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MINIMUM UNIT ALCOHOL PRICING

Impacts on the alcoholic drinks industry in Scotland: final report

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

JANUARY 2023

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This work was produced using statistical data from ONS. 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.

Finally, we would like to thank Public Health Scotland for their ongoing support and feedback on earlier iterations of this report.

Declaration of interests

Members of the EAG provided comment on the draft of this report. This group includes members from academic organisations, the alcoholic drinks industry, alcohol advocacy organisations, Scottish Government and Public 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.

The Frontier Economics network consists of separate businesses: Frontier Economics Limited (with headquarters in the UK); and Frontier Economics Pty Limited (with headquarters in Australia). Frontier Economics Limited has previously conducted projects on behalf of organisations in the alcoholic drinks industry, and Frontier Economics Pty Limited has also conducted analysis relating to minimum pricing in Australia. The team at Frontier Economics Limited conducting the evaluation work underlying this report has not been involved in these projects.

Executive Summary

Context and approach

In 2012, the Scottish Government passed the Alcohol (Minimum Pricing) (Scotland) Act 2012 to allow the implementation of a minimum unit price (MUP) for all alcoholic drinks retailed in Scotland. Secondary legislation followed setting the rate at 50 pence per unit (ppu) and MUP came into effect on 1 May 2018, following the conclusion of legal challenges. As part of a wider evaluation of MUP, Public Health Scotland commissioned Frontier Economics to evaluate the economic impact of MUP on producers and retailers of alcoholic drinks in Scotland. This report provides findings from the final evaluation, following a Baseline and Initial Impacts Report by Frontier published in 2019.

We adopt a theory-based, mixed-methods evaluation. In particular, we use **contribution analysis** drawing on quantitative and qualitative analysis to assess evidence of how MUP has affected the alcoholic drinks industry in Scotland. Our main focus is on five key metrics: the number of firms (which we measure both in terms of the number of enterprises and local units, where the latter measures individual stores or production facilities); employment; turnover; Gross Value Added (GVA); and output value.

We also explored evidence on the wider effects of MUP on intermediate consumer and producer responses which may relate to these ultimate industry-wide impacts. This assessment was informed by a refined underlying theory of change for how MUP could, in principle, impact the industry, in particular to account for the potential impacts of Covid-19 and a relatively 'hard' Brexit, two additional confounding drivers of the performance of the industry which had not been anticipated at the time of the Baseline and Initial Impacts Report. This work informed the design in particular of the qualitative research instruments.

The quantitative assessment comprises trend and counterfactual analysis of business administrative and survey datasets collected by the Office for National Statistics (ONS), looking at regional and sectoral trends where the industry is defined in terms of a set of Standard Industrial Classification codes. These provide data for each of the key metrics of interest, broken into seven detailed sub-sectors of the industry:

- Specialised retailers;
- Non-specialised retailers;
- On-trade retailers (broken further into licensed restaurants, licensed clubs, and pubs and bars);
- Wholesale (including separate analysis of specialised wholesalers of alcoholic beverages);

- Spirits producers;
- Beer producers; and
- Malt producers.

The qualitative assessment comprises a set of five longitudinal case studies, revisiting firms in different parts of the alcoholic drinks industry who we previously engaged in 2019 to get in-depth perspectives from them about the medium-run impact of MUP on their business. These longitudinal case studies comprised businesses operating in Scotland in the following categories, identified as those where the effects of MUP might be more pronounced or more significant for the wider industry:

- A national chain of supermarkets;
- A large spirits producer;
- A large brewer;
- A spirits producer supplying own-label products; and
- A small brewer.

In each case, we were able to re-visit the same organisations consulted for the 2019 report.

We also conducted a set of 'mini' case study interviews with individual small and specialist retailers, and representatives of the on-trade, where it was not possible to engage a chain operator. In the case of small and specialist retailers, this included a mix of longitudinal interviews with those who took part in the 2019 report, and new participants.

Our analysis was complemented with a desk-based review of published evidence, analysis of secondary sources relating to external drivers of industry performance, analysis of bespoke industry data, and interviews with industry expert stakeholders to validate and refine interim findings.

There are limitations both of the quantitative and qualitative methodologies in isolation. The quantitative data provide only at most three years, and in some cases only one year, of post-MUP data. Post-MUP data from March 2020 onwards will also be heavily affected by the Covid-19 pandemic, and metrics derived from the Annual Business Survey are also affected by the pandemic pre-MUP because of limitations in the ability of the ONS to conduct additional analysis which smooths sampling-related noise in the data series. Consistent with the Baseline and Initial Impacts Report, quantitative analysis is only able to identify large impacts on any of the metrics for given industry sectors. The qualitative data necessarily only reflect the views of those individuals we spoke with relating to their own businesses, and cannot reflect wider perspectives. Our approach is therefore to

triangulate both quantitative and qualitative evidence, together with the economic insights from the theory of change, to arrive at conclusions.

Key summative findings

The evidence we have gathered does not suggest that MUP has significantly impacted the performance of the alcoholic drinks industry in Scotland.

We find no strong evidence of observable impacts on any of the key metrics for any sub-sectors of the industry based on the quantitative analysis. This conclusion is typically based on a combination of the following factors:

- Pre-MUP trends in Scotland have been broadly maintained after 2018.
- Where England & Wales appears to be a viable counterfactual (in particular where pre-MUP trends are similar to those observed in Scotland), post-MUP data tends to move in a similar way in both Scotland and England & Wales.
- Some metrics, particularly output value, turnover and GVA drawn from the Annual Business Survey, are subject to significant volatility and only limited post-MUP data, both relating to the impact of Covid-19 on data collection and consistency. This limits the inference that can be drawn from quantitative analysis.
- Where there are declines in trends in industry metrics in 2020 and 2021 (e.g. employment and number of firms in on-trade retail), this likely reflects the impact of Covid-19 rather than MUP.
- In the limited cases where there appeared to be some differential trend changes in Scotland and England & Wales post-2018 (for example the number of pubs and bars which appears to fall slightly more quickly post-2018 in Scotland than in England & Wales based on the ONS data), other evidence sources contradict the finding, and/or the underlying economic logic for why MUP would have caused the effect is weak

There is quantitative evidence from studies looking at the first year of post-MUP data that the value of sales of alcoholic drinks in Scotland increased more quickly than in England and Wales, consistent with MUP leading to increased turnover in off-trade retail. We do not see evidence that this translated into overall increases in turnover in the non-specialised retail sector, and the impact on profits is not clear.

The quantitative findings are broadly validated by our longitudinal case studies and mini case study interviews. The consistent message we heard was that the 'new equilibrium' of industry performance in Scotland was characterised by lower volumes but higher prices that largely balanced out, with no reported direct impacts of MUP on store or facility

openings or closures or staffing. At the margins, one or two of individual smaller or specialist retailers perceived that MUP had reduced their revenues or profits or limited opportunities for growth, though not to an extent that affected staffing or store viability, while others reported no impact.

The absence of compelling evidence of substantial impacts on the key performance metrics of interest does not imply that MUP has had no effect at all on the industry. Based on the theory of change, and validated by our qualitative research, it is clear that MUP did lead to both consumer and retailer responses in terms of pricing and purchasing. Some of the mechanisms we heard about in our case studies include:

- Some challenges for own brands or less-recognised brands due to lower volume high-cost trends (though with some mixed qualitative perceptions about the impact on own brands), while the main beneficiaries are those 'first premium' brands just above the MUP price point.
- Overall effects on retailer profits were felt to be small with increased margins compensating for decreased volumes, with the effects depending on the mix of alcoholic drinks sold pre-MUP.
- Challenges for some producers around price compression and ongoing engagement with retailers about whether perceived MUP-related profits could be shared vertically.
- Limited evidence of any changes related to MUP in terms of the market share of different retailer types or the on- and off-trade.

Based on the qualitative research we identify two other conclusions which we heard repeatedly in our engagement.

First, **MUP appears to be consistent with and potentially accelerating other drivers of performance** such as a perceived 'premiumisation' of consumer preferences towards branded and more expensive products. We note that the qualitative fieldwork took place before prominent concerns about the cost of living which may have more recently affected this trend.

Second, **the impacts of MUP on consumer and producer responses were perceived to 'play out' quickly**. Almost everyone we spoke to for our case studies felt that the major changes had already taken place by the time of the Baseline and Initial Impacts Report in the first half of 2019, and that industry had 'moved on' since then with MUP largely not a day-to-day concern.

1 Introduction

1.1 Context

In 2012, the Scottish Government passed the Alcohol (Minimum Pricing) (Scotland) Act 2012 to allow the implementation of a minimum unit price (MUP) for all alcoholic drinks retailed in Scotland. Secondary legislation followed setting the rate at 50 pence per unit (ppu) and MUP came into effect on 1 May 2018, following the conclusion of legal challenges.

The Scottish Government asked Public Health Scotland (formerly 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. The overall evaluation focuses on four key outcome areas: implementation and compliance; the alcoholic drinks industry; consumption; and health and social harms.[1]

As part of the overall evaluation, Public Health Scotland commissioned Frontier Economics Ltd. (Frontier) to evaluate the economic impact of MUP on producers and retailers of alcoholic drinks in Scotland.[2] This evaluation will form part of the evidence base on the impact of MUP, in particular relating to the impact on the alcoholic drinks industry.[3]

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[1] Details of the overall evaluation and the supporting studies can be found at www.healthscotland.scot/health-topics/alcohol/evaluation-of-minimum-unit-pricing-mup/outcome-areas-and-studies-of-evaluation-of-mup

[2] The study protocol can be found at www.healthscotland.scot/health-topics/alcohol/evaluation-of-minimum-unit-pricing-mup/outcome-areas-and-studies-of-evaluation-of-mup/economic-impact-on-the-alcoholic-drinks-industry

[3] We use the term 'alcoholic drinks industry' to refer to the retail, wholesale and production of alcoholic drinks by local business units in Scotland, including key parts of the value chain which are heavily related to alcoholic drinks such as malt production. Detailed definitions of how this is interpreted and defined in terms of Standard Industrial Classification (SIC) for purposes of our analysis can be found in Section 3.1.2 and Annex B. We will sometimes refer to 'sectors' or 'sub-sectors' of the industry relating to particular SICs or groups of SICs (e.g. 'on-trade retail' or 'spirits production').

The evaluation of the impact of MUP on the alcoholic drinks industry has taken place over 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.
- **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)** involved a refresh of the theory of change, a second wave of industry case studies, and analysis of secondary statistical evidence to look at industry trends post-MUP.

The analysis for Phases one and two was published in 2019 in a Baseline and Initial Impacts Report.[4] This report contains the analysis for Phase three.

1.2 Approach taken

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 impacts.

We adopted a **contribution analysis** approach to the evaluation, an example of a **theory-based evaluation** which mirrors the overall approach being taken to the over-arching evaluation of MUP by Public Health Scotland. The theory-based approach recognises that there is no single robust 'counterfactual' approach to estimating the impact of MUP on

[4] Frontier Economics (2019), *Minimum Unit Alcohol Pricing – Evaluating the impacts on the alcoholic drinks industry in Scotland: baseline evidence and initial impacts* (www.healthscotland.scot/media/2810/frontier-economics-mup-evaluating-the-impacts-on-the-alcoholic-drinks-industry-in-scotland.pdf). An accompanying Briefing Note was also published by Public Health Scotland (www.healthscotland.scot/media/2809/evaluating-the-impacts-of-mup-on-the-alcoholic-drinks-industry-in-scotland.pdf)

the industry, given the wide range of factors influencing industry performance. Theory-based methods are recognised as appropriate, best practice evaluation approaches in complex landscapes in key guidance documents such as the UK government's *Magenta Book*.[5]

We adopt a **mixed methods** approach, combining quantitative and qualitative evidence both on the key metrics of interest, and the underlying mechanisms of consumer and industry responses to MUP which might generate them. These mechanisms are derived from a detailed **theory of change** relating MUP to industry impact (see Annex A). This helped to identify hypotheses about the potential industry impact of MUP and of confounding factors that might affect industry performance, which were tested with a range of sources of evidence. We triangulate across all of the evidence to arrive at an assessment of whether MUP appears to have affected industry performance in Scotland.

Key elements of our methodology include:

- Desk research and engagement with industry expert stakeholders to review and refresh the underlying theory of change, in particular to consider the impacts of Covid-19 and a 'hard' Brexit as external influences on industry performance post-MUP and which had not been anticipated as confounding factors at the time of the Baseline and Initial Impacts Report;
- Analysis of secondary data relating to relevant confounding drivers of industry performance and (where available) industry data on aspects of performance;
- Analysis at regional and sub-sector level of business administrative and survey datasets which measure the key impacts of interest over time, to facilitate both trend-based analysis and (where appropriate) counterfactual comparisons of trends in Scotland pre- and post-MUP with those in England & Wales;
- Qualitative case studies of organisations in different sub-sectors of the alcoholic drinks industry to explore perceptions of how MUP has affected their business in the medium-run, following-up (where possible) the same organisations who provided case study evidence for the Baseline and Initial Impacts Report to explore longitudinal impacts; and
- Extensive stakeholder engagement with industry experts to comment on emerging findings.

The rest of this report is organised as follows. Section 2 presents the theory of change and identifies elements of the theory where Covid-19 and Brexit were identified as new and important confounding factors relating to the potential impact of MUP, along with

[5] Available at www.gov.uk/government/publications/the-magenta-book

evidence on wider drivers of industry performance over time. Section 3 reports the findings of our updated quantitative analysis of key industry trends in Scotland with comparative data for England & Wales and additional quantitative industry data. Section 4 presents our qualitative findings drawing on the case study interviews. Section 5 presents overall conclusions. Details of underlying quantitative data and the instruments used to guide qualitative interviews for our case studies are provided in Annexes to the report.

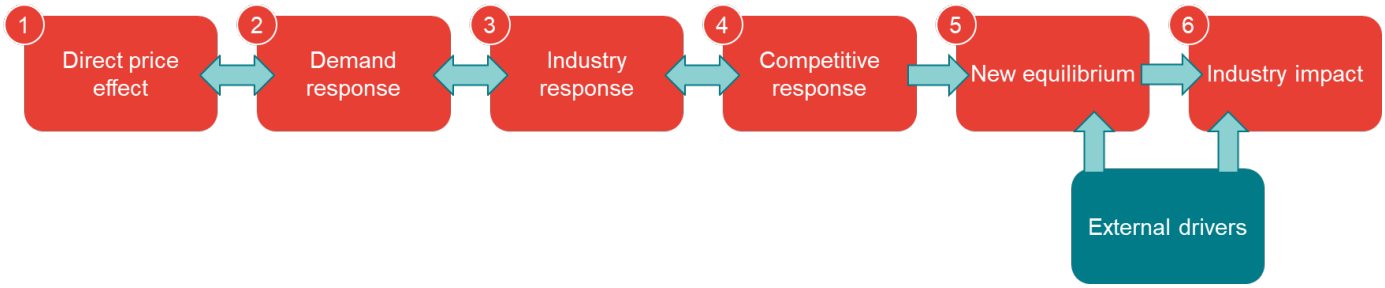
2 Theory of change: MUP and the impacts on the alcoholic drinks industry

2.1 Reviewing the underlying theory of change

A **theory of change** sets out the logic for how a policy intervention is expected to 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 assessed with evidence.

As part of our previous Baseline and Initial Impacts Report from 2019, we developed a detailed theory of change setting out how MUP was expected to affect the alcoholic drinks industry and the various measures of interest for this study. A simplified summary of the key steps in the theory is in Figure 1 below; the detailed theory of change is replicated in full in Annex A. We note that this is not intended to be a 'linear' mechanism (e.g. demand responses necessarily come before industry responses) – rather that there is a feedback mechanism of responses by consumers and producers which generates a new equilibrium (also affected by a range of external drivers) as a result of the direct price effects generated by the imposition of MUP.

Figure 1: Simplified Theory of Change



Source: Frontier Economics

The theory of change is critical in informing the design of evidence-gathering for this study, in particular for the qualitative elements of our approach. It also highlights key external drivers which may be expected to influence the industry impacts of interest.

Given changes to the wider context in which the study is taking place since the previous report in 2019, in particular relating to the impact of a relatively 'hard' Brexit in January 2021 and the new Trade and Co-operation Agreement with the EU, coupled with the Covid-19 pandemic, we conducted an exercise in the summer of 2021 to review and refresh the theory of change and ensure that it was still considered to be appropriate to the study. This review was based on desk research which examined published reports from industry bodies in particular relating to the impact of Brexit and Covid-19 on the

alcoholic drinks industry,[6] and discussions with key stakeholders from the Evaluation Advisory Group.

The broad conclusion of this review and the stakeholder consultation was that **the underlying mechanisms relating MUP to industry impacts were fundamentally unchanged** since the previous report. The main theory was therefore not revised for this study. However we noted some aspects of how Brexit and Covid-19 could affect the 'new equilibrium' and 'external drivers' aspects of the theory, summarised in Table 1.

Table 1: Elements of theory of change particularly affected by Brexit & Covid

Element of theory	Possible implications of Covid and Brexit
New equilibrium: retailers	
Higher market share for on-trade cf. off-trade	Covid leading to closure of on-trade will be significant offsetting factor (e.g. Scottish Grocers Federation report found that alcohol made up 20.1% of convenience sales in 2020 compared with 15.1% in 2019).[7]
Higher market share for convenience and specialist retail cf. supermarkets	Both convenience and traditional retailers may have seen revenues increase (based on e.g. Scottish Grocers Federation report) but hard to know if relative effects vary across off-trade segments.
Changed market share for own brand products	Ambiguous: possible that Covid impacts on the wider economy / incomes will have led to 'trading down' to cheaper brands or own brands, but also that inability to consume on-trade may lead to accelerated 'premiumisation' buying more expensive alcohols to consume at home.

[6] In particular we reviewed outputs from the Association of Convenience Stores / Scottish Grocers Federation; the Beer and Pub Association; the Scottish Beer and Pub Association; and the Scotch Whisky Association.

[7] Available at https://drive.google.com/file/d/1Fv1Y7BqbToZHoaBLPOvLoeQy1A4Nq2ro/view. Earlier years of data in previous versions of the report show alcoholic drinks made up 14.9% of convenience sales in Scotland in 2018 and 14.3% in 2017, suggesting a slight growth in the share since MUP was introduced but demonstrating the much bigger effect of Covid-19.

New equilibrium: producers	
Lower volumes for producers of cheaper alcohol for domestic consumption	Producers focused on domestic market less impacted by Brexit; shift to off-trade resulting from Covid may also benefit this group given cheaper prices off-trade.
Lower import volumes for cheaper products	Brexit may have affected imports from EU exacerbating this effect.
Higher domestic wholesale prices for more expensive products	Potential supply chain disruption (including around distribution) relating both to Covid and Brexit could have increased wholesale costs in general.
Reduced product innovation	Firms may have become more risk averse because of increased uncertainty
Shift of production/investment in export markets	New trade deals with EU and other countries may at the margin affect incentives around production and investment behaviours.
External drivers	
Cost of inputs	Input costs likely to have increased because of disruption associated both with Covid and Brexit.
Economic growth	Hit to economic activity in particular from Covid likely to have reduced overall demand (both domestic and export) all else equal.
Inbound tourism	Significant hit to inbound tourism to Scotland may not be offset by reduction in outbound travel in terms of overall demand (in particular for on-trade).
Impacts	
Number of firms	Theory of change outlined that the effects of MUP may be larger for smaller producers who may be more vulnerable to Covid- and Brexit-related shocks.
Employment, revenue and GVA	Covid may impact all metrics, in particular for on-trade.

2.2 Evidence on key trends in wider drivers of industry performance

The theory of change identifies a range of external factors that drive sales of alcoholic drinks and therefore the performance of the industry. We are particularly interested in drivers that might be expected to follow different trends in Scotland and other parts of the country, to the extent that we can use them as counterfactuals for what might have happened to the industry in Scotland in the absence of MUP.

We identified regional trends (pre- and post-2018) in some of these factors from credible secondary data:

- Population (sales of alcoholic drinks are likely to depend on overall potential demand).
- Gross disposable household income (GDHI) 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).
- The stringency of lockdown measures relating to Covid-19 (which affected the ability of people to purchase alcohol, in particular on-trade).

The findings are mixed in terms of trends in potential confounding drivers:

- **Population growth has been faster in England and Wales** both before and since the introduction of MUP. Between 2018 and 2020, population estimates in England and Wales grew by 1% compared with 0.5% in Scotland.
- **Disposable income has grown at a similar pace in Scotland to England and Wales**. Between 2018 and 2019, GDHI per capita grew by 3.2% in Scotland and 2.6% in England and Wales. Over a longer period, from 2010, GDHI per capita has grown slightly more quickly in England and Wales than in Scotland.
- **Tourism trends are mixed depending on the measure used**.[8]
  - Between 2018 and 2019, the number of tourism visits to Scotland fell by 7.2% but rose by 3.1% in England and Wales.
  - However, in terms of the number of nights stayed, there was growth of 7.6% between 2018 and 2019 in Scotland, compared with a fall of 1.3% in England and Wales. This implies that fewer people visited Scotland in 2019 than in 2018 but those that did stayed longer, whereas the reverse was true in England and Wales.

[8] Tourism data are sourced from Visit Britain. Regional data for 2020 and 2021 are not available owing to inconsistencies relating to Covid-19.

  - In terms of amount of tourism spend, between 2018 and 2019 there was growth of 6.7% in Scotland compared with 7.4% in England and Wales, broadly similar trends.
- **Covid-19 lockdown stringency has followed a similar trajectory in Scotland and England, though England tended to ease restrictions earlier and faster where policies diverged**.

There is therefore no clear reason to expect these other drivers combined to have led to markedly differential trends in the performance of the alcoholic drinks industry in Scotland since MUP compared with other parts of the UK. We present more detailed analysis of these trends below.

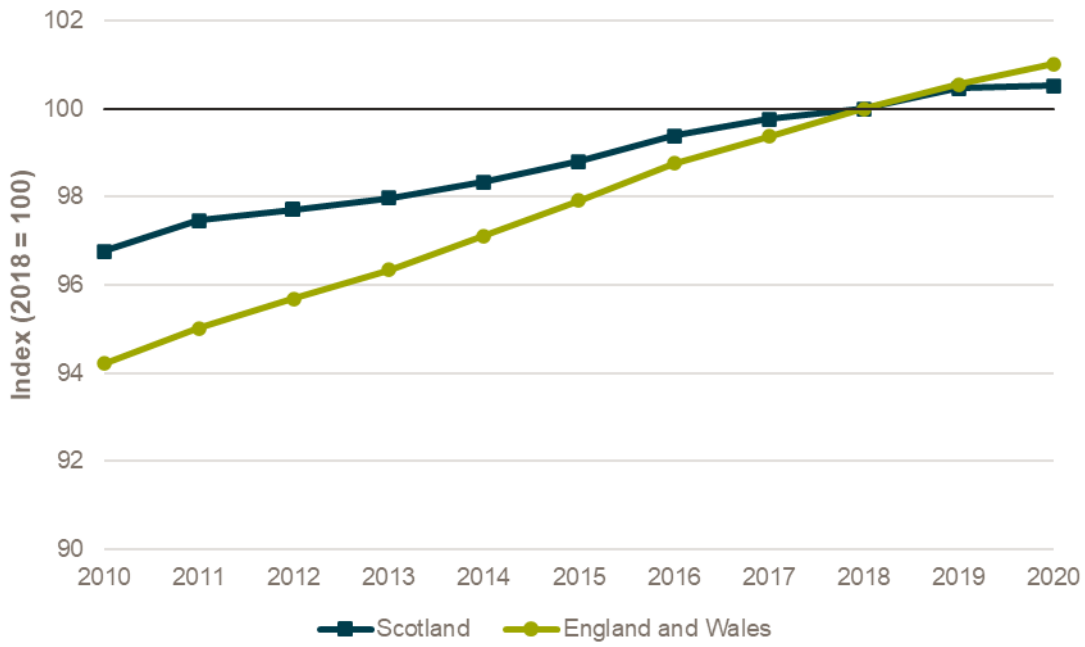
Population

Population growth has been faster in England and Wales than in Scotland in recent years (see Figure 2). For ease of comparison we present data on an indexed basis set to 100 in 2018, the year MUP was introduced in Scotland.

Between 2010 and 2018, mid-year population estimates grew by 6.1% in England and Wales compared with 3.3% in Scotland.[9] This faster growth has continued in the period since MUP was introduced: between 2018 and 2020, population grew by 1.0% in England and Wales compared with 0.5% in Scotland.

[9] Data are available at www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland Note that between 2010 and 2018, population growth rates were very different in England and Wales, growing by 6.3% in England (to 55.98 million) and 2.9% in Wales (to 3.14 million).

Figure 2: Population index (2018=100), 2010–2020, Scotland and England & Wales



Source: Frontier Economics based on ONS data.

Note Population refers to mid-year population estimates. Data indexed at 100 in 2018 when MUP is introduced in Scotland.

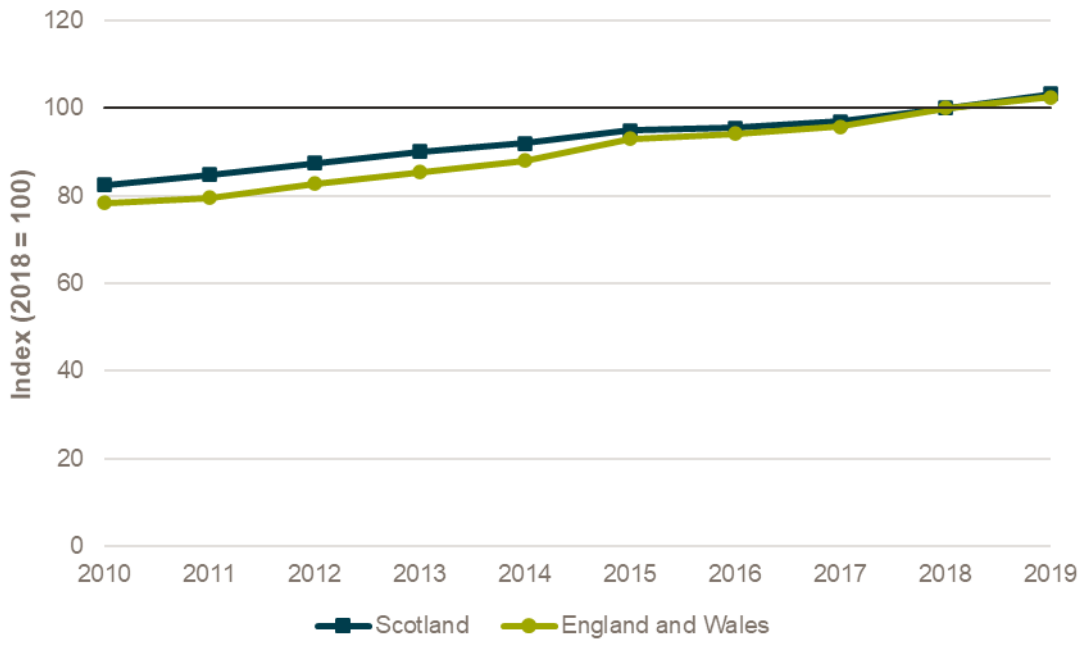
All else equal we would expect the slower population growth in Scotland to slightly reduce demand for alcoholic drinks compared with England and Wales.

Disposable income

In the period prior to the introduction on MUP in Scotland, Gross Disposable Household Income (GDHI) grew slightly more quickly in England and Wales than in Scotland (see Figure 3). We present data on an indexed basis for ease of comparison between areas.[10] Between 2010 and 2018, GDHI per capita grew by 21.2% in Scotland compared with 27.6% in England and Wales. However between 2018 and 2019, GDHI grew slightly more quickly in Scotland (3.2%) than in England and Wales (2.6%).

[10] Data are available at www.ons.gov.uk/economy/regionalaccounts/grossdisposablehouseholdincome/datasets/regionalgrossdisposablehouseholdincomegdhi GDHI measures money available to households for consumption or saving accounting for taxes and benefits.

Figure 3: GDHI per capita, index (2018=100), 2010–2020, Scotland and England & Wales



Source: Frontier Economics based on ONS data.

Note: GDHI is Gross Disposable Household Income. Data indexed at 100 in 2018 when MUP is introduced in Scotland.

We would not therefore expect household income to be a significant factor affecting post-MUP performance of the alcoholic drinks industry differently in the two areas.

Tourism

Inbound tourism data are collated by Visit Britain for each of the UK regions and nations.[11] Figure 4 shows trends between 2010 and 2019 for three measures: visits (the number of tourists spending at least one night in a given location on a trip), nights (the number of nights spent) and spend (estimated amounts of tourism spend in each region). We compare Scotland to a combined England and Wales counterfactual; the counterfactual is similar if we look only at England.[12] We present figures on an indexed basis (set to 100 in 2018, when MUP was introduced in Scotland) to aid comparison of trends given the different levels of tourism in the two areas – in 2019, for example, there

[11] Data are available at www.visitbritain.org/inbound-trends-uk-nation-region-county

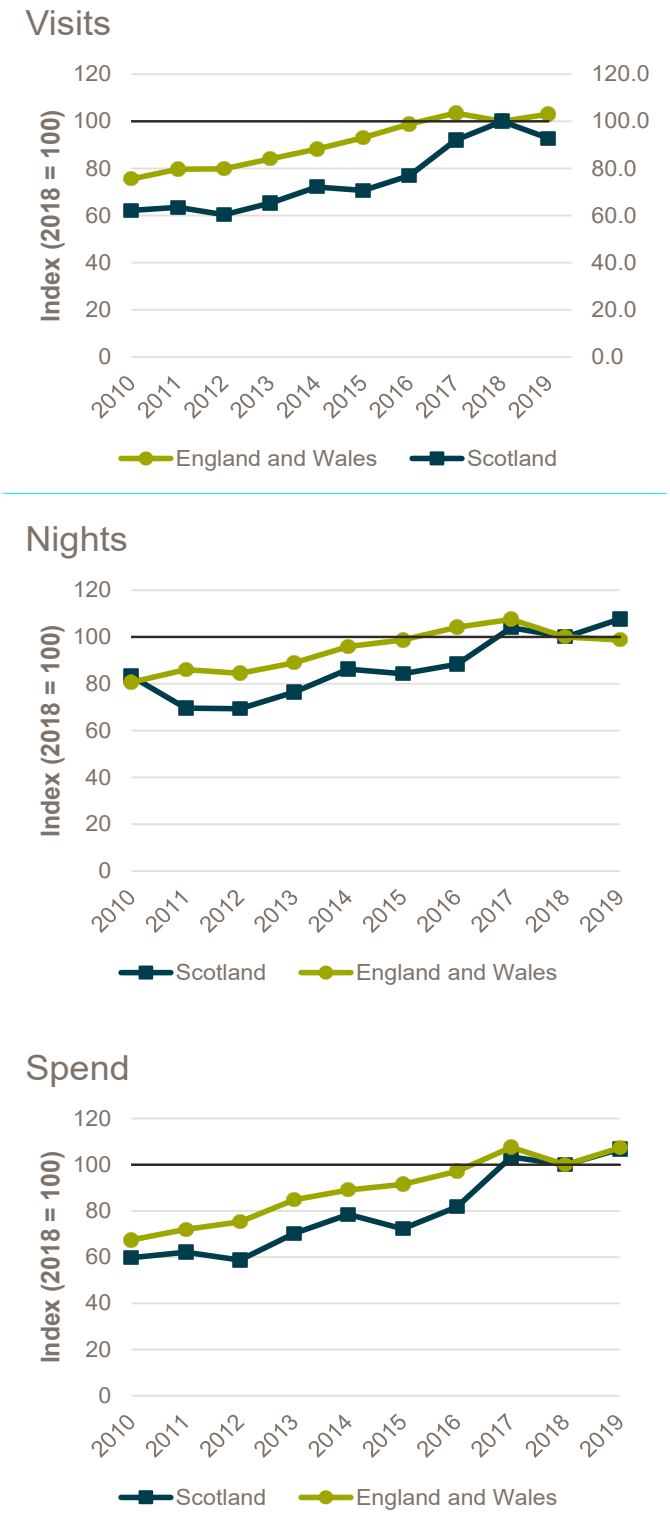
[12] Wales makes up only a small part of the combined counterfactual; for example in 2019 there were an estimated 1.02m visits to Wales compared with 36.11m to England.

were an estimated 3.46 million visits to Scotland compared with 37.14 million visits to England and Wales.

Key findings are that:

- Between 2010 and 2018, tourism measures had been growing more strongly in Scotland than in England and Wales.
- Between 2018 and 2019 (the first year post-MUP), there were different trends in the regions depending on the measure used. Visits grew more slowly in Scotland than in England and Wales, but nights grew more quickly and spend increased at similar rates.
- There is therefore no clear suggestion that tourism would have affected the alcoholic drinks industry differently in the two regions in the first year after MUP was introduced.

Figure 4: inbound tourism indices (2018=100), 2010–19, Scotland and England & Wales



Source: Frontier Economics based on Visit Britain data.
Note: Data indexed at 100 in 2018 when MUP is introduced in Scotland.

Tourism data from 2020 onwards were significantly impacted by the Covid-19 pandemic, both in terms of people's ability to travel and in terms of the ability for statistics to be collected.[13] Estimates of data for visits and spend in 2021, based on modelling and the inbound passenger data that was available, suggest again no obvious regional differential. Visitor numbers in 2021 were around 14% of their 2018 values in Scotland and 16% in England and Wales; spend was around 22% of its 2018 value in both regions. These estimates should be treated with considerable caution, but again suggest no clear reason to expect post-2018 tourism trends to be substantively different in Scotland than elsewhere in the UK.

Covid-19 lockdown stringency

Clearly a key recent driver of performance in the alcoholic drinks industry has been the Covid-19 pandemic. Quantitative industry data from 2020 onwards will be enormously impacted by lockdown and economic support measures in place to deal with the pandemic. Lockdowns in particular will have affected the ability of people to consume alcohol on-premises, and will have significantly changed the pattern of where, when and how people consume alcoholic drinks.[14]

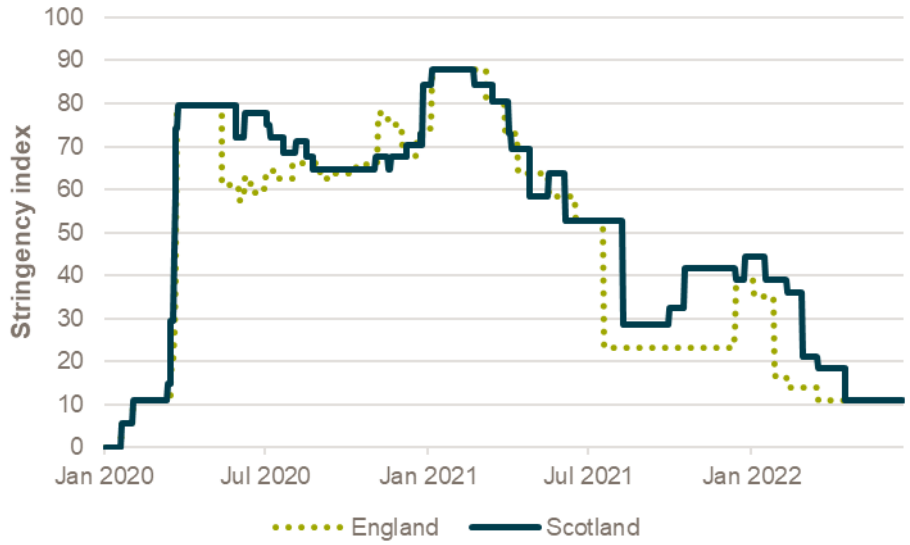
In the UK, there were differences in the pandemic response which may affect comparisons between Scotland and other parts of the country. To try and quantify these differences, the Blavatnik School of Government and University of Oxford compile data on different lockdown and other pandemic response measures across countries and regions and develop a series of policy indices to measure and compare the scale of the response on a broadly consistent basis. Of particular interest in terms of people's ability to consume alcohol in on-trade settings is the 'stringency index' which examines the scale of lockdown measures including school closures, work from home recommendations, cancellation of public events, restrictions on gatherings, public transport closures, stay home requirements, and restrictions on movement (internal and international). Policy responses in each area and country are coded onto a scale and compiled into an index between 0 and 100, where 100 represents the maximum possible

[13] For more details see www.visitbritain.org/2020-inbound-data and www.visitbritain.org/2021-inbound-data

[14] See for example Hardie, I., A. Stevely, A. Sasso, P. Meier and J. Holmes (2022), 'The impact of changes in COVID-19 lockdown restrictions on alcohol consumption and drinking occasion characteristics in Scotland and England in 2020: an interrupted time-series analysis', *Addiction*, 117 (6), 1622–1639 (available from https://onlinelibrary.wiley.com/doi/full/10.1111/add.15794).

response and 0 represents no restrictions at all.[15] Measures are tracked on a daily basis since the beginning of 2020. Figure 5 below compares the stringency index for England and Scotland through to June 2022.

Figure 5: COVID-19 lockdown stringency index, Jan 2022—June 2022, England and Scotland



Source: Frontier Economics based on Blavatnik School of Government and University of Oxford data.

Note: Data accessed in July 2022. 100 represents maximum possible stringency. 0 represents no restrictions.

In general, the stringency of lockdown measures follows a similar pattern in both countries. Where there has been divergence, the general pattern has been that England has eased lockdown measures earlier and faster than Scotland. The main divergence is in the period from July 2021 to April 2022, reflecting the earlier ending of most restrictions in England from 19th July 2021. England also saw earlier easing of restrictions (in particular on workplace closing and internal movement within the country) in May 2020 which were not mirrored in Scotland until summer and autumn that year.

[15] Data are available from www.bsg.ox.ac.uk/research/research-projects/covid-19-government-response-tracker Details of the stringency index definition are available from https://github.com/OxCGRT/covid-policy-tracker/blob/master/documentation/index_methodology.md Descriptions of the underlying coding of different responses is available from https://github.com/OxCGRT/covid-policy-tracker/blob/master/documentation/codebook.md

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). 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);
- total turnover;
- total employment;
- total value of output; and
- total GVA.

Analysis in this report extends work done in the Baseline and Initial Impacts study conducted in 2019, allowing us to explore these metrics in aggregate and at sub-sector level for Scotland (and in comparator regions) post the implementation of MUP in 2018 for the first time. We build on the findings of the previous study to explore:

- Trends in industry data pre- and post-MUP in Scotland and comparator regions (chiefly a combination of England and Wales, though we also consider England-only comparators given the introduction of MUP in Wales in March 2020 which acts as a possible confounder).
- Comparability of pre-MUP trends in Scotland and other regions and the reliability of possible counterfactual analysis using other regions.
- Overall robustness of the data to derive any quantitative assessment of the impact of MUP on the alcoholic drinks industry in Scotland.

In the previous study, we explored the reliability of the data to conduct both trend-based and counterfactual analysis of industry data in Scotland, both at aggregated and sectorally-disaggregated levels. We identified some cases (in particular for retail) where and England or England and Wales counterfactual appeared to be reasonable, and others (particularly in production sectors) where counterfactual assessment appeared less robust because of differences in pre-MUP trends in key metrics. Overall we also concluded from the Baseline and Initial Impacts assessment that:

> *"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 … 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." (Section 3.3)

We have replicated and extended the analysis done in the previous report to consider post-MUP evidence, in order that we can use any novel quantitative insights along with the qualitative evidence (see Section 4) and wider evidence from the evaluation portfolio to derive conclusions about the impact of MUP on the alcoholic drinks industry in Scotland. We have conducted a full analysis, including comparison of trends pre- and post-MUP in Scotland and counterfactual regions, mindful of the conclusions from the Baseline and Initial Impacts assessment in drawing inference from the data.

This is a descriptive quantitative exercise. Given the relatively limited time series of data available, in particular post-MUP, it is not possible to conduct an econometric assessment which attempts to control for other drivers affecting the measures of interest or assess statistical significance of any differential trends.

The following sections describe the data sources used to construct the quantitative assessment and the key measures of interest.

3.1.1 Data sources used

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 (that is, individual stores, plants, etc.). It covers well in excess of 2.5 million businesses in all sectors of the UK economy, accounting for the vast majority of economic activity measured by employment or turnover. It excludes very small businesses (those without employees and with turnover below the VAT) threshold and non-profit organisations. We use BSD to measure the **number of firms** (local units and enterprises, the latter being a collection of local units with autonomy in decision-making and closest to the definition of a 'firm') and **employment** metrics.
- The **Annual Business Survey** (ABS) contains financial information from a large sample of UK non-financial businesses. The measures captured include **turnover**, **output value** and (approximate) **GVA** from our key metrics of interest, as well as other firm-level financial metrics including capital investment. 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 B.

Frontier Economics extracted measures of interest from BSD and ABS data in the ONS Secure Research Service environment. In the previous Baseline and Initial Impacts Report, we had engaged ONS to provide bespoke ABS tables which used alternative methods to provide smoother and more reliable measures of sector-level metrics at regional levels. This related to the smaller sample sizes available once the data were cut by both region and sector, leading to more volatile measures which inhibited trend and counterfactual analysis. However, as a result of the Covid-19 pandemic, which resulted in difficulties in obtaining responses from firms to the ABS (see Annex B for more details), the ONS took the decision in 2022 to no longer provide this bespoke analysis to outside researchers and focus resources on the main ABS datasets. We were therefore unable to replicate and extend the previous analysis on a consistent basis.

As a result, we have extracted and reported on the 'raw' ABS data but recognise this limits further our ability to draw inference about the impact of MUP on certain key metrics.

3.1.2 Key variables

Sector

Both the ABS and the BSD classify businesses according to their primary sector of activity using Standard Industrial Classification (SIC) codes. The number of 'digits' in the code represent successively more granular definitions of sectors. In line with the definitions used in the Baseline and Initial Impacts Report, which have not changed since then, we use a set of five-digit (the most granular available) SIC codes to define the alcoholic drinks sector for purposes of the quantitative analysis. Details of the individual codes used and their descriptions can be found in Annex B.

The selection of codes to include was informed by consideration of how central they would be to the alcoholic drinks industry. Some codes would relate to aspects of the value chain, but likely contain only a very small share of activity directly related to the industry: for example packaging activities (SIC 82920) or freight rail (SIC 49200). Even within the selected SIC codes, however, there will be some which are clearly only partly related to the alcoholic drinks industry. 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. It is not possible with the data available to disentangle these codes further by the particular goods or services sold.

Consideration was also given to the size of individual SIC codes when disaggregated to a regional level, as for statistical disclosure reasons it is not possible to extract data for SIC, year and region combinations where fewer than 10 observations (local units) are found in the underlying data sources. This meant for our purposes that the following SIC codes, although relevant to the alcoholic drinks sector, were not able to be included in our quantitative analysis as too few observations were seen in Scotland in any year in the Annual Business Survey:

- 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).

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

For the ABS, data were available for the years 2009 to 2019 (i.e. one year post-MUP implementation). As outlined above and in Annex B, there is some concern about the quality of the 2019 data (which was largely collected in 2020, coinciding with initial lockdowns relating to Covid-19 and therefore subject to lower than normal response rates).

For the BSD, the time series used in this study covers a data period labelled with years 2009 to 2021. 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 data in 2017. However, because the underlying IDBR needs to be kept current in order that the data provides a reasonable population from which business surveys can be sampled, we assume that measures of whether businesses are active or not are current – that is, the number of enterprises and local units in 'BSD 2018' likely reflects a good measure for that calendar year.

It is hard to test the validity of this assumption. Where we present charts or data tables based on BSD we highlight this assumption in the notes but readers should be mindful of this uncertainty.

Geography

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

For the purpose of the analysis, we considered both a combined England and Wales counterfactual (consistent with the approach taken in the Baseline and Initial Impacts Report) and an England-only counterfactual, the latter recognising the potentially confounding effect of MUP being introduced in Wales in 2020. As in the previous report, we have not pursued counterfactuals based on English regions, in particular Northern England, as this would constrain the sample size of firms available, particularly relating to alcoholic drinks production at the most disaggregated sectoral levels.

England-only counterfactuals are not available for all categories of the industry analysed, owing to disclosure issues faced when extracting data on both England and England & Wales combined, which can risk identifying small sample sizes of firms in Wales.

Given that the introduction of MUP in Wales happens only at the end of our data period (and in the case of the ABS, after the end of our data period) and is likely to have had only small immediate effects on any of the metrics of interest, in the main body of the report we present only England and Wales data as comparators for Scotland. Where England-only data are available, these figures are shown in Annex C.

3.2 Findings

We now present findings for key sub-sectors of the alcoholic drinks industry. In order to facilitate presentation and discussion of a large number of pieces of data, we adopt a common structure:

- We begin by presenting data tables showing the most recent value of each of the metrics of interest in different geographies (Scotland and England & Wales) and comparison values from 2018, the year MUP was introduced in Scotland. The most recent values will depend on the metric.
  - For number of enterprises and local units, the most recent values are for 2021.
  - For employment, the most recent values are for 2020 (as we assume employment measures in the BSD are lagged by approximately one year, see above).
  - For turnover, output value and GVA the most recent values are for 2019 given lags in data availability in the BSD.
- We then show charts presenting trends in each metric in indexed form (set to 100 in 2018) by geography to facilitate comparisons over time in Scotland and differential trends in England & Wales as a comparator group. In our Baseline and Initial Impacts Report we noted that some of the data from 2009 to 2011 exhibited unexplained trends in terms of key sectoral metrics and recommended that analysis of data should begin in 2011 for the final report. We therefore present all findings from 2011 onwards.
  - Given the different scale of sub-sectors of the industry by geography, presenting indices rather than levels allows for more straightforward comparison of trends.
  - Data tables showing levels of each metric by geography over time are available in Annex C. This includes data for England as an alternative control group where available.
- We then offer some brief commentary on (a) evidence for post-2018 trend changes within Scotland and (b) differential trends post-2018 in Scotland compared with England & Wales. We make qualitative assessments about whether the volatility of pre-2018 trends in Scotland and comparability of pre-2018 trends in Scotland and England & Wales allow us to make inference about a possible impact of MUP.
  - Where we identify any changes which may be suggestive of an impact, we then explore evidence from our expert consultations, wider review of other data and research to assess what else might be driving any changes.

3.2.1 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 this SIC are specialist retailers of alcoholic drinks such as off-licences).

Table 2: Specialised retail key metrics, 2018 and most recent

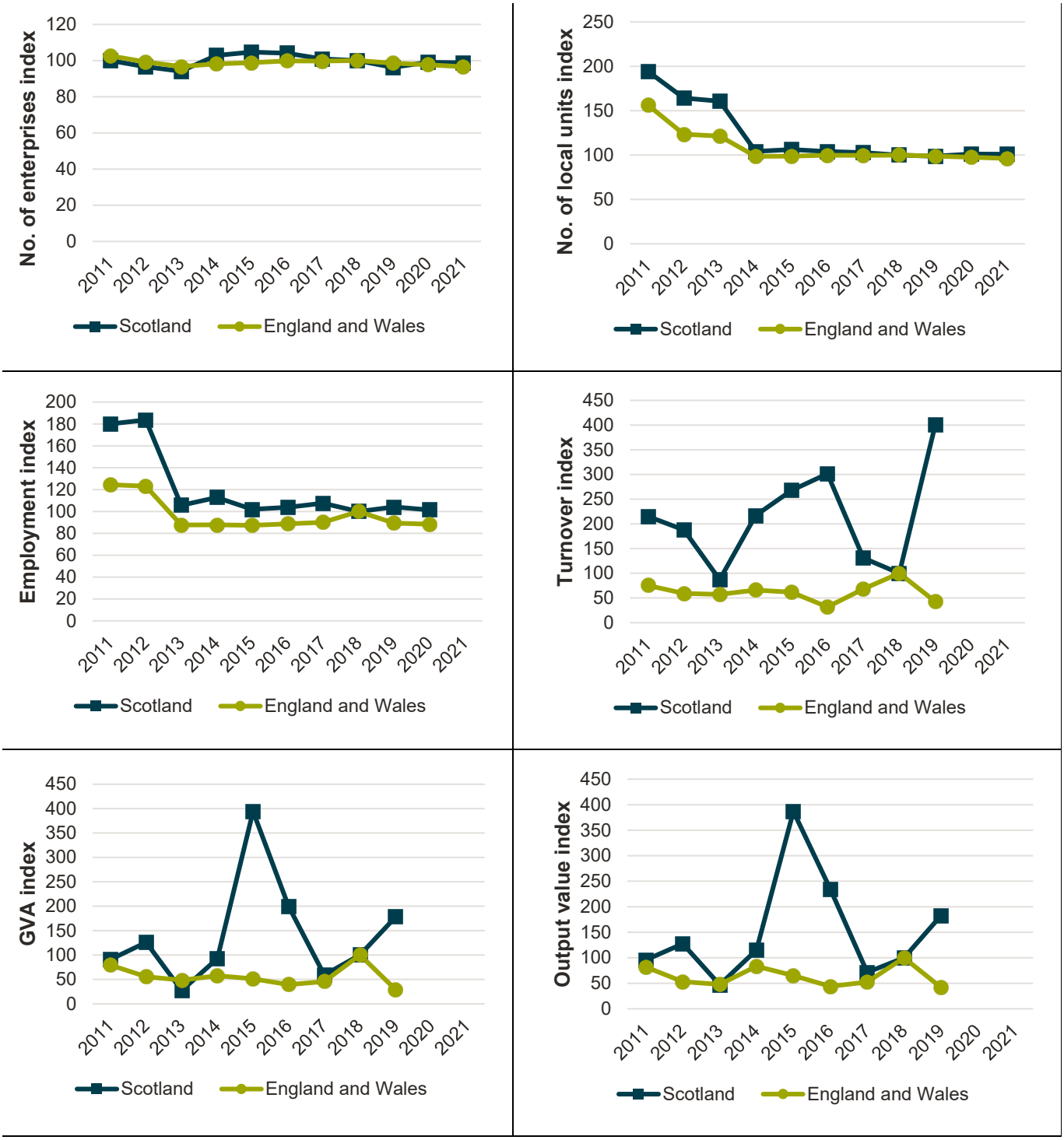
	Enterprises	Local units	Employment	Turnover (£000s)	GVA (£000s)	Output value (£000s)
2018						
Scotland	321	403	1,739	79,878	29,266	37,345
England & Wales	5,736	6,342	25,914	3,054,917	575,801	851,325
Most recent						
Scotland	317	407	1,764	319,475	52,083	68,169
England & Wales	5,540	6,100	22,896	1,304,961	167,602	356,926
% change						
Scotland	-1%	1%	1%	300%	78%	83%
England & Wales	-3%	-4%	-12%	-57%	-71%	-58%

Source: Frontier Economics analysis of Business Structure Database (Enterprises, Local Units, Employment) and Annual Business Survey (Turnover, GVA and Output Value).

Note: Most recent values are 2021 (for enterprises and local units), 2020 (for employment) and 2019 (for turnover, GVA and output value) based on data availability at the time of data collection and assumptions made about data lags in the BSD. Where data are missing for given years (*) this reflects disclosure rules in extracting small sample sizes from the ONS Secure Research Service. Number of enterprises measures the number of unique enterprises operating in each geography rather than where enterprises are headquartered. All measures are best estimates at the local unit level.

The longer-term trends in these metrics in Scotland and in England & Wales highlight further the volatility of the ABS-derived measures (turnover, GVA and output value), and also demonstrate further unexplained variation in the measures of employment and the number of enterprises and local units in the early 2010s (Figure 6). However the BSD-derived metrics (number of enterprises, number of local units and employment) appear to have been relatively consistent since around 2014 in both regions.

Figure 6: Indexed trends (2018=100), Specialised retail, Scotland and England & Wales



Source: Frontier Economics analysis of Business Structure Database and Annual Business Survey.
Note: Employment data taken from BSD and assumed to be lagged by around one year.

The quantitative evidence available from the ONS **do not suggest any material impact of MUP on the specialised retail sector in Scotland**. We note that:

- Data on the number of local units, enterprises and employment in this sector in Scotland have remained relatively constant since around 2014 and there is no apparent change in this post-2018.
- Trends in these BSD-derived metrics pre-2018 were similar in Scotland to England & Wales and there is no strong evidence of a differential trend post-2018 in the two regions.
- There is considerable volatility in the ABS-derived metrics for this sector in Scotland making it extremely difficult to infer anything about pre- and post-2018 trends being different. For example, we observe a four-fold increase in turnover in between 2018 and 2019 in Scotland, while turnover halves in England & Wales over the same period. At face value this might suggest a positive impact of MUP on turnover in specialised retailers, though it would be difficult to attribute such a large effect to MUP alone and it is not clear whether this effect would persist with future years of data. We also observe similar four-fold increases in other metrics such as GVA in earlier years in Scotland (e.g. 2014 to 2015) pre-MUP which do not persist, and likely reflect sampling variation in the underlying ABS data.

3.2.2 Non-specialised retail

This group covers firms that retail a variety of goods where food products, beverages or tobacco predominate (SIC 47110). Predominantly this will comprise grocery retail. It is important to note that sales of alcoholic drinks therefore likely only make up a small part of total sales in this SIC which will dilute the signal of MUP impact further.[16]

Based on the metrics of interest, the non-specialist retail sector is typically around ten times larger in England & Wales than in Scotland (see Table 3) based on most recent statistics. On most metrics there has been a small decline in the sector between 2018 and the most recent data in both regions, though the number of enterprises and local units has grown fractionally in England & Wales between 2018 and 2021.

[16] ONS Retail Sales data suggests that in 2021, retail sales of alcoholic drinks and tobacco were £4.6 billion, making up around 1.0% of all retail sales (£464.2 billion) or 2.6% of sales if we assume all alcoholic drinks and tobacco are purchased in predominantly food stores (£179.1 billion). Disaggregated values for alcoholic drinks only are not included in the published retail sales data. See www.ons.gov.uk/businessindustryandtrade/retailindustry/datasets/poundsdatatotalretailsales for underlying data.

Table 3: Non-Specialised retail key metrics, 2018 and most recent

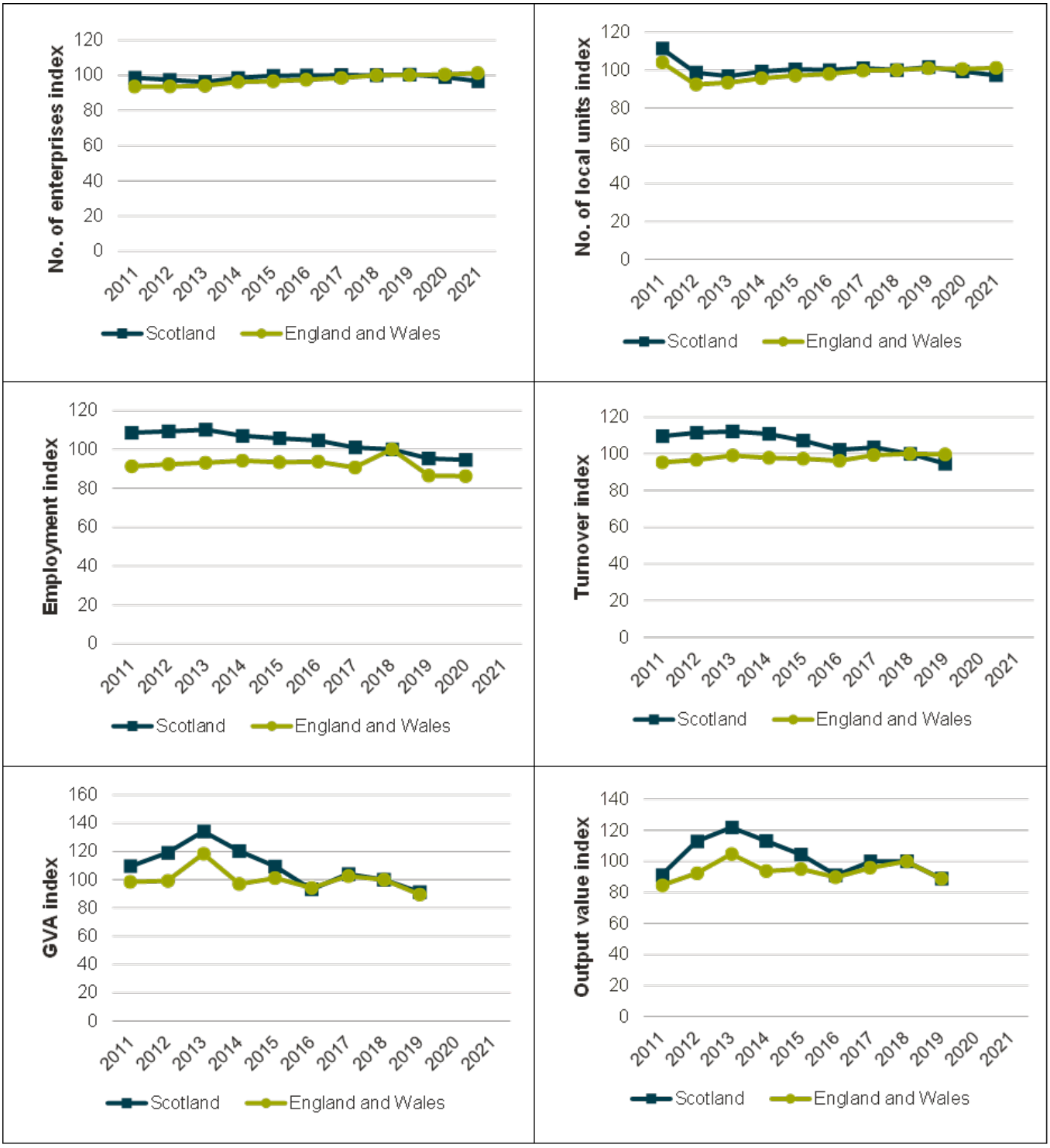
	Enterprises	Local units	Employment	Turnover (£000s)	GVA (£000s)	Output value (£000s)
2018						
Scotland	3,726	5,612	100,203	11,319,796	2,429,844	3,401,509
England & Wales	33,658	50,211	1,082,790	132,242,568	19,401,193	32,119,023
Most recent						
Scotland	3,602	5,459	94,729	10,709,252	2,215,688	3,026,281
England & Wales	34,090	50,789	933,659	131,688,235	17,362,119	28,542,894
% change						
Scotland	-3%	-3%	-5%	-5%	-9%	-11%
England & Wales	1%	1%	-14%	0%	-11%	-11%

Source Frontier Economics analysis of Business Structure Database (Enterprises, Local Units, Employment) and Annual Business Survey (Turnover, GVA and Output Value).

Note: Most recent values are 2021 (for enterprises and local units), 2020 (for employment) and 2019 (for turnover, GVA and output value) based on data availability at the time of data collection and assumptions made about data lags in the BSD. Where data are missing for given years (*) this reflects disclosure rules in extracting small sample sizes from the ONS Secure Research Service. Number of enterprises measures the number of unique enterprises operating in each geography rather than where enterprises are headquartered. All measures are best estimates at the local unit level.

Looking at the longer-term trends in these metrics (Figure 7), we see some evidence that, prior to MUP, some of the key metrics for this sector were flat or trending slightly downwards, and the performance in Scotland was slightly worse than in England & Wales.

Figure 7: Indexed trends (2018=100), non-specialised retail, Scotland and England & Wales



Source: Frontier Economics analysis of Business Structure Database and Annual Business Survey.
Note: Employment data taken from BSD and assumed to be lagged by around one year.

For example, between 2014 and 2018 based on the ONS statistics:

- the number of different enterprises active in this sector grew by 1.5% in Scotland compared with 3.9% in England & Wales;
- the number of individual local units (stores) in this sector grew by 0.8% in Scotland compared with 4.6% in England & Wales;
- employment in the sector fell by 6.5% in Scotland but grew by 6.2% in England & Wales;[17]
- turnover in the sector fell by 9.7% in Scotland but grew by 2.3% in England & Wales.

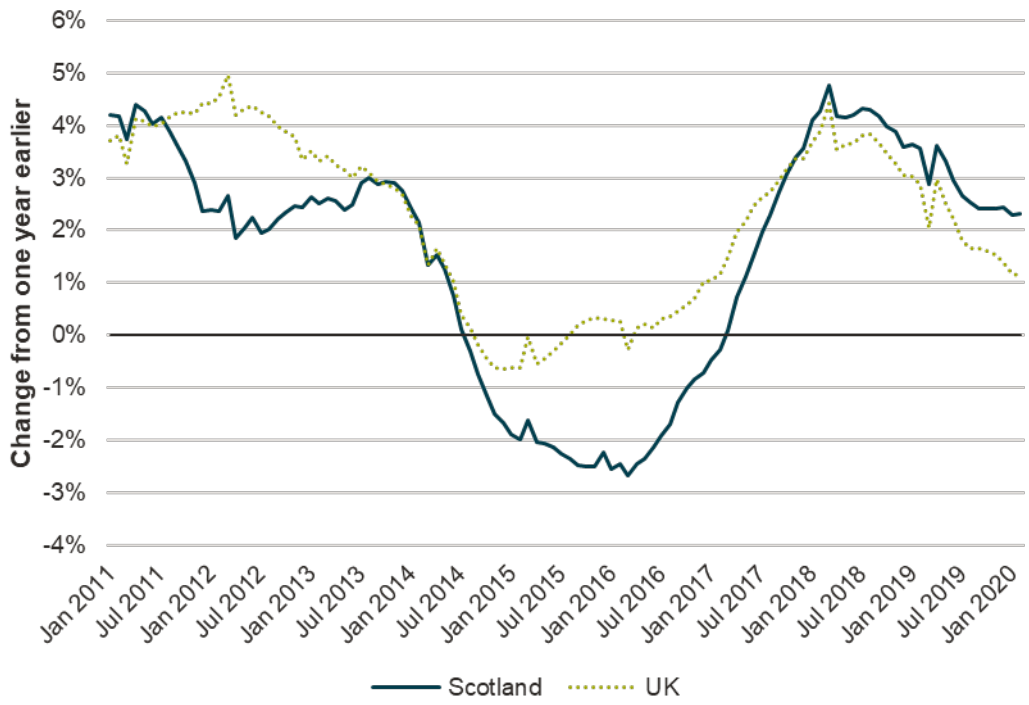
This suggests a differential sector performance in the two regions prior to MUP which might limit the usefulness of any counterfactual comparison. We consulted both academic experts and representatives of the Scottish Retail Consortium (SRC) to discuss this apparent relative underperformance of the non-specialised retail sector in Scotland prior to 2018 to help validate and contextualise the findings. Our consultees highlighted differences in the composition of the sector in Scotland compared with England & Wales (in particular a greater share of smaller retailers) and policy differences in the 2010s (e.g. the Public Health Supplement on larger retailers of alcohol and tobacco which was in place between 2012 and 2015) as possible contributory factors.

We also received data from the SRC on retail sales in Scotland and the UK as a whole over a similar timeframe (see Figure 8).[18] These figures show changes in the value of retail sales (not like-for-like, i.e. allowing for changes in the number of stores as well) in the two regions based on the same month in the previous year. Interestingly, the data do suggest a decline in turnover in Scottish retail over a period around 2014 to 2016, with a flat performance in the UK as a whole over the period. This is consistent with the fall in turnover in Scotland that we see in the ONS data over a similar period (see Figure 7, middle-right). However the SRC data suggest strong sales growth from around 2018 and continued positive growth through to early 2020 (with faster sales growth in Scotland than the UK as a whole), whereas the turnover data derived from the ABS suggests continued decline in retail turnover in Scotland after 2018 into 2019.

[17] Though there was a spike in employment data in England & Wales in 2018 in this sector. If we look at the trend between 2014 and 2017, the difference is smaller with a decline of 5.6% in Scotland and a decline of 3.7% in England & Wales.

[18] Data from the British Retail Consortium/KPMG Retail Sales Monitor. More details available at https://brc.org.uk/src/insight/retail-sales-reports/

Figure 8: Annualised change in retail sales value, Scotland and UK, 2011—2020



Source: Frontier Economics analysis of data provided by the Scottish Retail Consortium

Note: Change in value, not like-for-like.

The quantitative evidence available **does not suggest any material impact of MUP on the non-specialised retail sector in Scotland.** We note that:

- Trends in pre-MUP metrics in this sector in Scotland appear to be maintained post-MUP.
- In some cases, metrics appear to be trending slightly differently in Scotland compared with England & Wales pre-MUP. As a result while some metrics appear to have performed worse in Scotland in this sector after 2018 (e.g. number of enterprises, local units and employment) this is consistent with pre-MUP trends.
- For other metrics (e.g. GVA and output value) the sector appears to have evolved in a similar way between 2018 and 2019 in Scotland and in England & Wales despite, if anything, slightly faster declines in Scotland in these metrics pre-MUP. These metrics are also subject to more sampling variation which limits the inference we can draw.
- For turnover, the ONS data implies a faster decline in Scotland than in England & Wales between 2018 and 2019, though this is consistent with pre-MUP trends. Other retail sales data point, if anything, to faster sales growth in Scotland after

2018 than the rest of the UK. There is therefore little consistent evidence that MUP has differentially impacted retail turnover in Scotland.

3.2.3 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.

Table 4: On-trade retail key metrics, 2018 and most recent

	Enterprises	Local units	Employment	Turnover (£000s)	GVA (£000s)	Output value (£000s)
2018						
Scotland	7,054	8,350	98,402	2,498,912	1,301,805	2,183,635
England & Wales	79,462	96,643	1,112,859	36,925,197	18,388,932	32,024,502
Most recent						
Scotland	6,796	8,052	93,026	2,026,753	1,092,723	1,782,823
England & Wales	77,881	94,998	1,119,539	33,914,856	16,724,863	29,269,704
% change						
Scotland	-4%	-4%	-5%	-19%	-16%	-18%
England & Wales	-2%	-2%	1%	-8%	-9%	-9%

Source: Frontier Economics analysis of Business Structure Database (Enterprises, Local Units, Employment) and Annual Business Survey (Turnover, GVA and Output Value).

Note: Most recent values are 2021 (for enterprises and local units), 2020 (for employment) and 2019 (for turnover, GVA and output value) based on data availability at the time of data collection and assumptions made about data lags in the BSD. Where data are missing for given years (*) this reflects disclosure rules in extracting small sample sizes from the ONS Secure Research Service. Number of enterprises measures the number of unique enterprises operating in each geography rather than where enterprises are headquartered. All measures are best estimates at the local unit level.

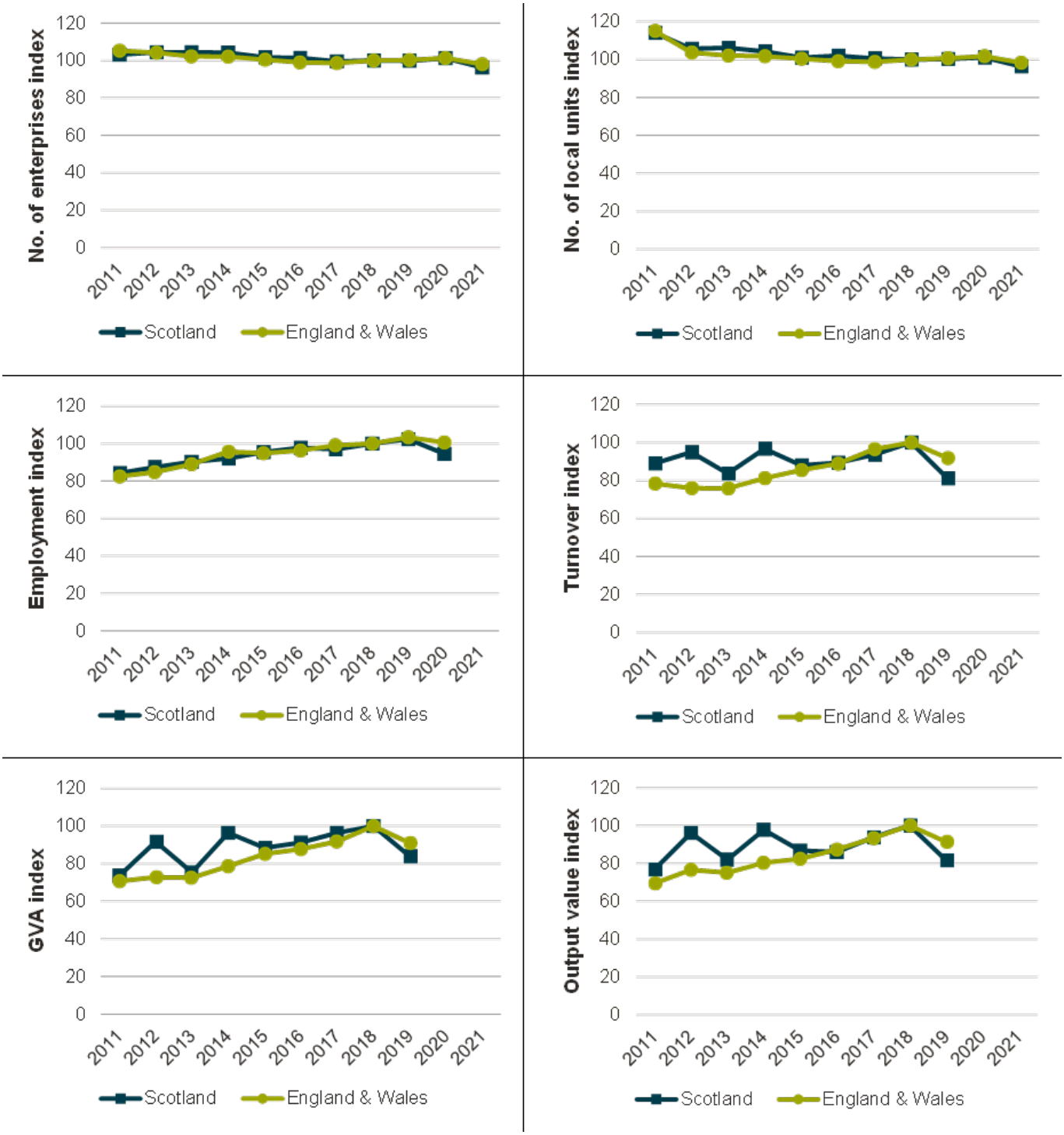
In this Section, consistent with the Baseline and Initial Impacts Report, we focus on the aggregated on-trade retail data. In Annex C we provide underlying data for each of the three SICs which make up this category as well given that MUP might have affected them differentially (licensed restaurants, SIC 56101; licensed clubs, SIC 56301; and public houses and bars, SIC 56302). Any key findings or trends of note for the individual SICs are commented on in this Section.

The on-trade retail sector is around twelve times larger in England & Wales than in Scotland in terms of the number of enterprises, local units and employment; and around sixteen times larger in terms of turnover, GVA and output value (Table 4). Between 2018

and most recent values, most of the metrics for the sector have declined, with larger declines in Scotland.

However as is clear from longer-term trends (Figure 9), these declines have tended to come in 2020 or 2021, and likely reflect both the impact of the Covid-19 pandemic which clearly impacted the on-trade sector in particular, and associated measurement issues and volatility in the ABS-derived metrics (turnover, GVA and output value). In some cases, in particular the number of enterprises and local units, there is also evidence of a longer-term decline whereas in terms of employment, recent declines appear to run counter to a longer-term growth trend.

Figure 9: Indexed trends (2018=100), On-trade retail, Scotland and England & Wales



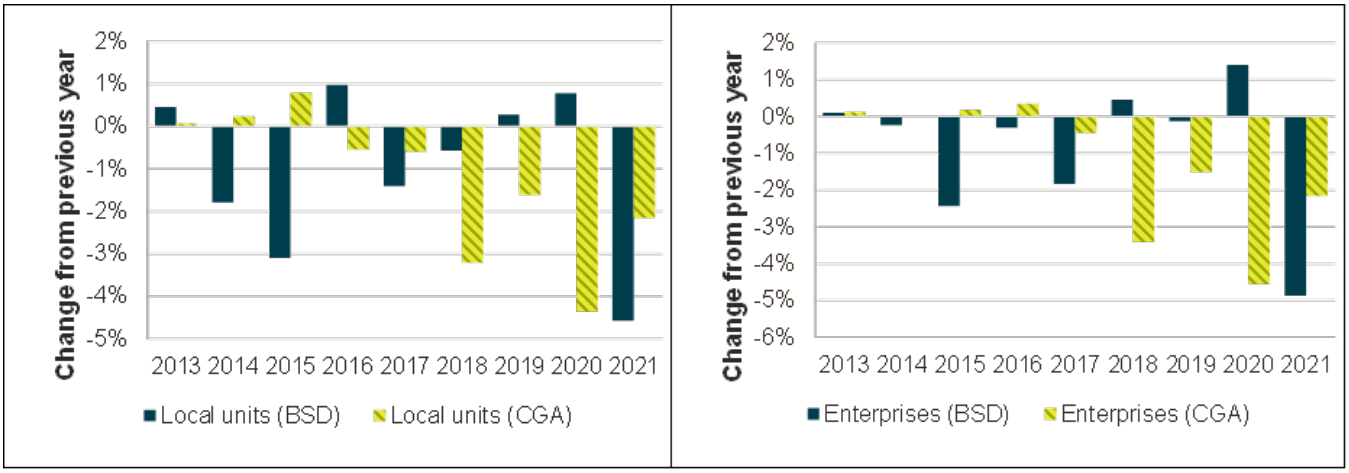
Source: Frontier Economics analysis of Business Structure Database and Annual Business Survey.

Note: Employment data taken from BSD and assumed to be lagged by around one year.

Consistent with the evidence on lockdown stringency (see Figure 5) the falls in employment and numbers of enterprises and local units appear to be larger in Scotland than in England & Wales. For example, between 2020 and 2021, the number of on-trade enterprises in Scotland fell by 4.9% compared with 3.3% in England & Wales. Between 2019 and 2020, on-trade employment in Scotland fell by 7.7% in Scotland compared with 2.7% in England & Wales.[19]

We consulted industry experts on other data regarding trends in the on-trade sector in Scotland in recent years. Data provided by CGA Strategy for the number of local units and (estimated) number of enterprises show slightly different trends to those derived from the Business Structure Database (Figure 10).[20]

Figure 10: Changes in number of on-trade local units and enterprises, Scotland, BSD and CGA Strategy datasets



Source: Frontier Economics analysis of Business Structure Database and CGA Strategy data.

Note: Changes represent % change from previous year, e.g. 2013 value is the annual change between 2012 and 2013.

[19] As discussed in Section 3.1.1, there is some uncertainty about the precise timing of the employment figures given lags in the underlying BSD being updated. Therefore the fall in employment which we attribute to 2020 is likely to be taking place in the period between 2019 and 2021 depending on how rapidly the underlying data are updated. Falling employment in 2021 would be consistent with the decline in the number of enterprises and local units observed.

[20] CGA Strategy data cover all on-trade premises where alcoholic drinks are sold and consumed on the premises. More information available at https://cgastrategy.com/services/market-measurement/. Estimates of the number of enterprises were made based on the number of independent on-trade retailers and intelligence on the number of owner groups operating in Scotland. The numbers of local units in the CGA data in Scotland are higher than those recorded based on SIC code in the BSD, typically 20 to 35% higher.

In particular, the CGA data show a more rapid decline in the number of enterprises and local units in Scotland in recent years with much larger falls in 2018, 2019 and 2020 than observed in the BSD (though a larger fall in the BSD in 2021). Both sources, though, show the longer-term decline in the number of on-trade retailers and retail outlets over the last decade or so with the BSD suggesting larger declines in the earlier half of the last decade.

In terms of comparisons with England & Wales, the CGA data suggest the number of local units in the on-trade in Scotland fell by 7.9% between 2018 and 2021, compared with a fall of 9.9% in England & Wales (the equivalent figures for estimated number of distinct enterprises are 8.0% and 10.8% respectively). Between 2011 and 2018, pre-MUP, the decline in the number of local units had been slightly faster in England & Wales (7.2% compared with 4.0% in Scotland) while the decline in the estimated number of enterprises had been similar (4.6% in Scotland and 4.5% in England & Wales).

Sub-group trends

Annex C.3 provides detailed data tables for the three SICs underlying the on-trade. Some key trends in the data include:

- **Public houses and bars**
  - The number of public houses and bars in Scotland in the BSD (measured both in terms of number of local units and number of unique enterprises) has fallen fairly consistently since 2011. The rate of decline has been very similar in Scotland and England & Wales.
  - There appears to be some evidence of a levelling off in the rate of decline in England & Wales from 2017 which is not seen in Scotland, though the numbers of public houses and bars begins to decline again in England & Wales in 2021. Between 2018 and 2021, the number of public houses and bars (in local units) recorded in the BSD in Scotland fell by 9%, compared with a decline of 4.1% in England & Wales. However, data provided by the British Beer and Pub Association, based on Valuation Office Agency data,[21] suggests a different trend, with the number of pubs falling by 0.7% in

[21] The data are derived from the VOA database recording non-domestic properties with a positive rateable value described as 'Public House, Pub, Inn, Micropub, etc.'. This includes hotels in Scotland with a rateable value below £60,000.

Scotland between 2018 and 2021 compared with a fall of 2.9% in England & Wales (see Figure 11).[22]

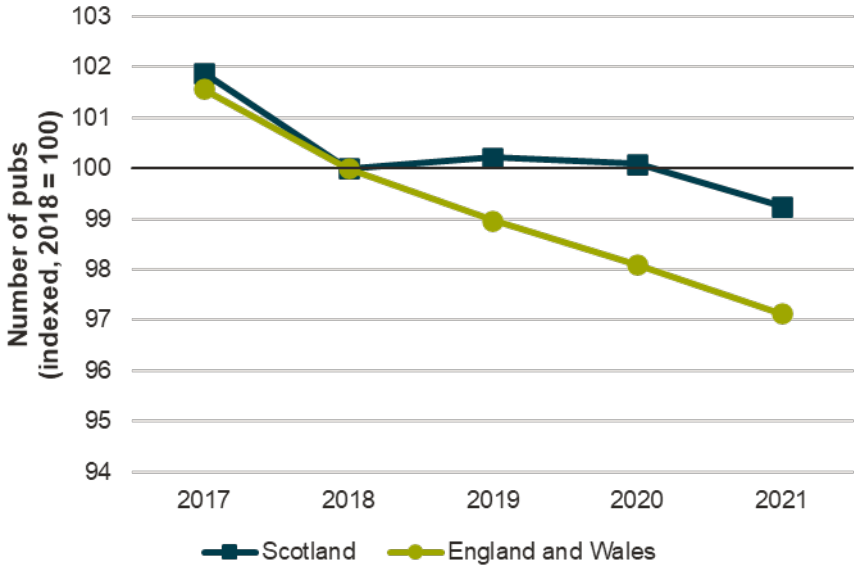
- BSD-derived measures of employment in Scotland and England & Wales rise slightly between 2011 and 2019. There is a bigger decline in 2020 in Scotland than in England & Wales, which again could relate to the impact of Covid-19.
- Measures of turnover, GVA and output value are volatile year-to-year reflecting underlying sampling variability in the ABS. There is no clear evidence of any change in trend in Scotland in 2018 or differential trend between Scotland and England & Wales.

- **Licensed restaurants**
  - The number of restaurants (local units) has tended to rise over time, with slightly faster growth in England & Wales than in Scotland. The number fell in 2021, again likely reflecting the impact of Covid-19. There is no evidence of a change in the trend around 2018 in Scotland.
  - The number of different enterprises operating in Scotland has tended to fall over time, contrasting a rise in England & Wales. Again there is no evidence of a change in this trend in Scotland in 2018.
  - Employment in licensed restaurants has grown over time in Scotland and at a similar rate in England & Wales. Employment fell in 2020, more quickly in Scotland than in England & Wales, again likely reflecting impacts of Covid-19.
  - Measures of turnover, GVA and output value are volatile year-to-year in Scotland, likely reflecting the small underlying regional and industry sample in the ABS. There is some evidence of an upward trend, and a slightly faster upward trend in England & Wales in these metrics. There is no evidence of any clear trend change around 2018 in Scotland.

[22] We consulted key industry bodies (the British Beer and Pub Association and the Scottish Licensed Trade Association on recent on-trade trends and pub numbers to assess whether there was wider evidence of differential trends in Scotland and the rest of the UK. As well as different data sources, stakeholders described other qualitative differences between the sectors in Scotland and other parts of the UK which might relate to any differential trends, including e.g. Covid-19 response differences, regulatory changes such as bans on happy hours in the on-trade in Scotland, a greater concentration in the number of pubs per adult in Scotland compared with elsewhere, and different ownership structures with a larger share of owner-operated pubs in Scotland compared with more 'pubcos' and leased tenancies in England. Both stakeholders re-iterated a view, consistent with our qualitative findings (see Section 4), that MUP had not materially impacted the on-trade sector in Scotland.

- **Licensed clubs**
  - The number of licensed clubs in Scotland (both in terms of enterprises and local units) has fallen at a fairly consistent pace over the last decade, and at a very similar rate to England & Wales. There is no evidence of any change in this trend around 2018.
  - Employment in licensed clubs appears to rise in Scotland between 2011 and 2015 before falling, compared with a fairly consistent decline in England & Wales.
  - Measures of turnover, GVA and output value are highly volatile in Scotland.

Figure 11: Number of pubs, Scotland and England & Wales, 2017–2021 (2018=100)



Source: Frontier Economics analysis of data from the British Beer and Pub Association.

Note: 2021 values were 4,525 pubs in Scotland and 40,639 in England & Wales.

The quantitative evidence available **does not suggest any material impact of MUP on the on-trade retail sector in Scotland.** We note that:

- Trends in pre-MUP metrics in this sector in Scotland appear to be maintained immediately post-MUP. There is evidence of an impact of Covid-19 in terms of the number of firms (enterprises and local units) and employment falling in 2020 or 2021, but no particular impacts in 2018.
- Measures of turnover, GVA and output value for the on-trade as a whole fall in Scotland in 2019 at a slightly faster rate than in England & Wales, following a few years where these measures rose at similar rates in both regions. However we note the underlying volatility of the ABS in Scotland, with falls of similar magnitude

observed in the early 2010s, and in particular the impact of Covid-19 on the underlying ABS data collection in 2020 (which underpins the 2019 values).

- There is no compelling evidence that MUP has impacted sub-sectors of the on-trade with pre-existing trends in employment and numbers of firms maintained post-2018 and more visible impacts in 2020 and 2021 likely to relate to the pandemic. Some evidence of a differential trend in the number of public houses and bars in the BSD Scotland compared with England & Wales after 2018 is contradicted by other data showing a slightly faster decline in the number of pubs in England & Wales after 2018, suggesting that measurement and definition are critical.
- The underlying logic of substantial impacts of MUP on the on-trade is relatively weak. Most alcoholic drinks sold on-trade were already retailing at more than 50ppu prior to 2018, and therefore any effects will be indirect in terms of income or substitution effects on the overall demand for alcohol and the choice between on- and off-trade.

3.2.4 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). Alcoholic beverages will, across the whole category, form only a part of overall revenues for firms in this group, though we also present sub-group analysis of the specialist wholesaler SIC.

Table 5: Wholesale key metrics, 2018 and most recent

	Enterprises	Local units	Employment	Turnover (£000s)	GVA (£000s)	Output value (£000s)
2018						
Scotland	753	840	10,850	4,050,047	910,501	1,988,346
England & Wales	8,801	9,822	136,633	40,986,828	6,572,134	11,623,190
Most recent						
Scotland	837	912	10,752	6,279,027	1,753,303	2,571,884
England & Wales	9,310	10,169	134,858	43,389,872	5,798,858	11,157,030
% change						
Scotland	11%	9%	-1%	55%	93%	29%
England & Wales	6%	4%	-1%	6%	-12%	-4%

Source: Frontier Economics analysis of Business Structure Database (Enterprises, Local Units, Employment) and Annual Business Survey (Turnover, GVA and Output Value).

Note: Most recent values are 2021 (for enterprises and local units), 2020 (for employment) and 2019 (for turnover, GVA and output value) based on data availability at the time of data collection and assumptions made about data lags in the BSD. Where data are missing for given years (*) this reflects disclosure rules in extracting small sample sizes from the ONS Secure Research Service. Number of enterprises measures the number of unique enterprises operating in each geography rather than where enterprises are headquartered. All measures are best estimates at the local unit level.

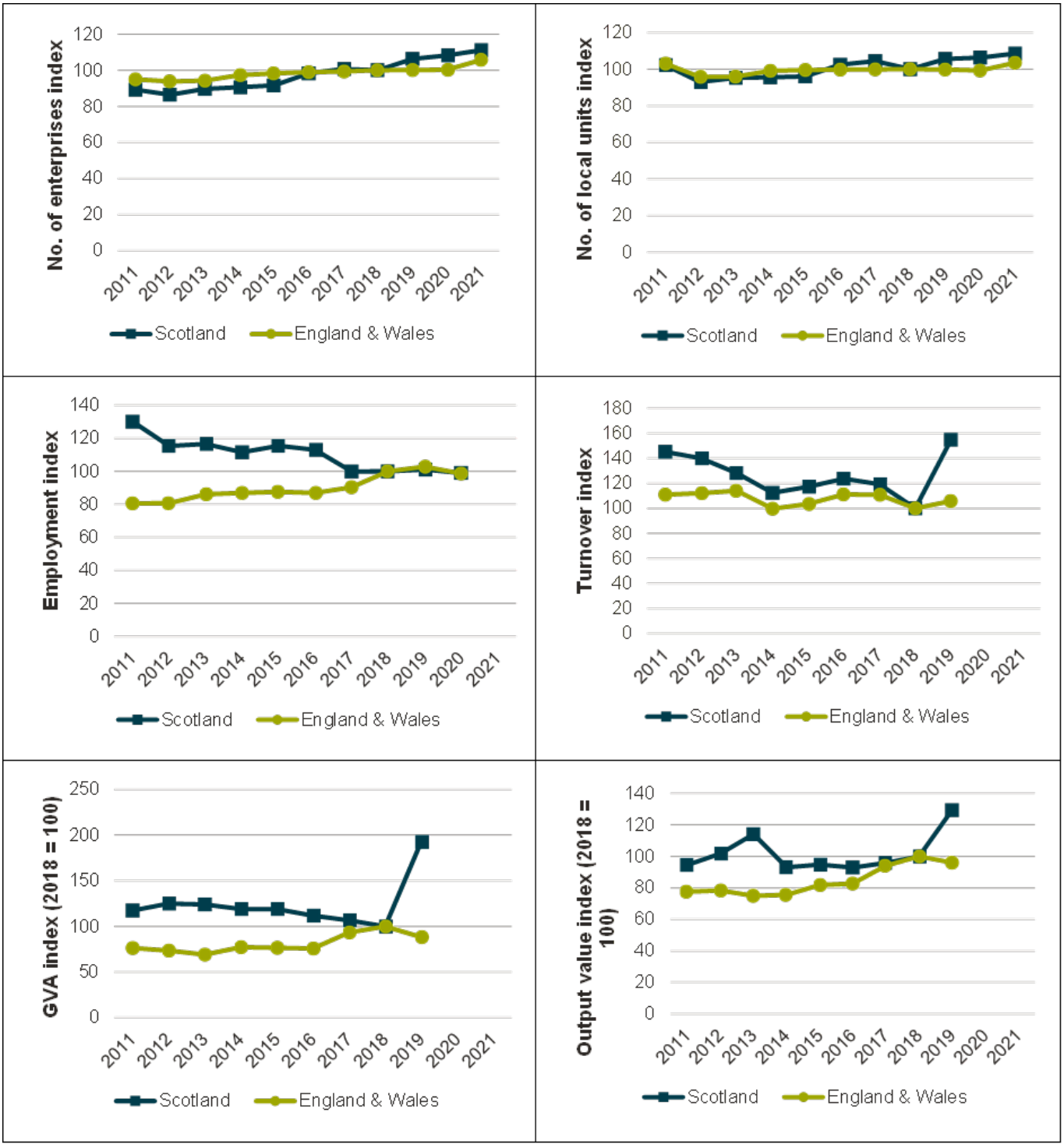
Based on the most recent data, the wholesale sector in England & Wales is around 11–12 times larger than that in Scotland based on number of firms and employment, and around 3–6 times larger in terms of GVA, turnover and output value (see Table 5).

Part of this discrepancy appears to relate to volatility in the underlying ABS, where GVA, turnover and output value in Scotland appear to spike in 2019 relative to 2018, visible in the longer-run trends indexed to 2018 shown in Figure 12. If we look at the relativities in 2018, the sector in England & Wales is around 6 – 10 times larger than in Scotland in terms of GVA, turnover and output value.

Looking at the longer-run trends in these metrics in Figure 12, the wholesale sector appears to have grown in Scotland in terms of the number of firms (compared with a relative flatline in England & Wales) but fallen in terms of employment (compared with growth in England & Wales). These trends do not seem to materially alter after 2018. For the ABS-derived metrics, other than the apparent spike in 2019 which likely relates to underlying sampling issues, the sector appeared to be trending downwards in Scotland in terms of turnover and GVA, and relatively flat in terms of output value. The trends in

these metrics appear to be quite different in England & Wales, limiting the validity of any counterfactual comparison post-2018.

Figure 12: Indexed trends (2018=100), wholesale, Scotland and England & Wales



Source: Frontier Economics analysis of Business Structure Database and Annual Business Survey.

Note: Employment data taken from BSD and assumed to be lagged by around one year.

Sub-group trends

Annex C.4 provides detailed data tables for the individual SIC 'wholesale of wine, beer, spirits and other alcoholic beverages' (SIC 46342). Some key insights from this specific SIC include:

- As with the wider wholesale category, there is evidence that the number of firms engaged in the wholesale of alcoholic beverages in Scotland has been increasing over time (e.g. from around 292 enterprises in 2011 to 369 in 2021), at a slightly faster rate than observed in England & Wales and also with no evidence of changes in the trend after 2018;
- Employment in this SIC in Scotland has fallen slightly (there was a significant drop between 2011 and 2012 which does not appear to relate to the number of firms and may be an artefact of the underlying BSD). From 2012 to 2018, employment in Scotland in this SIC fell from around 3,680 people to 3,288 people. However, this trend appeared to reverse with employment growing to 3,752 people by 2020. It is not clear that this relates to MUP.[23]

Measures of turnover, GVA and output value in this SIC in Scotland were trending downwards pre-MUP with some volatility in the time series (in particular large drops in the measures between 2017 and 2018 for all three measures, followed by an increase in 2019 in GVA and output value and a further small decline in turnover).

[23] The BSD suggests a large increase in employment in the wholesale of alcoholic beverages in England & Wales between 2017 and 2018, almost doubling from around 25,900 people to 49,700 people. From the underlying data this appears to reflect a firm in this SIC that is first observed in the 2019 wave of the BSD (and therefore employment values attributed to 2018) rather than e.g. a firm reclassifying its SIC. We note that other sources of sector-level employment data such as the Business Register and Employment Survey (BRES) based on a large sample of firms (see details here) does not show a similar spike in employment in SIC 46342 nationally (which would be dominated by England). Employment measures from BRES for this SIC in Great Britain were 24,400 in 2017; 26,000 in 2018; 26,200 in 2019; and 27,500 in 2020). The methodology for BRES uses the Inter-Departmental Business Register as a sampling frame, and the BSD is a snapshot of the IDBR. However the BRES data does omit outliers through a process of 'winsorisation' which in effect prevents extreme values affecting time series data which may explain this difference. We also consulted sector experts in the Evaluation Advisory Group about any changes in the wholesale of alcoholic beverages sector which might explain the apparent jump in England around this time. While various forms of mergers and acquisitions were discussed it was not clear to anyone in the group what might account for the change.

The quantitative evidence available **does not suggest any material impact of MUP on the wholesale sector in Scotland**. We note that:

- For measures of employment and number of firms (enterprises and local units), pre-MUP trends in Scotland appear to be maintained immediately post-MUP. The main exception is a reversal in a declining trend in employment in the wholesale of alcoholic beverages, but there is not a compelling logic to relate this to MUP and it is not reflected in other metrics.
- Measures of GVA, output value and turnover appeared to be trending downwards in Scotland pre-MUP and there is volatility in the metric around 2018 and 2019 which make it hard to derive strong evidence of any impacts.

3.2.5 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).

As shown in Table 6, the nature of the sector is very different in Scotland compared with England & Wales. The number of enterprises and local units is far higher in England & Wales and has continued to grow rapidly after 2018, almost doubling between 2018 and 2021. By contrast, employment, turnover, GVA and output value in the sector are much higher in Scotland. This reflects the nature and maturity of the sector in Scotland, which is characterised by a number of large spirits producers. In England & Wales there are more far smaller producers (notably, for example, the number of local units and enterprises is almost identical, suggesting there are very few multi-site producers in England & Wales). Conversations with sector experts also point to the different nature of spirits production, with large numbers of gin distillers in England & Wales, and a more dominant whisky sector in Scotland.

Table 6: Spirits production key metrics, 2018 and most recent

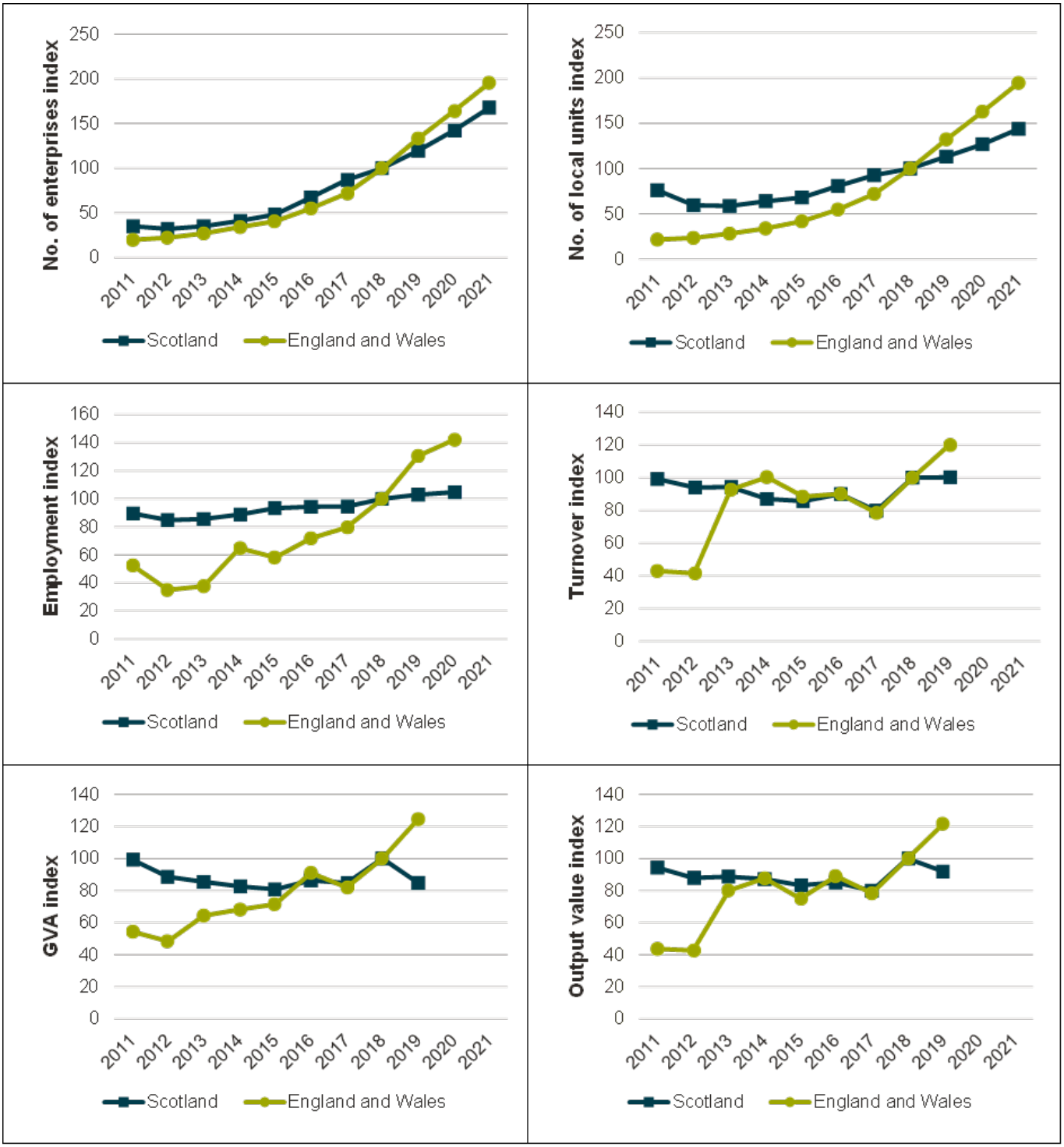
	Enterprises	Local units	Employment	Turnover (£000s)	GVA (£000s)	Output value (£000s)
2018						
Scotland	168	272	8,847	3,887,293	2,263,595	3,993,583
England & Wales	369	379	1,970	500,397	209,494	467,982
Most recent						
Scotland	282	391	9,259	3,899,488	1,919,577	3,671,246
England & Wales	722	737	2,798	600,484	260,959	569,414
% change						
Scotland	68%	44%	5%	0%	-15%	-8%
England & Wales	96%	94%	42%	20%	25%	22%

Source: Frontier Economics analysis of Business Structure Database (Enterprises, Local Units, Employment) and Annual Business Survey (Turnover, GVA and Output Value).

Note: Most recent values are 2021 (for enterprises and local units), 2020 (for employment) and 2019 (for turnover, GVA and output value) based on data availability at the time of data collection and assumptions made about data lags in the BSD. Where data are missing for given years (*) this reflects disclosure rules in extracting small sample sizes from the ONS Secure Research Service. Number of enterprises measures the number of unique enterprises operating in each geography rather than where enterprises are headquartered. All measures are best estimates at the local unit level.

These differential trends are reinforced by the longer-term trends in these metrics presented in Figure 13 below. Over the last decade, spirits production has grown more quickly in England & Wales on a range of measures than in Scotland, but clearly starting from a much lower base in terms of the economic footprint of the sector.

Figure 13: Indexed trends (2018=100), Spirits production, Scotland and England & Wales



Source: Frontier Economics analysis of Business Structure Database and Annual Business Survey.
Note: Employment data taken from BSD and assumed to be lagged by around one year.

The quantitative evidence available from the ONS **do not suggest any material impact of MUP on the spirits production sector in Scotland**. We note that:

- Consistent with the Baseline and Initial Impacts Report, England & Wales does not appear to be a good counterfactual post-MUP for Scotland, given the different sectoral dynamics and nature of the spirits produced in the two regions.
- Measures such as the number of producers (local units and enterprises) and employment in Scotland continued to grow post-2018 at similar rates to before MUP.
- There is volatility in the ABS-derived metrics (turnover, GVA and output value) and only one year of post-MUP data available, which makes interpretation of post-2018 trends difficult. While there appear to be some declines e.g. in GVA and output value between 2018 and 2019, this seems to be from a spike in values in 2018 reverting to more typical pre-2018 values.

3.2.6 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).

As shown in Table 7, beer production is a relatively small sector in Scotland, employing around 1,560 people in 2020. However it is a growing sector, with increases in the number of local units, enterprises and employment over the last decade as shown in Figure 14. It is a much larger sector in England & Wales, employing around 18,100 people in 2020 with similar growth observed in employment, local units and employment over the last decade or so.

Measures of turnover, GVA and output value are not consistently available for Scotland owing to small sample sizes in the underlying Annual Business Survey, and are also as a result subject to considerable sampling variation and subsequent volatility in the data points which are available. This makes drawing inference about longer-term trends in these metrics for this sector in Scotland difficult.

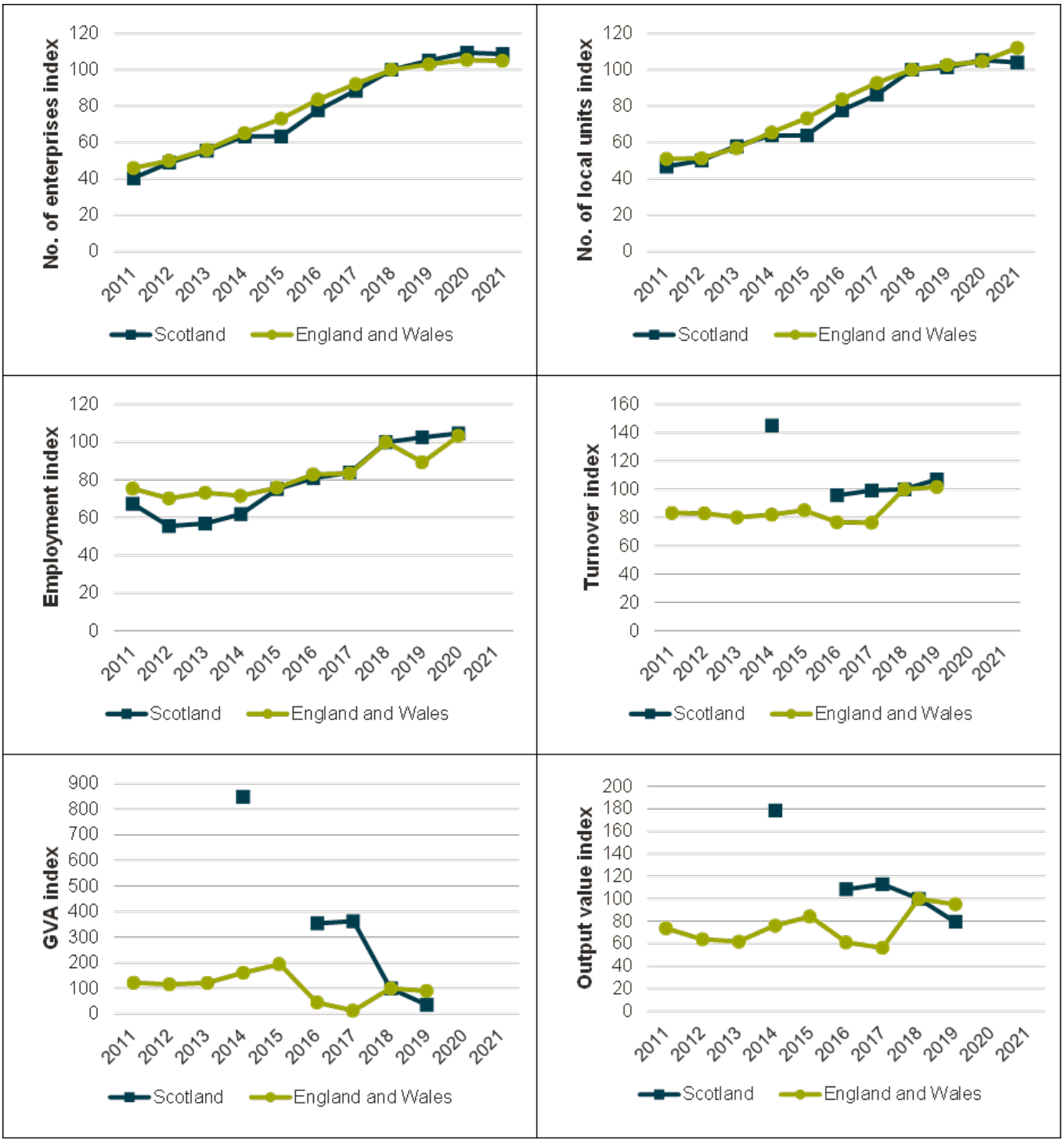
Table 7: Beer production key metrics, 2018 and most recent

	Enterprises	Local units	Employment	Turnover (£000s)	GVA (£000s)	Output value (£000s)
2018						
Scotland	139	152	1,490	281,685	9,556	116,601
England & Wales	1,444	1,508	17,513	5,630,482	650,115	2,731,457
Most recent						
Scotland	151	158	1,560	301,239	3,358	92,843
England & Wales	1,515	1,689	18,103	5,722,237	583,131	2,599,638
% change						
Scotland	9%	4%	5%	7%	-65%	-20%
England & Wales	5%	12%	3%	2%	-10%	-5%

Source: Frontier Economics analysis of Business Structure Database (Enterprises, Local Units, Employment) and Annual Business Survey (Turnover, GVA and Output Value).

Note: Most recent values are 2021 (for enterprises and local units), 2020 (for employment) and 2019 (for turnover, GVA and output value) based on data availability at the time of data collection and assumptions made about data lags in the BSD. Where data are missing for given years (*) this reflects disclosure rules in extracting small sample sizes from the ONS Secure Research Service. Number of enterprises measures the number of unique enterprises operating in each geography rather than where enterprises are headquartered. All measures are best estimates at the local unit level.

Figure 14: Indexed trends (2018=100), Beer production, Scotland and England & Wales



Source: Frontier Economics analysis of Business Structure Database and Annual Business Survey.

Note: Employment data taken from BSD and assumed to be lagged by around one year. Missing data for Scotland for turnover, GVA and output value reflect small sample sizes and data consequently being suppressed due to possible disclosure.

The quantitative evidence available from the ONS **do not suggest any material impact of MUP on the beer production sector in Scotland.** We note that:

- In terms of the number of enterprises and local units, England & Wales appears to be a reasonable counterfactual for Scotland given pre-2018 trends. There is no strong evidence of differential trends in these metrics post-2018 either within Scotland or compared with England & Wales.
- In terms of employment, there is no evidence of a differential trend in this sector post-2018 in Scotland or clear evidence of a differential trend with England & Wales. The comparability of the England & Wales counterfactual appears quite strong between 2015 and 2018 but not before 2015.
- In terms of turnover, GVA and output value, the lack of consistent data and the volatility of the underlying ABS sample do not allow us to draw any conclusions about trends in these metrics relating to beer production in Scotland or in comparison with England & Wales.

3.2.7 Malt production

This group covers all firms involved in the manufacture of malt (SIC 11060). While malt is a clear input into the production process for some types of alcoholic drinks, it also has a number of other uses, including confectionary, malted drinks and malt flour.

Malt production is a small sector in both Scotland and in England & Wales. Fewer than ten enterprises are active in this sector in Scotland in any given year of data. In 2021, there were only an estimated 12 local units in this sector. Employment in 2020 was estimated to be fewer than 300 people in Scotland. The sector is around four times larger in England & Wales than in Scotland on a number of key metrics (see Table 8), though more recent data are quite patchy as well.

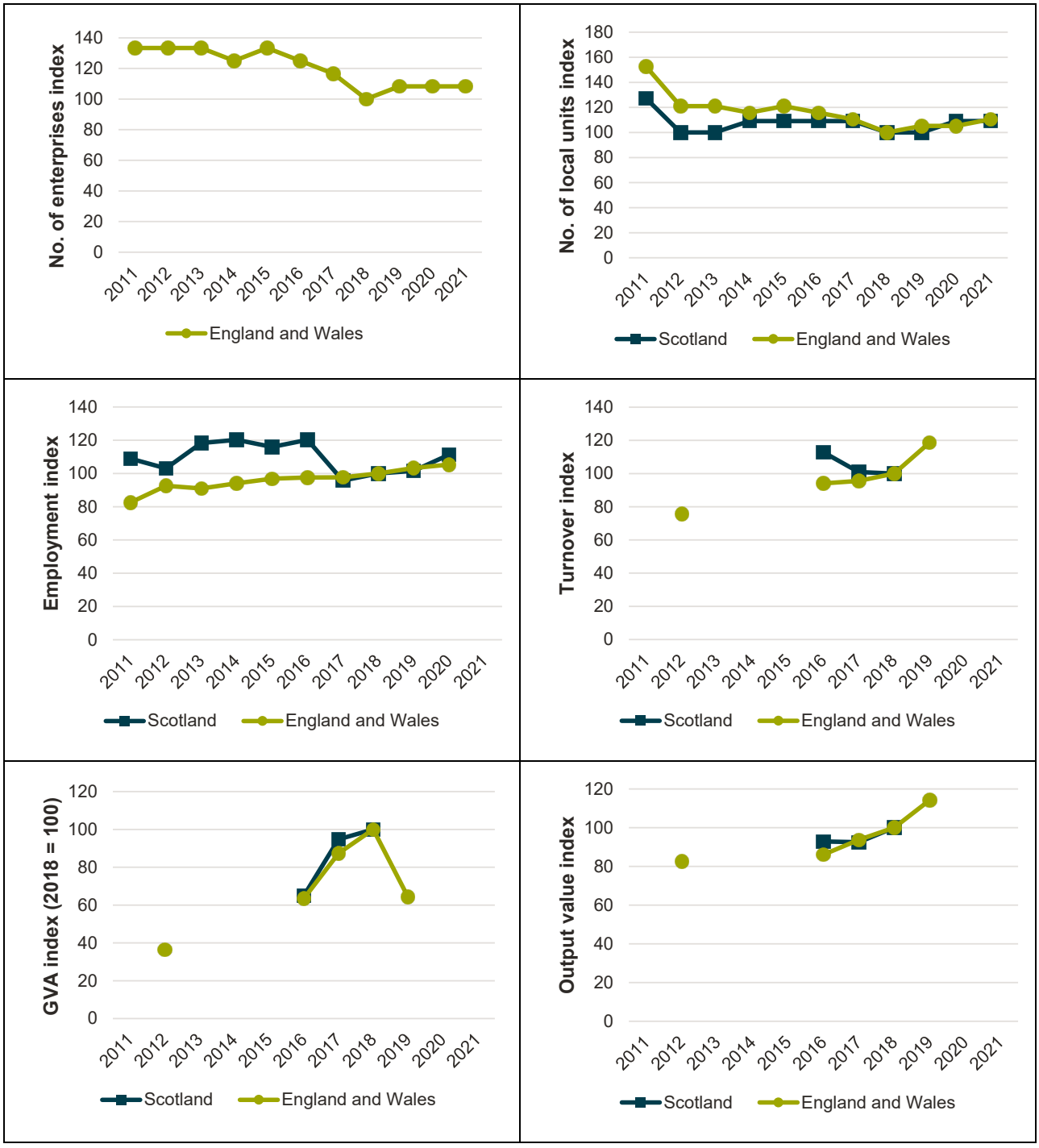
Table 8: Malt production key metrics, 2018 and most recent

	Enterprises	Local units	Employment	Turnover (£000s)	GVA (£000s)	Output value (£000s)
2018						
Scotland	*	11	257	125,606	51,119	99,396
England & Wales	12	19	1,039	484,516	139,306	450,352
Most recent						
Scotland	*	12	286	*	*	*
England & Wales	13	21	1,095	574,861	89,654	514,358
% change						
Scotland	n/a	9%	11%	n/a	n/a	n/a
England & Wales	8%	11%	5%	19%	-36%	14%

Source: Frontier Economics analysis of Business Structure Database (Enterprises, Local Units, Employment) and Annual Business Survey (Turnover, GVA and Output Value).

Note: Most recent values are 2021 (for enterprises and local units), 2020 (for employment) and 2019 (for turnover, GVA and output value) based on data availability at the time of data collection and assumptions made about data lags in the BSD. Where data are missing for given years (*) this reflects disclosure rules in extracting small sample sizes from the ONS Secure Research Service. Number of enterprises measures the number of unique enterprises operating in each geography rather than where enterprises are headquartered. All measures are best estimates at the local unit level.

Figure 15: Indexed trends (2018=100), malt production, Scotland and England & Wales



Source: Frontier Economics analysis of Business Structure Database and Annual Business Survey.

Note: Employment data taken from BSD and assumed to be lagged by around one year. Missing data reflect small sample sizes and data consequently being suppressed due to possible disclosure.

The quantitative evidence available from the ONS **do not suggest any material impact of MUP on the malt production sector in Scotland** though the data are extremely limited. We note that:

- There are fewer than ten active enterprises in this sector in Scotland in any given year, meaning we cannot extract or identify data for this metric in Scotland owing to disclosure rules.
- There does not appear to have been any trend change in the number of local units or employment in this sector in Scotland after 2018. Nor does there appear to be any obvious differential trend with England & Wales, though pre-2018 trends in the number of local units and employment in the two regions were not always similar limiting the usefulness of the counterfactual comparison.
- In terms of turnover, GVA and output value, the lack of consistent data and the volatility of the underlying ABS sample do not allow us to draw any conclusions about trends in these metrics relating to beer production in Scotland or in comparison with England & Wales. In particular we do not have any post-2018 observations in these metrics for malt production in Scotland given the small sample sizes in the underlying ABS.

3.3 Conclusions

We have drawn on two key quantitative sources which provide direct measures of the key industry metrics of interest for this evaluation at both sectoral and regional levels of disaggregation. We consider trends in these metrics in Scotland before and after 2018, when MUP was introduced, and also comparative trends for the same metrics and sub-sectors of the alcoholic drinks industry in England & Wales.

Our overall conclusion from the quantitative analysis is that **we have not found evidence consistent with MUP having significant, observable aggregate impacts on these metrics for any of the sub-sectors** of the alcoholic drinks industry studied.

This conclusion largely stems from:

- Pre-existing trends in these metrics in Scotland continuing post-MUP;
- Where pre-MUP trends in England & Wales were similar to those in Scotland, no evidence of differential changes in trend post-MUP in the two regions (though in general we found pre-MUP trends in England & Wales rarely led them to appear to be reasonable counterfactuals for Scotland);
- In particular for turnover, GVA and output value, a high degree of noise in the data series, with additional noise in the 2019 values relating to difficulties in

sampling firms in 2020 during the Covid-19 pandemic, meaning it was often not possible to isolate any clear trend changes.

Particular instances of unusual data patterns around 2018 were tested with expert stakeholders with additional data provided in some instances which further suggested little demonstrable quantitative evidence of MUP impacts on the alcoholic drinks industry in Scotland.

These findings are consistent with our expectations following the Baseline and Initial Impacts Report where we noted that only large impacts would likely be identifiable in the data, and we did not expect on the basis of the Initial Impacts Report to see large impacts on the industry.

We note that the quantitative measures of industry performance are only available, at most, up to two years post-MUP and that post-MUP data will also be heavily affected by Covid-19 (because of the impacts on data collection and/or the direct impacts on some of the measures of interest). However, based on the findings from our qualitative analysis (see Section 4) that any effects of MUP on consumer and industry behaviour were largely played out in the short-run, we would not anticipate future years of data leading to materially different conclusions.

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. Case studies provide a depth of evidence from individual firms in the industry which complements and enhances the broader insights from the quantitative analysis.

Case study organisations were identified and engaged in Phase 1 of the evaluation and were subsequently invited to take part again in Phase 2. As set out in the protocol for this study, the aim of the case studies in Phase 2 was to provide a medium-run perspective on impacts of MUP from individual businesses, more than three years after MUP had been implemented. This recognises that some of the changes and responses identified in the theory of change may take some time to be realised. By taking a (largely) longitudinal approach to the case studies we were able to use Phase 1 responses to guide the questions asked in Phase 2 and ask respondents about further changes that had occurred since we previously interviewed them in early 2019, around nine months after MUP implementation.

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.

The full approach used to identify, select and plan the case studies can be found in Section 4.1 of the earlier Baseline and Initial Impacts Report. Here we provide a summary of the re-engagement process and interview approach for this second phase of the evaluation.

4.1.1 Case study re-engagement and planning

The first stage was to contact and re-engage case study firms who participated in Phase 1.

(a) Selection criteria for case studies

In Phase 1 of the research eight case studies were developed using a preferred set of categories and rationales for inclusion developed by Frontier and agreed with NHS Health Scotland. This included:

- **A national chain of supermarkets**. Large retailers who may have previously earned a substantial amount of absolute revenue from sales of alcoholic drinks in Scotland, including below-50ppu alcohol.
- **A convenience retailer**. Small retailers who may have previously earned 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.
- **A specialist alcohol retailer (off-trade)**. Speciality stores who may have previously earned the majority of their revenues from retailing alcohol, including below-50ppu alcohol. They were hypothesised as likely to be more affected (in relative terms) than non-specialist retailers.
- **An on-trade retailer**. On-trade retailers were hypothesised to be 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, or potentially by consumers having less money to spend due to increases in off-trade prices.
- **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.[24] Spirits producers are also well positioned to comment on any effects on 'premium' alcoholic drinks production and pricing.
- **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.[25]
- **A spirits producer who supplies own-label products**. A significant majority of own brand spirits was previously sold below 50ppu. A producer of such spirits was hypothesised as likely to be affected by the introduction of MUP. Own-label spirits were also expected to have less customer loyalty than branded products, which could provide insight into the competitive effects of MUP.

[24] See Ferguson et al. (2021), Figure C2, which shows a majority of blended whisky in Scotland selling at below 45ppu in the 12 months prior to the introduction of MUP (www.publichealthscotland.scot/media/7669/mup-price-distribution-report-english-june2021.pdf)

[25] Ferguson et al. (2021) find that 50% of off-trade beer sales Scotland in the 12 months prior to MUP were above 50ppu and 50% below. In the previous 12 months to that (May 2016 to April 2017), 58.2% of off-trade beer sales in Scotland were below 50ppu. See www.publichealthscotland.scot/media/7669/mup-price-distribution-report-english-june2021.pdf Table 2.

- **A smaller brewer**. Some small brewers produce primarily for the alcoholic drinks industry in Scotland, meaning that a large share of their products was likely to 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.

In most instances in Phase 1, a single organisation was engaged in each category. In the case of the 'convenience retailer' and the 'specialist alcohol retailer', it was agreed a series of 'mini case studies' be conducted with store managers or owners of five independent retailers in each category, due to challenges engaging these respondent-types in a full case study. It was agreed 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.

(b) Re-engagement and recruitment

Single-organisation case studies

Emails were sent to each single-organisation case study, inviting them to take part in Phase 2. The emails restated the purpose and terms of the research and made clear that re-engagement and participation was anonymous and voluntary. Five of the six single-organisation cases studies agreed to re-engage in Phase 2 and take part in another in-depth interview.

Due to availability constraints as a result of Covid-related challenges in the on-trade, the on-trade case study organisation was unable to re-engage in the research. Similarly, approaches to other organisations who might act as 'replacement' case studies were unsuccessful.

It was agreed with PHS that approaches would be made to representative bodies for the on-trade which were selected by on-trade experts from the EAG. These bodies were selected to provide high-level insight, and an interview was conducted with one such organisation. In addition, two interviews were conducted with small independent on-trade establishments on the recommendation of one of the representative bodies approached. The representative body sought the consent of these establishments before providing their contact information to Frontier, and the respondents 'opted-in' to the research.

Mini-case studies

Representatives from the convenience and specialist retailers who took part in Phase 1 were contacted via phone and invited to re-engage. Of the organisations who originally

took part, three of the five convenience stores, and three of the five specialists agreed to a further interview.

The remaining contacts from Phase 1 were either unable to take part due to time constraints, had new owners and managers who had not been present during the implementation of MUP so had limited insights into changes, or could not be reached during the fieldwork period.

It was agreed additional interviews would be sought with one further representative from each case study area to further explore the views of independent stores and specialists. Additional contacts were identified at random, contacted by phone, and invited to take part.

In total, four independent and four specialist stores took part in the mini case studies.

4.1.2 Conducting case studies

(a) Preparing the topic guide

We reviewed the topic guide used in Phase 1 to identify which questions should be further explored and followed-up in Phase 2, where questions should be added to explore later stages of the theory of change, and further issues that were not anticipated during Phase 1, such as the impact of the Covid-19 pandemic on MUP implementation.[26]

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. For longitudinal case studies, the guide was also tailored to the responses we had received from the organisation in Phase 1 of the study. An illustrative topic guide is included as Annex D of this report. The revised guide was signed off with Public Health Scotland before fieldwork commenced.

[26] Phase 1 was concluded in late 2019, before the Covid-19 pandemic. The pandemic therefore represented a very important unanticipated external shock which, as discussed in Section 2.1, had significant implications for the alcoholic drinks industry, in particular for on-trade retail. Between the onset of the pandemic and beginning work for Phase 2, the Frontier team engaged closely with Public Health Scotland, the Evaluation Advisory Group and other projects as part of the overall evaluation portfolio to consider how to adjust the approach to this study in the light of the pandemic. For the case studies, we built specific questions relating to the pandemic into our topic guide and asked respondents to reflect carefully on MUP as a driver of reported outcomes and impacts and the role of the pandemic (and other external factors).

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.

(b) Fieldwork

Fieldwork for the eight case studies took place between October 2021 and March 2022.[27] Case studies were conducted using a combination of in-person interviews at the firm's business location, regional headquarters or national headquarters; or conducted remotely using video-conferencing software or by phone.

Interviews varied in length and structure depending on the type of organisation being consulted, the extent to which they felt MUP had impacted on their business, and, in some cases, staff availability. Some participants felt they had less to add than in previous interviews as the business had, to some extent, moved on from MUP to focus on other issues. Others had a wide range of MUP-related experiences and topics they felt able to discuss. As such, in-depth interviews with single-organisation case studies lasted between 45 and 60 minutes, while interviews with convenience and specialist stores lasted between 10 and 30 minutes each.

Interviews took place with staff in a range of roles within different organisations. For single site case studies this included staff with responsibility for some or all of the following functions:

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

For convenience and specialist stores, interviews were typically with store owners or managers.

All interviews were conducted with the explicit written or verbally recorded consent of the participants. With the agreement of the participants, interviews were audio recorded to facilitate analysis at a later date and ensure that the interview could run smoothly without excessive notetaking.

[27] The timing of the fieldwork meant that largely it took place before significant pressures around production costs, inflation and cost of living were at the forefront of policy and industry debate.

Summaries for the single-organisation case studies were shared for review to ensure that commercially sensitive information was not disclosed.

4.1.3 Analysing findings

The final stage was to analyse the evidence from the case studies. We used an approach informed by framework analysis.[28] 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.

The framework approach is a frequently used and effective method for researchers conducting qualitative analysis as it allows an equal focus on the contributions of each research participant, and supports the researcher to review evidence against each key research question and theme.

We use a combination of synthesis of the qualitative data and illustrations from direct respondent quotes in reporting findings. We note that quotes are taken from respondents and any factual errors or biases in quotes reflect what was said at the time of the interview and their personal viewpoints.

[28] 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 Findings

This section highlights the key medium-run impacts of MUP on the alcohol drinks industry in Scotland, based on summary insights from across our eight categories of case studies.

We build on findings from our initial evaluation report, focusing on additional changes and impacts since 2019, as well as the perceived lasting impacts of MUP on the industry. Within each sub-section, we recap the key messages from the Baseline and Initial Impacts Report ('Wave 1') and then highlight how things appear to have evolved based on the interviews conducted this time.

4.2.1 Direct impacts on products previously selling under 50ppu

Key Messages from wave 1

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

Retailers reported that the main products impacted by MUP were high strength/low-cost ciders (particularly 2-3 litre bottles), which is consistent with the findings from the interim study. Some also noted price increases for less expensive lagers and spirits such as some blended whisky, white rums, and vodka.

Case study organisations had made the appropriate MUP adjustments by reviewing their product prices, reviewing their buyer-processes, and making regular reviews of any promotional offers to ensure these are compliant.

At the time of this evaluation, ensuring MUP compliance was seen as a standard 'business as usual' part of process for both retailers and producers.

> *"I was at a retailer yesterday, and was saying 'this is what we do in England, this is what we do in Scotland, and this is what the activation is here and this is what the activation is there', so the new equilibrium is just, we're all the same, but there's different stuff that has to happen."* Large Brewer

Some case study participants noted that MUP still needed to be considered more specifically when new staff are hired (if they need to be briefed on MUP), and if any issues occur when they are addressing something 'out of process' such as specific promotions or offers.

Since the adjustments to comply with MUP had needed to be made from the outset of implementation, there was no sense from our interviews that this adjustment had altered in the medium-run. We did not hear any systematic evidence about ongoing adjustments to prices of products that had previously retailed below 50ppu, at least that would be attributable to MUP.

4.2.2 Consumer responses

Key Messages from wave 1

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

Respondents noted that generally in Scotland volumes are down while value is up, driven by price increases and trends in consumer tastes and preferences.

The spirits producers noted that Nielsen data indicates that products that had the biggest price increases since MUP, including vodka, white rum, and cider, had all experienced volume decreases.

Consistent with the interim findings, producers and retailers noted significant complexity in the factors driving consumer behaviour and response to MUP. Other factors considered by participants to be contributing to consumer trends included:

- **Moderation trends:** as a result of health considerations, and increase in non and low alcohol drinks.
- **Brand loyalty**: particularly for some under 50ppu products such as Tennent's, where retailers reported sales volumes had not decreased significantly, despite a considerable MUP-related price increase.

- **General premiumisation trends:** with many consumers choosing to drink lower volumes of higher cost premium products, this is often consistent with retailer and producer marketing strategies.

> *"We want people to drink less, [and drink] better quality products."* Large Brewer

Case studies again noted that price compression caused by MUP had further accelerated this trend.

Most significantly since the interim report, respondents noted the impact of Covid-19 lockdowns and associated changes to income which had significantly driven consumer behaviour since March 2020, with several noting that this had further accelerated trends in premiumisation.

By late 2021/early 2022, respondents typically found it hard to say which of these factors was driving consumer behaviour, and therefore how influential MUP was in this.

A few respondents noted that own-labels are probably suffering the most because of the lower volume high-cost trends (see Section 4.2.3); while price increases and compression, and premiumisation are more likely to benefit those who are closer to MUP price point e.g. first premium brand above MUP price point. In our interviews, some respondents referred to 'private labels' which in the context appear to refer clearly to supermarket own-brands. In other contexts (e.g. in smaller or specialist retailers), 'private labels' may instead refer to less well-known or independent brands. We use the term 'private label' where this is referred to directly in the interview.

> *"Consumers may be trading upwards, but they will still be looking for the lowest available price. Which has probably pushed some of those private labels out of the market or made them less competitive."* Large Spirits Producer

Some retailers and producers felt that MUP specifically would not prevent people from buying certain products if they wanted them, and did not think it was a big consideration anymore as people have adjusted or moved on to other products.

Instead, some noted that consumers have moved to smaller formats and packs with higher alcohol content. One spirits producer noted (citing Nielsen data) that 70cl formats had increased by 14% in Scotland compared with 5% in England and Wales, while several small retailers and specialists noted that people may choose to buy more single cans or 4-packs (although they did try to encourage larger pack sizes).

Convenience and specialist retailers felt that overall, consumers who were most affected by MUP were looking for value e.g. the highest alcohol content at the cheapest price, and would buy products accordingly.

A few respondents did feel that trends towards smaller format and pack sizes depended on where and how the consumer was buying alcohol. For example, while initially some customers reduced pack sizes purchased, they had moved back to buying larger packs as this is more convenient for them when at a supermarket. Some convenience retailers also noted people may buy larger packs online, which may benefit larger retailers with bespoke delivery apps; however, one noted they had sold larger alcohol quantities via a relationship with a third-party online delivery app.

A common narrative we heard from interviewees was that trends in consumer responses to MUP were largely established quite quickly, and the 'new equilibrium' was in place prior to the pandemic. Any changes that had occurred since 2019 relating to MUP were extremely hard, if not impossible, for those we interviewed to unpick from Covid-19 impacts, but the general view was that consumer responses to MUP were already in place before Covid hit.

> *"To be fair it's business as usual. It's happened, it's done, everybody's moved on."*
> Own Label Producer

Respondents were mostly not aware of cross-border alcohol purchases being made, and some wondered if the Covid-19 lockdowns contributed to this. One respondent noted that as international travel continues to open up, and post-Brexit, people may choose to buy more alcohol through duty-free routes.

4.2.3 Producer and retailer response

Key Messages from wave 1

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

The ongoing producer and retailer response to MUP was found to be mostly consistent with the findings from the interim report. As noted previously, most businesses now

treat MUP as business as usual, with the key changes having been made pre-2019, shortly after the implementation of MUP.

Product changes and innovation, re-formulation, and de-listing

Respondents stated there had been very few changes in the products being made and stocked. Very few products had been de-listed, but those that had been were mostly ciders sold in 2-3 litre volumes for which prices had increased significantly as a result of MUP e.g. Frosty Jack's.

Where reformulations had been made to lower ABVs, respondents indicated this was related to general consumer health trends rather than MUP. It was noted that changes to ABV need to be UK-wide for customer consistency, so could not be responsive to the market for alcoholic drinks in Scotland only.

Innovations and new products being made by retailers and producers were also not typically MUP-related, and again responded more to health and premiumisation trends, and changes in customer behaviours during the Covid-19 pandemic.

Pack changes

The main area of change in products reported by respondents was related to pack sizes and formats, although the exact nature of this varied.

Some producers noted a continued trend, consistent with the 2019 findings, toward reduced pack and sizes and formats to meet key price points for consumers. One large producer had made reductions across all their pack sizes, while another noted that they had seen an increase in demand for the 70cl format as opposed to 100cl for spirits.

The own-brand spirits producer noted that over time the reduced price differential created by MUP reduced the rationale for retailers to stock a wider range of formats. They found that the 35cl and 70cl format remained very important, but the 50cl format was now much less common. They also noted that previously, retailers would have a 'good, better, best' approach, whereas now they have a 'better, best' approach, providing fewer price-point options for consumers. Some convenience retailers noted space was a key consideration in this, and preferred to keep a lower number of stock keeping units (SKUs) overall that they were confident would sell. One convenience retailer noted an alternative approach whereby they had considered how best to use their space, and favoured stopping selling single-cans in favour of smaller packs, despite some of their customers previously buying single cans.

"There's always that nagging thought that perhaps that customer is going elsewhere, but then you start to think 'is it worth it selling that single can now and the space to have two different SKUs in its place'." Convenience Retailer

Promotions and marketing strategies

Several respondents noted that MUP constrained the promotions that could be offered by large retailers in Scotland. The large retailer had responded to this by trying to be more imaginative in the way they were marketing products in Scotland and how they were most effectively using space to create excitement about different products.

Smaller retailers noted they were somewhat limited in their marketing already due to licensing regulations, so had not changed their approach particularly. In addition, the increased presence of price-marked products combined with MUP meant they were more limited on what they could offer. Smaller retailers also noted that MUP created challenges for them when they want to put offers on leftover stock which they want to sell quickly, and often they are not able to sell this as a result.

For some producers, more recent changes and decisions have been made in response to Covid-19 lockdowns e.g. selling more products in supermarkets while the on-trade was closed.

4.2.4 Competitive response

Key Messages from wave 1

- Increases in producer/wholesale prices were limited.
- MUP had 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 was little evidence of significant diversion from discounters and supermarkets to convenience and specialist retailers.
- There was 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 had not had a substantial effect on on-trade footfall or volumes.

Respondents discussed the impact MUP had, both on their own businesses and the wider alcoholic drinks industry in Scotland. Again, several of the themes discussed were consistent with the interim report; however, respondents often found it challenging to

extrapolate the extent to which impacts were MUP-specific or driven by other confounding factors, particularly the Covid-19 pandemic.

Producer/retailer relationships

Overall, producer-retailer relationships have remained consistent since the introduction of MUP. While initially some retailers would ask producers specific questions about products in relation to implementing MUP, over time they have made their own decisions about price points.

Producers continue to find that large retailers are still unwilling to pass on any potential profits from MUP increases. This is a significant concern for some, who feel this creates an unfair playing field for producers in an already challenging economic environment.

This was a particular concern for one producer who felt supermarkets continued to favour 'value' products over 'premium'. They felt that supermarkets, having become accustomed to higher margins on previously below MUP products, were increasingly aiming to achieve similar margins on premium products, and squeezing producers on cost to do this. These discussions have been somewhat overtaken by Covid, inflation, and Brexit, as prices have had to increase across the board, but do still present a challenge.

> *'You might have been in the past enjoying a little bit of margin, but the supermarket buyer wants that margin now [themselves], [they're] under pressure to maintain good margins, which got given to [them] by the minimum pricing.'* Small Brewer

Smaller retailers noted no change in their relationships with wholesalers, who they typically found would not negotiate on price. In addition, the use of price-marked products further limited opportunities to negotiate.

Market share of retailers

Views were mixed on the extent to which the market share of different retailers had changed as a result of MUP, and there was little evidence to suggest significant changes had taken place.[29]

Most of the respondents could see the potential benefits MUP offered for smaller retailers, by offering parity in terms of price and opportunities for promotions. The large

[29] In our interview guide and questions we use the term 'market share' in an open sense and invited respondents to reflect on their interpretation of the relevant market from their perspective. We are not using the term 'market' to mean any particular definition of the alcoholic drinks market from a competitive or regulatory perspective.

retailer also believed they lost some market share when MUP was initially introduced as Scotland has a large convenience footprint and the level playing field gave convenience stores a marketing opportunity, while a few smaller retailers felt MUP had limited their opportunity to offer promotions just as much as the larger retailers.

The large retailer felt the main change in market share may be at the product-level, relating to the pack size or format consumers are seeking. They noted that people purchasing from supermarkets find buying larger packs more convenient, and still in general have loyalty to particular products. This retailer felt that MUP had not necessarily deterred people from buying larger packs or bulk-buying, because it was clear that it was not possible to shop around for lower prices or wait for future discounts.

> *'They know they can't get it any cheaper, and they still want to drink it, and it's still easier for them to buy it in bulk than to buy it in a smaller format'.* Large Retailer

Conversely, those we spoke with in convenience stores and the large retailer felt that the focus was more on smaller and mid-sized packs for 'impulse' buys. This may have been exacerbated by the Covid-19 pandemic increasing people's desire to stay local. One convenience retailer who worked with a third-party online delivery app noted that they sometimes sold larger packs through this service.

Overall, it was felt that MUP might benefit the smaller convenience stores to a small extent; however, it is challenging to understand the extent to which this would be the main driver of any change in market share following the pandemic.[30]

Similarly, it was noted that the pandemic has also driven significant changes in online shopping, with more people buying alcohol online than previously.

Retailers who did not previously stock under 50ppu products (mostly specialist stores and smaller on-trade establishments) did not think the changes in MUP had led to more customers seeking premium products from them as an alternative, and did not consider them to be their target market; as such they did not see MUP as a factor in their market share.

Own brands

There was not a universal view among producers and retailers about the medium-run impact of MUP on own-brands.

[30] While there is UK-wide data on grocery retail market share, there is to our knowledge no published data specific to market shares relating to alcohol purchasing.

Some of the producers (including the own brand producer and the small brewer) reported that they believed that there had been significant growth in own brands, which was contrary to initial concerns raised in the Baseline and Initial Impacts Report relating to own label having less relevance due to price compression. The extent to which this was as a direct result of MUP was unclear, but one producer noted that MUP had enabled large retailers to increase their own brand presence, through the creation of low-cost high profit seltzers, which further crowded the alcoholic drinks industry in Scotland for producers.

However, the large brewer noted a decreased volume in own brand sales, while the own brand producer also believed own brand products were more squeezed due to MUP – for example, 'me too' brands, designed to be similar to leading brands, had been affected. They felt there was no particular reason for them to include a 'me too' product at a more affordable price due to the price compression MUP created. Some of the small retailers and specialists also noted that they had reduced the number of private labels being sold, preferring to stock recognised brand names.

The large retailer also had a different view. They had found their full range, including own brands, continued to be relevant to consumers but did not note any specific growth in demand for own brands.

This suggests some different viewpoints among producers and retailers on the longer-term impacts of MUP on the own brand segment.

Analysis conducted by Levercliff on behalf of Aston Manor based on IRI data suggests that there has been some decline of own brands in the off-trade alcoholic drinks sector post-MUP, with the effects varying by type of alcoholic drink.[31] According to this analysis, the volume share of own brands for spirits, cider, beers and perry fell. In the year ending April 2018, own brands accounted for 11.9% of spirits sales, compared with 8.4% in the year ending April 2022 (four years post-MUP). For cider the share fell from 6.7% to 2.3% over the same period, and for perry from 0.6% to 0.1%. For lager the share fell from 1.6% to 0.7% and for ales from 2.4% to 1.1%. For Ready-to-drink products (RTDs), the own brand share increased from 3.2% to 4.8% and for fortified wines the share fluctuated but remained similar over the whole period (11.2% to 11.8%). This suggests differences in the type of products may be a factor explaining some of the differences in perceived impact on own brands in our case studies.

[31] We are grateful to Aston Manor for providing this research as part of the evidence-gathering.

Changes in the on-trade

None of the respondents had any evidence, anecdotal or otherwise, that there had been any changes in market share for the on-trade as a result of MUP. As with other considerations in this research, it was also felt it would be challenging to consider MUP in isolation given the significant impact Covid-19 related closures had on the sector.

Representatives from the on-trade believed that, regardless of the lockdowns, MUP would have little impact given the existing price differentials, and very few would have been selling affected products due to restrictions on price promotions in the on-trade (sometimes referred to as the 'happy hour ban') in Scotland.

It was also noted MUP could potentially have a negative impact on the on-trade as people who also choose to drink at home may have less money available to spend in pubs, particularly with rising costs in the on-trade itself. One small retailer noted that they had continued to see people buying alcohol to drink at home before going out to an on-trade venue as there was still a considerable price differential.

Premiumisation and the new equilibrium

As mentioned previously, increased premiumisation both before and following the introduction of MUP was discussed by most respondents, with most feeling there was a shift towards a new equilibrium of lower volume/higher value purchases in the alcoholic drinks sector. Retailers and producers were positive about such impacts as this was consistent with their marketing and growth strategies.

The price compression MUP creates was seen as one of the contributing factors to this trend, alongside consumers moderating more, and therefore having more money available to spend when they did drink. It was also noted by several respondents that the Covid-19 lockdowns had further accelerated this trend as some people may have found they had more disposal income during this time to spend on alcohol. As with other findings for this research, respondents were unable to isolate the exact level of contribution MUP had to this trend.

Analysis conducted by Aston Manor based on IRI data collected in the year after MUP was introduced (April 2018 to April 2019) validates the 'new equilibrium' for off-trade retail of alcoholic drinks being characterised by lower volume but higher value. In this period, the value of alcoholic drinks sales in Scotland increased by 9.8% (compared with 5.1% in the rest of the UK) while the volume increased only by 1.7% (compared with 4.2% in the rest of the UK).[32] This analysis is consistent with Public Health Scotland (2022). They

[32] We are grateful to Aston Manor for providing this research as part of the evidence-gathering.

found that the value of sales of alcoholic drinks in supermarkets and convenience stores increased by 7.8% in Scotland between 2016-17 and 2017-18, compared with an increase of 4.7% in England and Wales. Over the same period, the natural volume of alcohol sold fell by 2.4% in Scotland, but grew by 4.4% in England and Wales.[33]

Revenues and profits

Views were mixed on the impact MUP specifically had on revenues and profits. For producers, revenues for alcohol have mostly remained consistent (except where they supply significant volumes to the on-trade due to Covid-19 lockdowns), but profit margins were felt to have been squeezed recently due to rising input costs including staff and raw materials. Impact on profit has been more limited where Scotland only contributes to a small percentage of their revenue.

The large retailer did not think there had been any changes in their revenue or profits either for the worse or better. For other retailers, smaller convenience stores were most likely to note decrease in revenues and profits, for a few this was potentially quite significant, but was often masked by other sales and changes in other alcohol prices e.g. wines. One small retailer mentioned that increasing use of price-marked products was also bad for their margins.

Most of the specialist stores interviewed did not feel their products would be affected by MUP, and their revenues and profits had not been impacted However, one specialist store self-reported a £50,000 decrease in their annual revenues which they felt was due to MUP.

Overall, in the medium term most respondents struggled to differentiate the changes in profit and revenue that were specifically MUP related due to the impact of Covid-19. Several noted that data from pre-March 2020 would be more reliable in this respect.

The data provided by Aston Manor for the first year of post-MUP data and the analysis by Public Health Scotland (2022) are consistent with increased off-trade retail revenues related to alcoholic drinks. However in terms of overall revenues it is unclear whether there would have been offsetting effects for purchases of other products. Our analysis of ONS data did not provide evidence of overall increases in turnover in the non-specialised retail sector. In terms of profits, data showing increases in the value of sales while overall volumes rose only slightly or fell could be consistent with additional profits to off-trade retailers if producer and wholesale costs did not increase, and consumer

[33] Ferguson et al. (2022), *Evaluating the Impact of MUP on Alcohol Products and Prices*, Public Health Scotland (https://publichealthscotland.scot/media/16262/mup-products-report-english-november2022.pdf)

substitution was limited (i.e. the pattern reflected consumers buying largely the same products at higher prices). However it seems likely, consistent with the theory of change and the qualitative evidence gathered in this study and the Baseline and Initial Impacts Report, that at least some degree of substitution took place and there was a degree of demand reduction related to increased prices. As with revenues, it is also not possible to assess whether overall retailer profits increased as any additional margins associated with alcoholic drinks may have been at least in part passed through to other product lines.

Change in staffing and estate

None of the respondents reported any differences in staffing-levels or facilities as a result of MUP, and some explicitly noted that any changes would be related specifically to Covid-19.

Some did note that the changes in revenue and profits had limited their opportunities for growth.

One convenience store reported that a member of staff who would previously have been assigned mostly to their alcohol section, would now split their time in other parts of their store.

It is also worth noting, that when re-contacting convenience and speciality stores to take part in interviews, two were identified as having potentially closed; however, it is not possible to say the extent to which MUP would have been a factor in this.

4.2.5 Confounding factors and future concerns

Key Messages from wave 1

- 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 alcoholic drinks industry in Scotland 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.

As noted previously in this chapter, most respondents found it challenging to clarify the extent to which changes since the interim report were related to MUP or other factors.

These confounding factors are discussed further in the following sections, as well as future concerns for the industry that will interact with MUP.

Covid-19

The Covid-19 pandemic has had a significant impact across the alcoholic drinks industry, creating specific challenges both for the on-trade and producers serving the on-trade due to closures, and for retailers and producers adjusting to changing consumer habits as a result of lockdowns and decreased movement for some. Of particular relevance for the hypotheses explored in this research:

- There was no consensus among case study respondents on the extent to which the Covid-19 lockdowns had led to changes in people shopping locally, at supermarkets, or online, which makes it challenging to understand changes in retailer market share as a result of MUP.
- Case study respondents believed that changes in people's income and expenditure habits, and reduced movement during the pandemic may have further accelerated premiumisation trends and the volumes of alcohol being consumed. This makes it challenging to understand overall expenditure and volume trends since March 2020.

Most respondents felt that the changes due to Covid-19 were so significant, any data on the alcoholic drinks industry post March-2020 would not be able to distinguish MUP-specific trends. However, as noted above generally respondents felt that the industry had adjusted to MUP prior to this, and as such data from the 2019 period could be considered more reflective of the impact of MUP.

Health, moderation, and premiumisation trends

Several of the case study respondents noted that there have been ongoing consumer trends towards improved health, alcohol moderation, and premiumisation prior to the introduction of MUP, which have continued.

However, some respondents noted that they did not think these trends would be relevant to people who were previously drinking under 50ppu products, who may be continuing to drink high ABV products at the same or slightly higher cost.

Size of the alcoholic drinks industry in Scotland

Several of the producers and the large retailer noted that some of the impact of MUP on the broader alcoholic drinks industry is limited due to the relatively small size of the alcoholic drinks industry in Scotland in the overall business model for firms which

operate across the whole of the UK and overseas. Even among some of the convenience stores we interviewed, where the business was entirely within Scotland, it was noted other areas had made up for any shortfall in sales from under 50ppu products. Specialist retailers interviewed mostly were not stocking a high number of under 50ppu products before the introduction of MUP.

Where the alcoholic drinks industry in Scotland specifically was a large part of the organisation's business, the impact of MUP was seen to be much more significant, although the businesses interviewed had continued operating. As such, those whose businesses were more likely to have seen some decrease in revenue and profits which they believed was MUP-specific, were typically businesses with a smaller footprint such as the small brewer, convenience stores, and specialist retailers who previously stocked a high number of below 50ppu products.

Supply chain issues

Several retailers noted that there have been issues within their supply chains which have created some shortages in alcoholic products over the last 2-3 years, in these instances it was inferred these were related to both Brexit and Covid-19. As such, there have been gaps on the shelves and they have only been able to sell products that have been available to them, which can impact on overall revenue and profits.

Future concerns

Most retailers and producers observed that MUP could be considered 'business as usual' for them and had been for some time now. However, there were significant concerns regarding emerging policies that would interact with MUP in the future.

Policies of particular concern to the industry included:

- **The Deposit Return Scheme (DRS):**[34] DRS was seen by several respondents as potentially having more impact than MUP. Changes to pricing structures would mean suppliers will be forced to reduce the number of SKUs they supply to Scotland, and this will be at the forefront of producers' and retailers' minds when

[34] From 2023 the Scottish Government are introducing a deposit return scheme for single-use drinks containers. People will pay a 20p deposit when they buy a drink that comes in a single-use container made of PET plastic, steel and aluminium, or glass. They will get their money back when they return the empty container to a designated return point. At the time of writing, no equivalent policy is in place in England and Wales nor are there firm plans to introduce one, though there has been a consultation exercise.

they make decisions about pack sizes for Scotland which will require specific legal information on them.

- **Changes in taxation:** Potential changes in taxation policy relating to alcohol were expected to have a significant impact on producer and large retailers' approach to producing and costing products. While alcohol duty rates and structures are not devolved within the UK, meaning that tax changes would apply to Scotland and other constituent countries, significant changes in structure currently under consultation by the Treasury were seen as having the potential to increase complexity in pricing structures, operations and affect costs in different ways.[35]
- **Further increases to MUP:** Case study participants were wary of any future increase in MUP, which they believed could have more significant impact on the alcoholic drinks industry in Scotland, and their business. They were also concerned about how any further changes to MUP would interact with DRS and the additional costs and logistical challenges this could create.

"We factor it in when we have conversations with retailers, when we think about new products, and we think about merchandising. It's all. It's all kind of factored in. The big point really is the is the price. I know that's under review as well. I think the whole thing revolves around is the price going to change, because if it does then that changes everything again." Large Brewer

4.3 Conclusions

Key conclusions from wave 1

- 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.

[35] See consultation page at www.gov.uk/government/consultations/the-new-alcohol-duty-system-consultation. The proposal to move alcohol taxation towards a system more closely tailored to strength for products where this is not already the case would likely create a mix of 'winners' and 'losers' in terms of which products become more or less heavily taxed depending on the specific rates chosen.

As in the interim report, there are a number of potential limitations to the qualitative analysis when considered in isolation, as these express only the views of those who took part in interviews. By design, the qualitative research is triangulated with our quantitative analysis in our final conclusions in Section 5, and it provides further context and offers insight into what is driving some of the post-MUP changes to help support decision-making, but is not designed to be used in isolation, or to be generalisable for all producers, retailers, and consumers. The potential limitations to qualitative findings include:

- Evidence is primarily self-reported by case study firms.
- Only a sub-set of firms were interviewed as part of the case studies.
- Participants have noted a wide range of confounding factors which make it challenging to identify what impacts are specifically related to MUP and the extent to which MUP has been a key driver of these impacts. This is particularly acute in this Phase of work given the impacts of Covid-19.
- 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 not observing the effect, or it being too early for them to observe the effect.

With these limitations in mind, the following key findings and conclusions are based on the self-reported observations of the sub-set of firms that participated in the second wave of case studies.

- The alcoholic drinks industry has mostly moved on from the introduction of MUP, having made appropriate key adjustments in response to the regulation early in its implementation.
- The alcoholic drinks industry in Scotland is characterised by a new equilibrium of lower volume, higher-cost purchases; however, the extent to which this is a result of the price increases and compression MUP creates, or more general premiumisation trends, is unclear. Covid-19 is also felt to be a recent contributor to this trend.
- Some respondents noted that own brand or less-recognised labels were seen as most likely to face challenges due to lower volume high-cost trends; while this is more likely to benefit those who are closer to MUP price point e.g. first premium brand above MUP price point.
- Despite concerns about MUP's impact on own-label products, there was evidence from producers on the growth in the own brands of large retailers, although this finding was not clearly observed in interviews with retailers and the own brand

spirits producer. Quantitative analysis conducted on behalf of Aston Manor suggests the impact on own brands has varied by type of alcoholic drink, though for the most common types sold in the off-trade there appears to have been a decline in own brand sales as a share of total sales.

- Significant wider changes have interacted with the first few years of MUP implementation, limiting understanding of its specific impact. Most notably this includes the Covid-19 pandemic, as well as wider ongoing health and premiumisation trends. However, most of those we consulted felt that consumer and producer responses specific to MUP were largely locked in before the pandemic.
- Retailers report that the overall effects on revenue and profit have continued to be small as increased margins have compensated for decreased volumes, though the impact depends on the mix of alcoholic drinks sold pre-MUP.
- Some producers noted the challenges that price compression can create for them, and suggested that retailers were seemingly unwilling or unable to share additional MUP-related profits with them.
- No retailers or producers reported closing stores, or reducing staff numbers, although there is some evidence to suggest decreased profits have limited growth for smaller producers and retailers. The impacts on individual stores will have depended in part on the mix of alcohol types and price points sold pre-MUP.
- There is limited evidence of any significant changes in the market share of different retailer types, including larger and smaller retailers, or the on-trade.
- Businesses have significant concerns about how MUP will interact with other changes in the sector including DRS, supply chain complexity, and any further advertising restrictions. After a period of significant instability any further increase in MUP would be unwelcome.

5 Overall conclusions

Our conclusions represent an overall assessment of the evidence regarding the contribution of a 50ppu MUP introduced in Scotland in 2018 to the performance of the alcoholic drinks industry in Scotland. We have obtained measures of key industry performance metrics of interest for the evaluation (number of firms, employment, turnover, output value and GVA) directly from official business statistics, using pre- and post-MUP trends in Scotland and comparative analysis with trends in England & Wales. These have been supplemented with qualitative evidence from industry case studies asking about perceived impacts of MUP both on these metrics, and intermediate pathways to any impacts related to the underlying theory of change. Our findings are also informed by wider desk research and industry interviews.

Taken in the round, **the evidence we have gathered does not suggest that MUP has significantly impacted the performance of the alcoholic drinks industry in Scotland**.

We find no strong evidence of observable impacts on any of the key metrics for any sub-sectors of the industry based on the quantitative analysis. Looking across metrics and sectors, the consistent conclusion is that pre-MUP trends in Scotland have been broadly maintained. England & Wales is not always a viable counterfactual given different pre-MUP trends in different regions; where the counterfactual appears more robust, there is no compelling evidence that post-MUP trends have been different in the two regions. For some sectors there appears to be a visible decline in industry metrics in 2020 and 2021 (e.g. employment and number of firms in on-trade retail), but declines are also seen in England & Wales and likely reflect the impact of Covid-19 rather than MUP.

There is quantitative evidence from studies looking at the first year of post-MUP data that the value of sales of alcoholic drinks in Scotland increased more quickly than in England and Wales, consistent with MUP leading to increased turnover in off-trade retail. We do not see evidence that this translated into overall increases in turnover in the non-specialised retail sector, and the impact on profits is not clear.

There are important limitations of the quantitative analysis. For some metrics (turnover, GVA and output value) we only have one year of post-MUP data, and the overall time series is volatile limiting the inference that can be drawn. Both issues reflect the impact of Covid-19 on the availability and consistency of the underlying Annual Business Survey. Additionally, as some of the industrial classifications which make up sectors of the alcoholic drinks industry in the data also contain significant activity and revenues not directly related to alcoholic beverages (e.g. non-specialised retail, malt production, licensed restaurants), it would only have been possible to identify impacts of MUP from

the quantitative data alone if they had been large and relatively immediate. This is consistent with the conclusion we drew in our Baseline and Initial Impacts Report.

As a result we do not rely only on the quantitative analysis. The overall conclusion, though, is also broadly validated by our longitudinal case studies and mini case study interviews. The consistent message we heard was that the 'new equilibrium' of industry performance in Scotland was characterised by lower volumes but higher prices that largely balanced out, with no reported direct impacts of MUP on store or facility openings or closures or staffing.

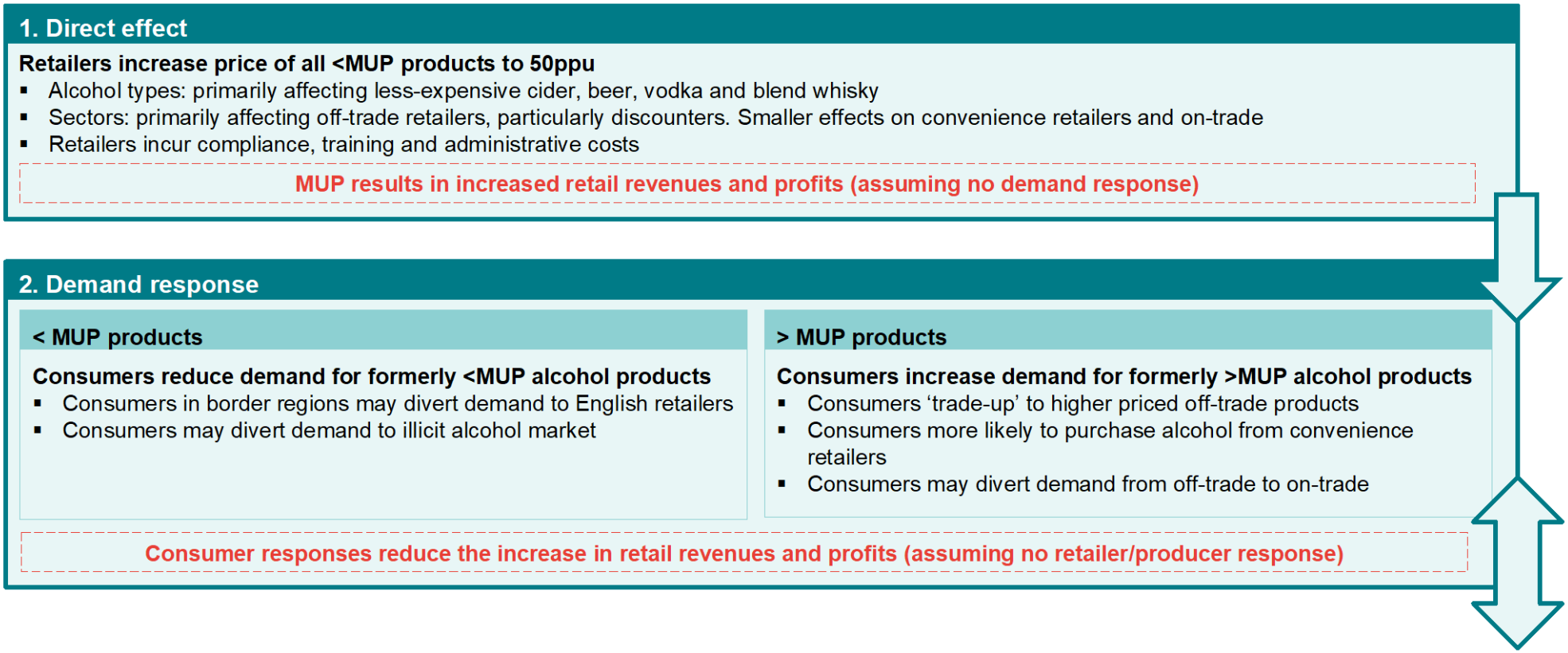
Again there are limitations in isolation to the qualitative findings, which necessarily reflect the sub-set of firms who provided their in-depth perceptions of MUP impact for their business. However combined with the quantitative data the findings of no substantial impacts on the industry are more robust.

The absence of compelling evidence of substantial impacts on the key performance metrics of interest does not imply that MUP has had no effect at all on the industry. Based on the theory of change, and validated by our qualitative research, it is clear that MUP did lead to both consumer and retailer responses in terms of pricing and purchasing. Changes in the price distribution and margins on different products have affected the mix of products sold.

While profit was not in isolation one of the key metrics of focus for this study (though it is a key part of GVA), discussions over 'profit-sharing' between retailers and producers relating to MUP have been live. Those we consulted reported no substantive impacts on vertical industry relationships including with wholesalers. At the margins, one or two of individual smaller or specialist retailers perceived that MUP had reduced their revenues or profits or limited opportunities for growth, though not to an extent that affected staffing or store viability, while others reported no impact. None of the larger producers or retailers were able to quantify any impact of MUP on their revenues or profits. The quantitative data were insufficiently granular to identify measures of profit.

Based on the qualitative research we identify two other conclusions. First, **MUP appears to be consistent with and potentially accelerating other drivers of performance** such as a perceived 'premiumisation' of consumer preferences towards branded and more expensive products (though we note that the qualitative fieldwork took place before prominent concerns about the cost of living). Second, **the impacts of MUP on consumer and producer responses were perceived to 'play out' quickly**. Almost everyone we spoke to for our case studies felt that the major changes had already taken place by the time of the Baseline and Initial Impacts Report in the first half of 2019, and that industry had 'moved on' since then with MUP largely not a major day-to-day concern.

Annex A - Theory of change



3. Retailer and producer responses

Price response

Retailers may further adjust prices of formerly <MUP products

- Retailers may increase prices of some formerly <MUP products to maintain price differentials (for example, increasing price from 0.45ppu to 0.55ppu, rather than 0.50ppu)

Retailers adjust prices of >MUP products

- Retailers may adjust prices of premium products to maintain price differentials and maximise profits

Non-price response

Retailers de-list some formerly <MUP products

- More likely for discount retailers, and very low price products such as less-expensive cider and own brand products

Retailers change pack sizes of formerly <MUP products to retain price points

- More likely for beer and cider. Limitations on format adjustments for wine/spirits

Retailers/producers may reformulate formerly <MUP products

- Increase in quality, reduction in alcohol content
- More likely for beer, cider and made wine

Retailers/producers increase marketing of formerly <MUP products

- Potential spillovers to the advertising and media sectors

Retail responses help retailers regain lost demand and increase revenues and profits.

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

Annex B - Summary of main data sources used for quantitative analysis

B.1 - Business Structure Database (BSD)

The BSD is an annual snapshot of the Inter-Departmental Business Register (IDBR) made available to researchers through a secure research environment. The IDBR is a comprehensive list of UK businesses used by government for statistical purposes.[36] 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 very small businesses (the self-employed and those without employees, both of which are not registered for PAYE) with low turnover (not registered for VAT) as well as some non-profit making organisations. Official statistics, published in the *Business Population Estimates* for 2021, identify that there are a large number of unregistered businesses with zero employees (around 2.9 million) in the UK, making up 52.4% of all businesses but accounting only for around 11.9% of total employment and 2.5% of turnover.[37] The firms captured in the IDBR therefore account for the overwhelming majority of economic activity.

The IDBR is maintained as a live database and continually updated from a range of sources including HM Revenue and Customs VAT and PAYE records. The BSD is an annual snapshot taken around April of each year, and made available via the Office for National Statistics Secure Research Service in around October. Annual snapshots can be joined together to provide a longitudinal picture for each firm.[38]

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.

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[36] Details of the IDBR can be found in Annex B of https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1018138/BPE_METHODOLOGY___QUALITY_NOTE_2021.pdf

[37] *Business Population Estimates 2021*, Table 1 (www.gov.uk/government/statistics/business-population-estimates-2021). For Scotland, unregistered businesses with zero employees are estimated to make up around 51.1% of businesses in 2021, 11.9% of employment and 2.6% of turnover, similar to the UK-wide figures (see Table 22 of the same source).

[38] More information on the BSD can be found at https://ons.metadata.works/browser/dataset?id=330

For each enterprise, data are available on employment, turnover, foreign ownership, and industrial activity based on Standard Industrial Classification (SIC) codes. Year of 'birth' (company start-up date) and 'death' (termination date) are also included, as well as partial postcodes for both enterprises and their local units. Data on turnover is not available at the local unit level, though employment estimates are. The SIC of a local unit is not necessarily the same as the SIC of the parent enterprise.

While the data are provided for a certain year (e.g. 2021) the specific time period that employment and turnover estimates refer to is somewhat uncertain, depending on the source of data used to provide the estimate and frequency of update. A typical 'rule of thumb' is that estimates are lagged by approximately one year – that is, data in the dataset labelled BSD 2021 most likely refer to employment and turnover measures for 2020, etc. We have maintained that assumption in our analysis of employment, but assume that the measures of numbers of enterprises and local units is not lagged given the need for the IDBR to maintain an active register of live businesses.

We use the BSD to construct sector-region estimates of the following key outcome measures:

- The **number of enterprises** (the number of unique enterprises with local units present in each region);[39]
- The **number of local units** (the number of shops, etc. in each region); and
- **Employment** (based on the region in which the local unit is based).

B.2 - Annual Business Survey (ABS)

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.[40] 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.

[39] A given enterprise can be present in more than one region – for example, if Tesco has branches in both Scotland and in England then it would count as an active enterprise in both.

[40] For more information and documentation relating to the ABS, see https://ons.metadata.works/browser/dataset?id=313. The main sectors not covered by the survey are financial services and public sector bodies.

The sampling frame for the ABS is the list of UK businesses on the IDBR. Every year, ABS questionnaires are sent by the ONS to around 62,000 businesses in Great Britain, with a further 11,000 or so businesses in Northern Ireland sampled by the Northern Ireland Statistics and Research Agency. 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.

Sample selection is carried out using a stratified random sample design, with stratification based on employment band, SIC and region.

Data are typically available at the level of the enterprise rather than local units. 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.

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.

ABS data for 2020, based on questionnaires sent out in early 2021, were significantly impacted by Covid-19 with much lower response rates than usual.[41] There is also some evidence that the impact on response rates was larger in some sectors where firms in the alcoholic drinks industry would be found, particularly the on-trade.[42] There were also considerable delays in the publication of the 2020 wave of ABS resulting from efforts to deal with this and maintain confidence in the data. As noted in the main report, another consequence of the increased resource that ONS needed to place in the main ABS dataset was that bespoke analysis of data was suspended, which would have allowed for more

[41] For more information on this see www.ons.gov.uk/businessindustryandtrade/business/businessservices/bulletins/nonfinancialbusinesseconomyukandregionalannualbusinesssurvey/latest The 2020 data are based on a response rate of 59% compared with an average of 75% in earlier years.

[42] The quality management data accompanying the ABS presents response rates for local units by one-digit SIC Section. In 'accommodation and food services' where the on-trade SICs are found, the response rate in the 2018 wave of ABS (collected in 2019, pre-Covid) was 73.5% of local units. In the 2019 wave (collected in 2020), the response rate was 41.7% of local units. This is a decline of 31.8 percentage points, or 43% of pre-Covid response rates. This was the largest decline both in absolute and relative terms of any SIC Section.

precise estimation of SIC- and regional-level results with less noise in line with the approach taken in the Baseline and Initial Impacts Report.

We use the ABS to construct sector-region estimates of the following key outcome measures:

- **Turnover** defined as the total value of sales.[43] 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 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).

[43] For enterprises of SIC 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. A breakdown of turnover at this level is not, however, available in the ABS data which is published or available for researchers.

B.3 - Standard Industrial Classification codes used to define the sector

Table 9: SIC-based definition used to support quantitative analysis

Code	Description	Detail
11010	Distilling, rectifying and blending of spirits	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. Excludes: manufacture of non-distilled alcoholic beverages; manufacture of synthetic ethyl alcohol; manufacture of ethyl alcohol from fermented materials; merely bottling and labelling.
11020*	Manufacture of wine from grape	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. Excludes: merely bottling and labelling.
11030*	Manufacture of cider and other fruit wines	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. Excludes: merely bottling and labelling.
11040*	Manufacture of other non-distilled fermented beverages	Manufacture of vermouth and the like. Excludes: merely bottling and labelling.
11050	Manufacture of beer	Manufacture of malt liquors, such as beer, ale, porter and stout; manufacture of low-alcohol or non-alcoholic beer.
11060	Manufacture of malt	Manufacture of malt.
46170	Agents involved in the sale of food, beverages and tobacco	Excludes: wholesale trade in own name; retail sale by non-store commission agents.
46342	Wholesale of wine, beer, spirits and other alcoholic beverages	Wholesale of alcoholic beverages; buying of wine in bulk and bottling without transformation. Excludes: blending of wine or distilled spirits.
46390	Non-specialised wholesale of food, beverages and tobacco	Non-specialised wholesale of food, beverages and tobacco.

Code	Description	Detail
47110	Retail sale in non-specialised stores with food, beverages or tobacco predominating	Retail sale of a large variety of goods of which, however, food products, beverages or tobacco should be predominant; 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	Retail sale of beverages (not for consumption on the premises), inc. alcoholic beverages, non-alcoholic beverages.
56101	Licensed restaurants	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.
56301	Licensed clubs	Preparation and serving of beverages for immediate consumption on the premises by nightclubs, social clubs. Excludes: reselling packaged/prepared beverages, retail sale of beverages through vending machines.
56302	Public houses and bars	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. 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

Note: *Codes 11020, 11030 and 11040 are not included in the quantitative analysis owing to small sample sizes in Scotland.

Annex C - Detailed data tables and sub-category analysis

This Annex presents the underlying data used to inform the quantitative analysis in Section 3. For each sector of the alcoholic drinks industry in our analysis, we provide time series data for the six metrics of interest (the number of enterprises, local units, employment, turnover, GVA and output value) in Scotland and comparator regions (England & Wales, and where available England-only) from 2011 to the most recent year of data available (2021 for the number of enterprises and local units, 2020 for employment and 2019 for turnover, GVA and output value).

Missing values within those years reflect data points where the underlying number of enterprises or local units from which values are derived is below ten, consistent with disclosure rules for using the underlying Secure Research Service data provided by the ONS which underpins our analysis. For the England-only data, values may also be suppressed where there is a risk of indirect disclosure of small cell sizes for Wales given that we report both England & Wales and England-only comparators.

We also provide some additional detailed data for sub-groups of some of the main sectors analysed (in particular the sub-group focusing on the wholesale of alcoholic drinks, and for the sub-groups underpinning the on-trade sector).

C.1 - Specialised retail

Figure 16: Underlying data tables – specialised retail

No. Enterprises	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	321	310	302	330	336	334	324	321	309	318	317
England & Wales	5,888	5,692	5,547	5,631	5,671	5,727	5,723	5,736	5,655	5,604	5,540
England	5,738	5,557	5,398	5,472	5,523	5,577	5,571	5,584	5,497	5,443	5,380

No. Local Units	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	783	662	648	420	428	419	414	403	398	408	407
England & Wales	9,918	7,830	7,695	6,252	6,268	6,327	6,325	6,342	6,266	6,191	6,100
England	9,610	7,608	7,461	6,066	6,094	6,149	6,149	6,163	6,082	6,007	5,921

Employment	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	3,131	3,194	1,838	1,962	1,774	1,805	1,871	1,739	1,812	1,764	
England & Wales	32,264	31,918	22,726	22,765	22,652	22,991	23,348	25,914	23,164	22,896	
England	31,212	30,829	21,910	22,001	21,895	22,245	22,613	25,178	22,481	22,232	

Turnover (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	171,824	149,863	69,449	173,247	213,769	240,724	104,555	79,878	319,475		
England & Wales	2,296,290	1,803,073	1,748,948	2,014,815	1,886,933	967,776	2,081,189	3,054,917	1,304,961		
England	2,172,865	1,768,630	1,710,194	1,929,967	*	*	*	2,898,806	1,167,453		

GVA (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	26,592	36,835	7,947	27,124	115,416	58,353	17,260	29,266	52,083		
England & Wales	455,854	319,427	278,306	331,544	294,644	225,569	262,925	575,801	167,602		
England	434,303	316,209	273,456	312,319	*	*	*	557,164	153,013		

Output value (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	35,782	47,645	17,618	43,102	144,522	87,659	26,663	37,345	68,169		
England & Wales	697,050	452,977	406,408	709,417	554,506	373,834	447,736	851,325	356,926		
England	668,294	446,985	400,596	681,966	*	*	*	810,752	320,600		

Source: Frontier Economics analysis of Business Structure Database (number of enterprises, local units and employment) and Annual Business Survey (turnover, GVA and output value)

Note: Blank cells reflect missing data owing to lags in underlying datasets. * reflects data suppressed because of potential disclosure (direct or indirect) of small cell sizes.

C.2 - Non-specialised retail

Figure 17: Underlying data tables – non-specialised retail

No. Enterprises	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	3,677	3,630	3,585	3,671	3,720	3,724	3,728	3,726	3,742	3,690	3,602
England & Wales	31,520	31,536	31,678	32,396	32,548	32,827	33,157	33,658	33,701	33,821	34,090
England	29,762	29,783	29,953	30,619	30,773	31,055	31,397	31,903	31,964	32,090	32,378

No. Local Units	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	6,250	5,540	5,429	5,567	5,634	5,612	5,667	5,612	5,699	5,570	5,459
England & Wales	52,229	46,406	46,861	48,001	48,744	49,144	50,039	50,211	50,650	50,496	50,789
England	49,140	43,725	44,194	45,259	45,969	46,374	47,272	47,479	47,906	47,791	48,094

Employment	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	108,719	109,473	110,254	107,121	105,815	104,784	101,115	100,203	95,473	94,729	
England & Wales	988,501	999,288	1,008,517	1,019,324	1,011,082	1,014,200	981,253	1,082,790	936,517	933,659	
England	928,189	938,301	948,135	959,501	952,418	956,372	925,916	1,027,957	884,165	881,506	

Turnover (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	12,390,982	12,616,468	12,691,704	12,538,678	12,119,683	11,554,094	11,707,661	11,319,796	10,709,252		
England & Wales	126,024,215	127,823,944	130,915,919	129,254,607	128,541,490	127,081,195	131,292,399	132,242,568	131,688,235		
England	118,777,782	120,790,346	124,226,854	122,516,680	121,557,131	120,896,108	124,985,514	125,338,513	125,597,491		

GVA (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	2,662,663	2,891,429	3,260,271	2,922,200	2,656,733	2,262,821	2,527,272	2,429,844	2,215,688		
England & Wales	19,109,116	19,232,361	22,959,017	18,812,371	19,634,235	18,269,200	19,887,651	19,401,193	17,362,119		
England	17,884,141	18,316,626	21,678,254	17,926,525	18,627,673	17,135,651	18,935,683	18,198,737	16,314,247		

Output value (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	3,098,764	3,838,791	4,145,257	3,848,939	3,548,983	3,095,981	3,399,576	3,401,509	3,026,281		
England & Wales	27,149,536	29,649,630	33,632,527	30,104,072	30,522,808	28,829,390	30,812,613	32,119,023	28,542,894		
England	25,450,635	28,179,507	31,868,434	28,664,206	28,969,412	27,250,279	29,377,084	30,373,312	27,046,524		

Source: Frontier Economics analysis of Business Structure Database (number of enterprises, local units and employment) and Annual Business Survey (turnover, GVA and output value)

Note: Blank cells reflect missing data owing to lags in underlying datasets. * reflects data suppressed because of potential disclosure (direct or indirect) of small cell sizes.

C.3 - On-trade retail

Figure 18: Underlying data tables – On-trade retail

No. Enterprises	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	7,273	7,364	7,371	7,354	7,175	7,153	7,022	7,054	7,045	7,144	6,796
England & Wales	83,662	82,797	81,271	81,129	79,844	78,683	78,437	79,462	79,686	80,530	77,881
England	78,373	77,604	76,215	76,169	75,031	74,008	73,866	74,854	75,132	75,983	73,510

No. Local Units	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	9,523	8,825	8,865	8,706	8,436	8,518	8,398	8,350	8,373	8,438	8,052
England & Wales	111,155	100,171	98,636	98,312	97,066	95,802	95,457	96,643	97,269	98,316	94,998
England	104,665	94,150	92,762	92,534	91,453	90,369	90,139	91,261	91,937	92,982	89,930

Employment	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	82,930	86,057	88,827	90,572	93,973	96,221	95,445	98,402	100,757	93,026	
England & Wales	917,980	943,467	990,759	1,064,765	1,055,544	1,071,921	1,103,024	1,112,859	1,150,451	1,119,539	
England	874,215	899,655	944,241	1,015,403	1,005,824	1,021,192	1,051,119	1,061,479	1,096,309	1,069,415	

Turnover (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	2,224,230	2,370,842	2,090,903	2,417,467	2,198,990	2,234,109	2,339,327	2,498,912	2,026,753		
England & Wales	28,964,254	28,063,036	28,019,720	29,975,001	31,560,031	32,809,796	35,632,915	36,925,197	33,914,856		
England	27,840,521	26,889,910	26,934,768	28,887,889	30,233,101	31,782,539	34,170,553	35,874,602	32,876,000		

GVA (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	958,915	1,193,081	980,983	1,254,444	1,150,875	1,186,998	1,254,666	1,301,805	1,092,723		
England & Wales	13,002,228	13,393,685	13,344,503	14,459,799	15,669,115	16,140,395	16,882,158	18,388,932	16,724,863		
England	12,569,507	12,890,848	12,858,687	14,009,159	15,082,641	15,636,996	16,174,901	17,826,088	16,160,431		

Output value (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	1,676,193	2,099,308	1,790,444	2,134,327	1,895,642	1,878,208	2,047,219	2,183,635	1,782,823		
England & Wales	22,253,575	24,540,252	24,046,828	25,728,100	26,391,986	27,962,393	29,893,753	32,024,502	29,269,704		
England	21,499,672	23,521,457	23,125,523	24,814,689	25,329,401	27,097,989	28,622,429	31,101,935	28,349,574		

Source: Frontier Economics analysis of Business Structure Database (number of enterprises, local units and employment) and Annual Business Survey (turnover, GVA and output value)

Note: Blank cells reflect missing data owing to lags in underlying datasets. * reflects data suppressed because of potential disclosure (direct or indirect) of small cell sizes.

C.3.1 - On-trade retail: Licensed restaurants

Figure 19: Underlying data tables – On-trade retail: licensed restaurants

No. Enterprises	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	7,350	7,406	7,411	7,396	7,219	7,193	7,059	7,089	7,083	7,179	6,832
England & Wales	30,037	30,962	31,246	32,346	32,998	33,526	34,459	35,837	36,467	37,305	36,379
England	28,614	29,539	29,791	30,877	31,513	32,004	32,904	34,217	34,828	35,640	34,761

No. Local Units	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	3,716	3,596	3,667	3,668	3,646	3,811	3,821	3,875	3,980	4,106	3,984
England & Wales	38,377	36,612	37,101	38,487	39,358	40,011	41,208	42,850	43,988	45,015	43,828
England	36,629	34,988	35,441	36,801	37,648	38,264	39,428	40,987	42,087	43,063	41,921

Employment	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	38,623	40,998	42,729	44,289	47,822	50,167	50,560	53,553	55,907	52,391	
England & Wales	388,291	410,580	435,247	484,610	483,290	505,156	535,774	546,319	568,287	560,996	
England	374,040	395,850	419,386	467,331	464,699	485,677	515,563	525,939	546,354	540,163	

Turnover (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	1,049,894	1,147,287	995,072	1,246,521	1,058,559	1,043,224	1,243,172	1,196,790	1,088,900		
England & Wales	10,453,248	10,555,053	10,997,090	12,367,468	13,041,575	15,693,363	15,573,100	16,754,293	15,528,458		
England	10,283,803	10,376,605	*	*	*	*	*	*	*		

GVA (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	501,299	641,871	524,282	697,605	582,702	593,025	721,761	705,864	615,891		
England & Wales	5,164,236	5,438,198	5,711,148	6,593,618	7,064,856	8,391,031	8,036,765	8,874,919	8,427,176		
England	5,084,993	5,351,483	*	*	*	*	*	*	*		

Output value (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	899,804	1,080,997	932,653	1,199,281	1,019,180	974,765	1,203,425	1,155,691	1,041,136		
England & Wales	9,192,289	10,026,219	10,291,235	11,824,166	12,348,475	14,872,657	14,688,794	15,912,967	14,866,961		
England	9,051,320	9,862,005	*	*	*	*	*	*	*		

Source: Frontier Economics analysis of Business Structure Database (number of enterprises, local units and employment) and Annual Business Survey (turnover, GVA and output value)

Note: Blank cells reflect missing data owing to lags in underlying datasets. * reflects data suppressed because of potential disclosure (direct or indirect) of small cell sizes.

C.3.2 - On-trade retail: Licensed clubs

Figure 20: Underlying data tables – On-trade retail: licensed clubs

No. Enterprises	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	810	789	764	756	726	705	674	638	614	589	567
England & Wales	9,758	9,473	9,082	8,700	8,309	7,996	7,685	7,450	7,173	7,034	6,782
England	8,982	8,707	8,354	8,019	7,655	7,374	7,091	6,871	6,609	6,487	6,254

No. Local Units	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	918	859	832	811	787	788	744	678	670	645	613
England & Wales	11,205	10,502	10,093	9,643	9,154	8,820	8,413	8,052	7,716	7,595	7,313
England	10,355	9,673	9,297	8,898	8,438	8,152	7,772	7,428	7,109	7,022	6,757

Employment	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	8,473	8,456	8,779	9,008	9,496	8,602	7,770	7,265	6,819	5,958	
England & Wales	86,745	89,020	87,849	86,133	84,096	80,161	78,253	75,208	74,690	70,654	
England	80,885	83,143	82,458	80,518	78,773	75,030	73,305	70,262	69,980	66,269	

Turnover (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	152,322	198,072	221,875	177,650	220,745	217,282	235,680	105,278	27,867		
England & Wales	2,202,909	1,967,590	1,571,917	2,457,655	1,623,565	2,554,361	2,625,228	1,773,029	1,973,981		
England	*	*	*	*	*	*	*	*	*		

GVA (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	43,828	74,457	54,200	87,202	107,014	110,948	105,016	45,636	15,069		
England & Wales	810,945	851,711	574,797	1,099,171	686,473	991,131	1,188,573	741,551	1,023,817		
England	*	*	*	*	*	*	*	*	*		

Output value (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	83,172	147,564	153,685	143,753	162,082	166,928	172,466	85,463	25,259		
England & Wales	1,379,436	1,589,237	1,174,761	1,842,923	1,185,343	1,787,109	1,965,478	1,329,685	1,584,674		
England	*	*	*	*	*	*	*	*	*		

Source: Frontier Economics analysis of Business Structure Database (number of enterprises, local units and employment) and Annual Business Survey (turnover, GVA and output value)

Note: Blank cells reflect missing data owing to lags in underlying datasets. * reflects data suppressed because of potential disclosure (direct or indirect) of small cell sizes.

C.3.3 - On-trade retail: Public houses and bars

Figure 21: Underlying data tables – On-trade retail: Public houses and bars

No. Enterprises	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	3,599	3,556	3,522	3,460	3,336	3,222	3,130	3,128	3,061	3,048	2,833
England & Wales	44,334	42,596	41,173	40,312	38,753	37,384	36,501	36,397	36,253	36,400	34,920
England	41,214	39,577	38,286	37,490	36,067	34,840	34,067	33,975	33,891	34,055	32,687

No. Local Units	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	4,889	4,370	4,366	4,227	4,003	3,919	3,833	3,797	3,723	3,687	3,455
England & Wales	61,573	53,057	51,442	50,182	48,554	46,971	45,836	45,741	45,565	45,706	43,857
England	57,681	49,489	48,024	46,835	45,367	43,953	42,939	42,846	42,741	42,897	41,252

Employment	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	35,834	36,603	37,319	37,275	36,655	37,452	37,115	37,584	38,031	34,677	
England & Wales	442,944	443,867	467,663	494,022	488,158	486,604	488,997	491,332	507,474	487,889	
England	419,290	420,662	442,397	467,554	462,352	460,485	462,251	465,278	479,975	462,983	

Turnover (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	1,022,014	1,025,483	873,957	993,296	919,685	973,604	860,476	1,196,844	909,985		
England & Wales	16,308,096	15,540,394	15,450,713	15,149,878	16,894,890	14,562,071	17,434,588	18,397,875	16,412,417		
England	15,488,280	14,681,803	*	*	*	*	*	*	*		

GVA (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	413,787	476,753	402,502	469,636	461,159	483,026	427,889	550,305	461,763		
England & Wales	7,027,047	7,103,775	7,058,559	6,767,010	7,917,786	6,758,233	7,656,819	8,772,462	7,273,869		
England	6,712,091	6,745,461	*	*	*	*	*	*	*		

Output value (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	693,216	870,746	704,105	791,293	714,380	736,515	671,328	942,480	716,428		
England & Wales	11,681,850	12,924,796	12,580,832	12,061,010	12,858,168	11,302,627	13,239,481	14,781,850	12,818,069		
England	11,142,278	12,178,368	*	*	*	*	*	*	*		

Source: Frontier Economics analysis of Business Structure Database (number of enterprises, local units and employment) and Annual Business Survey (turnover, GVA and output value)

Note: Blank cells reflect missing data owing to lags in underlying datasets. * reflects data suppressed because of potential disclosure (direct or indirect) of small cell sizes.

C.4 - Wholesale

Figure 22: Underlying data tables – Wholesale

No. Enterprises	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	672	651	675	682	690	740	758	753	800	815	837
England & Wales	8,359	8,256	8,295	8,565	8,651	8,705	8,742	8,801	8,813	8,827	9,310
England	8,113	8,012	8,040	8,307	8,402	8,467	8,517	8,575	8,586	8,592	9,079

No. Local Units	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	859	781	800	803	807	861	877	840	887	893	912
England & Wales	10,126	9,409	9,420	9,734	9,779	9,800	9,814	9,822	9,806	9,750	10,169
England	9,777	9,095	9,097	9,405	9,461	9,496	9,523	9,531	9,517	9,460	9,885

Employment	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	14,115	12,521	12,645	12,105	12,530	12,268	10,844	10,850	10,969	10,752	
England & Wales	110,135	110,271	117,657	118,738	119,660	118,799	123,529	136,633	140,472	134,858	
England	104,266	106,417	113,609	114,615	115,552	114,736	119,610	132,632	136,455	131,109	

Turnover (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	5,880,480	5,672,867	5,194,450	4,554,683	4,753,280	5,010,237	4,830,693	4,050,047	6,279,027		
England & Wales	45,518,018	45,993,281	46,783,286	40,875,743	42,444,476	45,578,285	45,460,326	40,986,828	43,389,872		
England	44,263,692	43,903,305	45,315,210	39,979,290	41,296,667	44,497,625	44,441,871	39,964,176	42,376,435		

GVA (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	1,069,143	1,137,809	1,129,231	1,083,067	1,083,219	1,018,634	970,471	910,501	1,753,303		
England & Wales	5,013,943	4,828,205	4,542,667	5,072,903	5,035,321	4,978,418	6,136,635	6,572,134	5,798,858		
England	4,844,109	4,544,212	4,373,235	4,991,971	4,890,495	4,830,815	5,983,402	6,381,937	5,670,755		

Output value (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	1,878,941	2,022,827	2,267,668	1,849,217	1,884,237	1,847,060	1,905,053	1,988,346	2,571,884		
England & Wales	9,012,314	9,104,175	8,711,365	8,780,876	9,509,098	9,612,906	10,928,427	11,623,190	11,157,030		
England	8,760,085	8,710,761	8,368,135	8,642,317	9,277,194	9,397,743	10,707,987	11,367,319	10,954,500		

Source: Frontier Economics analysis of Business Structure Database (number of enterprises, local units and employment) and Annual Business Survey (turnover, GVA and output value)

Note: Blank cells reflect missing data owing to lags in underlying datasets. * reflects data suppressed because of potential disclosure (direct or indirect) of small cell sizes.

C.4.1 - Wholesale: Wholesale of alcoholic beverages

Figure 23: Underlying data tables – Wholesale: wholesale of alcoholic beverages

No. Enterprises	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	292	284	292	299	311	339	350	342	352	357	369
England & Wales	3,126	3,124	3,222	3,331	3,321	3,274	3,275	3,321	3,321	3,317	3,486
England	3,036	3,035	3,136	3,245	3,229	3,179	3,188	3,230	3,238	3,231	3,393

No. Local Units	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	369	321	327	332	345	376	386	365	369	374	384
England & Wales	3,670	3,410	3,486	3,601	3,594	3,548	3,521	3,555	3,529	3,522	3,677
England	3,561	3,310	3,388	3,504	3,492	3,441	3,421	3,451	3,438	3,427	3,574

Employment	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	4,876	3,680	3,972	3,787	3,914	3,681	3,640	3,288	3,655	3,752	
England & Wales	23,886	24,754	26,101	26,293	25,920	25,761	26,463	50,137	50,675	50,098	
England	23,358	24,187	25,537	25,638	25,298	25,177	25,899	49,668	50,147	49,588	

Turnover (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	2,541,601	2,029,704	1,964,562	2,469,592	1,797,340	1,843,894	2,215,751	1,589,597	1,520,052		
England & Wales	8,383,562	10,841,923	9,324,824	9,199,477	10,265,360	10,449,808	12,055,604	11,186,788	13,130,024		
England	*	*	*	*	*	*	*	*	*		

GVA (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	720,223	748,547	683,958	723,917	696,035	649,194	600,838	488,376	564,846		
England & Wales	1,319,812	1,345,857	1,472,772	1,442,193	1,457,182	1,626,318	2,289,430	2,235,242	2,328,530		
England	*	*	*	*	*	*	*	*	*		

Output value (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	1,373,176	1,376,873	1,379,911	1,311,921	1,295,415	1,271,164	1,343,482	985,404	1,059,745		
England & Wales	2,552,350	2,827,424	2,843,009	2,571,274	2,805,620	3,116,265	3,901,090	4,177,373	4,393,154		
England	*	*	*	*	*	*	*	*	*		

Source: Frontier Economics analysis of Business Structure Database (number of enterprises, local units and employment) and Annual Business Survey (turnover, GVA and output value)

Note: Blank cells reflect missing data owing to lags in underlying datasets. * reflects data suppressed because of potential disclosure (direct or indirect) of small cell sizes.

C.5 - Spirits production

Figure 24: Underlying data tables – Spirits production

No. Enterprises	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	59	54	59	69	81	113	146	168	201	239	282
England & Wales	73	82	100	126	150	203	265	369	492	605	722
England	*	*	*	*	*	*	*	*	*	*	*

No. Local Units	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	207	162	160	174	185	220	252	272	308	345	391
England & Wales	82	89	107	129	159	208	273	379	501	617	737
England	*	*	*	*	*	*	*	*	*	*	*

Employment	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	7,925	7,503	7,570	7,853	8,253	8,347	8,362	8,847	9,104	9,259	
England & Wales	1,034	690	742	1,276	1,145	1,414	1,568	1,970	2,572	2,798	
England	*	*	*	*	*	*	*	*	*	*	

Turnover (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	3,856,283	3,655,891	3,665,568	3,381,646	3,329,734	3,498,057	3,102,728	3,887,293	3,899,488		
England & Wales	215,366	208,082	463,634	502,280	442,517	451,095	392,922	500,397	600,484		
England	*	*	*	*	*	*	*	*	*		

GVA (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	2,246,927	2,005,259	1,935,114	1,871,059	1,828,134	1,955,626	1,918,024	2,263,595	1,919,577		
England & Wales	113,864	101,367	134,876	142,909	149,853	190,812	171,660	209,494	260,959		
England	*	*	*	*	*	*	*	*	*		

Output value (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	3,766,189	3,512,167	3,543,562	3,483,520	3,329,214	3,397,091	3,192,233	3,993,583	3,671,246		
England & Wales	204,325	199,600	374,856	410,350	351,108	416,482	366,460	467,982	569,414		
England	*	*	*	*	*	*	*	*	*		

Source: Frontier Economics analysis of Business Structure Database (number of enterprises, local units and employment) and Annual Business Survey (turnover, GVA and output value)

Note: Blank cells reflect missing data owing to lags in underlying datasets. * reflects data suppressed because of potential disclosure (direct or indirect) of small cell sizes.

C.6 - Beer production

Figure 25: Underlying data tables – Beer production

No. Enterprises	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	56	68	77	88	88	108	123	139	146	152	151
England & Wales	663	721	809	940	1,055	1,206	1,330	1,444	1,487	1,521	1,515
England	631	685	768	888	991	1,137	1,251	1,363	1,400	1,432	1,432

No. Local Units	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	71	76	88	97	97	118	131	152	154	160	158
England & Wales	768	772	856	987	1,105	1,262	1,399	1,508	1,548	1,577	1,689
England	733	734	813	933	1,036	1,188	1,313	1,423	1,458	1,485	1,486

Employment	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	1,003	827	847	922	1,120	1,206	1,251	1,490	1,528	1,560	
England & Wales	13,196	12,285	12,813	12,541	13,293	14,526	14,607	17,513	15,643	18,103	
England	12,513	11,580	12,021	11,728	12,479	13,629	13,622	16,469	14,589	15,306	

Turnover (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	*	*	*	408,595	*	269,482	279,331	281,685	301,239		
England & Wales	4,684,822	4,673,943	4,512,696	4,621,879	4,791,904	4,319,542	4,299,918	5,630,482	5,722,237		
England	*	*	*	*	*	*	*	*	*		

GVA (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	*	*	*	81,083	*	33,811	34,625	9,556	3,358		
England & Wales	792,819	751,323	784,935	1,046,114	1,265,192	291,674	83,810	650,115	583,131		
England	*	*	*	*	*	*	*	*	*		

Output value (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	*	*	*	208,073	*	126,452	131,697	116,601	92,843		
England & Wales	2,016,952	1,746,962	1,692,933	2,078,828	2,300,274	1,672,254	1,543,054	2,731,457	2,599,638		
England	*	*	*	*	*	*	*	*	*		

Source: Frontier Economics analysis of Business Structure Database (number of enterprises, local units and employment) and Annual Business Survey (turnover, GVA and output value)

Note: Blank cells reflect missing data owing to lags in underlying datasets. * reflects data suppressed because of potential disclosure (direct or indirect) of small cell sizes.

C.7 - Malt production

Figure 26: Underlying data tables – Malt production

No. Enterprises	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	*	*	*	*	*	*	*	*	*	*	*
England & Wales	16	16	16	15	16	15	14	12	13	13	13
England	*	*	*	*	*	*	*	*	*	*	*

No. Local Units	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	14	11	11	12	12	12	12	11	11	12	12
England & Wales	29	23	23	22	23	22	21	19	20	20	21
England	*	*	*	*	*	*	*	*	*	*	*

Employment	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	280	265	304	309	298	309	246	257	261	286	
England & Wales	858	962	945	978	1,007	1,014	1,015	1,039	1,073	1,095	
England	*	*	*	*	*	*	*	*	*	*	

Turnover (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	*	*	*	*	*	141,736	126,794	125,606	*		
England & Wales	*	366,324	*	*	*	455,947	463,119	484,516	574,861		
England	*	*	*	*	*	*	*	*	*		

GVA (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	*	*	*	*	*	33,210	48,425	51,119	*		
England & Wales	*	50,638	*	*	*	88,370	121,706	139,306	89,654		
England	*	*	*	*	*	*	*	*	*		

Output value (£000s)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Scotland	*	*	*	*	*	92,288	91,956	99,396	*		
England & Wales	*	371,650	*	*	*	387,502	421,941	450,352	514,358		
England	*	*	*	*	*	*	*	*	*		

Source: Frontier Economics analysis of Business Structure Database (number of enterprises, local units and employment) and Annual Business Survey (turnover, GVA and output value)

Note: Blank cells reflect missing data owing to lags in underlying datasets. * reflects data suppressed because of potential disclosure (direct or indirect) of small cell sizes.

Annex D - Topic guide used for qualitative interviews

This Annex replicates the topic guide used to support the qualitative research. It is a refresh and update of the guide which was used in the previous Baseline and Initial Impacts Report, and was agreed with Public Health Scotland in advance of fieldwork commencing. Additional interviewer prompts were included depending on the nature of the case study. Where the case study was a direct follow-up with the same organisation interviewed previously, we referred back to previous responses to explore changes since 2019. Where the case study was a replacement case study, we sought views on the entire period post-MUP.

Interviewer note

The interviewer will review all notes and materials from respondent's Wave 1 interview to understand the changes they had made following the introduction of MUP and the impacts they expected it to have.

This topic guide aims to:

- capture any significant change in approach to MUP since we last engaged and what the specific details and rationale for these changes are;
- explore any further impacts experienced since Wave 1 (both expected and unexpected) and the reasons for these;
- understand the role Covid-19, Brexit, and any other wider factors have had on the impact of MUP, and the extent of this; and
- ensure consistency in what is captured for any 'new' case studies replacing those from Wave 1 who can no longer take part.

The guide is designed to be used flexibly to respond to participant's experiences, and to offer prompts and opportunities to capture further detail on any new lines of enquiry for the research.

Introduction

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 alcohol 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 2018, set a minimum retail price on alcohol sold in Scotland (50ppu). The Public 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 commissioned by Public Health Scotland to conduct an evaluation of MUP on producers, retailers and other key sectors of the alcohol industry. The findings from this study will contribute to the overall MESAS evaluation of MUP that Public 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. [IF RELEVANT] It follows on from previous case study interviews that were undertaken in 2019 with you/representatives from your business.

[FOR ALL]

The purpose of this case study is therefore **to understand the impact the MUP has had on your business** since our previous discussion (including issues around sales, profitability, employment, and the impact on [• production/retail] decisions around alcohol), and potential future impacts. We will also seek to understand the impact other recent events such as the Covid-19 pandemic and Brexit may have had on your plans and expectations relating to MUP.

Everything that you say will be treated in the strictest confidence and nothing will be passed to Public Health 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]

Can you please verbally confirm that you understand the purpose and confidentiality of the research, that you are happy to take part, and that you give your consent to this interview being audio-recorded?

Background

1 To start, please can you tell me a little about the company and your role here. How has this changed since the introduction on MUP?

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

[ASK ONLY IF RESPONDENT IS FROM A REPLACEMENT CASE STUDY]

We are interested in understanding how MUP has affected your company when it was first introduced.

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

- Do you have a sense of how this differed by product line?
- Did this differ by geography?

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

4 What was the retail price before MUP?

[PRODUCERS ONLY]

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

Your response

[RETAILERS ONLY]

We understand that retailers may have made various changes to respond to MUP since its introduction.

6 Can you tell us a little about your ongoing response to the introduction of MUP? **IF TAKEN PART PREVIOUSLY** since we last spoke in 2019?

Prompts might include:

FOR REPLACEMENT CASE STUDIES – initially following the introduction of MUP:

- What, if any changes did you make to the prices of any previously <MUP products or >MUP products to at/above MUP? If so, why?
- Did you lower the price of other non-alcohol products as a result of MUP? If so, which ones and why?
- Did you make any changes to the products you stocked (e.g. change formats or pack sizes, de list products, or introduce re-formulated products)? If so, why?
  - 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)?

FOR ALL – post 2019:

- What, if any, further changes have you made to your pricing, range or product lines that would have previously been <MUP? Have there been further impacts on pricing or range for products that would previously have been >MUP?
- What, if any, further changes have you made to your marketing approach and strategy for products that would have previously been <MUP?
- What, if any, further changes have you made to your business model?
- To what extent were these changes part of your ongoing response to MUP?
- How did wider factors including the Covid-19 pandemic, Brexit, and other developments in your area or sector contribute to these changes?
- To what extent are these changes consistent with what you expected following the introduction of MUP?

[PRODUCERS ONLY]

We understand that producers may have made various changes to respond to MUP since its introduction.

7 Can you tell us a little about your ongoing response to the introduction of MUP? **IF TAKEN PART PREVIOUSLY** since we last spoke in 2019?

Prompts might include:

FOR REPLACEMENT CASE STUDIES – Initially following the introduction of 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?

FOR ALL – post 2019:

- What, if any, further changes have you made to your range or product lines that would have previously been <MUP? Has there been any impact on product lines that would have previously been >MUP?
- What, if any, further changes have you made to your marketing approach and strategy for products that would have previously been <MUP?
- What, if any, further changes have you made to your business model?
- To what extent were these changes part of your ongoing response to MUP?
- How did wider factors including the Covid-19 pandemic, Brexit, and other developments in your area or sector contribute to these changes?
- To what extent are these changes consistent with what you expected following the introduction of MUP?

Effects on volume

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]

8 Can you tell us about the impact the introduction of MUP has had on demand for different products? **IF TAKEN PART PREVIOUSLY** since we last spoke in 2019?

Prompts might include:

FOR REPLACEMENT CASE STUDIES – Initially following the introduction of MUP:

- What, if any, changes did you observe in consumer demand for products where retail prices were increased to/above MUP?
- Were there some products where price was increased but demand remained unchanged?
- What, if any, changes in demand were there for products where retail prices were always at or above MUP?
- What, if any, changes in demand were there for non-alcohol products as a result of the introduction of MUP?

FOR ALL – post 2019:

- What, if any, further changes have there been in demand for products where retail prices were increased to/above MUP?
- What, if any, further changes have you observed in demand for products where retail prices were always at or above MUP?
- To what extent do you think these changes in demand related to MUP?
- How did wider factors including the Covid-19 pandemic, Brexit, and other developments in your area or sector contribute to these changes?
- To what extent are these changes in demand consistent with what you expected following the introduction of MUP?

[PRODUCERS ONLY]

9 Can you tell us about the impact the introduction of MUP had on demand for different products? **IF TAKEN PART PREVIOUSLY** since we last spoke in 2019?

Prompts might include:

FOR REPLACEMENT CASE STUDIES – Initially following the introduction of MUP:

- What, if any changes were there in overall demand for some products where retail prices were increased to MUP? [Prompt for change from off-trade retailers, on-trade retailers, types of retailers (convenience, traditional, discount)].
- Did you observe a change in demand for some products where retail prices were always at or above MUP?

FOR ALL – post 2019:

- What, if any, further changes have there been in demand from off-trade retailers for products where retail prices were increased to/above MUP?
- What, if any, further changes have there been in demand from on-trade retailers for products where retail prices were increased to/above MUP?
- What, if any, further changes have there been in demand from retailers/wholesalers for your product? [NOTE: including convenience, traditional, discount]?
- What, if any, further changes have you observed in demand for products where retail prices were always at or above MUP?
- To what extent do you think these changes in demand related to MUP?
- How did wider factors including the Covid-19 pandemic, Brexit, and other developments in your area or sector contribute to these changes?
- To what extent are these changes in demand consistent with what you expected following the introduction of MUP?

Retail-producer relationship

[RETAILERS ONLY]

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

10 Can you tell us about the impact the introduction of MUP has had on negotiations with producers and wholesalers? **IF TAKEN PART PREVIOUSLY** since we last spoke in 2019?

Prompts might include:

FOR REPLACEMENT CASE STUDIES – Initially following the introduction of MUP:

- How, if at all, did negotiations with producers/wholesalers change as a result of MUP? e.g. demanding higher wholesale prices for > or < MUP products.

FOR ALL – post 2019:

- What, if any, further changes have taken place when negotiating wholesale prices with producers and wholesalers?
- To what extent do you think these changes in negotiations are related to MUP?
- How did wider factors including the Covid-19 pandemic, Brexit, and other developments in your area or sector contribute to these changes?
- To what extent are these changes in negotiations consistent with what you expected following the introduction of MUP?

[PRODUCERS ONLY]

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

11 Can you tell us about the impact the introduction of MUP has had on negotiations with retailers? IF TAKEN PART PREVIOUSLY since we last spoke in 2019?

Prompts might include:

FOR REPLACEMENT CASE STUDIES – Initially following the introduction of MUP:

- How, if at all, did wholesale prices change as a result of MUP for off-trade retailers? e.g. higher wholesale prices for > or < MUP products.
- How, if at all, did wholesale prices change as a result of MUP for on-trade retailers? e.g. higher wholesale prices for > or < MUP products.

FOR ALL – post 2019:

- What, if any, further changes have taken place when negotiating wholesale prices with retailers?
- To what extent do you think these changes in negotiations are related to MUP?
- How did wider factors including the Covid-19 pandemic, Brexit, and other developments in your area or sector contribute to these changes?
- To what extent are these changes in negotiations consistent with what you expected following the introduction of MUP?

Overall effects

[RETAILERS ONLY]

12 Overall, in the three years since the introduction of MUP, what would you say the main effects of MUP have been? *Probe as appropriate regarding:*

- The amount consumers spend on alcohol products 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 alcohol products

13 What have been the longer-term impacts for your business? *Probe as appropriate regarding the following, and establish the time periods these were experienced (e.g. pre Covid-19 pandemic)*:

- 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?

14 To what extent do you think these impacts were directly or indirectly related to MUP?

15 How did wider factors including the Covid-19 pandemic, Brexit, and other developments in your area or sector contribute to these impacts?

16 To what extent are these changes and impacts consistent with what you expected following the introduction of MUP?

17 Do you think the impact of MUP on your organisation has been typical of other organisations like yours in the Scottish alcohol industry? Why (not)?

[PRODUCERS ONLY]

18 Overall, in the three years since the introduction of MUP, what would you say the main effects of MUP have been? *Probe as appropriate regarding:*

- Investment in product innovation [NOTE: including balance of product innovation between <MUP and >MUP)
- Input prices
- The format or pack-size of alcohol products

19 What have been the longer-term impacts for your business? *Probe as appropriate regarding the following, and establish the time periods these were experienced (e.g. pre Covid-19 pandemic)*:

- 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?

20 To what extent do you think these impacts were directly or indirectly related to MUP?

21 How did wider factors including the Covid-19 pandemic, Brexit, and other factors in your area or sector contribute to these impacts?

22 To what extent are these changes and impacts consistent with what you expected following the introduction of MUP?

23 Do you think the impact of MUP on your organisation has been typical of other organisations like yours in the Scottish alcohol industry? Why (not)?

Cross-border effects

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

[RETAILERS ONLY]

24 Have you observed 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?
- When was this experienced?

25 Have you observed any 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?
- When was this experienced?

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

- When was this experienced?
- Are you in a position to take advantage of these differences for Scottish stores close to the border (or are producers and wholesalers able to effectively discriminate)?

27 Are you aware of any informal bulk cross-border purchases?

28 How did wider factors including the Covid-19 pandemic, Brexit, and other changes in your area or sector contribute to these impacts?

29 To what extent are these changes and impacts consistent with what you expected following the introduction of MUP? Have these impacts grown or shrunk since 2019?

[PRODUCERS ONLY]

30 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? In what ways, if at all, has this changed since 2019?

New equilibrium and looking forward

[Some of these may have been captured by earlier questions, interviewer to use discretion]

31 It was envisaged that following the introduction of MUP (in the absence of other changes) the alcoholic drinks industry would shift to a new equilibrium characterised by lower volumes of sales of alcoholic drinks but higher average values. To what extent do you think this has been your experience?

32 To what extent have you found the market share of premium alcoholic drinks has changed? Why is this? *Interviewer to explore what impact any change in market share has had on 'value' and own-label products.*

33 To what extent have you found the that the market share of convenience and on-trade retailers has changed? Why is this? *Interviewer to explore what impact any change in market share has had on supermarkets and discounters.*

34 To what extent have you found the market share of small format alcoholic drinks has changed? Why is this? *Interviewer to explore what impact any increased market share has had on different format sizes.*

35 At what point, if at all, do you think the impacts of MUP on your business reached a point of 'stability' or 'no further impact'? (e.g. pre Covid-19 pandemic?).

36 What, if any, further impacts do you think MUP will have on the Scottish alcohol industry over the next 2-5 years? Why?

37 What other factors might you expect to play a role in any other long-term impacts of MUP?

Specific Questions

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.

Interviewer to ask as appropriate based on whether they are an existing or new case study (e.g. focusing post 2019, or since the introduction of MUP). Interviewer to explore the extent to which changes relate to MUP or other factors.

[LARGE RETAILER]

38 Did MUP change your approach to stocking own brand 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]

39 Have you observed a change in demand for alcohol between the various store types you operate (convenience, traditional, bulk)?

40 Did you observe any change in your relative competitiveness with respect to smaller retailers or off-licence convenience stores as a result of MUP?

41 How do you manage price differentials between England and Scotland for online orders?

[SMALL RETAILER]

42 Did MUP change your approach to stocking own brand 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]

43 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]

44 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.

[SPECIALITY RETAILER]

45 Did you change your relationship with bottlers or producers as a result of MUP?

46 What impacts have currency fluctuations and uncertainty related to Brexit had on your prices and volumes in the last 12 months? [relevant for imports]

47 To what extent do you think you compete with supermarkets and convenience stores?

48 We understand that many other retailers may have decreased prices on non-alcohol products to attract customers. Have you taken other measures to drive foot-fall in the absence of <MUP alcohol? [PROMPT IF REQUIRED: lowering the price of >MUP alcohol, improved range]

49 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]

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

[BEER PRODUCER]

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

[OWN BRAND PRODUCER]

52 Did MUP change retailers' approach to stocking own brand 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?

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

Closing remarks

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 Public 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 final 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 Public Health Scotland or any third-parties.

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