



HM Treasury

Small Brewers Relief: Technical consultation

January 2021

Small Brewers Relief: Technical consultation



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ISBN 978-1-911680-23-9 PU 3064

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Chapter 1

Introduction

Background

- 1.1 Small Brewers Relief (SBR), as its name suggests, provides for reduced rates of beer duty for small brewers. It was first introduced in 2002 and was later adjusted in 2004. The relief is sometimes referred to in the industry as “progressive beer duty”.
- 1.2 Following requests from brewers to look again at the scheme over a number of years, the Treasury announced at the 2018 Budget that it would review the scheme “to ensure it is supporting growth in the sector”.
- 1.3 Since then, the Treasury has received submissions and engaged with a wide range of brewing groups to understand their views about reforming the relief. For example, the then Exchequer Secretary Simon Clarke met with representatives of the Society of Independent Brewers and the Small Brewers Duty Reform Coalition together for a roundtable in September 2019. In particular, the Treasury conducted a survey of brewers from January to March 2019, which received 335 valid responses.
- 1.4 The Treasury announced at L-Day 2020 via a Written Ministerial Statement to Parliament on 21 July its first conclusions from the review. This set out that the Treasury would seek to reform the taper of the SBR regime by lowering the threshold to 2,100 hL (hectolitres) but introducing a more gradual taper. In addition, it set out that the Treasury would move to convert the relief to operate on a cash basis, and further consider the potential for a ‘grace period’ for breweries that merge.
- 1.5 While these were the initial findings from the review, the announcement also set out that a further consultation would take place about technical matters related to SBR. This is that consultation. The remainder of this document explains how SBR works, sets out in further detail the Treasury’s findings from the review, and explores the technical issues associated with reforming SBR.
- 1.6 The Government will consider the responses to this consultation before making final decisions about its approach to reforming SBR. However, changes will not take place before 1 January 2022.

Interaction with the alcohol duty review

- 1.7 Since the Government launched its review of SBR, the Government announced that it would review the wider alcohol duty system at the 2020

Budget. This wider review launched with a call for evidence on 1 October, with responses requested by 29 November.

- 1.8 As part of the call for evidence, the Government has sought evidence from stakeholders on the potential to introduce small producer reliefs on a more consistent basis across the categories. Beer duty is unique in having a comprehensive relief for small producers. Wine duty and spirits duty do not have any such relief, and cider duty provides an exemption for producers making less than 70 hL a year. However, SBR was specifically excluded from the scope of the call for evidence.
- 1.9 The Government will consider the responses from that call for evidence alongside the responses to this consultation. It is possible that the Government may choose to move towards a harmonisation of small producer reliefs across the categories if the evidence supports such a course.
- 1.10 However, as the review of SBR is much more advanced, the Government has decided to keep reform of SBR separate from the wider alcohol duty review for now. The technical issues raised in this consultation are applicable to any potential extension of small producer reliefs to other categories such as cider.
- 1.11 Furthermore, the original design of SBR was required to be consistent with the EU Alcohol Structures Directive (92/83/EEC). Now that the UK has left the EU, the UK has greater flexibility to adjust the scheme to suit its policy objectives if it should choose to do so. However, in Northern Ireland, the Alcohol Structures Directive will still apply under Article 8 of the Northern Ireland Protocol of the UK-EU Withdrawal Agreement.

How to respond

- 1.12 Although this consultation may be primarily of interest to brewers and brewing groups, the Government welcomes responses to this consultation from any individual or organisation.
- 1.13 This document sets out a series of specific questions which the Government would welcome if respondents could answer directly. The Government has already received numerous submissions about reform of SBR, which are detailed in the following chapters, as well as a high level of correspondence on the subject. The Government therefore feels relatively well informed about the general arguments about reform of SBR and would accordingly welcome more specific contributions from respondents.
- 1.14 Responses to this consultation should be submitted electronically to HMTVATandExcisePolicy@hmtreasury.gov.uk no later than 23:59 on 4 April 2021, using the provided template published alongside this document on the GOV.UK website. Regrettably, the Government is not able to consider responses that are submitted in any other way (e.g. sent in the post in hard copy form) due to coronavirus restrictions.
- 1.15 The lead Treasury official for this consultation is Charles Barry. If respondents have any questions about the consultation, they should contact the review team using the address provided above.

Data protection notice

1.16 This notice sets out how HM Treasury will use respondents' personal data for the purposes of this consultation and explains their rights under the General Data Protection Regulation (GDPR) and the Data Protection Act 2018 (DPA).

The data – data subject categories

1.17 This consultation is open to all interested persons and organisations. Therefore, personal information that we will collect could relate to members of the public, parliamentarians, and representatives of organisations and companies.

The data we will collect – data categories

1.18 Information will include the name, address, email address, job title and employer of the correspondent, as well as their opinions and answers to the questions posed by this call for evidence. Respondents may volunteer additional identifying information about themselves or third parties.

Legal basis of processing

1.19 The processing we will conduct is necessary for the performance of a task carried out in the public interest – namely, consulting on departmental policies or proposals, or obtaining opinion data, in order to develop good and effective policies.

Special data categories

1.20 Although not being requested, it is possible that special category data may be processed if such data is volunteered by the respondent.

Legal basis for processing special category data

1.21 If special category data is volunteered by the respondent, the legal basis relied upon for processing will be explicit consent of the data subject and/or that the processing will be necessary for reasons for substantial public interest in the exercise of a function of the Crown, a Minister of the Crown or a government department – namely, consulting on departmental policies, or obtaining opinion data, to develop good effective policies.

Purpose

1.22 The personal information collected will be processed in order to obtain the opinions of stakeholders, members of the public and representatives of organisations and companies about departmental policies, or generally to obtain public opinion data on an issue of public interest.

With whom we may share responses – and confidential information

1.23 Information provided in response to this call for evidence may be published or disclosed in accordance with the access to information regime. These are primarily the Freedom of Information Act 2000 (FOIA), the Data Protection Act 2018 (DPA) and the Environmental Information Regulations 2004 (EIR).

1.24 If a respondent wishes the information that they provide to be treated as confidential, please be aware that under the FOIA there is a statutory code

of practice with which public authorities must comply. It deals with, amongst other things, obligations of confidence.

- 1.25 In view of this it would be helpful if respondents could explain to HM Treasury why they regard the information they have provided as confidential. If we receive a request for disclosure of the information, we will take full account of the reasons provided, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on HM Treasury.
- 1.26 Where someone provides special category personal data or personal data about third parties, we will endeavour to delete that data before any publication takes place.
- 1.27 Where information about respondents is not published, it may be shared with officials within other public bodies involved in this consultation to assist in developing the policies to which it relates. In particular, all information provided to the consultation will be automatically shared with HM Revenue and Customs (HMRC).
- 1.28 HM Treasury reserves the right to publish its own response or a summary of responses received, which may feature quotations or extracts from provided responses.

How long we will retain data provided

- 1.29 Personal information in responses to calls for evidence will generally be published and therefore retained indefinitely as an historic record under the Public Records Act 1958.
- 1.30 Personal information in responses that are not published will be retained for at least three calendar years after the consultation has concluded.

Rights of respondents

- 1.31 Respondents have the following rights in relation to this call for evidence:
- To request information about how their personal data are processed and to request a copy of that personal data;
 - To request that any inaccuracies in their personal data are rectified without delay;
 - To request that their personal data are erased if there is no longer a justification for them to be processed;
 - In certain circumstances (for example where accuracy is contested), to request that the processing of their personal data is restricted;
 - To object to the processing of their personal data where it is processed for direct marketing purposes; and,
 - To data portability, which allows their data to be copied or transferred from one IT environment to another.

How to submit a data subject access request (DSAR)

- 1.32 To request access to personal data that HM Treasury holds about you, please contact:

HM Treasury Data Protection Unit
G11 Orange
1 Horse Guards Road
London
SW1A 2HQ
dsar@hmtreasury.gov.uk

Complaints

- 1.33 If a respondent has any concerns about the use of their personal data, they should contact HM Treasury at privacy@hmtreasury.gov.uk
- 1.34 If we are unable to address your concerns to your satisfaction, you can make a complaint to the Information Commissioner, the UK's independent regulator for data protection. The Information Commissioner can be contacted at:

Information Commissioner's Office
Wycliffe House
Water Lane
Wilmslow
Cheshire
SK9 5AF
0303 123 1113
casework@ico.org.uk

- 1.35 Any complaint to the Information Commissioner is without prejudice to your right to seek redress through the courts.

Contact details

- 1.36 The data controller for any personal data collected as part of this consultation is HM Treasury, the contact details for which are:

HM Treasury
1 Horse Guards Road
London
SW1A 2HQ
020 7270 5000
public.enquiries@hmtreasury.gov.uk

- 1.37 The contact details for HM Treasury's Data Protection Officer (DPO) are:

The Data Protection Officer
1 Horse Guards Road
London
SW1A 2HQ
privacy@hmtreasury.gov.uk

Chapter 2

How SBR works

- 2.1 This chapter explains how SBR works, as well as setting out some of the historical background leading up to its introduction.

Historical background

- 2.2 The number of brewers in Britain has fluctuated significantly over time. Brewing in the UK has ancient domestic roots, and it was common in medieval times for monasteries to brew their own beer. Starting in the 16th century, dedicated brewhouses began to be established, with the first licensing schemes coming into effect in the 1550s. In the 19th century, beginning with the Beer Act 1830, there was an explosion of registered brewers.
- 2.3 However, economies of scale in the market started to prevail, and this initial growth was then followed by the rise of increasingly large-scale commercial brewers. As a result, this led to 150 years of gradual industry consolidation. The number of brewers contracted from a peak of 49,200 in 1838 to a low of around 190 in 1980. (See Table A.1 in Annex A for full details)
- 2.4 Yet, beginning in the 1980s, several factors including consumer demand for different styles of beer and more local products led to a return to growth in the number of breweries. The number of breweries in the UK roughly doubled from 220 in 1987 to 450 in 2001.
- 2.5 As part of this, there were several calls for a 'sliding scale' of beer duty to support small brewers. In its 1989 report on the beer industry, the Monopolies and Mergers Commission received suggestions from the Campaign for Real Ale (CAMRA) and the Small Independent Brewers Association (SIBA) for a reduced rate of duty for small brewers¹. CAMRA called for all breweries, regardless of size, to be exempt from duty on their first 500 barrels (815 hectolitres). The Commission subsequently recommended²:

It has been represented to us that small brewers in the United Kingdom, unlike their counterparts in much of Europe and the USA, pay the same rate of duty on beer as the very large brewers. We consider that it would encourage the growth of such brewers, and hence improve competition and consumer choice, if a sliding scale

¹ See Appendix 10.14 of The Supply of Beer: A report on the supply of beer for retail sale in the United Kingdom, Monopolies and Mergers Commission, Cm 651 (1989)

² See paragraph 12.161 of the report.

were to be introduced that would allow small brewers to pay a lower rate of duty on some part of their beer output.

- 2.6 Although an option to provide reduced rates of beer to small independent breweries was included in the EU Alcohol Structures Directive of 1992, the Government did not implement this. However, to support the trend of increasing numbers of small breweries, the Government introduced SBR in 2002. The then Chancellor announced at the 2002 Budget:

To encourage one group of small businesses, the nation's small breweries—often village pubs, some two centuries old—I have decided that the duty paid on their own beer will be halved. This is a cut equal to 14p off each pint, to be implemented for village pubs and small breweries by this summer—in time for the World cup. It will also be available in Scotland, Wales and Northern Ireland.

- 2.7 Despite this phrasing, SBR is not available to pubs, who do not pay duty directly.

- 2.8 The then Financial Secretary to the Treasury, Paul Boateng, elaborated on the rationale for SBR during the passage of the Finance Bill 2002³:

Successive Governments have sought to support the diversity of the British beer market, notably by use of regulations allowing independent brewers access to tied estates. As the number of tied estates has fallen and pub companies have come to the fore, it has become increasingly difficult to promote diversity and market access through regulation. When we are asked for the rationale behind the scheme, it is an attempt to meet that concern and recognise the particular difficulties that small breweries face when seeking to grow their business and compete for access in today's beer market.

We estimate that the savings will help small breweries to remain profitable when selling beer to pub companies at discount rates and, for many, will allow them to invest in their own pubs, which will offer them a more secure and stable outlet for their products. Of course, the choice is theirs; it is not for the Government to dictate how small breweries should make use of the savings now available. Some may choose to cut their prices, but others will seek to re—invest the savings to enable them to compete against medium and large breweries.

The measure will help to level the playing field. Small brewers will be able to compete more effectively with the big regional and national breweries. They will be able to use the savings that they make to invest in their own pubs, or to offer increased discounts when selling their beer.

The proposed relief will provide support for small brewers throughout their growth—from the first barrel that they produce until they reach the £2.5 million turnover of regional brewers. The relief is focused and will meet the needs of those who require it most. It will retain for the UK the rich

³ Hansard – Commons Debates (8 May 2002): Volume 385, Column 161

diversity of its brewing industry, and protect consumer choice in an age when multi-million pound pub companies dominate the retail market.

We want a beer industry in which 500 brewers have access to the market, and not just the largest 50.

2.9 The SBR scheme came into effect on 1 June 2002.

The SBR scheme

2.10 SBR is available to any brewer that produced less than 60,000 hectolitres⁴ (hL) in the previous calendar year and that estimates it will produce less than 60,000hL in the current year. If a brewery is new and has not made a full year's production, an estimate for production can be provided as a basis to claim SBR.

2.11 The reduced rate of beer duty for such brewers provided by SBR is as follows, where **P** represents the previous year's total production in hL:

- a) If the brewery produced 5,000 hL or less, the brewery receives a 50% discount off the main beer duty rate.
- b) If the brewery produced more than 5,000 hL but not more than 30,000 hL, the brewery pays a percentage equal to:

$$\frac{P - 2500}{P}$$

- c) If the brewer produced more than 30,000hL but not more than 60,000 hL, the brewery pays a percentage equal to:

$$\frac{P - 2500 + ((P - 30000) * 0.0833)}{P}$$

2.12 For example, a brewery that produced 7,500hL would pay duty at 66% of the standard duty rate (i.e. they would receive a one-third discount), and a brewery producing 40,000hL would pay 95.8% of the standard duty rate.

2.13 SBR is only applicable to the general beer duty rate affecting beers greater than 2.8% ABV. This means that small brewers do not receive reduced rates on beers below this ABV level⁵. Beers below this ABV pay a lower rate of duty of around 44% of the standard duty rate.

2.14 SBR does also not apply to the additional excise duty levied on beers above 7.5% ABV, but brewers still receive SBR on the underpinning general beer duty. For example, an 8% beer will pay £152.64 per hL in general beer duty and £45.52 per hL in additional excise. A brewer producing 2,000hL will still receive a reduced rate of 50% for the general beer duty but will pay the additional excise at the full rate, meaning they pay £121.84 per hL compared to a full-scale brewer which would pay £198.16. The overall reduction they receive therefore is 38.5%, rather than 50%.

⁴ A hectolitre (hL) is 100 litres and is the standard unit used in brewing and excise legislation. It is equivalent to 176 pints. However, some brewers also use traditional units, principally the barrel (1.63 hL, 288 pints) and the firkin (0.41 hL, 72 pints).

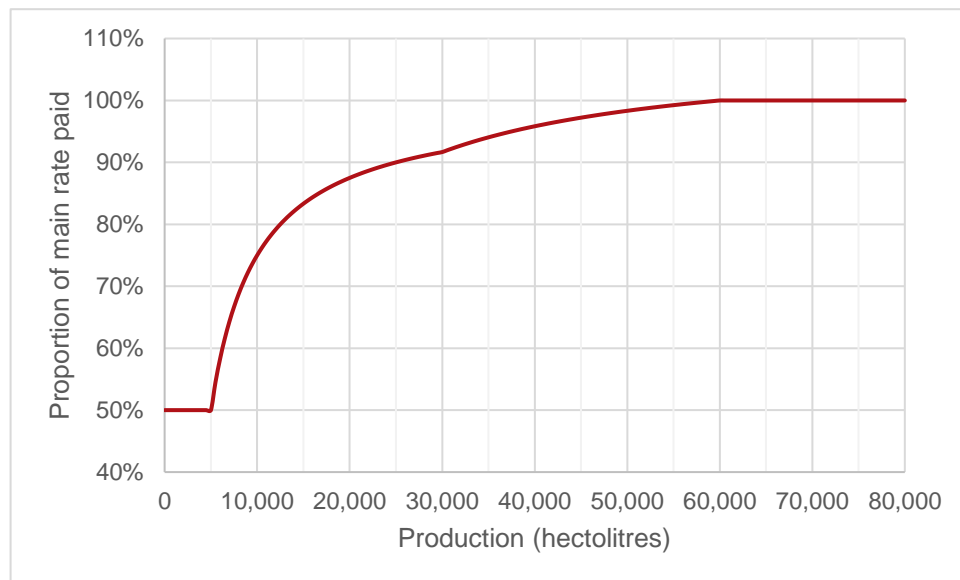
⁵ However, as beer is defined as a product above 0.5% ABV, lower alcohol beers (even those between 0.5-1.2% ABV which do not pay excise duty) count towards a brewers' total production.

- 2.15 SBR is also available to overseas brewers importing their beers into the UK on the same terms as UK brewers. When the product is due to pay UK duty, the importer can make use of the reduced rate if they are a qualifying small independent brewery. However, this remains a relatively small part of the market, as HMRC estimate that only around 1% of all beer that qualified for SBR in 2019 was imported.
- 2.16 In order to ensure that the relief is only going to breweries that are genuinely small scale, brewers have to satisfy further requirements in order to qualify for SBR. Brewers must be independent of any other brewer. For example, a small brewer producing less than 60,000 hL that operated as an independent subsidiary of a larger brewery would not qualify for SBR.
- 2.17 Alternatively, if brewers are operating as part of a group, the brewers in that group will pay SBR on the group's total production, and this cannot exceed 60,000 hL, or none of them will qualify for SBR.
- 2.18 If a brewer produces beer under licence (i.e. it is brewed for another brewery), that beer cannot qualify for SBR, but must be reflected in the brewers' total production for calculating SBR. If the brewer produces more than 50% of their beer under licence, then they cannot qualify for SBR at all.

Effect of SBR as a brewer grows

- 2.19 The chart below describes how the formulas described in paragraph 2.8 affect the rate of duty that a brewer pays as it grows.

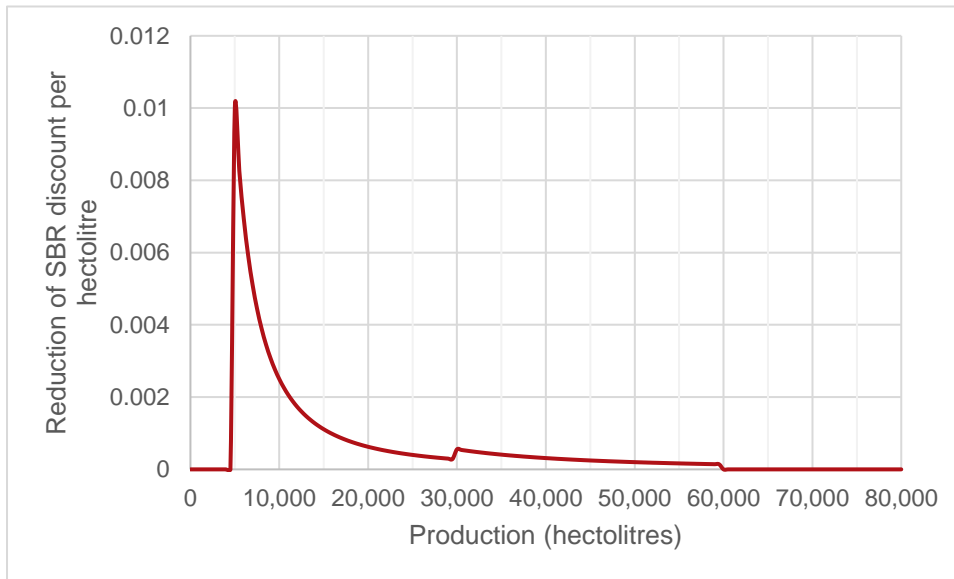
Chart 2.A: Duty curve



- 2.20 If the chart were to be expressed in terms of the amount of discount a brewery received, the chart would be the same but inverted, moving from 50% to 0% over the same range.
- 2.21 As can be seen, the duty rate a brewer pays increases very rapidly once it passes the threshold of 5,000hL. In fact, the discount halves between 5,000hL and 10,000hL from 50% to 25%. However, once a brewer has reached 20,000hL, decreases are more gradual, with the remaining 12.5% discount being removed steadily over the next 40,000 hL.

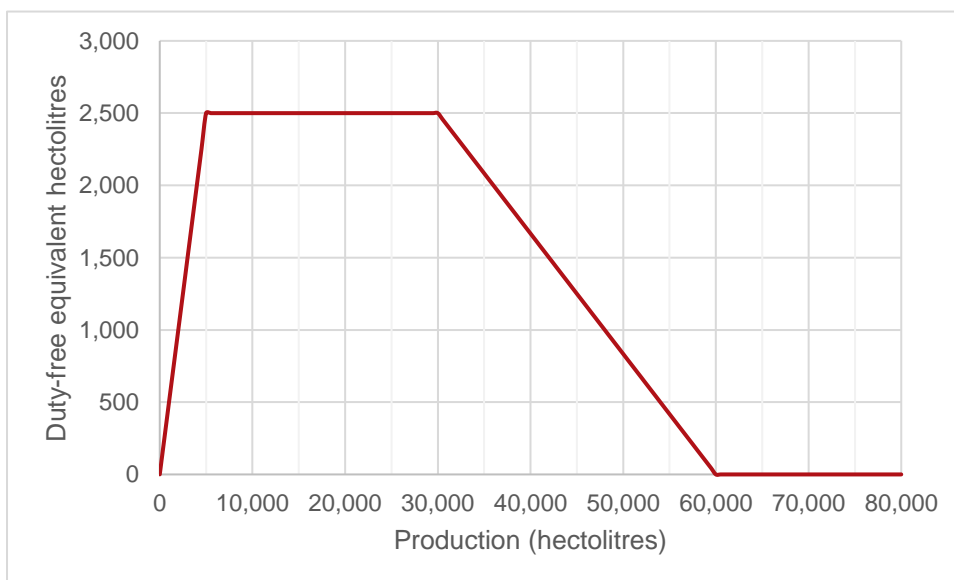
2.22 The rate of change⁶ of the duty curve is charted below. As can be seen, there is a sharp increase at the 5,000hL threshold. At this point, a brewer will lose 0.01% of their SBR discount for every additional hL they brew.

Chart 2.B: Rate of change of duty curve



2.23 Because the SBR scheme affects the duty rate paid on *all* of that brewer's production (and not just the marginal amount above each threshold), as a brewer grows, the amount of total tax relief they receive in absolute terms also changes. This is graphed below.

Chart 2.C: Absolute generosity curve



2.24 The amount of actual relief in cash terms a brewer will receive in a given year depends on the average strength of the beer they brew. For example, a brewer producing 10,000 hL at 4% ABV will receive a duty reduction equivalent to £190,800, whereas a brewer at 5% ABV will receive a reduction equivalent to £238,500. For this reason, the chart expresses the

⁶ Formally, its first derivative. For production between 5-30,000hL, this is equal to $\frac{2500}{p^2}$ and between 30-60,000hL is $\frac{4999}{p^2}$

value of the curve in duty free equivalent hectolitres. However, the shape of the curve is unchanged by the strength of the beer produced by the brewer.

- 2.25 As can be seen, between 0 and 5,000hL the amount of relief a brewer receives increases linearly with their production. Once the 5,000hL threshold is passed, the duty curve decreases in parallel with the increased production so that absolute generosity is maintained at a constant level. From 30,000-60,000hL, the amount of relief is decreased linearly to zero.
- 2.26 In terms of the marginal duty paid (i.e. the additional duty paid on each additional hL produced), the marginal duty curve is as follows:

Chart 2.D: Marginal duty curve



- 2.27 As can be seen, between 0-5,000hL, the marginal duty rate is at 50% of the main duty rate. Once a brewer crosses the threshold at 5,000hL, the marginal duty rate is 100%, i.e. the brewer pays the equivalent of the full duty rate on every extra hL produced. Between 30-60,000hL, the marginal duty rate is 108.33% of the main rate, reflecting the impact of the absolute generosity of the SBR scheme reducing to zero over this range.

2004 extension

- 2.28 Originally, the SBR scheme was only available to brewers that produced under 30,000hL. Once a brewer reached 30,000hL, its entitlement to SBR ended absolutely. This reflected the recommendation of SIBA at the time. However, producing one additional hL above 30,000hL cost a brewer around £128,000 in duty relief.
- 2.29 Accordingly, after reviewing submissions from brewers after the SBR scheme had come into force, the Government legislated to extend the SBR scheme to add a second taper for production over 30,000hL. This came into force on 1 June 2004.
- 2.30 The effect of this change is illustrated in the following chart.

Chart 2.E: Effect of 2004 change to SBR scheme



Craft beer versus small beer

- 2.31 While in common language the term “craft beer” is often used to describe beer produced by small brewers, it is also employed more loosely to describe a new category of beer which comprises a wide range of styles. Although there is no formal definition of this grouping, this category is often distinguished by factors including the niche focus of products, unusual ingredients, non-traditional recipes, or higher price points of products.
- 2.32 Although the number of small brewers has increased significantly in parallel to the rising popularity of these styles, the majority of what is usually categorised as craft beer is now produced by larger brewers, either directly or through subsidiaries. According to Nielsen Scantrack, of the top 10 craft beer brands in the UK in July 2020, none were produced by a brewery that qualified for SBR. Furthermore, retailers may offer own-label craft beers using similar branding and price points, with the beer produced under licence by another brewery.
- 2.33 For this reason, the Government is aware of efforts by groups such as SIBA to introduce a ‘kite-mark’ scheme certifying that the beer has come from a small brewer.

Chapter 3

The review of SBR to date

3.1 This chapter explains the evidence that the Treasury has received to date and the Government's initial conclusions on reform of SBR.

Why did the Government announce its review of SBR?

3.2 For a number of years, there have been complaints from brewers that produce above the 5,000hL threshold that the scheme design is flawed. In 2006, the All-Party Parliamentary Beer Group wrote to the Treasury saying, "while members of the Group are delighted by the remarkable stimulus which [SBR] has given to new market entrants as well as providing considerable help to many of the longer established brewing enterprises, they are also persuaded that the concomitant distortions being caused around the margins of the scheme are of sufficient concern as to justify a full review of the workings of [SBR], which they fully support."

3.3 The Treasury has also received regular submissions from individual brewers concerned by the effects of SBR on the industry, and articles in the trade press making criticisms of SBR have appeared frequently over a long period. For example, in 2007 Guy Newell of the Butcombe Brewery was reported as saying that SBR had "destabilised the market".¹ Stephen Oliver, guest speaker at SIBA's 2006 conference, said that SBR had "potentially damaging side-effects even though it was brought in with the best of intentions" and that "this inequitable tax relief is undermining the very future of committed and long-standing regional brewers of cask ale and making them even more at risk of take-over"².

3.4 Although different issues have been raised by different correspondents, in summary, these complaints have included that:

- The SBR scheme is too generous – giving subsidy beyond the relative cost disadvantage experienced by smaller brewers. This in turn (it is argued) makes it very difficult for medium-sized brewers to compete, as they lack the tax advantage provided by SBR or the economies of scale enjoyed by the multinationals that dominate market share;
- This unfairness has increased over time, as SBR is linked to the headline duty rate and not to changes in production costs;

¹ See <https://www.morningadvertiser.co.uk/Article/2007/03/08/Brewer-calls-for-urgent-beer-duty-review>

² A contemporary transcript of the speech was provided to the Treasury.

- The taper is flawed, preventing growth by making expansion beyond 5,000hL extremely difficult and uneconomic;
- The scheme also distorts normal business decision-making, for example discouraging export growth or preventing otherwise sensible mergers and acquisitions from taking place.

3.5 As part of its review, the Treasury has sought to assess these criticisms while also testing the effectiveness of SBR against the original criteria.

What evidence the review has received

3.6 In conducting its review of SBR, the Government has considered a wide range of evidence, both from brewers and from external sources.

2019 survey of brewers

3.7 Following the announcement of the review at the 2018 Budget, the Treasury conducted a survey of brewers, which was open between January to March 2019. This received 335 full responses. The survey asked a series of questions about potential reforms of SBR, and also collected quantitative data on brewers' sales and production costs. Finally, the survey also offered respondents the opportunity to submit open comments about the scheme.

3.8 The findings from the survey are discussed more fully later in this chapter. Full data tables from this survey can be found in Annex B.

Submissions received

3.9 In addition to its own survey of brewers, the Government has received submissions directly from brewers and brewing groups. Principally, these were from the Society of Independent Brewers (SIBA), a trade association primarily representing small brewers, with over 700 members; the Small Brewers Duty Reform Coalition (SBDRC), an informal grouping of interested brewers; and the British Beer and Pub Association (BBPA), the largest trade association representing brewers and pub owners. All three groups have provided repeated submissions to the Treasury over the course of the review, and Treasury officials have met with all of these groups on several occasions.

3.10 14 brewers also provided submissions directly. Either on their own or with the brewing groups, Treasury officials have met with representatives from Titanic Brewery, Ramsgate Brewery, Adnams, Theakstons and Hogs Back Brewery.

Other evidence

3.11 The review team considered academic research by John Wyld, Geoff Pugh and David Tyrall on the impacts of SBR on the brewing industry³. Treasury officials met with the authors to discuss their research in August 2019.

³ Pugh, G., Tyrall, D. and Wyld, J. (2001). Will progressive beer duty really help UK small breweries? A case study in profit appropriation, *Journal of Small Business and Enterprise Development*, Vol.8, No.4 (Winter) pp.311-338

Wyld, J., Pugh, G. and Tyrall, D. (2010). Evaluating the impact of progressive beer duty on small breweries: a case study of tax breaks to promote SMEs, *Environment & Planning C: Government & Policy*, Vol.28 (2) pp.225-40

- 3.12 The Treasury has also considered international examples and comparisons from across the EU. It has also reviewed its own files relating to the original development of SBR in 2002 and its development over subsequent years.

Is SBR working as intended?

- 3.13 The original rationale for SBR was that it would help small brewers compete against their larger competitors, by making them relatively more profitable by offsetting their higher costs of production. In turn this would help address their market access issues. By doing so, the sector would expand and thereby increase choice for the consumer.
- 3.14 In the 2019 Treasury brewers survey, there was a notable split of opinion between different sized breweries about the effectiveness of the scheme. Those producing less than 5,000hL per year were very positive about the scheme, with 74% saying they were happy with how it was functioning. However, brewers producing between 5-60,000hL (i.e. small-medium sized breweries still in receipt of SBR) were less positive, with only 16% agreeing they were content with the current scheme.
- 3.15 The Treasury has therefore sought to evaluate how SBR is performing against these original criteria, before looking at the criticisms raised by brewers.

Has SBR encouraged the growth of the sector?

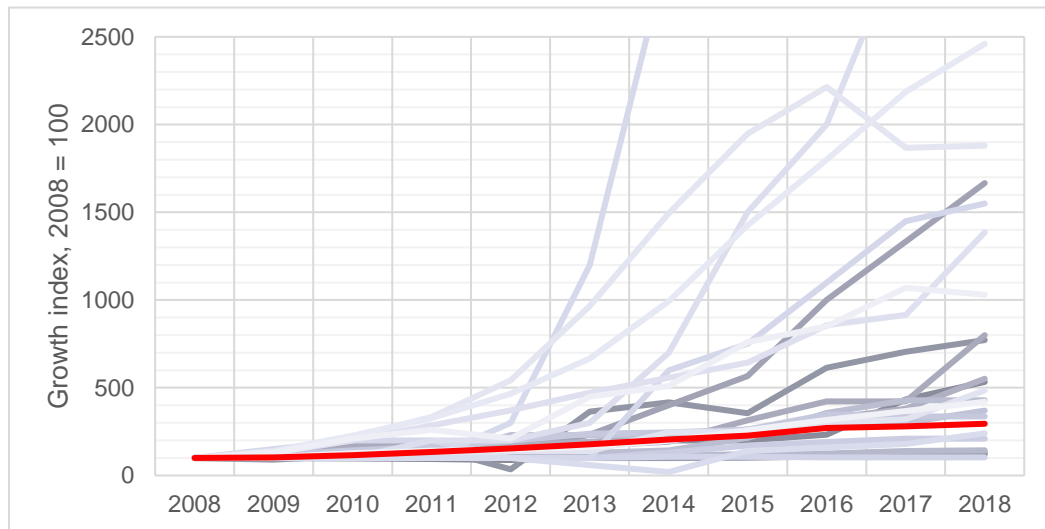
- 3.16 One of the key drivers of the original SBR policy was to stimulate the growth of the small brewing sector. In doing so, it was argued, choice to the consumer would increase.
- 3.17 Obviously, since 2002 – when SBR was introduced – the number of brewers has increased substantially. Simplistically, this could be solely attributed to SBR. However, there are several reasons to doubt this. Growth in the number of small brewers pre-dates SBR by over a decade. According to the BBPA, the number of brewers grew by 79% between 1990 and 2000, and by 66% between 2000 and 2010. Most of the growth in small brewing numbers happened between 2009 and 2017, many years after the introduction of SBR⁴.
- 3.18 In addition, there is early evidence that the small brewing sector has entered a period of relative decline or consolidation. The number of new entrants into the sector peaked in 2013 and has declined to a standstill in 2018, and SIBA's membership declined by 13% between 2017-2019. SIBA's 2020 craft brewing report shows sales of beer through its BeerFlex scheme also declined from £13.6 million in 2014 to £10.3 million in 2019. The tax treatment of small breweries has been constant over this period, suggesting other factors are at play. This was also before the onset of COVID-19 – the Government is monitoring the impact of the pandemic on the small brewing sector.
- 3.19 Other countries have also seen similar changes, suggesting the growth in small breweries is not a unique feature of the UK tax regime. Over the last 10 years of available data, many European countries have experienced

⁴ CEBR simply attribute this subsequent growth to “the craft brewing revolution”.

significant microbrewery growth. For example, Switzerland saw its number of microbrewers increase from 222 in 2008 to 933 in 2018.

- 3.20 Indeed, when compared to other countries across Europe, the UK has experienced only average levels of microbrewery growth, although this is partly because the UK started with a high base in 2008. The chart below sets this out, with the UK in red.

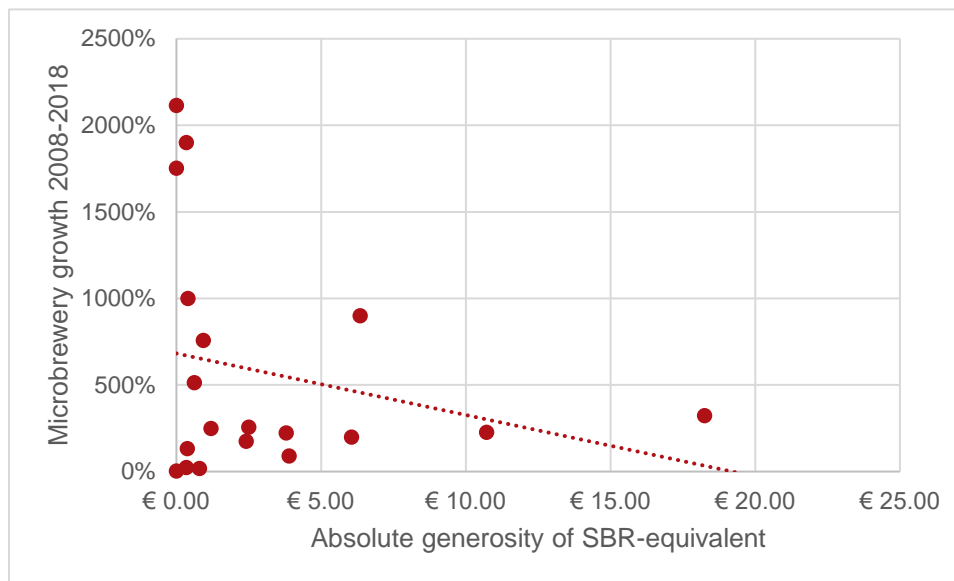
Chart 3.A: Growth in microbreweries across Europe (UK in red)



Source: *Brewers of Europe*

- 3.21 Furthermore, there appears to be no robust correlation internationally between the generosity of a country's SBR-equivalent rate for the smallest breweries and the amount of microbrewery growth. Depending on whether Portugal (which experienced a 11,400% growth in microbreweries over this period) is included, the correlation of SBR-equivalent and growth flip from a slight positive to a slight negative relationship.

Chart 3.B: Correlation between SBR-equivalent and microbrewery growth



Source: HM Treasury analysis of Brewers of Europe and European Commission data

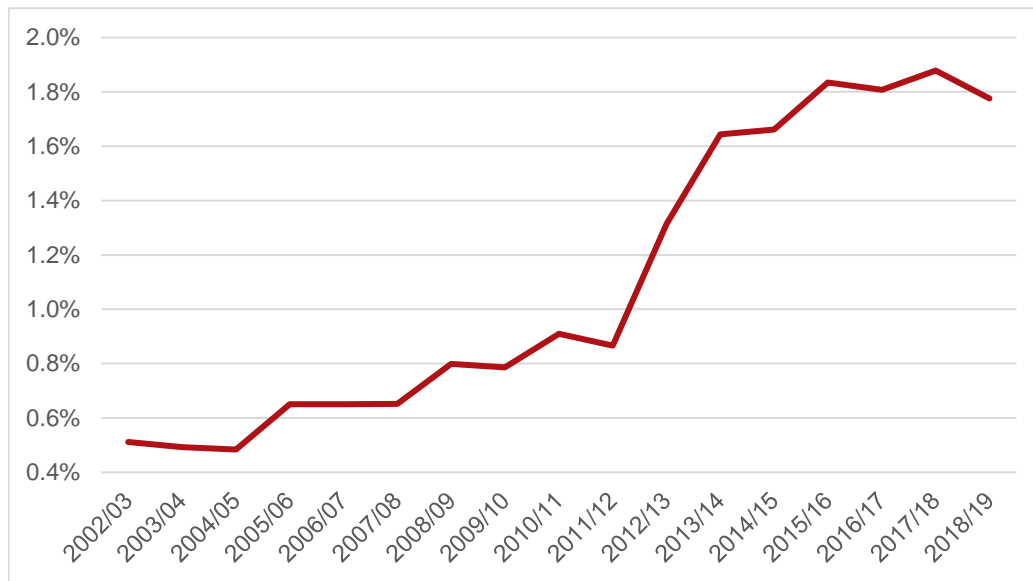
- 3.22 However, this is a simplistic analysis, as the generosity charted above is the 2020 value and not the path of the tax advantage over the past 10 years. Nonetheless, increased levels of SBR is not robustly associated with increased microbrewery growth.
- 3.23 While microbrewery numbers have increased over this period, this is also true of other sectors. In the UK, the number of spirits producers in England increased from 23 to 228 over the period 2010-2019. This is despite not having any equivalent tax relief to SBR.
- 3.24 On the other hand, academic research⁵ by Geoff Pugh, John Wyld and David Tyrall suggested that SBR would and did have a positive effective on the number of small breweries. Their first paper (from 2001) drew together existing literature to develop a theoretical model of how the introduction of a SBR scheme would affect the small brewing sector. This suggested that, everything else equal, SBR would encourage new entrants into the sector. Their follow-up paper in 2010 tested this hypothesis using data from the *Good Beer Guide* and found evidence of an increase in the rate of formation of small breweries between 2003 and 2006 compared to 1988 to 2002. However, they cautioned “because we have not identified a control group, we cannot be so certain in either nonrejection or rejection of our hypothesis.”.
- 3.25 In addition, the authors theorised that after an initial increase, “assuming that other factors remain unchanged, the number of entrants would return to trend. Moreover, given the constant rate of survivorship identified above, the number of exits will be proportionally unchanged. Consequently, the growth in the number of small breweries returns to the underlying trend”.
- 3.26 A further consideration is that the period since the introduction of SBR has seen a considerable reduction in beer duty volumes. The fact that

⁵ As previously cited.

microbrewery growth occurred, especially at the immediate period after its introduction, when volumes declined the quickest, would support the hypothesis that SBR has increased microbrewery numbers. In 2002/03, 55,600,000 hL was brewed, but in 2019/20 this fell to 37,375,000 hL.

3.27 As a result, far from paying for itself through sector growth, the scheme has become more expensive to the Government. This is true both in absolute terms (increasing from £15 million to £65 million in expenditure between 2002 and 2019) but also as a proportion of overall beer duty receipts:

Chart 3.C: Expenditure on SBR as a proportion of beer duty revenues



Source: HM Treasury analysis of HMRC data

Conclusion

- 3.28 Based on the available evidence and economic theory, it seems more likely than not that SBR has contributed to the growth of the microbrewery sector. Thereby, choice to the consumer is somewhat likely to have increased, although this will depend on how each brewery sells its beer (i.e. not every consumer will be able to access every beer in their local pub).
- 3.29 However, its effect should not be overstated, and it is possible that after an initial boost, other factors predominated. If there is a 'one-off' effect to growth from SBR, this would help explain why the small brewing sector has showed the first signs of contracting over recent years.
- 3.30 The increases in the number of microbreweries are also likely to be driven by other factors, such as changed consumer preferences (e.g. for locally made products), changing tastes, lower barriers to entry (technological advancements and reduced capital costs through crowdsourcing) and increases in the relative amount of beer being sold in the off trade. This explains at least in part the similar increase in small-scale distilling observed in the last decade.

Has SBR made small brewers more profitable?

- 3.31 One of the arguments advanced for SBR was that it would help make small brewers more profitable, thereby giving them more opportunities to invest in their business or discount their prices to expand market share.
- 3.32 However, even before SBR was introduced, there was scepticism that this would materialise. The research by Geoff Pugh, John Wyld and David Tyrall in 2001 also examined the effects of introducing SBR on the profitability of individual small brewers and the small brewing sector as a whole. Brewing is a market characterised with low barriers to entry – start-up costs are relatively modest and brewing is a widely understood technology – but with a limited number of distributors who control access to large retailers and the on-trade. Small brewers are therefore usually price takers and have limited bargaining power.
- 3.33 The results of their modelling suggested that the introduction of SBR would in the short-term increase the profits of small brewers (because of the lower rate of duty relative to the market price), although the purchasing power of distributors would allow them to demand lower prices from smaller breweries and therefore seize the advantage for themselves. In turn, some of this would be passed to the consumer in the form of lower prices.
- 3.34 However, in the longer-run, the modelling suggested that the increased profitability of small brewers would attract new entrants to the market. This would increase competition between small brewers to sell their products, increasing the bargaining power of distributors. Eventually, distributors would be able to force down selling prices of small brewers down to the lower marginal cost brought about by SBR (see Chart 2.D). The net effect therefore was that individual small brewers would be no more profitable than before in the long-run. Therefore, while the *consumer* would benefit from increased variety and potentially lower prices, the *producer* would see little individual benefit. However, the sector as a whole would be slightly more profitable because a larger number of small brewers would be sustained in business.
- 3.35 There were several caveats included in the paper. The modelling results might not materialise if intermediaries limited the number of suppliers they were prepared to deal with or if there was reputational damage associated with bargaining down prices excessively. Furthermore, small breweries aiming to make superior, high quality products would have more bargaining power as their product would be different to other beers sold on the market. Finally, there is not a pure monopsony in the market and small brewers could find independent ways of accessing the market.
- 3.36 In their 2010 follow-up paper, the authors examined whether there was evidence that SBR had led to increase profitability, and therefore survivability, of small brewers. They examined the number of breweries that went out of business during the period 2003 to 2008 to previous 6-year periods going back to 1988. They concluded “We find no evidence of a change in survivorship consequent upon the introduction of [SBR]. By extension, we conclude there has been no change in profitability. Neither the improved financial position of small brewers sought by SIBA and implied by HM

Treasury nor the increased survival sought by the Monopolies and Mergers Commission has occurred.”

3.37 In contrast to this stark result, SIBA members’ surveys produced between 2005 and 2020 consistently highlighted that members claimed to have used SBR benefits to pay for many improvements to their business rather than discounting pricing. However, the 2003 Treasury call for evidence on SBR saw 41% of eligible breweries say they had used SBR to make their pricing more competitive. One brewer commented:

What has happened is a gradual evolution. SBR has not been suddenly passed across in reduced prices, the process has been one of slow gradual cuts and a failure to pass on cost increases.

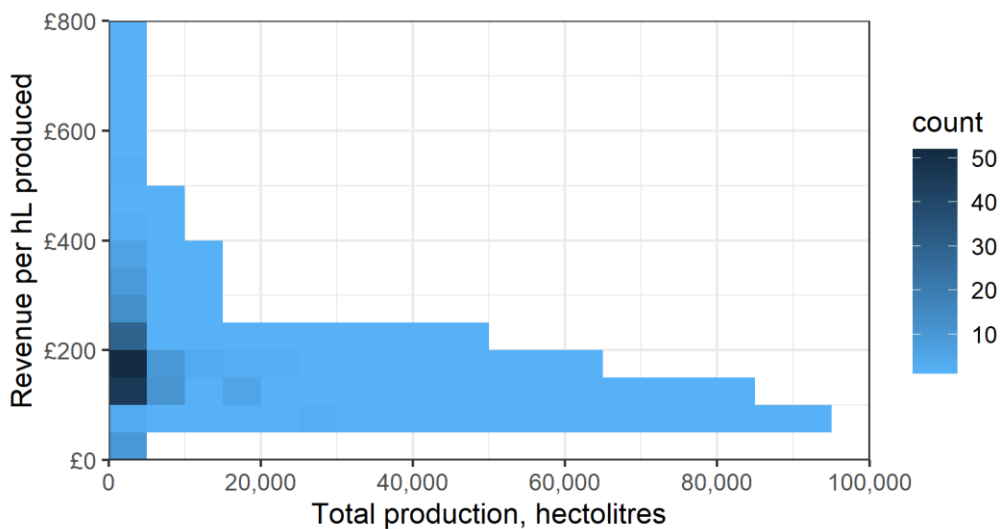
3.38 Other sources of data on profitability, in particular evidence relating to how brewers’ profitability changed before and after SBR, are hard to obtain.

Data from the Treasury brewers survey

3.39 The 2019 Treasury brewers survey asked respondents to provide their total revenues from beer sales (before duty and tax) and their total scale of production. This can be combined with the cost data (discussed further below in the section on economies of scale) to produce an estimate of each respondent’s gross profit.

3.40 The revenue data seemed to suggest a trend average revenues per hL slightly declined as brewers got bigger, although there is considerable noise in this trend (particularly at the smallest scales of production). This suggests that they may be able to command higher prices as niche products. This trend is charted below. This chart has been presented in this way to show the dispersion of the data points while complying with disclosure control. This means that a data point is not always present in every part of the lightest shaded area.

Chart 3.D: Revenues per hL relative to scale



Source: HM Treasury 2019 brewers survey

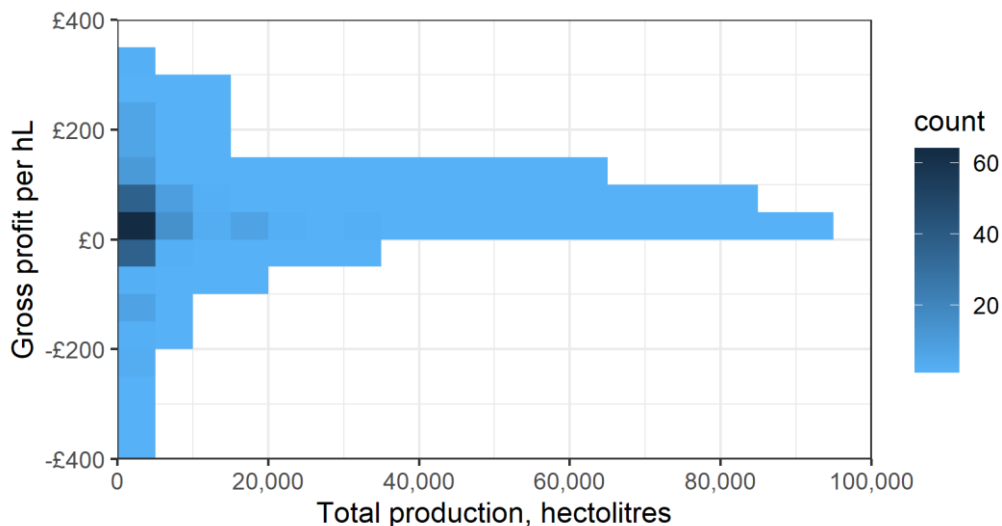
3.41 This result was replicated by a CEBR study⁶, who also found evidence of “a weak negative relationship between scale and sale price”. CEBR provided two reasons for this. First, smaller brewers tend to have a higher share of small-pack sales, which incur higher packaging costs. These may be being passed on to the consumer and therefore incorporated in their revenues. Second, “there can be expected to be general downward price pressure either because of a need to sell the higher volumes produced or because only larger brewers are in a position to deal with larger clients who demand highly competitive prices both in the on-trade and off-trade channel. Essentially, bulk discounting can always be expected when dealing with large customers who have greater bargaining power but who also offer certainty for a brewer’s beer.”

3.42 In a submission to the Treasury, one brewer provided a similar explanation:

The smaller on and off trade customers and niche wholesalers can only take a brewery so far. After that we must find bigger businesses to sell to. Many of those are tied, and most of the rest demand pricing at levels that cannot be sustainably met until economies of scale can be achieved (which do not kick in until a brewery exceeds 20k HL). Also, there are no mid-tier wholesalers who can work with brewers between 5k and 20k - there are only the really big players and the really small ones.

3.43 As mentioned, it is possible to combine the individual revenue and cost data provided from each respondent to analyse how gross margins change relative to scale. These are charted below. Note both the revenue and the costs data used to produce these figures exclude tax and duty.

Chart 3.E: Gross profits produced by breweries



Source: HM Treasury 2019 brewers survey

3.44 As can be seen, gross profitability appears to be constant relative to scale. However, the estimates charted above suffer from being based on two noisy sources (revenues and costs), and so gross profits (as the difference of the two) has greater uncertainty than either revenue or cost data on its own. The

⁶ Is the policy of progressive beer duty working as intended? CEBR (2017)

noise in the gross profit estimates is particularly pronounced at the lowest level of production, where breweries reported extremely high levels of profits or losses (including a small number beyond the limits of the chart). However, the bulk of the smallest brewers report producing at similar levels of profitability to larger brewers.

3.45 As one brewer noted about the challenges of determining profitability:

It all depends how central overheads are allocated...we would probably allocate £70-100,000 of costs to the shop in which case our loss on the brewing business would be smaller. I am sure that most brewers rely on their brewery shop or tap room, or pubs they own to make most of the profit...so most small brewers will report a loss.

Conclusion

3.46 There is very limited evidence that SBR has helped individual small brewers become more profitable, while there are fairly compelling reasons to believe that it has had no net effect, with the additional profit being extracted by intermediaries.

Has SBR helped address market access issues?

3.47 A frequent concern of small brewers has been securing fair access for the distribution and sale of their beer. This is a long-running issue that is a constant feature in industry representations over time. As the Office for Fair Trading noted in its 2000 report on the supply of beer⁷:

Smaller brewers also face problems accessing downstream wholesale and distribution markets in the on-trade. The deep discounts offered by national brewers to retail pub chains cannot be matched by smaller brewers or independent wholesalers which lack the economies of scale in production and economies of scope in distribution. Tied loans, while less widespread in the current economic climate, still have the potential to foreclose the wholesale on-trade market to smaller brewers.

3.48 An argument in favour of introducing SBR at the time was that it would help breweries accumulate capital savings to help purchase a pub of their own. That way, they would be able to have more secure and profitable routes to market. However, as discussed, it is unclear that SBR has increased the profitability of small brewers in itself.

3.49 The SBR relief is only one factor that affects a brewer's access to market. Shortly after the launch of SBR in June 2002, the SIBA Direct Delivery Scheme (also known as 'Beerflex') was launched in December 2003, which is acknowledged to have significantly improved the ability of small brewers to access the market. Given the close timing of this scheme with the launch of SBR, it is difficult therefore to separate any benefit to market access provided by SBR from that provided by the Direct Delivery Scheme.

3.50 The logic that SBR would help brewers by enabling them to save up for a pub (and the countervailing argument that powerful intermediaries would

⁷ See 2.13 of *The Supply of Beer: A report on the review of the beer orders by the former Director General of Fair Trading*, Mr John Bridgeman, published under section 125(4) of the Fair Trading Act 1973; OFT317, Office for Fair Trading (December 2000)

absorb the bulk of the benefit) is complicated by the fact that beer sales in the on-trade have fallen considerably in general since 2002. In 1980, 88% of beer was sold through the 'on-trade', but by 2018 this had fallen to 46%, with off-trade sales overtaking the on-trade for the first time in 2014. However, small brewers still tend to sell principally to the on-trade. In 2005 90% of small brewers sold in the on-trade, the majority of which was untied and not under the control of small brewers⁸. In 2020, small brewers still sold over 70% of their beer to on-trade venues such as pubs, with 52% of SIBA members' sales coming from freehouses, although 14% of sales now came from taphouses or pubs under small brewery control⁹.

3.51 One brewer was particularly critical of this argument in favour of SBR:

If there is thought to be a problem with market access it is a competition policy issue, not a fiscal matter. There is no way that a subsidy can be tuned to appropriately allow for market access, and again the question would arise as to why this should be done in the beer market, but not elsewhere given that no market is without quirks of access.

It should also be noted that if there is a problem with market access it relates to breweries owning, or not owning, pubs or making, or not making, loans to third party pubs. This is not the same as being a smaller or a larger brewer.

Conclusion

3.52 It is very unlikely that SBR has had any appreciable difference on the ability of small brewers to access the market. Different brewers operate different business models, and SBR cannot discriminate between them. The issue of market access continues to be one raised by industry representatives as a pressing concern, almost twenty years after the introduction of SBR.

Are the criticisms of SBR valid?

3.53 There was frequent complaint from brewers, particularly medium-sized ones, that the SBR scheme distorted the market. For example, one brewery wrote in a letter to the Treasury:

The UK beer market is suffering; this is partly driven by the SBR and its unintended market distortions. It is the market distortions that create the reasons SBR must be reformed as we need a truly progressive, fair, beer duty system. The current system fails to reward investment and efficiency, deters exports, and so traps many small brewers at certain stages of growth. It is unfair to all small brewers wishing to grow their business, to drinkers and to the taxpayer. It is strangling growth and damaging the industry, therefore it is vital that SBR is reformed.

3.54 There were three inter-related arguments advanced by brewers about market distortion caused by SBR:

- The value of SBR in itself was unfair, as the UK had a high rate of beer duty and therefore a 50% relief was excessively generous. In addition,

⁸ SIBA Local Brewing Industry Report 2005

⁹ SIBA 2020 Craft Beer Report

this value had increased significantly since 2002, out-of-step with industry costs, exacerbating the underlying issue;

- The nature of the taper design meant (due to the doubling of marginal costs at 5,000hL) that it was very difficult for brewers to grow from 5-20,000hL;
- It was also very difficult for larger brewers producing between 20-200,000hL to compete in the free trade against brewers producing between 2-5,000hL, as the nature of their production costs versus the amount of SBR they received meant they could price their products at an unsustainable level.

3.55 As a result (so it was argued) the Government had “created a landscape of global brewers on the one hand, and a large number of small UK taxpayer-subsidised brewers on the other with very little, if anything, in between”¹⁰. The viability of medium-sized brewers was poor and consequently their numbers were in decline.

3.56 The following sections seek to evaluate these criticisms against the evidence considered by the review.

Does SBR match production costs correctly?

3.57 While SBR was intended to offset higher production costs experienced by small brewers, (as noted earlier) a criticism that has been consistently raised with the Treasury is that the production costs associated with brewing do not match the shape of the SBR duty curve.

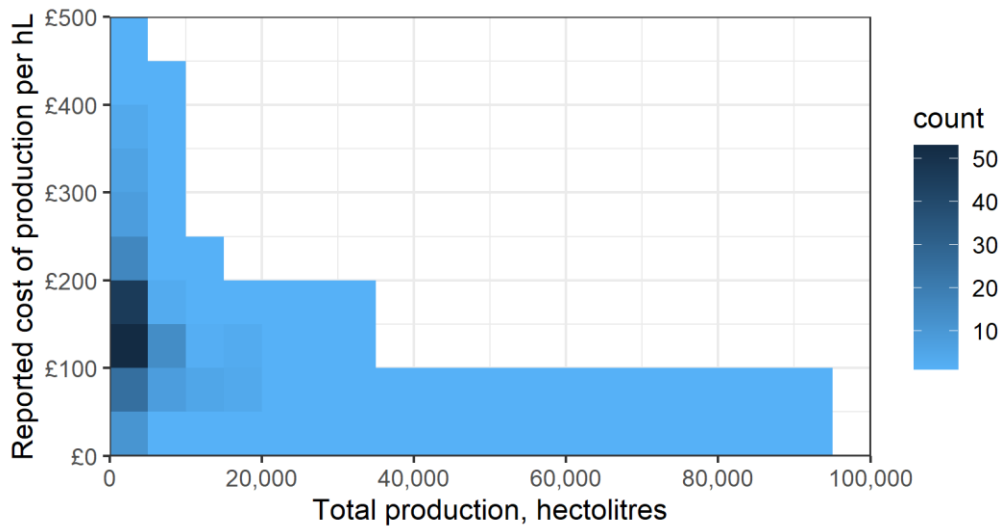
3.58 It is worth noting that there can be no exact single definition of the brewing industry’s production costs, because every brewer will have different production costs. For example, some may make use of more labour-intensive methods than others, while some may prefer to make more expensive, but higher quality products in order to command a premium price. In particular, brewers may choose to distribute their beer in different packaging mixes, which will affect the overall cost of production. Therefore, any estimate of the industry’s production costs will be imperfect. As Europe Economics note “the history of the brewer, its location, its sales channels, its packaging and distribution strategy, as well as many other factors, play a role in individual brewer costs.”

3.59 In a direct submission, an individual brewer also noted that any analysis of production costs would be challenging because “breweries running at full capacity are more efficient than those that are not, and with the multiple new entrants in this market, many are not at capacity; some breweries benefit from existing labour e.g. brewpubs; brewery rent varies hugely by location and some may be rent-free e.g. farms; different breweries will choose to mechanise different parts of their process and in so doing will create different patterns of cost; and breweries running ancillary activities like shops or distribution of other products cannot readily differentiate the costs of different parts of what they do”.

¹⁰ Letter from a brewing group to the Treasury

3.60 The 2019 Treasury survey of brewers asked respondents to provide detail of their total production, their costs of brewing, distribution and sales (excluding tax and duty) and their revenues from beer sales (excluding tax and duty). The data provided by brewers is charted below, which shows the range and concentration of individual brewers' production costs. This chart has been presented in this way to show the dispersion of the data points while making sure confidential data is not inadvertently disclosed. This means that a data point is not always present in every part of the lightest shaded area.

Chart 3.F: Reported costs of production from brewers

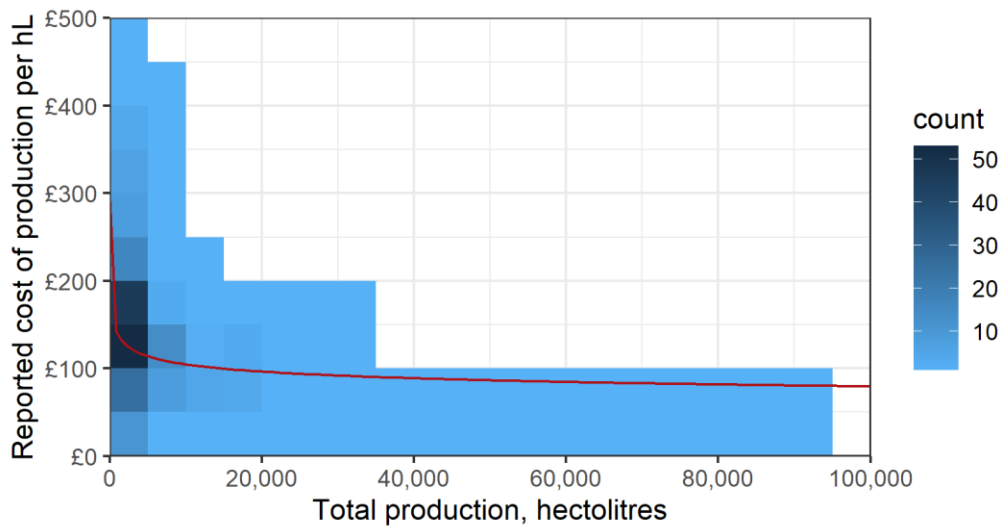


Source: HM Treasury survey of brewers

- 3.61 As can be seen, there is clear evidence of economies of scale in the industry. However, there is a substantial degree of variation in the individual data points. This is partly because individual breweries operate different cost models, but also because brewers may have answered the question slightly differently, allocating overheads in different ways.
- 3.62 To offset the variation, it is possible to draw a line of best fit between the data points¹¹. This is charted as follows.

¹¹ This line of best fit has the formula of $c = 316.52 \times P^{-0.12}$, where c is the cost per hL and P is total production volume. Note this line will approach positive infinity as volume approaches zero. A small number of outliers at the very high and very low levels of production (not pictured in the chart) were disregarded in calculating this line.

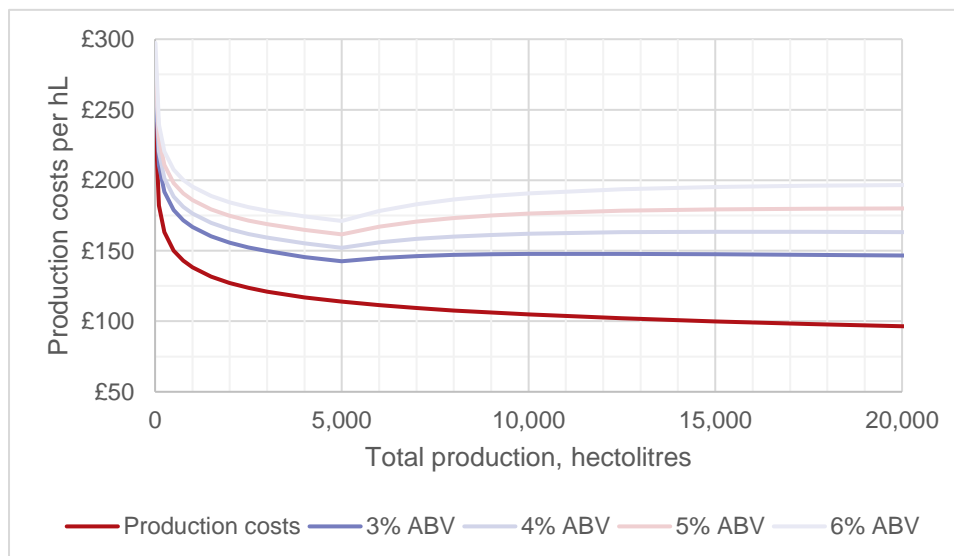
Chart 3.G: Reported production costs with line of best fit



Source: HM Treasury analysis of brewer survey data

- 3.63 The line of best fit suggests that production costs start relatively high, but rapidly decrease as the brewer grows past 1,000hL, before declining much more gradually beyond 2,000hL.
- 3.64 The line of best fit charted above maps how costs before duty change with scale. The following chart shows the line of best fit before and after the effect of duty is added. The bottom line is the estimate of production costs before duty, and the lines above show the effect of SBR for several common strengths – as the amount of duty varies with the strength of the beer, the amount rebated through SBR will change. (It is assumed in this analysis that changing the strength of the beer does not affect overall production costs).

Chart 3.H: Effect of SBR upon average production costs



Source: HM Treasury analysis

- 3.65 As can be seen from the chart, while production costs before duty uniformly decrease as breweries increase in size, this is not the case once SBR is

factored in. The discount given by SBR, followed by its swift withdrawal, creates a local minimum in production costs which it takes a very significant increase in scale to overcome. Once brewers pass the 5,000hL threshold, their production costs increase for a considerable period, and then slowly decrease. The table below sets out the scale of production needed to overcome the effect of SBR withdrawal¹². In other words, this is the minimum size the brewery needs to reach before it can secure sufficient economies of scale to balance out the SBR advantage conferred upon a brewery at 5,000hL.

Table 3.A: Scale of production needed to overcome SBR withdrawal

| Beer ABV | Necessary production level (hL) |
|----------|---------------------------------|
| 3% | 46,000 |
| 3.5% | 71,000 |
| 4% | 113,000 |
| 4.5% | 185,000 |
| 5% | 314,000 |
| 5.5% | 555,000 |
| 6% | 1,025,000 |
| 6.5% | 2,000,000 |
| 7% | 4,157,000 |

Source: HM Treasury analysis

3.66 It should be emphasised that the line of best fit used in this analysis is not definitive. Its precise level is sensitive to the data. The analysis produced in the table the numbers above is doubly so. Brewers do produce at costs above and below this line at given levels of production. Therefore, the numbers provided in the table above should be considered as illustrative only – it is not the case that a given brewer needs to have reached **exactly** 113,000hL to be able to brew a 4% ABV beer at lower cost after duty than a brewer at 5,000hL.

3.67 Rather, this simple analysis is intended to illustrate that a brewery needs to become at least one or two orders of magnitude larger – over 20 times larger at the common ABV point of 4% – to overcome the withdrawal of the relief. This indicates the outsize effect of SBR on brewery economics.

Other production cost data

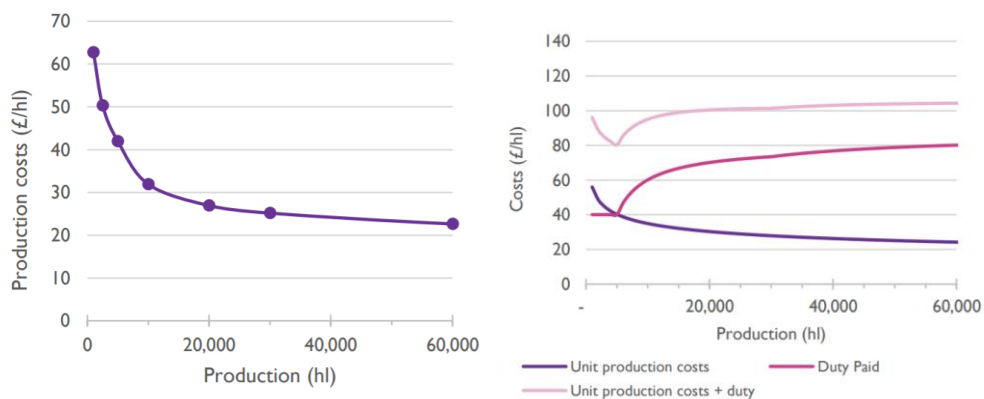
3.68 Aside from its own data, the Treasury is aware of other attempts to analyse the production costs of the industry. CEBR (for SIBA) in 2017 looked at a

¹² This analysis is performed by inverting the line of best fit formula to find when production costs will be low enough to fully offset the withdrawal of SBR. It uses a slightly different estimate for the line of best fit, of $c = 350.22 \times P^{-0.13}$. This incorporates some outliers of higher production costs at lower levels, leading to a more conservative estimate of how much a brewery needs to expand to overcome its SBR withdrawal.

small sample of SIBA members, and Europe Economics produced a report based on idealised cost examples for the BBPA and SBDRC.

- 3.69 The CEBR report received data from 17 individual brewers to understand their total cost of production. They included explicit data points collected from SIBA members in its report. These were closely in line with the data collected by the brewers survey, although due to the fewer data points involved there was less variation present.
- 3.70 The Europe Economics report took a different approach. Rather than averaging data points from individual breweries, it attempted to establish consensus figures for the theoretical average brewery at relevant sizes. Notably, this produced significantly lower estimates for production costs, with production costs ranging between £60 per hL for the smallest brewers to £20 per hL for brewers producing at 60,000hL. By contrast, as illustrated above both CEBR and the Treasury’s survey data had figures at twice that level. These cost typologies may not be directly comparable as they may include different items. However, the overall shape of production costs in their report was similar.
- 3.71 In particular, Europe Economics also identified a similar pattern caused by SBR withdrawal to that discussed above. Their analysis also suggested that there is a local minimum in production costs at the 5,000hL point, and that it takes a very significant increase in production before costs begin to decline again. The key conclusions on production costs are charted below.

Chart 3.I: EE conclusions on production costs and SBR withdrawal



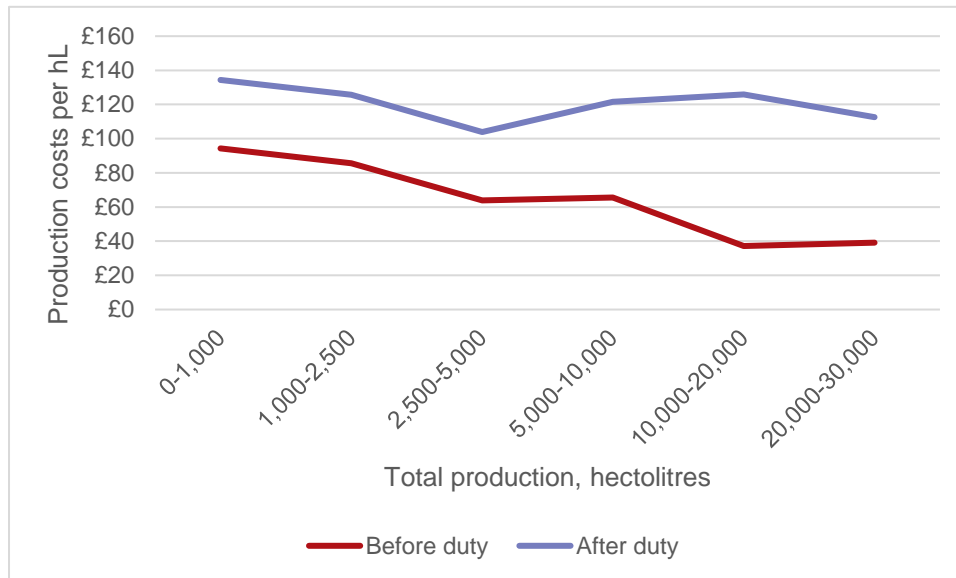
Source: *Europe Economics*

- 3.72 Both SIBA and the SBDRC challenged the cost reports produced for the other. SIBA criticised the use of idealised cost typologies by Europe Economics, which they said were unrepresentative and unrealistic. The SBDRC criticised the small sample size associated with the CEBR study.
- 3.73 As part of its rebuttal of the Europe Economics report, SIBA also submitted cost data from its members’ survey data for 2018, 2019 and 2020 to the Treasury. This was based on a total of 99 responses over these three years. These showed different absolute levels of production costs to the Europe Economics report, but a similar effect of a local minimum around 5,000hL caused by the effects of SBR withdrawal beyond this point. However,

production costs seemed to reassert themselves more quickly for larger brewers than the Treasury or Europe Economics report data.

3.74 The chart below shows the average of the three years data. Note that the categories in this chart are not equally spaced.

Chart 3.J: SIBA members' survey data



Source: SIBA

Conclusions

- 3.75 It is clear from the evidence obtained both by HM Treasury and external groups that the current SBR scheme does not align with the nature of production costs in the industry.
- 3.76 There is no single transition point in costs for brewers. Production costs decrease gradually, although the most significant reductions occur between 0-2,000hL. The reduction of SBR by 25% between 5-10,000hL bears no relation to the economies of scale experienced by brewers.
- 3.77 Furthermore, there is clear evidence that SBR creates a 'growth trap' where production costs increase beyond 5,000hL as SBR is withdrawn. This disincentivises growth by introducing decreasing returns to scale. Hence, infeasibly large increases in scale are required to overcome the disadvantage conferred by withdrawal. This result was replicated by all groups who studied the issue.
- 3.78 To address this issue, both the design of the taper and its start point must be altered.

Does the taper design inhibit expansion?

- 3.79 As discussed in the previous chapter, the SBR scheme features two formulas. The first formula (applying from 5-30,000hL) was chosen to in effect give producers a reduced rate on their first 5,000hL and then to pay the full beer duty rate on the remainder of their production. This effect is replicated in the

marginal cost curve which can be seen in Chart 2.D. However, it creates an abrupt transition for breweries which exceed 5,000hL production.

3.80 This design of the taper was subject to repeated criticism from brewers in the 2019 Treasury survey. For example, one wrote:

The cliff edge of duty really hits 20Bbl plants like our own who can realistically produce up to 10,000HL per year. We have only a small amount of economy of scale difference to what we had when we were 10bbl yet are paying significantly more tax each year on every pint.

3.81 Another said:

We have made the transition over the 5,000HL mark to reach 10,000HL now. The effect of the additional duty on the current curve is truly brutal. We knew it was coming and managed our strategy accordingly so I cannot say that SBR stopped us growing, but the change to the marginal duty rate once you are over 5,000HL being effectively the full rate hugely affected the choices we could make in how we developed our business ... There is no doubt from our experience of growth that the current duty curve does make the 4,000 to 5,000HL the sweet spot for profitability currently.

3.82 Similarly, another echoed this and noted how they had as a result throttled back their production:

I currently hold back our production to just short of 5000hL basically because of the relief issue, and lack of funds to increase our production beyond 6000hec so we have no incentive to grow to our 6000 hL potential.

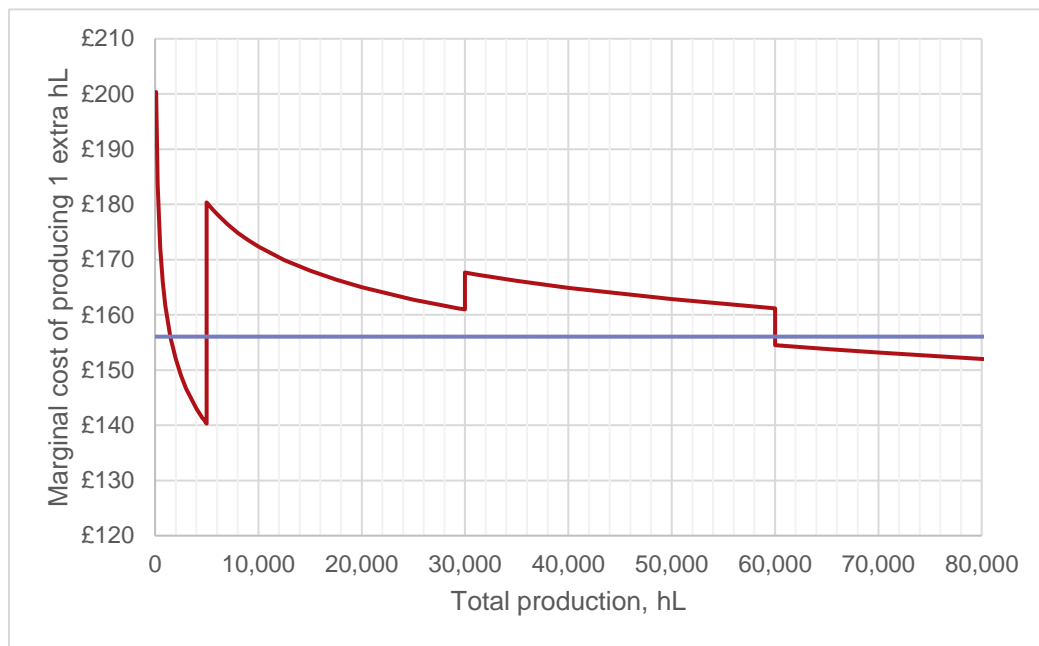
3.83 Another brewer put it succinctly: "our brewery is less profitable brewing around 8000 hl than it was when we brewed around 5000hl."

3.84 From the point of economic theory, brewers will charge a flat price for their products and so will earn a constant marginal revenue relative to scale of production. They will then set their production to be the point where their marginal revenue equals their marginal cost. Excluding other sources of marginal cost, the optimum point for a brewer will be to produce at exactly 5,000hL, because then the marginal duty rate doubles. Beyond this point, it is uneconomic for brewers to expand unless they can increase their prices to offset this. This is unlikely given that most brewers competing in the free trade (a characteristic of small brewers) are price takers.

3.85 If duty were a small element of overall production costs, this would not be a major concern. To analyse the overall effect the marginal duty curve can be combined with marginal production costs (derived from the data and production cost curves discussed above) to produce an overall analysis¹³. This is charted below.

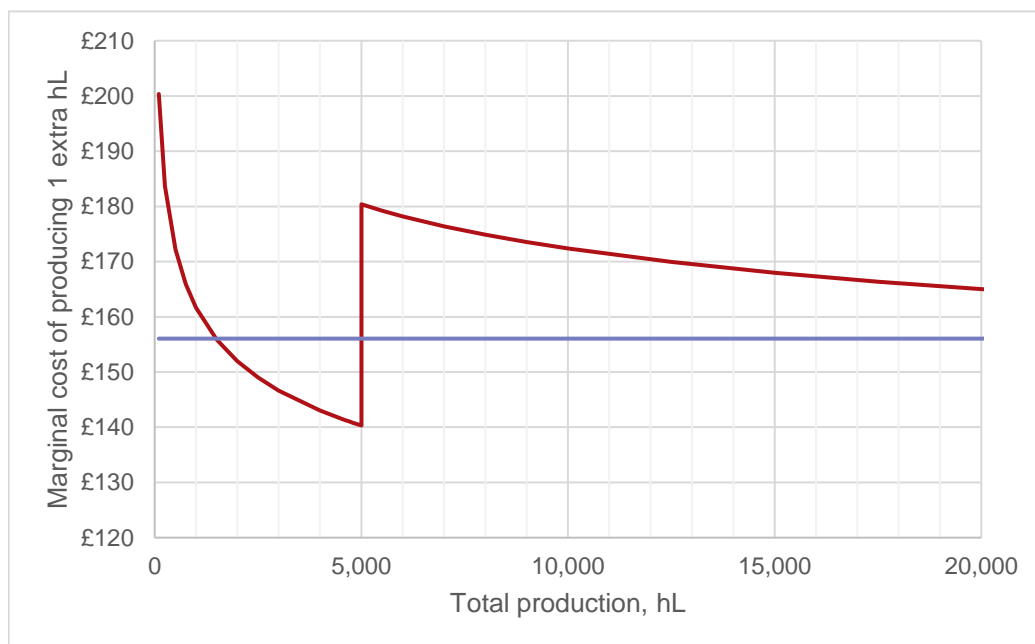
¹³ The marginal production cost is derived from the formula for the line of best fit discussed earlier and is expressed as $316.52(1 - 0.12)P^{-0.12}$. This is then added to the marginal duty cost (see Chart 2.D) multiplied by the duty value for that ABV of beer – in this case, for a 4.2% ABV beer the duty value is £80.14.

Chart 3.K: Marginal cost curve after duty for a 4.2% ABV beer



Source: HM Treasury analysis

Chart 3.L: Marginal cost curve after duty for a 4.2% ABV beer (zoomed in)



Source: HM Treasury analysis

3.86 As can be seen, the effect of the duty withdrawal from the SBR taper gives rise to a discontinuity in marginal costs at the SBR transition points of 5,000hL, 30,000hL and 60,000hL. The effect is quite substantial and (for a 4.2% ABV beer) increases overall marginal costs by 30% at the 5,000hL point. Furthermore, a brewer of even 80,000hL will have higher marginal costs than a brewer producing up to 5,000hL after SBR is taken into account.

- 3.87 The horizontal line represents marginal revenue, or the sales price likely to be achieved by the brewer¹⁴. As can be seen, brewers in the region of 1,500-5,000hL have marginal costs lower than their marginal revenue, which suggests an inefficient position where brewers will be able to command excess normal profits compared to their competitors.
- 3.88 However, it is worth emphasising that the marginal cost curve charted above is only derived from an estimate of the 'average' brewer and does not necessarily represent real world outcomes for individual brewers. However, on average, brewers between 1,500 and 5,000hL appear to have significantly lower marginal (and average) costs.

Clustering

- 3.89 As mentioned above, there were several comments from brewers illustrating individual examples where production had been held below 5,000hL (or expansion plans had been curtailed) due to these distortionary effects. In theory therefore there should also be evidence of a 'bunching' or 'clustering' effect where the numbers of brewers at or just below the threshold is significantly higher than expected.
- 3.90 However, on reviewing HMRC data, there appears to be no clear evidence of such a clustering effect¹⁵. The number of brewers producing between 4,000-5,000hL is not unusually large and the proportion of the overall brewing population in this region has not changed since 2002 (see Table 3.D). This may be a function of the fact that the number of breweries in this region is relatively small (currently around 40), and the median small brewer produces considerably less than 5,000hL.

Conclusion

- 3.91 There is clear evidence that the design of the taper, caused by the abrupt transition in marginal costs at 5,000hL, is distorting the decision-making by breweries and limiting their appetite to expand. However, there is no evidence of this creating a 'cluster' of breweries just below the 5,000hL threshold.
- 3.92 Likewise with overall production costs, the shape of the taper will need to be adjusted to soften the transition in marginal costs. This is most easily achieved if the taper starts at a lower level than 5,000hL.

How has the value of SBR changed over time?

- 3.93 When first introduced, SBR was set as a percentage reduction of 50% of the main beer duty rate, the maximum permitted by EU law. Although there were some contemporary criticisms of this as being overly generous (one brewing group, for example, favoured it being set at a 25% reduction), the Government decided to accept the recommendation of SIBA on this issue.

¹⁴ This is £158 per hL, or £65 per firkin, which was quoted by several brewers independently to the Treasury as the standard price a small brewer could command for a 4.2% ABV beer (the average strength) in the free trade. The absolute level is not important to the overall analysis, given the significant variation in marginal costs between producing the 5,000th and 5,001st hL.

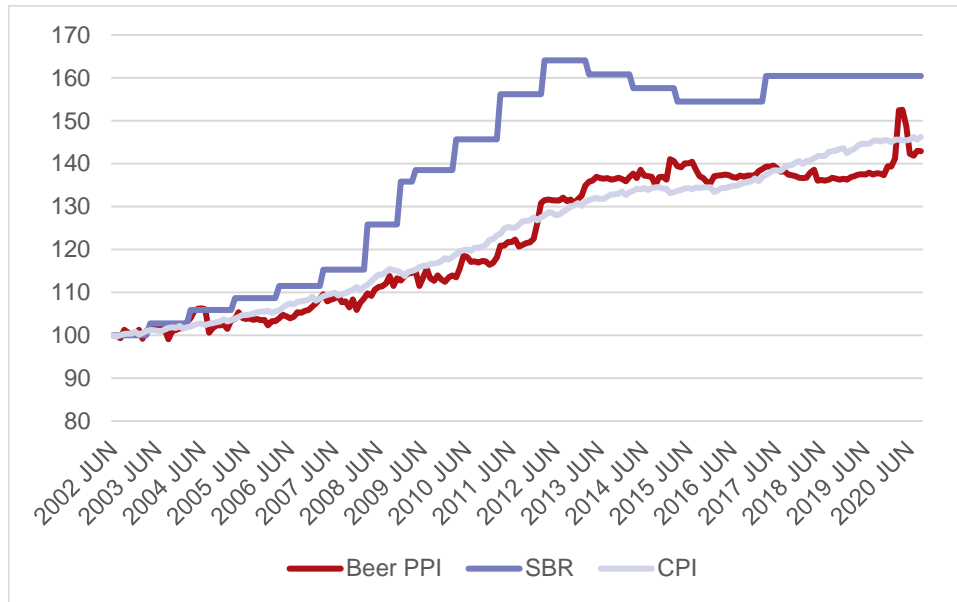
¹⁵ HMRC evaluated their data in 2015 and reached a similar conclusion.

3.94 Therefore, in June 2002 the value of beer duty in nominal terms was £11.89 per hL % (i.e. on a 4% ABV beer £47.56 in duty was liable), and so the 50% discount entitled the brewer to a reduction of £5.945 per hL %. In 2020, beer duty has increased in nominal terms to £19.08 per hL % and therefore SBR has increased in value to £9.54 per hL %. This is a 60% increase in nominal terms.

3.95 The ONS producer price index (PPI) for beer (excluding duty) increased from 85.9 in 2002 to 118.3 in 2019. This is a 37% increase. Consequently, the value of SBR has increased in excess of changes to the costs experienced by industry (although noting that the ONS PPI index does not reflect differences in scale between brewers). Likewise, the Consumer Price Index (CPI) increased over the same period by 46%, again less than the nominal increase in SBR.

3.96 The chart below illustrates this point visually. Note that all three measures were rebased to equal 100 in June 2002, with the values on the vertical representing the change since that point.

Chart 3.M: Nominal increases in SBR value against Beer PPI and CPI



Source: HM Treasury analysis of ONS and HMRC data

Conclusion

3.97 SBR has increased ahead of industry prices and broader measures of inflation, which indirectly reflect production costs. This trend, while not guaranteed, is likely to continue if SBR remains automatically linked to increases in the main duty rate.

How have medium-sized brewing numbers changed?

3.98 The implication of the criticism raised above was that the SBR design was making small to medium sized brewing above 5,000hL challenging at best and entirely unviable at worst.

3.99 There was some evidence provided to the review of such an effect. For example, the BBPA presented data it had collated showing a decline in the

number of brewers producing between 60,000-500,000hL from 19 to 12 brewers between 2005 and 2017. Anecdotally, brewers pointed to a number of mergers taking place where medium to large-sized brewers were being bought out by global brewers (for example, Fullers left the brewing sector in 2019 and converted to a pub company, selling their brewery to Asahi).

Table 3.B: Changes in the composition of the brewing industry

| Brewer size | 2005 | 2010 | 2015 | 2017 |
|--------------|------|------|------|------|
| 0-60,000hL | 553 | 804 | 1859 | 2410 |
| 60-500,000hL | 19 | 16 | 13 | 12 |
| 500,000hL+ | 8 | 8 | 8 | 8 |

Source: BBPA

3.100 There was also some evidence of a contraction in SIBA brewing numbers based on the production totals reported by its members' survey. Over the period 2011-2017, the amount produced by brewers producing between 60,000-200,000hL shrank by 6%, while the amount produced by brewers producing less than 5,000hL grew by 63%. However, this is based on a small number of brewers (and so is subject to fluctuations) and followed a period of growth before this.

Table 3.C: SIBA members' total production data in hL – by size of brewer

| Size (hL) | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|----------------|---------|---------|---------|---------|---------|-----------|---------|
| 0-999 | 114,926 | 124,026 | 152,527 | 163,761 | 163,550 | 166,319 | 214,572 |
| 1,000-4,999 | 447,752 | 514,381 | 613,123 | 678,061 | 702,278 | 689,996 | 728,457 |
| 5,000-29,999 | 773,106 | 847,667 | 851,978 | 870,114 | 917,614 | 1,022,018 | 999,498 |
| 30,000-59,999 | 221,596 | 222,959 | 317,250 | 418,692 | 353,653 | 320,072 | 297,200 |
| 60,000-200,000 | 677,105 | 652,105 | 649,313 | 670,942 | 536,979 | 617,084 | 633,626 |

Source: SIBA members' survey 2018

3.101 On the other hand, HMRC data does not show such a clear trend. The number of mid-sized brewers was constant at around 20 for the period between 2002-2018, although any trend is difficult to discern due to rounding. However, the proportion of the overall brewing market producing above 20,000hL shrank from 12% of the total number of brewers in 2002 to approximately 4% in 2019 (this is not the same as their market share).

3.102 The table shows analysis by HMRC of UK brewers by production volume in 2019, compared to comparable data compiled by HM Customs and Excise at the time SBR was introduced in 2002. As data on production volumes is not

routinely collected by HMRC, these values have been estimated from beer clearances and transfers recorded on EX46 beer duty returns. It is important to note, that these estimates are for the annual production of individual premises and that this data does not account for connected breweries.

3.103 Additionally, the nature of the administrative data used may mean some errors exist in the recorded figures which would impact the accuracy of production estimates. Spurious values have been investigated and corrected as appropriate. Reported numbers of breweries have been rounded to the nearest 5 to protect taxpayer confidentiality, and the total is the sum of these rounded figures.

Table 3.D: Brewing population in 2002 and 2019

| Size (hL) | Breweries (2002) | Breweries (2019) | Proportion of total (2002) | Proportion of total (2019) |
|---------------|------------------|------------------|----------------------------|----------------------------|
| 0-1,000 | 262 | 1440 | 59% | 72% |
| 1,001-2,000 | 51 | 190 | 11% | 10% |
| 2,001-3,000 | 23 | 100 | 5% | 5% |
| 3,001-4,000 | 15 | 45 | 3% | 2% |
| 4,001-5,000 | 9 | 35 | 2% | 2% |
| 5,001-10,000 | 22 | 85 | 5% | 4% |
| 10,001-20,000 | 10 | 35 | 2% | 2% |
| 20,001-60,000 | 19 | 30 | 4% | 2% |
| 60,000+ | 36 | 30 | 8% | 2% |

Source: HM Revenue and Customs

Conclusion

3.104 There is some evidence to suggest that the number of medium-sized brewers is declining, although this is not clear-cut. However, it is difficult to conclude definitively this is due to SBR rather than other causes. As observed in Annex A, the trend observed over the last 100 years has been one of industry consolidation. In addition, there have been very significant reductions in sales of beer, with brewing volumes falling by around 42% since 1990 and 33% since 2002. It is therefore likely that there would have been reductions in the numbers of mid-sized brewers regardless of SBR.

3.105 However, the production and marginal cost data discussed above certainly makes it plausible that SBR has increased this trend.

Chapter 4

Reforming SBR

- 4.1 This chapter examines proposals to reform SBR that were put forward by brewers and brewing groups directly
- 4.2 As part of the review to date, the Treasury has received a number of proposals for reforming SBR. This chapter sets these out, explains the Treasury’s position on each of them and where applicable examines further issues associated with each proposal.

Reforms suggested by brewers

Altering the SBR taper

- 4.3 Although the original taper design closely matched requests from SIBA and CAMRA at the time, the most consistent criticism of the current scheme was about the design of the taper. This issue was raised by brewers of all sizes in direct submissions and in comments to the 2019 brewers survey.
- 4.4 As discussed in the previous chapter, the Government accepts that the current taper design distorts incentives for individual breweries, both at the margin and overall by creating a ‘growth trap’.
- 4.5 However, as SBR is based on a series of formulas, any change to the taper design will involve a significant overhaul of the way SBR works. Several proposals were put forward by brewing groups for alterations to the taper.
- 4.6 Reforming the taper involves a number of complex trade-offs and considerations and is discussed in more depth later in this chapter. As SIBA have previously noted “there is no formula that can guarantee to satisfy all brewers that the system is equitable”¹.

Taper start point

- 4.7 However, there was substantial disagreement amongst stakeholders on the appropriate start point. For example, SIBA said they did not believe “there exists an economic, political or moral reason to withdraw any relief for any brewer below 5,000HL.” On the other hand, some brewers favoured increasing the taper start point, while several brewers strongly supported starting the taper at a lower point – one brewer said this “would have the effect of more closely aligning the relief with the economies of scale experienced in the industry and ensure that all brewers are incentivised to grow.”

¹ SIBA Local Beer Report 2010

- 4.8 The Government has carefully considered the representations made by individual brewers and brewing groups about this issue. Based on the balance of evidence provided to it, the Government announced in July 2020 that it would therefore start its new taper at the level of 2,100hL.
- 4.9 The Government considers that starting the taper at this level is appropriate because:
- Over 80% of the brewing population produces less than this level, meaning that it would not affect the vast majority of small brewers;
 - There is strong evidence of a 'growth trap' between 2,000-5,000hL caused by SBR overcompensating breweries for their production costs and then being withdrawn quickly;
 - The 5,000hL point was chosen in 2002 based on the composition of the industry at that time. The industry has changed significantly since, with brewery numbers expanding in the face of declining beer volumes;
 - No arguments were presented that 5,000hL represented an appropriate transition point for a taper. The main argument made was simply that it represented the status quo and to change it might create winners and losers. By contrast, there is evidence that around 2,000hL economies of scale start to level out and for decreases in production costs to become much more gradual; and,
 - By starting the taper earlier, the wider the range of production that can be covered by the taper, meaning that any transition can be more gradual.
- 4.10 The Government does not consider that raising the taper start point to a higher point (such as 10,000hL) is a prudent course of action, as this is likely to exacerbate the distortions already present in the SBR scheme.

Exempting exports

- 4.11 A frequent request from brewers was for exports to be excluded from the total production calculation when determining a brewer's entitlement to SBR.
- 4.12 While the Government is sympathetic to the aim of encouraging export growth, it has not yet been provided with a proposal to exempt exports from SBR that it yet considers would be workable or consistent with the aims of SBR. This is despite detailed discussions with brewing groups on this point.
- 4.13 The main practical administrative obstacle to simply exempting exports from SBR is international trade law. Under the relevant WTO rules², countries are required to treat domestically produced goods and imports the same for the purpose of internal taxation. This includes excise duties like beer duty, and any reliefs from them. This rule is also frequently incorporated in Free Trade

² Article III of the General Agreement on Trade and Tariffs (GATT) 1947 and 1994. See https://www.wto.org/english/docs_e/legal_e/gatt47_01_e.htm#articleIII

Agreements (FTAs), making it a bilateral matter between the UK and its partners³.

- 4.14 For this reason, importers are able to claim SBR and are required to be given equal treatment to UK-based breweries. Therefore, it is not possible to simply disregard export-focussed production for UK breweries without reciprocating this for importers. This in turn raises a further issue, as exports for overseas brewers are imports to the UK. Exempting exports from SBR production calculations for UK brewers while simply treating overseas producers the same would create the bizarre situation where an overseas brewery producing only a very small amount of domestic beer could export millions of hectolitres to the UK at SBR rates.
- 4.15 While it might be consistent with international trade law to base the SBR calculation on UK production/import volumes only, there is also a principle of fairness connected with the original notion of SBR, which was intended to support smaller breweries. Any brewery that grows in size, regardless of whether it is for domestic consumption or export, is in theory able to achieve lower costs of production. It is unclear why larger breweries should be able to claim SBR rates if they produce more volume, or for exporting brewers to not be subject to the SBR taper if they grow.
- 4.16 Furthermore, the issue relating to any disadvantage caused by exports by themselves, but rather because the brewery is expanding overall. For example, if a brewery grows from 1,000hL to 2,000hL there is no change in the SBR rate (it remains at a 50% discount), and so if the brewery grew by exporting, it would not be penalised. If a brewery under the current scheme expands from 5,000hL to 5,500hL through export growth, the discount reduces to 40%, but this is because the brewery has grown overall and the SBR taper now applies. This would be the same outcome if the brewery grew by increasing its domestic production.
- 4.17 For these reasons, the Government is not persuaded to attempt to introduce any mechanism to exempt exports from the calculation of SBR entitlement.
- 4.18 Some brewers suggested that emulating the scheme used in Ireland would be a way to solve this issue, with one brewery group claiming “the Irish relief for small brewers allows small Irish brewers to exclude a proportion of their export volume and still obtain the maximum relief.”
- 4.19 Unfortunately, this was based on a misunderstanding of how the SBR-equivalent scheme works in Ireland. In Ireland, producers receive up to 50% off up to a maximum amount of 30,000hL. They are then allowed to claim this up to a maximum size of 50,000hL⁴. While this allows a brewer to expand through export growth while retaining their SBR, this is also true of domestic production. The Irish rules specifically require export volumes to be included in the production calculation. Adopting the Irish system would

³ See for example, Article 2.7 of the UK-Japan Comprehensive Economic Partnership Free Trade Agreement or Article GOODS.4 of the UK-EU Trade and Cooperation Agreement

⁴ PN 1888, Irish Revenue Commissioners – see <https://www.revenue.ie/en/companies-and-charities/documents/excise/pn1888.pdf>

require a change to the taper scheme (which has its own considerations) and is not a method to specifically exempt exports.

Changing the method of calculating production

- 4.20 At present, SBR is calculated on the total production in the previous year. In the cases of new breweries, estimates of production are used to establish whether the brewery will be eligible for SBR, and if so, at what rate. One brewery group suggested that SBR should be changed so that instead the production total for a brewery should be based on the rolling average of the previous 12 months.
- 4.21 Using a rolling average was originally considered as the main alternative to the previous calendar year's production when SBR was first developed in 2002. A rolling average method was seen to have the benefits of being very accurate as to a brewery's current level of production (and therefore giving certainty that brewers were paying the right level of duty), but had a number of issues associated with it:
- As total production values would change every month, for brewers producing above the taper threshold their duty rate would change, which could cause problems for managing their pricing strategies;
 - It created additional calculations for brewers every month, which also increased the risk of error;
 - These issues would be exacerbated for importers, as the Government could not compel them to provide the necessary information every month;
 - The possibility of different rates each month meant that alcohol warehouses would need new systems in place to apply the correct rate when the beer left duty suspense.
- 4.22 By contrast, using the previous calendar year's production means that brewers have to recalculate production only once a year, providing greater certainty. The relief is therefore applied uniformly through the year without peaks or troughs. Information needed at the point of import was already available in 2002 and it was considered simple for packers and warehouses to use.
- 4.23 However, using the previous year's production has some disadvantages. For breweries whose production is falling rapidly but produce above the taper threshold, it may take up to a year for their SBR entitlement to increase (although they will then enjoy a whole year at this new SBR entitlement). There is also the possibility of some avoidance behaviour, for example if breweries kept production deliberately low until the calendar year end, to then maximise their SBR entitlement for the whole of the next year.
- 4.24 Currently, there is also no ability for brewers to adjust their production calculation in year in response to changes in their circumstances. This means that there can be a lag between a brewers' production changing and their SBR entitlement being recalculated. The Government has received some feedback from brewing groups that this would be desirable, particularly in

light of the COVID-19 pandemic where brewers may have significantly reduced production but are yet to see any change in their SBR rate or entitlement. An ability to seek an adjustment from HMRC could be more straightforward than having to recalculate brewing production every month. However, it is worth noting that this problem cuts both ways: if a brewer reduces production unexpectedly, and then significantly re-increases it, their SBR entitlement for the following year will take a further year to catch back up.

- 4.25 The Government does not have a firm view on this issue and would be grateful for feedback from brewers.

Box 4.A: Changing the method of calculating production – questions

- 1 Would you support changing the method of calculating production from the previous calendar year's total to a rolling 12-month average?
- 2 As an alternative, would you support brewers being able to adjust their production total in-year? Would any protections be needed to prevent this provision from being abused?

Applying a time limit to SBR

- 4.26 Several breweries felt that SBR was causing smaller breweries to be able to stagnate and receive a subsidy to stay small indefinitely. They therefore suggested that SBR would benefit from being applied to only the first few years of brewers' production.
- 4.27 While the Government is sympathetic to the sentiment of focussing the relief on start-ups in their most challenging phase of business, it also received many comments from brewers who wished to focus on staying small and producing local products. The Government believes that growth is not necessarily the only acceptable objective of a business and the tax system should not discriminate on the basis of a brewer's business model. For example, brewers might take several years to establish sustainable, organic growth, and setting an arbitrary time-limit on SBR could disrupt this planning, incentivising imprudent behaviour.
- 4.28 Furthermore, it is not clear that this proposal would be workable in practice. Time-limiting relief would require brewer registrations to be tracked and for anti-avoidance rules to be in place to prevent brewers from closing their business and restarting it under a new name. These could become quite complex in order to distinguish between the legitimate situation of the owners of a failed brewery deciding to start up another enterprise, and a successful business simply changing legal vehicles to re-gain SBR. In addition, consideration would need to be given as to how brewers that divested of their assets to new owners would be treated. Established brewers which produced above 60,000hL but then fell below this threshold would also be

unable to claim for SBR, unless there was an exemption. The treatment of imports would also be complicated, as the Government would need to understand for how long individual overseas breweries had been in operation, which would require extensive information-sharing with other jurisdictions.

4.29 The Government is therefore not persuaded to take forward this proposal.

Mergers and acquisitions

4.30 Several brewers complained that the current system of SBR disincentivises mergers and acquisitions because the entitlement to SBR is recalculated immediately upon completion of the merger. For example, if two breweries each producing 5,000 hL merge together, they must immediately recalculate their production on the basis of 10,000hL total production. This means that their SBR rate drops from 50% to 25% immediately. Likewise, two breweries that each produce 35,000hL when merged must immediately stop claiming SBR as their total production would exceed 60,000hL. This means that the £333,000 in SBR discount (that the breweries separately together receive on a 4.2% ABV beer) must be eliminated immediately, diminishing the value of the transaction.

4.31 Both SIBA and the SBDRC supported introducing some transitional relief for small breweries. For example, the SBDRC advocated “in order to encourage orderly consolidation in the sector changes to SBR should be phased down over three years but limited to one transaction every three years”. SIBA suggested that the Government should “introduce a three-year rolling calculation whereby from the date two businesses merge, they retain their individual duty relief for the first year. This would be phased down to the full duty rate over the next two years”⁵.

4.32 Furthermore, when asked about this issue, there was support for transitional relief in the 2019 brewers survey. 47% of all respondents supported this compared to 28% opposed, although this was more equivocal amongst smaller breweries: 39% of them supported it compared to 30% who were opposed. (See Annex B for a full breakdown).

4.33 The Government is sympathetic to this issue and therefore announced that it would consult further on the potential for a transitional relief for mergers.

4.34 However, it is important any relief for mergers does not give rise to avoidance opportunities. For example, the Government would not wish multinational brewers to be able to acquire a small brewery, and then channel millions of hectolitres of mass-produced beer through that brewery at SBR rates for (say) a year. Without avoidance protections, this situation could continue indefinitely with regular acquisitions, presumably with premium prices offered to new entrants.

4.35 Therefore, introducing transitional relief is likely to add complexity to the existing SBR regime, which would require additional assurance and

⁵ SBDRC and SIBA 2020 Budget submissions

enforcement activity. Any relief would also need to apply equally to overseas breweries importing their products.

Box 4.B: Mergers and acquisitions – questions

- 3 If relief is put in place, over how many years (and at what rate) should SBR be withdrawn drawn for breweries that merge?
- 4 Do you foresee any issues if such a relief was put in place?
- 5 What rules would be needed to protect this relief from abuse? Should there be a maximum size that breweries can be to benefit from transitional relief?

Reduced relief for the smallest brewers

- 4.36 Several small breweries suggested that there should be further relief for the very smallest breweries, producing less than 1,000hL. Various proposals were put forward, ranging from a higher percentage reduction to total exemption from duty for those producing less than 70hL per year. This latter proposal aligns with the exemption available to small cidemakers⁶.
- 4.37 Providing relief in excess of 50% was prohibited under EU law. As the UK has left the EU, this rule no longer applies⁷. However, providing additional relief for the smallest breweries is outside the principal scope of this review of SBR, which (as discussed in previous chapters) is looking at address concerns about distortions caused by the SBR scheme design.
- 4.38 The Government will consider the case for expansion of small producer reliefs more generally through its alcohol duty review. This was announced at Budget 2020 and launched with a call for evidence on 1 October 2020, which closed on 29 November.

Expanding SBR to larger breweries

- 4.39 Conversely, several breweries and brewing groups asked for SBR to be extended above 60,000hL to the EU maximum of 200,000hL.
- 4.40 SBR was intended to be targeted on smaller breweries to help support them with their higher production costs. Although (as discussed previously in this document) there are issues with how well targeted SBR is in relation to the nature of production costs in the industry, it still remains the case that larger breweries above 60,000hL have lower production costs.
- 4.41 In addition, larger breweries have further advantages due to economies of scope and also by being in a position to own a portfolio of pubs, thereby directly selling their products to consumers. Expanding SBR to larger

⁶ Small cidemakers producing less than 70hL per year do not have to register with HMRC or pay duty on their produce, even if for commercial sale. This is unique to apple cider and perry, and not available to any other alcoholic product (including fruit ciders).

⁷ As noted previously, the Northern Ireland Protocol continues the application of the Directive and related EU rules in Northern Ireland.

breweries would come at an expense to the Government, and could cause market distortion. The Government also received very little complaint from brewers about the transition between 30-60,000hL, and notes that respondents were against this proposal, and even medium breweries (producing between 5-60,000hL) were split on this issue.

- 4.42 In the 2019 Treasury brewing survey, the balance of opinion was against expanding SBR above 60,000hL (see Table B.6 in Annex B). However, the SBDRC, SIBA and the BBPA all supported expanding SBR above 60,000hL.
- 4.43 For these reasons, the Government is not persuaded to extend SBR above 60,000hL in and of itself. However, the Government accepts that 60,000hL is an arbitrary point and the number of breweries producing between 60,000-200,000hL is limited. It is therefore open to widening the range of SBR in order to smooth its taper, if a convincing case can be made. This is discussed further below.

Adjusting SBR for the strength of beers produced

- 4.44 Several brewers and brewing groups raised concerns that the way the SBR scheme was designed encouraged brewers to brew stronger ABV beers so that they could claim more excise duty.
- 4.45 For example, if a brewer produces 5,000hL, they will be able to claim reduced rates of 50% on that production, giving a total relief equivalent to 2,500hL 'duty-free'. As duty is proportional to the strength of the product, if the beer is brewed at 4% ABV, the duty relief is equivalent to £190,800. If the beer was brewed at 6% ABV, the total relief increases to £286,200. Therefore (it was argued) brewers were being incentivised by SBR to brew at higher ABV points, because production costs were similar at these strengths, and so brewers could gain greater relief for little additional cost⁸.
- 4.46 While the Government has seen little evidence that this is a real-world issue, and beers continue to be produced at a variety of strengths, it does accept the case that the SBR system does increase the amount of relief given in relation to the strength of the final product produced. In the previous chapter (particularly Chart 3.L), the effect of the greater relief for stronger products is discussed, including its effect on production costs.
- 4.47 Internationally, there are two examples of countries operating systems where their SBR-equivalent attempts to adjust for the strength of the final product produced. Firstly, in Denmark their SBR was previously calculated using several formulas, like in the UK, but these were expressed in nominal terms that did not vary with the ABV of the product. For example, brewers producing less than 3,700hL a year were entitled to a tax relief of 77.08 krone per hectolitre⁹. For a 3% ABV beer, this was relief equal to 46% of the main rate, but for a 4% beer this was only a discount of 34% off the main rate. However, Denmark has moved away from this system to one where the

⁸ As discussed earlier in this document, the additional excise duty on beers above 7.5% ABV is not part of SBR, and so the maximum relief a brewer can claim on beers above 7.5% ABV is 38.5% off the amount normally payable.

⁹ See <https://www.retsinformation.dk/eli/fta/2017/289>

brewery receives a percentage reduction of the main rate due on that beer, as in the UK at present.

- 4.48 Secondly, in Australia small brewers and distillers are entitled to claim a rebate of 60% of the excise duty payable, up to a total of \$100,000. This means that the amount of relief will vary with the strength of the beer produced. For example, beers above 3% ABV pay \$51.31 per litre of pure alcohol in the product¹⁰. If beer at 3.1% ABV is produced, this will incur \$159.06 in duty per hL. Therefore, a small brewer can deduct 60% of the duty, paying \$63.62 per hL until they have produced 1,571hL, at which point they will have reached the \$100,000 cap and will have to pay full excise duty on any additional beer produced.
- 4.49 By contrast, if a producer brews a 6% beer, the standard duty will be \$307.86 per hL (and the reduced rate is therefore \$123.14), meaning that a brewery will be able to produce only 812hL before they reach the \$100,000 cap. However, as the reduced rate applies to all beers (and not just those made at the main rate of 3-10% ABV), beers below 3% ABV can also make use of reduced rates. These qualify for a lower rate of \$44.05 per litre of pure alcohol. Therefore, a brewer producing a 2.8% ABV beer will pay \$123.34 per hectolitre, and the reduced rate is \$49.34. A brewer producing this low strength beer will therefore be able to produce 2,027hL of this beer before reaching the \$100,000 cap.
- 4.50 The system applies to the first dutiable product produced each year until the cap is reached, meaning that if a brewery changes its average ABV during the year this has no effect on the amount of relief the brewer is entitled claim to. For example, if a 5,000hL brewer produced 2.8% beer in the first three months of the year, then switched to making a 5% beer, it would be entitled to the 60% relief on all (1,250hL) of the lower strength beer and a small amount (370hL) of the 5% beer. If the production order was reversed, the brewery would receive the relief on some (975hL) of the 5% beer and on none of the 2.8% beer. However, in both cases the brewer would receive \$100,000 in relief in total during the calendar year.
- 4.51 The Government would be interested in the feedback of brewers on this issue. A SBR system that (like Australia) fixed the maximum amount that could be claimed in cash terms (e.g. at the £200,000 currently claimable on 5,000hL of 4.2% ABV beer), adjusted for the strength accordingly and was applicable to all beers could incentivise brewers to brew at lower ABVs.

Box 4.C: Adjusting SBR for the strength of beer produced – questions

- 6 Would you support capping the amount of SBR claimable in cash terms? This would reduce the production volume that would be eligible for reduced rates produced for higher strength beers while increasing it for lower strength beers.

¹⁰ There are several sub-rates for beer produced in specific circumstances. This explanation uses the standard commercial rate.

- 7 If so, what would be the appropriate ABV on which to base the 'cash cap'?
- 8 Would you support the inclusion of the additional excise on beers above 7.5% ABV, and the reduced rate for beers below 2.8% ABV, in this system?

Converting to a cash basis

- 4.52 As noted in the previous chapter, medium-sized brewers expressed concern that the relief had grown in real terms value since 2002, and this was distorting the market.
- 4.53 While this would imply that SBR should be revalued back towards its 2002 level, the Government accepts that changing the value of SBR would directly disrupt the smallest brewers. However, going forward, the Government believes that the way the value SBR is charged should be reconsidered.
- 4.54 As discussed, the Government considers that moving SBR in line with the headline duty rate is no longer appropriate. Apart from SBR, duty is a cost that is constant with respect to scale and so changes in the headline rate do not impact on breweries differently depending on their size. Thus, as a relief intended to offset disadvantages caused by small scale, SBR's value should be constant with respect to changes in the headline beer duty rate. The Government therefore announced in July it would seek to convert the value of SBR to a cash basis (that is, an expression in nominal monetary terms), with its value subject to regular review.
- 4.55 The Government expects that the nominal value of SBR would be revised to reflect changes in prices and brewers' production costs, thus maintaining its value in real terms. However, it does not have a view on the exact mechanisms of doing so and would welcome input from brewers on this point. There are three leading methods:
- To follow a broad measure of general price changes in the economy, such as the consumer price index (CPI).
 - To follow an industry specific measure of price changes, such as the producer price index for beer (before duty).
 - To use a bespoke estimate of production costs, based on industry data.

Box 4.D: Converting to a cash basis – question

- 9 What method would you prefer the Government uses when considering whether to uprate the SBR amount?

Cooperation and collaboration

- 4.56 As noted in chapter 2, rules are in place to prevent cooperating or connected breweries from being able to claim SBR individually. These rules are in place to avoid breweries which are in reality part of one economic enterprise from artificially splitting themselves up in order to maximise the amount of beer on which they can claim SBR. The law states that if a brewer (or a connected entity) produces beer in another brewer's brewery, the two brewers are considered to be cooperating and their SBR entitlement must be based on their combined production.
- 4.57 Some brewers and brewing groups commented that they felt the rules around connected breweries were unclear and making it difficult for brewers to know how to act. For example, SIBA raised with the Government the issue of breweries that temporarily collaborate on individual brews, saying "clarification is needed by the Treasury that the two breweries are not considered connected or cooperated for the purposes of calculating the respective SBR rates of duty and that any brewery who participates in a number of modern collaborations will not be treated as cooperated or connected with the various other breweries." Similarly, the SBDRRC posed a number of hypothetical situations in which uncertainty might arise as to whether two breweries were connected, e.g. by sharing directors.
- 4.58 While the Government appreciates the spirit in which these points have been made, it is not persuaded of the need for any policy or legislative change. The Government considers the principle that breweries that are substantively cooperating should be assessed for SBR on their combined production is sound. By necessity, the law around cooperation and connected persons must be drafted in general terms in order to capture a variety of situations. The Government would not to limit this generality by providing excessively detailed policy guidance, which might be relied upon in legal proceedings by brewers seeking to avoid duty. The legal position in which two breweries that are interacting with one another will find themselves will depend on their specific circumstances. This is for HMRC to consider on a case-by-case basis, and if necessary, for any resulting decision to be appealed through the usual processes.
- 4.59 The SBR legislation is also linked to the broader regime for corporation tax¹¹, and the Government would not wish the two to diverge.

Monitoring by HMRC

- 4.60 Brewers also provided feedback that they felt that there was insufficient monitoring and enforcement activity by HMRC of the SBR rules.
- 4.61 HMRC runs a risk-based approach to compliance across alcohol regimes, including SBR. This approach targets activity where the economic, reputational, and social risk of non-compliance is greatest. The Government considers that this remains the most appropriate way of addressing the risk of fraud relating to SBR.

¹¹ See section 1122 of the Corporation Tax Act 2010, which defines how a legal person may be connected to another.

Technical issues with reforming the SBR taper

- 4.62 As discussed previously in this document, the SBR scheme uses two formulas to determine how relief is withdrawn once a brewer exceeds the threshold of 5,000hL. However, the Government believes that this taper design should be replaced to avoid the distortionary issues discussed earlier. This requires a new approach, or at least a new formula, to be put in its place.
- 4.63 An effective new taper should aim to improve on the current design by addressing the issues raised. In other words, it should:
- Ensure the scheme tapers in a smooth way, avoiding visible ‘cliff edges’ and other sudden jumps in the discount amount;
 - Where possible, match the trend of production costs in the industry to avoid creating a ‘growth trap’;
 - Ensure a smooth change in the marginal tax rate, so growth incentives are not distorted by the taper; and,
 - Have a design that is simple to use, understand and explain.
- 4.64 There are many candidates for a new taper design and the Treasury has received submissions from brewers and brewing groups for alternatives to the current design. While the Government has expressed its position on the threshold at which the taper should start, the Government does not have a preferred view on the overall taper design as it would like to understand brewers’ views on this issue in more depth. This section explores these issues.

Options for a taper design

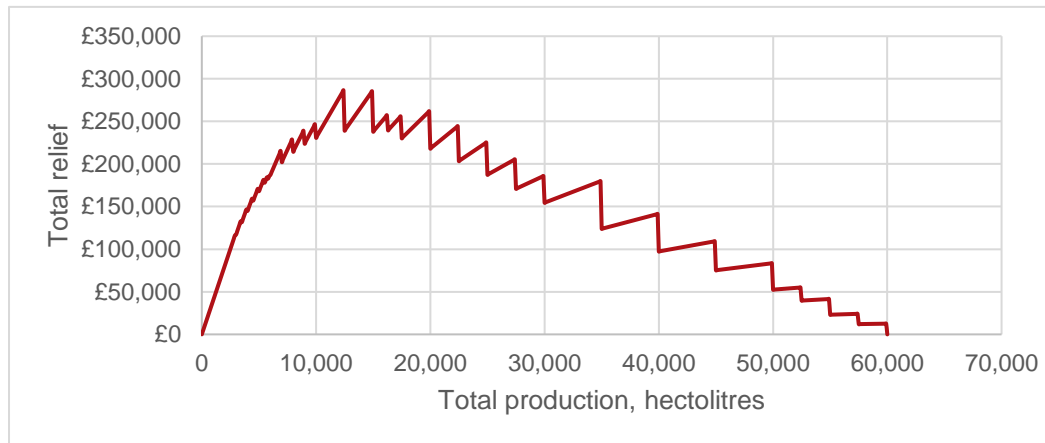
- 4.65 When considering how a reformed SBR taper might work, there are several methods that could be used. Other countries use a variety of designs. This section sets out the various options and their advantages and disadvantages.

Option 1: Using bands

- 4.66 Internationally, the most common form of providing relief for small brewers is to provide a reduced rate (either expressed in nominal terms or as a percentage of the main rate) for brewers in a specific range of production. For example, Croatia provides for five reduced rates for brewers producing between 0-5,000hL, 5,001-25,000hL, 25,001-75,000hL and 75,001-125,000hL. When a brewery grows, it switches the rate at which duty is payable on all of its product.
- 4.67 A taper system based on such banding is extremely simply to explain and calculate. However, it has a very significant drawback in that it creates extreme distortions (“cliff edges”) in both the absolute generosity of the relief and marginal costs as brewers grow. For example, in France (where there is a single 50% reduction that runs from 0-200,000hL) if a brewer grows by 1hL to exceed the threshold, the marginal cost of that extra hL is €3.2 million for a 4.2% ABV beer. Likewise, in Croatia brewing one extra hL to transition between the first and second bands reduces the total relief a brewer receives in reduced rates by 10% overall.

- 4.68 While multiple bands can help alleviate this problem to some extent, they still face similar issues. The chart below gives an example of a taper design that contains 30 bands (using the duty available for a 4.2% ABV beer). As can be seen, even with such a large number of bands (which adds complexity, defeating the point of using bands) there are significant jumps in the total amount of relief a brewer can receive as it passes through the various bands.

Chart 4.A: Absolute generosity curve for a 30 band SBR system



Source: HM Treasury analysis

- 4.69 Because of these issues, the Government did not opt for a SBR system based on bands in 2002. The Government considers this reasoning to still be sound and does not believe changing SBR to use a system of bands would represent an improvement on the current system. The Government also notes that no brewers or brewing groups recommended this option in their submissions.

Option 2: A straight line taper

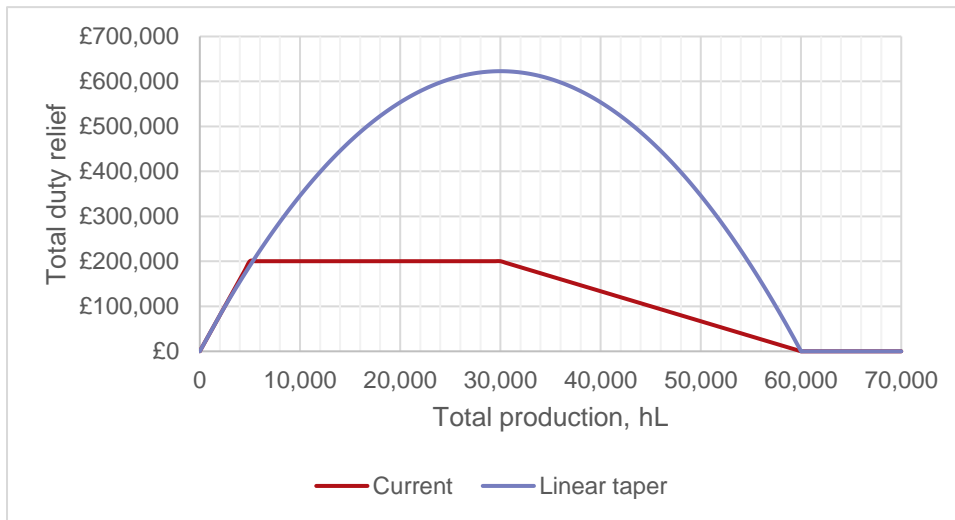
- 4.70 The second conceptually simplest form of a taper is a straight-line taper. Such linear tapers are widely used in tax design in many areas. For example, in income tax the personal allowance is linearly tapered away once an individual's income exceeds £100,000. As previously discussed in this document, the current SBR scheme incorporates a linear taper to reduce the absolute generosity linearly once a brewer's production exceeds 30,000hL.
- 4.71 A straight-line taper reducing a 50% discount to 0% in formula terms will have the following form, where P is total production, and U and L are the upper and lower thresholds of the taper (all in hectolitres):

$$0.5 + (P - L) \left(\frac{0.5}{U - L} \right)$$

- 4.72 However, while linear tapers are also very easy to explain and understand, they have some important drawbacks. Firstly, they have a tendency to create an arc-shaped absolute generosity curve, where relief increases very sharply for the middle of the taper, whereas usually relief is intended to be targeted at the smallest breweries. This also makes a linear taper considerably more expensive than at present. The following chart compares the absolute

generosity (for a 4.2% ABV beer) of the current scheme against a taper that decreased linearly between 2,100hL and 60,000hL.

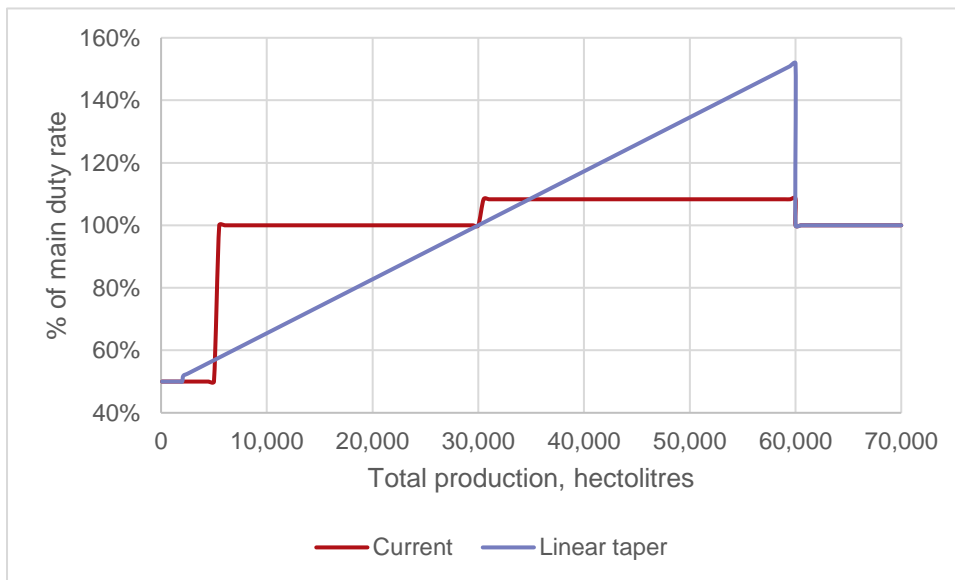
Chart 4.B: Absolute generosity comparison for straight-line taper



Source: HM Treasury analysis

4.73 Secondly, linear tapers tend to exacerbate marginal cost issues compared to the current scheme¹², as charted below. While they avoid the immediate doubling of marginal costs at the lower threshold, they significantly increase marginal costs at higher levels of production.

Chart 4.C: Marginal duty cost comparison for straight-line taper

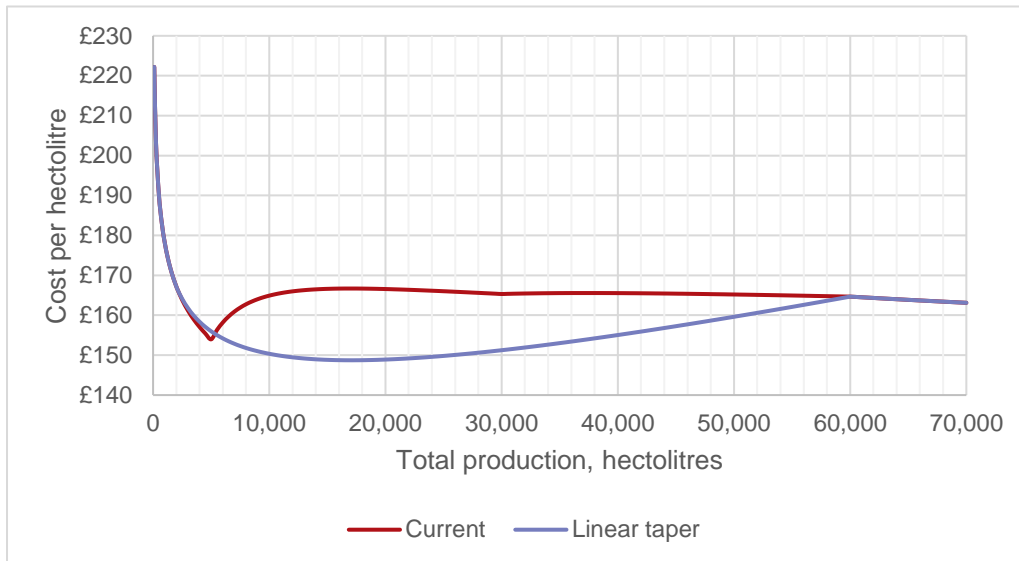


Source: HM Treasury analysis

¹² A single-band linear taper reducing a 50% discount to 0% will have a marginal cost curve that is equal to $0.5 + (2P - L) \frac{0.5}{U-L}$, where U and L are the upper and lower thresholds of the taper in hectolitres. Therefore, any such taper will have the same issue with marginal costs: on the second half of the taper, marginal duty costs will always exceed the standard duty cost.

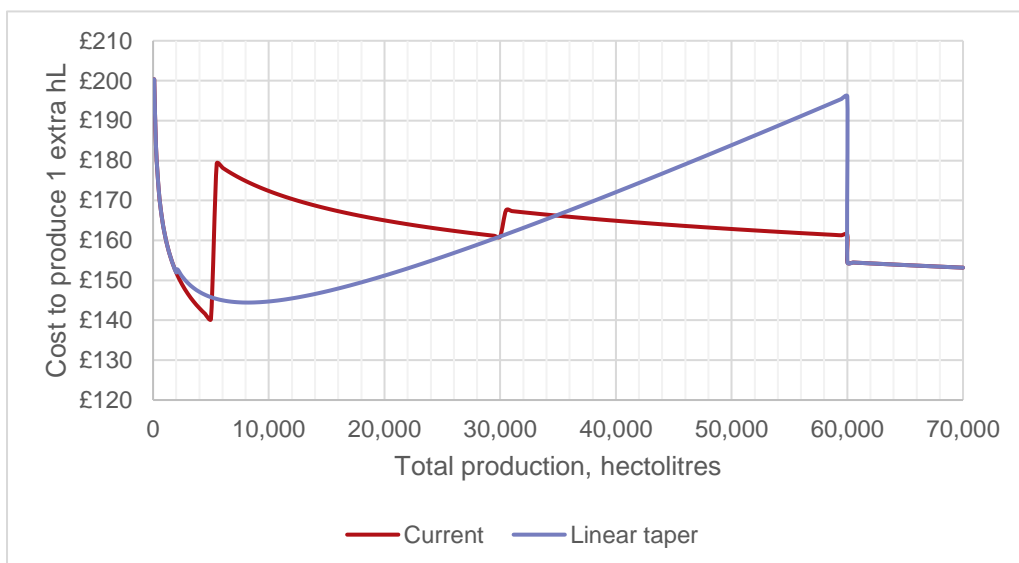
4.74 The data reviewed in the previous chapter about average and marginal production costs can be combined to produce the following analysis, as charted below (again the beer is assumed to be 4.2% ABV).

Chart 4.D: Comparison of straight-line taper production costs



Source: HM Treasury analysis

Chart 4.E: Comparison of straight-line total marginal costs



Source: HM Treasury analysis

4.75 As can be seen, introducing a single straight-line taper does address some of the issues with the present scheme, as there is no longer a sharp increase in production costs past the current 5,000hL or a significant jump in marginal costs. However, these benefits are counterbalanced by disadvantages at higher levels of production (above 9,000hL for marginal costs and 18,000hL for average costs), costs begin to rise again and brewers are no longer incentivised to expand. In addition, the gap between the lowest production

costs by brewers in receipt of SBR and those just above 60,000hL is wider under a straight-line taper.

4.76 Therefore, the Government believes that adopting a simple straight-line taper would not represent an improvement on the current scheme.

Option 3: Interpolating between bands / a series of straight lines

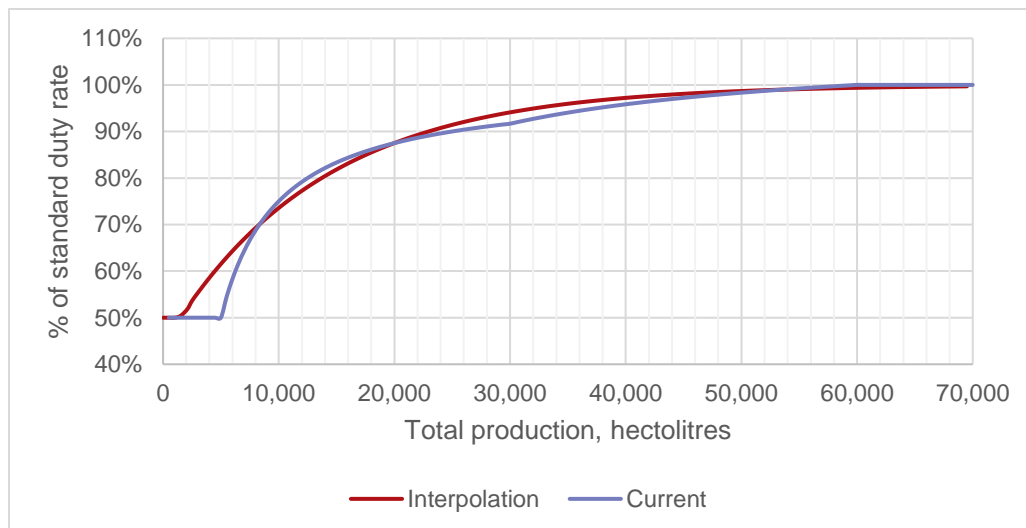
4.77 A further option would be to introduce a series of straight-line tapers, to emulate a more complex non-linear taper (discussed below) without need of an elaborate formula. This option is equivalent to using a series of bands, with a smoothing formula applied to avoid 'cliff-edges' between the bands. SIBA put forward a proposal for a new taper curve using this methodology.

4.78 For example, four straight lines could be introduced so that a brewer at 2,100hL received 50% relief, a brewer at 10,000hL received 30% relief, a brewer at 20,000hL received 15% relief, a brewer at 35,000hL received 5% relief and then the remainder was tapered to 60,000hL. This would require the following system of tapers between 2,100 and 60,000hL:

$$\begin{cases} 0.5 + (P - 2100) \left(\frac{0.2}{7900} \right) & \text{for } 2,100 < P < 10,000hL \\ 0.7 + (P - 10000) \left(\frac{0.15}{10000} \right) & \text{for } 10,000 < P < 20,000hL \\ 0.85 + (P - 20000) \left(\frac{0.1}{15000} \right) & \text{for } 20,000 < P < 35,000hL \\ 0.95 + (P - 35000) \left(\frac{0.05}{25000} \right) & \text{for } 35,000 < P < 60,000hL \end{cases}$$

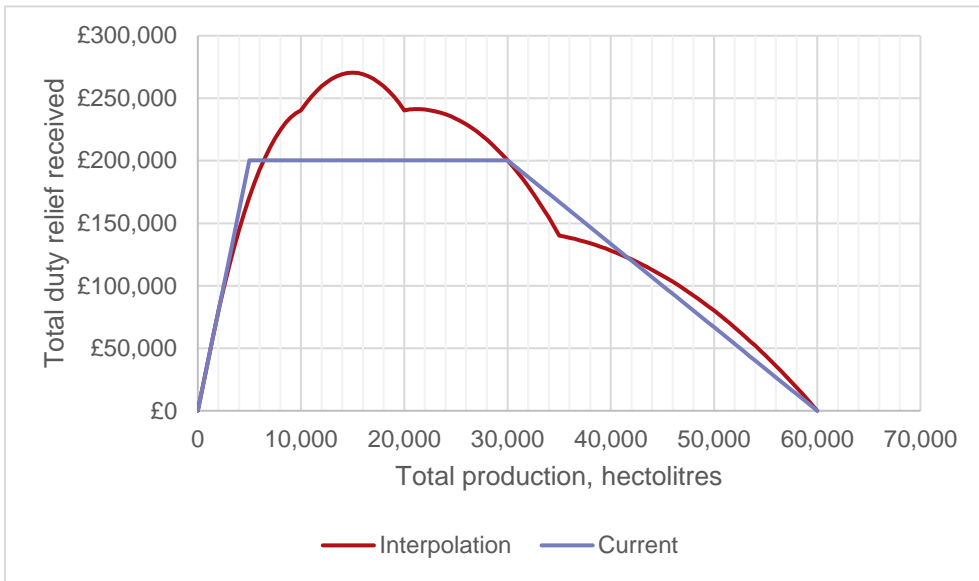
4.79 The charts below describe the effects on various aspects of switching to this option compared to the current system for a 4.2% ABV beer.

Chart 4.F: Duty curve for interpolated system



Source: HM Treasury analysis

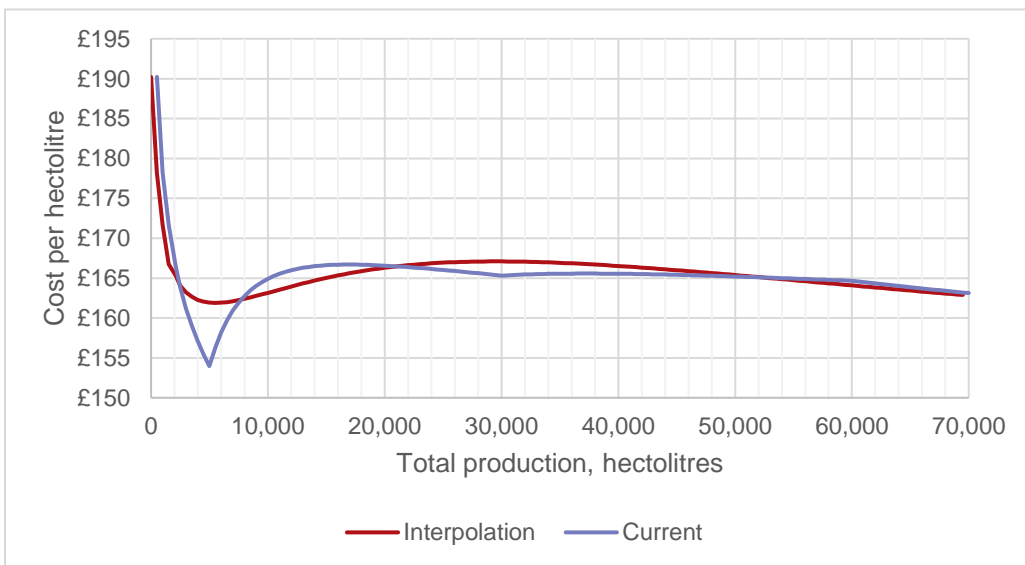
Chart 4.G: Absolute generosity curve for interpolated system



Source: HM Treasury analysis

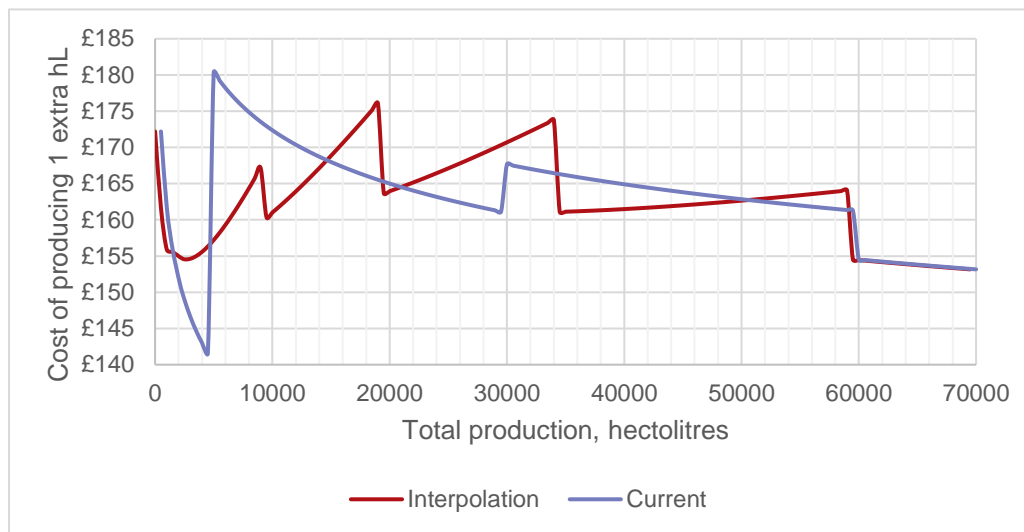
4.80 The effect of such a system can also be combined with the production cost data in the previous section to give an overall analysis of average and marginal costs.

Chart 4.H: Total average cost curve for interpolated system



Source: HM Treasury analysis

Chart 4.I: Total marginal cost curve for interpolated system



Source:

- 4.81 The overall impact of using a number of straight lines/interpolated bands depends on the number of bands, and where they are set to run to. The effects can also be difficult to anticipate. As can be seen, for the example system described above, the ‘growth trap’ caused by the significant disparity in average production costs above 5,000hL is greatly diminished, but average production costs still continue to rise beyond this point. The effect on marginal costs is also nuanced – the jump in marginal costs beyond 5,000hL is diminished, but this system causes rising marginal costs in each band, followed by jumps downwards.
- 4.82 Overall therefore, this option has some advantages in being relatively simple to devise, explain and use. This makes it much easier to adjust over time. It also offers some clear advantages over the current approach, softening the issues associated with marginal and average costs. However, it is not decisively better, as there are still discontinuities in the marginal cost curve.

Option 4: Using marginal bands

- 4.83 Instead of using a formula for a reduced rate applicable to the whole of a brewer’s production, several countries use a series of *marginal* bands. This type of system works in the same way as the personal allowance for income tax.
- 4.84 For example, in the USA, all brewers are able to claim a 11% discount off the main rate on their first 6 million US barrels (7 million hL). In addition, brewers producing less than 2 million US barrels (2.3 million hL) are able to claim a discount of 61% off their first 60,000 US barrels (70,000hL)¹³.
- 4.85 Furthermore, in Canada a series of marginal bands apply to beers, as follows:

¹³ See <https://www.law.cornell.edu/uscode/text/26/5051>

Table 4.A: Canadian beer duty rates for small breweries

| Size (hL) | Rate of beer duty on that beer |
|-----------------|--------------------------------|
| 0-2,000hL | \$3.366 |
| 2,001-5,000hL | \$6.732 |
| 5,001-15,000hL | \$13.464 |
| 15,001-50,000hL | \$23.562 |
| 50,001-75,000hL | \$28.611 |
| Above 75,000hL | \$33.66 |

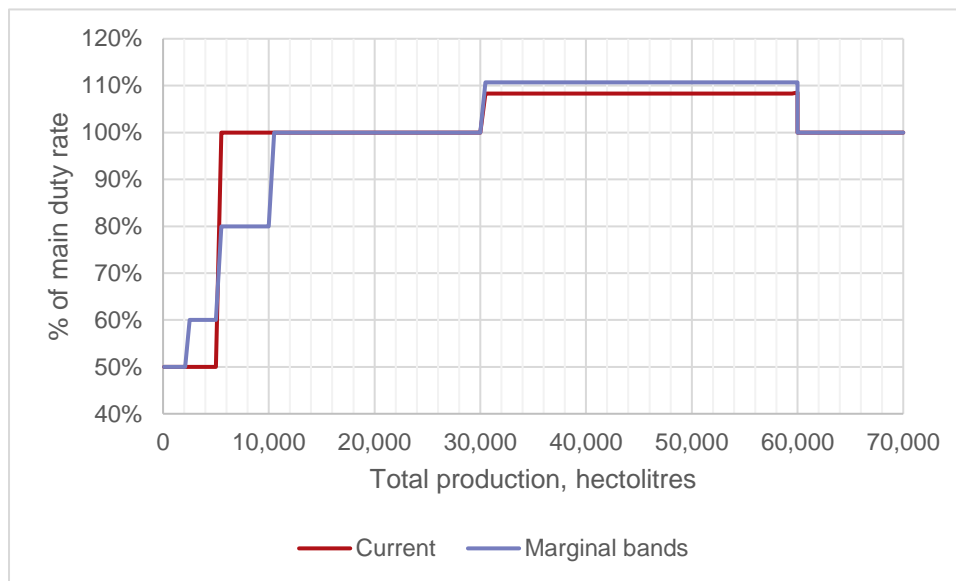
Source: [Government of Canada](#)

- 4.86 The Canadian scheme is marginal, so a brewer producing 6,000hL will pay \$3.366 on their first 2,000hL, then \$6.732 on their next 3,000hL and \$13.464 on their final 1,000hL.
- 4.87 Introducing a more comprehensive marginal scheme is similar to adding an extra formula to the current SBR design. The current system imposes a reduced marginal rate of 50% below 5,000hL, and the full rate on products produced above this point. This is captured in the design of the taper formula.
- 4.88 If a system were adopted where the marginal rate increased to 60% between 2,100hL and 5,000hL, and then to 80% between 5,000 and 10,000hL, and then to 100% of the standard rate until 30,000hL, where it would be tapered away (as at present) until 60,000hL, this would be equivalent to a system of formulas as follows:

$$\left\{ \begin{array}{ll} \frac{1050 + 0.6(P - 2100)}{P} & \text{for } 2,100 < P < 5,000hL \\ \frac{2790 + 0.8(P - 5000)}{P} & \text{for } 5,000 < P < 10,000hL \\ \frac{6790 + (P - 10000)}{P} & \text{for } 10,000 < P < 30,000hL \\ \frac{P - 3210 + 0.107(P - 30000)}{P} & \text{for } 30,000 < P < 60,000hL \end{array} \right.$$

- 4.89 The key benefit of using a marginal scheme is that it allows for the marginal cost of brewing to be directly affected – with other methods, the effect on marginal costs is indirect and so cannot be directly adjusted. In particular, using a marginal bands scheme allows for the jump in the marginal costs in the current scheme to be instead phased in over a wider range of capacity. The marginal cost curve for the example scheme is charted below.

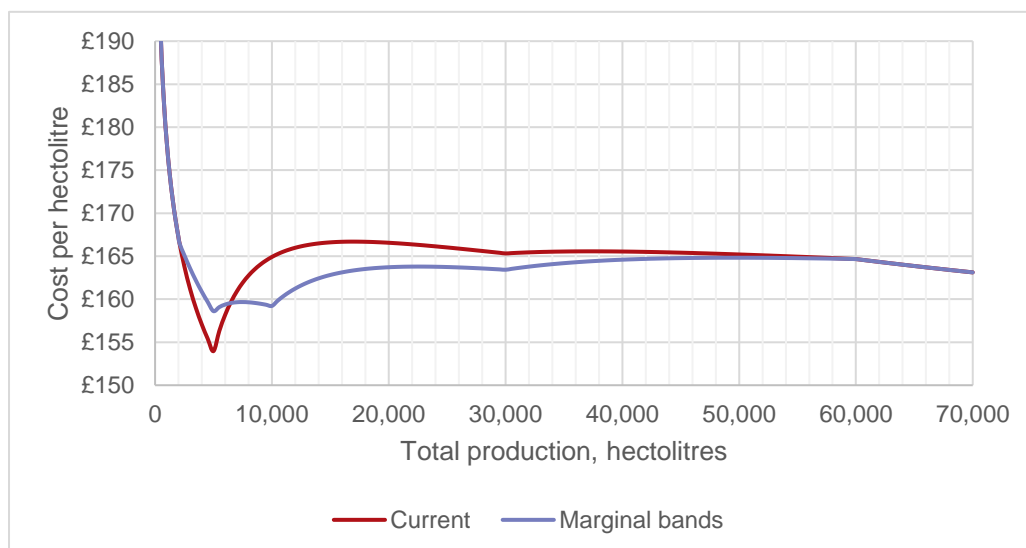
Chart 4.J: Marginal costs under marginal bands scheme



Source: HM Treasury analysis

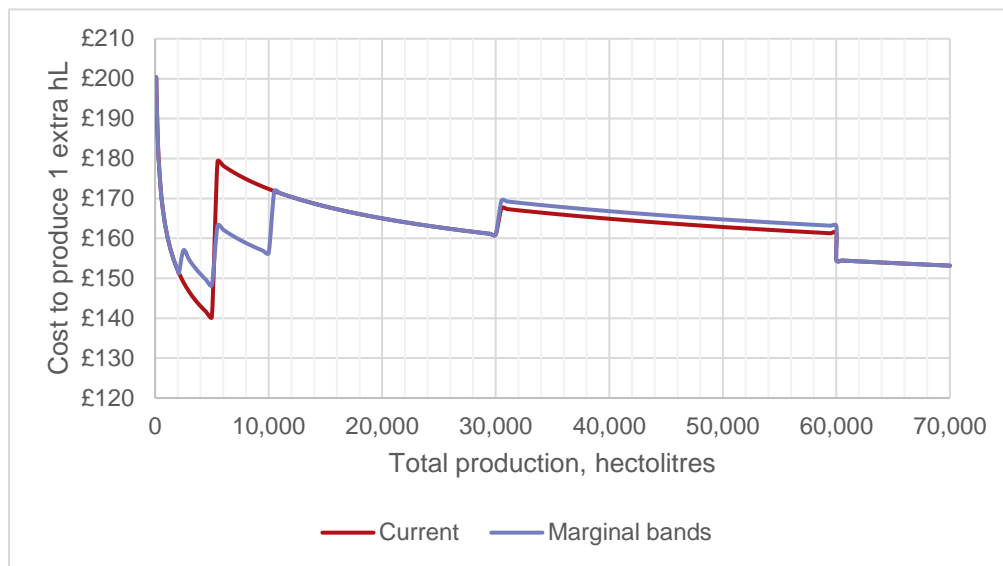
- 4.90 This steady increase in marginal costs could be spread over a wider range of production (although this implies a lower duty rate for larger breweries, and therefore a more expensive scheme), for instance by adding additional bands or lengthening the two bands above.
- 4.91 As with previous options, the effect on overall average and marginal costs (assuming a 4.2% ABV beer) can be considered using the production data considered previously in this document, as charted below.

Chart 4.K: Total average costs using marginal bands scheme



Source: HM Treasury analysis

Chart 4.L: Total marginal costs using marginal bands scheme



Source: HM Treasury analysis

4.92 As can be seen, this option addresses most of the issue with the ‘growth trap’ between 2,000-5,000hL, as average costs remain flat through 5,000-10,000hL. However, average costs still rise between 10,000hL and 50,000hL, although the increment is small at around £5 per hL. Similar to the series of interpolated bands (Option 3), marginal costs are discontinuous, with significant jumps. However, unlike that option marginal costs decrease after each jump, meaning growth is incentivised within each band.

Option 5: Non-linear taper

4.93 The final broad option for redesigning the scheme taper would be to use a different non-linear taper, i.e. one where the taper is not in a straight line and varies as the brewery grows. The aim with these is to reflect the fact that production costs do not linearly decrease as a brewery grows. The Treasury has received several examples from brewing groups for new non-linear tapers.

4.94 The option of using a non-linear taper is harder to evaluate, as this covers a much broader category of designs than the other options. However, in general, non-linear tapers have superior technical design characteristics at the expense of being more complex. This makes them both harder to understand their impact and more demanding to calculate manually. As an example, the Treasury has considered a variant of the logistic function, which has the following formula¹⁴:

$$\frac{1}{2} + \frac{1}{2} (1 + (a - 1)e^{-b(P-c)})^{\frac{1}{1-a}}$$

4.95 Obviously, this is not calculable by hand. In addition, such complex formulae usually include one or more parameters which need to be arbitrarily defined as part of the scheme, with usually little clear way of setting them. These

¹⁴ Where a,b and c are scaling parameters, P is total production in hectolitres, and e is the mathematical constant known as Euler’s number, equal to approximately 2.718

parameters also add rigidity to these formulas (as with the current scheme design), meaning that adjusting them to changing circumstances is difficult.

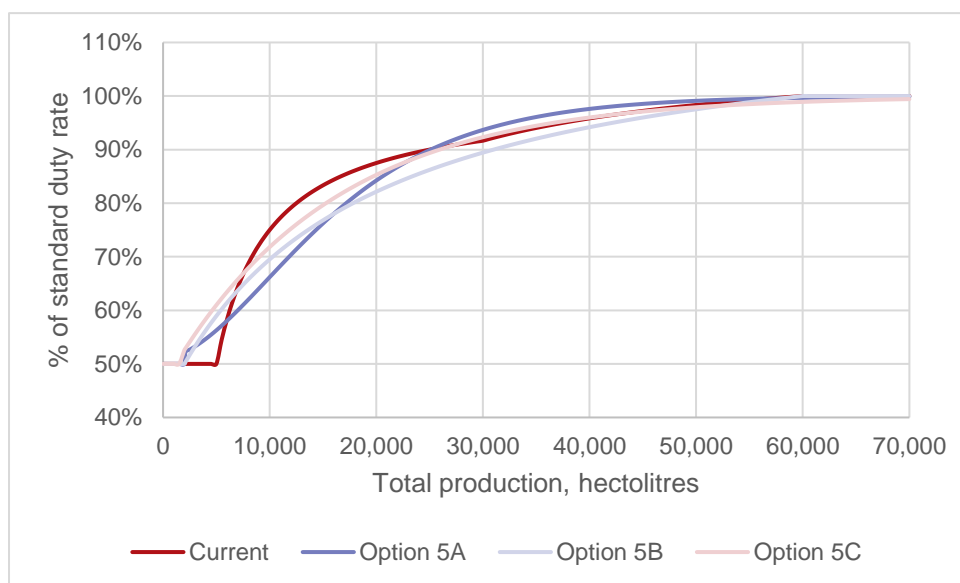
4.96 To demonstrate the variety of approaches possible under this category, the following graphs compare three different formulas against the current scheme design. The formulas are:

$$\text{Option 5A: } \frac{1}{2} + \frac{1}{2} \left(1 - 0.3e^{-\frac{(8000-P)}{10000}} \right)^4$$

$$\text{Option 5B: } \frac{1}{2} + \frac{(P-2000)}{1.5P+26000}$$

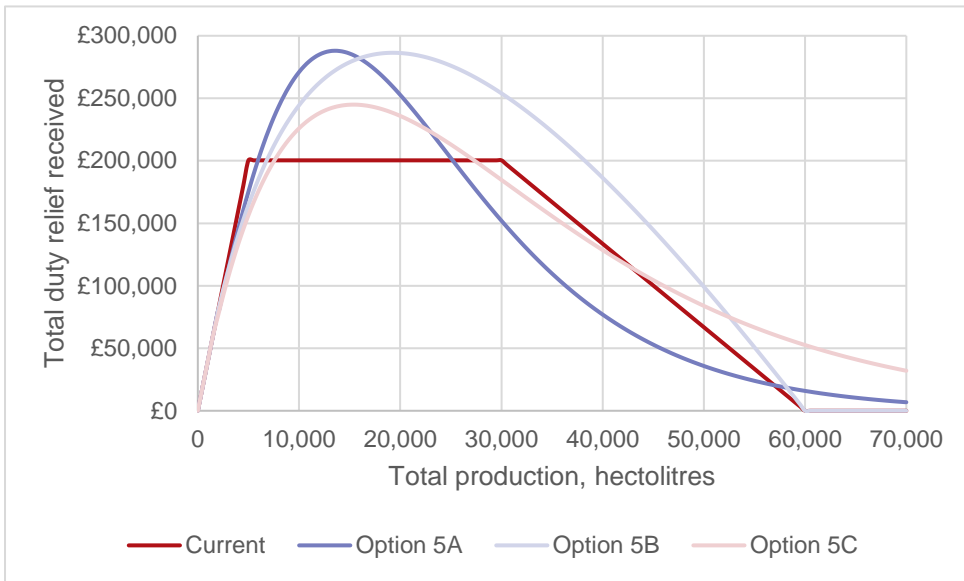
$$\text{Option 5C: } 1 - (0.54e^{-\frac{0.65P}{10000}})$$

Chart 4.M: Duty curves for non-linear options



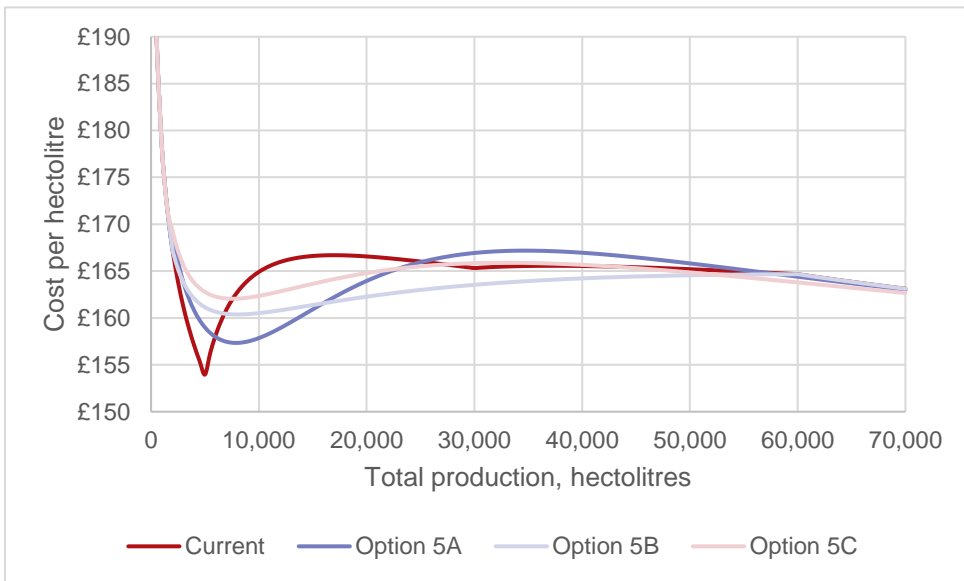
Source: HM Treasury analysis

Chart 4.N: Absolute generosity for non-linear options



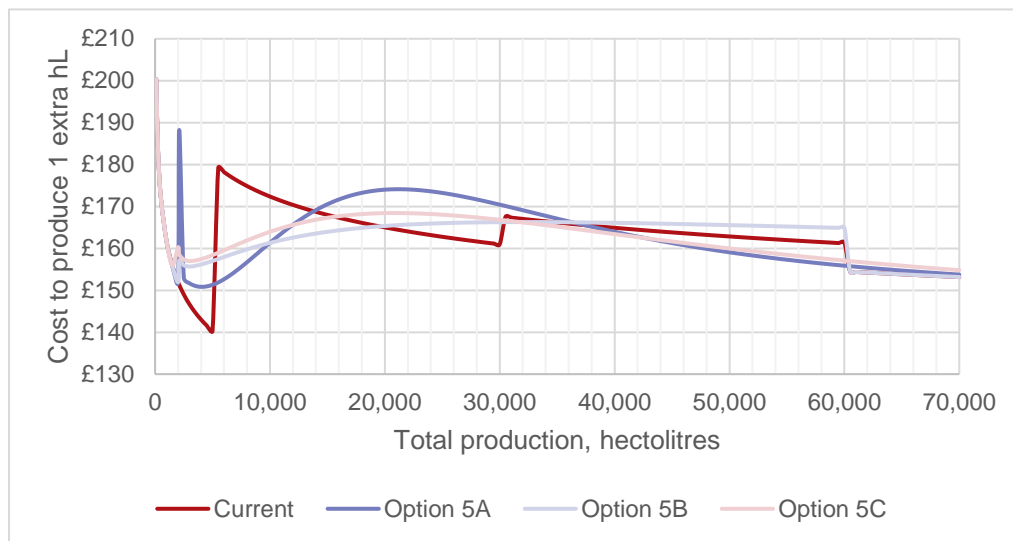
Source: HM Treasury analysis

Chart 4.O: Total average costs for non-linear options (4.2% ABV beer)



Source: HM Treasury analysis

Chart 4.P: Total marginal costs for non-linear options (4.2% ABV beer)



Source: HM Treasury analysis

4.97 As can be seen, the three formulas have a varied effect compared to the current taper design. While all are smooth in respect of average and marginal costs above 2,100hL, there is a discontinuity (particularly in marginal costs) when the 50% flat rate is switched to the taper formula at 2,100hL. Options 5A and 5C do not lend themselves to simple cutoffs and so they taper beyond 60,000hL. This helps avoid the jump and decrease in marginal costs seen in the current scheme and Option 5B between 30-60,000hL.

Rate of withdrawal between 2,100-5,000 hectolitres

4.98 As discussed above, the Government has decided to set the new reformed taper to start at 2,100hL. This means that SBR will be withdrawn, albeit more gradually, from an earlier point. Therefore, the rate of the SBR discount at 5,000hL will not be 50% as at present.

4.99 Therefore, one of the most important considerations in redesigning the SBR taper is what the appropriate amount of relief should be for brewers in the range of 2,100-5,000hL. The Government has received a range of suggestions from brewers and brewing groups.

4.100 The Government would welcome the views of brewers on what the appropriate amount of relief a brewer producing 5,000hL (and therefore similarly for a brewer producing 4,000hL or 6,000hL) should receive as a percentage of the main rate.

Tapering above 60,000 hectolitres

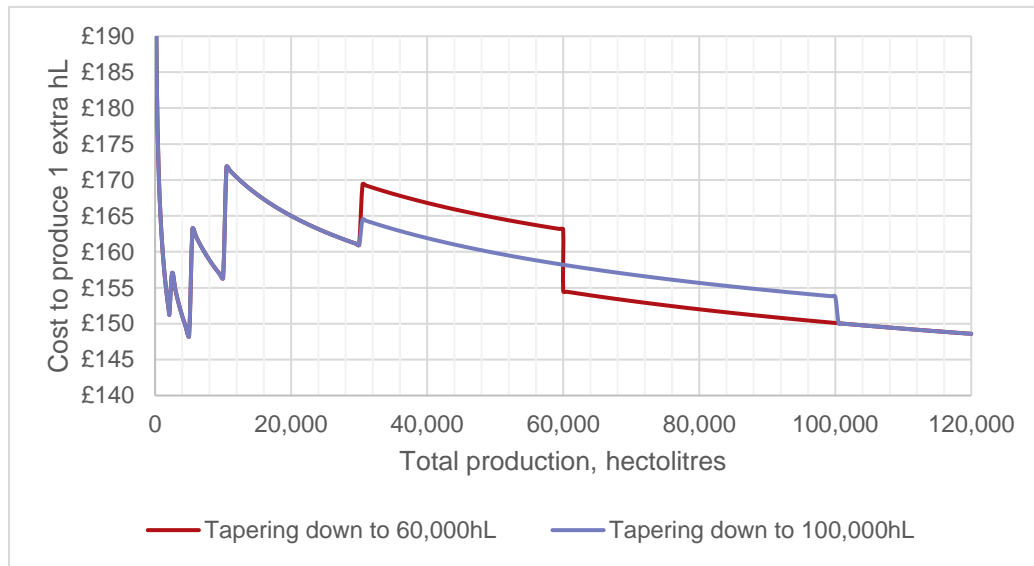
4.101 As discussed above, the Government is not minded to extend the SBR scheme to larger breweries in and of itself, as it believes the scheme should remain targeted on the smaller end of the market.

4.102 However, extending the taper to larger brewers could help by smoothing changes in both average and marginal costs. As previously discussed, non-linear tapers that go beyond 60,000hL (see Option 5A and 5C) have no

sudden jumps in total average or marginal costs around 60,000hL for this reason.

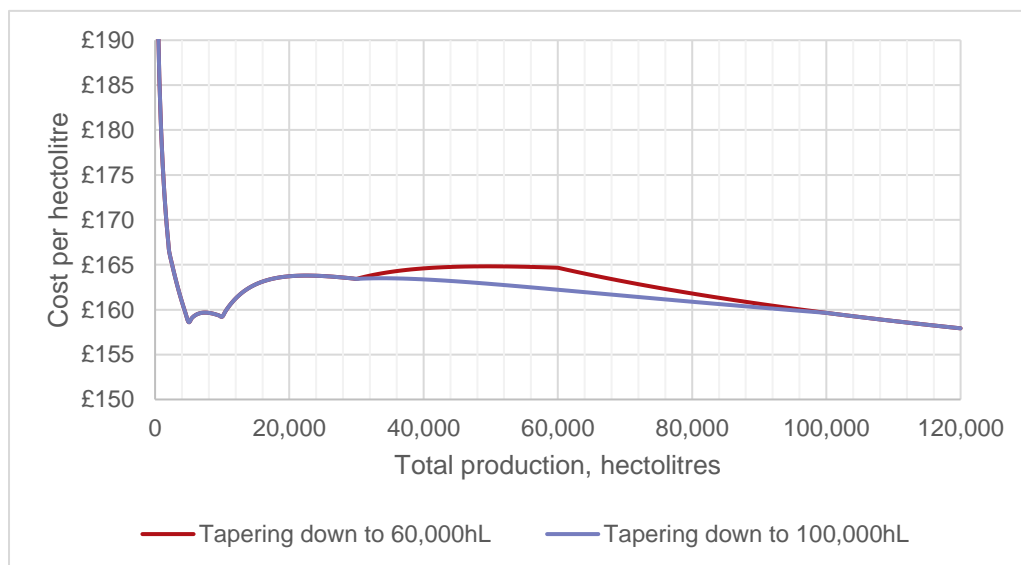
4.103 The following charts give the example of two versions of the scheme discussed above under Option 3. The first tapers the relief away (as at present, to 60,000hL) while the second tapers this up to 120,000hL. As can be seen, by tapering production over a wider level, the jump in total marginal costs between 30-60,000hL is diminished. Furthermore, while total average production costs rise under the current withdrawal to 60,000hL, with a withdrawal running to 100,000hL, average costs begin to fall at 20,000hL.

Chart 4.Q: Comparison of total marginal cost (4.2% ABV beer)



Source: HM Treasury analysis

Chart 4.R: Comparison of total average cost (4.2% ABV beer)



Source: HM Treasury analysis

4.104 While the Government notes that brewers were opposed to increases above 60,000hL in the 2019 brewers survey, the Government would be interested in the views of brewers on whether they would support an extension of a reformed taper to a higher level of production.

Box 4.E: Technical issues with reforming the SBR taper – questions

10 Which of the five options for a scheme design above do you consider the most attractive?

11 How would you set the parameters of your preferred design?

12 What would the amount of relief at 5,000hL (and therefore the rate of withdrawal between 2,100-5,000hL) be under this new scheme?

13 Would you support a more gradual rate of SBR withdrawal from 30,000hL, to e.g. 100,000hL, in the context of a reformed scheme?

Chapter 5

Summary of questions

Questions in this call for evidence

Changing the method of calculating production

- 1 Would you support changing the method of calculating production from the previous calendar year's total to a rolling 12-month average?
- 2 As an alternative, would you support brewers being able to adjust their production total in-year? Would any protections be needed to prevent this provision from being abused?

Mergers and acquisitions – transitional relief

- 3 If relief is put in place, over how many years (and at what rate) should SBR be withdrawn drawn for breweries that merge?
- 4 Do you foresee any issues if such a relief was put in place?
- 5 What rules would be needed to protect this relief from abuse? Should there be a maximum size that breweries can be to benefit from transitional relief?

Adjusting SBR for the strength of the beer produced

- 6 Would you support capping the amount of SBR claimable in cash terms? This would reduce the production volume that would be eligible for reduced rates produced for higher strength beers while increasing it for lower strength beers.
- 7 If so, what would be the appropriate ABV on which to base the 'cash cap'?
- 8 Would you support the inclusion of the additional excise on beers above 7.5% ABV, and the reduced rate for beers below 2.8% ABV, in this system?

Converting to a cash basis

- 9 What method would you prefer the Government uses when considering whether to uprate the SBR amount?

Technical issues with reforming the SBR taper

- 10 Which of the five options for a scheme design do you consider the most attractive?
- 11 How would you set the parameters of your preferred design?
- 12 What would the amount of relief at 5,000hL (and therefore the rate of withdrawal between 2,100-5,000hL) be under this new scheme?
- 13 Would you support a more gradual rate of SBR withdrawal from 30,000hL, to e.g. 100,000hL, in the context of a reformed scheme?

Annex A

Statistical data

A.1 The table below sets out how the number of brewers has changed over time.

Table A.1: Number of brewers 1838-2020

| Year | Brewers |
|------|---------|
| 1838 | 49,200 |
| 1853 | 45,294 |
| 1870 | 32,387 |
| 1875 | 27,322 |
| 1879 | 22,278 |
| 1882 | 15,569 |
| 1890 | 11,364 |
| 1895 | 9,050 |
| 1900 | 6,447 |
| 1910 | 4,512 |
| 1915 | 3,556 |
| 1920 | 2,914 |
| 1930 | 1,418 |
| 1939 | 885 |
| 1940 | 840 |
| 1950 | 567 |
| 1957 | 524 |
| 1960 | 358 |
| 1967 | 244 |
| 1980 | 191 |
| 1987 | 220 |
| 1990 | 279 |
| 1997 | 389 |
| 2001 | 446 |

| | |
|------|-------|
| 2005 | 570 |
| 2010 | 828 |
| 2015 | 1,580 |
| 2020 | 1,900 |

Sources: H. Aldous, "The Beer Duty" (1901); [Monopolies Commission, "Beer: A Report on the Supply of Beer" \(1969\)](#); *The Brewing Industry: A report by the Brewing History Society for English Heritage* (2010); *British Beer and Pub Association*; CAMRA; HMRC

Annex B

The 2019 survey of brewers

B.1 The 2019 survey asked several questions about reform of SBR:

Table B.1: Are you content with SBR as it currently is?

| | All responses | Small brewers | Medium brewers |
|-----|---------------|---------------|----------------|
| Yes | 202 (60%) | 190 (73%) | 9 (16%) |
| No | 133 (40%) | 72 (27%) | 46 (84%) |

Table B.2: If you have chosen not to increase production, or to decrease production, has SBR been a significant contributing factor to that decision?

| | All responses | Small brewers | Medium brewers |
|----------------|---------------|---------------|----------------|
| Yes | 87 (48%) | 55 (41%) | 26 (76%) |
| No | 93 (52%) | 79 (59%) | 8 (24%) |
| Not Applicable | 155 | 128 | 21 |

Table B.3: SBR should be available over 60,000 hectolitres.

| | All responses | Small brewers | Medium brewers |
|----------------------------|---------------|---------------|----------------|
| Agree | 43 (31%) | 12 (16%) | 18 (39%) |
| Neither agree nor disagree | 28 (20%) | 16 (21%) | 10 (22%) |
| Disagree | 64 (46%) | 45 (59%) | 18 (39%) |
| Don't know | 4 (3%) | 3 (4%) | 0 (0%) |

Table B.4: SBR should be withdrawn before 60,000 hectolitres.

| | All responses | Small brewers | Medium brewers |
|----------------------------|---------------|---------------|----------------|
| Agree | 36 (26%) | 25 (33%) | 9 (20%) |
| Neither agree nor disagree | 20 (14%) | 12 (16%) | 6 (13%) |
| Disagree | 70 (55%) | 35 (46%) | 31 (67%) |
| Don't know | 7 (5%) | 4 (5%) | 0 (0%) |

Table B.5: There should be a transitional arrangement for breweries that merge with or acquire other breweries so SBR is withdrawn over a number of years.

| | All responses | Small brewers | Medium brewers |
|----------------------------|---------------|---------------|----------------|
| Agree | 66 (47%) | 30 (39%) | 28 (61%) |
| Neither agree nor disagree | 24 (17%) | 17 (21%) | 6 (13%) |
| Disagree | 39 (28%) | 23 (30%) | 10 (22%) |
| Don't know | 10 (7%) | 6 (8%) | 2 (4%) |

Table B.6: The rate of withdrawal of SBR over 5,000 hectolitres should be less rapid.

| | All responses | Small brewers | Medium brewers |
|----------------------------|---------------|---------------|----------------|
| Agree | 109 (78%) | 55 (72%) | 42 (91%) |
| Neither agree nor disagree | 9 (6%) | 9 (12%) | 0 (0%) |
| Disagree | 16 (12%) | 9 (12%) | 4 (9%) |
| Don't know | 5 (4%) | 3 (4%) | 0 (0%) |

Table B.7: Brewers over 2,500 hectolitres should receive less relief.

| | All responses | Small brewers | Medium brewers |
|----------------------------|---------------|---------------|----------------|
| Agree | 39 (28%) | 14 (18%) | 17 (37%) |
| Neither agree nor disagree | 9 (6%) | 4 (5%) | 3 (7%) |
| Disagree | 84 (60%) | 55 (72%) | 25 (54%) |
| Don't know | 7 (5%) | 3 (4%) | 1 (2%) |

Table B.8: Brewers up to 10,000 hectolitres should receive more relief.

| | All responses | Small brewers | Medium brewers |
|----------------------------|---------------|---------------|----------------|
| Agree | 85 (61%) | 51 (67%) | 32 (70%) |
| Neither agree nor disagree | 19 (14%) | 14 (18%) | 2 (4%) |
| Disagree | 32 (23%) | 11 (14%) | 12 (26%) |
| Don't know | 3 (2%) | 0 (0%) | 0 (0%) |

Table B.9: SBR should be calculated as a fixed amount (e.g. £9.54 per 1% abv per hectolitre) rather than as a percentage of duty.

| | All responses | Small brewers | Medium brewers |
|----------------------------|---------------|---------------|----------------|
| Agree | 34 (24%) | 8 (11%) | 18 (39%) |
| Neither agree nor disagree | 47 (34%) | 29 (38%) | 14 (30%) |
| Disagree | 26 (19%) | 19 (25%) | 6 (13%) |
| Don't know | 32 (23%) | 20 (26%) | 8 (17%) |

Table B.10: More should be done, outside of SBR, to improve access to markets for small brewers.

| | All responses | Small brewers | Medium brewers |
|----------------------------|---------------|---------------|----------------|
| Agree | 93 (67%) | 57 (75%) | 32 (70%) |
| Neither agree nor disagree | 23 (17%) | 11 (14%) | 7 (15%) |
| Disagree | 18 (13%) | 6 (8%) | 7 (15%) |
| Don't know | 5 (4%) | 2 (3%) | 0 (0%) |

- B.2** 'Small brewer' is defined as one producing 5,000hL or less, and 'medium brewer' is one producing between 5,000 and 60,000 hL (both categories receive SBR). A small number of larger brewers also replied.
- B.3** For clarity, responses that were 'strongly agree/disagree' and 'somewhat agree/disagree' have been merged into a single 'agree' or 'disagree' response.
- B.4** Percentages may not add to 100% due to rounding. All percentages above are of those who responded.

Qualitative responses

- B.5** Several respondents provided qualitative comments in free text form. These varied from comments about the effectiveness of the current scheme, to suggestions for specific policy proposals (for example, a lower rate of duty for brewpubs). The Government is grateful for these comments, which were helpful in guiding the progress of the review. However, by nature of being free text, and often containing confidential information, it is difficult to summarise them in a public way. However, the main section of this document includes some quotes from the comments made by brewers.

List of respondents

| | |
|---------------------------|--------------------------|
| 40FT Brewery | Abbeydale Brewery |
| Abington Ales | Accidental Brewery |
| Acorn Brewery of Barnsley | Adnams |
| Allendale Brewery | Alphabet Brewing Company |
| Alphabeta Brewery | Ampersand Brew Co Ltd |

Amwell Springs Brewery Co Ltd
 Arbor Ales Ltd
 Arran Brewery

 Axholme Brewing Company Ltd
 Bank Top Brewery Ltd

 Bays Brewery Ltd
 Beer Nouveau
 Bere Brewery
 Bexley Brewery
 Billericay Brewing
 Bishop Nick Ltd
 Black Country Ales
 Black Sheep Brewery plc
 Blackedge Brewing Company Ltd
 Bluestone Brewing Company
 Bollington Brewing Co
 Boot Town Brewey
 Bragdy Twt
 Brew By Numbers
 Brewhouse and Kitchen
 Brick Brewery
 Brixton Brewery
 Brumaison Ltd
 Bun Dubh Brewing
 Burton Bridge
 By The Horns Ltd
 Cairngorm Brewery
 Carlsberg UK
 Castle Rock Brewery
 Chapel En Le Frith Craft Brewing
 Cheddar Ales Ltd
 Cheviot Brewery
 Corinium Ales
 Crooked Ship Brewery Ltd
 Crouch Vale Brewery Ltd
 Daleside Brewery Ltd
 Daniel Batham & Son Ltd
 Driftwood Spars Brewery
 Eden Brewery
 Elland Brewery
 Enfield Brewery Ltd
 Epic Beers Ltd
 Everards Brewery Ltd
 Exmoor Ales Ltd
 Fallen Brewing Co Ltd
 Fell Brewery Ltd
 Finney Microbrewery
 Firebird Brewing Co
 Folly Brewery
 Fosse Way Brewing Company
 Fuller Smith and Turner plc
 Fyne Ales

 Anarchy Brew Co
 Ards Brewing Company Ltd
 Astwood Infrastructure T/A Lab
 Culture Brewery
 Bad Seed Brewery Ltd
 Barton House Brewing Company T/A
 Holsworthy Ales
 Beer Monkey Brew Co
 Beeston Brewery Ltd
 Bewdley Ltd
 Big Lamp Brewers
 Bingley Brewery
 Bishop's Waltham Brewery
 Black Rat Microbrewery
 Black Wolf Brewery
 Blindmans Brewery
 Bohem Brewery
 Boot Beer Co
 Boutilliers Ltd
 Brass Castle
 Brew Shed Beers Ltd
 Brewing Services Ltd
 Brightbeer Ltd
 Brolly Brewing Ltd
 Bucks Star Beer
 Burnside Brewery
 Burton Town Brewery
 Caffle Brewery
 Camerons Brewery Ltd
 Castle Brewery
 Chain House Brewing Co
 Charnwood Brewery
 Chevin Brew Co
 Church End Brewery Ltd
 Craft Brews @ Frensham Brewery
 Cross Borders Brewing Co Ltd
 Cullercoats Brewery Ltd
 Dancing Duck Beer Ltd
 Dorking Brewery 2016 Ltd
 Dunham Massey Brewing Co
 Elgood & Sons Ltd
 Emmanuales
 Ennerdale Brewery
 Errant
 Exe Valley Brewery
 Facer's Brewery
 Felinfoel Brewery Co Ltd
 Ferry Ales Brewery
 Fintry Brewing Co Ltd
 Flying Monk Brewery
 Forest Road Brewing Company
 Frederic Robinson Ltd
 Fuzzy Duck Brewery Ltd
 George Bateman and Son Ltd

Goldmark Craft Beers Ltd
 Great Central Brewery Ltd
 Gun Dog Ales Ltd
 Half Moon
 Hammerpot Brewery
 Harveys
 Hepworth & Company Brewers Ltd
 Hobsons Brewery & Co Ltd
 Honeywall
 Hop Back Brewery plc
 Hopshackle Brewery Ltd
 Ilkley Brewery
 Inkerman Ales Ltd
 Innis & Gunn Brewing Company
 Isle of Wight Brewery Ltd
 Joseph Holt Ltd
 JW Lees & Co (Brewers) Ltd
 Keswick Brewing Co Ltd
 Kings Head Brewery
 Laig Bay Brewery Co
 Ledbury Real Ales
 Lincoln Green Brewing Co Ltd
 Little London Brewing Co Ltd
 Littleover Brewery
 Lizard Ales
 Loch Lomond Brewery
 Long Man Brewery
 Lost and Grounded Brewers Ltd
 Lymm Brewing Company
 Magic Rock Brewing
 Mantle Brewery Ltd
 Marko Paulo Ltd
 Maxim Brewery
 McColl's Brewery Ltd
 Melin Tap Brewhouse Ltd
 Mike Fisher
 Millstone Brewey Ltd
 Moor Beer Co Ltd
 MoR Brewing
 Mr Bees Brewery
 Musket Brewery Ltd
 Nepsend Brew Co
 New River Brewery Ltd
 Nomadic Brewing Co
 North Cotswold Brewery Ltd
 Old Dairy Brewery
 Out There Brewing Co
 Padstow Brewing Co
 Paradigm Brewery
 Peakstones Rock Brewery
 Penton Park Brewery
 Pheasantry Brewery
 Pope's Yard Brewery Ltd
 Pumphouse Community Brewery
 Gower Brewery Company Ltd
 Gun Brewery
 Hackney Brewery Ltd
 Hambleton Ales
 Harvey & Son (Lewes) Ltd
 Hedgedog Brewing Ltd
 Hermitage Brewery
 Hogs Back Brewery
 Hop & Staggar
 Hops and Dots Brewing Co Ltd
 Hybrid Brewing
 Inferno Brewery Ltd
 Inner Bay Brewery Ltd
 Iron Pier Brewery Ltd
 Jon's Brewery Ltd
 Joules Brewery Ltd
 Kelburn Brewery
 Kettlesmith Brewing Company
 Konigsberg Seven Bridges Brewery
 Lancaster Brewery
 Legitimate Industries
 Lister's Brewery
 Little Valley Brewery
 Liverpool Brewing Co Ltd
 Loch Leven Brewery
 London Beer Lab
 Longdog Brewery Ltd
 Love Lane Brewing
 Mad Cat Brewery Ltd
 Maldon Brewing Co Ltd
 Marble Beers Ltd
 Mauldons
 Maypole Brewery Ltd
 McMullen & Sons Ltd
 Merchant City Brewing Co
 Mile Tree Brewery Ltd
 Moogbrew
 Moorhouse's Brewey
 Mount St Bernard Abbey Brewery
 Muckle Brewing
 Naylor's Brewery Ltd
 Neptune Brewery Ltd
 Newby Wyke
 North Brewing Co Ltd
 Northbound Brewery
 Orbit Brewin Ltd
 P & DJ Goacher
 Palmers Brewery
 Peak Ales Ltd
 Peerless Brewing Co Ltd
 Pentrich Brewing Co
 Pilot Beer Ltd
 Prospect Brewery
 Purple Moose Brewery Ltd

Q Brewery
 Ramsgate Brewery
 Raven Hill Brewery
 Red Willow Brewery Ltd
 Riverside Brewery
 Rocket Ales Ltd
 Rooster's Brewery Ltd
 S43 Brewery
 Saltaire Brewery Ltd
 Sandstone Brewery
 Shortts Farm Brewery
 Simpsons Fine Ales
 Snowdon Craft Beer LTd
 St Austell Brewery Co Ltd
 Stanway Brewery
 Storm Brewing Co Ltd
 Swan Brewery
 T&R Theakston Ltd
 Taming of the Brew
 Teme Valley Brewery
 The Backyard Brewhouse
 The Broken Drum Home Brew
 The Dog and Rabbit Brewery Ltd
 The Godstone Brewers Ltd
 The Hook Norton Brewery Co Ltd
 The Mighty Oak Brewing Co Ltd
 The Pilot Brewery
 The Runaway Brewery
 Thornbridge Hall Country House
 Brewing Co Ltd
 Three Daggers Brewery
 Timothy Taylor & Co Ltd
 Tonbridge Brewery Ltd
 Track Brewing Co
 Tring Brewery
 Tunnel Brewery
 Twisted Brewing Co Ltd
 Tyne Bank Brewery Ltd
 Umbrella Brewing Ltd
 Vibrant Forest Brewery
 Warcop Ales
 Welland Brewery
 Wensleydale Brewery
 Westerham Brewery
 Whistable Brewery Co
 Wild Horse Brewing Co Ltd
 Windswept Brewing Co Ltd
 WooHa Brewing Co
 XT Brewing Co Ltd
 Yorkshire Heart Brewery

Quartz Brewing Ltd
 Raven Hill Brewery
 Rebellion Beer Company
 Ridgeway Brewing
 Roa Island Brewing Co
 Roebuck Brewing Co Ltd
 S.A. Brain & Company Ltd
 Salopian Brewing Co Ltd
 Sambrook's Brewery Ltd
 Shepherd Neame Ltd
 Signature Brew Ltd
 Small World Beers Ltd
 Spotlight Brewing
 St Peter's Brewery Co Ltd
 Stonehouse Brewery
 Stroud Brewery
 Swansea Brewery
 Taddington Brewery
 Tarn Hows Brewery
 The 3 Brewers Ltd
 The Brewery at Duchy Home Farm
 The Cheshire Brewhouse Ltd
 The Five Points Brewing Co Ltd
 The Hildenborough Brewery Ltd
 The Leeds Brewery Co Ltd
 The Park Brewery
 The Rookery – Craft Mead
 Thirst Class Ale Ltd
 Three Brothers Brewing Co Ltd

Thurstons – The Horsell Brewing Co
 Titanic Brewery
 TQ Beerworks
 Treboom Brewery
 Tudor Brewery
 Twisted Barrel Ale Ltd
 Two Towers Brewery Ltd
 Tyton Brewery
 Urban Island Brewing Co
 Wadworth & Company Ltd
 Weetwood Ales Ltd
 Weltons Brewery
 Wessex Brewery
 White Horse Brewery
 Wibblers Brewery (Farms) Ltd
 Williams Bros Brewing Co
 Wishbone Brewery
 Wye Valley Brewery
 Yorkshire Dales Brewing Co Ltd

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