

**THE IMPACT OF THE NATIONAL LOTTERY ON THE
HORSE RACE BETTING LEVY: FIFTH REPORT**

by

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Introduction

1. This is the fifth annual report on the impact of the National Lottery on the Horserace Betting Levy. It fulfils an undertaking to monitor this issue which was made by the Home Office during the passage of the National Lottery Bill.
2. In line with previous reports, past trends in off-course betting expenditure (on which the Levy is closely dependent) are examined, together with the main factors which affect expenditure trends, including the National Lottery. These factors form the basis for a statistical model to predict expected levels of betting expenditure and thus to examine the effect of the National Lottery.
3. The first and second reports drew the conclusion that the Lottery had reduced spending on off-course betting below what it would otherwise have been. The size of this effect became clearer in the third and fourth reports, which suggested that the Lottery had diverted approximately £1 billion from off-course betting expenditure in both 1997 and 1998. As a result, the Horserace Betting Levy would have been affected through the horserace component of off-course betting expenditure.
4. This report seeks to update these findings using additional 1999 data, and to re-examine the factors influencing off-course betting and the statistical methods used. For consistency, data sources are the same where possible. A detailed technical report, including data sources, alternative variables investigated, and the statistical methods employed, is available from the authors.

How does the National Lottery impact on the Horserace Betting Levy?

5. The National Lottery is assumed to be a substitute for horserace betting – that is, some proportion of the money that people would have spent on horserace betting will be *diverted* onto the lottery. The amount spent on the National Lottery will therefore affect the amount spent on horserace betting, which in turn affects the size of the Horserace Betting Levy.

Stylised explanation of the impact of the National Lottery on the Horserace Betting Levy

6. The horserace betting component of off-course betting determines the size of the Horserace Betting Levy (Figure 1a). The introduction of the lottery increases the total amount of betting (by drawing in new punters and/or increasing the amount spent by existing punters). It also diverts money away from horserace betting (some existing horserace punters move some proportion of their money into the lottery), reducing the size of the Horserace Betting Levy from what it would otherwise have been (Figure 1b).

Figure 1a: Before the introduction of the National Lottery

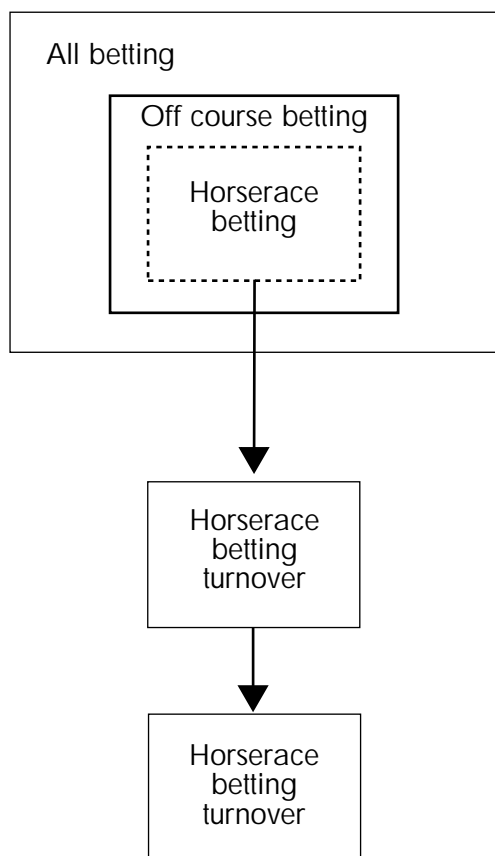
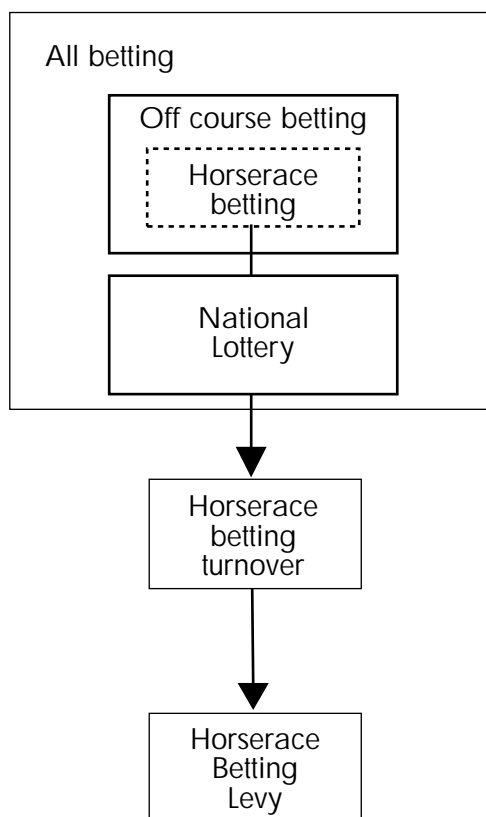


Figure 1b: After the introduction of the National Lottery



7. Off-course bookmakers are required to pay a levy on their horserace betting turnover through the Horserace Betting Levy Board, which has a statutory duty to make funds available for the benefit of horseracing. The levy is in the form of a fixed fee per betting office plus a percentage charge applied to the shop's cash turnover above a prescribed fixed band, or a percentage charge applied to a bookmaker's total cash turnover. In both cases a different percentage charge is also applied to total credit turnover. Total levy payments therefore rise and fall in line with horserace betting expenditure. Figure 2 shows total levy payments, off-course betting expenditure and expenditure on the National Lottery over recent years.

Figure 2: Comparison of levy payments, off-course betting and Lottery expenditure

Financial Year	Total horserace betting levy payments (Levy Yield, £ millions)	Nominal off-course betting expenditure (£ billions)	Nominal Lottery expenditure (£ billions)
1993/4	51	6.36	N/A
1994/5	51	6.55	1.22
1995/6	48	6.41	5.17
1996/7	54 ¹	6.68	4.72
1997/8	56	6.89	5.45
1998/9	52 ²	7.14	5.21
1999/0	53 ³	N/A	N/A

8. It is difficult to assess the impact of the National Lottery on the Horserace Betting Levy directly. The impact depends on many things, such as the percentage charges and bands applied to bookmakers' revenues, and the number and size of betting shops.
9. Horserace betting expenditure could be used as a proxy for Levy payments, but separate data are not regularly collected on horserace betting. However, HM Customs and Excise collect monthly figures in arrears on the duty collected from off-course betting expenditure (of which about 69%⁴ is horserace betting). Horserace betting expenditure can hence be estimated indirectly via off-course betting expenditure.
10. *This analysis therefore uses off-course betting expenditure as a proxy for the Horserace Betting Levy.* The levy varies with horserace betting expenditure which itself varies with off-course betting expenditure. One caveat to any conclusions drawn on the basis of such an analysis is that some fluctuations in off-course betting expenditure might be the result of trends in the non-horseracing component.
11. Gross expenditure on off-course betting was £7.1 billion in the calendar year 1998, a 4.2% increase in nominal terms on the 1997 total of £6.8 billion. In 1999, off-course betting expenditure was £7.29 billion in nominal terms, a further 3% increase on the 1998 total.

Factors influencing betting expenditure

12. Off-course betting expenditure was shown in the first four reports to be dependent on the state of the economy. It has a positive relationship with Gross Domestic Product (GDP). It is likely that GDP reflects the amount of disposable income available to individuals who bet, and hence higher GDP is associated with higher levels of off-course betting.

1. £5m of this arose from the 1% reduction in General Betting Duty in March 1996.

2. Forecast by Horserace Betting Levy Board. Reduction from £56m forecast as a result of the three largest bookmaking companies exercising their right to revert from the company-based to the shop-based levy scheme.

3. Estimated by Horserace Betting Levy Board.

4. Estimate by Horserace Betting Levy Board for 1997/98, 1998/99, 1999/00.

13. In addition to overall changes in the level of GDP, increases in unemployment appear to reduce the level of betting expenditure. This may be because increasing unemployment leads to lower expectations about present and future levels of income amongst the betting population.
14. In the first four reports, deviations from the average temperature during the first (winter) quarter of each year were found to affect betting, probably because frozen racecourses result in cancelled races and fewer opportunities for betting. However, for the fifth report, an alternative variable, the total number of races run, was found to be highly significant. The number of races seems to be a better variable than deviations from average first quarter temperature, because it more directly reflects the opportunity for horserace betting.
15. Other possible changes to the variables were also explored in the fifth report. It was felt that the economic variables (GDP and unemployment) might not be targeting the key gamblers effectively. Whilst, for example, overall unemployment may be decreasing, it is possible for unemployment in certain sectors of the economy to be increasing. In this context the question was raised of 'who bets?' A brief literature review was undertaken in an attempt to answer this question, but it did not appear possible to identify a gambling group that would enable us to target the variables more effectively.

The National Lottery

16. Since November 1994, it has become increasingly clear that expenditure on the National Lottery has a significant effect on off-course betting expenditure. The National Lottery has two main elements:
 - a weekly game started in November 1994 whereby players bet on the outcome of a random selection of numbers undertaken each Saturday night. An additional mid-week draw was introduced in February 1997.
 - scratch cards, involving an instant game. These were available from March 1995.
17. A weekly 'easy-play' draw based on a random selection of football matches ran from August 1998 to May 1999. A second 'Thunderball' game complementing the main draw was introduced in June 1999, and a one-off game, 'Big Draw 2000', took place at the beginning of 2000.
18. During 1999 gross expenditure⁵ on the National Lottery – including both the weekly games, scratchcards, the easy-play and Thunderball games and expenditure on Big Draw 2000 – was £5.1 billion⁶, a 2.9% decrease in nominal terms from £5.25 billion in 1998.

Assessment of the impact of the National Lottery

19. The conclusions of this report are similar to those reached in the Fourth Report, and are based on the same methodology. This involves explaining off-course betting between 1984 and 1999 in terms of GDP, changes in unemployment, the number of races and expenditure on the National Lottery. Because the National Lottery is included explicitly in this model, the impact of the Lottery can be found by examining the relationship between the lottery variable and the off-course betting variable.

5. In this report expenditure refers only to money staked, not to stake less winnings.

6. Calculated using weekly sales figures supplied by the National Lottery Commission.

20. This approach has its drawbacks. As with all statistical modelling, there may be factors not included in the model that affect the relationship between lottery and off-course betting, although the factors included explain over 60% of the variation in off-course betting. In particular, the approach only identifies the long run impact of the lottery. It is likely that over one or two quarters, there may be short-run deviations that push the level of off-course betting away from the level predicted by the model. These short-run effects may have an impact on the total amount diverted from off-course betting in a particular quarter or year. It is difficult, however, to incorporate such short-run deviations into this model. The technical annex to the fifth report gives more details of the modelling techniques used.
21. The model shows that since 1994, every pound staked on the lottery has diverted approximately 24.7 pence⁷ away from expenditure on off-course betting. This compares with an estimate of 21 pence in the Fourth Report. The increased rate of substitution seems to be due to the introduction of the number of races as an explanatory factor, though it is not clear why the number of races should have this effect. The figure of 24.7 pence was multiplied by total nominal expenditure on the National Lottery to give a figure of £1.26 billion diverted from off-course betting expenditure in 1999 as a direct result of the National Lottery. This implies that off-course betting expenditure was around 14.7 per cent below the level it would have reached in the absence of the Lottery.
22. As discussed above, it is difficult to directly estimate the impact of the National Lottery on the Horserace Betting Levy, because the levy has an indirect relationship with horserace betting, which can itself only be proxied using data on off-course betting. If we were to assume a direct, proportional relationship between off-course betting and levy payments, we could conclude that the Horserace Betting Levy is also around 14.7 per cent below the level it would have reached in the absence of the National Lottery. This implies that in 1999, Horserace Betting Levy payments may have been around £9-10 million below the level they would have reached in the absence of the lottery.

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7. The likely range for the impact of the Lottery (the 95% confidence interval) is a diversion away from off-course betting of between 17.9 and 31.5 pence per pound staked, or a total diversion in 1998 of between £0.91bn and £1.61bn. This illustrates the inevitable uncertainties involved in modelling of this nature.