of the Gambling Act and the establishment of the Gambling Commission. But Ladbrokes has provided data on gross wins in its annual reports, and we believe the trends observed in these data are broadly consistent with developments in the industry as a whole.

Figure 2.4 shows the composition of Ladbrokes gross win over the period since 2002. While the total gross win from its LBOs has increased by almost 40 per cent (in real terms), this reflects the net effect of a significant real reduction (more than 30 per cent) in the gross win from OTC betting, offset by very strong growth in the gross win from gaming machines.

**Figure 2.4
Ladbrokes Gross Win**

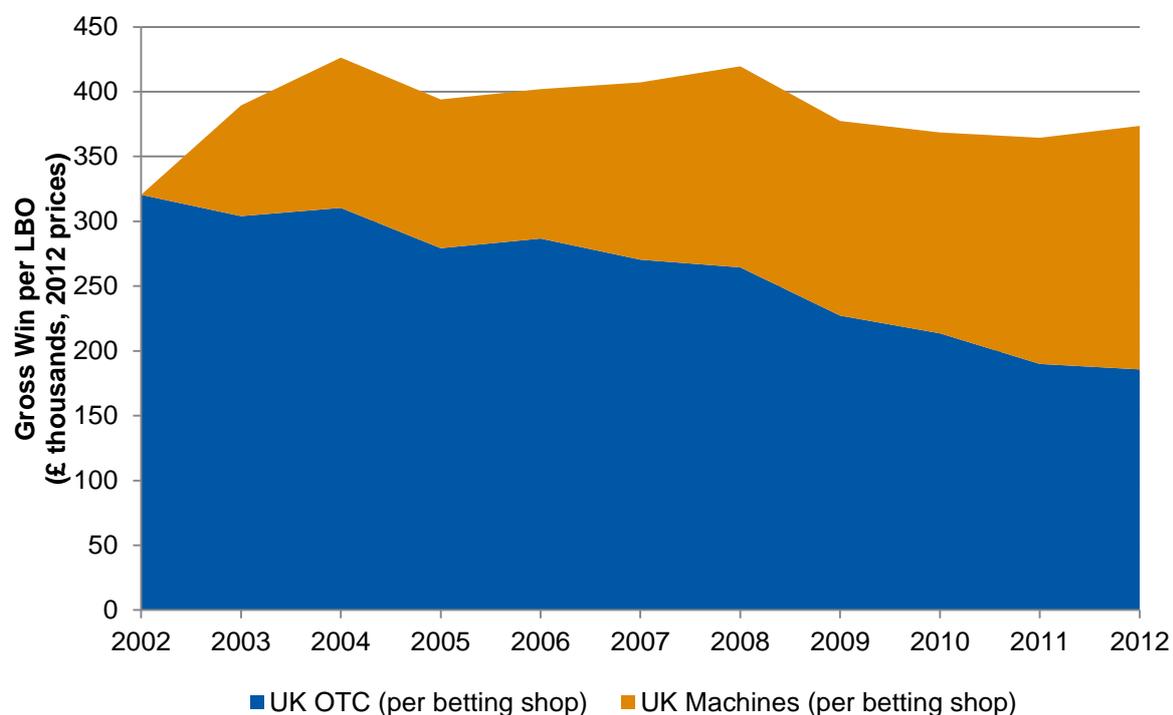


Source: Ladbrokes Annual Reports (note – excludes Vernons)

Despite the reduction in OTC betting, Ladbrokes increased its number of LBOs by almost 20 per cent during this period. This stands in sharp contrast to the long term trends observed before the introduction of FOBTs. For most of the last 40 years there had been a slow but steady decline in the number of LBOs in Great Britain. This continued during the 1990s, when the total number of shops fell from more than 10,000 to around 8,700. However, over the period since 2000, and despite the impact of the recession and the significant fall in OTC betting, the number of LBOs has increased to more than 9,000 and typical opening hours have also increased substantially. This will have led to some cannibalisation of OTC betting, as the already declining total was spread between a greater number of shops.

As shown in Figure 2.5, Ladbrokes’ OTC gross win per shop has fallen by more than 40 per cent in real terms over the past ten years, but this has been offset by a very strong increase in the gross win from machines. Overall, Ladbrokes’ gross win per shop increased by more than 15 per cent in real terms between 2002 and 2012.

Figure 2.5
Ladbrokes Gross Win Per LBO



Source: *Ladbrokes Annual Reports*

As noted above, FOBTs were not subject to formal regulation for several years after their introduction into LBOs. In an attempt to address concerns arising from the rapid growth of gaming machines, the ABB and its members introduced a voluntary Code of Practice. The Gambling Act 2005 then introduced a new licensing framework for gaming machines and online gambling, but also loosened the previous regulatory framework applying to LBOs in a number of important respects (including abolishing the demand test that had been applied to applications for new casinos, bingo clubs and LBOs). It also established the Gambling Commission as the new regulatory body for commercial gambling in Great Britain.

The detailed data that the Gambling Commission has published for the last five years show that, despite the economic downturn, total gambling gross yields have fallen by only five per cent in real terms since 2008/9. As shown in Figure 2.6, total (real) gross yields from betting, bingo, casinos, charity lotteries and machines has remained relatively constant. Within this total, however, there have been significant falls in betting office OTC and remote yields, and also in yields from bingo and machines in other locations. These have been nearly offset by the very substantial growth in yields from machines in LBOs.

Figure 2.6
Real Gross Gambling Yields

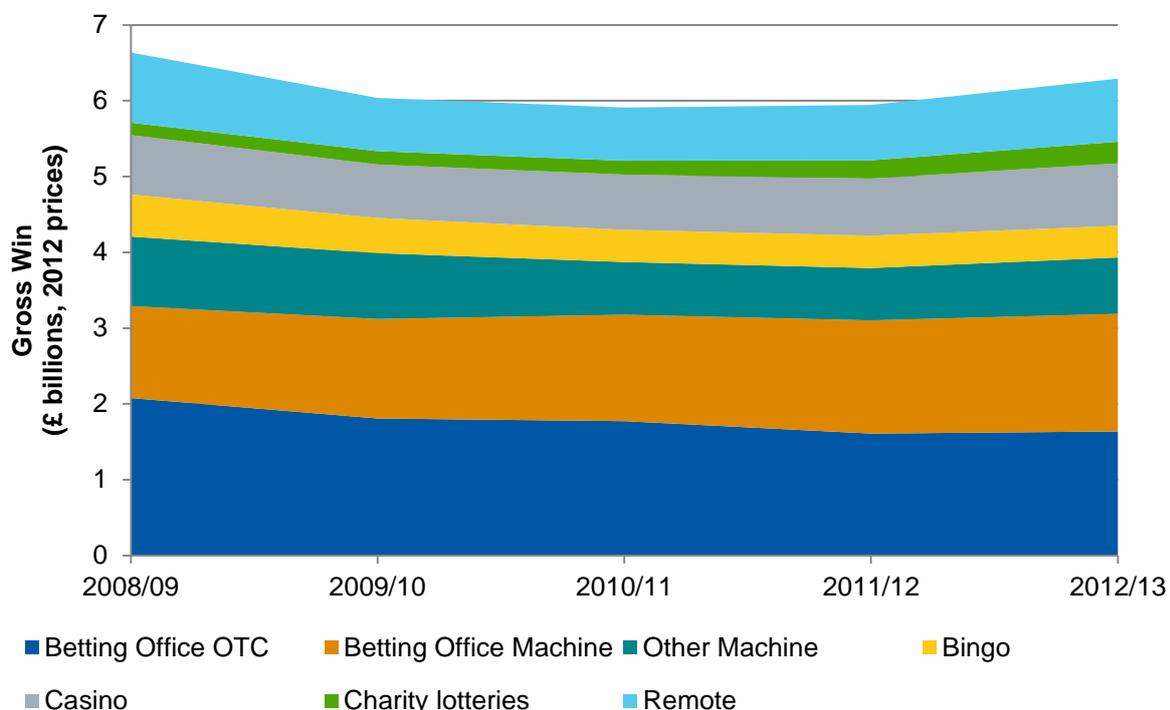


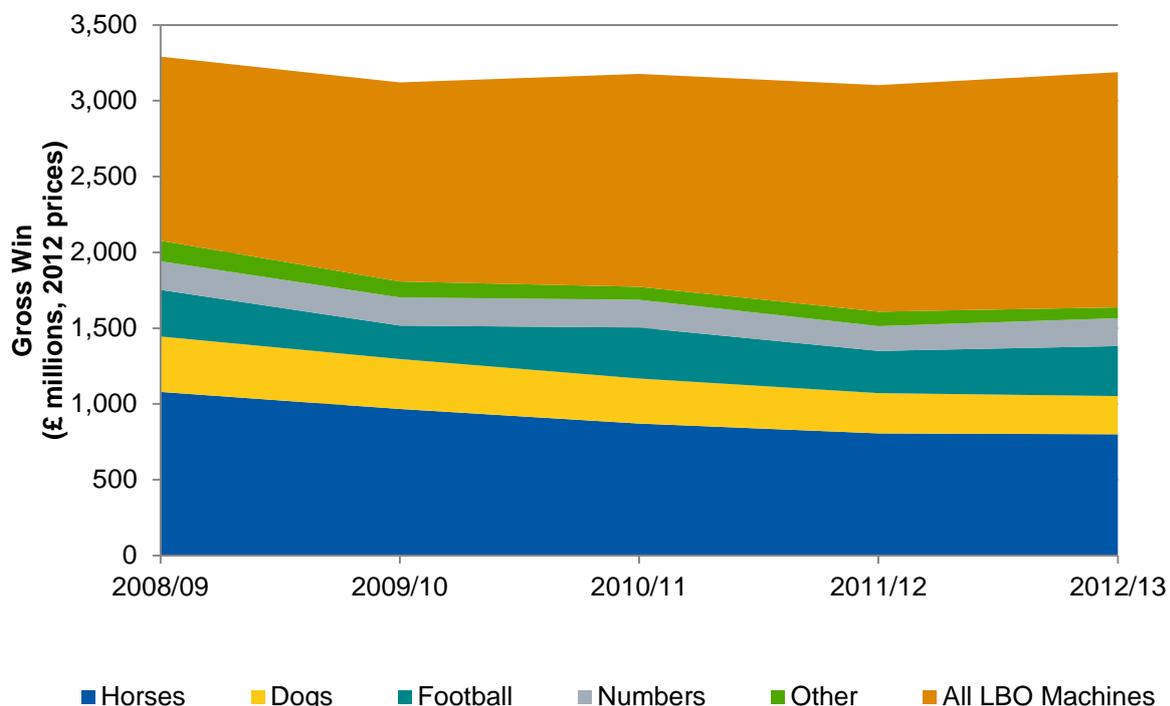
Figure 2.7 shows the detailed data for (real) gross yields specifically for LBOs. Real OTC gross yields fell by more than 20 per cent in the five years shown in the chart. There was a small real increase (around 7 per cent) in yields from football betting.⁸ Apart from this, the yields from all other categories of OTC betting fell in real terms.

In contrast, yields from gaming machines in LBOs increased by nearly 28 per cent in real terms. As a result, total yields from LBOs have remained relatively constant in real terms between 2008/09 and 2012/13,⁹ and gaming machines now contribute around half of LBOs’ total gross yield.

⁸ Note, however, that football betting varies significantly from year to year, depending on the timing and local interest in World Cup and European Championship competitions.

⁹ Over the period as a whole, total gross yields fell by only 3.1 per cent (in real terms).

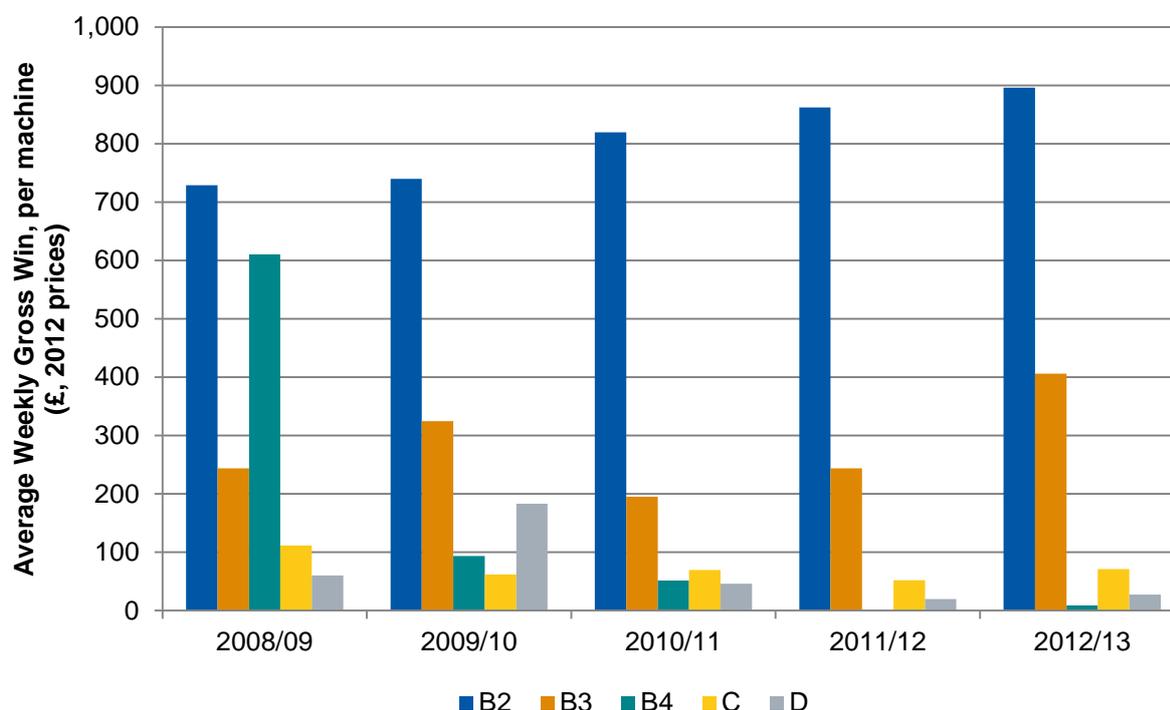
Figure 2.7
Real Gross Gambling Yields in LBOs



Source: Gambling Commission

B2 machines account for the vast majority of income from machines in LBOs. In 2012/13, the average number of B2 machines in LBOs was more than 33,200, while there were fewer than 200 machines belonging to other categories (with B3 being the most common). As shown in Figure 2.8, the average yield from each B2 machine in a LBO increased to almost £900 in 2012/13, compared with just over £400 for each B3 machine and very much less for other types of gaming machine.

Figure 2.8
Average Weekly Yield from Machines in LBOs



Source: Gambling Commission

2.2. Concerns About FOBTs

Concerns about the links between FOBTs (and B2 machines in particular) and problem gambling have been widely reported in national media. Some reports have also linked FOBTs with organised crime.¹⁰ But some of the available evidence is anecdotal, and where more systematic evidence exists, it often relates to FOBTs in general, rather than identifying specific features of FOBTs (such as stakes, prize levels, payout rates, easy accessibility, encouragement of repeat play, or particular features of game designs) that can be singled out as increasing the risk of problem gambling.

The evidence of a general link between FOBTs and problem gambling is strong. GamCare's latest statistical report shows that FOBT/Roulette Machines were cited more frequently than any other gambling activity by callers to its services. 39 per cent of HelpLine callers and 25 per cent of NetLine callers in 2012/13 referred FOBT/Roulette Machines (up from respectively 34 per cent and 23 per cent in 2011/12). This category was also particularly prominent among callers in the 16-17, 18-25 and 26-35 age groups, and among males rather than females.¹¹

¹⁰ *The Guardian* among others has recently reported on the use of FOBTs for money laundering – see “Why bookies are safe bet for money launderers”, 9 December 2013, page 1.

¹¹ See pages 10-12 of Gamcare Statistics 2012/13.

The Government response to the DCMS consultation summarises the arguments put forward by those concerned about the link between B2 machines and problem gambling. Faith and community groups, for example, argued that particular characteristics of B2 machines (such as encouraging the chasing of losses, due to the availability of multiple lines of play and the use of near wins) are likely to increase risks to players. And the Salvation Army's response argued that there is now "sufficient proof" that problem gambling caused by FOBTs is a major issue. The Salvation Army referred to evidence including:

- research showing that FOBTs are the third largest source of problem gambling (among those who have gambled in the past year), and that more than 13 per cent of those who play FOBTs monthly are problem gamblers;
- a significant increase between 2007 and 2010 in the number of FOBT users who have a gambling problem; and
- a report that nearly half of the patients at the NHS National Problem Gambling Clinic reported FOBTs as "particularly problematic".

Similarly, the response from Professor Jim Orford of Gambling Watch UK stated that "There is now sufficient evidence to suggest that B2 machines in their present form and location may be particularly harmful". He argued, among other things, that:

- B2 machines combine a number of features (including high stakes and allowing for, indeed encouraging, continued play) that would lead us to expect them to be particularly dangerous;
- the 2010 British Gambling Prevalence Survey showed that a high percentage of B2 players have gambling problems; and
- people who have developed addictions to B2 machines, and their families, are increasingly making themselves known to treatment agencies and through other channels.

Other charity responses argued that a disproportionately high percentage of people contacting them have experienced problems with B2 machines, that the possibility of winning a lot of money very quickly fed the illusion that B2 machines could offer a quick solution to financial problems, or that problem gambling symptoms among B2 players were higher than for sports betting or horse racing.

3. Questions Raised By The ABB's Impact Assessment

Key Findings

- *The Association of British Bookmakers (ABB) impact assessment significantly overstates the likely economic impact of reducing the maximum stake for B2 machines to £2.*
- *The ABB assumed a very large reduction in the gross profits from B2 machines. But it has not provided evidence to justify this assumption, and there are reasons to expect a smaller reduction in practice.*
- *It also ignored the strong likelihood that some of the money no longer spent on B2 machines would switch to over-the-counter betting (and therefore remain in the betting shop).*
- *The way the ABB has presented its results – simply identifying a large number of shops (and jobs) as being “at risk” – is seriously flawed. It does not indicate that a shop is likely to close in practice, and almost one-third of betting shops already fall within the ABB’s very wide definition of “at risk”.*
- *Where betting shops do close, a high proportion of revenues will often transfer to neighbouring betting shops, thus limiting the overall impact on the betting industry.*
- *And the overall impact on UK jobs could well be positive, as spending is likely to switch to industries with more employees per £1 of output than the betting industry.*

3.1. The ABB's Assumed Impact Of Lower Maximum Stakes

Section 12 of the ABB's submission has the title “Regulatory Impact Assessment” and includes some quantitative estimates of the impact of a hypothetical reduction in the maximum B2 stake from £100 to £2. It draws on analysis carried out for the ABB by RS Business Solutions, and concludes among other things that such a reduction in maximum stakes would place around 7,900 LBOs and 39,000 jobs “at risk”, and that tax revenues of between £650 million and £680 million would also be at risk.

We have reported these findings in approximate terms, as there are inconsistencies within the ABB's submission. The text of section 12 reports that 7,880 LBOs (91.7 per cent of shops) and 39,301 jobs (85.8 per cent of jobs) would be at risk, whereas the accompanying Table 1 seems to show 7,997 LBOs and 40,025 jobs as being at risk. Similarly, the text of the ABB's submission states that tax revenues of £652.9 million would be at risk, whereas Tables 1 and 2 in the same document show tax revenues at risk of £680.8 million.¹²

¹² In the case of tax revenues, it is not clear what is being measured by the impact assessment and the tax revenues identified as “at risk”. Table 2 of Section 12 appears to report reductions of £262 million in “Machine Tax/MGD” and £155.8 million in corporation tax. However, the £680.8 million “at risk” appears to relate to additional losses (mainly VAT and Machine Tax/MGD) presumably associated with the possible closure of at risk LBOs.

The ABB's submission provides little information on the specific assumptions that were used to generate these estimates, the reasons for adopting these assumptions, or any evidence that might help to justify them. As noted above, some of the information provided in the ABB's impact assessment is contradictory. However, it appears that four key inputs to the ABB's impact assessment were:

- an estimate that the reduction in the maximum stake for B2 machines would lead to a 68.6 per cent reduction in machine gross win;
- an assumption that this loss of machine gross win would lead to an identical reduction in total LBO gross win – so there would not be any offsetting increase in spending on other LBO products;
- an approach that simply defines shops (and therefore jobs and tax revenues) as being “at risk” if they earn profits of less than £20,000 per year, even though a significant proportion of LBOs already fall within this category. The total number of shops “at risk” is not a meaningful indicator of the number of closures that might occur in practice; and
- estimates of the number of jobs and the amount of tax revenue “at risk” that ignore the benefits to other parts of the economy if money no longer gambled on B2 machines is spent on other goods and services.

In the following sections, we examine the evidence in each of these areas, examine the plausibility of the assumptions adopted by RS Business Solutions/ABB, and suggest alternative assumptions that might be more realistic. Section 4 then brings this analysis together to describe the overall impact of adopting different and more plausible assumptions about the effect of reducing the maximum stake on B2 machines.

3.2. Will FOBT Yields Fall By As Much As The ABB Expects?

The ABB's submission states that the reduction in maximum stakes “is estimated to cause a 68.6% drop in machine gross win”. The submission gives very few details of how this estimate is generated, other than a short statement that those that play at £2 or below are not affected, while “those that usually play across the range of stakes up to the maximum become less and less interested in a £2 maximum stake”.

Some reduction in machine gross win is indeed likely if there is a significant reduction in the maximum stake for B2 machines. Despite the implications for bookmakers, some of this reduction will be beneficial, for example if it represents lower amounts spent by problem gamblers and gambling related to organised crime. But the ABB submission does not provide any evidence to justify its assumption that the impact will be as large as 68.6 per cent. As discussed in Section 3.3, moreover, some of the reduced spending is likely to switch to OTC betting.

A reduction in the maximum stake to £2 would effectively abolish the B2 category. B3 games already have a maximum stake of £2, and have the same maximum prize (£500) as B2 games. In addition, the B3 category enjoys some advantages over B2, for example being able to offer more frequent spins. Our working assumption, therefore, is that the reduction in the maximum stake would be implemented by allowing LBOs to operate B3 games, but not B2 games.

There are a number of reasons why B3 games in LBOs might still be very attractive to players:

- there would be no change in the maximum prize limit, which would remain at £500;
- offsetting the disadvantages of the lower maximum stake per spin, players would be able to play at a faster rate;
- to the extent that current players simply “empty their pockets”, the main impact of a switch from B2 to B3 games might be to extend the time that it takes for players to lose the same amount of money;
- the yield from B3 games in LBOs has grown faster than the yield from B2 games in recent years;¹³ and
- in response to a reduced maximum stake, there might be opportunities to redesign some games to ensure that they remain attractive to players, notwithstanding the lower maximum stake per spin.

As shown in Section 2.1, the small number of B3 machines in LBOs generates an average gross yield per machine of around £406 per week. Even this figure is higher than the amount implied by the ABB's assumed reduction of 68.6 per cent. And because it relates to the current period, when B2 machines are also available in LBOs, it almost certainly underestimates the yield that B3 machines would generate in the absence of B2s.

Another possible point of reference is the amount generated by B3 machines in other locations. Confidential information supplied to NERA shows that B3 machines in a national network of adult gaming centres (AGCs) generate gross yields of over £800 per week in some geographical regions, and almost £525 per week across the UK as a whole. In favourable LBO locations, and in the absence of competition from B2 games, we might expect B3 games to perform as well if not better than this, in which case the reduction in yields could be very much lower than that assumed in the ABB's impact assessment.

Academic studies of gambling behaviour or reports on the impact of possible policy changes give little information about the size of reduction in betting stakes (and yields) that might be expected as a result of lower maximum stakes. In part this reflects the lack of machines with similarly high stakes elsewhere in the world. Indeed, the most relevant academic and policy-related studies are from Australia, where a reduction in maximum stakes from \$10 to \$1 has been considered by some states, and also recommended in a 2010 report by the Productivity Commission (the Australian Government's independent research and advisory body).¹⁴ Some relevant quantitative findings are summarised in Box 3.1.

¹³ Specifically, between 2010 and 2012 the estimated gross gambling yield from B2 and B3 categories in LBOs grew by 9 per cent and 47 per cent respectively (see letter from Rebekah Eden (Gambling Commission) to Alison Pritchard (DCMS), 2 August 2013).

¹⁴ Productivity Commission, *Gambling*, Report No 50, 2010.

Box 3.1

Projected Revenue Losses from Australian Studies¹⁵

The main example where broadly similar policies have been considered is in Australia. The Centre for International Economics (CIE) carried out a study in 2001 to examine a proposal to lower the maximum bet limit on electronic gaming machines in New South Wales from \$10 to \$1. It concluded that revenue losses of around 39 per cent for pubs and 17 per cent for clubs would result.

A more recent report by a Select Committee investigating a proposed \$1 limit for Tasmania cited some reservations about the CIE findings (for example, the revenue estimates do not take possible changes in gambling behaviour into account). It considered some of the possible ways that players might respond, ranging from ceasing play altogether through to simply playing for a longer period of time. It concluded that

- possible player responses could reduce gaming expenditure by between 12 and 39 per cent;
- but it considered that the most feasible outcome would be a reduction of 10 per cent in clubs, and 20 per cent in pubs.

Overall, therefore, the ABB submission does not give any evidence to justify the assumption that the machines gross win would fall by 68.6 per cent in response to a £2 maximum stake for B2 machines. There are several reasons to expect the actual impact to be less than this, including the current level of proceeds from B3 machines in AGCs and in LBOs, notwithstanding the competition that they face at present from B2 machines; the possibility that some players will simply play for longer but eventually lose the same amount of money as at present; and the conclusions from Australian studies.

We conclude that the ABB's assessment overstates the likely reduction in gross yield from B2 machines. For the illustrative impact estimates provided later in this report, therefore, we adopt a "high impact" scenario in which the gross yield from FOBTs falls by 40 per cent, and a "medium impact" scenario in which the gross yield falls by 20 per cent.

3.3. Will Some Spending Transfer To Other LBO Products?

The ABB's impact assessment does not allow for any increase in spending on other LBO products following its assumed reduction in spending on FOBTs. The only explanation provided is that "This assumes any substitution within the LBO will be negated by customers

¹⁵ See Parliament of Tasmania - House of Assembly Select Committee on the Gaming Control Amendment Bill 2010 (\$1 Bet Limit), 2012. In addition to the Committee's preferred scenario, it also examined a "high impact" scenario involving revenue reductions of 15 per cent in clubs and 30 per cent in pubs. Another widely quoted study is Blaszczyński A, Sharpe L and Walker M, "The Assessment of the Impact of the Reconfiguration on Electronic Gaming Machines as Harm Minimisation Strategies for Problem Gambling", University of Sydney Gambling Research Unit, 2001. This found that gamblers using machines with a \$1 limit bet less (and played for less time) than those using machine with a \$10 limit. But interpretation of the findings is difficult as participants in the study could move between different machines, and therefore those finding themselves constrained by the \$1 limit could switch to another machine with a \$10 limit.

who will no longer visit LBOs".¹⁶ The ABB does not provide any evidence to justify this assumption. It simply asserts that any substitution to other LBO products will be offset by the impact of reduced footfall.

The argument that reduced footfall will affect OTC betting requires there to be a significant number of customers who visit betting shops mainly to play B2 machines, and who also place some OTC bets during these visits, but who would not visit LBOs (and therefore not place OTC bets) if the maximum stake on B2 machines was reduced.

While there might be some players who fall into this category, it seems much more likely that the opposite will apply – that many players will visit LBOs mainly to place OTC bets, they will also play B2 machines during the course of that visit (for example, after placing their bet, or when waiting for a race), but they would still visit the betting shop and place OTC bets even without B2 machines.

Qualitatively, therefore, there are reasons to believe that, if the maximum stake on B2 machines were reduced, the positive impact of players switching expenditure from FOBTs to other LBO products would outweigh the negative impact of reduced footfall and any associated reduction in OTC betting. In summary:

- switching to other LBO products is likely if there are players who visit LBOs mainly to place OTC bets, but then play B2 machines during these visits. Reasons to think that many players will fall into this category include
 - the nature of LBOs, which are traditionally shops that players visit in order to place OTC bets,
 - the one-off nature of OTC betting, which means that players usually bet a fixed sum of money and there is a delay (sometimes hours or days) before the outcome is known. As OTC betting does not encourage rapid repeat spending, players could well have money left over after placing their bets, and may then decide to play B2 machines, either before they leave the shop or while waiting for the result of an OTC bet, and
 - the fact that B2 machines are easy to play, and do not require any specific expertise or knowledge;
- in contrast, reduced footfall might affect OTC betting if there are players who visit LBOs mainly to play B2 machines, but then place OTC bets (which they would not otherwise have placed) during these visits. Reasons to doubt that many players will fall into this category include
 - the nature of B2 machines, which offer an instant outcome and encourage immediate repeat play. Many players who visit LBOs primarily to play B2 machines may be likely to spend all of their available money on machines, and have little or no money left over to spend on additional OTC bets, and

¹⁶ ABB Submission, page 49.

- B2 machine players may be unlikely to place OTC bets on the spur of the moment, given the specialist knowledge required to evaluate the odds offered on various OTC bets and to decide which they believe gives the best chance of a win.

While it might be difficult to address questions of causation, the long term data set out in Section 2 also appear consistent with the presence of some switching of expenditure from OTC betting to FOBTs at LBOs, and do not show any clear sign of a boost to OTC betting due to the increased footfall generated by FOBTs:

- Figure 2.1 in Section 2.1 shows that real betting stakes fell slightly during the 1990s, at a rate of around 0.8 per cent a year. But this was also a period when the number of LBOs was also falling, and therefore the average real stakes per LBO actually rose slightly during this period;
- in contrast, since the introduction of FOBTs, real betting stakes have fallen at a much faster rate than during the 1990s. Data from Ladbrokes in Figure 2.4 (which appears to track industry-wide data reasonably well) show that real OTC betting yields fell by around 3.7 per cent a year, even though the total number of Ladbroke LBOs (and indeed industry-wide LBOs) was increasing. At the same time, yields from machines rose from zero to a level that now exceeds the yield from OTC betting, and as a result Ladbrokes' total LBO yields grew at a healthy rate of 3.3 per cent a year in real terms; and
- this pattern is confirmed by the industry-wide data published by the Gambling Commission for the period since 2008. Figure 2.6 and Figure 2.7 show that while gross machine yields continued to grow, OTC betting yields fell by an average of nearly 6 per cent a year, in real terms.

These observations are consistent, at least, with the proposition that some of the money spent on FOBTs has been switched away from OTC betting. If a reduction in maximum stakes leads to lower levels of spend on B2 machines (though see Section 3.2 for reasons why any reduction may well be less than that assumed by the ABB), some of this money is likely to remain in the LBO and be spent instead on OTC betting.

In contrast, there is no sign of OTC betting having been boosted by the additional footfall to LBOs following the introduction of FOBTs. If the maximum stake for B2 machines is reduced, therefore, it seems highly unlikely that the positive effect of spending switching from B2 machines to OTC betting will be outweighed by any negative effect of reduced footfall.

We conclude that, contrary to the ABB's assumption, some of the money no longer spent on B2 machines is likely to switch to OTC betting. For the illustrative impact estimates provided later in this report, we assume that 35 per cent of any reduction in spending on FOBTs would be spent, instead, on OTC betting.¹⁷

¹⁷ This is a conservative assumption, derived by supposing that in the absence of B2 machines, the trend in total betting observed in the 1990s would have continued. The difference in yields between this counterfactual and the actual level of Ladbrokes' OTC betting in 2012/13 – which provides a possible estimate of the spending that has switched from OTC betting to FOBTs – is equivalent to 35 per cent of its gross yield from machines. One reason why this assumption

Not only will such switching help to mitigate the overall economic impact on LBOs, it may also lead to an increase in employment in some LBOs, as spending on OTC betting requires more interaction with LBO staff than spending on B2 machines.

3.4. How Many LBOs Are Really “At Risk”?

The headline conclusion from the ABB’s impact assessment is that around 7,900 LBOs and 39,000 jobs would be “at risk” following a reduction in the maximum stake for B2 machines to £2. Clearly, this represents a very high proportion of the current betting industry. However, there are a number of important reasons why this conclusion is virtually meaningless:

- simply identifying a shop as being “at risk” does not mean that it would be likely to close. A meaningful impact assessment should estimate the number of changes (such as shop closures or job losses) that will actually occur, rather than simply identify a wider population that could potentially be affected (but most probably will not be);¹⁸
- the definition of “at risk” adopted by the ABB is far too wide, to the extent that almost one-third of shops would already fall into this category; and
- the ABB’s analysis ignores the likelihood that, if some LBOs do close, then much of the revenue from these shops would be likely to transfer to other nearby LBOs.

In addition to the imprecise nature of the concept of “at risk” shops, the ABB’s results reflect the high level of profits it assumes are necessary for a shop to be considered to be not at risk. It has defined a shop as being at risk if it earns profits of less than £20,000 per year.¹⁹ This is despite the fact that, as the ABB’s own submission points out, in 2011 there were already 2,685 LBOs that earned profits of less than £19,500.²⁰ And a significant number of these shops were earning very much lower profits:

- almost 20 per cent of the Big Five’s shops (i.e. almost 1,473 shops) were making profits of less than £13,300 a year; and
- single shop operators earned average profits of only £4,800 a year. As this is an average, many of the 230 shops in this category would be earning profits even lower than this.

Given the ABB’s estimate of 8,722 LBOs in 2011, this means that almost one-third of all shops fell into the ABB’s definition of “at risk”. And a great many of these were making very substantially less than the minimum profit hurdle assumed by the ABB. Despite this apparently very precarious situation, Gambling Commission data show that the number of licensed premises actually increased between March 2011 and March 2012.

is conservative is that the comparison just described does not make any allowance for the fact that the number of betting shops was falling during the 1990s, whereas it increased during the 2000s.

¹⁸ As discussed in Section 3.5, moreover, any jobs that are lost as a result of shop closures may be replaced by jobs elsewhere in the economy.

¹⁹ ABB Submission, page 49.

²⁰ ABB Submission, page 46.

In Section 4 we describe some illustrative simple calculations of how different types of LBO might be affected, and a possible indication of how many might close. In order to generate these estimates, rather than simply considering whether or not a shop is “at risk”, we need to consider the events that might lead to a shop closing in practice. Unlike the ABB’s advisors, we do not have access to detailed data on the costs and revenues of individual shops, so we have adopted generic assumptions about the minimum profit levels necessary for different sizes of shop to remain open. But these are purely hypothetical assumptions that feed into some illustrative calculations, and in practice such decisions would depend on wide range of factors, for example:

- even though a particular shop may be making very low or even negative operating profits, it may be rational to carry on trading in some circumstances. For example, there may be some costs (such as fixed term contracts for certain services) that would still be payable even if the shop closed down, meaning that remaining open is still the most profitable option. Or the operator may have genuine reasons for expecting profits to improve in the near future; and
- there may be strategic or network-related reasons for retaining a shop, even if formally it appears to be generating little or no profits. For small chains or single shops, moreover, the decision may determine whether or not the company has a viable future, rather than simply whether a particular shop is generating sufficient profit.

We conclude that the ABB’s definition of “at risk” shops is far too wide to indicate a realistic risk of closure. For the illustrative impact estimates provided later in this report, we assume that small, standard and large LBOs would close if they earned profits of less than £5,000, £7,500 or £10,000 a year. Rather than an important standalone assumption, however, this simply forms part of the overall calibration of our model, as described in Appendix A.

Even these assumed thresholds may be overestimates of the minimum level of profits necessary for a LBO to remain in operation. As already noted, almost 1,473 shops operated by the Big Five earned profits of less than £13,300 in 2011, and the average profit for single shop operators was less than £5,000.

Another important determinant of the likely number of shop closures, and a factor that is not reflected at all in the ABB’s identification of “at risk” shops, is the likelihood that following the closure of one shop, a high proportion of its business will move to other LBOs if there are any located nearby. There are several reasons to expect that a relatively high proportion of revenues from LBOs that close would simply transfer to other LBOs in this way:

- the most vulnerable shops will include those that have opened in recent years mainly to provide additional FOBTs (which are limited to four machines per shop) in areas that are already well-served by LBOs. Clearly, these will be cases where players can easily transfer their business to other LBOs in the same area;
- with the increasing presence of LBOs on high streets and other retail/commercial centres, rather than secondary locations, it is more likely that shops will now be situated in close proximity to other LBOs;
- the “clustering” of LBOs has been well documented in recent media reports, as indeed have cases where individual bookmakers have opened new shops close to their own existing shops;

- more generally, the ABB's submission confirms that LBOs are focused on areas of high population. NERA also carried out its own analysis of the location of LBOs,²¹ which found that 77 per cent of LBOs are situated in a postcode sectors (defined by the first half of the postcode plus the first digit of the second half) where there is at least one other LBO.

We conclude that the number of shop closures in practice will also be mitigated by switching of revenues from closed shops to neighbouring LBOs. For the illustrative impact estimates provided later in this report, we assume that following a shop closure, an average of 75 per cent of its business is transferred to other LBOs, and the remaining 25 per cent is lost to the industry.

As described in Section 4, these alternative assumptions lead to a very much lower estimate of the actual impact of introducing a £2 maximum stake, as compared with the ABB's estimate of the number of shops, jobs and taxes "at risk". But this should not be surprising. A viable off-course betting business existed before the introduction of FOBTs, with more than 8700 shops.²² Even if FOBTs were to disappear overnight, the ABB submission gives no reason to believe that the industry could not once again focus on its core business of off-course betting, and continue to operate with a number of LBOs not very different from that which existed 10-15 years ago.²³

3.5. What Are The Overall Impacts On Taxes And Employment?

The ABB's statement that 39,000 jobs and tax revenues of between £650 million and £680 million would be "at risk" is a significant overstatement. Although some LBOs may close, and some jobs may be lost as a result of this, the plausible magnitude of any job losses is very much lower than 39,000. As discussed in Section 3.4, a key reason for this is the likelihood that, following the closure of some LBOs, a high proportion of their former business would transfer to other LBOs. Thus the reduction in the number of shops might be self-limiting. In addition, the ABB's wide definition of shops "at risk", and its likely overestimate of the revenue losses for individual LBOs (see Sections 3.2 and 3.3), both contribute to the overstatement of the potential impact on jobs and tax revenues.

A further significant shortcoming in the ABB's impact assessment is that it does not take account of the jobs and tax revenues generated if the money no longer gambled on FOBTs is spent, instead, in other sectors of the economy. Even if some jobs are lost in the betting industry, they may be replaced by jobs in other parts of the economy. Similarly, while the tax revenues associated with both LBO gambling and LBO employees may be reduced, there may be corresponding increases in VAT, other excise duties and income tax receipts elsewhere.

²¹ The list of LBOs was taken from the Gambling Commission response to Freedom of Information request, dated 4 January 2013.

²² DCMS data show that there were 8732 licences in force in 2000. See Table 4 of *DCMS Statistical Bulletin: Betting Licensing Great Britain, June 2002 - May 2003*.

²³ There might be slightly fewer LBOs than before, as the number of shops had been falling gradually over time. However, changes to the licensing framework (including the removal of the previous demand test) could help to increase the number of viable shops.

An important question, therefore, is what would happen to the money that is no longer spent on FOBTs. As discussed in Section 3.3, some spending might switch to OTC betting in LBOs. And though we do not include this in our quantitative analysis in Section 4, the data shown in Figure 2.3 above could be consistent with a modest reduction in casino drop (as well as OTC betting) following the introduction of FOBTs in LBOs, and so some spending might switch to casinos as well. Despite this, at least some of the money freed up by reduced spending on FOBTs is likely to be spent in other sectors of the economy.

The overall impact on UK employment will be positive if spending switches to industries that generate more jobs per £1 of spending than the betting industry. For the illustrative impact estimates provided later in this report, we assume that money that is no longer spent in LBOs is spent instead on retail, food and drink, entertainment, and sport and recreation activities.²⁴

There is some evidence to suggest that if money no longer spent in LBOs is spent instead in other sectors of the economy, this could lead to a net increase in employment. This is based on the overall relationship between output and employment in different sectors of the economy. While we have not carried out a detailed analysis of specific likely impacts (which would need to consider, among other things, marginal rather than average relationships between changes in output and changes in employment), evidence on the average “employment intensity” of different parts of the economy does provide some indication that the overall impact on employment could be positive.

Gambling Commission data show that, over the last five years, the average number of betting industry employees per £1 million of (real) gross gambling yield was 17.55. This can be compared with Table 3.1, which shows the average number of employees per £1 million of output for the four industries that we assume will benefit from any reduction in gambling expenditure. Three of the industries have an employment intensity higher than the figure we calculated for LBOs, and the weighted average across all four industries is almost 30 per cent higher than that figure. This suggests that a reduction in betting at LBOs, and a corresponding increase in expenditure in the four industries shown in Table 3.1, could well lead to an increase in total UK employment.²⁵

²⁴ Formally, the product categories are defined as “retail trade services, except motor vehicles and motorcycles”, “food and beverage serving services”, “creative, arts and entertainment services” and “sports services and amusement and recreation services”. We have assumed that any diverted spending is distributed between these categories in proportion to the total output of each.

²⁵ An April 2013 report by Landman Economics, *The Economic Impact of Fixed Odds Betting Terminals*, also found that spending on FOBTs supports fewer jobs than spending on average consumer expenditure in the UK.

Table 3.1
Employment Intensity of Relevant Industries

Activity	Employees per £1m of output
Retail trade services, except motor vehicles and motorcycles	21.55
Food and beverage serving services	24.31
Creative, arts and entertainment services	10.91
Sports services and amusement and recreation services	31.62
Weighted average	22.63

Source: NERA calculations, from Office of National Statistics data

In addition to any increase in overall employment, there could be further potential impacts for the UK economy, or for particular regions, depending of factors such as:

- whether, for each £1 spent, firms in other industries are more likely than bookmakers to spend some of this money on goods and services from other UK suppliers and, if so, how many additional jobs this might create; and
- for each additional job created, how much of their increased income will each worker spend on goods and services produced in the UK.

We have not attempted to estimate these additional impacts (which are often referred to as “indirect” and “induced” effects in economic impact studies). But it seems likely that £1 spent in retail or food and drink outlets, in particular, will lead to more intermediate demand for UK-produced goods and services than £1 spent in a betting shop.

In a similar way, the change in total UK tax revenues will depend on the nature of the additional spending generated in other parts of the UK economy. In this case, there are a number of offsetting factors that could lead to the overall change in tax revenues being either positive or negative:

- there will be a loss of Machine Games Duty (MGD), at a rate of 20 per cent,²⁶ associated with any reduction in FOBT gross yields;
- any spending that is diverted to OTC betting will attract General Betting Duty at a slightly lower rate of 15 per cent of gross profits;
- if spending is switched to goods and services that are subject to standard rate VAT, then the loss of MGD should be offset by a similar increase in VAT receipts. But this will not occur if some spending is switched to goods and services that are exempt from VAT;
- if spending is switched to products (such as alcohol, tobacco or fuel) that are subject to additional excise duties, then this might generate a net increase in tax receipts; and

²⁶ The 2014 Budget included an announcement that a new rate of 25 per cent will be introduced from March 2015 for gaming machines where the charge payable for playing can exceed £5.

- income tax and national insurance payments may also increase, as a result of either (a) any increase in total UK employment, or (b) any difference in the average earnings between the jobs lost in the betting industry and the jobs created in other parts of the economy.²⁷

We have not attempted to model the net effect of these different impacts. However, we believe the overall change in total UK tax revenues, whether positive or negative,²⁸ is likely to be relatively small, and certainly nowhere near as large as the £650 million to £680 million implied by the ABB's impact assessment.

3.6. Wider Impacts

While this report is focused on the direct economic impacts on the betting industry and UK employment, it is important to note that reducing problem gambling will itself generate economic benefits in the form of cost savings, as well as a substantial reduction in social costs. These cost savings will include:²⁹

- reductions in health and social care costs, reflecting the reduced need for treatment and support services for problem gamblers (either direct treatment for gambling addiction, or treatment and support services for related problems such as mental health, homelessness, etc.);
- cost savings for the police and justice systems as a result of reduced crime – this reflects reductions in both criminal activities associated with B2 machines (such as money laundering, violence, etc.) and criminal acts committed by problem gamblers to support their addiction (such as theft and fraud);
- benefits to businesses from increased productivity, as a result of workers' improved mental wellbeing and reduced sick leave; and
- reduced administration costs as a result of fewer bankruptcies, family separations and other disruption caused by indebtedness.

In addition to the benefits from reduced problem gambling, if spending switches from gaming machines to OTC betting, this will also increase the amount available to horse racing through the Horserace Betting Levy. Even including voluntary contributions, the amount collected in

²⁷ Analysis of Office for National Statistics data suggests that average earnings in the industries likely to benefit from increased spending are higher than those for LBO employees.

²⁸ We note that Landman Economics' April 2013 report (op cit) concluded that an expansion in FOBTs would reduce total tax revenues. This is equivalent to a conclusion that a lower maximum stake for B2 machines, and the resulting reduction in gross machine win and increase in spending elsewhere, would have a positive net effect on total tax revenues.

²⁹ One possible point of reference is a 2012 study of the cost of problem gambling in the Australian State of Victoria (population less than 6 million). This estimated that the health and social care costs were between \$6 million and \$79 million a year; the government policy, regulatory, research, education and treatment services costs were \$42 million a year; the cost of lost productivity at work was between \$6 and \$39 million a year; and the justice system costs were \$26 million a year. See Victorian Competition and Efficiency Commission, "Counting the Cost: Inquiry into the Costs of Problem Gambling", December 2012.

recent years has been around £75 million (or less in some years), which is lower than the £100 million plus collected each year between 2003/4 and 2007/8.³⁰

³⁰ Source: 50th Horserace Betting Levy Scheme: Submission of British Horseracing, March 2010.

4. Alternative Impact Estimates: Illustrative Calculations

Key Findings

- *We have carried out our own illustrative calculations, based on more realistic assumptions about the reduction in the gross yield from FOBTs and what players will spend this money on instead, and taking account of the likely switch of spending to other LBOs in cases where shops do close.*
- *We have modelled the costs and revenues of different sizes of betting shop, based on a range of publicly available information, to investigate the impact of these alternative assumptions.*
- *Our illustrative calculations suggest that the number of shop closures could be between 700 and 1200, which would leave the industry with just 5 to 10 per cent fewer shops than there were in 2000, before the introduction of B2 machines.*
- *While this would lead to some job losses in the betting industry, these could be more than offset by additional jobs created elsewhere in the economy, leading to a net increase of between 1,200 and 2,400 jobs.*
- *The likely impact on the betting industry is therefore very substantially smaller than that suggested by the ABB's submission.*

4.1. Methodology

In Section 3 we identify a number of different reasons why the ABB's "impact assessment" significantly overstates the likely impact on LBOs, jobs and tax revenues of reducing the maximum stake for B2 machines to £2. These include a likely overstatement of the reduction in machine gross win, the likelihood that some of this reduced spending would switch to OTC betting, and an approach that simply defines an unjustifiably large number of shops and jobs as being "at risk" (rather than considering actual shop closures and whether business would transfer to other LBOs). In addition to overstating the likely impact on the betting industry, the ABB's assessment fails to reflect the likely benefits if spending switches away from gambling to other parts of the UK economy.

To provide a more realistic view of the likely impact on LBOs, in Section 3 we also proposed some alternative assumptions:

- a reduction of either 40 or 20 per cent in the gross yield from FOBTs, reflecting respectively our "high impact" and "medium impact" scenarios;
- a conservative assumption that 35 per cent of any reduction in spending on FOBTs would be switched to OTC betting;
- minimum profit levels for small, standard and large LBOs of £5,000, £7,500 and £10,000 a year, with any shops falling below this level assumed to close; and
- following a shop closure, an average of 75 per cent of its business is assumed to transfer to other LBOs.

While it is straightforward to calculate the impact of the first two of these alternative assumptions on total industry yields, it is more difficult to assess the number of LBOs that might close as a result. Unlike the ABB's advisors, we do not have access to detailed data on LBOs' costs, revenues and profits. To provide some illustrative estimates of the likely impact on LBOs and jobs, therefore, we constructed a model to simulate the impact of these changes on different types of LBO, and to investigate the number of LBOs that would represent a viable size for the industry after applying the assumptions above.

To make this model as representative as possible we drew on a range of information sources, including information on LBO profits, revenues and costs from the ABB's submission and other bookmakers' consultation responses, the annual reports of major bookmaking chains, previous consultancy reports, data from the Valuation Office Agency, Gambling Commission statistical reports, official information about taxes and licence fees payable, publicly available information on typical salaries, and miscellaneous information published in newspapers and other media.

From this information, we modelled the revenues, costs and profits of 12 different types of LBO:

- three physical sizes – small, medium and large – corresponding to shops with between 40 and 120 square metres of retail space;
- for each size of shop, four turnover categories – low, medium-low, medium and high.

Further details of these categories, and a summary of the assumptions and sources used to generate estimates of costs and revenues, are provided in Appendix A. The distribution of shops between each category, and the specific revenue and cost assumptions used for each category, were calibrated so that the overall results of the model are broadly consistent with the available information on average revenues and costs across the industry as a whole, and with specific information about the proportion of shops earning different levels of profit.

This aim of this analysis was to provide a relatively realistic starting point, from which we could consider how different types of shop might be affected by changes in yields from FOBTs and from OTC betting, and then to investigate how the number of viable shops might be affected by a reduction in the maximum stake for B2 machines. The difference between the number of viable shops under different scenarios gives an indicative estimate of the number of shop closures that might be likely to occur in practice.

Table 4.1 summarises the estimated revenues, costs and profits for each type of LBO, and for the industry as a whole, before any change in the maximum stake for B2 machines. We then analysed the impact of either a 40 per cent or a 20 per cent reduction in the gross yield from FOBTs, also applying the other assumptions described above. To calculate a revised number of shops in each of these cases:

- first, we calculated the expected impact on the profitability of each category of LBO, to see whether certain categories of shop might be at risk of closure;
- then we carried out an iterative process, assuming that shops that fall below the minimum profit requirement will close, but also taking account of the likely redistribution of

revenues from those shops that do close (which will help to increase the profitability of the remaining shops).

Effectively, we use the model to estimate the number of shops that need to close, in order for those that remain to earn at least the minimum required level of profits.

4.2. Estimated Impact on LBOs

Table 4.2 and Table 4.3 show the estimated revenues, cost and profits for each type of betting shop following either a 40 per cent or a 20 per cent reduction in gross yields from FOBTs, and the number of shops in each category, after applying the methodology described above. Taking account of switching of expenditure first within the same shop (from machines to OTC betting) and then from any LBOs that close to nearby shops, we estimate that a 40 per cent or a 20 per cent reduction in gross machine yields could lead respectively to the closure of about 1200 or about 700 LBOs.

This would give a total number of LBOs either 10 per cent or 5 per cent lower than the number of shops licensed in 2000, shortly before the introduction of FOBTs. The closure of some shops means that the eventual fall in FOBT yields is slightly greater than 40 per cent or 20 per cent (since we assume that not all of the business from shops that close will transfer to other LBOs). After taking account of this, and the assumed switching of some spending to OTC betting, total LBO gross yields are either 15.5 per cent or 8.0 per cent lower than in the Base Case.

Not surprisingly, the estimated number of closures is very much lower than the number of LBOs that the ABB's submission identifies as being "at risk". And it may be likely that at least some of the shops that close will be those that were established mainly in order to increase the number of FOBTs in a certain area, rather than responding to underlying demand for the core OTC betting business.

The "high impact" and "medium impact" scenarios are intended to reflect the inherent uncertainty about how players will respond to a reduction in the maximum stake for B2 machines. Under the medium impact scenario, for example, a relatively high proportion of players might continue to maintain their current level of (net) spending. If the lower maximum stake reduces the amount that some players bet on each spin, then they might simply play for a longer period of time, until their average losses are similar to those that they incur at present.

Table 4.1: Base Case

Turnover level	Low			Medium-Low			Medium			High			Industry average	Industry total (£m)
	Small	Standard	Large	Small	Standard	Large	Small	Standard	Large	Small	Standard	Large		
Size of shop														
Number of shops	403	537	403	403	537	403	952	1269	952	952	1269	952		9031
Gross margin														
Over the counter	57	114	172	61	123	184	82	164	245	98	196	294	162	1,460
FOBTs	98	127	130	105	136	140	140	182	186	168	218	224	169	1,522
Costs														
Duties and licences	30	49	61	32	52	65	43	69	87	53	83	104	66	597
Staff	48	64	75	51	68	79	57	76	88	65	87	102	75	677
Rent and rates	22	46	86	22	46	86	22	46	86	22	46	86	51	459
Other	42	45	49	42	45	49	42	46	50	42	46	50	46	414
Depreciation/ amortisation	8	16	24	8	16	24	8	16	24	8	16	24	16	143
Profit	6	21	7	12	31	20	50	92	96	76	136	152	77	691

Table 4.2: Scenario 1 – 40% reduction in FOBT turnover

Turnover level	Low			Medium-Low			Medium			High			Industry average	Industry total (£m)
	Small	Standard	Large	Small	Standard	Large	Small	Standard	Large	Small	Standard	Large		
Size of shop														
Number of shops	0	537	0	403	537	43	952	1269	952	952	1269	952		7866
Gross margin														
Over the counter		149		93	159	220	118	206	288	139	244	343	207	1,628
FOBTs		84		71	90	92	92	117	120	109	139	142	113	892
Costs														
Duties and licences		47		33	50	63	43	65	83	50	77	98	65	511
Staff		64		51	68	79	57	76	88	65	87	102	76	599
Rent and rates		46		22	46	86	22	46	86	22	46	86	49	385
Other		46		42	46	49	42	46	50	42	47	51	46	363
Depreciation/ amortisation		16		8	16	24	8	16	24	8	16	24	15	122
Profit		14		8	22	10	39	74	77	60	110	124	69	542

Table 4.3: Scenario 2 – 20% reduction in FOBT turnover

Turnover level	Low			Medium-Low			Medium			High			Industry average	Industry total (£m)
	Small	Standard	Large	Small	Standard	Large	Small	Standard	Large	Small	Standard	Large		
Size of shop														
Number of shops	114	537	0	403	537	403	952	1269	952	952	1269	952		8339
Gross margin														
Over the counter	72	132		77	140	202	100	184	267	118	220	318	185	1,543
FOBTs	84	108		90	115	118	118	151	155	140	180	185	144	1,201
Costs														
Duties and licences	32	48		34	52	65	44	68	85	52	81	101	67	555
Staff	48	64		51	68	79	57	76	88	65	87	102	76	633
Rent and rates	22	46		22	46	86	22	46	86	22	46	86	50	418
Other	42	45		42	46	49	42	46	50	42	46	51	46	384
Depreciation/ amortisation	8	16		8	16	24	8	16	24	8	16	24	16	131
Profit	5	19		10	28	16	45	84	88	69	124	139	75	624

4.3. Estimated Impact on Total UK Employment

As discussed in Section 3.5, if money that is no longer gambled in LBOs is spent instead in other sectors of the UK economy, this could well lead to an increase in total UK employment, as the jobs lost in the betting industry could be more than offset by increases in employment elsewhere. Table 3.1 in that section shows that the weighted average employment intensity in a range of industries that might benefit from additional spending is 22.63 employees per £1 million of output, whereas our calculations from Gambling Commission data show an average of 17.55 employees per £1 million of gross gambling yield.

Applying these averages to the reductions in gross yields shown in Table 4.2 and Table 4.3 above, and assuming that there is an equivalent increase in spending in the retail, food and drink, entertainment, and sport and recreation industries, we find that there could be an increase in total UK employment.³¹ As shown in Table 4.4, the loss of jobs in the betting industry could be more than offset by additional jobs created in the rest of the economy, leading to a net increase of around 1,200 or 2,400 in UK employment.

Table 4.4
Overall Changes in Employment

	Scenario 1 (40% fall in gross machine win)	Scenario 2 (20% fall in gross machine win)
LBOs	- 8,259	- 4,255
Rest of the economy	+ 10,646	+ 5,485
Total	+ 2,387	+ 1,230

Source: NERA calculations, based on average employment intensity of different sectors of the UK economy

Rather than more than 39,000 jobs being at risk, as claimed by the ABB submission, the overall impact on UK employment could be a positive one.

We have not attempted to estimate the further indirect or induced effects that might result from additional purchases of UK-produced inputs by those firms in other industries that experience increased demand (because of the spending that is switched from LBOs), or from increased consumer spending because of the net increase in employment. These could further increase the net positive impact on total UK employment.

³¹ An alternative approach would be to estimate the potential number of job losses from the model described in Section 4.1. We have not done this, however, in order to apply a more consistent approach (i.e. using average employment per £1 million of output or gross yield) when making comparisons between the betting industry and other parts of the UK economy.

5. Conclusions

We have identified a number of important reasons why the “regulatory impact assessment” in Section 12 of the ABB’s submission significantly overstates the likely impact of a reduction in the maximum stake for B2 machines:

- no evidence is provided for the very large reduction in FOBT gross yields assumed by the ABB, and there are a number of reasons that suggest the impact in practice could be significantly lower;
- while there would be a reduction in yields, some of the money that players no longer spend on FOBTs is likely to be diverted to other LBO products, in particular OTC betting. This will further reduce the overall impact on LBOs of any reduction in maximum stakes;
- the mere identification of LBOs “at risk” does not mean that anything like this many shops would be likely to close in practice. Almost a third of LBOs already fell into this category in 2011 and yet the industry continued to grow. And any reduction in the number of shops is likely to be self-limiting, as customers will transfer at least some of their business to other LBOs and thus strengthen the position of those shops that remain (as well as lessening the impact on tax revenues);
- the overall impact on employment and tax revenues will also depend on what customers do with any money that they no longer spend in LBOs. If spending is transferred to parts of the economy that are more employment intensive than the betting industry, then the overall impact on employment could well be a positive one. The overall change in tax revenues will depend on a number of separate offsetting effects, is likely to be small, and could also be positive.

Rather than the 7,900 shops that the ABB’s submission states would be “at risk”, our illustrative calculations suggest that a more realistic number of LBO closures might be between 700 and 1200.

To the extent that some of the reduction in revenues reflects lower spending by problem gamblers, and some LBOs that close are shops that were only established in order to increase the number of FOBTs (thus not representing an efficient use of retail space), then there could be wider benefits to society as a result of these closures. Indeed, the potential wider benefits that might result from some shop closures are demonstrated by the number of local councils that have tried to block proposed new LBOs or take measures against FOBTs in their areas, and by the opposition to B2 machines set out in a number of councils’ responses to the DCMS consultation.

While any reductions in profits and shrinkage in the size of the industry will adversely affect bookmakers, the likely scale of this impact is very substantially smaller than that suggested by the ABB’s submission. Despite a slow long-term decline, off-course bookmaking was a significant and relatively stable industry before the introduction of FOBTs. Even if FOBTs were removed altogether, then a sustainable industry focused once more on OTC betting might be re-established. But the policy being considered is simply a reduction in maximum stakes, rather than the elimination of FOBTs, and the success of B3 machines demonstrates that FOBTs with a maximum stake of £2 could still generate significant additional profits for bookmakers on top of their traditional core business.

If even this smaller impact on bookmakers' profits is a major concern, then one option might be to introduce a lower maximum stake on a trial basis, so that both the economic impact and, if possible, the impact on problem gambling could be evaluated more accurately before making the change permanent.³²

The jobs and tax revenues that the ABB's impact assessment identifies as being at risk are even more overstated. This is partly because, if an LBO closes, a high proportion of its revenues may simply transfer to other LBOs in the same area. But even if total betting industry employment and taxes are lower, there will be benefits elsewhere in the UK economy as a result of consumers spending money that they would have otherwise gambled on FOBTs. Total UK employment could well increase, and the overall impact on tax revenues may also be positive.

³² It would be important, however, for the evaluators to be alert to the risk of strategic behaviour by bookmakers, perhaps intended to exaggerate the adverse economic impacts or even to restrict any beneficial impacts on problem gambling, in order to increase the chances that the policy will be abandoned after the trial period.

Appendix A. LBO Model: Data Sources and Assumptions

This section describes the data and assumptions used to generate the base case in the LBO model.

A.1. General inputs

We have modelled three sizes of LBOs, and four levels of turnover, with a resulting twelve LBO categories. The “size” dimension of the categorisation is intended to capture the variation in retail floor space available in LBOs. The “turnover” dimension is intended to capture any variation in turnover that is independent of the size of shop.

We have divided LBOs into standard size (80 square metres of retail floor space), small (40 square metres) and large (120 square metres) categories based on analysis of Valuation Office Agency data on the retail floor area of LBOs. Drawing on this analysis, we have assumed that 40 per cent of shops are of a standard size, 30 per cent are small, and 30 per cent are large.

We have stratified shops by turnover level based on the following assumptions:

- low and medium-low turnover shops are those identified in the ABB Impact Assessment as “at risk” (2685 LBOs). We have assumed turnover of 70 per cent of medium shop turnover for low shops, and 75 per cent for medium-low shops; and
- the remaining shops are split equally between medium and high turnover categories. Turnover is 20 per cent bigger in high shops than in medium shops.

In the base case, this gives the following distribution of LBOs by size and turnover level.

Table A.1
Distribution of LBOs

Turnover	Size of shop			Total
	Small	Standard	Large	
Low	403	537	403	1343
Medium-Low	403	537	403	1343
Medium	952	1269	952	3173
High	952	1269	952	3173
Total	2710	3612	2710	9031

Note: Categories may not sum to total due to rounding

The following sections describe the data sources and assumptions for costs and revenues. Data and inputs relate to financial year 2012/13 where available.

A.2. Revenues

A.2.1. Fixed odds betting terminals

We have used Gambling Commission data to calculate the average gross gambling yield for a B2 machine.³³ We have used a payout rate of 97.3 per cent.³⁴

We have assumed that on average small shops have 3 B2 machines, standard shops have 3.9, and large shops have 4. This is consistent with the overall average of 3.7 B2 machines per LBO calculated from Gambling Commission data.

A.2.2. Over the counter betting

We have used Gambling Commission data for over the counter turnover and gross margin. We have assumed that turnover for small shops is 50 per cent of that of standard shops, and turnover for large shops is 150 per cent of that of standard shops.

We have used payout rates of 86 per cent for over the counter bets on horse racing and 80 per cent for other over the counter betting, based on Gambling Commission data.

A.3. Costs

A.3.1. Duties, levies and licences

We have modelled machine games duty, general betting duty and the horseracing levy at the rates shown in the table below.

Table A.2
Duties and Levies

Duty	Rate (%)	Source
Machine games duty	20	HMRC
General betting duty	15	HMRC
Horserace betting levy	10.75	51 st Levy Scheme, with abatement for LBOs with gross gambling yield on horseracing of less than £52,500 and a flat rate rebate of £185 per LBO.

We have used premises licence fees of £131 for small LBOs, £180 for standard LBOs and £295 for large LBOs, drawing on a listing of premises licence fees and an assumption on the

³³ Gambling Commission Industry Statistics – November 2013.

³⁴ ABB submission to DCMS Triennial Review.

distribution of LBOs by rateable value, based on our analysis of Valuation Office Agency data.³⁵

We have used a Gambling Commission licence cost of £269 for all LBO categories based on an estimate of the number of LBOs per licensed operator.³⁶

A.3.2. Staff costs

We have assumed that all LBOs open for 12 hours a day, and that small, standard and large LBOs require around 3, 4 and 5 FTEs respectively.

We have assumed average hourly staff costs of £8.67, including a 20 per cent mark-up for social security and pensions costs.³⁷ This is consistent with information that some operators pay over half their staff less than £7 per hour,³⁸ and that managers are paid in the range £7.75 to £9 per hour.³⁹

We have varied staff costs with turnover, assuming costs for low and medium-low turnover shops are lower than those for standard shops by 15 and 10 per cent respectively. We have assumed staff costs for high turnover shops are 15 per cent higher than standard shops.

A.3.3. Rent and rates

We have assumed rent of £20k a year for small shops, £40k for standard shops and £60k for large shops.⁴⁰

We have estimated rates using an assumption on the distribution of LBOs by rateable value (based on our analysis of Valuation Office Agency data), and the business rates multiplier for England.

A.3.4. Other costs

Other operating costs include SIS, Turf, utilities and stationery. These are based on a variety of sources including company accounts and reports, press articles and utility company websites. Some of these costs vary by size of shop and level of turnover.

³⁵ Premises licence fees as set by Hackney Council and distribution of LBOs by rateable value from NERA analysis of Valuation Office Agency data.

³⁶ We calculated the number of LBOs per licensed operator using a list of LBOs provided by the Gambling Commission in response to a Freedom of Information request.

³⁷ This mark-up is broadly consistent with industry data.

³⁸ Backhousebet submission to DCMS Triennial Review.

³⁹ Article on theguardian.com, "Betfred staff wages to be linked to fixed-odds terminal profits", published 12 December 2013. See <http://www.theguardian.com/society/2013/dec/12/betfred-staff-wages-linked-fixed-odds-terminal-profits>.

⁴⁰ The rent for standard shops is taken from the Betfred response to DCMS Triennial Review.

A.4. Calibration

We have calibrated the model inputs to be broadly consistent with industry data. High level model outputs in the based case are also in line with industry averages:

- average gross gambling yield across LBOs is around £330k, close to the figure of £334k for 2012/13 published by the Gambling Commission;⁴¹
- average costs are around £254k, consistent with the ABB's 2010 figure for the industry of £253k;⁴²
- average profits across all LBOs of £77k are consistent with the ABB's 2011 figure for the industry of £73k;⁴³ and
- the average profit for LBOs in the low and medium-low turnover categories is £17k, which is close to the figure of £15k quoted by the ABB for vulnerable LBOs.⁴⁴

⁴¹ Gambling Commission Industry Statistics – November 2013.

⁴² Calculated from business costs and tax information in ABB submission to DCMS Triennial Review, page 45.

⁴³ Calculated from profit in ABB submission to DCMS Triennial Review, page 45.

⁴⁴ ABB submission to DCMS Triennial Review, page 46.

Report qualifications/assumptions and limiting conditions

This report is for the exclusive use of the NERA Economic Consulting's client. This report is not intended for general circulation or publication, nor is it to be reproduced, quoted or distributed for any purpose without the prior written permission of NERA Economic Consulting. There are no third party beneficiaries with respect to this report, and NERA Economic Consulting does not accept any liability to any third party.

Information furnished by others, upon which all or portions of this report are based, is believed to be reliable but has not been independently verified, unless otherwise expressly indicated. Public information and industry and statistical data are from sources we deem to be reliable; however, we make no representation as to the accuracy or completeness of such information. The findings contained in this report may contain predictions based on current data and historical trends. Any such predictions are subject to inherent risks and uncertainties. NERA Economic Consulting accepts no responsibility for actual results or future events.

The opinions expressed in this report are valid only for the purpose stated herein and as of the date of this report. No obligation is assumed to revise this report to reflect changes, events or conditions, which occur subsequent to the date hereof.

All decisions in connection with the implementation or use of advice or recommendations contained in this report are the sole responsibility of the client. This report does not represent investment advice nor does it provide an opinion regarding the fairness of any transaction to any and all parties.

NERA

ECONOMIC CONSULTING

NERA Economic Consulting
15 Stratford Place
London W1C 1BE
United Kingdom
Tel: 44 20 7659 8500 Fax: 44 20 7659 8501
www.nera.com