MINIMUM UNIT ALCOHOL PRICING

Evaluating the impacts on the alcoholic drinks industry in Scotland: baseline evidence and initial impacts

A study conducted on behalf of NHS Health Scotland as part of the wider MESAS evaluation of Minimum Unit Alcohol Pricing

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Finally, we would like to thank NHS Health Scotland for their ongoing support.

DECLARATION OF INTERESTS

Members of the EAG provided comment on the draft of this report. This group includes members from academic organisations, the alcohol industry, alcohol advocacy organisations, Scottish Government and NHS Health Scotland. All comments were advisory only. Decision making on the content of the report rested with the Frontier Economics research team. Membership of the EAG can be found on the MUP evaluation website.

EXECUTIVE SUMMARY

In 2012, the Scottish Government passed the Alcohol (Minimum Pricing) (Scotland) Act 2012 to create a minimum unit price of 50 pence per unit (ppu) for all alcoholic drinks retailed in Scotland. Minimum Unit Pricing (MUP) came into effect on 1 May 2018.

As part of a wider evaluation of the MUP policy, NHS Health Scotland commissioned Frontier Economics Ltd. to **evaluate the economic impact of MUP on producers and retailers of alcoholic drinks in Scotland**.

We adopted a contribution analysis approach to the evaluation, recognising that mixed methods would be needed to provide a robust evidence base. The evaluation is taking place in three phases:

- **Phase one** (2018) involved the development of a theory of change to describe the possible impact of MUP on the Scottish alcoholic drinks industry, based on desk research and engagement with industry stakeholders.
- **Phase two** (2019) involved the collection and analysis of baseline secondary statistical evidence on the industry pre-MUP, the first wave of industry case studies conducted around nine months after the introduction of MUP, and qualitative research with border region stores to assess early evidence of cross-border shopping effects post-MUP.
- **Phase three** (2021-22) will involve a second wave of industry case studies, refreshed and updated analysis of industry statistical evidence post-MUP, and further engagement with industry stakeholders.

This report presents phases one and two of the evaluation: **the theory of change, baseline quantitative evidence and qualitative evidence on initial impacts.** The phase three report will present the quantitative analysis along with qualitative evidence on long-term impacts.

Theory of change

A theory of change sets out the logic for how a policy intervention may generate particular outcomes and impacts. It is considered best practice in evaluation to have this theory developed from the inception of the evaluation to help develop hypotheses and evaluation questions which can be taken to the evidence.

We developed the theory of change in three stages: a rapid evidence review of the key literature linking MUP and industry performance; stakeholder engagement; and a validation/review process with stakeholders.

The theory of change describes a number of hypotheses about the impact of MUP on the alcoholic drinks industry in Scotland.

These hypotheses can be divided into six groupings:

1. **Direct effect.** Introducing a minimum price of 50ppu for all alcoholic beverages retailed in Scotland has an immediate effect of increasing the price of all alcoholic drinks retailed below 50ppu, assuming that retailers comply with the policy. This imposes compliance costs on the industry. Based on pre-MUP prices, we expect the direct effects to be strongest for high-strength/low-cost

cider, beer and spirits sold at off-trade retailers, particularly at large supermarkets and discounters. In the absence of any behavioural responses by consumers or producers, we expect retailer revenues and profits to increase.

2. **Demand response.** Consumers are likely to respond to the higher prices of some alcoholic drinks by reducing purchases of these products. We expect that consumers may instead switch to alcoholic drinks that were more expensive prior to the introduction of MUP, change which retailers or channels they purchase alcoholic drinks from or reduce overall alcohol consumption. It is also possible that some consumers will purchase alcoholic beverages from England or from the illicit market. In the absence of any other changes, we expect the reduction in demand to offset some of the increases in revenues and profits.
3. **Retailer and producer responses.** Retailers and producers may respond to the changing demand for alcoholic drinks in a number of ways. This could include: de-listing some previously <50ppu products; maintaining pre-MUP price differentials by increasing the price of alcoholic drinks not directly affected by MUP; reducing the format sizes of alcoholic drinks;[1] reformulating some alcoholic drinks by reducing alcohol by volume (ABV) or introducing new lower ABV; or increasing the marketing and non-price promotion of some alcoholic drinks to reflect the reduced scope for price-based competition. In the absence of any other changes, we expect that retailers will be able to regain some lost demand and therefore increase revenues and profits.
4. **Competitive response.** We expect that the competitive dynamics of the alcoholic drinks industry will mean that retailers share some of this increased surplus with producers. This is most likely for products with strong brand loyalty, which provides producers with more bargaining power. We likewise expect that the competitive dynamics of the retail sector mean that retailers share some of this increased surplus with consumers by discounting alcoholic drinks unaffected by MUP and non-alcoholic products in order to attract footfall. In the absence of other changes, increased retailer revenues and profits will be reduced, while producer profits will be increased.
5. **New equilibrium.** Ultimately, we expect that, in the absence of other changes, the alcoholic drinks industry will shift to a new equilibrium characterised by lower volumes of sales of alcoholic drinks but higher average values. We expect that the market share of 'premium' alcoholic drinks will increase (at the expense of 'value' and own-label products);[2] that the market share of convenience and on-trade retailers will increase (at the expense of supermarkets and discounters); and that the market share of small format alcoholic drinks will increase (at the expense of larger format sizes). We expect that some producers may shift investment to focus on export markets and 'premium' products.
6. **External drivers.** There are a range of external drivers beyond MUP that are also likely to influence consumer, retailer and producer behaviour in the alcoholic drinks industry. These include input costs, alcohol duties and

[1] Format sizes refer to the number of alcoholic drinks sold in a single pack or the volume of alcohol in a single bottle or can.

[2] 'Premium' products refer to the most expensive group of alcohol products. 'Value' products refer to the least expensive group of alcohol products.

regulation, population change, economic activity, weather patterns, tourism and changing consumer preferences.

The effects of MUP, combined with external drivers, could be expected to change the economic footprint of the alcoholic drinks industry in Scotland. This could include changes in:

- the number of businesses;
- employment;
- turnover;
- value of output; and
- gross value added (GVA).

Quantitative analysis

The quantitative analysis is based on two main sources of data: the Business Structure Database (a snapshot of the Interdepartmental Business Register) and the Annual Business Survey (financial information from a sample of UK businesses).

We collected annual time series data on six measures of interest (number of enterprises, number of local units, employment, turnover, value of output and GVA) for seven sectors within the alcoholic drinks industry:

- specialist retail;
- non-specialist retail;
- on-trade retail;
- wholesale;
- spirits production;
- beer production; and
- malt production.

Data were collected from 2009 until the latest available observation (2016 for the Annual Business Survey, 2018 for the Business Structure Database). Data were collected for Scotland, Wales and all English regions, with data for England and Wales combined to form a 'control' region.

At this stage, there is no quantitative evidence on the measures of interest for the period after the introduction of MUP. It is therefore not possible to draw conclusions regarding the impact of MUP based on secondary statistical evidence. We can, however, draw conclusions on the robustness of the data and the viability of using England/Wales as a 'control' region:[3]

- There are substantial unexplained declines in the number of enterprises, the number of local units and employment (Business Structure Database variables) between 2009 and 2010 for a range of sectors. As this inconsistency appears to be limited to pre-2011 data, we recommend that 2011 be taken as the start-point for quantitative analysis of the impact of MUP.

[3] For England/Wales to be a valid 'control' region, we would expect to see variables following similar time trends to those in Scotland.

- There is substantial year-on-year volatility in some of the measures of interest that is particularly pronounced when looking at sub-sectors of the industry, notably for turnover, output value and GVA (Annual Business Survey variables). In some instances, this volatility is likely to be the result of small sample sizes. In other instances, it is likely to be the result of changes in external drivers of the alcoholic drinks industry. This volatility will limit the statistical power of any comparative analysis.
- Our analysis of pre-MUP trends suggests that England/Wales is likely to be a good counterfactual for Scotland for some of the measures of interest in the retail and wholesale sectors but is unlikely to be a good counterfactual in the production sectors.[4]

As a result of the data limitations and the absence of a consistently comparable counterfactual, **it is likely that only large changes in the performance of the Scottish alcoholic drinks industry will be observable in the aggregate industry data**. This reinforces the value of the mixed methods approach used in this evaluation.

Qualitative analysis

The qualitative analysis was based on eight in-depth case studies with firms operating in the Scottish alcoholic drinks industry, allowing us to test the hypotheses identified in the theory of change.

The first wave of case studies was conducted with the following categories of firms:[5]

1. A national chain of supermarkets.
2. A convenience retailer.
3. A specialist alcohol retailer (off-trade).
4. An on-trade retailer.
5. A large spirits producer.
6. A large brewer.
7. A spirits producer who supplies own-label products.
8. A smaller brewer.

The case studies were conducted around nine months after the introduction of MUP and comprised two to four hours of interviews with relevant decision makers and researchers, including staff responsible for corporate and public affairs, alcohol strategy, the Scottish region and consumer insights, as well as store managers where relevant.

We can draw a range of conclusions from the self-reported observations of firms that participated in the case studies:

- A number of retailers **increased the price** of some product lines in order to comply with MUP. High-strength/low-cost ciders and own-label products were

[4] The term counterfactual refers to the control group against which any changes to the Scottish alcoholic drinks industry can be compared.

[5] A set of mini case studies, rather than a single case study, was conducted with specialist retailers and convenience retailers.

most likely to be impacted, but the proportion of impacted products varies greatly across retailers. MUP did not impose substantial compliance costs on retailers.

- A number of different **consumer demand responses** to the introduction of MUP were observed. MUP generally had a negative overall impact on sales of alcoholic drinks, with sales decreasing the most for products that were previously retailing far below MUP. Consumers switched to smaller format sizes and to a variety of other alcoholic and non-alcoholic products, although switching was limited by brand loyalty and occasion-based purchases. The reduction in price differentials accelerated existing premiumisation trends.[6]
- Some **producers and retailers adapted their strategy** and product offering in response to the impact of MUP. While few products were de-listed and there was limited product reformulation, new formats and pack sizes were introduced to meet attractive price points. Overall, changes in products and strategies were limited because Scotland represents a small share of many firms' turnover.
- MUP also led to some changes in the **competitive dynamics** between retailers and producers, among retailers and among producers. While increases in producer/wholesale prices were limited, MUP did appear to lead to higher average wholesale margins for certain producers because MUP prevents investments in promotions. There is little evidence of significant diversion from discounters and supermarkets to convenience and specialist retailers. Similarly, there is little evidence that retailers directly shared any MUP surplus with consumers by discounting non-alcoholic products. MUP did not have a substantial effect on on-trade footfall.
- Some of the impacts of MUP on the Scottish alcoholic drinks industry may be difficult to differentiate from **confounding trends in the alcoholic drinks market.** The consumer-led 'health agenda' may also be contributing to long-term reductions in sales of alcoholic drinks and increased switching to lower ABV 'premium' products. Likewise, sporting events such as the World Cup and good weather in the summer following the introduction of MUP, had a positive impact on sales. Importantly, the Scottish market is relatively small and any impact of MUP will be small relative to the scale of some national retailers and multinational producers.

Overall, **the effect on retailer revenues was small** as increased margins compensated for decreased volumes (though the impact depended on the mix of alcoholic drinks sold pre-MUP). **The effect on producer revenues and profitability was negative but small**: MUP reduced the volume of alcoholic drinks produced in Scotland (compared with expected volumes in the absence of MUP) without impacting wholesale prices, but MUP generally only affected a small share of producers' turnover. **No retailers or producers reported closing local units, reducing staff numbers or reducing investment as a result of MUP.**

[6] An industry-wide trend towards consumers demanding more 'premium' products.

Cross-border analysis

In addition to the eight case studies, we conducted supplementary evidence collection and analysis to help understand the impact of the MUP policy on cross-border purchasing behaviour: where consumers purchase alcoholic drinks from retailers in England for consumption in Scotland.

We conducted 10 telephone interviews with retailers on either side of the England/Scotland border, each lasting 15 to 45 minutes.

Overall there is **some evidence from the interviews that Scottish consumers increased cross-border purchasing behaviour**, primarily affecting retailers in the immediate vicinity of the border (within 15km), particularly those near major English towns such Carlisle and Berwick-upon-Tweed.

In Scotland, the small decrease in sales of alcoholic drinks is evenly distributed across a large number of smaller retailers. However, there is insufficient evidence to show that the effect on these stores is different to the effect on retailers elsewhere in Scotland. Retailers believed that some of this decrease could be attributed to MUP-driven cross-border purchasing behaviour. However, this generally involved individuals shopping for themselves, rather than engaging in 'white van runs'.

Retailers noted that many consumers who live in Scotland near the English border work in Carlisle or Berwick-upon-Tweed, or conduct weekly grocery shopping in these towns, meaning that cross-border purchasing activity pre-dated the introduction of MUP. Retailers also noted that there are a range of regulatory differences between England and Scotland that have an impact on cross-border purchasing prior to MUP.

In England, the increase in cross-border purchasing behaviour is concentrated in one or two large retailers in major towns. There is no evidence of a change for smaller English retailers. **There was no evidence of MUP having a substantial impact on the profitability, turnover or employment of Scottish retailers located near the border.**

1 INTRODUCTION

1.1 Policy context

In 2012, the Scottish Government passed the Alcohol (Minimum Pricing) (Scotland) Act 2012 to create a minimum unit price (MUP) of 50 pence per unit (ppu) for all alcoholic drinks retailed in Scotland. MUP came into effect in May 2018.

The minimum price of an alcoholic drink depends on the volume of the product and the strength of the product (measured as alcohol by volume (ABV)). The minimum prices for a selection of common alcoholic drinks sold by on-trade and off-trade retailers are presented in Figure 1.

Figure 1 Minimum prices by product

Product	Strength (ABV)	Minimum price
Whisky (70cl bottle)	40%	£14.00
Vodka (70cl bottle)	37.5%	£13.13
Vodka (2.5cl shot)	37.5%	£0.50
Gin (70cl bottle)	37.5%	£13.13
Wine (75cl bottle)	13%	£4.88
Wine (17.5cl glass)	13%	£1.14
Beer (44cl can)	5%	£1.10
Beer (33cl bottle)	4%	£0.66
Cider (2 litre bottle)	5%	£5.00

Source: Frontier Economics analysis.

1.2 Evaluation methodology

The Scottish Government asked NHS Health Scotland to lead an independent evaluation of the impact of the MUP through the MESAS (Monitoring and Evaluation of Scotland's Alcohol Strategy) work programme. The Act legislating for MUP included a sunset clause under which the policy will expire six years after implementation unless the Scottish Parliament votes for it to continue. The MESAS-led evaluation will report to the Scottish Government in 2023 providing a robust evidence base on the impact of MUP to inform a report laid before the Scottish Parliament by Scottish Ministers.[7] The overall evaluation focuses on four key outcome areas: implementation and compliance; the alcoholic drinks market; consumption; and health and social harms.

As part of the overall evaluation, NHS Health Scotland commissioned Frontier Economics Ltd. (Frontier) to evaluate the economic impact of MUP on producers and retailers of alcoholic drinks in Scotland.[8] This evaluation will form part of the evidence base on the impact of MUP.

[7] Details of the wider evaluation can be found at http://www.healthscotland.scot/health-topics/alcohol/evaluation-of-minimum-unit-pricing-mup.

[8] The alcoholic drinks sector in Scotland (also the Scottish alcoholic drinks sector) refers the retail, wholesale and production of alcoholic drinks by local business units in Scotland.

The evaluation of the economic impact on the alcoholic drinks industry has three phases, taking place between May 2018 and July 2022:

- **Phase one** (2018) involved the development of a theory of change to describe the possible impact of MUP on the Scottish alcoholic drinks industry, based on desk research and engagement with industry stakeholders.
- **Phase two** (2019) involved the collection and analysis of baseline secondary statistical evidence on the industry pre-MUP, the first wave of industry case studies, and qualitative research with border region stores to assess early evidence of cross-border shopping effects post-MUP.
- **Phase three** (2021-22) will involve a second wave of industry case studies, refreshed and updated analysis of industry statistical evidence post-MUP, and further engagement with industry stakeholders.

This report presents the findings of phases one and two of the evaluation.

We were asked specifically to identify the impact of MUP on five key indicators of the performance of the Scottish alcoholic drinks industry:

- the number of businesses;
- employment;
- turnover;
- value of output; and
- gross value added (GVA).

Our approach also enables us to explore evidence around intermediate consumer and industry responses to MUP that might influence these ultimate industry outcomes.

We adopted a **contribution analysis** approach to the evaluation, recognising that mixed methods would be needed to provide a robust evidence base. Our approach combines quantitative analysis comparing data on key industry trends in Scotland and with a 'control region' in England and Wales, and qualitative evidence based on in-depth firm-level case studies and stakeholder views.[9] By developing the theory of change, we identified hypotheses about the potential industry impact of MUP that we were able to take to the evidence, including understanding potential confounding factors that might affect industry performance. Our overall conclusions are based on triangulating all sources of evidence against the hypotheses derived from the theory of change.

The analysis in phases one and two that forms the basis of this report has focused largely on baseline (pre-MUP) data and qualitative evidence of early impacts based on firm-level case study interviews conducted around nine months after MUP was implemented. This report therefore contains only findings of initial impacts and the baseline industry data. The final report in 2022, based on the analysis in phase three, will provide conclusions on industry impact.

The rest of the report is organised as follows:

[9] We understand that Wales is planning to implement a similar minimum unit pricing policy. We will consider excluding Wales from the control region if the timing of the policy would mean that a combined England/Wales control region is not appropriate.

- **Section 2** presents the theory of change and describes the approach used to develop and validate it.
- **Section 3** presents the baseline (pre-MUP) secondary statistical data and describes how it was collected and analysed.
- **Section 4** presents the findings from the first wave of the industry case studies and describes the case study methodology.
- **Section 5** presents the findings from the qualitative analysis of cross-border purchasing behaviour and describes the approach taken.

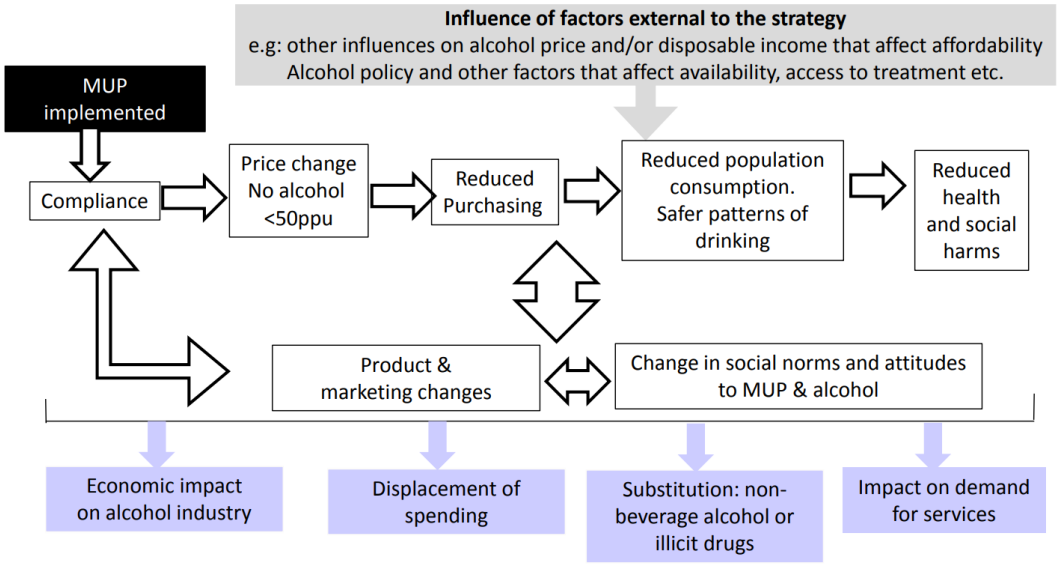
2 THEORY OF CHANGE

2.1 Methodology

A theory of change sets out the logic for how a policy intervention generates particular outcomes and impacts. It is considered best practice in evaluation to have this theory developed from the inception of the evaluation to help develop hypotheses and evaluation questions which can be taken to the evidence.

NHS Health Scotland developed a theory of change for the overall impact of MUP, presented as Figure 2 below.

Figure 2 MUP overall theory of change



Source: *http://www.healthscotland.scot/publications/minimum-unit-pricing-mup-theory-of-change-presentation*

We refined this into a more detailed theory of change, focused on the economic impacts of MUP on the Scottish alcoholic drinks industry.

We developed the MUP industry theory of change in three stages: a rapid evidence review of the key literature linking MUP and industry performance; industry stakeholder engagement; and a validation/review process with stakeholders.

Conducting a rapid review of the literature

First, we conducted a rapid review of the published literature relating to the possible economic impact of MUP on the Scottish alcoholic drinks industry. We drew on advice from the Economic and Price Evaluation Advisory Group (EAG) to help identify evidence in the academic and grey literatures, coupled with keyword searches of academic databases and Google. We reviewed papers and reports addressing:

- the competitive dynamics of the UK alcoholic drinks industry;
- the 'price elasticity of demand' of consumers of alcoholic drinks;

- the history of alcohol licensing and regulation in Scotland;
- the impact of alcohol licensing and regulation in Scotland; and
- the availability and robustness of alcoholic drinks industry data in Scotland.

A list of the literature reviewed as part of the rapid evidence review is presented in Annex A.

We used the evidence from the rapid evidence review and the existing MUP overall theory of change (see Figure 2) to develop an initial theory of change focused on the impact of MUP on the Scottish alcoholic drinks industry.

Engaging with a range of stakeholders

Second, we engaged with a wide range of stakeholders to develop and refine the initial theory of change.

We engaged with members of Frontier's internal advisory team, including experts who have worked on strategic and competition issues with producers and retailers of alcoholic drinks.[10] These conversations helped develop our understanding of the economics of the industry and likely behavioural responses, including possible vertical responses in the supply chain.

We also engaged with a range of alcoholic drinks industry stakeholders to canvas views on the initial theory of change, and to get insights into how the various pathways identified might vary across different sub-sectors (e.g. by types of alcoholic drinks or part of the value chain).

Stakeholders were drawn from the EAG and included:

- organisations representing the industry;
- industry members; and
- secondary data stakeholders.

The forms of engagements included roundtables, face-to-face meetings, email correspondence and semi-structured telephone interviews. The engagement covered:

- early views regarding the impact of MUP on the Scottish alcoholic drinks industry (overall or for specific sub-sectors);
- views on other drivers of industry performance around the time MUP was introduced;
- data and statistics that could be provided to support the evaluation;
- early evidence of particular behavioural responses by organisations in the industry (or specific sub-sectors); and
- industry views on likely future responses and timescales for change to occur.

The stakeholder engagement list is presented in Annex B.

We used the evidence collected in the stakeholder engagement to refine the initial theory of change.

[10] We shared details of the commercial relationships between Frontier and the alcoholic drinks industry with the Chairman of the EAG to ensure transparency regarding any potential conflicts of interest.

Validating the theory of change

Finally, we validated the draft theory of change with a range of industry stakeholders, including those engaged in the theory of change development process.

We adapted the theory of change to account for feedback obtained through the validation process and produced a final version of the theory of change.

2.2 Theory of change

Figure 3 presents the final theory of change, describing a number of hypotheses about the impact of MUP on the alcoholic drinks industry in Scotland.

These hypotheses are divided into six groupings:

1. **Direct effect.** Introducing a minimum price of 50ppu for all alcoholic drinks retailed in Scotland has an immediate effect of increasing the price of all alcoholic drinks retailed below 50ppu, assuming that retailers comply with the policy. This imposes compliance costs on the industry. Based on pre-MUP prices, we expect the direct effects to be strongest for high-strength/low-cost cider, beer and spirits sold at off-trade retailers, particularly at large supermarkets and discounters. In the absence of any behavioural responses by consumers or producers, we expect retailer revenues and profits to increase.
2. **Demand response.** Consumers are likely to respond to the higher prices of some alcoholic drinks by reducing purchases of these products. We expect that consumers may instead switch to alcoholic drinks that were more expensive prior to the introduction of MUP, change which retailers or channels they purchase alcoholic drinks from or reduce overall alcohol consumption. It is also possible that some consumers will purchase alcoholic drinks from England or from the illicit market. In the absence of any other changes, we expect the reduction in demand to offset some of the increases in revenues and profits.
3. **Retailer and producer responses.** Retailers and producers may respond to the changing demand for alcoholic drinks in a number of ways. This could include: de-listing some previously <50ppu products; maintaining pre-MUP price differentials by increasing the price of alcoholic drinks not directly affected by MUP; reducing the format sizes of alcoholic drinks;[11] reformulating some alcoholic drinks by reducing ABV or introducing new lower ABV; or increasing the marketing and non-price promotion of some alcoholic drinks to reflect the reduced scope for price-based competition. In the absence of any other changes, we expect that retailers will be able to regain some lost demand and therefore increase revenues and profits.
4. **Competitive response.** We expect that the competitive dynamics of the alcoholic drinks industry will mean that retailers share some of this increased surplus with producers. This is most likely for products with strong brand loyalty, which provides producers with more bargaining power. We likewise expect that the competitive dynamics of the retail sector mean that retailers share some of

[11] Format sizes refer to the number of alcoholic drinks sold in a single pack, or the volume of alcohol in a single bottle or can.

this increased surplus with consumers by discounting alcoholic drinks unaffected by MUP and non-alcoholic products in order to attract footfall. In the absence of other changes, increased retailer revenues and profits will be reduced, while producer profits will be increased.

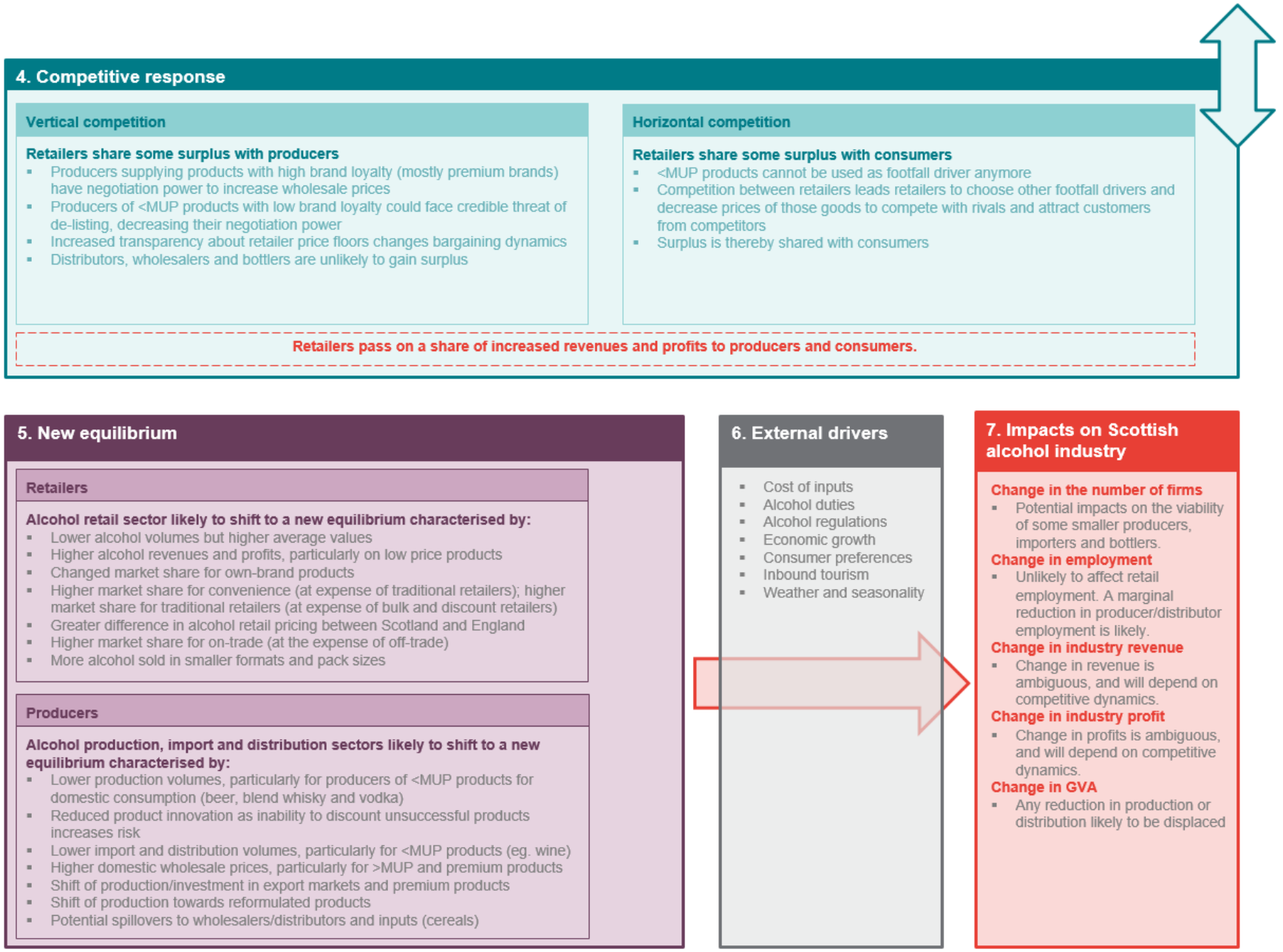
5. **New equilibrium.** Ultimately, we expect that, in the absence of other changes, the alcoholic drinks industry will shift to a new equilibrium characterised by lower volumes of sales of alcoholic drinks but higher average values. We expect that the market share of 'premium' alcoholic drinks will increase (at the expense of 'value' and own-label products);[12] that the market share of convenience and on-trade retailers will increase (at the expense of supermarkets and discounters); and that the market share of small format alcoholic drinks will increase (at the expense of larger format sizes). We expect that some producers may shift investment to focus on export markets and 'premium' products.
6. **External drivers.** There are a range of external drivers beyond MUP that are also likely to influence consumer, retailer and producer behaviour in the alcoholic drinks industry. These include input costs, alcohol duties and regulation, population change, economic activity, weather patterns, tourism and changing consumer preferences.

The effects of MUP, combined with external drivers, could be expected to change the economic footprint of the alcoholic drinks industry in Scotland. This could include changes in:

- the number of businesses;
- employment;
- turnover;
- value of output; and
- GVA.

[12] 'Premium' products refers to the most expensive group of alcohol products. 'Value' products refer to the least expensive group of alcohol products.

Figure 3 Theory of change


4. Competitive response
Vertical competition
Retailers share some surplus with producers
Producers supplying products with high brand loyalty (mostly premium brands) have negotiation power to increase wholesale prices
Producers of <MUP products with low brand loyalty could face credible threat of de-listing, decreasing their negotiation power
Increased transparency about retailer price floors changes bargaining dynamics
Distributors, wholesalers and bottlers are unlikely to gain surplus
Horizontal competition
Retailers share some surplus with consumers
<MUP products cannot be used as footfall driver anymore
Competition between retailers leads retailers to choose other footfall drivers and decrease prices of those goods to compete with rivals and attract customers from competitors
Surplus is thereby shared with consumers
Retailers pass on a share of increased revenues and profits to producers and consumers.
5. New equilibrium
Retailers
Alcohol retail sector likely to shift to a new equilibrium characterised by:
Lower alcohol volumes but higher average values
Higher alcohol revenues and profits, particularly on low price products
Changed market share for own-brand products
Higher market share for convenience (at expense of traditional retailers); higher market share for traditional retailers (at expense of bulk and discount retailers)
Greater difference in alcohol retail pricing between Scotland and England
Higher market share for on-trade (at the expense of off-trade)
More alcohol sold in smaller formats and pack sizes
Producers
Alcohol production, import and distribution sectors likely to shift to a new equilibrium characterised by:
Lower production volumes, particularly for producers of <MUP products for domestic consumption (beer, blend whisky and vodka)
Reduced product innovation as inability to discount unsuccessful products increases risk
Lower import and distribution volumes, particularly for <MUP products (eg. wine)
Higher domestic wholesale prices, particularly for >MUP and premium products
Shift of production/investment in export markets and premium products
Shift of production towards reformulated products
Potential spillovers to wholesalers/distributors and inputs (cereals)
6. External drivers
Cost of inputs
Alcohol duties
Alcohol regulations
Economic growth
Consumer preferences
Inbound tourism
Weather and seasonality
7. Impacts on Scottish alcohol industry
Change in the number of firms
Potential impacts on the viability of some smaller producers, importers and bottlers.
Change in employment
Unlikely to affect retail employment. A marginal reduction in producer/distributor employment is likely.
Change in industry revenue
Change in revenue is ambiguous, and will depend on competitive dynamics.
Change in industry profit
Change in profits is ambiguous, and will depend on competitive dynamics.
Change in GVA
Any reduction in production or distribution likely to be displaced

3 QUANTITATIVE ANALYSIS

3.1 Methodology

The quantitative analysis of the impact of MUP on the Scottish alcoholic drinks industry draws on firm-level datasets collected by the Office for National Statistics (ONS).[13] These datasets allow us to explore the five key measures of industry performance that are the focus of the industry impact evaluation:

- number of businesses (enterprises and local units);[14]
- total turnover;
- total employment;[15]
- total value of output; and
- total GVA.

At this stage, there is no evidence on these measures for the period after the introduction of MUP, owing to lags with which data are collected and made available. This report, therefore, presents baseline data for the period before the introduction of MUP to help understand:

- general trends across these measures prior to the introduction of MUP;
- whether these trends are similar in Scotland and in England/Wales (and therefore whether England/Wales may present a viable counterfactual);[16] and
- whether the available data are sufficiently robust to be used for quantitative analysis.

The following sections describe the data sources used to construct the baseline data, the key measures of interest and key trends in other factors that may drive sales of alcoholic drinks.

3.1.1 Data sources

The quantitative analysis is based on two main sources of data, which jointly contain time series observations of the measures of interest:

- The Business Structure Database (BSD) is a snapshot of the Interdepartmental Business Register (IDBR). The IDBR is an administrative record of UK businesses and contains information on **employment** at the local unit level. It covers 2.6 million businesses in all sectors of the UK economy, accounting for 99% of economic activity. It excludes around 3.1 million very small businesses (those without employees and with turnover below the Value

[13] The use of the ONS statistical data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis of the statistical data. This work uses research datasets which may not exactly reproduce National Statistics aggregates.

[14] A local unit is a 'plant', such as a production facility, retail outlet, branch etc. An enterprise is the overall business organisation. See https://stats.oecd.org/glossary/detail.asp?ID=1554 and https://stats.oecd.org/glossary/detail.asp?ID=803 for definitions.

[15] Each employee, including working proprietors, is counted once regardless of hours worked.

[16] The term counterfactual refers to the control group against which any changes to the Scottish alcoholic drinks industry can be compared.

Added Tax (VAT) threshold) and non-profit organisations. Additional detail on the share of businesses, employment and turnover captured by IDBR is presented in Annex C. The IDBR is compiled using data from the VAT and Pay As You Earn (PAYE) systems held by Her Majesty's Revenue and Customs (HMRC).

- The Annual Business Survey (ABS) contains financial information from a sample of UK non-financial businesses. The measures captured include **turnover**, purchases, employment costs, capital expenditure and stocks. The ONS also computes approximate **output value** in basic prices and **GVA**.[17] These measures are collected at the enterprise level but are apportioned to the local unit level on the basis of employment at respective local units.

Further detail on the data sources used for the quantitative analysis is provided in Annex C.

Frontier Economics extracted measures of interest from BSD and ABS data in the ONS Secure Research Service environment. There were, however, significant inconsistencies in the ABS data. Engagement with the ONS Secure Research Service identified that using the ABS data at the five-digit Standard Industrial Classification (SIC) code level (particularly for individual regions such as Scotland) was likely to mean that the number of businesses sampled was insufficient for robust analysis. To address this, we commissioned ONS to produce bespoke ABS tables which used an alternative methodology for constructing the dataset.[18]

3.1.2 Key variables

Industrial sectors

Both the ABS and the BSD classify businesses according to their primary sector of activity using five-digit SIC codes.

Figure 4 describes the SIC codes that, following a review, we concluded were most relevant to the alcoholic drinks industry.

Figure 4 Description of relevant SIC codes

Code	Description	Detail
11010	Distilling, rectifying and blending of spirits	This class includes: manufacture of distilled, potable, alcoholic beverages – whisky, brandy, gin, liqueurs etc.; manufacture of drinks mixed with distilled alcoholic beverages; blending of distilled spirits; production of neutral spirits. This class excludes: manufacture of non-distilled alcoholic beverages; manufacture of synthetic ethyl alcohol; manufacture of ethyl alcohol from fermented materials; merely bottling and labelling.

[17] GVA is a measure of the income generated by the surveyed businesses less their intermediate consumption of goods and services used up in order to produce their output.

[18] Specifically, an alternative methodology to imputing data for businesses and local units that were not in the sample, using data from the IDBR

Code	Description	Detail
11020	Manufacture of wine from grape	This class includes: manufacture of wine; manufacture of sparkling wine; manufacture of wine from concentrated grape must. This class also includes: blending, purification and bottling of wine; manufacture of low or non-alcoholic wine. This class excludes: merely bottling and labelling.
11030	Manufacture of cider and other fruit wines	This class includes: manufacture of fermented but not distilled alcoholic beverages – sake, cider, perry and other fruit wines. Also includes: manufacture of mead and mixed beverages containing fruit wines. This class excludes: merely bottling and labelling.
11040	Manufacture of other non-distilled fermented beverages	This class includes: manufacture of vermouth and the like. This class excludes: merely bottling and labelling.
11050	Manufacture of beer	This class includes: manufacture of malt liquors, such as beer, ale, porter and stout. Also includes: manufacture of low-alcohol or non-alcoholic beer.
11060	Manufacture of malt	This class includes the manufacture of malt.
46170	Agents involved in the sale of food, beverages and tobacco	This class excludes: wholesale trade in own name; retail sale by non-store commission agents.
46342	Wholesale of wine, beer, spirits and other alcoholic beverages	This sub-class includes: wholesale of alcoholic beverages; buying of wine in bulk and bottling without transformation. This sub-class excludes: blending of wine or distilled spirits.
46390	Non-specialised wholesale of food, beverages and tobacco	This class includes the non-specialised wholesale of food, beverages and tobacco.
47110	Retail sale in non-specialised stores with food, beverages or tobacco predominating	This class includes: retail sale of a large variety of goods of which, however, food products, beverages or tobacco should be predominant. Also includes: the activities of general stores that have, apart from their main sales of food products, beverages or tobacco and several other lines of merchandise such as wearing apparel, furniture, appliances, hardware, cosmetics etc.
47250	Retail sale of beverages in specialised stores	This class includes: retail sale of beverages (not for consumption on the premises), including alcoholic beverages, non-alcoholic beverages.
56101	Licensed restaurants	This sub-class includes the provision of food services to customers, whether they are served while seated or serve themselves from a display of items. The meals provided are generally for consumption on the premises and alcoholic drinks to accompany the meal are available. This sub-class includes: restaurants, cafeterias, fast-food restaurants. The sub-class also includes restaurant and bar activities connected to transportation, when carried out by separate units. This sub-class excludes: concession operation of eating facilities.

Code	Description	Detail
56301	Licensed clubs	This sub-class includes: the preparation and serving of beverages for immediate consumption on the premises by nightclubs, social clubs. This sub-class excludes: reselling packaged/prepared beverages, retail sale of beverages through vending machines.
56302	Public houses and bars	This sub-class includes the preparation and serving of beverages for immediate consumption on the premises by bars, taverns, cocktail lounges, discotheques licensed to sell alcohol (with beverage serving predominant), beer parlours. This sub-class excludes: reselling packaged/prepared beverages; retail sale of beverages through vending machines; operation of discotheques and dance floors without beverage serving.

Source: ONS (2009), UK Standard Industrial Classification of Economic Activities 2007 (SIC 2007): Structure and Explanatory Notes.

Our engagement with the Office of the Chief Statistician (Scottish Government) confirmed that this set of SIC codes is consistent with the codes used by the Office of the Chief Statistician to analyse the Scottish alcoholic drinks industry.[19]

All retail and wholesale SIC codes include business activities that are not within the alcoholic drinks industry. For example, 'retail sale in non-specialised stores with food, beverages or tobacco predominating' (SIC code 47110) includes the retail of food, tobacco and non-alcoholic beverages, and 'licensed restaurants' (SIC code 56101) includes the sale of food.

Figure 4 excludes SIC codes for which only a very small share of business activity is relevant to the alcoholic drinks industry. In particular:

- Packaging activities (SIC code 82920), which includes the packaging of beverages and food, the packaging of other solids, the labelling, stamping and imprinting, parcel-packing and gift-wrapping; and
- Freight rail transport (SIC code 49200) and freight transport by road (SIC code 49410), which include the transport of all goods.

Figure 4 includes a number of SIC codes for which there were only a small number of local units located in Scotland. In particular, there are fewer than 10 local units in any given year in Scotland for:

- Manufacture of wine from grape (SIC code 11020);
- Manufacture of cider and other fruit wines (SIC code 11030); and
- Manufacture of other non-distilled fermented beverages (SIC code 11040).

Even if these SIC codes were aggregated into a single 'sub-sector', there would be too few local units in any given year to publish industry statistics without disclosing potentially confidential information (according to the rules for extracting data from the ONS Secure Research Service environment). For this reason, these SIC codes were not considered as part of this analysis.

[19] Email from the Office of the Chief Statistician (Scottish Government), 1 November 2018.

For the purposes of this study, we grouped the remaining SIC codes into seven sub-sectors:

- **Specialised retail** of beverages (SIC code 47250);
- **Non-specialised retail** (SIC code 47110);
- **On-trade retail**, including licensed restaurants, clubs, public houses and bars (SIC codes 56101, 56301 and 56302);
- **Wholesale**, including specialised alcohol wholesalers and non-specialised wholesalers (SIC codes 46170, 46342 and 46390);
- **Spirits production** (SIC code 11010);
- **Beer production** (SIC code 11050); and
- **Malt production** (SIC code 11060).

Where appropriate, these sub-sectors were disaggregated into their component parts for further analysis.

Time variables

For the ABS, data were available for the years 2009 to 2016.

For the BSD, the time series used in this study covers a data period labelled with years 2009 and 2018. However, the precise period that the data capture is unclear. The BSD is a snapshot of IDBR, generally taken in March of each year. As a result, BSD data for a given year reflect the last time the IDBR record of each firm was updated and may therefore not be completely up to date for each observation in the data.

Our best estimate, based on consultation with ONS Secure Research Service and from past analysis we have conducted with the data, suggests that the typical lag for data being updated is between one and two years. We maintain an assumption, used in previous analysis which has made use of the BSD that the lag is around one year on average. That means, for example, the dataset labelled ‘BSD 2018’ likely refers to employment and turnover data in 2017. We therefore assume that the data we have cover the period 2008 to 2017.

It is hard to test the validity of this assumption. The precise assumption we make on the timeliness of the BSD is not material to the objectives of the analysis for this report.

Geography

Both ABS and BSD identify the geography of each firm at the regional level, including nine English regions, Scotland and Wales, but excluding Northern Ireland.

For the purpose of the analysis, England and Wales were combined to form a counterfactual with which Scotland could be compared. Using individual regions as counterfactuals (e.g. North East) was considered as an alternative. However:

- There was not a sufficiently strong ex-ante justification for preferring a particular sub-set of regions as a counterfactual.

- Using the combined total of all nine English regions and Wales maximised the sample size, which improved the robustness of the counterfactual. Geographic constraints, particularly on the location of production of alcoholic drinks in England, would have meant specific control regions may not have contained a sufficient number of observations for the counterfactual data to be extracted from the ONS Secure Research Service environment.

Business size

Both ABS and BSD identify the size of each firm in terms of number of employees. For the purposes of this analysis, we aggregated firms into three size groupings:

- small firms: 0 to 49 employees;
- medium firms: 50 to 249 employees; and
- large firms: 250 or more employees.

3.1.3 Key trends in other factors that may drive sales of alcoholic drinks

Though the goal of the analysis for this report is to establish a baseline and explore the possible comparability of England/Wales as a counterfactual, it is important to bear in mind that (as discussed in the theory of change) there are a number of other external drivers of sales of alcoholic drinks that might impact Scotland and England/Wales differently over time. We identified regional trends in some of these other factors where we have been able to source credible secondary data:

- Population (sales of alcoholic drinks are likely to depend on the overall size of the market).
- Gross household disposable income per capita (sales of alcoholic drinks are likely to depend on purchasing power).
- Tourism spending (sales of alcoholic drinks may also be affected by external visitors).

We are particularly interested in drivers that might be expected to follow different trends in Scotland and England/Wales. If such differences in trends persist, they may be expected to confound the evaluation of the impact of MUP.

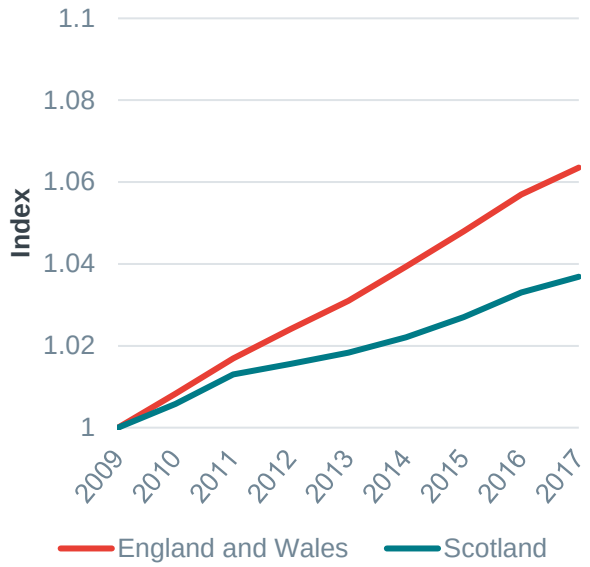
Overall, the conclusions regarding these external drivers are ambiguous. We find that both population and per capita income have grown more quickly in England and Wales than in Scotland over the period of interest – which, all else equal, would imply that sales of alcoholic drinks are growing more quickly in England and Wales. But we also find tourism spending growing more quickly in Scotland, particularly at the end of the period – which, all else equal, would imply that sales of alcoholic drinks are growing more quickly in Scotland.

Population

Figure 5 presents indexed population growth for England/Wales and Scotland. The population grew by 3.7% between 2009 and 2017 in Scotland, compared with a 6.4% increase in England and Wales combined.

This difference implies that, holding all other drivers constant, the demand for alcoholic drinks would have been expected to increase less quickly in Scotland than in England/Wales.[20]

Figure 5 Population growth (index)



Source: Frontier Economics analysis of ONS data, 'National and subnational mid-year population estimates'.
Note: Time axis refers to calendar years.

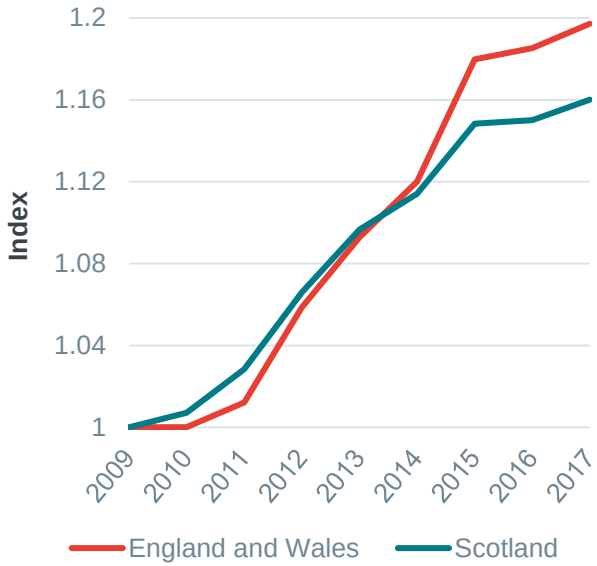
Disposable household income per capita

Figure 6 presents indexed per-person growth in gross household disposable income (GDHI) for England/Wales and Scotland. GDHI per capita grew by 16.0% between 2009 and 2017 in Scotland, compared with an 19.7% increase in England and Wales combined.

This difference implies that, holding all other drivers constant, the demand for alcoholic drinks would have been expected to increase less quickly in Scotland than in England/Wales.

[20] 'Monitoring and Evaluating Scotland's Alcohol Strategy: An Update of the Validity and Reliability of Alcohol Retail Sales Data for the Purpose of Monitoring and Evaluating Scotland's Alcohol Strategy' (August 2015) identified a measurement error associated with these population estimates. However, as this measurement error is small and broadly consistent for England/Wales and Scotland, it is unlikely to have implications for the analysis.

Figure 6 GDHI per capita (index)



Source: *Frontier Economics analysis of ONS data, 'National and subnational mid-year population estimates' and 'Gross Value Added (Balanced) at current basic prices'.*

Note: *Time axis refers to calendar years.*

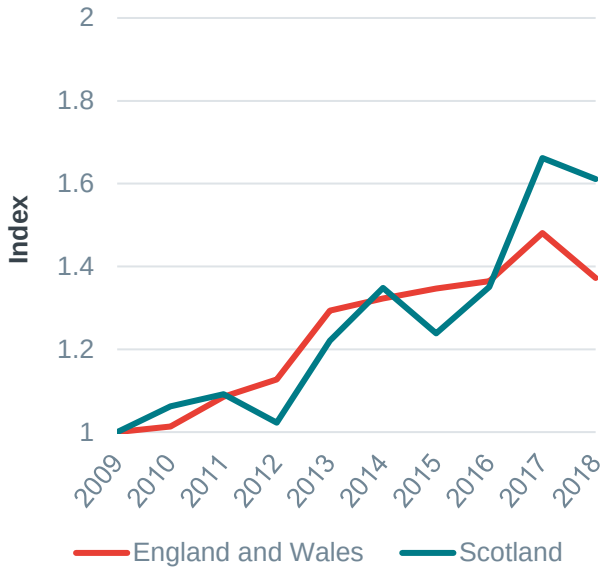
Tourism spending

Figure 7 presents indexed spending by inbound tourists for England/Wales and Scotland (the data refer to total tourism expenditure, not specifically tourist spending on alcoholic drinks where data are not available).

Tourism spending increased by 61% between 2009 and 2018 in Scotland, compared to a 38% increase in England/Wales.

This difference implies that, holding all other drivers constant, the demand for alcoholic drinks would have been expected to increase more quickly in Scotland than in England/Wales.

Figure 7 Spending by inbound tourists (index)



Source: *Frontier Economics analysis of data from Visit Britain 'Inbound nation, region & county data' (https://www.visitbritain.org/nation-region-county-data)*

Note: *Time axis refers to calendar years.*

3.2 Baseline data

This sub-section presents the baseline data for the alcoholic drinks industry as a whole, as well as for:

- specialised retail;
- non-specialised retail;
- on-trade retail;
- wholesale;
- spirits production;
- beer production; and
- malt production.

All baseline data presented in this sub-section are contained in Annex D for reference.

3.2.1 Alcoholic drinks industry as a whole

Figure 8 shows that the alcoholic drinks industry is approximately 11 times larger in England/Wales than in Scotland in terms of the number of enterprises and the number of local units, 10 times larger in terms of employment and turnover, and 7 times larger in terms of the value of output and GVA.[21] For context, total GVA in England/Wales is approximately 12 times larger than that in Scotland.

[21] For the purposes of this report, the alcoholic drinks industry is defined as the set of sectors outlined in Figure 4, excluding the manufacture of wine, cider and other non-distilled fermented beverages for which data could not be extracted. Statistics are based on the latest available year of data – 2016 for ABS, 2018 for BSD.

Figure 8 Alcoholic drinks industry, by measure

	Enterprises ('000)	Local units ('000)	Employment ('000)	Turnover (£ billion)	Val. output (£ billion)	GVA (£ billion)
England & Wales	130	165	2,248	218	77	45
Scotland	12	16	219	22	11	7

Source: *Frontier Economics analysis of ABS and BSD data.*

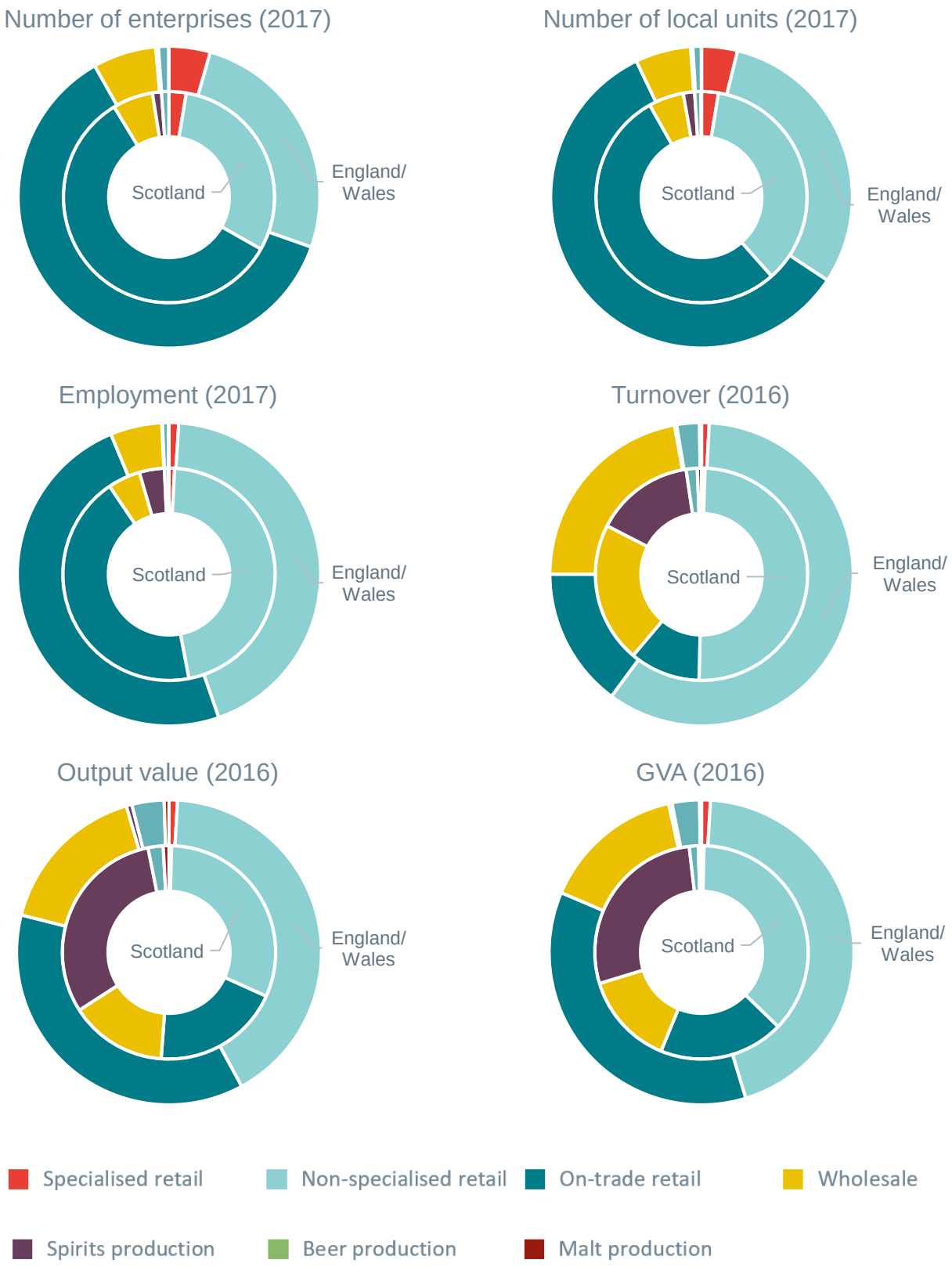
Note: *Number of enterprises, number of local units and employment based on 2018 BSD data; turnover, output value and GVA based on 2016 ABS data. As described above, our best assessment is that the 2018 BSD data refer to 2017 values.*

It should be noted that between 70% and 95% of the industry (depending on the measure) is accounted for by non-specialist retail, non-specialist wholesale and on-trade sectors, which include the sale of food products, tobacco and other non-alcoholic products. As a result, there is considerable value in a more disaggregated sectoral analysis of these trends, which we present in subsequent sub-sections.

Figure 9 shows the share of each measure of interest that is attributable to each sector within the alcoholic drinks industry in Scotland and England/Wales:

- Specialist retail, beer production and malt production make up a small share of the industry across all measures.
- Spirits production is negligible in England/Wales, but accounts for 15% of total turnover and 30% of output value and GVA in Scotland, despite only accounting for 4% of employment and less than 2% of enterprises and local units.
- Wholesale accounts for a small share (less than 7%) of the number of enterprises, the number of local units and employment in both Scotland and England/Wales. However, it accounts for more than 20% of industry revenues and 15% to 20% of output value and GVA in both regions.
- Conversely, on-trade retail accounts for around half of enterprises, local units and employment in both Scotland and England/Wales, but less than 15% of turnover. In England/Wales, on-trade retail accounts for 35% to 40% of output value and GVA, while in Scotland it accounts for 20% of these measures.
- Non-specialist retail accounts for at least 50% of industry revenues in Scotland and England/Wales, and 25% to 45% of the other measures. It accounts for a higher share of enterprises, local units and employment in Scotland than in England/Wales and a lower share of turnover, output value and GVA.

Figure 9 Alcoholic drinks industry, share by sector



Source: *Frontier Economics analysis of ABS and BSD data.*

Notes: *Each chart shows the proportion of the alcoholic drinks industry accounted for by each of the seven sectors. The inner ring shows the proportions for Scotland; the outer ring shows the proportion for England/Wales.*

Figure 10 Baseline data – alcoholic drinks industry (index)

Source: Frontier Economics analysis of ABS and BSD data.

Note: Time variables are based on calendar year for ABS and the calendar year in which the IDBR snapshot was taken for BSD. Index: 2009=1. Turnover, value of output and GVA data are estimated in the beer production sector to avoid disclosure.

Figure 10 shows that industry-level trends for the number of enterprises, number of local units and employment were very similar in England/Wales and Scotland over the period:

- The number of enterprises and number of local units declined by approximately 40% in both regions between 2010 and 2012 but has been stable since 2012.
- Employment declined by approximately 20% in both regions between 2010 and 2012 but has been stable since 2012.

The reason why the number of businesses (and associated employment) declined in this period is not clear, but it shows up for a number of the sub-sectors of the industry, as discussed later in this section. These estimates are derived from BSD data, and it is possible that there was a re-categorisation of businesses or a data inconsistency in that source which might explain the decline. However, we have not been able to identify a particular explanation despite consultation with the ONS. As the data appear consistent after 2011, we recommend that 2011 be taken as the start-point for analysis of differential trends in future analysis of industry impact.

Figure 10 also shows that turnover, value of output and GVA increased more quickly in England/Wales than in Scotland over the period:

- Turnover increased by approximately 15% in England/Wales over the period but was largely constant in Scotland.
- Value of output increased by approximately 25% in England/Wales over the period but decreased slightly in Scotland.
- GVA increased by approximately 25% in England/Wales over the period but decreased by approximately 10% in Scotland.

As discussed, these trends are strongly weighted towards non-specialist retail (off-trade and on-trade) and wholesale, meaning that trends in non-alcoholic products such as food and tobacco may be driving these findings.

Overall, England/Wales is likely to be an appropriate counterfactual for Scotland in terms of the number of enterprises, number of local units and employment. However, England/Wales may be a less robust counterfactual for turnover, value of output and GVA where the pre-MUP trends appear to be quite different. Again, these are conclusions for the alcoholic drinks industry as a whole, and we explore below how they vary when we look at particular sub-sectors within the industry.

3.2.2 Specialised retail

This group covers firms that specialise in the retail of alcoholic and non-alcoholic beverages, not for consumption on the premises (SIC 47250). While these retailers may also sell food products, tobacco or other goods, beverages should predominate (and our presumption is that most firms in these SICs are specialist retailers of alcoholic drinks such as off-licences). Therefore, any effects of MUP should be able to be observed at this level of aggregation, assuming England/Wales is an appropriate counterfactual and sample size is sufficient.

Figure 11 shows that the specialist retail sector is 16 to 18 times larger in England/Wales than in Scotland in terms of the number of enterprises, the number of local units, output value and GVA, approximately 15 times larger in terms of turnover and approximately 13 times larger in terms of employment.

Figure 11 Specialised retail sector, by measure

	Enterprises	Local units	Employment	Turnover (£ million)	Out. value (£ million)	GVA (£ million)
England and Wales	5,736	6,342	23,348	1,767	687	428
Scotland	321	403	1,871	119	40	25

Source: *Frontier Economics analysis of ABS and BSD data.*

Note: *Number of enterprises, number of local units and employment based on 2018 BSD data; turnover, output value and GVA based on 2016 ABS data. Our best assessment is that the 2018 BSD data refer to 2017 values.*

Figure 12 shows that trends for the number of enterprises, number of local units and employment in this category were similar in England/Wales and Scotland over the period:

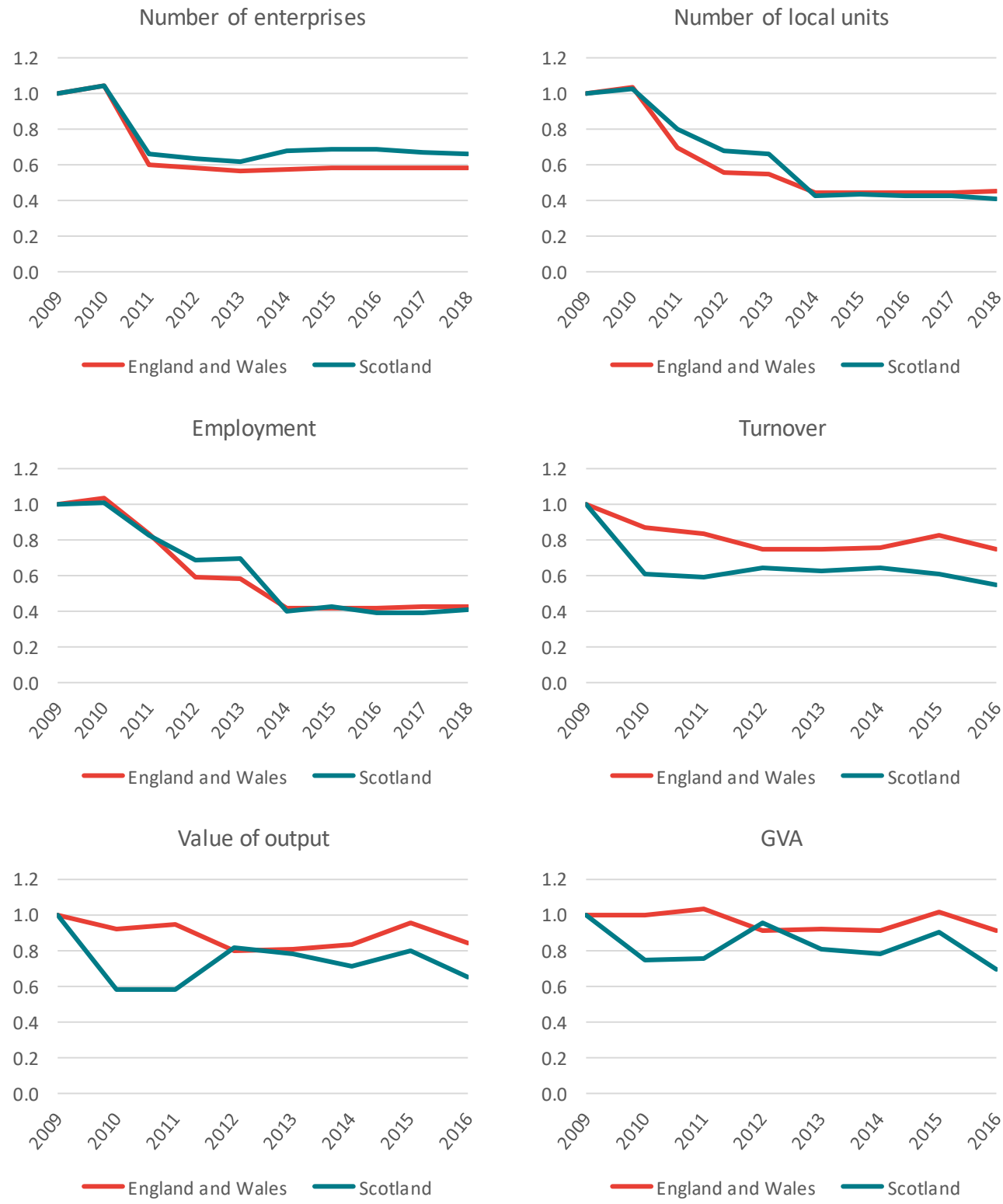
- The number of enterprises declined by approximately 40% in both regions.
- The number of local units and employment declined by approximately 60% in both regions between 2010 and 2014 but has been stable since 2014.

Figure 12 also shows that turnover, value of output and GVA decreased more quickly in Scotland than in England/Wales over the period. This difference is primarily driven by a sharp decrease in Scotland between 2009 and 2010. Trends are generally similar from 2010 to 2016.

Year-on-year volatility for these measures is higher in Scotland than in England/Wales. This is likely to reflect the small population of specialist retailers in Scotland (fewer than 1,000 local units) and the resulting small ABS sample size.

Overall, England/Wales is likely to be an appropriate counterfactual for Scotland in terms of specialist retail for the period from 2010, noting the caveats around volatility.

Figure 12 Baseline data – specialised retail (index)



Source: *Frontier Economics analysis of ABS and BSD data.*

Note: *Time variables are based on calendar year for ABS and the calendar year of BSD snapshot. Our best assessment is that the 2018 BSD snapshot refers to 2017 values. Index: 2009=1.*

3.2.3 Non-specialised retail

This group covers firms that retail a variety of goods where food products, beverages or tobacco predominate (SIC 47110). As sales of alcoholic drinks at these firms are likely to be only a small share of total revenue, any effects of MUP may not be observable at this level of aggregation.

Figure 13 shows that the non-specialist retail sector is 8 to 12 times larger in England/Wales than in Scotland across all measures.

Figure 13 Non-specialised retail sector, by measure

	Enterprises ('000)	Local units ('000)	Employment ('000)	Turnover (£ billion)	Out. value (£ billion)	GVA (£ billion)
England and Wales	34	50	981	129	32	20
Scotland	4	6	101	11	3	2

Source: *Frontier Economics analysis of ABS and BSD data.*

Note: *Number of enterprises, number of local units and employment based on 2018 BSD data; turnover, output value and GVA based on 2016 ABS data. Our best assessment is that the 2018 BSD data refer to 2017 values.*

Figure 14 shows that trends for all the measures of interest were approximately consistent over the period, with marginally stronger growth in England/Wales than in Scotland, particularly after 2014:

- There is a 30% to 40% decline in the number of enterprises and local units between 2010 and 2011. From 2011 onward, the measures are relatively stable.
- Employment declined between 2010 and 2012 and has been relatively stable since in both England/Wales and Scotland.
- Turnover, value of output and GVA have been increasing slightly over the period, marginally more so in England/Wales than in Scotland.
- The sample population of non-specialised retailers is sufficiently large in both England/Wales and Scotland to avoid year-on-year volatility in the ABS sample.

The substantial decline in number of enterprises, number of local units and employment before 2011 is understood to be the result of data inconsistencies. This period should be excluded for the purposes of the quantitative analysis.

Overall, England/Wales is likely to be an appropriate counterfactual for Scotland in terms of non-specialist retail for the period from 2011. However, given the class includes substantial revenues from the retail and wholesale of non-alcoholic products, any effects of MUP are unlikely to be observed at this level of aggregation.

Figure 14 Baseline data – non-specialised retail (index)

Source: *Frontier Economics analysis of ABS and BSD data.*

Note: *Time variables are based on calendar year for ABS and the calendar year of BSD snapshot. Our best assessment is that the 2018 BSD snapshot refers to 2017 values. Index: 2009=1.*

3.2.4 On-trade retail

This group covers licensed restaurants, clubs, public houses and bars (SICs 56101, 56301, 56302). While retailing alcoholic drinks is likely to account for a significant share of revenue for these firms, the provision of food service will also influence overall performance.

Figure 15 shows that the on-trade retail sector is approximately 11 to 12 times larger in England/Wales than in Scotland in terms of the number of enterprises, number of local units and employment, and 13 to 14 times larger in terms of turnover, output value and GVA.

Figure 15 On-trade retail sector, by measure

	Enterprises ('000)	Local units ('000)	Employment ('000)	Turnover (£ billion)	Out. value (£ billion)	GVA (£ billion)
England and Wales	80	97	1,103	32	28	16
Scotland	7	8	95	2	2	1

Source: Frontier Economics analysis of ABS and BSD data.

Note: Number of enterprises, number of local units and employment based on 2018 BSD data; turnover, output value and GVA based on 2016 ABS data. Our best assessment is that the 2018 BSD data refer to 2017 values.

Figure 16 shows that trends for the number of enterprises, number of local units and employment were similar in England/Wales and Scotland over the period:

- The number of enterprises and number of local units declined by approximately 40% in both regions between 2010 and 2011 but has been stable since 2011.
- Employment declined by approximately 30% in both regions between 2010 and 2012 but has grown marginally since 2012.

The substantial decline in number of enterprises, number of local units and employment before 2011 is understood to be the result of data inconsistencies. This period should be excluded for the purposes of the quantitative analysis.

Figure 16 also shows that turnover, value of output and GVA grew steadily in both regions over the period, increasing 10% to 20% more quickly in England/Wales than in Scotland.

Year-on-year volatility for these measures is higher in Scotland than in England/Wales.

Overall, England/Wales is likely to be an appropriate counterfactual for Scotland in terms of on-trade retail for the number of enterprises, number of local units and employment from 2011. Caution should be applied when using England/Wales as a counterfactual for turnover, value of output and GVA as these measures appear to be driven by slightly different trends and there is higher volatility in Scotland.

Figure 16 Baseline data – on-trade retail (index)

Source: *Frontier Economics analysis of ABS and BSD data.*

Note: *Time variables are based on calendar year for ABS and the calendar year of BSD snapshot. Our best assessment is that the 2018 BSD snapshot refers to 2017 values. Index: 2009=1.*

3.2.5 Wholesale

This group covers agents involved in the sale of food, beverages and tobacco; specialist wholesalers of alcoholic beverages; and non-specialist wholesalers of food beverages and tobacco (SICs 46170, 46342, 46390). As alcoholic drinks are likely to account for only a small share of total revenue at these firms, any effects of MUP may not be able to be observed at this level of aggregation.

Figure 17 shows that the wholesale sector is 10 to 12 times larger in England/Wales than in Scotland in terms of the number of enterprises, number of local units, employment and turnover, and 7 to 8 times larger in terms output value and GVA.

Figure 17 Wholesale sector, by measure

	Enterprises ('000)	Local units ('000)	Employment ('000)	Turnover (£ billion)	Out. value (£ billion)	GVA (£ billion)
England and Wales	9	10	124	48	13	7
Scotland	1	1	11	5	2	1

Source: *Frontier Economics analysis of ABS and BSD data.*

Note: *Number of enterprises, number of local units and employment based on 2018 BSD data; turnover, output value and GVA based on 2016 ABS data. Our best assessment is that the 2018 BSD data refer to 2017 values.*

Figure 18 shows that trends for the number of enterprises and number of local units were similar in England/Wales and Scotland over the period. The number of enterprises and number of local units declined by approximately 10-20% in both regions between 2010 and 2011 but have been relatively stable since 2011.

Figure 18 also shows that employment and turnover have followed slightly different trends in England/Wales and Scotland:

- Employment declined by approximately 10% in England/Wales and 30% in Scotland, with most of the decline in Scottish employment occurring between 2017 and 2018.
- Turnover increased by approximately 15% in England/Wales over the period but was largely constant in Scotland.
- The substantial decline in number of enterprises, number of local units and employment before 2011 is understood to be the result of data inconsistencies. This period should be excluded for the purposes of the quantitative analysis.

Figure 18 also shows that output value and GVA followed significantly different trends in England/Wales and Scotland. While these measures declined marginally in Scotland, they increased by more than 75% in England/Wales. These differences cannot be fully explained by different population growth or GVA per capita trends in England/Wales and Scotland.

These differences were consistent across all sub-sectors within the wholesale sector. GVA for agents, specialised wholesale and non-specialised wholesale increased by 180%, 150% and 50% respectively between 2009 and 2016 in England/Wales, compared to 0%, -20% and 5% in Scotland. Trends for output value were similar. This implies that excluding one or more sub-sectors would not

improve the robustness of England/Wales as a counterfactual for Scotland for these measures.

Overall, England/Wales is likely to be an appropriate counterfactual for Scotland in terms of the number of enterprises and number of local units. However, England/Wales may be a less robust counterfactual for employment and turnover and should not be used as a counterfactual for output value and GVA as these measures do not appear to be following common trends.

Figure 18 Baseline data – wholesale (index)

Source: *Frontier Economics analysis of ABS and BSD data.*

Note: *Time variables are based on calendar year for ABS and the calendar year of BSD snapshot. Our best assessment is that the 2018 BSD snapshot refers to 2017 values. Index: 2009=1.*

3.2.6 Spirits production

This group covers firms involved in the manufacture of distilled alcoholic beverages including whisky, brandy, gin, liqueurs etc.; the manufacture of drinks mixed with distilled spirits, blending of distilled spirits; and the production of neutral spirits (SIC 11010). This class does not include non-alcohol-related business activities. However, a large share of production (particularly the production of whisky in Scotland) is for export. As such, any effects of MUP may not be able to be observed at this level of aggregation.

Figure 19 shows that there are 50% to 100% more spirits producers (local units and enterprises) in England/Wales than in Scotland. However, the spirits production sector is 5 to 7 times larger in Scotland than in England/Wales in terms of employment, turnover and output value, and approximately 11 times larger in terms of GVA.

Figure 19 Spirits production sector, by measure

	Enterprises	Local units	Employment	Turnover (£ million)	Out. value (£ million)	GVA (£ million)
England and Wales	369	379	1,568	500	457	162
Scotland	168	272	8,362	3,348	3,257	1,857

Source: Frontier Economics analysis of ABS and BSD data.

Note: Number of enterprises, number of local units and employment based on 2018 BSD data; turnover, output value and GVA based on 2016 ABS data. Our best assessment is that the 2018 BSD data refer to 2017 values.

Figure 21 shows significant differences in trends between England/Wales and Scotland over the period in terms of the number of enterprises and number of local units:

- The number of enterprises in England/Wales increased by approximately 300% over the period (from 93 to 369). Over the same period, the number of enterprises in Scotland increased by 175% (from 61 to 168). The majority of this increase occurred after 2012.
- The number of local units in England/Wales also increased by approximately 300% over the period (from 99 to 379). Over the same period, the number of enterprises in Scotland increased by approximately 30%, albeit from a higher base (from 208 to 272). The majority of this increase occurred after 2012.
- Figure 20 shows that the majority of new local units in both England/Wales and Scotland are small, employing fewer than 50 staff.
- Comparing the number of enterprises and the number of local units in England/Wales and Scotland shows that in England/Wales spirits are generally produced by enterprises with a single local unit, while in Scotland they are produced by enterprises with an average of 2-3 local units (although this ratio has been decreasing over time).

Figure 20 Number of spirits production local units, by local unit size

	Size	2009	2018	Change	Change (%)
England and Wales	All	99	379	+280	285%
	Small	88	366	+278	315%
	Medium/large	11	13	+2	20%
Scotland	All	208	272	+64	30%
	Small	53	148	+95	180%
	Medium/large	155	124	-31	-20%

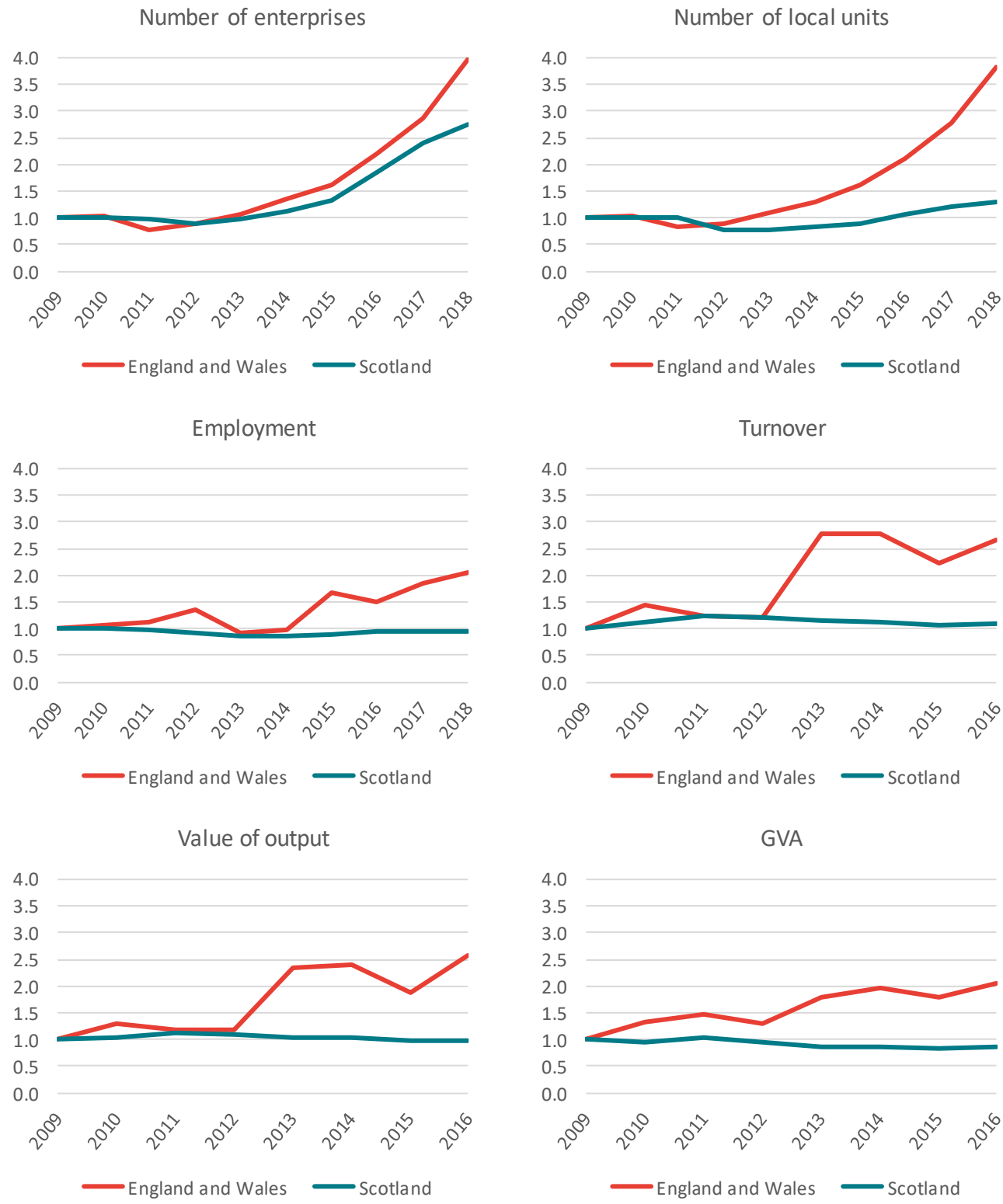
Source: Frontier Economics analysis of BSD data.

Figure 21 also shows that employment, turnover, output value and GVA increased substantially in England/Wales over the period, while remaining largely constant in Scotland. These differences cannot be fully explained by different population growth or GVA per capita trends in England/Wales and Scotland.

- Employment approximately doubled in England/Wales over the period but was largely constant in Scotland.
- Turnover increased by approximately 165% in England/Wales over the period but increased only marginally in Scotland.
- Output value increased by approximately 160% in England/Wales over the period but remained largely constant in Scotland.
- GVA approximately doubled in England/Wales over the period but decreased marginally in Scotland.

Overall, England/Wales is not an appropriate counterfactual for Scotland for any of the measures of interest. While the sector in Scotland appears to be mature and stable, the sector in England/Wales has more than doubled in turnover and employment since 2009.

Figure 21 Baseline data – spirits production (index)



Source: *Frontier Economics analysis of ABS and BSD data.*

Note: *Time variables are based on calendar year for ABS and the calendar year of BSD snapshot. Our best assessment is that the 2018 BSD snapshot refers to 2017 values. Index: 2009=1.*

3.2.7 Beer production

This group covers firms involved in the manufacture of malt liquors such as beer, ale, porter and stout, including the manufacture of low-alcoholic or non-alcoholic beer (SIC 11050). Any effects of MUP are likely to be observable at this level of aggregation given a robust counterfactual.

Figure 22 shows that the beer production sector is 10 to 14 times larger in England/Wales than in Scotland across all measures of interest.

Figure 22 Beer production sector, by measure

	Enterprises	Local units	Employment	Turnover (£ million)	Out. value (£ million)	GVA (£ million)
England and Wales	1,444	1,508	14,607	5,275	2,611	1,321
Scotland	139	152	1,251	376	241	92

Source: *Frontier Economics analysis of ABS and BSD data.*

Note: *Number of enterprises, number of local units and employment based on 2018 BSD data; turnover, output value and GVA based on 2016 ABS data. Our best assessment is that the 2018 BSD data refer to 2017 values.*

Figure 23 shows that the number of enterprises and the number of local units increased substantially in both England/Wales and Scotland over the period, with both measures increasing more quickly in Scotland:

- The number of enterprises approximately doubled in England/Wales, while increasing by 130% in Scotland.
- The number of local units increased by 85% in England/Wales, while increasing by 115% in Scotland.
- Figure 24 shows that the majority of new local units in both England/Wales and Scotland are small, employing fewer than 50 staff. Of note, the number of small local units in England/Wales more than doubled while the number of medium and large units decreased by 40%. In Scotland, the number of small units increased more quickly (140%) and the number of medium and large units decreased more slowly (-10%).

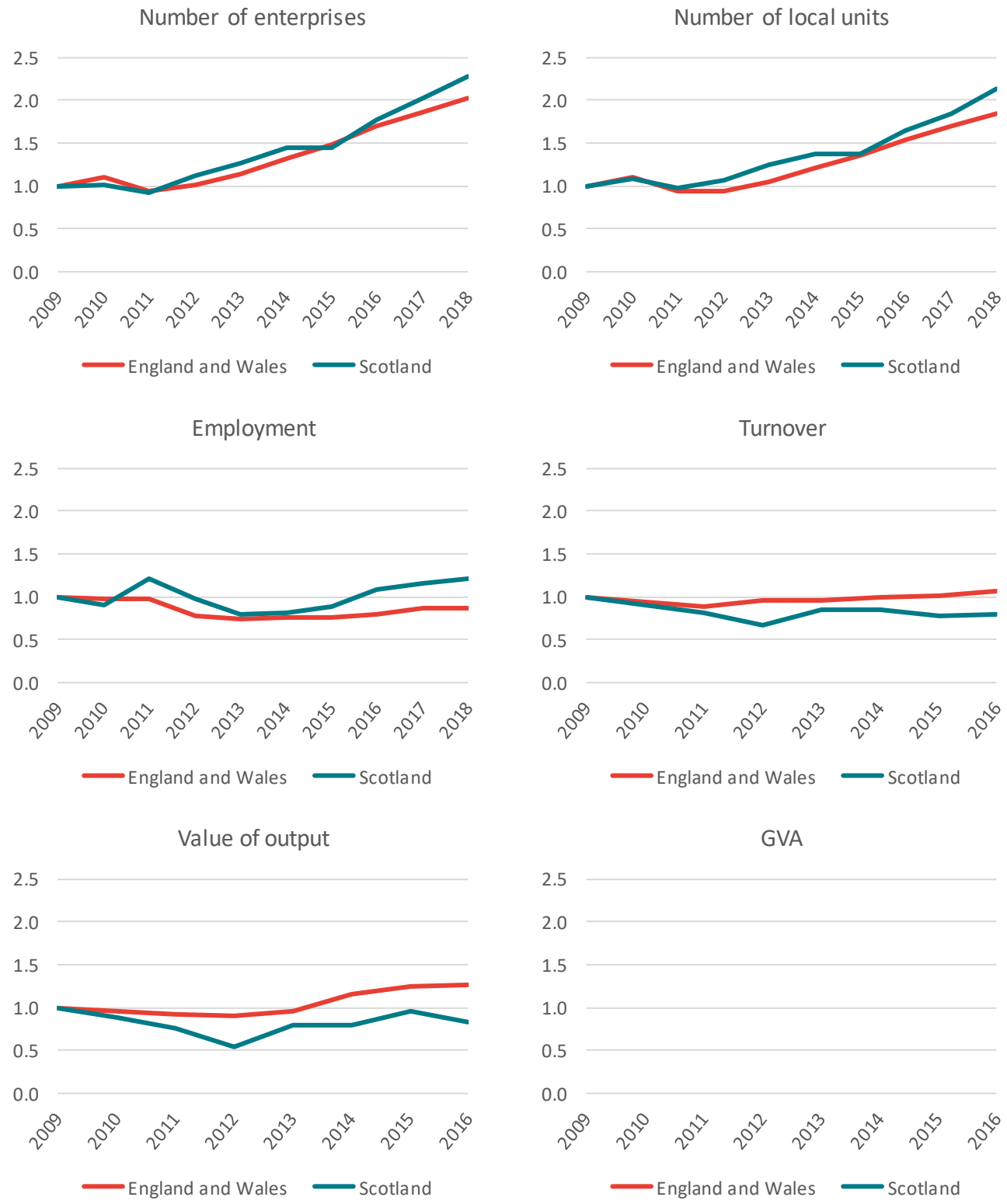
Figure 23 also shows that employment in the sector increased in Scotland (by approximately 20%) while decreasing in England/Wales (by approximately 15%).

Conversely, Figure 23 shows that turnover and output value increased more quickly (or decreased less quickly) in England/Wales compared to Scotland.

- Turnover increased by approximately 5% in England/Wales, while decreasing by approximately 20% in Scotland.
- Output value increased by approximately 25% in England/Wales, while decreasing by approximately 15% in Scotland.

Data on GVA (except for 2015 and 2016) was suppressed to avoid disclosure. The quantitative analysis will not be able to draw specific conclusions about the impact of MUP on the beer production section in terms of GVA.

Figure 23 Baseline data – beer production (index)



Source: *Frontier Economics analysis of ABS and BSD data.*

Note: *Time variables are based on calendar year for ABS and the calendar year of BSD snapshot. Our best assessment is that the 2018 BSD snapshot refers to 2017 values. Index: 2009=1. Turnover and output value data are interpolated for 2010 to avoid disclosure. GVA values suppressed to avoid disclosure.*

Figure 24 Number of beer production local units, by local unit size

	Size	2009	2018	Change	Change (%)
England and Wales	All	820	1508	+688	84%
	Small	690	1431	+741	107%
	Medium/large	130	77	-53	-41%
Scotland	All	71	152	+81	114%
	Small	60	142	+82	137%
	Medium/large	11	10	-1	-9%

Source: Frontier Economics analysis of BSD data.

Overall, England/Wales is not an appropriate counterfactual for Scotland for any of the measures of interest in terms of the beer production sector. The number of enterprises, number of local units and employment are growing significantly more quickly in Scotland, but turnover and output value are growing significantly more quickly in England/Wales.

3.2.8 Malt production

This group covers all firms involved in the manufacture of malt (SIC 11060). While malt has a number of other uses in addition to the manufacture of alcohol, including confectionary, malted drinks and malt flour, any effects of MUP are likely to be observable at this level of aggregation given a robust counterfactual.

Figure 25 shows that the malt production sector is small, with 12 enterprises in England/Wales with approximately 1,000 employees, and fewer than 10 enterprises in Scotland with approximately 250 employees. Overall, the malt production sector is 2 to 4 times larger in England/Wales than in Scotland.

Figure 25 Malt production sector, by measure

	Enterprises	Local units	Employment	Turnover (£ million)	Out. value (£ million)	GVA (£ million)
England and Wales	12	19	1,015	458	390	91
Scotland	*	11	246	141	92	32

Source: Frontier Economics analysis of ABS and BSD data.

Note: Number of enterprises, number of local units and employment based on 2018 BSD data; turnover, output value and GVA based on 2016 ABS data. Our best assessment is that the 2018 BSD data refer to 2017 values. Starred (*) values suppressed to avoid disclosure.

Figure 26 shows significant differences in trends between England/Wales and Scotland over the period in terms of employment and GVA:

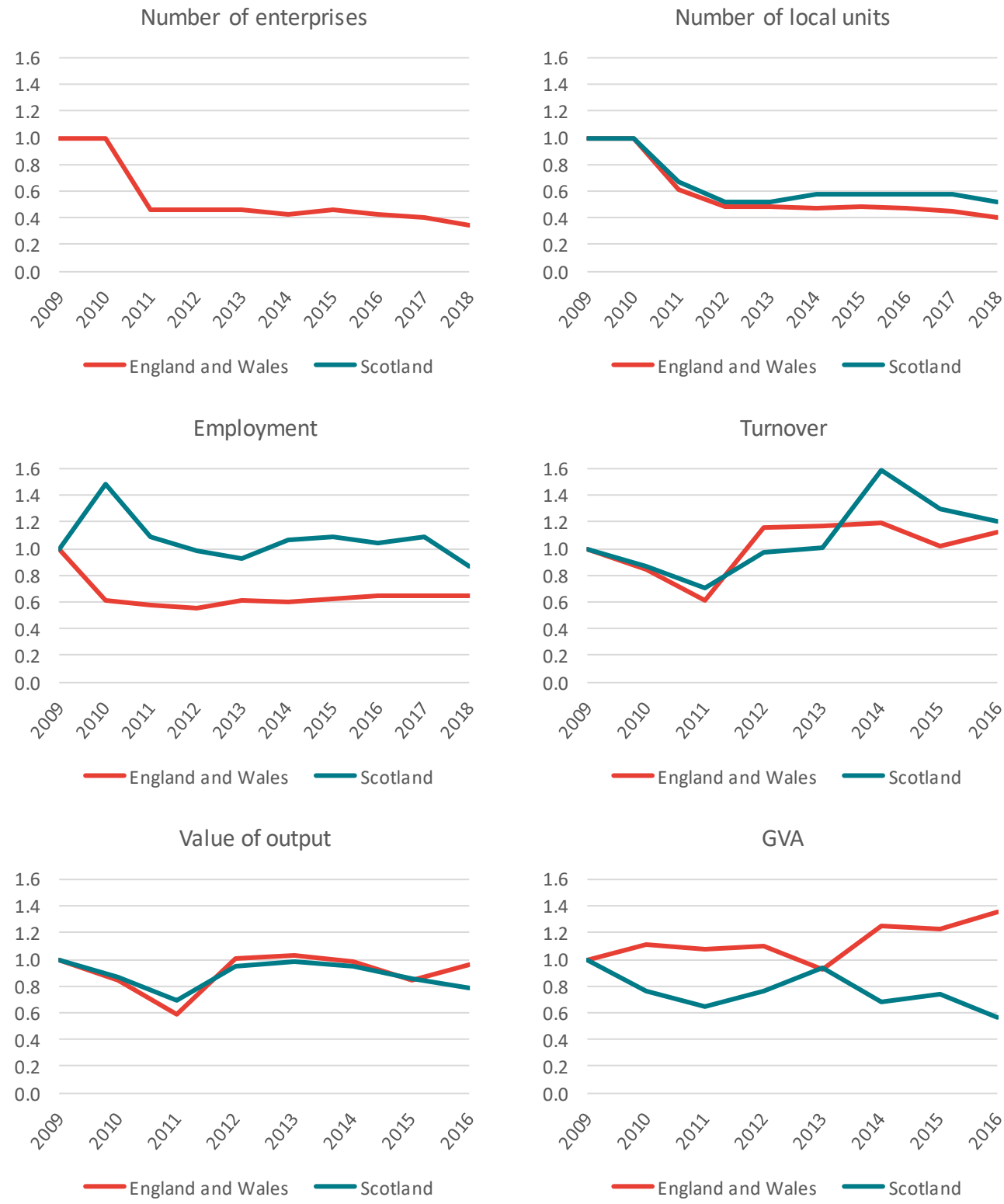
- Employment in England/Wales fell by 40% between 2009 and 2010, remaining relatively stable since. Conversely, employment in Scotland increased by 50% between 2009 and 2010, before declining below 2009 levels by the end of the period.
- GVA moved on opposite trends between England/Wales and Scotland, increasing by 35% in England/Wales and decreasing by 45% in Scotland.

Year-on-year volatility for these variables is high for both England/Wales and Scotland. This is likely to reflect the small number of malt producers in both regions and the susceptibility of the sector to weather conditions.

Data on the number of enterprises in Scotland were suppressed to avoid disclosure. The quantitative analysis will not be able to draw specific conclusions about the impact of MUP on the malt production sector in terms of number of enterprises.

Overall, England/Wales is unlikely to be an appropriate counterfactual for Scotland for any of the measures of interest in terms of the malt production sector. There are differences in the trends for all measures, and volatility in both regions makes comparison difficult.

Figure 26 Baseline data – malt production (index)



Source: *Frontier Economics analysis of ABS and BSD data.*

Note: *Time variables are based on calendar year for ABS and the calendar year of BSD snapshot. Our best assessment is that the 2018 BSD snapshot refers to 2017 values. Index: 2009=1. Number of enterprises data suppressed for Scotland to avoid disclosure.*

3.3 Preliminary conclusions

At this stage, there is no quantitative evidence from our key sources on the measures of interest for the period after the introduction of MUP. It is therefore not possible to draw conclusions regarding the impact of MUP based on secondary statistical evidence. We can, however, draw conclusions on:

- whether the available data are sufficiently robust to be used for quantitative analysis; and
- whether trends are similar in Scotland and in England/Wales, and therefore whether England/Wales is likely to be a viable counterfactual.

Robustness of data

Overall, there are some data limitations for the measures of interest.

First, there are substantial unexplained declines in the number of enterprises, the number of local units and employment (BSD variables) between 2009 and 2010 for a range of sectors including retail, wholesale and malt production. The reason for this is not clear and may be the result of a re-categorisation of businesses or inconsistencies in the BSD data. We have not been able to identify a particular explanation despite consultation with the ONS.

As this inconsistency appears to be limited to pre-2011 data, **we recommend that 2011 be taken as the start-point for quantitative analysis of the impact of MUP**.

Second, there is substantial year-on-year volatility in some of the measures of interest that is particularly pronounced when looking at sub-sectors of the industry, notably for ABS variables (turnover, output value and GVA).

In some instances, this volatility is likely to be the result of small sample sizes. For example, there are fewer than 50 malt producers (local units) in both Scotland and England/Wales, and fewer than 1,000 specialist alcoholic drinks retailers in Scotland. As the ABS only samples a sub-set of the business population (before data are re-weighted based on the wider business population), the measures derived from the ABS are subject to sampling variation that could drive this year-on-year volatility. This will **limit the statistical power of any comparative analysis to detect the impact of MUP on ABS-derived industry measures** including both before/after comparisons based on Scottish data and difference-in-difference comparisons using the England/Wales counterfactual.

In other instances, this volatility is likely to be the result of changes in external drivers of the alcoholic drinks industry. For example, the average year-on-year change in GVA was 8-10% for non-specialist retail and 10-12% for wholesale in both England/Wales and Scotland, despite these sectors having a large number of local units. This will further **limit the statistical power of any comparative analysis to detect the impact of MUP.**

Comparability of counterfactuals

Our analysis of pre-MUP trends suggests that **England/Wales is likely to be a good counterfactual for Scotland for some of the measures of interest in the retail and wholesale sectors but is unlikely to be a good counterfactual in the production sectors:**

- For specialist and non-specialist retail, industry statistics in England/Wales and Scotland appear to follow similar pre-MUP trends.
- For on-trade retail and wholesale, industry statistics in England/Wales and Scotland appear to follow similar pre-MUP trends in terms of the number of enterprises and number of local units, but there are some differences in the trends of employment, turnover, output value and GVA.
- For the production of spirits, beer and malt, industry statistics in England/Wales and Scotland appear to be driven by different trends. Notably, spirits production is growing substantially more quickly in England/Wales than in Scotland. Moreover, MUP might be expected to have an effect on producers in England/Wales as well as those in Scotland, meaning that England/Wales may not be a suitable 'control region'.

These findings on the comparability of counterfactuals are presented as Figure 27

Figure 27 Comparability of counterfactuals

	Comparability
Specialised retail	England/Wales is likely to be an appropriate counterfactual for Scotland for the period from 2010, noting caveats around volatility.
Non-specialised retail	England/Wales is likely to be an appropriate counterfactual for Scotland for the period from 2011. However, given the class includes substantial revenues from the retail and wholesale of non-alcoholic products, any effects of MUP are unlikely to be observed at this level of aggregation.
On-trade retail	England/Wales is likely to be an appropriate counterfactual for Scotland for the number of enterprises, number of local units and employment from 2011. Caution should be applied when using England/Wales as a counterfactual for turnover, value of output and GVA as these measures appear to be driven by slightly different trends and there is higher volatility in Scotland.
Wholesale	England/Wales is likely to be an appropriate counterfactual for Scotland in terms of the number of enterprises and number of local units. However, England/Wales may be a less robust counterfactual for employment and turnover, and should not be used as a counterfactual for output value and GVA as these measures do not appear to be following common trends.
Spirits production	England/Wales is not an appropriate counterfactual for Scotland for any of the measures of interest. While the sector in Scotland appears to be mature and stable, the sector in England/Wales has more than doubled in turnover and employment since 2009.
Beer production	England/Wales is not an appropriate counterfactual for Scotland for any of the measures of interest in terms of the beer production sector. The number of enterprises, number of local units and employment are growing significantly more quickly in Scotland, but turnover and output value are growing significantly more quickly in England/Wales.
Malt production	England/Wales is unlikely to be an appropriate counterfactual for Scotland for any of the measures of interest. There are differences in the trends for all measures, and volatility in both regions makes comparison difficult.

Source: Frontier Economics analysis.

In those cases where England/Wales is unlikely to be a good counterfactual, we will consider using a before/after comparison, accounting for time trends where appropriate.

Overall preliminary conclusions

As a result of the data limitations and the absence of a consistently comparable counterfactual, it is likely that only large changes in the performance of the Scottish alcoholic drinks industry will be observable in the aggregate industry data derived

from BSD and ABS. In some cases (particularly for alcoholic drinks production) we may need to rely on comparing pre- and post-MUP data, and we know that for these sub-sectors there is already volatility in the time series, which will make any impact of MUP hard to identify. In other cases, we may be able to conduct a difference-in-difference analysis but, again, we would require a large impact to identify the effect in Scotland.

Our theory of change (Figure 2), backed up by initial evidence from the case studies (see Section 4), suggests that we expect the overall impact of MUP on the Scottish alcoholic drinks industry to be relatively small. As a result, though we will conduct the analysis to validate this hypothesis in the next phase of this evaluation, **we do not anticipate being able to draw very firm conclusions about any industry impact purely from the analysis of aggregate and sector-level industry data**.

This reinforces the mixed methods approach to this evaluation and **emphasises the value of revisiting the in-depth firm-level case studies and a further wave of industry stakeholder engagement** as key sources of evidence for the final report.

4 QUALITATIVE ANALYSIS

4.1 Methodology

A key source of evidence for the impact evaluation is the set of eight in-depth case studies we conducted with firms operating in the Scottish alcoholic drinks industry.

The case studies allowed us to test many of the hypotheses identified in the theory of change. They provided largely qualitative, but in some cases quantitative, insights into changes in commercial behaviour and performance since MUP was introduced and views on the degree to which these were attributable to MUP.

This section sets out the methodology used to conduct the case studies in three stages:

1. **Identifying** and planning case studies;
2. **Conducting** the case studies; and
3. **Analysing** evidence from the case studies.

4.1.1 Identifying and planning the case studies

The first stage was to identify the prospective case study firms, based on a defined set of criteria, and invite them to participate.

Define criteria for selection of case studies

The core criteria we used for selecting the set of case studies were as follows:

- Firms which had some part of their **value chain in Scotland**. This included (but was not limited to) retail, wholesale, distribution, bottling, production or input production. Firms whose entire value chain was outside of Scotland (including the rest of the UK) were not considered in scope.
- Firms whose Scottish business was thought to derive a **significant level or share of revenue from alcoholic drinks that had sold below MUP** in Scotland and who might therefore be most directly affected by the introduction of MUP.[22] We also considered firms who might be **indirectly affected** through demand- or supply-side responses even if their own revenue had not previously relied on below-MUP alcohol.
- A mix of **firm types** (including sector, size, geography within Scotland and business model).
- At least one retailer with a strong presence on both sides of the **Scotland/England border**, to address the specific question of cross-border retailing (see Section 5).

[22] Below-MUP or below-50ppu alcohol refers to alcohol products that were priced below 50ppu before the introduction of MUP or would have been priced below 50ppu in the absence of MUP. The focus on both levels and shares of revenue was to account for different sizes and business models of different businesses.

Identify case study categories

The eight categories selected, and the rationale for their inclusion, are outlined below. The preferred set of categories was developed by Frontier and agreed with NHS Health Scotland.

To preserve the anonymity of the firms participating, we do not identify individual or firm names. Rather we refer here and throughout this report only to the category of case study. The names of individual organisations and people participating were not disclosed to NHS Health Scotland or the EAG. The case studies included:

1. **A national chain of supermarkets.** Large retailers earn a substantial amount of absolute revenue from sales of alcoholic drinks in Scotland, including below-50ppu alcohol.
2. **A convenience retailer.** Small retailers earn substantial absolute revenues from sales of below-50ppu alcoholic drinks. Including smaller retailers ensured a mix of firm sizes at a key stage of the supply chain.
3. **A specialist alcohol retailer (off-trade).** Speciality stores earn the majority of their revenues from retailing alcohol, including below-50ppu alcohol. They are likely to be more affected (in relative terms) than non-specialist retailers.
4. **An on-trade retailer.** On-trade retailers are less likely than off-trade retailers to be affected directly by MUP. However, they may be indirectly affected by the substitution of consumers resulting from a change in the relative prices of on- and off-trade alcoholic drinks.
5. **A large spirits producer.** The production of spirits (particularly whisky) is an important part of the Scottish economy, and the majority of off-trade blended whisky retailed in Scotland was previously retailed below 50ppu. Spirits producers are also well positioned to comment on any effects on 'premium' alcoholic drinks production and pricing.
6. **A large brewer.** There is a substantial beer production industry in Scotland and the majority of off-trade beer sold in Scotland was previously retailed below 50ppu.
7. **A spirits producer who supplies own-label products.** A significant majority of own brand spirits was sold below 50ppu. A producer of such spirits is likely to be affected by the introduction of MUP. Own-label spirits are also expected to have less customer loyalty than branded products, which will provide insight into the competitive effects of MUP.
8. **A smaller brewer.** Some small brewers produce primarily for the Scottish market, meaning that a large share of their products will be affected by MUP (either directly or indirectly because of price adjustments). This effect may be either positive or negative. Including a small producer also ensured a mix of firm sizes at a key stage of the supply chain.

We considered including a **discount off-trade retailer**. However, neither of the two discount retailers we invited agreed to participate in the case study process.

We considered other categories of firms to include as case studies for this report. However, our desk research and stakeholder engagement suggested these firms should be deprioritised based on the insights around industry impact that could be provided. These categories were:

1. **A bottling firm.** Our preliminary engagement with bottling firms showed that they do not expect substantial impacts from MUP, either because they primarily support the export market or because they do not anticipate a substantial drop in total volume. Our research also did not lead us to expect a change in the bargaining power of bottling firms or the competitive dynamics of the bottling market.
2. **A cider producer.** While we would expect MUP to have substantial impacts on cider products, the majority of cider consumed in Scotland is imported from the rest of the UK or overseas. We are not aware of any cider producers with a substantial Scottish value chain and would not expect such a firm to receive substantial revenues (in absolute or relative terms) from below-50ppu alcohol.
3. **A wine producer.** The rationale for not considering wine producers as priority candidates for a case study is the same as for cider producers.

Identify and schedule case studies

Within each category, we identified a first-preference and second-preference firm with broadly similar characteristics, based on the criteria described above.

We invited the first-preference firm to participate in the case study process, identifying the most appropriate point of contact either through desk research or with support and introductions from industry bodies.

We provided the firm with details of the evaluation as well as the high-level questions that we intended to cover as part of the case study.

Where the first-preference firm did not accept the invitation, or did not respond to our further enquiries, we proceeded to invite the second-preference firm to participate. For these invitations, we also attached a letter from Professor Graeme Roy (Chair of the Evaluation Advisory Group) and Dr Andrew Fraser (Director of Public Health Science, NHS Health Scotland), emphasising the importance of the study and the case study process.

In the case of the 'convenience retailer' and the 'specialist alcohol retailer', neither the first-preference nor the second-preference firm accepted our invitation. We proceeded to invite alternative firms that met the criteria described above but were not successful in engaging a firm from either category to participate.

We considered a range of mitigation strategies, and in agreement with NHS Health Scotland, replaced the two case studies from these categories with a series of 'mini case studies' conducted with store managers or owners of five independent retailers in each category. It was agreed that this would give a range of perspectives from businesses in these retail categories on the main hypotheses, trading off the depth we could go into with single retailers. The mini case study recruitment process was as follows:

- We identified a long-list of 96 independent convenience and specialist retailers located around Edinburgh and Glasgow using web searches.

- We successfully contacted 29 retailers to invite them to participate in the interviews. Fourteen retailers accepted, and 15 retailers declined.[23] Where a retailer accepted, we sent them a letter of invitation by mail and scheduled a time to conduct the interview with a store owner or manager.
- We conducted interviews with 14 retailers, of which four were unable to provide answers to the questions. The interviews were conducted face to face and lasted between 30 and 60 minutes.

4.1.2 Conducting the case studies

The second stage was to prepare topic guides for the interviews and conduct the case studies.

Prepare topic guides

We prepared a topic guide to structure the case study interviews. The topic guide was based on the hypotheses identified in the theory of change. The broad structure of the guide was similar for each case study, but the specific content was tailored to the individual category of firm being interviewed. An illustrative topic guide is included as Annex E of this report.

Prior to each case study, the firm was asked to complete a short data collection questionnaire to capture quantitative information that might be more difficult to share during interviews. The questionnaire used is included as Annex F to this report.

We also shared a privacy statement with each case study participant setting out the basis on which we were contacting them and how their data would be stored, managed and used. The privacy statement is included as Annex G to the report.

Conduct case studies

We conducted the eight case studies (two of which comprised a set of mini case studies) between February and April 2019. All case studies were conducted in person at the firm's business location, regional headquarters or national headquarters.

The structure of the case studies varied. For the six case study categories that involved single firms, we conducted between two and four hours of interviews with relevant decision makers and researchers within each firm. This typically included staff with responsibility for some or all of the following functions:

- corporate and public affairs;
- alcohol strategy;
- the Scottish region; and
- consumer insights.

[23] The primary reason for retailers declining to participate was that they were not authorised to answer questions and were required to redirect enquiries to their respective head office. Other retailers stated that they did not have an alcohol licence or did not provide a reason.

For the two case study categories (convenience off-trade retail, speciality alcohol off-trade retail) that involved mini case studies with a number of firms, we conducted 10 interviews in total with different firms. These ranged from 30 to 60 minutes speaking with the store owner or manager and were guided by an abridged version of the topic guide. The interviews were scheduled to ensure that we spoke to the individual who was most informed about the implementation of MUP and its impact on their business.

All interviews were, with the agreement of the participants, audio recorded to facilitate analysis at a later date and ensure that the interview could run smoothly without excessive notetaking. Each case study company gave consent for its personal data to be collected and processed by signing a privacy statement setting out the reason why personal data were being collected, confidentiality and security measures, and data storage and retention policies.

Summaries of each case study were shared with the relevant interviewees for review and sign-off to ensure that commercially sensitive information was not disclosed.

4.1.3 Analysing evidence from the case studies

The final stage was to analyse the evidence from the case studies.

We used an approach informed by framework analysis.[24] We analysed the evidence using a four-step process:

- **We familiarised** ourselves with the qualitative evidence by reviewing the recordings and responses to the data collection questionnaire to identify and code 'fragments' of evidence (quotes or key pieces of information) from each case study that were relevant to the questions asked.
- **We identified** a framework to organise these fragments across the different case studies against a number of themes, based on the structure of the topic guide and additional themes emerging from the case study interviews themselves.
- **We indexed** evidence from the interviews according to the thematic framework. We used a spreadsheet with columns for the themes and rows for each fragment of evidence. Each fragment was assigned to one or more themes to populate the matrix.
- **We interpreted** the key features of the evidence identified in each theme by comparing findings and insights within each column across the different cases, assessing any variation in the findings across case study types and identifying any commonalities in the conclusions that could be drawn.

Section 4.2 below summarises the results of this analytical approach for the key themes identified from the qualitative research.

[24] See e.g. Ritchie, J. & Spencer, L. (1994), 'Qualitative Data Analysis for Applied Policy Research' in A. Bryman and R.G. Burgess [eds.] 'Analysing Qualitative Data', (pp.173-194). London: Routledge.

4.2 Summary of case study findings: Wave One

This section summarises the qualitative and quantitative evidence collected as part of the case study process. Evidence and quotations are not attributed to individuals or named organisations but do reference the category of case study.

The section is organised by the themes articulated in the theory of change and explored during the case study interviews (see Figure 3). We begin by exploring the direct impact of MUP on products that previously retailed below 50ppu and proceed to present reported evidence on consumer demand responses, producer/retailer responses, competitive responses and confounding factors.

In each theme, we set out the key conclusions that relate to that theme, along with evidence from the case studies that supports these conclusions.

Importantly, all evidence presented in this section is based on the self-reported observations of the sub-set of firms that participated in the first wave of case studies. Evidence supporting a hypothesis should be interpreted with appropriate caution. Likewise, the absence of evidence to support a hypothesis should not be interpreted as a rejection of that hypothesis.

4.2.1 Direct impacts on products previously selling under 50ppu

KEY MESSAGES

- High-strength/low-cost ciders and own-label products are most likely to be impacted.
- The proportion of impacted products varies greatly across retailers.
- MUP has not imposed substantial compliance costs on retailers.

Evidence collected as part of the case study process demonstrated that a number of retailers had increased the price of some product lines in order to comply with MUP.

High-strength/low-cost ciders and own-label products are most likely to be impacted

Retailers reported increasing the price of cider more than other types of alcohol. In particular, retailers had increased the price of high-strength/low-cost ciders (e.g. Frosty Jack and Pulse) from between £3 and £5 for a 3 litre bottle to at least £11.75. The increase was less abrupt but still significant for lower-strength ciders (e.g. Strongbow).

Retailers reported increasing the price of own-label products more than branded products. Prior to the introduction of MUP, own-label spirits, beers, wines and ciders had generally retailed at lower prices than equivalent branded products – often below 50ppu.[25] For example, a 1 litre bottle of own-label vodka (37.5% ABV) at a national chain of supermarkets sells for £15 in England but must now sell for

[25] Own-label products are those for which the retailer owns the product brand.

at least £18.75 in Scotland, much closer to the usual price of a branded 1 litre bottle of vodka such as Smirnoff Red Label.

Some of the retailers and producers we spoke to explained that own-label products were 'tiered' by quality and suggested that MUP had affected their ability to differentiate these quality tiers by price.

Retailers reported that the price of 'premium' products had generally not been directly impacted by the introduction of MUP. For example, a producer of craft beers said that its products had generally retailed well above 50ppu prior to the introduction of MUP and had not been directly impacted by the policy. A specialist retailer of 'premium' wines, beers and spirits also stated that its products had not been impacted by MUP.

Overall, the increased prices of many products to 50ppu resulting from MUP means that previously existing price differentials between different brands have been reduced or eliminated. The impact of this change on competition between brands and products is discussed in subsequent sub-sections.

The proportion of impacted products varies greatly across retailers

The proportion of product lines that have been directly impacted by the MUP policy varies significantly by store type and format:

- The national chain of supermarkets suggested that approximately 50% of its alcoholic drinks (weighted by turnover) had been priced below 50ppu prior to the introduction of MUP.
- The convenience stores and some non-premium specialist retailers (a sub-set of specialist retailers) stated that between 10% and 50% of product lines had been priced below 50ppu – primarily high-strength/low-cost ciders and 1 litre bottles of spirits. However, these retailers agreed that most of these products had been only marginally below 50ppu.
- The number of affected product lines depended on the target market and customer preferences at the particular store. Some of the convenience and specialist retailers we spoke to stocked a large variety of high-strength cider products, while others only stocked a small number of such products. These stock decisions were generally affected by the preferences of the local market served by each retailer. For example, one specialist retailer reported stocking a large quantity of perry (sold below 50ppu) because of the high demand in that specific geographical area.
- The premium specialist retailers (a sub-set of specialist retailers) we spoke to said that MUP had had no direct impact on their prices as they did not previously sell any products below 50ppu. One specialist retailer said that the cheapest products it stocked currently were a 33cl bottle of beer for £1.80 and a 75cl bottle of wine for £8.10.
- The on-trade retailer we spoke to said that MUP had not directly affected the price of any products. The lowest priced item (per unit) the on-trade retailer stocked across its sites was reported to be a shot of vodka at £1 or a half pint of beer at £1 (on certain days only). The effective minimum price for these products under MUP is around £0.65 and £0.70 respectively. It said

that it would be 'very surprised if any on-trade retailers were selling around the MUP price point because it would be very hard to sell at or below MUP and make a profit'.

- The on-trade retailer also observed that the direct impact of MUP on the wider on-trade sector was similarly likely to be very small because of the higher costs associated with operating bars, pubs and clubs.

The varying degrees to which stores have had to increase their prices have implications for competition between stores, which we explore below.

MUP has not imposed substantial compliance costs on retailers

There was little evidence that the costs of complying with MUP have imposed a significant burden on smaller retailers that previously sold alcoholic drinks below 50ppu. One of the convenience retailers we spoke to said that MUP was one of many conditions of its alcohol licence and had not imposed significant additional administrative or compliance costs.

There was some evidence that MUP has imposed a compliance burden on national chains. The national chain of supermarkets we spoke to said that prior to the introduction of MUP, it would operate UK-wide promotion strategies. However, following the introduction of MUP, it was required to operate Scotland-specific promotions. It added that 'MUP is taking up a lot of headspace' at the headquarters.

4.2.2 Consumer response

KEY MESSAGES

- MUP has had a negative overall impact on sales of alcoholic drinks.
- Sales have decreased the most from products that were previously retailing far below MUP.
- Consumers have switched to smaller format sizes.
- Consumers have switched to a variety of substitute alcoholic and low-alcohol drinks.
- The reduction in price differentials caused by MUP has accelerated existing premiumisation trends.
- Switching is limited by brand loyalty and occasion-based purchases.
- MUP has impacted sales at stores close to the border between England and Scotland.

The retailers and producers we interviewed observed a number of different consumer responses to the introduction of MUP.

MUP has had a negative overall impact on sales of alcoholic drinks

Retailers and producers observed a decrease in the volume of sales of alcoholic drinks following the introduction of MUP compared with what they would have expected in the absence of MUP. Only the retailers who were not selling products

below 50ppu prior to the introduction of MUP (premium specialist retailers and on-trade retailers) reported no impact on volumes.[26]

Convenience and speciality retailers observed a decrease in volumes of alcoholic drinks in absolute terms. One specialist retailer stated that: 'Overall, MUP has decreased volumes, particularly for the products previously selling far below MUP'.

Some of the case study firms we spoke to had conducted in-house analysis to estimate the effect of MUP on sales based on internal or secondary data. This was often done by comparing sales changes in Scotland after MUP with sales elsewhere in the UK. The examples given below have been included with the permission of the case study firms engaged:

- The national chain of supermarkets stated that alcoholic drinks volume (in litres) at its Scottish stores had decreased in the range of 6% to 9% year on year in the period following MUP, compared with an increase in the range of 0% to 3% at its English stores.
- The spirits producer shared secondary data showing that the year-on-year volume of alcoholic drinks (in products sales) had increased more (or decreased less) in England and Wales than in Scotland across all categories, including spirits, beer, cider and wine. The exception was fortified wines, sales of which had increased in Scotland while decreasing in England and Wales.
- The own-label spirits producer stated that spirits sales in the UK had grown by 5% year on year following the introduction of MUP, while declining by 1 to 2% in Scotland.
- One of the brewers stated that beer volumes in the UK had decreased by 6% more in Scotland than in England/Wales since the introduction of MUP.

This difference in trends between Scotland and England/Wales is larger in terms of alcohol units. The national chain of supermarkets reported a 6% to 9% (range) year-on-year decrease in the number of units of alcohol sold at its Scottish stores, compared to a 6% to 9% (range) increase at its English stores. The larger difference between trends in alcohol units suggests that, in addition to reducing the litres of alcoholic beverages sold, Scottish consumers have also switched to lower ABV products more so than in England and Wales.

Where we had information from the case study firms, it appears that the impact in terms of number of bottles, packs or cans sold is smaller than the impact in terms of litres of product or alcohol units. The national chain of supermarkets reported that the number of products sold had fallen by a range of 0% to 3% at its Scottish store but had risen by a range of 3% to 6% in its English stores.

To summarise, the quantitative evidence provided by some of the case study firms that compared sales trends in Scotland with those elsewhere in the UK pre- and post- MUP found large negative sales impacts of MUP in Scotland. These effects were largest in terms of alcohol units, then litres of beverage, then number of packages sold. Taken together, this suggests that:

[26] Volume in this section is largely in terms of litres of product sold, rather than alcohol units. In some case studies, interviewees discussed sales impacts in terms of the number of bottles, cans or packs sold. We try to be clear about the specific measurements used throughout the analysis.

- Consumers have responded to increased prices by reducing purchases.
- There has been an additional substitution towards lower ABV products, such that the impact on alcohol units is larger than the impact on litres.
- There has been an additional substitution towards smaller pack sizes, such that the impact on packs sold is smaller than the impact on litres sold.

The substitution towards lower-strength and small format products may have resulted both from demand- and supply-side responses to MUP. We explore evidence around supply-side effects in more detail below.

Sales have decreased the most from products that were previously retailing far below MUP

Retailers reported that the largest impact of MUP on sales of alcoholic drinks was for large plastic bottles of strong/white cider. All of the retailers we spoke to who had previously stocked 3 litre bottles of strong cider reported abrupt declines (over 80% decline in the case of one retailer) in sales of these products, and all had de-listed these products (or were in the process of de-listing them). Sales of smaller bottles (1 litre) and cans of strong ciders had also decreased significantly, but less so than for larger format sizes.

A number of convenience retailers reported that some consumers of strong ciders were spending the same amount of money on alcoholic drinks on a weekly basis but had reduced the volume they consumed in order to account for the price increase. Three convenience/specialist retailers reported that some regular consumers of large bottles of strong cider had switched to smaller format sizes (e.g. cans as opposed to bottles) and had adapted to higher prices by buying smaller quantities.

Another product category that was particularly affected by MUP in terms of volume was the own-label category. The decline in volume of own-label spirits in Scotland in the months after the introduction of MUP was, according to both an own-label spirits producer and a national chain of supermarkets, in the range of 15% to 20%. While the supermarket chain said it was surprising that the decline had not been steeper, the own-label spirits producer believed that the decline would continue in the coming months and could increase significantly in the medium to long term as consumer preferences evolved.

In addition to substantial decreases in demand for strong ciders and own-label product lines, retailers reported a decrease in demand for a range of products that had previously retailed below MUP, including beer, gin and vodka. None of the retailers we spoke to believed that MUP had caused a decrease in volumes of products that were not selling below 50ppu before May 2018.

Consumers have switched to smaller format sizes

Retailers and producers observed that many consumers were switching to smaller format sizes (smaller pack sizes or smaller bottle/can sizes) as a result of MUP. This aligns with insights from the quantitative sales evidence discussed above.

- The national supermarket chain said that one of the most noticeable impacts of MUP was the shift away from larger pack sizes of beer and cider. It observed that customers had instead increased demand for smaller format sizes, for example ‘4-packs’ of beer.

- Some convenience retailers also observed that consumers had switched to buying smaller pack sizes of beer or cider. One retailer observed that sales of large packs of beer (15+ cans) and large bottles of cider had decreased, while the volume of '4-packs' and sales of individual cans had both increased.
- The large spirits producer observed that there had been a 'large decrease' in the sale of 1 litre bottles of spirits, and an increase in the sale of 70cl and 50cl bottles. It stated that this had coincided with a trend for consumers in England demanding larger bottles of spirits.
- One of the brewers provided third-party industry data showing that, following the introduction of MUP, only 8% of beer and 2% of cider sold in Scotland was in 'large' pack sizes, compared with 25% of beer and 12% of cider prior to the introduction of MUP.

However, it should be noted that as a number of retailers changed their product offering in response to MUP, including de-listing larger format sizes, it is possible that switching to smaller format sizes is the result of a combination of changes in consumer demand and retailer/producer supply decisions.

Consumers have switched to a variety of substitute alcoholic and low-alcohol drinks

The majority of off-trade retailers, including the national chain of supermarkets and most convenience and specialist stores, reported that demand for some alcoholic drinks had increased as a result of the introduction of MUP, although this increase in demand varied by retailer.

There was strong evidence that consumers of strong cider were most likely to switch to other alcoholic drinks:

- One convenience retailer said that a lot of consumers of strong cider had switched to lower-strength cider cans (e.g. Strongbow).
- Another convenience retailer stated that these consumers had switched to low-ABV fruity wines and Prosecco, while a third stated that they had moved to fortified wines and tonic wines.
- A specialist retailer observed that strong cider consumers had switched to small spirits bottles (e.g. 20cl bottles of Glen's vodka).
- Another specialist retailer said that these consumers had mostly switched to tonic wines (e.g. Buckfast) and sherry, and it had not observed switching to spirits.
- Another specialist retailer noted increased demand for 'strong lagers' following the introduction of MUP but added that this demand had since subsided.
- The majority of convenience and specialist retailers reported that at least some customers who had typically purchased strong ciders prior to MUP no longer visited their store.

The evidence from retailers was supported by evidence from producers. One of the brewers shared industry-wide data showing a significant increase in demand for fortified wines, including those mixed with caffeine stimulants (e.g. Buckfast and Dragon Soop). The data also showed switching from apple cider to lower ABV flavoured ciders. It added that 'the ratio of apple cider to flavoured cider used to be 70:30 [in Scotland]; overnight it went to 50:50'.

There was also evidence of product switching by consumers who previously purchased high-ABV beer. One specialist retailer observed an increase in demand for low-ABV beer, noting that 'low-ABV beers meet interesting price points compared to standard beer now'.

The national chain of supermarkets observed increased customer interest in low-ABV and alcohol-free products but added that sales of these products in Scotland were not growing significantly more quickly than in England and Wales after MUP had been introduced.

The reduction in price differentials caused by MUP has accelerated existing premiumisation trends

Producers, the national chain of supermarkets and the majority of the convenience and specialist retailers observed a general trend towards consumers demanding more 'premium' products, often referred to as 'premiumisation'. National producers and retailers believe that this trend is occurring all over the UK, but MUP acted to catalyse this trend in Scotland.

All four producers we interviewed, as well as the national chain of supermarkets, reported that MUP had caused a reduction in the price differential between 'value' products and 'core' or 'premium' products. MUP has therefore lessened the relevance of price as a competitive advantage for many 'value' products, particularly own-label products.

Figure 28 demonstrates a stylised example of this effect by showing the price differential that exists between different 70cl bottles of vodka at one retailer in England (in the absence of MUP) and the reduced-price differential required by the introduction of MUP.

Figure 28 Price of selected 70cl bottles of vodka at a retailer in England and in Scotland

	Price in England*	Price in Scotland**
Nikita Imperial	£10.00	£14.00
Supermarket own label	£11.00	£14.00
Glen's	£12.50	£14.00
Smirnoff Red Label	£14.50	£14.50
Russian Standard	£14.50	£14.50

Source: *Sourced from a retailer's England website in April 2019.*

Note: ** Excluding discounts.*

*** The price in Scotland is constructed by assuming that products selling below MUP in England sell at MUP in Scotland.*

According to some producers and retailers, this price equalisation has caused consumers to 'switch up' to products they view as more 'premium':

- Two specialist retailers we spoke to observed that customers had switched from Glen's vodka towards Smirnoff Red Label vodka. The price differential between these two products had decreased markedly (and in some stores they were the same price), which had caused consumers to switch to the product they viewed as more premium.
- The own-label producers also explained that own-label spirits were particularly impacted by this trend in Scotland: 'There is no cost advantage for consumers

to trade to own-label anymore … [“premium”] brands are the ultimate winners from price equalisation’.

- The large spirits producer observed a move away from ‘value’ whisky towards ‘premium’ whisky. In particular, it noticed consumers switching from blended whiskies to single malt whiskies, adding that this trend was more pronounced in Scotland than in England and Wales.
- The large spirits producer also observed consumers switching from ‘value’ vodka and rum towards ‘standard’ vodka and rum (entry-level branded products). It explained that the volume of rum sales in Scotland had declined year on year while the value of sales had increased, implying a clear trend towards ‘premium’ brands in this category.

Switching is limited by brand loyalty and occasion-based purchases

Many of the retailers and producers we interviewed mentioned that the changes in consumption patterns resulting from MUP were constrained by brand loyalty. A small brewer reported that ‘consumption is sticky because people are used to what they drink and do not change much when prices increase slightly’. The own-label spirits producer observed that the same was true for whisky because typical consumers are aged 45 or over and usually have strong preferences for certain well-established brands. One convenience retailer observed that some consumers had switched to more ‘premium’ products in the weeks following the introduction of MUP but had subsequently returned to their usual products.

The national chain of supermarkets stated that switching away from large packs had also been limited by the fact that consumers often make ‘occasion-based’ purchases of drinks: ‘When organising a barbecue or a family reunion, it is still more practical to buy a large pack than multiple 4-packs even if MUP has eliminated the cost advantage of doing so’.

MUP has impacted sales at stores close to the border between England and Scotland

Large and convenience retailers reported that some consumers who had previously purchased alcoholic drinks from Scottish retailers located close to the English border had switched to purchasing alcoholic drinks from English stores. This consumer response is discussed in detail in section 5.

4.2.3 Producer and retailer responses

KEY MESSAGES

- Few products have been de-listed.
- New format sizes and pack sizes have been introduced to meet attractive price points.
- MUP has led to a limited amount of product reformulation.
- MUP constrains the promotions offered by larger retailers.
- Changes in products and strategies are limited because Scotland represents a small share of many firms’ business.

Some producers and retailers reported adapting their strategy and product offering in response to the impact of MUP. This section presents the evidence collected through the case studies on these producer and retailer responses.

Few products have been de-listed

The price increases due to MUP and the resulting fall in demand for certain products have not caused retailers to de-list many product lines, based on the evidence gathered from the interviews. Large bottles of strong cider are the only product lines which were (or will be) de-listed by the majority of the retailers we interviewed. Some convenience and specialist retailers planned to de-list large bottles of cider after selling remaining stock, while others reported that their suppliers had already stopped offering these product lines.

None of the retailers who previously stocked strong cider have stopped (or intend to stop) selling strong cider altogether despite the decrease in demand. Rather, these retailers reported using shelf space previously occupied by large bottles to stock 1 litre bottles and cans.

Few own-label products have been de-listed in response to MUP to date. A producer of own-label spirits stated that only one of its entry-level products had been de-listed from stores in Scotland.

No retailers reported de-listing beer or wine products in response to MUP.

New formats and pack sizes have been introduced to meet attractive price points

The retailers and producers we spoke to reported that MUP had influenced their decisions on which format they stocked or produced. In particular, retailers and producers had reduced format sizes in Scotland both in response to and in anticipation of MUP.

In some cases, this trend was driven by retailers. The own-label spirits producer said that two retailers had requested that it supply 50cl bottles instead of 1 litre and 70cl bottles in an effort to differentiate the price of the own-label range from the price of branded products. However, the producer noted that both retailers had subsequently reverted to requesting 70cl bottles, implying that the format change may not have been successful. The own-label producer observed that other retailers had not changed format sizes in anticipation of MUP, preferring to retain their product offering until the consumer response to MUP was better understood.

In other cases, the trend was driven by producers. The national chain of supermarkets reported that beer producers had proactively reduced some pack sizes, noting that one producer had replaced ‘18-packs’ with ’15-packs’. This observation was supported by one of the brewers, which reported shifting from large to mid-sized packs and from mid-sized to small packs in anticipation of MUP.

Likewise, one specialist retailer observed that a producer of perry had decreased the size of its bottles to allow them to continue to retail at the £2.99 price point. The spirits producer observed that many other producers who had previously sold 1 litre bottles of spirits had shifted production to smaller 70cl bottles in response to retailer demand.

One of the brewers observed that there may be a lag in retailers and producers changing format sizes, noting that 'we are coming into range cycles for this year'. It said that some retailers may have waited two to three range cycles (typically four to six months) to 'give up on' the largest packs, for example. It noted that it would consider other format changes, including changes to can or bottle sizes, and added that this would impose a significant capital cost burden on its production process.

In other cases, producers introduced larger format sizes in response to MUP or did not change their format sizes. For example, the large spirits producer introduced a larger 1 litre bottle of one of its blended whiskies to compete close to the MUP price point of £20 (it was not able to compete at the 70cl MUP price point of £14). The majority of the other products of this producer were predominantly sold in 70cl bottles and it did not reduce bottle sizes in response to MUP. The large spirits producer stated that the trend towards smaller format was more prevalent for producers selling at lower prices.

Both the own-label spirits producers and one of the brewers stated that changes to format and pack sizes would not require significant capital investment, although the brewer added that it may imply additional ongoing costs.

MUP has led to a limited amount of product reformulation

Since the price of many 'value' products is now determined by MUP and therefore driven by alcohol content, one hypothesis in the theory of change (see Figure 3) was that producers and retailers would attempt to lower the alcohol content of products in order to offer them at lower prices.

The national chain of supermarkets said that there had been a modest shift towards offering low-ABV products. It had increased the visibility and promotion of low-ABV products and observed that retailers had introduced new lines of 20% ABV spirits, low-ABV wine and light or alcohol-free beer. However, it added that this trend was most likely to be driven by a wider consumer 'health agenda' and preferences for lower-alcohol drinks, rather than directly by MUP. It noted that the shift was UK-wide and the Scottish market was not large enough to drive such changes that affect the supply chain.

The producers we interviewed had not reformulated any of their products. In some cases, this was because of regulation (for example, Scotch whisky must be at least 40% ABV). There were concerns about the upfront costs of reformulation, particularly given the small size of the Scottish market.

Particular comments from producers around reformulation were:

- One brewer noted that reformulation to lower ABV requires additional equipment that only larger producers can afford to invest in.
- The other brewer noted that reformulation to reduce ABV had not occurred in the market but may be a future consideration.
- The own-label spirits producer had not reformulated any existing products but noted that it had observed some producers innovating to produce low-ABV gin liqueurs (20 to 25% ABV).
- The large spirits producer said that the Scottish market was not large enough to justify reformulation in response to MUP for most national and international firms.

MUP constrains promotions offered by larger retailers

Promotions on alcoholic drinks were already more constrained in Scotland than in the rest of the UK because of the restrictions imposed by the Alcohol etc. (Scotland) Act 2010 which, among other measures, imposed restrictions on the display of alcoholic drinks and the use of multi-buy promotions for alcoholic drinks in Scotland. The introduction of MUP has further constrained the type of promotions that retailers are able to run.

The retailers we spoke to said that MUP prevents them and their competitors from offering discounts on some products that would previously have retailed slightly above 50ppu. However, this primarily applies to larger retailers where discounting is more prevalent. For example, the national chain of supermarkets reported that MUP prevents it from offering significant discounts on well-known 'value' products such as Gordon's gin, Smirnoff vodka or large packs of beer and cider. Likewise, a spirits producer also reported that some of its 1 litre bottles of blended Scotch whisky would usually have discounted to £15, but MUP had made this promotion impossible.

There is some evidence that MUP has encouraged retailers and producers in Scotland to promote 'premium' products rather than promoting 'value' products and large packs:

- The national chain of supermarkets reported attempting to attract footfall by offering significant discounts on 'premium' products from well-known brands rather than 'value' products which can no longer be heavily discounted. For example, it discounted a 70cl bottle of spirits to £11.
- The large spirits producer confirmed that some of its 'premium' products now regularly compete around the MUP price point when they are being promoted.
- The own-label spirits producer also reported increasing promotional spending on certain 'premium' products in response to MUP.

The promotion of 'premium' products to prices close to the MUP price point further crowds this segment of the market. This has adverse effects on the sales of certain products. A producer reported that this makes it harder for 'value' and 'own-label' products to compete and retain their market share.

While MUP has facilitated this trend towards discounting 'premium' products, the national chain of supermarkets explained that promotions were generally run nationwide and MUP was not the only factor that had triggered the shift. It stated that the premiumisation trend observed across the UK also played an important role in these promotion decisions.

Promotions at convenience and specialist stores have not been impacted as much by MUP. These retailers stated that MUP occasionally limits how significant discounts on certain products can be (e.g. large packs of beer) but it has not led to a shift of promotions towards more 'premium' products.

- One specialist retailer reported that it needed to be more careful with shelf-life management, as it was no longer able to discount expiring stock.
- One of the brewers also noted that 'retailers can't offload damaged or expiring stock because of MUP… and as a consequence will take a hit'.

Changes in products and strategies are limited because Scotland represents a small share of many firms' business

A number of the producers and retailers reported that the impact of MUP on their strategy and product offering was limited because sales to Scottish consumers only represent a small share of their business.

For producers, the largest beer and spirits suppliers in the industry are international groups which produce at the national or international level and do not devote resources to Scotland-specific product differentiation:

- The large spirits producers stated that fewer than one in twenty bottles of whisky produced in Scotland is consumed within the UK (the proportion of the production that is sold in Scotland is even lower). Most Scotch whisky producers are therefore not particularly affected by changes to the Scottish market and have not responded to the introduction of MUP.
- One of the brewers said that Scotland represented less than 9% of UK consumption and, therefore, that product innovations for Scotland alone would be limited for producers trading across the UK.

4.2.4 Competitive response

KEY MESSAGES

- Increases in producer/wholesale prices have been limited.
- MUP has led to higher average wholesale margins for certain producers because MUP prevents investments in promotions.
- In some categories MUP may, in principle, act as a barrier to entry for new producers.
- There is little evidence of significant diversion from discounters and supermarkets to convenience and specialist retailers.
- There is little evidence that retailers have directly shared any MUP surplus with consumers by discounting non-alcoholic products.
- MUP may incentivise retailers to favour 'value' products over 'premium' products.
- MUP has not had a substantial effect on on-trade footfall or volumes.

In addition to the responses of individual consumers, retailers and producers, the case studies provided initial evidence on the impacts of MUP on competitive dynamics:

- between retailers and producers;
- among retailers; and
- among producers.

Increases in producer/wholesale prices have been limited

As discussed in previous sections, MUP has led to an increase in retail prices for a number of alcoholic drinks. However, there is little evidence that these price

increases have been passed on, in whole or in part, to the wholesalers or producers of affected products.

The national chain of supermarkets reported that it had not renegotiated the wholesale price it pays to most suppliers as a result of MUP because those prices are generally negotiated at the national level. This was confirmed by producers. Both spirits producers and one of the brewers stated that wholesale prices had been unaffected by the introduction of MUP:

- One of the brewers stated that it has to charge a uniform price across the UK, even if retailers are selling some alcoholic drinks at a higher price in Scotland.
- The own-label spirits producer stated that: 'Suppliers generally do not negotiate prices for Scotland; there is one price for the whole of the UK. This is part of the reason why wholesale prices have not changed and retailers thus do not share higher margins with suppliers'.

Convenience and specialist stores, particularly those that source their products from cash and carry wholesalers, provided mixed evidence on the impact of MUP on wholesale prices. Some retailers did not observe any changes to wholesale prices caused by MUP. Other retailers noticed slight increases in prices of products that were heavily impacted by MUP. For instance, one specialist retailer reported that the price paid for a 6-pack of 2 litre bottles of cider had increased from £11.00 to £13.00. Similarly, one convenience retailer reported that a wholesaler of spirits had increased its price in anticipation of the introduction of MUP. None of the small retailers suggested that MUP had caused price increases for products previously retailing above MUP.

MUP has led to higher average margins for certain producers because MUP prevents investments in promotions

While MUP has not so far had material impacts on wholesale or producer prices, according to our case study evidence, there is some evidence that average margins of some suppliers have increased due to the constraints MUP has imposed on product promotions.

Product promotions generally involve 'joint investment' by both retailers and suppliers, since both benefit from higher sales. For example, the own-label spirits producer reported that a typical promotion might involve the wholesale price decreasing by approximately 50% and the retail price decreasing by approximately 25% (see Figure 29).

Figure 29 Example of product promotion

	Non-promotion	Promotion
Wholesale price	£2.75	£1.20
Retail price	£20.00	£15.00

Source: Case study evidence.

Note: Wholesale price excludes alcohol duties and VAT.

As MUP prevents retailers from offering discounts on certain products, some producers may get higher average margins because they do not (and cannot) 'invest' in promotions. This is likely to be more relevant for producers of 'value' products.

Both spirits producers and the national chain of supermarkets confirmed that MUP had affected promotional wholesale prices in Scotland:

- The large spirits producer stated that it had 'flexed' its wholesale prices to reflect Scotland-specific promotions. However, it added that this was linked to restrictions imposed by both MUP and existing Scotland-specific regulation, and that it only applied to a very small share of sales.
- The own-label spirits producer stated that, as a result of MUP 'promotions have decreased and as a consequence the amount of promotional investment has fallen in line with the drop in volume'.
- The national chain of supermarkets stated that some suppliers benefit from higher average margins because their products can no longer be discounted .

In some categories MUP may, in principle, act as a barrier to entry for new producers

The own-label spirits producer said that in some relatively mature categories, MUP could act as a barrier to entry by limiting the ability of new entrants to offer products at introductory discounted prices. However, the producer did not identify evidence of this having happened in practice.

It noted that the blended whisky category, for example, is dominated by a few large brands which have been on the market for some time. The category is value driven and MUP prevents new entrants from undercutting established brands, thereby reinforcing the position of the few mainstream brands.

However, one of the brewers and the large spirits producer stated that MUP had not constrained its product innovation, primarily because Scotland only accounted for a small share of its market.

There is little evidence of significant diversion from discounters and supermarkets to convenience and specialist retailers

Most of the retailers involved in the case studies, including convenience retailers, specialist retailers and the national chain of supermarkets, reported that MUP had reduced the price differential that exists between supermarkets and smaller retailers, making convenience and specialist stores more competitive.

The chain of supermarkets we spoke to reported that there was some evidence that price equalisation across stores for a number of products had led to a shift of consumers from discounters to supermarkets, and from supermarkets to convenience and specialist stores. It also stated that supermarkets which used to offer alcoholic drinks at higher prices may benefit more from the introduction of MUP.

Some convenience stores reported seeing MUP as an opportunity to become more competitive relative to supermarkets, as they expect MUP to prevent supermarkets from offering discounts that convenience stores cannot afford to offer. However, none of the convenience and specialist retailers we spoke to had observed an increase in footfall or sales of alcoholic drinks since MUP has been introduced.

Lastly, one specialist retailer reported that the price difference between itself and supermarkets had in fact increased for some 'premium' product lines because supermarkets had increased promotions on such products.

There is little evidence that retailers have directly shared any MUP surplus with consumers by discounting non-alcoholic products

Overall, retailers did not describe deliberately promoting or discounting non-alcoholic products in response to MUP.

While the national chain of supermarkets noted that it strategically invests in discounting products to remain competitive with other supermarkets, it did not change its promotional strategy in response to MUP. In particular, it did not lower the prices of complementary non-alcoholic products such as tonic water or soda water.

The convenience and specialist retailers did not specify any changes to their promotions of non-alcoholic products in response to MUP.

MUP may incentivise retailers to favour 'value' products over 'premium' products

As previously discussed, one effect of MUP is that it allows retailers to increase the price of some 'value' products without having a substantial impact on volumes or wholesale prices. This leads to an increase in retailer margins on the affected 'value' products, which could potentially change retailers' preferences over which products to stock.

The small brewer reported facing pressure from retailers to reduce its wholesale prices. It explained that the higher margins earned by retailers on 'value' products had led it to pressure 'premium' producers to reduce wholesale prices to allow retailers to realise similar margins on 'premium' products. The brewer reported that this pressure, partially caused by MUP, had prevented it from increasing wholesale prices as it had otherwise planned to do.

Conversely, the own-label spirits producer reported that consumer preferences, rather than margins, determine what supermarkets stock and promote. Alcoholic drinks are often considered a footfall driver and retailers are generally not willing to risk losing customers by de-listing popular products or narrowing their offering in any way.

MUP has not had a substantial effect on on-trade footfall or volumes

The off-trade and on-trade retailers we spoke to agreed that MUP is unlikely to lead to significantly higher footfall at pubs and bars.

The on-trade retailer estimated that MUP had led to an increase in footfall of, at most, 1% on average across its sites, although it acknowledged that it was difficult to separate the effects of MUP from confounding factors. It stated that, while increased off-trade prices definitely made 'stockpiling' drinks at home less attractive, it did not believe it would encourage large amounts of switching to on-trade retailers.

The on-trade retailer, which operates a variety of types of on-trade premises (including nightclubs, bars and pubs), believed that its experience was representative of other on-trade retailers and did not expect any of its competitors to significantly benefit from MUP.

This observation was confirmed by the chain of supermarkets and one of the brewers:

- The national chain of supermarkets stated that it may lose footfall to convenience stores but probably not to the on-trade. It stated that 'there is more than just a difference in prices between shops and pubs. It is a different experience'.
- One of the brewers stated that it had been monitoring the impact of MUP on on-trade closely and did not believe that it had had any measurable effect to date.

4.2.5 Confounding factors

KEY MESSAGES

- The consumer-led 'health agenda' may also be contributing to reduced alcohol consumption and increased switching to low-ABV and 'premium' products.
- Sporting events such as the World Cup and good weather in the summer following the introduction of MUP had a positive impact on sales.
- The Scottish market is relatively small and any impact of MUP will be very small relative to the scale of some national retailers and multinational producers.
- Other regulatory changes have affected some businesses in similar ways to MUP.

The alcoholic drinks industry is dynamic. Some of the impacts of MUP on the Scottish alcoholic drinks industry may be difficult to differentiate from contemporaneous trends in the market. This section presents the wider trends which retailers and producers believe make it difficult to estimate the true impact of the MUP policy.

The consumer-led 'health agenda' may also be contributing to reduced alcohol consumption and increased switching to low-ABV and 'premium' products

Respondents suggested that in addition to premiumisation, consumers' consumption patterns are changing in a number of ways that may have common effects with MUP:

- **The type of products consumers demand is changing**. Evidence suggests that people are consuming less wine and beer than in the past, preferring spirits. The decline in beer is stronger in Scotland than in the rest of the UK, but the case studies did not provide sufficient evidence to attribute this difference to MUP. Within the spirits category, demand for gin and vodka is increasing, while demand for whisky is decreasing.
- Alcohol consumption patterns may also be impacted by the **wider 'health agenda'** that affects the entire food and drinks sector. The national chain of supermarkets observed that consumers, and younger people in particular, are becoming more health conscious and are demonstrating a willingness to adopt healthier drinking habits. It suggested that this trend of moderation has common effects with MUP, leading to a reduction in total volumes of alcoholic

drinks and consumption of smaller format sizes. The case studies did not provide sufficient evidence to attribute these changes, in part or in whole, to the introduction of MUP.

- The moderation trend has also led to **the introduction of low-ABV products and alcohol-free products** across the UK. This trend has common effects with MUP. According to some retailers, the introduction and increased consumption of these products cannot be attributed wholly to MUP. Some of these products have been on the market for some years already, and others have been introduced across the UK. Nevertheless, the national chain of supermarkets and one specialist retailer mentioned that sales of these products may have gone up slightly after the introduction of MUP.

Sporting events such as the World Cup and good weather in the summer following the introduction of MUP had a positive impact on sales

Most of the retailers and producers involved in the case studies reported that the net impact of MUP on volumes is hard to quantify because sales are influenced by other events and conditions. The most commonly cited examples were the warm weather in the summer of 2018 and the FIFA World Cup that took place in June/July 2018. The retailers and producers we spoke to agreed that these factors had increased demand for alcoholic drinks across the UK.

Favourable and adverse conditions made it difficult for firms to evaluate the net impact of MUP on volumes in the short term. The own-label producer said that: ‘there are too many confounding factors to reach a definite conclusion on the net impact of MUP at this point’.

Additionally, the on-trade retailer mentioned growth in tourism in Edinburgh as a confounding factor, and the small brewer said it was operating under capacity constraints, which makes it difficult to attribute any volume impact to MUP.

The Scottish market is relatively small and any impact of MUP will be very small relative to the scale of some national retailers and multinational producers

Many of the businesses involved in the case study process (including the national chain of retailers, both spirits producers and one of the brewers) have business across the UK and sometimes internationally. Some of these firms reported that the impact of MUP is likely to get ‘lost in the noise’.

Both of the spirits producers produce and sell alcoholic drinks overseas. They import and export large quantities of products, and Scottish consumers represent only a fraction of their consumer base. For example, the large spirits producer explained that over 95% of the Scotch whisky production is exported outside of the UK and any impact on volumes in Scotland is thus likely to be small enough to be easily absorbed by the firm.

Similarly, the own-label spirits producer stated that changes in consumption in Scotland are unlikely to affect investment decisions and employment decisions (apart from sales teams) because these decisions are primarily driven by prospects in the wider UK market and export markets.

Other regulatory changes have affected some businesses in similar ways to MUP

A number of retailers and producers stated that the impact of the MUP policy on their business was small in comparison to past regulatory changes that had affected the alcoholic drinks industry in similar ways.

The majority of convenience and specialist retailers involved in the case studies reported that other changes in the legal framework had impacted their business more than MUP:

- A premium specialist retailer which was not selling any products below 50ppu prior to MUP being introduced stated that the impact of increased alcohol excise duty on wine (determined by the UK government) was more substantial than the impact of MUP.
- One convenience retailer reported that it had been more impacted by the ban on multi-pack promotions than by the increase in some prices caused by MUP.
- Another convenience retailer reported that the impact of MUP on the store's profitability was minor in comparison to the changes brought by the Licensing Act and the Alcohol Act.

Lastly, organisations which export to or import from the European Union said that they were more concerned by the necessary adaptations following the UK's exit from the EU than by the MUP policy.

In addition to regulatory changes, the retailers and producers we interviewed pointed to some other factors that made it difficult to observe the impact of MUP:

- A convenience retailer said that footfall and profitability were more impacted by general economic conditions than MUP, citing the financial crisis as an example: 'we took a significantly stronger hit following the financial crisis than following the introduction of MUP'.
- The small brewer we spoke to did not attribute many of the changes in the market it observed entirely to MUP. Its sales were also impacted by the capacity constraint imposed by the microbrewery status (it was not able to expand without becoming liable for higher excise duties) and other operational constraints.

4.3 Preliminary conclusions

KEY MESSAGES

- Overall effects on retailer revenue and prices are small as increased margins have compensated for decreased volumes, though the impact depends on the mix of alcoholic drinks sold pre-MUP.
- The effect on producer revenues and profitability is negative but small.
- No retailers or producers reported closing local units, reducing staff numbers or reducing investment.
- Evidence presented in this section is based on self-reported observations from a sub-set of firms.

The following preliminary conclusions are based on the self-reported observations of the sub-set of firms that participated in the first wave of case studies.

Overall effects on retailer revenue and profit are small as increased margins have compensated for decreased volumes, though the impact depends on the mix of alcoholic drinks sold pre-MUP

Overall, retailers reported that MUP had resulted in a small but significant decrease in volumes of alcoholic drinks, particularly for own-label alcoholic drinks and high-strength cider. However, most retailers added that the value of sales of alcoholic drinks was largely unchanged because of increased prices for these products and because of consumers switching between alcoholic drinks.

- The national chain of supermarkets reported that the sales value of alcoholic drinks at its stores had increased by 7.7% year on year in Scotland, compared with 8% in England. It stated that: 'value of sales is holding within beers, wines and spirits; but MUP means that people just get less for their money'.
- A specialist retailer and a convenience retailer observed that MUP had not caused a decrease in profitability because the decrease in volume was compensated for by higher margins. Other retailers added that any impact of MUP was minor compared with that of the other alcohol licensing regulations.
- One specialist retailer stated that the drop in volumes had not been compensated for by higher margins because the store had previously been selling a lot of high-strength cider. It suspected that MUP had had a negative impact on the profitability of the store but said that it would understand the impact better in the future.

The effect on producer revenues and profitability is negative but small

As MUP has reduced volumes of alcoholic drinks in Scotland (compared with expected volumes in the absence of MUP) without impacting wholesale prices, the overall effect on producers has been negative.

However, because MUP has only affected a small share of alcoholic drinks, and because Scotland is only a small market for many producers, the effect of MUP on revenues and profitability is small or negligible.

Indeed, when asked about the impact of MUP on profitability, the producers we spoke to generally mentioned other factors that were driving profitability:

- The large spirits producer stated that the value of revenues from alcoholic drinks had increased for a range of reasons, including the devaluation of the pound since the EU referendum in 2016.[27]
- The own-label spirits producer stated that revenues from alcoholic drinks remained under pressure from the trend towards premiumisation, as demand for 'value' products had declined.

[27] The devaluation of the GBP means that alcohol exported from the UK is relatively cheaper for consumers than alcohol produced in other countries, assuming all else is equal. This is likely to result in increased volumes and profitability for UK producers.

No retailers or producers reported closing local units, reducing staff numbers or reducing investment

None of the retailers or producers we interviewed have closed local units or reduced staff numbers since the introduction of MUP, and none anticipated doing so as a result of MUP:

- The national chain of supermarkets stated that 'MUP should not have an impact on number of stores and employment'.
- The chain of on-trade retailers stated that there had not been a change in the number of units in the past 12 months.

Moreover, the retailers and producers we spoke to did not believe MUP would change their investment going forward.

The small brewer did note that other brewers had gone out of business in the previous nine months. However, it said this was largely due to competition from larger brewers, rather than attributing it to the introduction of MUP.

Evidence presented in this section is based on self-reported observations from a sub-set of firms

There are a number of key limitations to the qualitative analysis:

- Evidence is primarily self-reported by case study firms.
- Only a sub-set of firms were interviewed as part of the case studies.
- The evidence collection occurred around nine months after MUP was implemented, meaning that some longer-term impacts may not yet have materialised.

Evidence supporting a hypothesis should, therefore, be interpreted with appropriate caution. Likewise, the absence of evidence supporting a hypothesis should not be interpreted as a rejection of that hypothesis. Such an absence of evidence may instead result from the interviewed firms were not observing the effect, or it being too early for them to observe the effect.

5 CROSS-BORDER ANALYSIS

5.1 Methodology

5.1.1 Background

Frontier Economics conducted supplementary evidence collection and analysis to help understand the impact of the MUP policy on cross-border purchasing behaviour: where consumers purchase alcoholic drinks from retailers in England for consumption in Scotland.

As MUP only applies to alcoholic drinks sold by retailers in Scotland, it is possible for consumers to legally pay below MUP on some products by purchasing them from a retailer located elsewhere in the UK. This can happen through a number of channels:

1. Individuals purchase alcoholic drinks from physical retailers located elsewhere in the UK for their own consumption in Scotland, or for unlicensed resale at below MUP prices.
2. Individuals purchase alcoholic drinks online from retailers located elsewhere in the UK for their own consumption in Scotland.
3. Retailers purchase alcoholic drinks from producers, wholesalers or distributors located elsewhere in the UK for retail in Scotland.

For the purposes of this supplementary analysis, the first of these channels was within the scope of this study.

This behaviour has the potential to both:

- weaken the impact of MUP on alcohol-related harm; and
- have a negative impact on alcoholic drinks retailers in Scotland.

The incentive for cross-border purchasing will be influenced by a number of factors, including the cost savings (or profitability) associated with the purchase and the additional transport and storage costs associated with the purchase. It is expected that these incentives are likely to be highest for Scottish consumers who live or work near to the England/Scotland border.

5.1.2 Approach

This supplementary analysis aimed to collect evidence on the perceived impact of the MUP policy on cross-border purchasing behaviour, and any effect on the revenue, profitability or employment at affected retailers. The evidence was collected from two sources:

- semi-structured interviews with eight retailers located near to the England/Scotland border; and
- supplementary questions for off-trade retailers participating in the case study evidence collection.

The evidence collection from the retailers located near to the England/Scotland border was carried out in five steps.

1. Develop an interview topic guide

We developed a short interview topic guide focused on obtaining qualitative views on the scale of behavioural change and business responses, as well as quantitative supporting evidence where available. The topic guide asked retailers to describe changes to their business since the introduction of MUP and to identify the extent to which these changes could be attributed to the introduction of MUP and their proximity to the England/Scotland border. The topic guide is presented as Annex H to this report.

2. Identify interview subjects

Using desk research, we identified a long-list of 46 retailers located within approximately 10 miles of the border. We prioritised retailers that were close to population centres on the other side of the border, particularly those with good private or public transport options:

- In Scotland, these were primarily convenience retailers and specialist stores (both chain and independent retailers) located in border settlements such as Gretna, Jedburgh, Kelso, Coldstream and Eyemouth.
- In England, these were primarily convenience, medium and large retailers located in Carlisle and Berwick-upon-Tweed.

3. Contact stores to arrange interviews

We successfully contacted 22 retailers to invite them to participate in the interviews. Thirteen retailers accepted, and nine retailers declined.[28] Where a retailer accepted, we sent it a letter of invitation by mail informing it of the purpose of the interview and scheduled a time to conduct the interview with a store owner or manager.

4. Conduct interviews

We conducted 10 interviews with retailers. These comprised:

- Five retailers in England, including three large chain supermarkets, and two smaller chain convenience stores.
- Five retailers in Scotland, all of which were smaller chain convenience stores.

The interviews were conducted by telephone and lasted between 15 and 45 minutes. We followed an agreed process to ensure that participants understood the purpose of the study and how the evidence they provided would be used.

5. Analyse evidence

We used the evidence collected from the 10 semi-structured interviews, augmented with evidence from the national chain of supermarkets case study, to assess whether MUP has had an impact on cross-border purchasing behaviour, and whether this has affected retailer revenues, profitability or employment.

[28] The primary reason for retailers declining to participate was that they were not authorised to answer questions and were required to redirect enquiries to their respective head office.

We followed a similar process to that used to analyse the main case study interviews (see Section 4.1), populating an evidence matrix with themes in the columns and interviews in the rows, based on pieces of evidence gathered in each interview.

The results of this analysis are presented below.

5.2 Findings

5.2.1 Direct impacts on products previously selling under 50ppu

Scottish retailers have raised the prices of some product lines and de-listed others

As discussed in section 1.2, the Scottish retailers involved in the borders case studies reported that they had been required to increase the prices of a number of product lines to comply with the 50ppu MUP. One Scottish retailer estimated that it had increased prices on 5% of alcoholic drinks lines. Another retailer stated that it had increased prices on 20 to 25 product lines, primarily ciders, spirits and some budget wines.

Four of the five Scottish retailers stated that they had de-listed a product line where a substantial price increase was required. One retailer stated that it had de-listed 5 to 10 lines (primarily ciders). Another retailer said that it had de-listed a number of cider products, as well as Lambrini sparkling wine.

The fifth Scottish retailer did not sell any product lines below MUP and therefore had not raised prices or de-listed products as a result of the policy.

5.2.2 Changes to consumer demand

Volumes of alcoholic drinks have decreased slightly for Scottish retailers close to the border

The Scottish retailers that were required to raise prices stated that there had been a decrease in sales of alcoholic drinks since the introduction of MUP. One Scottish retailer estimated that sales of alcoholic drinks had decreased by approximately 10% since the introduction of the policy, with blended whisky and vodka most affected. Another retailer also estimated that sales had decreased by 10%, with cider most affected.

The retailers reported that consumer switching behaviours were similar to those reported in the main case studies. One retailer noted that consumers had switched to smaller format sizes, while another mentioned that consumers had switched to more premium brands.

Volumes of alcoholic drinks have increased for English retailers, but these are isolated to large retailers close to the border

Two of the large English retailers we spoke to reported a substantial increase in sales of alcoholic drinks following the introduction of MUP, as well as a smaller increase in footfall. One retailer stated that sales of alcoholic drinks for the period May to July 2018 were approximately 40% higher than May to July 2017. The second retailer stated that sales of alcoholic drinks for the period May to July 2018

were approximately 25% higher than in May to July 2017. Both retailers reported that the increase in sales of alcoholic drinks had declined slightly through the course of the year, but that sales were still well above normal.

One retailer noted that the increase in sales of alcoholic drinks could have been partly caused by the unseasonably warm temperatures and the World Cup. However, it understood that the increase in sales of alcoholic drinks close to the Scottish border were higher than for similar stores elsewhere in England.

The three other English retailers we spoke to did not report any change in sales of alcoholic drinks or general footfall since the introduction of MUP.

5.2.3 Cross-border purchasing behaviour

There is some evidence that a small number of consumers are crossing the border to purchase alcohol

All Scottish retailers reported that they were aware that some of their customers had started purchasing alcoholic drinks from English retailers following the introduction of MUP. One retailer stated: 'I've seen a few people go across the border…not massive but a few'. Two Scottish retailers suspected that those consumers who cross the border to purchase alcohol, also purchase other groceries as part of the same trip.

One larger English retailer reported noticing more Scottish people in its store but qualified this statement by saying that it had a large number of Scottish customers prior to MUP: 'There may be people coming just from MUP, but there is a Scottish base as well'. The other English retailers did not report evidence of increased cross-border purchasing activity. The retailer noted that those consumers who do cross the border to purchase alcoholic drinks also buy non-alcoholic products: 'they buy their entire basket'.

A large number of Scottish consumers already purchased alcoholic drinks and groceries from English stores

Three of the Scottish retailers involved in the case study reported that cross-border purchasing activity pre-dated the introduction of MUP. One Scottish retailer noted that many of its customers had conducted weekly shops at large retailers on the English side of the border prior to MUP. Another stated that: 'Some people who were going to get their shopping [in England] before, also buy alcohol now'. Another noted that many of its customers worked in England and routinely purchased alcoholic drinks from English retailers prior to MUP.

Likewise, two of the English retailers reported that cross-border purchasing activity pre-dated MUP. One retailer reported that it often had Scottish consumers going across, mostly in the holiday period. Another noted that Scottish consumers purchase groceries from its store when local Scottish stores are closed: 'Sunday yes when supermarkets are shut, people come from [redacted] but that has always been the case'.

There is no evidence of 'white van runs' or an increase in bulk purchasing behaviour

No retailers had knowledge of Scottish individuals crossing into England to buy large quantities of alcoholic drinks to distribute or resell to others, a practice

referred to as a 'white van run'. One English retailer reported that it had not seen any change in the bulk purchase of alcohol, adding that it did not stock sufficiently large quantities of alcoholic drinks to sustain such activity anyway. Another English retailer reported that it was aware of some bulk purchasing activity, primarily during the summer months, but did not attribute this to Scottish consumers or the impact of MUP.

Likewise, none of the retailers were aware of an increase in cross-border home deliveries to take advantage of lower prices in England. One Scottish retailer noted that home deliveries of alcoholic drinks were competing with its business but stated that this was not necessarily cross-border delivery and was unlikely to be related to MUP.

5.2.4 Other impacts and confounding factors

No evidence of a change in wholesale behaviour

The Scottish retailers involved in the case studies did not report any change in wholesale relationships following the introduction of MUP. In particular, they did not report considering English-based wholesalers as taking advantage of potential price differences.

One Scottish retailer noted that its wholesaler was located in Scotland and that 'cash and carry prices in Scotland are not affected by MUP'.[29] Another retailer stated that it was not aware of any changes to wholesale prices, but acknowledged that wholesale negotiations were carried out by its head office.

No evidence of a substantial impact on turnover, profitability or employment

The Scottish retailers involved in the case studies did not report any significant change in profitability, turnover or employment following the introduction of MUP. One retailer noted that any decrease in volumes of alcoholic drinks for lines of directly affected products was likely to be compensated for by higher margins. Another acknowledged that profitability was slightly higher as a result of MUP. A third retailer suggested that it would consider not renewing its alcohol licence due to lower volumes of alcoholic drinks. No retailers expected substantial changes to profitability, turnover or employment in the future.

Other regulatory differences are a stronger driver of cross-border purchasing behaviour

Scottish retailers reported that they were aware of a range of other regulatory differences between England and Scotland that had an impact on cross-border purchasing activity. One retailer noted that English retailers can offer attractive multi-pack deals which are not permitted in Scotland, which may lead some Scottish consumers to purchase their alcoholic drinks from English stores. The retailer also noted that licensing rules are stricter in Scotland, making it more costly to maintain an off-trade alcohol licence.

[29] Cash and carry refers to a category of wholesaler used by retailers, particularly convenience retailers.

5.3 Conclusions

In conclusion, there is some evidence of Scottish consumers engaging in cross-border purchasing behaviour, primarily affecting retailers in the immediate vicinity of the border (within 15km), particularly those near major English towns such Carlisle and Berwick-upon-Tweed.

In Scotland, the small decrease in sales of alcoholic drinks is evenly distributed across a large number of smaller retailers (but there is insufficient evidence to show that the effect on these stores is different to the effect on retailers elsewhere in Scotland). There is indirect evidence that some of this decrease can be attributed to MUP-driven cross-border purchasing behaviour, but this generally involves individuals shopping for themselves, rather than engaging in 'white van runs'.

Retailers noted that many consumers who live in Scotland near the English border work in Carlisle or Berwick-upon-Tweed, or conduct weekly grocery shopping in these towns, meaning that cross-border purchasing activity pre-dated the introduction of MUP. Retailers also noted that there were a range of regulatory differences between England and Scotland that had an impact on cross-border purchasing prior to MUP.

In England, the increase in cross-border purchasing behaviour is concentrated in one or two large retailers in major towns. There is no evidence of a change for smaller English retailers.

There is no evidence of MUP having a substantial impact on the profitability, turnover or employment of Scottish retailers.

ANNEX A RAPID EVIDENCE REVIEW

The following literature was reviewed as part of the rapid evidence review:

Crawford, I. and Tanner, S., (1995), 'Bringing It All Back Home: Alcohol Taxation and Cross-Border Shopping', Fiscal Studies, Volume 16(2).

HMRC (2014), 'Estimation of Price Elasticities of Demand for Alcohol in the United Kingdom', HMRC Working Paper 16.

HMRC (2010), 'Econometric Analysis of Alcohol Consumption in the UK', HMRC Working Paper 10.

Holden, C. and Hawkins, B., (2012), '"Whisky Gloss": The Alcoholic Drinks Industry, Devolution and Policy Communities in Scotland', Public Policy and Administration, Volume 28(3), 253-273.

McCambridge, J., Hawkins, B. and Holden, C., (2013), 'Industry Use of Evidence to Influence Alcohol Policy: A Case Study of Submissions to the 2008 Scottish Government Consultation', PLoS Med, Volume 10(4).

Nicholls, J., (2002), 'Alcohol Licensing in Scotland: A Historical Overview', Addiction, Volume 107(8), 1397-1403.

Pinkse, J. and Slade, M., (2004), 'Mergers, Brand Competition, and the Price of a Pint', European Economics Review, Volume 48(3), 617-643.

Robinson, M., Geue, C., Lewsey, J., Mackay, D., McCartney, G., Curnock, E. and Beeston, C., (2013), 'Investigation of the Effect of a Multi-buy Discount Ban on Off-trade Alcohol Sales: A Natural Experiment in Scotland', The Lancet, Volume 382(S17).

Robinson, M., Thorpe, R., Beeston, C. and McCartney, G., (2012), 'A Review of the Validity and Reliability of Alcohol Retail Sales Data for Monitoring Population Levels of Alcohol Consumption: A Scottish Perspective', Alcohol and Alcoholism, Volume 48(2), 231-240.

Slade, M., (2004), 'Market Power and Joint Dominance in UK Brewing', The Journal of Industrial Economics, Vol. 52(1), 133-163.

ANNEX B STAKEHOLDER ENGAGEMENT

Figure 30 Stakeholder engagement list

Contact	Organisation	Date	Purpose
Round table	National Assoc. of Cider Makers; Wine and Spirits Trade Assoc.; Scotch Whisky Assoc.; C&C Group	09/10/2018	Develop ToC
Meeting	Frontier Economics	23/10/2018	Develop ToC
Email	National Assoc. of Cider Makers	23/10/2018	Develop ToC
Email	Aston Manor	23/10/2018	Develop ToC
Email	Wine and Spirits Trade Assoc.	23/10/2018	Develop ToC
Email	Tennent's	24/10/2018	Develop ToC
Email	Scottish Beer and Pub Assoc.	24/10/2018	Develop ToC
Email	Scotch Whisky Assoc.	24/10/2018	Develop ToC
Email	Scottish Retail Consortium	24/10/2018	Develop ToC
Email	Scottish Licensed Trade Assoc.	24/10/2018	Develop ToC
Email	Scottish Grocers Federation	24/10/2018	Develop ToC
Email	Scottish Government	26/10/2018	Develop ToC
Email	SBR Centre	26/10/2018	Develop ToC
Email	CDRC	26/10/2018	Develop ToC
Call	Wine and Spirits Trade Assoc.	01/11/2018	Develop ToC
Call	Scotch Whisky Assoc.	01/11/2018	Develop ToC
Call	Scottish Beer and Pub Assoc.	01/11/2018	Develop ToC
Meeting	Frontier Economics	01/11/2018	Develop ToC
Call	Scottish Licensed Trade Assoc.	06/11/2018	Develop ToC
Call	Scottish Grocers Federation	08/11/2018	Develop ToC
Call	Aston Manor	12/11/2018	Develop ToC
Email	Aston Manor	19/11/2018	Validate ToC
Email	Wine and Spirits Trade Assoc.	19/11/2018	Validate ToC
Email	Scotch Whisky Assoc.	19/11/2018	Validate ToC
Email	Scottish Licensed Trade Assoc.	19/11/2018	Validate ToC
Email	Scottish Grocers Federation	19/11/2018	Validate ToC
Email	Scottish Beer and Pub Assoc.	19/11/2018	Validate ToC
Email	C&C Group	20/11/2018	Validate ToC
Email	British Retail Consortium	20/11/2018	Validate ToC

Source: Frontier Economics

ANNEX C DATA SOURCES

C.1 Annual Business Survey (ABS)

Description

- The ABS is an annual survey of businesses covering the production, construction, distribution and services industries, which represent about two-thirds of the UK economy in terms of GVA.
- It is the main resource for understanding the detailed structure and performance of businesses across the UK and is a large contributor of business information to the UK National Accounts.
- The ABS provides a number of high-level indicators of economic activity such as the total value of sales and work completed by businesses, the value of purchases of goods, materials and services, and total employment costs.
- The survey data of the ABS is combined with employment information from the Business Register and Employment Survey (BRES).

Survey process, sampling procedure and questionnaire design

- The sampling frame for the ABS is the list of UK businesses on the Inter-Departmental Business Register (IDBR).
- Every year, ABS questionnaires are sent by ONS to around 62,000 businesses in Great Britain.
- Businesses are sent questionnaires in January and February and are asked to answer questions on their business activities in the previous fiscal year. The questionnaires are sector specific and exist in two versions – a 'short' version and a 'long' version asking for more detailed breakdowns.
- An enterprise is defined as the smallest combination of legal units within an enterprise group which have a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise may consist of one or more sub-units (called local units) – for example, the head office for a group of shops. An enterprise may therefore have local units at different locations and may carry out more than one type of economic activity.
- A local unit is an enterprise or part thereof (e.g. a workshop, factory, warehouse, office, mine or depot) situated in a geographically identified place. The business unit to which questionnaires are sent is called the reporting unit. For the majority of the businesses, the reporting unit is the same as the enterprise.
- Reporting units return total values that represent one or many local units of that business. Local unit information is not requested in addition to reporting unit information due to the extra burden this would place on businesses.
- To produce ABS regional data, the reporting unit data must be apportioned among the local units of that business. Regional data are apportioned based on local unit industry classification, employment size and regional location.

- Sample selection is carried out using a stratified random sample design. Groups of reporting units (cells) are defined by three strata: employment size band; SIC; and geographical region (England and Wales, and Scotland). There are around 4,800 of these cells in the ABS design. Sample selection occurs independently for each cell. When the sample is designed, the size of the sample in each cell is determined by an algorithm, which distributes the sample among the cells to give the lowest estimated variance (uncertainty). This design is significantly more efficient (that is, it gives a much more accurate estimate for the same sized sample) than a simple, unstratified random sample.
- In order to meet the minimum accuracy standards required by its users, the ABS questionnaire response rate target is at least 64% of businesses by the end of August and 74% by the end of December. Imputation techniques are used to estimate the value of the missing data due to non-response for large businesses. For non-responding small businesses, imputation is not performed and estimation weights are adjusted.

Estimation of totals

- It is not possible to collect data on every business every year because the burden on businesses would be too great, the cost of running such a census would be prohibitive and a well-designed sample survey can produce better estimates than a census with a poor response rate.
- In order to calculate the estimates for an entire population from data collected from a sample, the ABS uses standard statistical weighting methods.

Measures of interest

- Turnover is defined as the total value of sales. This is calculated by adding together the values of sales of goods produced, goods purchased and resold without further processing, work done, industrial services rendered and non-industrial services rendered.
- Value of output is the total defined as the approximate total output at basic prices. It includes total turnover, changes in total stocks, work of a capital nature and net taxes on production (business rates etc.). It excludes VAT, the value of goods and services bought for resale without further improvement and total net taxes.
- Approximate gross value added (aGVA) represents the amount that individual businesses, industries or sectors contribute to the economy. It is measured by the income generated by the business, industry or sector less their intermediate consumption of goods and services used up in order to produce their output, labour costs and operating surplus (or loss).

$$aGVA = output\ at\ basic\ prices - intermediate\ consumption$$

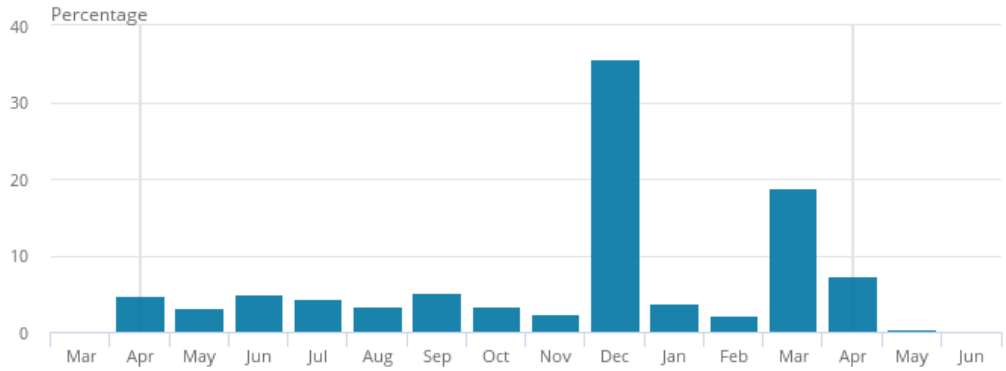
$$aGVA = total\ turnover + movemement\ in\ total\ stocks + work\ of\ a\ capital\ nature\ carried\ out\ by\ own\ staff + value\ of\ insurrance\ claims\ received + other\ subsidies\ received + amounts\ paid\ in\ business\ rates + amounts\ paid\ in\ Vehicle\ Excise\ Duty - total\ purchases - amounts\ received\ through\ the\ Work\ Programme - total\ net\ taxes$$

- For enterprises of division 47 (retail), turnover by commodity is collected. This is a breakdown of the total retail turnover within the retail sector into groupings of like items based upon the European Classification of Individual Consumption by Purpose.

Calendar year mostly

- Respondents to the ABS are required to return data for a number of financial variables, ideally for the most recent calendar year–that is, for the period January to December. However, to reduce the burden on survey respondents, they are given the option to return data covering a business year ending on any date in a specified range. For example, for a particular survey year, the range for acceptable business year-ends was between 6 April and 5 April. As a result, the returns for that year are for a mixture of 15 different 12-month reference periods. See Figure 31.
- Currently, no adjustment is made for the differing reporting periods; however, it is possible that, particularly if the economy is undergoing a period of rapid change such as during a recession, the different reporting periods could introduce some bias into the ABS published estimates.

Figure 31 Distribution of respondents to the Annual Business Survey by end reporting month



Source:
https://www.ons.gov.uk/businessindustryandtrade/business/businessservices/methodologies/annualbusinesssurveytechnicalreportaugust2018

- The SIC code of a local unit is not necessarily the same as the SIC code of its parent enterprise.

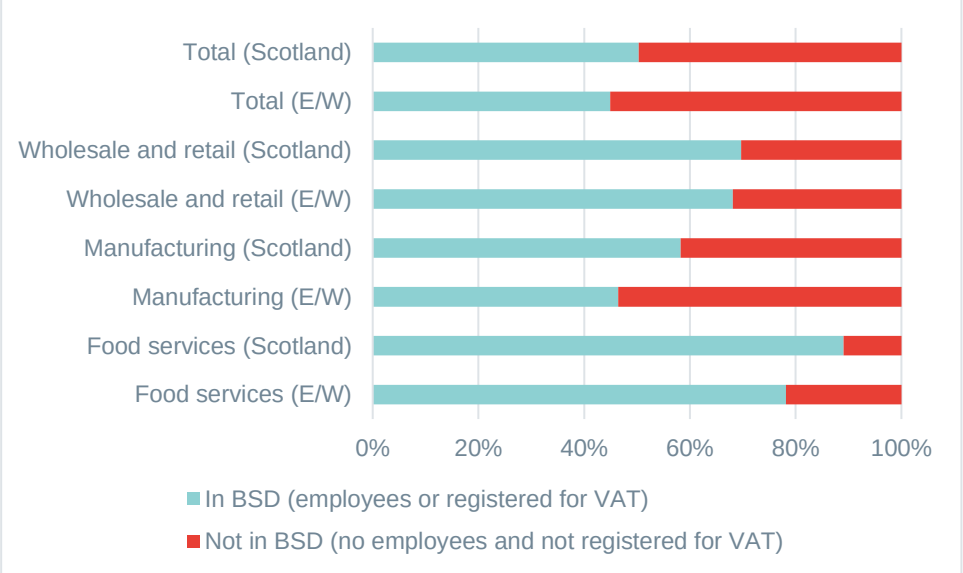
C.2 Business Structure Database (BSD)

- The IDBR is a comprehensive list of UK businesses used by government for statistical purposes. Businesses are added to the IDBR if they are:

- Registered for VAT with HMRC, or
- Registered for a PAYE scheme with HMRC, or
- An incorporated business registered at Companies House.

- The IDBR covers businesses in all parts of the economy, except some very small businesses; the self-employed and those without employees, both of which are not registered for PAYE, and those with low turnover, which are not registered for VAT; and some non-profit making organisations. There are 2.6 million businesses on the IDBR, covering nearly 99% of UK economic activity.
- Figure 32 presents the share of businesses which are estimated to be included in BSD (those with employees or registered for VAT) in Scotland and England/Wales, for the economy as a whole, the wholesale/retail sector, the manufacturing sector and the food services sector. This figure shows that BSD is likely to capture the majority of businesses in the alcoholic drinks industry, with particularly high shares in the food services sectors.

Figure 32 Share of businesses included in BSD, by region and sector

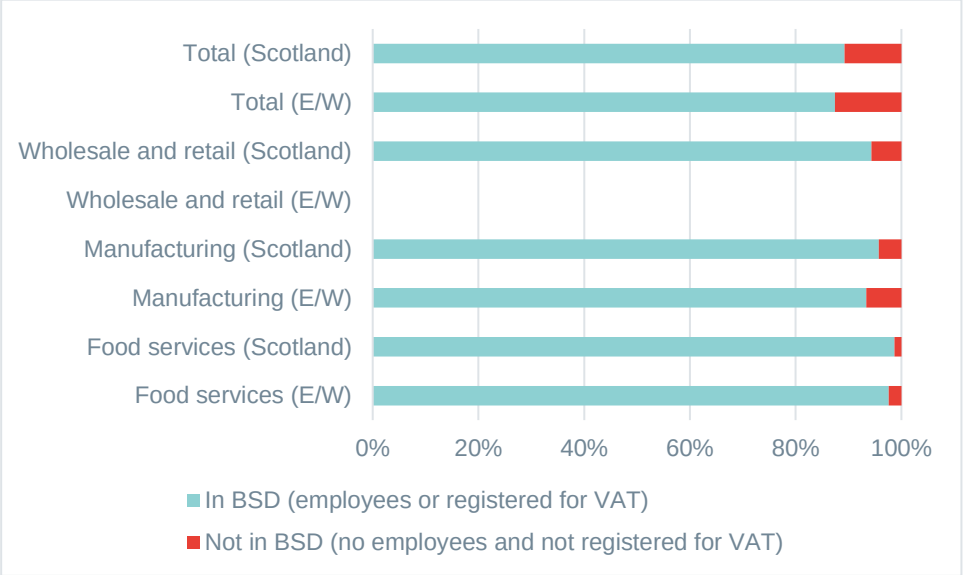


Source: *Frontier analysis of ONS 'Business population estimate for the UK and regions: 2018 statistical release'*

Note: *Wholesale and retail includes 'Repair of motor vehicles and motorcycles'; Food services includes 'accommodation services'.*

- Figure 33 presents the share of employment attributable to firms estimated to be included in BSD in Scotland and England/Wales, for the economy as a whole, the wholesale/retail sector, the manufacturing sector and the food services sector. This figure shows that BSD is likely to capture more than 90% of employment in the alcoholic drinks industry.

Figure 33 Share of employment included in BSD, by region and sector

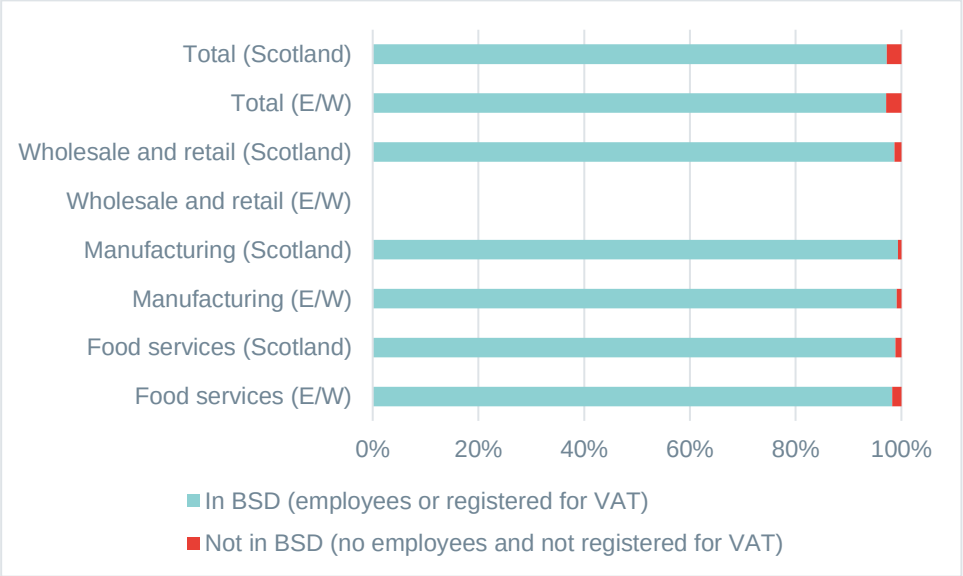


Source: *Frontier analysis of ONS 'Business population estimate for the UK and regions: 2018 statistical release'*

Note: *Wholesale and retail includes 'Repair of motor vehicles and motorcycles'; food services includes 'accommodation services'. Wholesale and retail (E/W) suppressed to avoid disclosure.*

- Figure 34 presents the share of turnover attributable to firms estimated to be included in BSD in Scotland and England/Wales, for the economy as a whole, the wholesale/retail sector, the manufacturing sector and the food services sector. This figure shows that BSD is likely to capture more than 98% of turnover in the alcoholic drinks industry.

Figure 34 Share of turnover included in BSD, by region and sector



Source: *Frontier analysis of ONS 'Business population estimate for the UK and regions: 2018 statistical release'*

Note: *Wholesale and retail includes 'Repair of Motor Vehicles and Motorcycles'; food services includes 'accommodation services'. Wholesale and retail (E/W) suppressed to avoid disclosure.*

- The BSD is a snapshot of the IDBR and as such is derived primarily from the IDBR, which is a live register of data collected by HM Revenue and Customs via VAT and PAYE records. The IDBR data are complemented with data from ONS business surveys.
- The BSD is a 'snapshot' in time of the IDBR, which is a live register of firms registered for VAT and/or PAYE in the UK.
- The IDBR is estimated to cover approximately 99% of UK economic activity.
- The 'snapshot' of the IDBR used for the BSD is taken around April annually; the reporting period for the firm is generally the financial year although the IDBR data are complemented with data from ONS business surveys and hence reporting periods can vary by firm depending on whether the record has been updated by survey data.
- The BSD snapshots contain approximately 2 million observations annually. The BSD is divided into two datasets, one covering 'enterprises' and the other 'local units'. An enterprise is the overall business organisation. A local unit is a 'plant', such as a factory, shop, branch etc.
- For each company on the BSD dataset, data are available on employment, turnover, foreign ownership, and industrial activity based on SIC. Year of 'birth' (company start-up date) and 'death' (termination date) are also included, as well as postcodes for both enterprises and their local units.

Measures of interest

- Employment and turnover are derived from administrative data (PAYE returns) used to construct the IDBR.
- When working with the BSD to look at employment, it is worth keeping in mind that even though it appears as a snapshot, the data do not refer to a single point in time. For some companies, there may be significant lags in reporting of the data.
- The BSD is a 'census', in that all businesses which are registered for VAT or PAYE are in it.[30]

[30] The BSD does not include very small businesses such as personal service companies that are below the VAT registration threshold and do not employ anybody using PAYE.

ANNEX D BASELINE DATA

Figure 35 Baseline data – specialist retail

Measure	Region	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of enterprises	Eng/Wales	9,841	10,215	5,888	5,692	5,547	5,631	5,671	5,727	5,723	5,736
Number of enterprises	Scotland	488	507	321	310	302	330	336	334	324	321
Number of local units	Eng/Wales	14,214	14,676	9,916	7,830	7,695	6,250	6,271	6,327	6,324	6,342
Number of local units	Scotland	984	1,009	783	662	651	421	427	420	414	403
Employment	Eng/Wales	54,719	56,742	45,403	32,264	31,918	22,718	22,779	22,652	22,983	23,348
Employment	Scotland	4,592	4,632	3,795	3,131	3,197	1,839	1,955	1,777	1,805	1,871
Turnover (£ million)	Eng/Wales	2,363	2,043	1,961	1,753	1,753	1,786	1,942	1,767	-	-
Turnover (£ million)	Scotland	217	132	128	140	135	139	132	119	-	-
Output value (£ million)	Eng/Wales	814	745	769	651	656	679	777	687	-	-
Output value (£ million)	Scotland	61	35	36	50	48	44	49	40	-	-
GVA (£ million)	Eng/Wales	469	469	484	427	431	428	476	428	-	-
GVA (£ million)	Scotland	37	27	27	35	30	28	33	25	-	-

Source: Frontier Economics analysis of ABS and BSD data

Figure 36 Baseline data – non-specialist retail

Measure	Region	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of enterprises	Eng/Wales	46,909	49,248	31,520	31,536	31,678	32,396	32,548	32,827	33,157	33,658
Number of enterprises	Scotland	5,980	6,188	3,677	3,630	3,585	3,671	3,720	3,724	3,728	3,726
Number of local units	Eng/Wales	68,331	72,667	52,232	46,411	46,862	47,987	48,740	49,152	50,041	50,211
Number of local units	Scotland	8,782	9,254	6,251	5,538	5,428	5,563	5,640	5,601	5,662	5,612
Employment	Eng/Wales	1,152,627	1,207,812	1,150,407	988,882	1,000,039	1,007,878	1,018,695	1,011,285	1,014,594	981,253
Employment	Scotland	129,704	138,811	130,687	108,700	109,463	110,240	107,151	105,790	104,708	101,115
Turnover (£ million)	Eng/Wales	116,578	123,078	125,428	128,417	130,364	130,386	128,934	129,172	-	-
Turnover (£ million)	Scotland	11,375	11,998	12,406	12,660	13,029	12,670	11,970	11,040	-	-
Output value (£ million)	Eng/Wales	28,801	30,091	28,118	31,242	34,852	32,009	32,462	31,586	-	-
Output value (£ million)	Scotland	3,608	3,604	3,263	4,005	4,386	4,031	3,696	3,301	-	-
GVA (£ million)	Eng/Wales	18,761	19,729	19,477	20,138	23,445	19,823	20,501	20,110	-	-
GVA (£ million)	Scotland	2,869	2,563	2,776	2,995	3,431	3,031	2,754	2,459	-	-

Source: Frontier Economics analysis of ABS and BSD data

Figure 37 Baseline data – on-trade retail

Measure	Region	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of enterprises	Eng/Wales	136,004	143,864	84,129	83,031	81,501	81,358	80,060	78,906	78,645	79,684
Number of enterprises	Scotland	11,343	12,077	7,350	7,406	7,411	7,396	7,219	7,193	7,059	7,089
Number of local units	Eng/Wales	167,785	179,397	111,146	100,162	98,636	98,310	97,059	95,802	95,471	96,643
Number of local units	Scotland	14,054	15,138	9,525	8,824	8,859	8,702	8,436	8,513	8,394	8,350
Employment	Eng/Wales	1,323,969	1,406,997	1,058,258	917,830	943,510	990,821	1,064,661	1,055,404	1,072,236	1,103,024
Employment	Scotland	114,938	121,951	93,464	82,929	85,967	88,772	90,614	93,933	96,136	95,445
Turnover (£ million)	Eng/Wales	27,766	27,416	28,818	28,567	29,232	30,517	31,661	32,437	-	-
Turnover (£ million)	Scotland	2,297	2,362	2,227	2,217	2,157	2,358	2,240	2,384	-	-
Output value (£ million)	Eng/Wales	21,920	21,422	23,183	25,140	25,398	26,883	27,230	28,258	-	-
Output value (£ million)	Scotland	1,775	1,886	1,787	1,959	1,896	2,131	1,978	2,044	-	-
GVA (£ million)	Eng/Wales	11,819	12,021	13,411	13,842	14,039	14,838	15,914	16,353	-	-
GVA (£ million)	Scotland	1,024	1,071	990	1,088	1,083	1,248	1,184	1,263	-	-

Source: Frontier Economics analysis of ABS and BSD data

Figure 38 Baseline data – wholesale

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of enterprises	Eng/Wales	10,557	11,284	8,377	8,261	8,301	8,574	8,658	8,711	8,747	8,805
Number of enterprises	Scotland	821	858	674	651	675	682	690	740	758	753
Number of local units	Eng/Wales	12,564	13,509	10,124	9,407	9,421	9,735	9,778	9,803	9,817	9,822
Number of local units	Scotland	1,022	1,083	861	784	803	804	817	865	869	840
Employment	Eng/Wales	135,916	133,788	123,128	109,997	110,551	117,993	118,709	119,663	118,752	123,529
Employment	Scotland	14,984	15,764	15,956	14,118	12,524	12,826	12,365	12,588	12,446	10,844
Turnover (£ million)	Eng/Wales	41,123	45,257	48,143	48,570	51,149	47,432	48,469	48,183	-	-
Turnover (£ million)	Scotland	4,878	5,348	6,216	6,270	5,873	4,988	5,068	4,740	-	-
Output value (£ million)	Eng/Wales	7,150	8,467	9,714	10,337	10,590	10,861	12,997	12,683	-	-
Output value (£ million)	Scotland	1,690	1,638	2,035	2,123	2,104	1,919	2,005	1,549	-	-
GVA (£ million)	Eng/Wales	3,657	4,748	5,420	5,482	5,796	5,956	6,881	6,857	-	-
GVA (£ million)	Scotland	1,041	869	1,128	1,216	1,103	1,123	1,133	939	-	-

Source: Frontier Economics analysis of ABS and BSD data

Figure 39 Baseline data – spirits production

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of enterprises	Eng/Wales	93	95	73	82	100	126	150	203	265	369
Number of enterprises	Scotland	61	62	59	54	59	69	81	113	146	168
Number of local units	Eng/Wales	99	103	82	89	107	129	159	208	274	379
Number of local units	Scotland	208	212	207	162	160	174	185	220	252	272
Employment	Eng/Wales	760	804	856	1,034	690	742	1,276	1,145	1,415	1,568
Employment	Scotland	8,741	8,779	8,587	7,925	7,503	7,570	7,853	8,253	8,347	8,362
Turnover (£ million)	Eng/Wales	189	270	236	228	522	524	421	500	-	-
Turnover (£ million)	Scotland	3,048	3,442	3,755	3,729	3,496	3,380	3,223	3,348	-	-
Output value (£ million)	Eng/Wales	178	232	209	212	415	425	334	457	-	-
Output value (£ million)	Scotland	3,301	3,449	3,666	3,586	3,396	3,459	3,224	3,257	-	-
GVA (£ million)	Eng/Wales	79	105	115	103	142	157	142	162	-	-
GVA (£ million)	Scotland	2,159	2,073	2,227	2,015	1,860	1,856	1,775	1,857	-	-

Source: Frontier Economics analysis of ABS and BSD data

Figure 39 Baseline data – beer production

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of enterprises	Eng/Wales	713	785	663	721	809	940	1,055	1,206	1,330	1,444
Number of enterprises	Scotland	61	62	56	68	77	88	88	108	123	139
Number of local units	Eng/Wales	820	905	768	771	856	986	1,105	1,261	1,399	1,508
Number of local units	Scotland	71	77	69	76	88	97	97	117	131	152
Employment	Eng/Wales	16,767	16,388	16,303	12,980	12,285	12,807	12,798	13,273	14,526	14,607
Employment	Scotland	1,039	940	1,262	1,007	827	847	922	1,118	1,206	1,251
Turnover (£ million)	Eng/Wales	4,999	-	4,379	4,740	4,803	4,947	5,089	5,275	-	-
Turnover (£ million)	Scotland	479	-	390	318	407	406	366	376	-	-
Output value (£ million)	Eng/Wales	2,074	-	1,903	1,872	1,968	2,384	2,569	2,611	-	-
Output value (£ million)	Scotland	290	-	218	154	227	232	278	241	-	-
GVA (£ million)	Eng/Wales	-	-	-	-	-	-	1,350	1,321	-	-
GVA (£ million)	Scotland	-	-	-	-	-	-	59	92	-	-

Source: Frontier Economics analysis of ABS and BSD data

Figure 40 Baseline data – malt production

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of enterprises	Eng/Wales	35	35	16	16	16	15	16	15	14	12
Number of enterprises	Scotland	10	10	*	*	*	*	*	*	*	*
Number of local units	Eng/Wales	47	47	29	23	23	22	23	22	21	19
Number of local units	Scotland	21	21	14	11	11	12	12	12	12	11
Employment	Eng/Wales	1,564	965	895	858	962	945	978	1,007	1,014	1,015
Employment	Scotland	285	424	310	280	265	304	309	298	309	246
Turnover (£ million)	Eng/Wales	409	346	251	473	479	487	418	458	-	-
Turnover (£ million)	Scotland	117	101	83	113	118	185	152	141	-	-
Output value (£ million)	Eng/Wales	406	342	240	409	417	399	345	390	-	-
Output value (£ million)	Scotland	117	102	81	111	115	111	101	92	-	-
GVA (£ million)	Eng/Wales	68	75	73	75	62	84	83	91	-	-
GVA (£ million)	Scotland	57	43	37	43	53	39	42	32	-	-

Source: Frontier Economics analysis of ABS and BSD data

*Note: * values redacted to avoid disclosure*

ANNEX E TOPIC GUIDE FOR CASE STUDY INTERVIEWS

Introduction (2 minutes)

Thank you for agreeing to take part in this study.

My name is [ ] and I am part of the Frontier Economics team conducting an evaluation of the impact of Minimum Unit Pricing (MUP) on the Scottish alcoholic drinks industry.

[IF SECOND OR SUBSEQUENT INTERVIEW]: We have already spoken to [ ] about [ ]

Are you comfortable with the broad purpose of this study, or would you like me to go into more detail before we get started?

[ONLY IF REQUIRED]

As you will know, the MUP policy which came into force in May last year set a minimum retail price on alcohol sold in Scotland (50ppu). The NHS Health Scotland MESAS (Monitoring and Evaluation of Scotland's Alcohol Strategy) team has been asked by Scottish Government to lead the evaluation of the impact of the Act on a range of outcomes (health, economics etc.).

Frontier Economics has been commissed by NHS Health Scotland to conduct an evaluation of MUP on producers, retailers and other key sectors of the alcoholic drinks industry. The findings from this study will contribute to the overall MESAS evaluation of MUP that NHS Health Scotland is required to deliver to Ministers as soon as practicable after five years of implementation. **This case study is a key component of the economic evaluation**, one of a number that will be conducted, and along with evidence from industry statistics and wider stakeholder engagement will provide evidence to help evaluate the impact of the MUP policy on industry in Scotland.

[FOR ALL]

The purpose of this case study is therefore **to understand the impact the MUP has had on your business** so far and potential future impacts**.**

Everything that you say will be treated in the strictest confidence and nothing will be passed to NHS Scotland or published in the public domain in a way that will identify you without your express prior agreement.

I have some questions that I would like to ask but you should feel free to answer in your own words. You do not have to answer all the questions and are free to terminate the interview at any time without giving a reason. The interview should last about an hour.

As discussed, I would like to record the interview with your permission, but I will also take some notes. The content of the recording will be heard only by the Frontier research team.

Is everything clear? Do you have any questions?

TURN ON RECORDER

Background (5 minutes)

To start, please can you tell me a little about the company and your role here?

- AIM TO COLLECT: Product ranges, share previously below MUP, share sold to Scotland (for producers), business model.

Before MUP (5 minutes)

We are interested in understanding how MUP has affected your company.

- Can you tell me what share of your turnover can be attributed to alcohol that would previously have been retailed <MUP?

Do you have a sense of how this differs by product line?

Does this differ by geography?

- Can you give a few examples of products that would previously have been priced <MUP?

What was the retail price before MUP?

Producers only

- For products that were previously retailed below MUP, how have wholesale prices changed?

Your response (10 minutes)

Retailers only

We understand that retailers are likely to have made other changes to respond to MUP.

- Did you increase the prices of any previously <MUP products to at/above MUP? Why (not)?
- Did you adjust the prices of any previously >MUP products? If so, why?
- Did you de-list any previously <MUP products? If so, why?
- Did you change formats or pack sizes of any previously <MUP products?

Was this change initiated by you, other retailers, wholesalers, or producers?

- Did you begin stocking reformulated versions of previously <MUP products?

Was this change initiated by you, other retailers, wholesalers, or producers?

- Did you increase promotions or marketing of previously <MUP products?

Was this initiated/funded by you, other retailers, wholesalers, or producers?

- Did you change the amount of alcohol you imported (from the rest of the UK or other countries)?

We understand that retailers operate in a competitive market and must compete for customers.

- Did you lower the price of other non-alcoholic products as a result of MUP? If so, why?
- What sorts of products did you lower the prices on?

Producers only

[ORDERING FOR PRODUCERS WILL BE DIFFERENT: Demand, then price, then non-price responses]

We understand that producers are likely to have made other changes to respond to MUP.

- Did you change the pack sizes or formats of products in response to MUP?

Was this change initiated by you, wholesalers or retailers?

- Did you reformulate any products in response to MUP?

Was this change initiated by you, wholesalers or retailers?

- Did you increase marketing of previously <MUP products in response to MUP?

Was this change initiated by you, wholesalers or retailers?

- Did you stop producing any products that were previous <MUP in response to MUP?

Effects on volume (10 minutes)

We understand that MUP meant that retail prices increased for some products. We might expect consumers to change their behaviour in response to these price changes and for this to have an effect on volumes.

[Keep in mind that volume effects might be positive for some businesses, e.g. premium brands manufacturers and convenience retailers.]

Retailers only

- Did you observe a change in demand for some products where retail prices were increased to/above MUP?

Which products?

How substantial was the effect?

Do you have a sense of what consumers bought instead? [PROMPT IF REQUIRED: other alcoholic drinks, non-alcoholic products]

Do you have a sense of whether consumers purchased their alcohol from other sources instead? [PROMPT IF REQUIRED: pubs and bars, convenience stores & explore effects on sales of non-alcoholic products, elsewhere in UK]

Were there some products where price was increased but demand remained unchanged?

- Did you observe a change in demand for some products where retail prices were always at or above MUP?

Which products?

How substantial was the effect?

- Did you observe a change in the demand for non-alcoholic products as a result of the introduction of MUP?

Producers only

- Did you observe a change in overall demand from off-trade retailers for some products where retail prices were increased to MUP?

Which products?

How substantial was the effect?

Do you have a sense of what consumers bought instead?

Did retailers/wholesalers reduce volumes, or de-list these products altogether?

What reasons did wholesalers/retailers give for reducing demand or de-listing?

Were there some products where retail price was increased but demand remained unchanged?

- Did you observe a change in overall demand from on-trade retailers for some products where retail prices were increased to MUP?
- Did you observe a change in which retailers/wholesalers were demanding your product? [NOTE: including convenience, traditional, discount]
- Did you observe a change in demand for some products where retail prices were always at or above MUP?

Which products?

How substantial was the effect?

Retail-producer relationship (10 minutes)

Retailers only

We understand that retailers must negotiate wholesale prices with producers and wholesalers.

- Did producers/wholesalers of previously <MUP products start demanding higher wholesale prices as a result of MUP?

Did this differ for own-label products?

- Did producers/wholesalers of previously >MUP products start demanding higher wholesale prices as a result of MUP?

Producers only

We understand that retailers must negotiate wholesale prices with producers and wholesalers.

- Did wholesale prices of previously <MUP products change as a result of MUP for off-trade retailers?

What price increase (if any) did you settle on?

Why do you think this was the case?

- Did wholesale prices of previously <MUP products change as a result of MUP for on-trade retailers?
- Did wholesale prices of previously >MUP products change as a result of MUP?

Why do you think this was the case?

[PROMPT IF REQUIRED: Some retailers may argue that increased relative margins on previously <MUP alcohol could justify lower wholesale prices for >MUP alcohol]

Overall effects (10 minutes)

Retailers only

- Overall, in the 9 months since the introduction of MUP, what would you say the effect of MUP has been on the following:

The amount consumers spend on alcoholic drinks has changed

The share of own brand products on your shelves

The market share of convenience retailers. Or discount retailers

The market share of pubs and bars

The format or pack-size of alcoholic drinks

- Have you shut down or down-sized stores as a result of MUP?
- Have you laid off staff (or hired fewer new staff) as a result of MUP?
- Have your revenues changed as a result of MUP?
- Have your profits changed as a result of MUP?
- Do you think the impact of MUP on your organisation so far is typical of other organisations like yours in the Scottish alcoholic drinks industry? Why (not)?

Producers only

- Overall, in the 9 months since the introduction of MUP, what would you say the effect of MUP has been on the following:

Investment in product innovation [NOTE: including balance of product innovation between <MUP and >MUP)

Input prices

The format or pack-size of alcoholic drinks

- Have you shut down or down-sized production facilities as a result of MUP?
- Have you laid off staff (or hired fewer new staff) as a result of MUP?
- Have your revenues changed as a result of MUP?
- Have your profits changed as a result of MUP?
- Do you think the impact of MUP on your organisation so far is typical of other organisations like yours in the Scottish alcoholic drinks industry? Why (not)?

Cross-border effects (5 minutes)

One question that we are particularly interested to explore is around whether the effect of MUP was different close to the England border.

Retailers only

- Did you observe a greater reduction in demand for previously <MUP products at stores near the English border?

Was this more prominent for certain products, formats or store types?

- Did you observe an increase in the demand for <MUP products in England near the Scottish border (for example, around Carlisle)?

Was this more prominent for certain product, formats or store types?

- Are you aware of any cross-border differences in producers/wholesale prices?

Are you in a position to take advantage of these differences for Scotish stores close to the border (or are producers and wholesalers able to effectively discriminate).

- Are you aware of any informal bulk cross-border purchases?
- Is there a manager of a store near (within 20 miles) of the border that we would be able to speak to discuss cross-border effects of MUP? [England and Scotland]

Producers only

- If you charge retailers in Scotland more than retailers in England to account for MUP, how do you ensure that retailers near the border are precluded from taking advantage of lower prices in England?

Looking forward (5 minutes)

All

Looking forward to the next 2-5 years.

- What impact do you think that MUP will have on revenue, profits, employment and scale over the next 2-5 years? Why?
- Are there any effects that you would expect might take a particularly long time to become apparent?

Other trends (5 minutes)

All

We've asked about what you think the impact of MUP has been so far on your organisation in terms of revenues, profits and employment.

- What other factors do you think might have contributed to those changes besides MUP?

What other factors might you expect to play a bigger role in the next 2-5 years?

- Which of these are most important? [PROMPT IF REQUIRED: alcohol regulation, consumer preferences etc.]
- How far would you attribute those changes to MUP compared with these other factors?

Specific Questions (5 minutes)

We have a few final questions that we were hoping to ask that relate to specific hypotheses about the impact of MUP on your firm.

Large retailer

- Did MUP change your approach to stocking own-label products? [PROMPT IF REQUIRED: we would expect volumes to fall but margins to increase relative to other products, especially given producers will have less bargaining power]
- Did you observe a change in demand for alcohol between the various store types you operate (convenience, traditional, bulk)?
- Did you observe any change in your relative competitiveness with respect to smaller retailers or off-licence convenience stores as a result of MUP?
- How do you manage price differentials between England and Scotland for online orders?

Small retailer

- Did MUP change your approach to stocking own-label products? [PROMPT IF REQUIRED: we would expect volumes to fall but margins to increase relative to other products, especially given producers will have less bargaining power]
- Did you observe any change in your relative competitiveness with respect to larger chain retailers or smaller off-licence convenience stores as a result of MUP?

On-trade retailer

- Do you have any anecdotal evidence of consumers substituting off-trade consumption with on-trade consumption. To what extent would you attribute this to the introduction of MUP.

Specialist retailer

- Did you change your relationship with bottlers or producers as a result of MUP?
- What impacts have currency fluctuations and uncertainty related to Brexit had on your prices and volumes in the last 12 months? [relevant for imports]
- To what extent do you think you compete with supermarkets and convenience stores?
- We understand that many other retailers may have decreased prices on non-alcoholic products to attract customers. Have you taken other measures to drive footfall in the absence of <MUP alcohol? [PROMPT IF REQUIRED: lowering the price of >MUP alcohol, improved range]
- Did you observe any change in your relative competitiveness with respect to larger chain retailers or smaller off-licence convenience stores as a result of MUP?

Whisky producer

- If MUP reduced wholesale volumes, what was you capacity to offset this with increased exports?

Beer producer

- If MUP reduced wholesale volumes, what was you capacity to offset this with increased exports?

Small brewer

N/A

Own brand producer

- Did MUP change retailers' approach to stocking own-label products? [PROMPT IF REQUIRED: we would expect volumes to fall but margins to increase relative to other products, especially given producers will have less bargaining power]

Did this affect wholesale volumes?

Did this affect wholesale prices?

- If volume falls were large, what was your response? (PROMPT IF REQUIRED: sell elsewhere, spare production capacity, excessive stocks etc.)

Closing remarks (5 minutes)

Thank you very much for taking the time to sit down with us and discuss the impact of MUP on your business.

[IF THERE ARE SUBSEQUENT INTERVIEWS] We are still planning to speak with [ ] about [ ]. Is there anyone else in the business that you think we should speak to in order to understand the impact of MUP?

Everything that you say will be treated in the strictest confidence and nothing will be passed to NHS Health Scotland or published in the public domain in a way that will identify you without your express prior agreement.

Your input will feed into our interim report (which we expect to submit in the next 6 months).

As we mentioned, we will type up a written summary of this interview which we will share with you for comment. However, this summary will not be shared with NHS Health Scotland or any third parties.

As part of our evaluation, we plan to follow up on these case studies in early 2021. Would you be willing to participate again at this point?

Thank you very much again, and do contact me or the team if you have any further questions on the process.

ANNEX F ADVANCED DATA REQUESTS

Advanced data request: retailers

As part of your participation in the evaluation of the impact of MUP on the Scotish alcoholic drinks industry, we would very much appreciate you answering five questions about the scale of your alcohol retail activities in Scotland.

Your responses will be treated in the strictest confidence and nothing will be passed to NHS Health Scotland or published in the public domain in a way that will identify you without your express prior agreement. We would be more than happy to discuss these questions with you in person during the interviews if anything is unclear.

Question 1:

Approximately how many retail stores does your company own, operate or supply in Scotland?[31]

Question 2:

Approximately how many staff are employed in your retail operations in Scotland?[32]

Question 3:

What is your annual revenue from alcohol sales in Scotland?[33]

Question 4:

Of this revenue, approximately what share was for alcohol that would have been priced below 50ppu before the introduction of MUP?[34]

Question 5:

Of this revenue, approximately what share was for alcohol produced or packaged in Scotland?[35]

[31] This could include directly owned stores, franchisee owned stores, or other stores that you distribute to.

[32] Estimated FTE equivalent staff numbers to the nearest 100 if possible. Include staff in distribution or online sales, or staff in franchised stores if relevant.

[33] Approximate revenue or turnover will still be helpful if exact figures are unknown.

[34] Estimates to the nearest 10% if possible.

[35] Estimates to the nearest 10% if possible.

Advanced data request: producers

As part of your participation in the evaluation of the impact of MUP on the Scotish alcoholic drinks industry, we would very much appreciate you answering four questions about the scale of your alcohol production activities in Scotland.

Your responses will be treated in the strictest confidence and nothing will be passed to NHS Health Scotland or published in the public domain in a way that will identify you without your express prior agreement. We would be more than happy to discuss these questions with you in person during the interviews if anything is unclear.

Question 1:

Approximately how many staff are employed in your alcoholic drink production and distribution activities in Scotland?[36]

Question 2:

What was your annual revenue from sales of alcoholic drinks in Scotland in 2018?

Question 3:

Of this revenue, approximately what share was for alcohol that would have been retailed below 50ppu before the introduction of MUP?[37]

Question 4:

Of this revenue, approximately what share was for domestic consumption within Scotland (as opposed to exports to the rest of the UK or other countries)?[38]

[36] Estimated FTE equivalent staff numbers to the nearest 10 if possible.

[37] Estimates to the nearest 10% if possible.

[38] Estimates to the nearest 10% if possible.

ANNEX G CASE STUDY PRIVACY STATEMENT

Introduction

For the purpose of the General Data Protection Regulation (GDPR), NHS Health Scotland is the 'Data Controller' and Frontier Economics is the 'Data Processor'. This is because NHS Health Scotland determine how and why your personal data is processed and Frontier Economics simply act on their instructions. However, even though NHS Health Scotland is the data controller, Frontier Economics will not share your name, personal information and/or business sensitive data with NHS Health Scotland.

By participating in our case study, you confirm your agreement to the use of your personal data as explained below. We ask you to read this privacy statement carefully.

For the purpose of this statement, the definition of 'personal data' is information which relates to and can identify a living individual.

Lawful collection and use

This statement explains how we collect, store and use the personal data you provide when taking part in a case study for us.

You may decline to answer any questions or withdraw from participation in a case study at any time.

Why are we processing your data?

The purpose of processing the Information is to allow Frontier Economics Limited ('Frontier') to complete and carry out analysis of, and reporting to, NHS Scotland in respect of the impact of the alcohol Minimum Unit Price policy on the Scottish alcohol industry.

What personal data are we collecting/processing

We collect the following information: Business name, contact name, contact telephone number, contact email and business address.

What is the legal basis for processing the data?

The basis for processing under the Data Protection Legislation is your explicit, informed consent to the processing of your personal data for the purpose of allowing Frontier Economics to complete and carry out analysis of and reporting to NHS Scotland in respect of the impact of the alcohol Minimum Unit Price on the Scottish industry.

We will never misrepresent ourselves or what we are doing. If you receive an email that concerns you, purporting to be from us, please let us know as shown below in 'How to contact us'.

We have contacted you to take part in a case study after

- Receiving your contact details from the client we are conducting the case study for, NHS Health Scotland; or
- Receiving your contact details from a trade/industry body you are a member of; or
- Receiving your contact details from a colleague who felt you could make a useful contribution to the case study.

Third parties

You can be assured that we will protect your privacy. We will not make your personal data available to anyone without your agreement unless it is for research or statistical purposes only or if required by law, or if you have agreed otherwise. This includes your name and e-mail address.

Confidentiality and security

We take appropriate technological and organisational measures to protect the personal data submitted to us, both during transmission and once we receive it. Our security procedures are consistent with generally accepted commercial standards used to protect personal data.

All our employees are contractually obliged to follow our policies and procedures regarding confidentiality, security and privacy.

We adhere to the following requirements:

- The Data Protection Act 2018 and any subsequent legislation, which may be amended from time to time
- The General Data Protection Regulation (GDPR)

Accuracy

We take all reasonable steps to keep personal data in our possession or control, which is used on an on-going basis, accurate, complete, current and relevant, based on the most recent information available to us by you and/or by our client.

We rely on you to help us keep your personal data accurate, complete and current by answering our questions honestly and ensuring that you notify us of any changes to your personal data.

Rights of individuals

To request access to personal data that we hold about you, you should submit your request in writing to the e-mail address or postal address shown below in 'How to contact us'.

You have the following rights in relation to your personal data:

- Right to withdraw your consent
- Right to access your personal data
- Right to rectify your personal data
- Right to erase your personal data from our systems, unless we have legitimate interest reasons for continuing to process the information
- Right to port your personal data (portability right)
- Right to restrict processing of your personal data
- Right to object to the processing of your personal data

If applicable, we shall also notify third parties to whom we have transferred your personal data of any changes that we make on your request. You may be able to access your personal data held by these third parties and correct, amend or delete it where it is inaccurate.

Data storage and retention

Personal data will be retained only for such period as is appropriate for its intended and lawful use. In this case we shall, unless otherwise required to do so by law, retain your data for no longer than the five year duration of the project. Personal data that is no longer required will be disposed of in ways that ensure their confidential nature is not compromised.

As part of the Company Business Continuity plan and as required in certain instances by law, our electronic systems are backed up and archived. These archives are retained for a defined period of time in a strictly controlled environment. Once expired, the data is deleted and the physical media destroyed to ensure the data is erased completely.

How to contact us

For enquiries about NHS Health Scotland (the Data Controller) data protection practices, you can contact Duncan Robertson, NHS Health Scotland's Senior Policy, Risk and Data Protection Officer by email at Healthscotland-dpo@nhs.net or by phone on 0131 314 5436.

We will investigate all complaints and attempt to resolve those that we find are justified. If necessary, we will amend our policies and procedures to ensure that other individuals do not experience the same problem.

Complaints and country specific disclosures

If you are not satisfied with how we handle and protect personal data, you have the right to complain to the Data Protection Authority. In the UK, this is the ICO and their contact details are:

Information Commissioner's Office

Wycliffe House

Water Lane

Wilmslow

Cheshire

SK9 5AF

Tel: 0303 123 1113 (local rate)

Email: casework@ico.org.uk

Web: https://ico.org.uk/make-a-complaint/

Consent

I confirm that I give my explicit, informed consent to the processing of my personal data for the purpose of allowing Frontier Economics to complete and carry out analysis of and reporting to NHS Scotland in respect of the impact of the alcohol Minimum Unit Price on the Scottish industry.

Print name	
Signature	
Date	

ANNEX H TOPIC GUIDE: CROSS-BORDER INTERVIEWS

Introduction (5 minutes)

Thank you for agreeing to take part in this study.

My name is [ ] and I am part of the Frontier Economics team conducting an evaluation of the impact of Minimum Unit Pricing (MUP) on the Scottish alcoholic drinks industry, with a particular focus on the effects of the policy on retailers near the Scotland/England border.

Are you comfortable with the broad purpose of this study, or would you like me to go into more detail before we get started?

[ONLY IF REQUIRED]

As you will know, the MUP policy, which came into force in May last year set a minimum retail price on alcohol sold in Scotland (50ppu). The NHS Health Scotland MESAS (Monitoring and Evaluation of Scotland's Alcohol Strategy) team has been asked by Scottish Government to lead the evaluation of the impact of the Act on a range of outcomes (health, economics etc.).

Frontier Economics has been commissed by NHS Health Scotland to conduct an evaluation of MUP on producers, retailers and other key sectors of the alcoholic drinks industry. The findings from this study will contribute to the overall MESAS evaluation of MUP that NHS Health Scotland is required to deliver to Ministers as soon as practicable after five years of implementation. **This interview is a key component of the economic evalaution**, one of a number that will be conducted, and along with evidence from industry statistics and wider stakeholder engagement will provide evidence to help evaluate the impact of the MUP policy on industry in Scotland.

A key complexity in evaluating the impact of MUP in Scotland relates to differences in alcohol pricing policies in England and Scotland. Specifically, some Scottish consumers in border regions may be incentivised to travel across the border in order to purchase lower-price alcohol from retailers in England.

[FOR ALL]

The purpose of this case study is therefore **to understand what, if any, impact MUP has had on cross-border trade and how this is has affected your business** so far. We are also interested in any potential future impacts**.**

We are speaking to you because we want to understand whether there are particular effects of the policy that are felt by retailers operating close to the border.

Everything that you say will be treated in the strictest confidence and nothing will be passed to NHS Scotland or published in the public domain in a way that will identify you without your express prior agreement.

I have some questions that I would like to ask but you should feel free to answer in your own words. You do not have to answer all the questions and are free to

terminate the interview at any time without giving a reason. The interview should last about 30-45 minutes.

Is everything clear? Do you have any questions?

Background (5 minutes)

To start,

- Please can you tell me a little about the company and your role here?
- What share of your turnover can be attributed to alcohol sales?
- SCOTLAND: Can you tell me what share of this can be attributed to alcohol that would previously have been retailed <MUP?
- ENGLAND: Can you tell me what share of this can be attributed to alcohol that is retailed <50ppu?

Do you have a sense of how this differs by product line?

Impact of MUP (20 minutes)

All retailers

We understand that retailers are likely to have made a range changes to respond to MUP.

- Did you change the prices of any products (alcoholic and non-alcoholic) as a result of MUP. If so, why?

ENGLAND: PROMPT: we want to understand whether some English retailers responded to the change in policy across the border.

- Did you take any other action as a result of the MUP? For example, de-listing products or changing your marketing strategy?

We understand that MUP meant that retail prices increased for some products in Scotland. We might expect consumers to change their behaviour in response to these price changes and for this to have an effect on volumes.

Scottish retailers only

- Did you observe a change in demand for some products where retail prices were increased to MUP?

Was this more prominent for certain products or formats?

How substantial was the effect?

Do you have a sense of what consumers bought instead? [PROMPT IF REQUIRED: other alcoholic drinks, non-alcoholic products]

Do you have a sense of whether consumers purchased their alcohol from other sources instead [PROMPT IF REQUIRED: pubs and bars, convenience stores]

Do you have a sense of whether consumers purchased their alcohol from England instead?

- Are you aware of any consumers purchasing alcohol from England?

Do you get the impression that this is done by individuals for themselves, or is it done collectively by groups of people?.

Does this have an effect on non-alcoholic products sales (i.e. do these people also buy groceries in England along with the alcohol)?

- Are you aware of any cross-border differences in producers/wholesale prices?

Are you in a position to take advantage of these differences (or are producers and wholesalers able to effectively discriminate prices between retailers north of south of the border)?

- Do you think the impact of MUP on your organisation so far is typical of other organisations like yours? Why (not)?

English retailers only

- Did you observe a change in demand for some products where retail prices were increased to MUP in Scotland?

Was this more prominent for certain products or formats (pack sizes etc.)?

How substantial was the effect?

- Are you aware of any consumers from Scotland purchasing alcohol at your store?

Do you get the impression that this is done by individuals for themselves, or is it done collectively by groups of people?

Does this have an effect on non-alcoholic product sales (i.e. do these people also buy groceries along with the alcohol)?

- Do you think the impact of MUP on your organisation so far is typical of other organisations like yours? Why (not)?

Overall effects (5 minutes)

- Overall, what impact do you think the effect of MUP has been on your organisation in terms of revenue, profits and the number of staff you employ?
- What other factors do you think might have contributed to those changes besides MUP?

What other factors might you expect to play a bigger role in the next 2-5 years?

- Which of these are most important? [PROMPT IF REQUIRED: alcohol regulation, consumer preferences etc.]
- How far would you attribute those changes to MUP compared with these other factors?
- Do you think the impact of MUP on your organisation so far is typical of other organisations like yours in the industry? Why (not)?

Looking forward to the next 2-5 years.

- What impact do you think that MUP will have on revenue, profits, employment and scale over the next 2-5 years? Why?

Closing remarks (5 minutes)

Thank you very much for taking the time to sit down with us and discuss the impact of MUP on your business.

Everything that you say will be treated in the strictest confidence and nothing will be passed to NHS Health Scotland or published in the public domain in a way that will identify you without your express prior agreement.

Your input will feed into our interim report (which we expect to publish in the next 6 months).

Thank you very much again, and do contact me or the team if you have any further questions on the process.

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