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# Impact of the 2008 Budget and Pre-Budget Report excise duty and VAT changes on the brewing industry?

December 2008

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## 1.1. Executive summary

In the 2008 Budget, excise duty on beer was increased by 9.1%. It was increased by a further 8% in the Pre Budget Report (PBR), whilst VAT was temporarily reduced to 15%. When the VAT reduction is reversed in January 2010, the excise duty rise will be retained. In subsequent years, it is planned to increase alcohol duty rates by 2 per cent above the rate of inflation. This report investigates the impact the Budget and PBR changes on beer sales; excise duty, VAT and other tax receipts and employment.

The main points are:

- The Budget and PBR changes to duty and VAT are estimated to decrease sales of beer by 1,250,000 barrels in 2008/9, compared to the quantity that would have been sold if both taxes had remained unchanged from their 2007/8 levels (Table 1). Most of the lost sales (846,000 barrels) are from the on-trade. The reduction in sales volume is estimated to cost 16,730 people their jobs, mostly bar staff. HM Treasury is estimated to lose £52 million in tax (duty, VAT and employment tax) receipts.
- If the impact of the 2008 Budget and PBR changes are compared to a duty freeze over the next five years (2008/9 to 2012/13) just over 16,740,000 barrels of sales are lost. Two thirds of the lost sales are from the on-trade. Nearly 60,000 people lose their jobs (of which, 53,000 work in the on-trade). Tax receipts are forecast to be £79 million lower than if duty had been frozen.
- If the 2008 Budget and PBR changes are compared to an increase in duty at the time of the Budget equivalent to the rise in RPI inflation, sales volumes are 896,000 barrels lower (again mainly lost from the on-trade) this financial year. Employment in the brewing, on-trade and off-trade is estimated to be just under 12,000 people lower and tax receipts £67 million lower.
- If the 2008 Budget and PBR changes are compared to RPI inflation rises over the next five years (2008/9 to 2012/13), just over 13,040,000 barrels of beer sales are estimated to be lost. This is predicted to cost just over 40,000 jobs and £163 million in tax receipts.

**Table 1: Fiscal impact of the 2008 Budget and PBR**

	Impact of the Budget and PBR compared to a duty freeze and no PBR changes in FY08/9	Impact of the Budget and PBR compared to RPI inflation only increase in duty in the Budget and no PBR (FY08/09)	Cumulative impact of the Budget and PBR compared to a duty freeze and no PBR (over FY08/9 to 12/3)	Cumulative impact of the Budget and PBR compared to RPI inflation only increases in duty (over FY08/9 to 12/13)
Sales – total (000s barrels)	-1,250	-896	-16,742	-13,042
Employment (people)	-16,730	-11,946	-59,389	-40,256
Total tax gain (£ million)	-52	-67	-79	-163

Source: Oxford Economics

- In March, HMRC predicted the 2008 Budget changes will raise £160 million in 2008/9 and £600 million between 2008/9 to 2010/11 in duty and VAT in real terms. We predict the Budget and PBR will lower tax receipts by £269 million and £695 million in real terms, respectively.

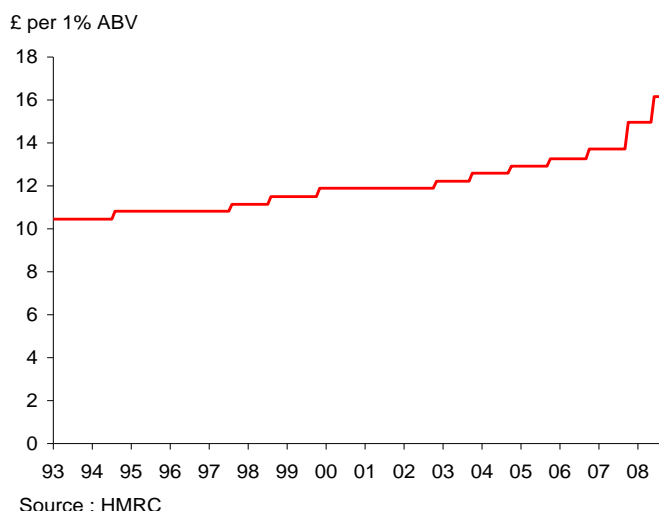
## 1.2. Introduction

In September 2008, Oxford Economics published a report investigating the impact of the Budget rise in excise duty on beer (up 9%) on beer sales, employment, excise duty, VAT and other tax receipts. Excise duty on beer was increased by a further 8% in the Pre Budget Report (PBR), whilst VAT was temporarily reduced to 15%. This report updates the first one to look at the combined impact of the two policy changes. It investigates the impacts over the next five financial years. In particular, it contrasts the estimated impact of the announced policy with what would have happened under two alternatives (namely, a beer duty freeze and duty rises in line with RPI inflation). It uses all the information about future policies and RPI inflation rates that is currently available, but there is obvious uncertainty about future policy and inflation rates.

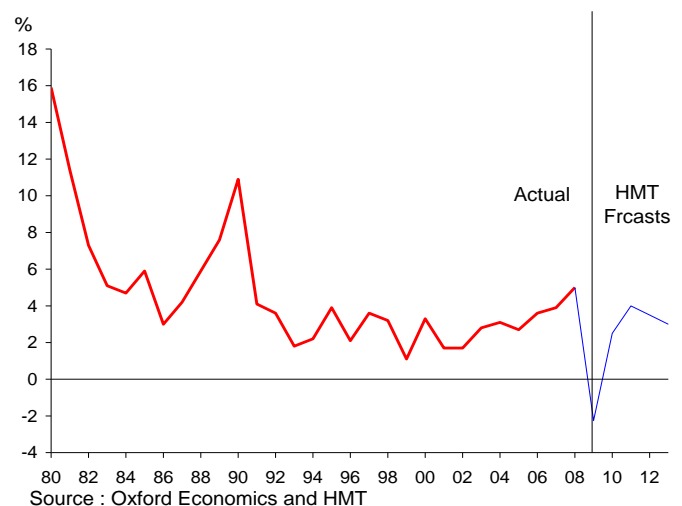
## 1.3. What impact will the 2008 Budget duty rises have on beer prices?

In the 2008 Budget, Alastair Darling announced that duty rates on beer (and all other alcoholic drinks) would increase by 9.1% on 17 March 2008. This equates to a £1.24 rise per hectolitre per 1% alcohol by volume (ABV). This is the largest increase in duty on beer (Chart 1), since the early 1990s (when the current duty system was established). In the Pre-Budget Report (PBR) on the 24 November, the Chancellor increased excise duty on beer by a further 8% to offset the reduction in Value Added Tax (VAT) from 17.5% to 15% between December 2008 to December 2009. The rise in duty will be maintained after December 2009 when the VAT change is reversed.

**Chart 1: Duty rates on beer**



**Chart 2: Annual retail price inflation**



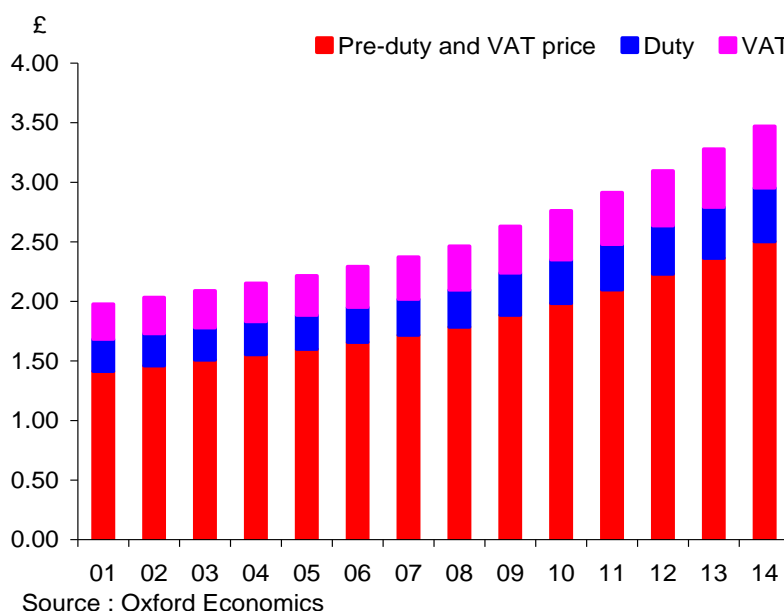
The Chancellor also announced in the Budget he planned to increase alcohol duty rates by 2 per cent above the rate of inflation in subsequent years. Clearly, future rates of inflation are unknown at the present, but we can get an idea of what they are likely to be by using the economic forecasts that the Treasury uses in the PBR. The Treasury predict RPI inflation in the year to September will be -2.25% in

2009, 2.5% in 2010, 4% in 2011, 3.5% in 2012 and 3.5% in 2013 (Chart 2).<sup>1</sup>

Chart 3 shows the price of a pint of beer in the on-trade. The figures up to 2008Q1 are calculated by using data from Nielsen on the actual price at 2008Q1 (£2.48 per pint). This point estimate is turned into a time series by applying the change in the retail price index (RPI) of price of beer in the on-trade relative to 2008Q1. The pre-duty and VAT price are calculated by subtracting VAT (at 17.5%) and excise duty from the on-trade price. The forecast is generated by assuming pre-VAT and duty prices increase at their average rate over the last few years (up 3.5%), VAT falls to 15% between December 2008 and 2009 before returning to 17.5% and duty increases at the rates announced in the 2008 Budget if inflation follows the Treasury's PBR forecasts for the RPI in future years. Using the results of past research by Oxford Economics, we assume duty pass through is 3.5 times.<sup>2</sup>

In the fiscal year April 2007 to March 2008, the average price of a pint of beer in the on-trade was £2.46 (Chart 3). In 2008/9, it is predicted to rise to £2.63. This is an increase of 17 pence (or 7%). In 2009/10, the average price of a pint of beer in the on-trade is expected to increase by a further 13 pence (or 5%) to stand at £2.76. It is expected to rise a further 15 pence (or 6%) in 2010/11. All of the increases are expected to be real rises as they are above the predicted rate of inflation, making beer less price competitive relative to other goods consumers could purchase.

**Chart 3: Average price of a pint of beer in the on-trade**



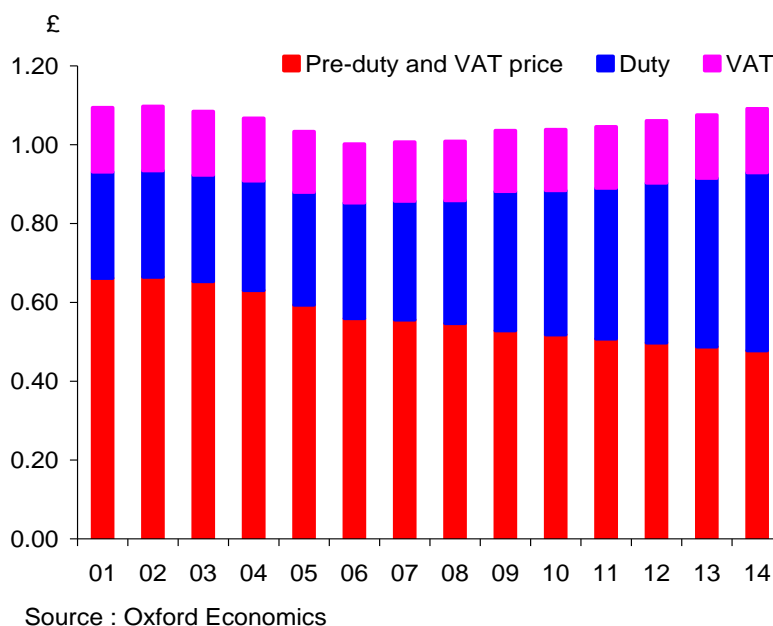
The average price of beer in the off-trade has fallen slightly in recent years (Chart 4). In the fiscal year 2001/2 it stood at £1.10 per pint. In 2007/8, it was down to £1.01. The decrease in the price the consumer

<sup>1</sup> See Table B1: Economic assumptions for the public finance projections on page 186 of the 2008 Pre-Budget Report.

<sup>2</sup> Oxford Economics (2004), 'Modelling the beer market: Final Report', December.

pays has been underpinned by a fall in the pre-VAT and duty price. We assume this will continue at a 2% decrease a year in the forecast (the average rate over the last few years). In 2008/9, the average price of beer in the off-trade is forecast to be £1.04, up 3 pence from the previous year. No change in the price is expected in 2009/10. Thereafter, the price the customer pays is expected to rise slightly, increasing by just 5 pence over the next five years. With the duty rises announced in the 2008 Budget - 2 per cent on top of inflation – this implies further margin loss for off-trade retailers or their supply chain after 2009/10.

**Chart 4: Average price of a pint of beer in the off-trade**



#### 1.4. What are the implications of these price trends for the brewing industry?

##### (a) Beer sales

We can use the forecasts for duty rates (based on the Treasury’s predictions for RPI inflation) and prices to explore the potential impact of the Budget and PBR on the brewing industry. To do this, we begin by using the equations that underpin the Beer Monitor framework.<sup>3</sup> These produce forecasts for beer consumption and duty revenue.

As a brief recap, the Beer Monitor rests on two demand equations. The on-trade demand equation explains movements in the BBPA on-trade beer sales volume figures as being a function of the real<sup>4</sup> price

<sup>3</sup> These are explained in Oxford Economics (2004) paper.

<sup>4</sup> The real price of on-trade beer is the price index for on-trade beer divided the general price index for consumer spending. The real price of on-trade spirits and wine are calculated analogously.

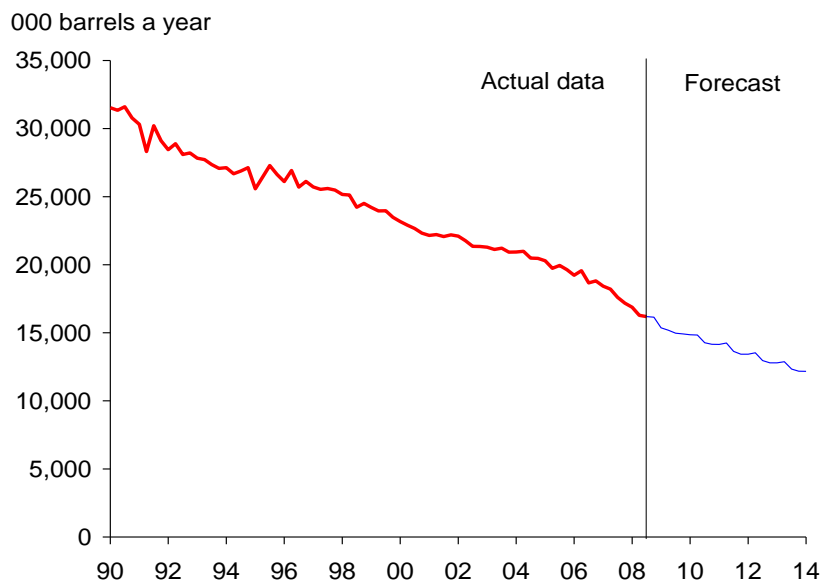
of on-trade beer, the real price of two substitute drinks (wine and spirits), the sterling price of French beer (as a proxy for personal imports from the Continent) and total consumption. After the introduction of the Single European Market, on-trade beer is estimated to be price sensitive: for every 1% rise in the real price of beer, the volume of beer demanded falls by 1.5%.

The off-trade demand equation explains movements in the BBPA off-trade sales volume figures as a function of the real price of off-trade beer, the real sterling price of French beer, total consumption and a number of World Cup and other dummies. Off-trade beer is found to be less price sensitive than on-trade: for every 1% rise in the real price of off-trade beer, the volume demanded falls 1%.

To produce the Beer Monitor forecasts the coefficients from the two equations are combined with forecasts of the variables taken from Oxford Economics' UK macro-model to produce a forecast for on-trade and off-trade beer sales volume. These quantities are multiplied by future duty rates to produce a forecast of HMRC's excise revenue from beer.

Chart 5 and Table 2 show the predicted volume of beer sold in the on-trade following the 2008 Budget and PBR changes to excise duty and VAT. On-trade volumes are predicted to fall 8.4% in 2008/9 (or 1,472,000 barrels). Thereafter, the rate of decline slows to 6.3% in 2009/10 and between 4.2% and 4.9% a year. Overall, Chart 5 suggests that on-trade beer will return to near trend rates of decline after the acceleration caused by the Smoking Ban from July 2007, 2008 Budget and PBR excise duty rises.

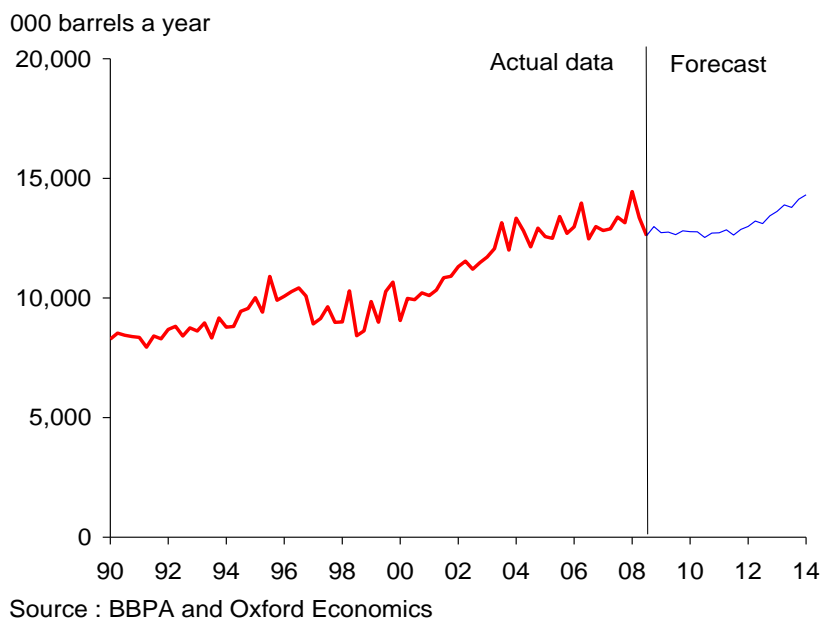
**Chart 5: Beer sales volume in the on-trade under the 2008 Budget and PBR changes (seasonally adjusted)**



Source : BBPA and Oxford Economics

The forecast for the off-trade is slightly more dramatic in that it suggests volumes sold will decline in the next few years. Thereafter they resume their upward trend. In 2008/9, volumes are expected to fall by 4.0% (or 545,000 barrels).<sup>5</sup> They are predicted to decline by 1.3% and 0.5% in 2009/10 and 2010/11, respectively. In 2011/12 off-trade sales are forecast to grow again (Chart 6).

**Chart 6: Beer sales volume in the off-trade under the 2008 Budget and PBR changes (seasonally adjusted)**



Adding the forecasts for on-trade and off-trade sales together suggests the total volume of beer sold in the UK will continue to decline (Chart 7). Unsurprisingly, the rate of decline is sharpest in 2008/9 at 6.5% (or 2,018,000 barrels). Sales are expected to contract by a further 4.1% in 2009/10 and 2.5% in 2010/11. The rate of decline slows thereafter.

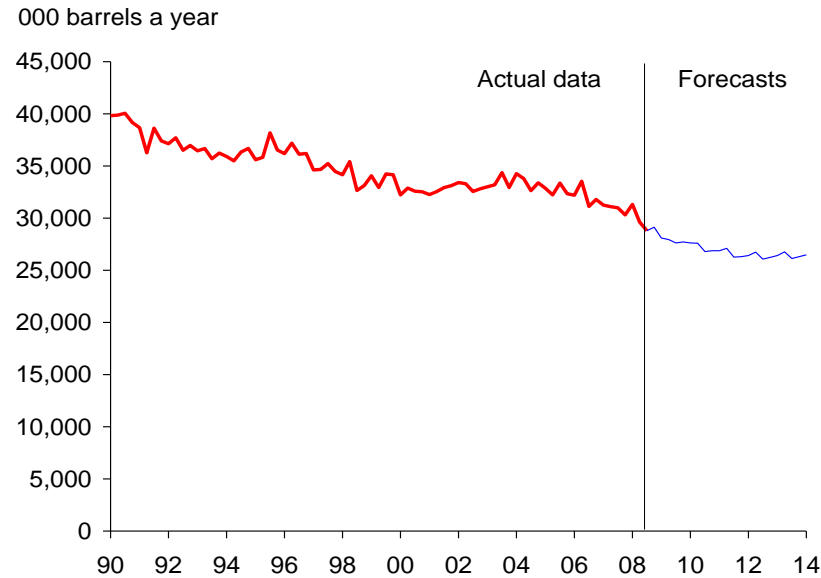
**Table 2: Forecasts of beer sales volumes and excise revenue under the 2008 Budget and PBR changes using data to 2008Q3**

	06/07	07/08	08/09f	09/10f	10/11f	11/12f	12/13f
On-trade sales (000s barrels)	19,334	17,903	16,430	15,417	14,790	14,123	13,456
Off-trade sales (000s barrels)	14,458	14,702	14,157	13,984	13,919	14,074	14,582
Total sales (000s barrels)	33,792	32,592	30,574	29,388	28,696	28,184	28,025
Duty (£ million)	3,072	3,067	3,143	3,138	3,158	3,209	3,273
VAT (£ million)	2,483	2,428	2,229	2,124	2,363	2,401	2,446
Duty and VAT (£ million)	5,555	5,495	5,372	5,262	5,521	5,610	5,719

Source: BBPA, HMRC and Oxford Economics

<sup>5</sup> This includes a 2% rise in 2008Q2 (April to June) on top of that predicted by the model in 2008Q2 reflecting the impact of the smoking ban.

**Chart 7: Total beer sales volume under the 2008 Budget and PBR changes (seasonally adjusted)**



Source : BBPA and Oxford Economics

To investigate the impact of the 2008 Budget and PBR changes, we have compared the sales volume predicted under the existing plans to a duty freeze and RPI inflation only rises in duty at the time of the Budget. To do this we need to dispense with the BBPA sales volume and RPI data on beer prices in 2008Q2 and 2008Q3 as this contains consumers' and retailers' response to the 2008 Budget. We require some data on how sales and prices would have behaved if the Budget had imposed a duty freeze or an RPI only increase. To generate this we use the econometric equations that underpin the Beer Monitor again to predict values for the data under the two alternative duty rates. The results are shown in Table 3. They suggest the 2008 Budget and PBR lowered beer sales by 1,250,000 barrel in 2008/9 relative to a policy of no change in duty. Compared to an RPI only increase, the 2008 Budget and PBR cost 896,000 barrels in lost sales in 2008/9.

**Table 3: Counterfactual exercise exploring the impact of the Budget 2008 and Pre-Budget Repost changes using data up to 2008Q1**

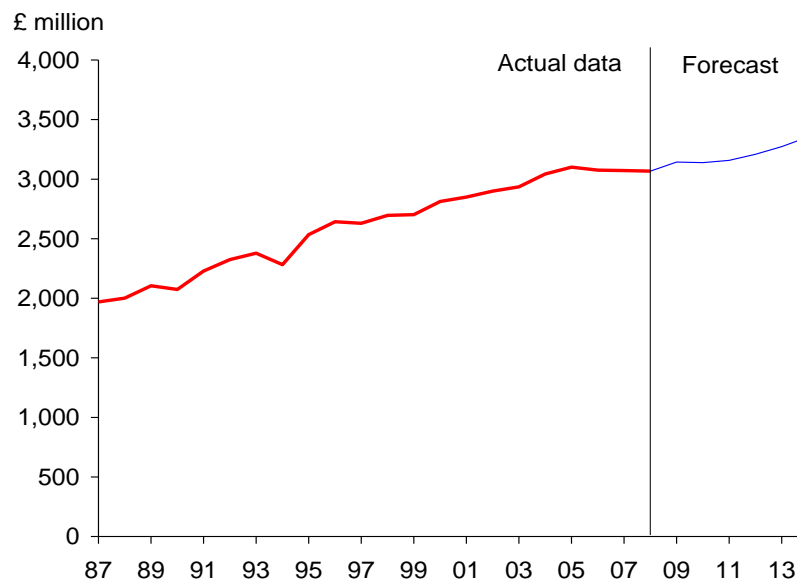
	06/07	07/08	08/09f	09/10f	10/11f	11/12f	12/13f
On-trade sales (000s barrels)							
Compared to RPI only	0	0	-604	-1,605	-1,745	-1,862	-1,962
Duty freeze	0	0	-846	-1,786	-2,008	-2,469	-2,901
Off-trade sales (000s barrels)							
Compared to RPI only	0	0	-292	-901	-1,128	-1,338	-1,606
Duty freeze	0	0	-403	-1,012	-1,282	-1,727	-2,308
Total sales (000s barrels)							
Compared to RPI only	0	0	-896	-2,506	-2,873	-3,199	-3,567
Duty freeze	0	0	-1,250	-2,799	-3,289	-4,195	-5,209
Duty (£ million)							
Compared to RPI only	0	0	89	102	111	126	144
Duty freeze	0	0	115	101	137	182	224
VAT (£ million)							
Compared to RPI only	0	0	-122	-276	-64	-73	-82
Duty freeze	0	0	-118	-292	-64	-81	-107
Duty and VAT (£ million)							
Compared to RPI only	0	0	-33	-174	47	54	62
Duty freeze	0	0	-3	-191	73	101	117

Source: Oxford Economics

**(b) Excise revenue and VAT receipts**

The excise revenue HMRC receives is a function of sales volume and the level of excise duty. The impact of the 2008 Budget and PBR rises in excise duty is just sufficient to outweigh the impact of the price rises on demand. As a consequence excise duty is projected to rise by £76 million (or 2.5%) to £3,143 million in 2008/9 (Chart 7 and Table 2). HM Treasury's 2008 PBR forecast predicts beer and cider duties will raise £3,400 million in 2008/9. HMRC latest Beer and Cider Bulletin<sup>6</sup> showed beer receipts constituted 93.3% of combined excise revenue in 2007/8. If this percentage is maintained (and it appears fairly static over time), HM Treasury's Budget forecast implies beer excise duty will raise £3,172 million. Our forecast is £29 million below the Treasury's for beer receipts. Given the greater price sensitivity of our demand equation for beer in the on-trade (1.5 versus 0.5), our forecast being lower than HM Treasury's is to be expected in response to the rise in duty.

<sup>6</sup> HMRC (2008), 'Beer and cider bulletin', September.

**Chart 8: Excise revenues from beer**

Source : HMRC and Oxford Economics

In the four fiscal years following 2008/9, excise receipts from beer are projected to rise by an average of £32 million a year (Chart 8). As a result, excise receipts are projected to stand £206 million higher in 2012/13 than in 2007/8 when we have actual data (Table 2).

If the announcements over beer duty policy in 2008 are compared to the receipts predicted to be earned from freezing duty at its 2007/8 level, the 2008 Budget and PBR changes are estimated to earn an additional £115 million in 2008/9 (Table 3). If comparison is drawn with a policy of increasing duty at RPI inflation only increases, the Budget and PBR excise duty increases raised an additional £89 million in 2008/9 (Table 3).

The 2008 Budget and PBR changes are predicted to have an adverse impact on VAT receipts in 2008/9 (falling £199 million in Table 2). This reflects the responsiveness of demand to price changes before December and both this factor and the temporary reduction in VAT for the last four month of this fiscal year. VAT receipts fall a further £105 million in 2009/10 as a result of the 15% rate applying for nine months. Compared to an alternative policy of an excise duty freeze at the time of the Budget (and no PBR changes), VAT receipts are predicted to be £118 million lower in 2008/9 and £292 million lower in 2009/10 million (Table 3). Compared to an RPI inflation only rise in excise duty at the time of the Budget (and no PBR changes), VAT receipts under the actual policy are expected to be £122 million lower in this fiscal year and £276 million lower in 2009/10.

At the time of the Budget, HMRC published information showing they expected the changes they implemented then would earn an extra £160 million in duty and VAT receipts the 2008/9 in real terms (Table 4A). It would earn an extra £600 million in real terms over the next three years. At that time, Oxford Economics' models estimated the Budget would have a negative impact on duty and VAT receipts or a similar magnitude (-£174 million in 2008/9 and -£639 million over the next three years). HMRC have not

published estimates of the real gain or loss in combined duty and VAT receipts as a result of the Budget and PBR changes. However, we calculate they will lose £269 million in the current fiscal year and -£695 million over the next three years (2008/9 to 2010/11).

**Table 4A: Oxford Economics and HMRC predictions for the impact of the combined duty and VAT rises in the 2008 Budget (£ million)**

	2008/9	2008/9 to 2010/11
Oxford Economics' nominal	-3	+35
Oxford Economics' real	-174	-639
HMRC real	+160	+600

**Table 4B: Oxford Economics predictions of the impact of the Budget and PBR changes on duty and VAT rises (£ million)**

	2008/9	2008/9 to 2010/11
Oxford Economics' nominal	-122	+26
Oxford Economics' real	-269	-695

Source: Oxford Economics

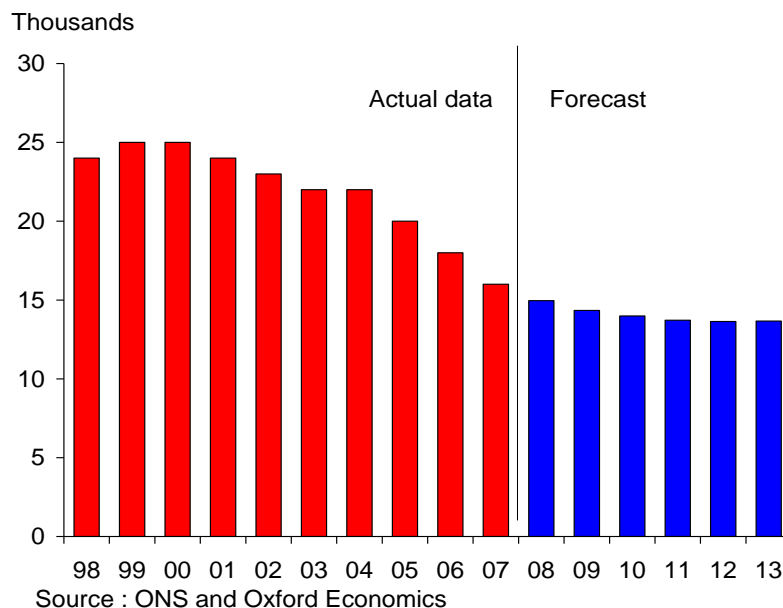
### (c) Employment

Office of National Statistics (ONS) data on employment in the brewing industry are unsatisfactory. The data collected for the Annual Business Inquiry are annual and are currently published between 1998 and 2007. It therefore does not have a particularly long run, nor is it particularly timely.<sup>7</sup> The alternative is to use the quarterly Labour Force Survey data. Unfortunately, this is based on a small survey of households and therefore is very volatile. Neither dataset is very amenable to regression analysis.

To form a forecast of employment in the brewing industry, we have assumed that brewery worker's productivity is constant over time. We use this productivity assumption to form a forecast on the basis of the total beer sales volume predictions. On this basis, it shows employment in the brewing industry is expected to decline by 1,040 in 2008/9 (Chart 10). In subsequent years, labour shedding is expected to be smaller, with forecast job losses averaging around 260 a year.

<sup>7</sup> The ABI data for 2007 were released on 17 November 2008. They show employment in the brewing industry fell by 2,000 (or 11%) to 16,000 in 2007.

Chart 10: Employment in brewing



By using forecasts generated for sales under the counterfactual exercise described above, we can investigate the impact of the 2008 Budget and PBR on employment at breweries relative to RPI inflation only rises in duty and a duty freeze (both assume the PBR changes did not occur). The 2008 Budget and PBR changes and macroeconomic environment are estimated to lower employment at brewers by 1,040 people in 2008/9 in absolute terms. If the 2008 policy changes are compared to a duty freeze, the two announcements are estimated to cost 650 jobs in 2008/9 (or put another way, just under two thirds of the job losses in 2008/9 are due to the excise and VAT changes). If comparison is drawn with an RPI inflation only rise in duty in the 2008 Budget, the changes cost 460 jobs.

The ONS collect data on average earnings in their Annual Survey of Hours and Earnings (ASHE). This suggests the average gross salary of someone working in the brewing industry in 2007 was £32,030.<sup>8</sup> Scaling that up by 3.0% for the average growth in manufacturing earnings in the first half of this financial year suggests brewery workers will earn an average of £32,990 in 2008. Under 2008/9 tax rates, they lose £5,390 in income tax and £3,030 in employee National Insurance Contributions (NIC). Firms pay £3,520 less in employer's National Insurance Contributions. The loss of 1,040 jobs in the brewing industry in 2008/9 will therefore cost HM Treasury £5.6 million in lost income tax and £6.8 million in total NIC payments this financial year. Relative to the inflation only rise in 2008/9 and a hypothetical duty freeze, the 2008 Budget and PBR increase will cost HM Treasury £5.5 million and £7.7 million in lost tax and NIC receipts.

The Ernst and Young study on the economic impact of beer and brewing on Europe argues on-trade sales of beer supported 374,000 jobs in the hospitality sector (pubs, clubs, hotels and restaurants) in the UK in

<sup>8</sup> The 2008 ASHE data by 4 digit SIC code is not scheduled for release until 16 December 2008.

2004.<sup>9</sup> Assuming these employees' productivity remains the same (namely, each person serves a constant amount of beer over time) the forecast reduction in on-trade beer sales in 2008/9 should cause a loss of 26,780 jobs. In the following five years, an average of 13,100 jobs are lost each year as a result of lower beer sales. This calculation assumes there is no switching to serving other drinks or foods. Comparing the 2008 Budget and PBR increases with the two hypothetical alternatives of RPI only increases or a duty freeze, suggests the Budget and PBR changes cost 10,990 jobs or 15,400, respectively, this financial year (2008/9).

In the 2007 ASHE survey, the average gross earnings of those working in bars was £11,170 per year. Scaling that up for service earnings growth in the first half of 2008/9, suggests bar staff's average gross salary in 2008/9 was £11,570. Each hospitality job lost as a result of the 2008 Budget and PBR changes is liable to cost £1,110 in income tax, £670 in employee NIC payments and £780 in employer NIC payments. The loss of 26,780 jobs serving beer in the on-trade in 2008/9 is likely to have lost HM Treasury £29.7 million in income tax and £39.0 million in employee and employer NIC contributions. Relative to a policy of RPI only duty increases, the 2008 Budget and PBR's impact on on-trade employment tax receipts is a loss of £28.1 million in 2008/9. Compared with a duty freeze, the 2008 Budget and PBR cost HM Treasury £39.4 million in on-trade employment taxes this year.

Ernst & Young (2006) also argue 21,400 people employed in the retail sector (super markets and off-licenses) owe their jobs to the sale of beer in 2004. The predicted decline in off-sales in 2008/9 is liable to result in 930 job losses. When this is compared to inflation only rises in beer duty, the 2008 Budget and PBR is responsible for a loss of 500 jobs in 2008/9. If there had been a duty freeze, off-trade employment would have been 680 people higher than under the 2008 Budget and PBR changes.

The ASHE survey for 2007 finds employees working in the retail sale of alcoholic and other beverages sector earned an average gross wage of £10,180 a year. Scaling that up for the growth in average earnings in the year to 2008Q1 suggests they earned £10,550 before deductions. On this salary an individual would lose £900 in income tax and £560 in employee NICs and his employer pay £650 in NICs in 2008/9. Multiplying these figures by the projected job losses suggests HM Treasury will lose £2.0 million (both income tax and NICs) in 2008/9 as a result of the loss of off-trade sales. If the Budget 2008 and PBR plans are compared to inflationary only rises in duty, the policy costs £1.0 million in foregone income tax and NIC revenues. If compared to a duty freeze, it lowers tax and NIC by £1.5 million.

## **(e) Combined impact of the 2008 Budget and PBR on excise and tax revenues**

To summarise, we investigate the total fiscal impact of the 2008 Budget changes in 2008/9 and over the five years 2008/9 to 2012/3 (Table 5). The Budget changes are compared to duty increases of RPI only and a duty freeze. In 2008/9, the Budget changes lower total Treasury receipts (including employment taxes) by £67 million and £52 million relative to the two hypothetical examples. The loss of tax receipts is compounded by a reduction in beer sales of 896,000 barrels and 11,946 jobs relative to a RPI only increase and 1,250,000 barrels and 16,730 jobs compared to a duty freeze.

<sup>9</sup> Ernst & Young (2006), 'The contribution made by beer to the European economy: Employment, value added and tax', January, page 192.

Looking at the change in duty receipts over a five year period (2008/9 to 2012/13), the 2008 Budget changes are likely to reduce total fiscal receipts £79 million and £163 million relative to RPI only increases and a duty freeze. These results are however sensitive to what assumption is made about the rate at which people return to work after losing their job – we assume it takes a year. This view is based on the twin expectations that many of the job losses will occur in rural areas where there are fewer alternative sources of employment and the current economic climate does not give rise to much optimism over employment growth. Over the five year period, nearly 13,000,000 barrels of sales are lost and over 40,000 people lose their job relative to an RPI only increase in duty. Compared to a duty freeze over 16,000,000 barrels of sales are predicted to be lost and over 59,000 people lose their jobs.

**Table 5: Fiscal impact of the 2008 Budget and PBR changes**

	Impact of the Budget and PBR compared to a duty freeze and no PBR changes in FY08/9	Impact of the Budget and PBR compared to RPI inflation only increase in duty Budget and no PBR changes in FY08/9	Cumulative impact of the Budget and PBR compared to a duty freeze and no PBR (over FY08/9 to 12/3)	Cumulative impact of the Budget and PBR compared to RPI inflation only increases in duty (over FY08/9 to 12/13)
Sales – on-trade (000s barrels)	-846	-604	-10,010	-7,777
Sales – off-trade (000s barrels)	-403	-292	-6,732	-5,265
Sales – total (000s barrels)	-1,250	-896	-16,742	-13,042
Employment (people)	-16,730	-11,946	-59,389	-40,256
Excise duty (£ million)	+115	+89	+760	+573
VAT revenue (£ million)	-118	-122	-663	-616
Employment taxes (£ million) <sup>1</sup>	-49	-35	-176	-119
Net tax gain	-52	-67	-79	-163

Source: Oxford Economics

<sup>1</sup> Employment taxes are calculated by assuming each person who losses their beer-related job takes a year to find another job. So one years of income tax and NIC payments are lost.