Public Health Scotland

Evaluating the impact of MUP on alcohol products and prices

Karl Ferguson, Lucie Giles, Clare Beeston

November 2022

Translations | Easy read | BSL | Audio | Large print | Braille

Translations and other formats are available on request at:

phs.otherformats@phs.scot

0131 314 5300

Public Health Scotland is Scotland's national agency for improving and protecting the health and wellbeing of Scotland's people.

0897 11/2022

www.publichealthscotland.scot

Contents

Glossary

- ABV – Alcohol by volume (%)
- EPoS – Electronic point of sale
- ml – millilitres
- multipack – a product with multiple individual containers designed to be sold as a collective product (e.g. 4 x pack of 500ml beer)
- MUP – Minimum Unit Pricing
- n – nominal value/number
- product – a variant of a brand, most often defined through its unique combination of container size and multipack configuration, but also including other variables such as ABV or vintage
- RTD – ready to drink (i.e. pre-mixed beverages)
- strong cider – a sub-category of cider products that tend to have high ABV, most often sold with 7.5% (i.e. white cider)
- super-strength beer – a sub-category of beer products that tend to have high ABV, most often sold with 8%
- UK – United Kingdom

Key messages

In the first year following the introduction of minimum unit pricing for alcohol (MUP), the average price of alcoholic drink products in the off-trade increased in Scotland to a greater extent than in England & Wales or between the previous two years in Scotland prior to MUP being implemented.

Supermarkets tended to have lower pricing than convenience stores before MUP, but prices in supermarkets increased more than convenience stores, such that both sectors had similar pricing after MUP was implemented.

Price increases were most pronounced for types of alcoholic drinks that tended to be priced below £0.50 per unit prior to the introduction of MUP, such as some ciders, perries, and own-brand spirits.

Decreases were observed in the amount sold in larger single-item containers for products that were priced below £0.50 prior to MUP being implemented, especially for some ciders and own-brand spirits in containers of 1,000ml and over. The amount of beer and cider sold in multipacks with the greatest number of containers declined while the amount sold in smaller multipacks increased.

There was limited evidence of an effect of MUP on the introduction of new products, the discontinuation of existing products, or for changes to alcohol by volume (ABV).

Natural volume alcohol sales declined in Scotland in the first year following MUP implementation, while increasing in England & Wales and between the two previous years in Scotland. The larger decreases tended to be in products that were priced below £0.50 per unit of pure alcohol prior to the implementation of MUP.

The products that increased the least in average price, such as some ready-to-drink beverages, or that decreased in price, such as fortified wines in convenience stores, tended to see increased sales.

There was evidence for the price increases more than offsetting the reduction in sales volumes. Despite the general reduction in sales volumes, the overall monetary value of these sales increased at a greater rate in Scotland than in England & Wales or between the previous two years in Scotland prior to MUP being implemented.

1. Introduction

This report evaluates the effect of minimum unit pricing for alcohol (MUP) on the price and range of alcohol products in the Scottish retail off-trade and wholesale sectors. We addressed the following research questions:

1. How did the price (pence per unit and price per litre natural volume) of alcohol products sold in the retail and wholesale sectors change in Scotland after the implementation of MUP?

2. How did the range of alcohol products (container size, multipacks, discontinuation or introduction of products, ABV) change in Scotland following the implementation of MUP?

3. How did the total volume (L) and value (£) of sales change in Scotland following the implementation of MUP?

1.1. Minimum unit pricing for alcohol in Scotland

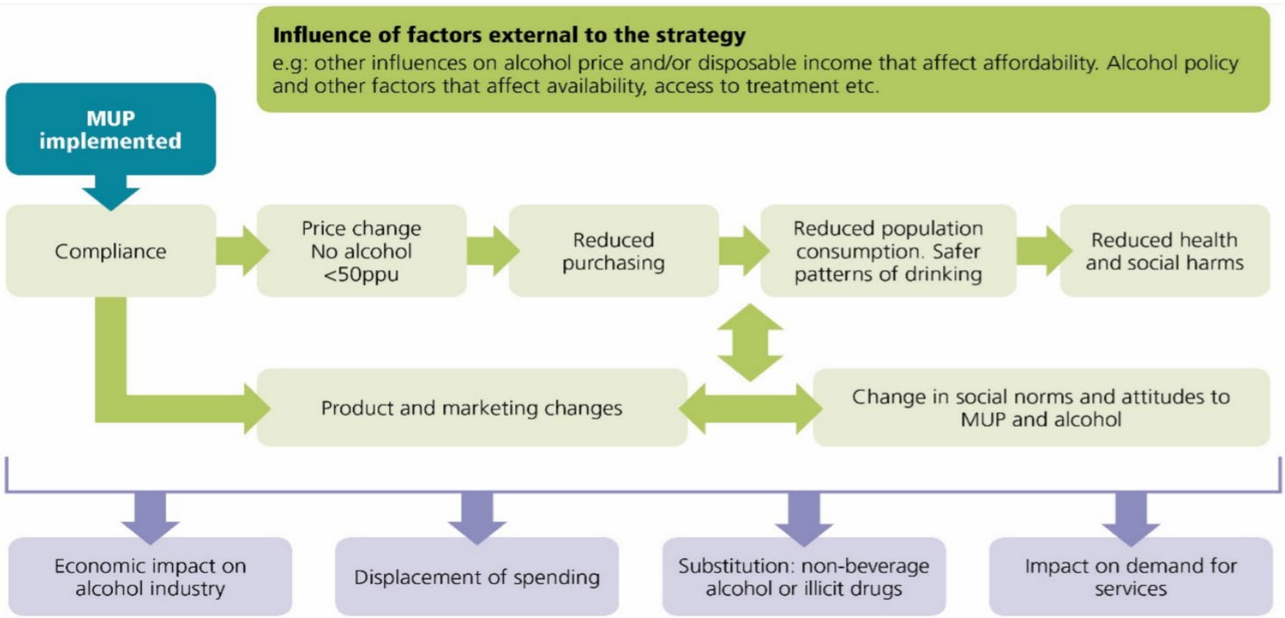
The Scottish Government has had an overarching strategy to reduce alcohol harm since 2009[1], updated in 2018 as the Alcohol Framework[2]. The strategy was developed in response to the well-documented high level of alcohol harm in Scotland, including harm to individuals, families and communities[3]. Its suite of policy and legislative actions is designed to operate in a complementary fashion to reduce alcohol consumption, and thus alcohol-related health and social harms. The floor price of MUP, based on alcohol strength, is an important component of this strategy. The ‘Alcohol (Minimum Pricing) (Scotland) Act 2012’ was passed by the Scottish Parliament in June 2012[4]. A subsequent legal challenge ended when the UK Supreme Court ruled in November 2017 that MUP in Scotland was legal[5]. Secondary legislation setting the level of MUP at £0.50 per unit of alcohol was passed in April 2018 and MUP was implemented in Scotland on 1 May 2018[6].

1.2. Minimum unit pricing for alcohol evaluation

The MUP legislation contains a sunset clause whereby its continuation beyond April 2024 requires an affirmative vote by the Scottish Parliament before this time. The legislation also requires that Ministers review the effect of the legislation five years after implementation and report this to the Scottish Parliament[3]. In order to inform this review, the Scottish Government commissioned Public Health Scotland (formerly NHS Health Scotland) to evaluate the impacts of MUP on a range of outcomes. Public Health Scotland subsequently devised a broad portfolio of studies to evaluate the effect of MUP on these outcomes[7], underpinned by a theory of change (Figure 1). The theory of change depicts a hypothesised chain of outcomes where MUP increases the price of low-cost, high-strength alcohol, which reduces alcohol-related health and social harms via reduced consumption. The theory of change shows other potential outcomes such as changes in the alcoholic drinks industry or in other substance use. The MUP evaluation systematically investigates these possible outcomes, including studies to assess compliance and implementation, changes in the alcoholic drinks industry, alcohol consumption, and alcohol-related harm. Complementary studies are also conducted under research grant funding or other sources.

Our '**Protocol for the evaluation of Minimum Unit Pricing for alcohol**'[7] provides a comprehensive overview of the studies used to evaluate MUP and a summary of the legislation and supporting research.

Figure 1: Evidence-based theory of change for MUP in Scotland



1.3. Potential responses to MUP

There are numerous possible responses to the introduction of MUP. Previous Public Health Scotland work indicated that the average price of alcoholic drink products increased in Scotland following the introduction of MUP, mainly due to increase in the proportion sold between £0.50 and £0.65 per unit of alcohol and a decrease below £0.50[8]. Presented below are a number of theories that might explain this change, as well as potential subsequent changes to the range of alcoholic drinks (note the term 'product' is used here to describe variants of a brand, in terms of container size, alcohol by volume (ABV), etc.):

- Changes to the price of a product based on previous pricing:
    - Prices may increase for some products in order to comply with the law by meeting the minimum unit price.
    - Prices may decrease for some products to allow them to compete at prices close to the minimum unit price.
    - Prices may increase for some products so as to maintain the price differential compared to those products previously priced below the minimum unit price.

- Changes to the product range:
    - A change in the size of a product. Assuming the strength (ABV) of a product does not change, smaller containers can be priced for less, to maintain the same price point, for example. This may also apply to changes to pack configurations, such as fewer items in multipacks or multipacks with smaller constituent items.
    - A change in the strength (ABV) of a product. ABV may be reduced for some products to reduce the amount of alcohol in it, thereby lowering the minimum price for that product.
    - Products may be discontinued or introduced. While it is possible that this may apply to both the production and retail of a product, it should be noted that the alcoholic drink products sold in Scotland also tend to be sold across the rest of the UK and further afield, so any changes due to MUP are more likely to be in retail terms, rather than production.

2. Methods

This study compares product and price outcomes from the off-trade and wholesale sectors using data from Scotland from before and after MUP was implemented and from England & Wales. The analysis is descriptive and examines outcomes by total alcohol, drink category and for a sample of brand-level products.

2.1. Off-trade alcohol retail sales data

Off-trade alcohol retail sales data were obtained from market research company NielsenIQ. NielsenIQ estimate retail sales in Great Britain using electronic point of sale (EPoS) records. Data are provided across the 'grocery multiple' sector (retailers with 10 or more retail shops operating under common ownership, hereafter referred to as 'supermarkets') and a weighted stratified random sample of impulse retailers (retailers in which the consumer mainly uses the store for impulse or top-up purchases (i.e. not the main grocery shop) hereafter referred to as 'convenience stores'). It is estimated that large, multiple retailers (supermarkets) account for approximately 80% of total off-trade alcohol sales in Scotland. More detail on the NielsenIQ methods can be found in an earlier report[9].

NielsenIQ data were weekly measures covering two years pre-MUP implementation and one year post-MUP implementation; from May 2016 to April 2019, and were obtained for Scotland and for England & Wales, thus providing a geographical comparator area in which MUP was not implemented.

Off-trade alcohol retail sales data were obtained at total level (all products combined), category level (all products within categories of alcoholic drinks combined) and brand level. From the latter, we determined the top selling 50 alcohol brands in both the supermarket and convenience sectors to use as brand-level samples of those sectors (73 products total: Table 1). The calendar year 2017 was chosen as the time period to make the selection from as this was entirely before the implementation of MUP. The approach to selecting the top brands was similar to that used in an earlier study, conducted by Stirling University that looked at the impact of MUP on small retailers (convenience stores)[10]. In the current study, we used a combination of total sales volume, total sales value and total volume of pure alcohol sold for each brand included in the retail sales data, based on total sales throughout

2017. Each variable was then ranked and a combined rank score produced for each brand, from which the top 50 in each sector were selected for inclusion. ABV was used to estimate price per unit of alcohol, and was determined from data obtained from market research company called Knowledge Gaps. The ABV for own-brand products was derived from online research.

From the NielsenIQ data in the year before MUP was implemented (May 2017 to April 2018 inclusive), the top 50 brands in supermarkets accounted for 67.3% of all supermarket alcohol sales (natural volume per adult), while in the convenience sample they accounted for 79.9%. Note that the total and category level analyses included sales of all products included in the data and were not limited to the top 50 selling brands in each sector. Note also that brands marked as 'own-brand' are aggregates; for example, own-brand vodka is the aggregate of own-brand vodka across all variants per sector.

NielsenIQ is unable to obtain data from Aldi and Lidl for either category- or brand-level analysis. While we were able to obtain some price data for these retailers from elsewhere (see Section 2.2 below) the other outcomes analysed in this study do not include data from these stores and no adjustment has been made to account for them.

Table 1: Brands selected for brand-level analysis

Brand	Category	Supermarket sample	Convenience sample
Beck's Bier	Beer	✓	
Brewdog Punk IPA	Beer	✓	
Bud Light	Beer	✓	
Budweiser	Beer	✓	✓
Carling	Beer	✓	✓
Carlsberg Pilsner	Beer	✓	✓
Carlsberg Special Brew	Beer		✓
Coors Light	Beer	✓	✓
Corona	Beer	✓	✓

Brand	Category	Supermarket sample	Convenience sample
Foster's	Beer	√	√
Guinness Draught	Beer	√	√
Heineken	Beer	√	√
John Smith's Extra Smooth	Beer	√	
Karpackie Super Mocne	Beer		√
Kronenbourg 1664	Beer	√	√
McEwan's Export Ale	Beer	√	√
Miller Genuine Draft	Beer	√	
Peroni Nastro Azzurro	Beer	√	√
Red Stripe	Beer		√
San Miguel	Beer	√	√
Stella Artois EU Import*	Beer		√
Stella Artois	Beer	√	√
Tennent's	Beer	√	√
Tennent's Super	Beer		√
Tyskie	Beer	√	√
Campo Viejo	Wine	√	
Casillero Del Diablo Reserva	Wine	√	
Echo Falls	Wine		√
Hardys Bin	Wine		√
I Heart	Wine		√
Isla Negra Seashore	Wine		√
Plaza Centro	Wine	√	
Own-brand Chardonnay	Wine	√	

Brand	Category	Supermarket sample	Convenience sample
Own-brand Pinot Grigio	Wine	✓	
Own-brand Sauvignon Blanc	Wine	✓	
Own-brand Soave	Wine	✓	
Own-brand Sparkling Wine, Italy	Wine	✓	
Own-brand Sparkling Wine, Spain	Wine	✓	
Prosecco	Wine	✓	
Villa Maria Private Bin	Wine	✓	
Bacardi Carta Blanca	Spirits	✓	
Baileys Original	Spirits	✓	
Bell's Original	Spirits	✓	✓
Captain Morgan Spiced	Spirits	✓	✓
Glen's	Spirits	✓	✓
Gordon's	Spirits	✓	✓
High Commissioner	Spirits		✓
Jack Daniel's Tennessee Whiskey	Spirits	✓	
Own-brand Blended Scotch Whisky	Spirits	✓	
Own-brand Gin	Spirits	✓	
Own-brand Vodka	Spirits	✓	
Own-brand Vodka	Spirits		✓
Russian Standard	Spirits	✓	✓
Smirnoff Red Label	Spirits	✓	✓
The Famous Grouse	Spirits	✓	✓
Whyte And Mackay	Spirits	✓	✓
Frosty Jack's	Cider		✓
HCC Black	Cider		✓
HCC Black Pear	Cider		✓

Brand	Category	Supermarket sample	Convenience sample
K Cider	Cider		✓
Kopparberg Flavoured**	Cider	✓	✓
Magners Original	Cider	✓	✓
Omega White Cider	Cider		✓
Own-brand Cider	Cider		✓
Own-brand Cider	Cider	✓	
Strongbow Dark Fruit	Cider	✓	✓
Strongbow Original	Cider	✓	✓
White Ace***	Cider		✓
Buckfast Tonic Wine	FW****		✓
MD 20/20	FW****		✓
Dragon Soop	RTD****		✓
WKD	RTD****		✓
Lambrini Original	Perry		✓

*Stella Artois EU Import is a variant that had higher ABV than the standard variant in February 2018 and February 2019.

**Kopparberg Flavoured is 4.0% ABV Kopparberg, predominantly the strawberry & lime and summer fruit variants.

***Includes products rebranded as 'Ace Cider' from March 2018.

****FW = Fortified wine; RTD = Ready-to-drink (pre-mixed).

2.2. Price data for Aldi and Lidl

We purchased retail price data for a range of beers, ciders and spirits sold by Aldi and Lidl from market research company Knowledge Gaps. Weekly data spanning the period from June 2017 to June 2019 were provided for beer and cider. For spirits, the data were gathered in-store at two time points: April 2018 (prior to MUP implementation) and July 2019 (after MUP implementation). These retail price data were obtained for both Scotland and England (not Wales).

2.3. Wholesale price data

We obtained wholesale data from SalesOut, a consumer market intelligence and analysis company specialising in fast-moving consumer goods (FMCG) in the manufacturing and wholesale sector, which were available as transactional data for alcohol sales, similar to the (EPoS) data for NielsenIQ. Data were provided at a product level, with each product having information on brand name, ABV, total sales value and total sales volume, which allowed us to estimate the average price per unit of alcohol. Weekly data were obtained from April 2017 to March 2019; 13 months pre-MUP and 11 months post-MUP implementation. The data used covered an estimated 50% of the total UK wholesale sector.

2.4. ABV data

Aside from the brand-level NielsenIQ data, we purchased ABV data for 2,534 individual products from market research company Knowledge Gaps. Data were gathered from a variety of sources both in-store and online. The data included the ABV of products in February 2018, prior to MUP being implemented, and in February 2019, approximately 10 months after MUP was implemented. These ABV data were for Scotland only.

Some brands had more than one variant included in the data collection, so where changes in ABV are reported, this may refer to changes in several products (variants) across a brand.

2.5. Outcome measures

Research questions were concerned with price, the range of alcohol products and ABV, sales volume, and sales value.

- Price per unit of alcohol was calculated by dividing weekly sales value by natural volume and then ABV. The ABVs used at a category level were estimates of the average and were informed by previous Public Health Scotland research (Table 2). Brand-level ABV data for the top products were obtained from Knowledge Gaps and were checked with online information to ensure concurrent accuracy.

- The range of products was investigated by analysing trends in two outcomes at a category level (the proportion of natural volume alcohol products sold in multipacks, and the quantity of litres of natural volume sold in different container sizes) and one outcome at a brand level (average container size in single packs and multipacks). The ABV outcome was treated as change in the percentage of alcohol in brands.

- Sales volume was investigated by looking at changes in the quantity of litres of natural volume sold per adult, which allowed for direct comparison with England & Wales. Value was investigated as changes to amount of pounds sterling per adult. Table 3 presents outcomes beside their data sources.

Table 2: ABVs used for categories of alcoholic drink products when estimating price per unit

Category	ABV (%)
Beer	4.4
Wine	11.5
Spirits	36.0
Cider	4.9
Fortified wine	15.4
RTDs	5.4
Perry	6.0

Table 3: Outcomes and data sources

Outcome	Data source
Pence per unit, without Aldi and Lidl	NielsenIQ
Pence per litre, without Aldi and Lidl	NielsenIQ
Pence per unit, Aldi and Lidl only	Knowledge Gaps
Pence per unit, wholesale	SalesOut
ABV, retail	Knowledge Gaps
Container size, without Aldi and Lidl	NielsenIQ
Multipack, without Aldi and Lidl	NielsenIQ
Sales volume	NielsenIQ
Sales value	NielsenIQ

A small proportion of the NielsenIQ brand-level data had inconsistencies related to: (1) challenges with sampling methods that are common in quantitative data analysis (e.g. sample size), and (2) how these may interact with some retail practices. This was notable for brands which saw large reductions in sales in the first year of MUP in Scotland (five strong ciders and two beers). Several of these brands also demonstrated high variability in pricing data after MUP was implemented and not before. High variability can be a feature of problematically low sample size, and may be affected by data entry during till operation, for example by multipack splits or outdated barcodes (see Strengths and Limitations). Appendix A is an example from one of the affected brands where the implementation of MUP coincides with the onset of high variation in pricing data.

While there is potential for some small degree of non-compliance with MUP to affect the data, we determined the 2018/19 pricing data for this subset of brands to be unrealistically low. This was due to expectations that pricing in the off-trade in Scotland has been generally in compliance with MUP, outside of isolated incidents. These expectations were due to existing studies and various stakeholders including: the MUP Evaluation Compliance Study[11]; a study of MUP and Small Retailers[10] that was also part of the evaluation; correspondence with Licensing Standards Officers; and advice from the MUP Evaluation **Economic Impact and Price Advisory Group**.

Given our lack of confidence in this subset of data, we do not present brand-level convenience store data for the price or value outcomes when a brand's sales fall below a threshold of 0.006L pure volume per adult per year. Data for the natural volume and container size outcomes were retained. The category-level analysis was not measurably affected as category-level data were obtained separately and in aggregate from NielsenIQ. The excluded brand-level price and value data were from the convenience sector only (total natural volume sales across the top 50 brands in convenience stores was three times smaller than the top 50 brands in supermarkets in 2018/19). We additionally excluded price and value convenience sector data for K Cider – while this brand did not see low sales in 2018/19, there was a strong indication that multipack splits or other retail practices may have resulted in highly unrealistic pricing data. The data removed, if measured in terms of natural volume sales, equate to 2.7% of total off-trade sales in 2018/19. Note that, while the price and value convenience store data for these brands are not presented in the same granular detail as other brands, they were sufficient for a more aggregated analysis, and so these data were used to inform discussion of overall trends (e.g. the general pattern of change in response to a large increase in price across all included strong cider brands).

Pure alcohol volume was used to identify the threshold because it was one of the criteria used to identify the top brands according to sales in 2017. The threshold was set by rounding up from the pure volume sales for the affected brand that had the highest sales (outside of K Cider). The approach had several advantages: it allowed us to systematically remove data in which we had reason for low confidence; we were able to remove other brands with the highest chance of being subject to similar limitations (i.e. those with similarly low sales and slightly higher sales); and it also allowed us to retain as much data as possible.

Moreover, caution should be taken when comparing the results presented in this study to other PHS studies due to differences in data sources, analytical methods and time periods. For the volume analysis, the figures reported in this study are natural volume, whereas other studies reported pure alcohol volume. For the price data and value data, there are minor variations in NielsenIQ's data collection methodology and the different time periods and analytic methods used in various reports.

2.6. Population data

Mid-year population estimates were obtained from National Records of Scotland for the number of adults in Scotland and from the Office for National Statistics for England & Wales. Weekly population estimates were interpolated from the mid-year estimates to allow relevant outcomes measures to be calculated per adult for each week from May 2016 to April 2019.

2.7. Analysis

Analysis was descriptive and focused on changes in trends in the above outcomes by comparing the first year of MUP in Scotland to the previous two years and to England and Wales over the same timeframe. Wholesale data looked at 13 months pre-MUP and 11 months post-MUP implementation.

3. Results

Findings for price are described first, including for retail and wholesale, followed by findings on containers and ABV, and then sales volume and sales value. The final sub-section synthesises outcomes across a group of brand-level case studies.

3.1. Price: Off-trade (excluding Aldi and Lidl)

Using NielsenIQ data, price is presented first as the average price per unit of alcohol per year for total alcohol, at a category level, and then at a brand level. Further analysis of price per litre of natural volume is then described for total alcohol and by category. While qualitative conclusions about the direction of change and overall trends from this study are consistent with other PHS reports, there may be differences in terms of precise price estimates due to differences in data sources, analytical methods and time periods.

3.1.1. Price per unit for total alcohol and by drink category

The NielsenIQ data showed that the average price per unit of alcohol in Scotland increased from £0.60 in the year prior to MUP being implemented to £0.66 in the year following, an increase of 10.0%. This compared to a 1.7% increase, from £0.60 to £0.61 in England & Wales over the same time period (Table 4, Figure 1). The increase in Scotland was primarily observed in the supermarket sector, where the average price increased from £0.56 per unit in the year prior to MUP implementation, to £0.66 in the year following (+17.9%). On average, alcohol sold through convenience stores was more expensive than supermarkets prior to MUP being implemented, but saw a smaller change in average price from £0.63 to £0.67 (+6.3%). This resulted in a similar average price per unit in supermarkets and convenience stores in Scotland during the first year following the introduction of MUP. These increases appeared to depart from the previous trends – for supermarkets and convenience stores combined, the increase in the average price per unit between the pre-MUP years (May 2016 to April 2017 compared to May 2017 to Apr 2018) was around three times smaller at +3.4% (from £0.58 to £0.60). This was similar to that in England & Wales, in which no deviation from the established trend was discernible, including the scale of difference between supermarket and convenience store prices.

Table 4: Average annual price per unit (£) of pure alcohol, Scotland compared to England and Wales

Country and year	Year	Convenience stores	Supermarkets	Total coverage
Scotland	2016–17	0.61	0.55	0.58
Scotland	2017–18	0.63	0.56	0.60
Scotland	2018–19	0.67	0.66	0.66
EW	2016–17	0.61	0.54	0.58
EW	2017–18	0.63	0.56	0.60
EW	2018–19	0.65	0.57	0.61

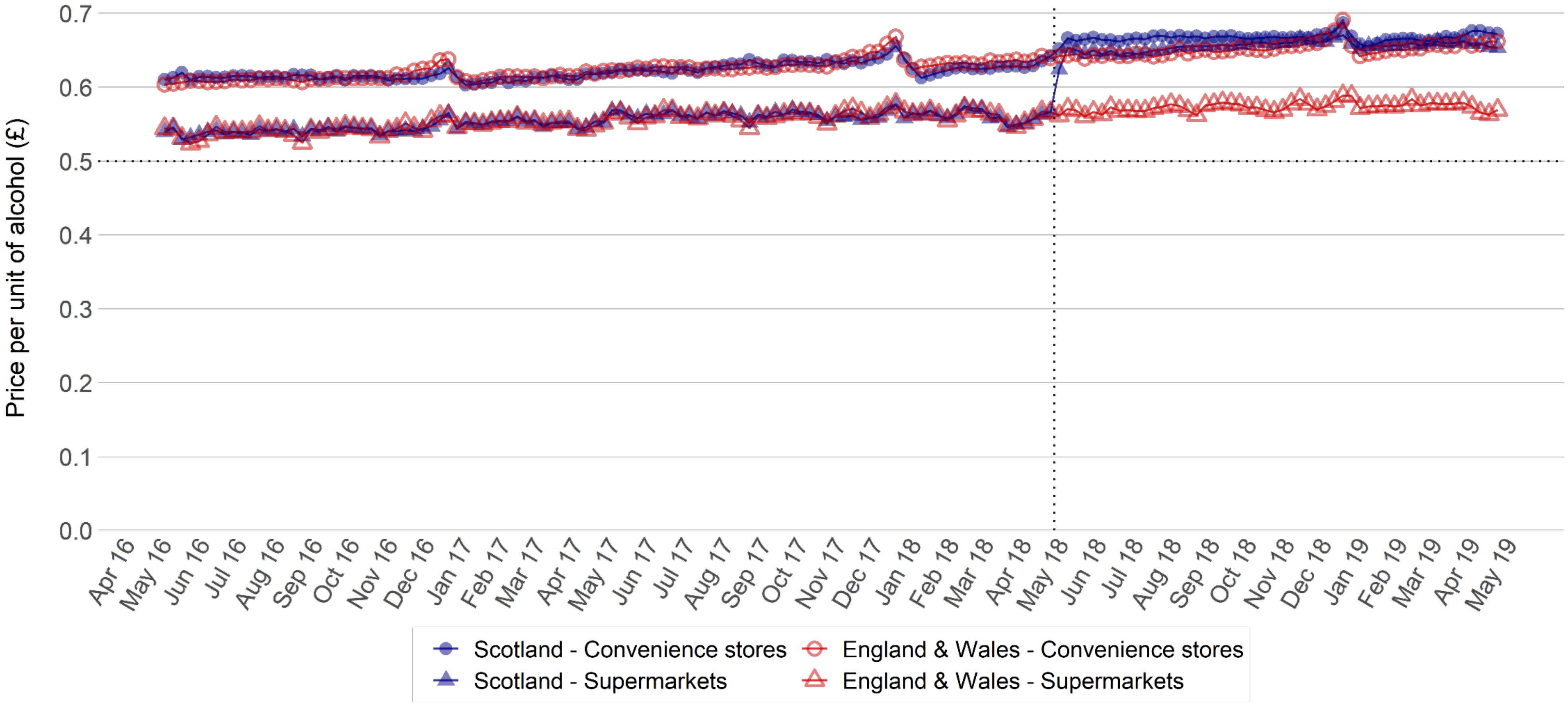
Note: EW = England & Wales

While the average price increased in Scotland for each category, the scale of increase varied, with perry (+50.0%) and cider (+25.6%) increasing the most and fortified wine (+3.2%) and RTDs (+4.3%) increasing the least (Table 5). The average price for each drink category also increased in England & Wales but, apart from fortified wine, these increases were smaller than in Scotland.

In the supermarket sector in Scotland, the largest increases in average price per unit were seen in perry (+68.6%) and cider (+26.7%), with the smallest increases seen in wine (+6.5%) and RTDs (+5.7%). This was dissimilar to England & Wales, where changes to average price were small – the largest increase was in fortified wine (+3.6%).

Changes to the average price by drink category in the convenience sector in Scotland tended to be smaller than in the supermarket sector, but broadly followed a similar pattern, with perry (+28.6%) and cider (+22.0%) increasing the most. The average price per unit in other categories increased by much smaller amounts, while fortified wine in convenience stores was the only category in either sector to decrease in price per unit of alcohol (-3.0%). Convenience stores in England & Wales saw small increases for perry, cider and RTDs, but larger increases for wine and spirits and a similar increase for beer while fortified wine increased the most (+7.4%).

Figure 2: Average price per unit of alcohol in supermarkets and convenience stores, Scotland compared to England & Wales



Note: the vertical dotted line represents the beginning of MUP on 1 of May 2018; the horizontal dotted line represents the price floor of £0.50 per unit of alcohol.

Table 5: Average price per unit of alcohol (£) by drink category

Country	Year	Beer	Wine	Spirits	Cider	FW	RTD	Perry
Scotland	2016–17	0.52	0.64	0.55	0.43	0.61	0.90	0.36
Scotland	2017–18	0.55	0.66	0.57	0.43	0.63	0.92	0.38
Scotland	2018–19	0.59	0.70	0.61	0.54	0.65	0.96	0.57
EW	2016–17	0.52	0.65	0.55	0.43	0.58	0.92	0.35
EW	2017–18	0.55	0.68	0.57	0.43	0.61	0.93	0.36
EW	2018–19	0.56	0.70	0.59	0.43	0.63	0.96	0.37

Note: EW = England and Wales; FW = Fortified wine.

Table 6: Average price per unit of alcohol (£) in supermarkets by drink category

Country	Year	Beer	Wine	Spirits	Cider	FW	RTD	Perry
Scotland	2016–17	0.48	0.60	0.53	0.44	0.58	0.85	0.34
Scotland	2017–18	0.50	0.62	0.55	0.45	0.60	0.87	0.35
Scotland	2018–19	0.58	0.66	0.61	0.57	0.66	0.92	0.59
EW	2016–17	0.48	0.61	0.52	0.43	0.54	0.90	0.33
EW	2017–18	0.50	0.63	0.54	0.44	0.56	0.91	0.34
EW	2018–19	0.51	0.65	0.55	0.44	0.58	0.93	0.34

Note: EW = England and Wales; FW = Fortified wine.

Table 7: Average price per unit of alcohol (£) in convenience stores by drink category

Country	Year	Beer	Wine	Spirits	Cider	FW	RTD	Perry
Scotland	2016–17	0.58	0.70	0.57	0.43	0.64	0.97	0.40
Scotland	2017–18	0.61	0.74	0.60	0.41	0.66	0.97	0.42
Scotland	2018–19	0.62	0.75	0.61	0.50	0.64	1.01	0.54
EW	2016–17	0.58	0.72	0.60	0.43	0.64	0.94	0.38
EW	2017–18	0.61	0.75	0.62	0.41	0.68	0.96	0.39
EW	2018–19	0.62	0.78	0.64	0.42	0.73	0.98	0.40

Note: EW = England and Wales; FW = Fortified wine.

3.1.2. Price per unit by brand

Data for the top 50 brands (2017) in supermarkets are displayed in Table 8 and Table 9 for convenience stores.

3.1.2.1. Beer

In total, 25 beer brands were included in the brand-level analysis; 15 that were sold in both supermarkets and convenience stores, five that were included for supermarket sales only and five for convenience store sales only.

For the 15 beer brands identified in both the supermarket and convenience sector samples, prices in the first year of MUP were usually higher in both supermarkets and convenience stores compared to the previous year. Nine brands increased in price in both sectors (Carling, Carlsberg Pilsner, Foster's, Guinness Draught, Heineken, San Miguel, Stella Artois, Tennent's and Tyskie). Five brands saw increased prices in supermarkets but decreases in convenience stores (Budweiser, Coors Light, Kronenbourg 1664, McEwan's Export Ale, and Peroni Nastro Azzurro), while one brand (Corona) decreased in supermarkets but increased in convenience stores. Most brands saw much higher price increases in supermarkets than in convenience stores. These patterns tended to be dissimilar to England & Wales, which saw more stability in price in both supermarkets and convenience stores.

Of the five brands that featured only in the supermarket sample, one decreased in price (Brewdog Punk IPA) while the others increased (Beck's Bier, Bud Light, John Smith's, and Miller Genuine Draft). Again, price changes were smaller in England & Wales, although Bud Light was more similar than the others with an increase of 5.1% compared to 8.4% in Scotland. Of the remaining brands from the convenience sector, two decreased in price (Carlsberg Special Brew and Stella Artois EU Import) while the rest increased (Karpackie Super Mocne, Red Stripe and Tennent's Super). Carlsberg Special Brew and Tennent's Super saw similar changes in England & Wales as in Scotland, with price declining for the former and increasing relatively little in both countries for the latter.

3.1.2.2. Wine

Of the 15 wine brands included in the brand-level analysis, the only decrease in price was for own-brand Soave in supermarkets (-0.3%). All other wine brands increased, with price increases in supermarkets ranging from 1.1% to 14.1% and in convenience stores from 1.4% to 3.8%. In England & Wales, Plaza Centro decreased in price by -1.2% in supermarkets. Other brands saw price increases that tended to be slightly smaller than Scotland.

3.1.2.3. Spirits

Of the nine spirits brands featured in both the supermarkets and convenience samples, all increased in price in both sectors except for three price decreases in convenience stores: Bell's (-0.5%), The Famous Grouse (-1.5%), and Whyte and Mackay (-0.5%). Price increases for the other six brands (Captain Morgan Spiced, Glen's, Gordon's, own-brand Vodka, Russian Standard, and Smirnoff Red label) were higher in the supermarket sector than the convenience sector. Of the three brands that featured only in the supermarkets sample (Bacardi, Baileys, and Jack Daniel's), only Jack Daniel's saw a price decrease (-1.9%). The largest increases were seen in supermarkets, especially own-brand spirits, Bell's Original, Glen's, Russian Standard, and Whyte and Mackay.

3.1.2.4. Cider

In total 11 cider brands were included in the brand-level analysis, of which five were common to both the supermarket and convenience samples. All of the remaining six brands were high-strength (usually 7.5% ABV in February 2018) ciders and were included in the convenience sector sample only.

Of the five brands common to both the supermarket and convenience samples, (Kopparberg Flavoured, Magners Original, own-brand, Strongbow Dark Fruit, and Strongbow Original) the only decrease in price per unit of alcohol was convenience store Kopparberg Flavoured. Otherwise, price increases varied in magnitude but were substantially larger in supermarkets than in convenience stores except for Strongbow Dark Fruit, which saw relatively small price changes (+0.4% in supermarkets and +1.8% in convenience stores). Patterns in England & Wales were different, with more price stability than Scotland.

For the six strong cider brands that were specific to the convenience sample (Frosty Jack's, HCC Black, HCC Black Pear, K Cider, Omega White Cider, and White Ace) pricing tended to be much higher in the first year of MUP compared to the previous year, with Frosty Jack's more than doubling in price, for example. This was largely due to the comparatively low pricing of these brands prior to MUP.

3.1.2.5. Fortified wine

Two fortified wine brands (Buckfast Tonic Wine and MD 20/20) were included in the brand-level analysis, both of which were included in the convenience sample only. In convenience stores Buckfast Tonic Wine decreased in pence per unit of alcohol in the first year of MUP by -3.1% while MD 20/20 increased by 5.2%. Both brands saw prices go down in England & Wales (-1.8% and -2.9% respectively).

3.1.2.6. Ready-to-drink beverages (RTDs)

Two RTD brands (Dragon Soop and WKD) were included in the brand-level analysis, both in the convenience sample only. Price per unit of alcohol for both Dragon Soop and WKD in convenience stores in Scotland decreased by less than -0.1%. In England & Wales, Dragon Soop increased by <0.1% and WKD decreased by -2.7%.

3.1.2.7. Perry

Lambrini Original was the only perry brand in the sample and featured in convenience stores only. It saw an increase in average price per unit of alcohol of 49.2% in convenience stores in Scotland compared to 13.9% in England & Wales. (Note, however, that each geography may have had different ABV variants for sale.)

Table 8: Average annual price per unit of alcohol (£) and percentage change in the post-MUP year for top 50 brands in the supermarket sector, Scotland compared to England & Wales

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
Beck's Bier	Beer	0.48	0.50	0.53	6.6	0.48	0.49	0.49	-0.2
Brewdog Punk IPA	Beer	0.81	0.76	0.74	-2.6	0.83	0.79	0.77	-2.3
Bud Light	Beer	0.49	0.51	0.55	8.4	0.53	0.51	0.53	5.1
Budweiser	Beer	0.45	0.46	0.54	17.8	0.46	0.46	0.47	1.3
Carling	Beer	0.35	0.36	0.50	39.7	0.36	0.37	0.38	1.7
Carlsberg Pilsner	Beer	0.38	0.41	0.51	23.3	0.40	0.44	0.42	-5.1
Coors Light	Beer	0.46	0.48	0.54	11.4	0.42	0.43	0.46	5.9
Corona	Beer	0.64	0.66	0.65	-2.0	0.64	0.65	0.67	1.8
Foster's	Beer	0.39	0.42	0.51	22.2	0.39	0.42	0.42	1.0
Guinness Draught	Beer	0.54	0.55	0.59	6.6	0.54	0.55	0.56	0.6
Heineken	Beer	0.54	0.54	0.54	0.7	0.56	0.56	0.48	-13.0

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
John Smith's Extra Smooth	Beer	0.49	0.52	0.55	7.0	0.48	0.51	0.52	1.2
Kronen-bourg 1664	Beer	0.44	0.45	0.51	11.9	0.42	0.44	0.44	-1.7
McEwan's Export Ale	Beer	0.46	0.46	0.50	9.3	0.46	0.45	0.43	-3.1
Miller Genuine Draft	Beer	0.50	0.51	0.53	4.0	0.50	0.50	0.50	0.6
Peroni Nastro Azzurro	Beer	0.74	0.75	0.75	0.1	0.74	0.74	0.74	-0.3
San Miguel	Beer	0.50	0.52	0.55	5.4	0.50	0.51	0.51	-0.4
Stella Artois	Beer	0.43	0.44	0.52	18.3	0.43	0.44	0.45	1.6
Tennent's	Beer	0.61	0.68	0.73	8.0	0.47	0.65	0.64	-1.1
Tyskie	Beer	0.49	0.50	0.50	0.3	0.48	0.49	0.48	-2.6

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
Campo Viejo	Wine	0.66	0.69	0.71	4.2	0.66	0.68	0.69	2.0
Casillero Del Diablo Reserva	Wine	0.64	0.66	0.68	3.6	0.63	0.65	0.66	2.1
Plaza Centro	Wine	0.79	0.82	0.83	1.7	0.78	0.81	0.80	-1.2
Own-brand Chardon-nay	Wine	0.47	0.49	0.56	14.1	0.48	0.50	0.51	2.1
Own-brand Pinot Grigio	Wine	0.58	0.60	0.64	7.1	0.58	0.59	0.62	5.5
Own-brand Sauvignon Blanc	Wine	0.59	0.62	0.66	6.4	0.60	0.63	0.65	2.5
Own-brand Soave	Wine	0.49	0.52	0.52	-0.3	0.49	0.52	0.52	0.1
Own-brand Sparkling Wine, Italy	Wine	0.88	0.90	0.91	1.1	0.86	0.87	0.87	0.2
Own-brand Sparkling Wine, Spain	Wine	0.64	0.68	0.70	2.3	0.63	0.66	0.68	2.5
Prosecco	Wine	0.68	0.72	0.74	2.2	0.68	0.72	0.73	1.2

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
Villa Maria Private Bin	Wine	0.89	0.86	0.89	3.1	0.87	0.85	0.87	3.1
Bacardi Carta Blanca	Spirits	0.46	0.47	0.52	9.1	0.47	0.48	0.48	-0.4
Baileys Original	Spirits	0.99	0.99	1.00	1.4	0.98	0.98	0.98	0.5
Bell's Original	Spirits	0.44	0.44	0.51	15.4	0.44	0.44	0.44	-0.3
Captain Morgan Spiced	Spirits	0.50	0.51	0.55	6.5	0.51	0.52	0.52	-1.3
Glen's	Spirits	0.43	0.46	0.50	10.1	0.44	0.47	0.48	2.3
Gordon's	Spirits	0.46	0.47	0.51	8.7	0.46	0.47	0.47	-0.5
Jack Daniel's Tennessee Whiskey	Spirits	0.69	0.66	0.64	-1.9	0.67	0.65	0.64	-0.8
Own-brand Blended Scotch	Spirits	0.44	0.44	0.50	12.8	0.44	0.44	0.44	0.2
Own-brand Gin	Spirits	0.44	0.45	0.52	16.1	0.44	0.45	0.45	0.4

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
Own-brand Vodka	Spirits	0.41	0.42	0.50	18.5	0.42	0.43	0.43	0.0
Russian Standard	Spirits	0.47	0.47	0.52	10.8	0.46	0.47	0.46	-1.7
Smirnoff Red Label	Spirits	0.46	0.47	0.51	9.5	0.47	0.48	0.48	-0.4
The Famous Grouse	Spirits	0.44	0.45	0.51	13.4	0.44	0.45	0.45	-0.4
Whyte And Mackay	Spirits	0.44	0.45	0.51	11.5	0.42	0.43	0.43	-1.1
Kopparberg Flavoured	Cider	0.83	0.88	0.88	0.4	0.84	0.87	0.87	-1.0
Magners Original	Cider	0.39	0.40	0.51	29.8	0.38	0.38	0.37	-3.5
Own-brand Cider	Cider	0.29	0.30	0.54	82.6	0.29	0.30	0.31	1.5
Strongbow Dark Fruit	Cider	0.56	0.60	0.60	0.4	0.55	0.60	0.57	-4.6
Strongbow Original	Cider	0.34	0.35	0.56	59.9	0.34	0.35	0.35	0.7

Note: EW = England & Wales. Percentage change is 2018–19 (post-MUP year) compared to 2017–18 (pre-MUP year).

Table 9: Average annual price per unit of alcohol (£) and percentage change in the post-MUP year for top 50 brands in the convenience sector, Scotland compared to England & Wales

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Budweiser	Beer	0.60	0.62	0.62	-0.3	0.61	0.63	0.63	0.3
Carling	Beer	0.48	0.50	0.56	11.5	0.49	0.50	0.52	3.0
Carlsberg Pilsner	Beer	0.53	0.57	0.59	3.3	0.58	0.56	0.56	0.4
Corona	Beer	0.79	0.85	0.85	0.7	0.79	0.82	0.85	4.6
Foster's	Beer	0.55	0.55	0.57	3.2	0.53	0.72	0.58	-19.4
Stella Artois	Beer	0.56	0.57	0.58	1.9	0.53	0.56	0.55	-0.1
Tennent's	Beer	0.52	0.62	0.68	10.5	0.49	0.59	0.59	0.0
Echo Falls	Wine	0.69	0.70	0.71	1.6	0.65	0.68	0.70	3.3
Hardys Bin	Wine	0.56	0.59	0.62	3.8	0.56	0.60	0.62	3.6
I Heart	Wine	0.60	0.67	0.68	1.4	0.63	0.67	0.67	0.9
Isla Negra Seashore	Wine	0.59	0.63	0.64	1.5	0.60	0.63	0.63	0.0

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Bell's Original	Spirits	0.58	0.60	0.60	-0.5	0.60	0.61	0.63	2.3
Captain Morgan Spiced	Spirits	0.59	0.60	0.61	2.2	0.60	0.61	0.62	1.6
Glen's	Spirits	0.48	0.50	0.52	5.9	0.51	0.52	0.53	0.5
Gordon's	Spirits	0.56	0.57	0.58	0.9	0.56	0.56	0.57	1.2
High Commis-sioner	Spirits	0.55	0.56	0.58	4.0	0.52	0.54	0.54	1.3
Russian Standard	Spirits	0.55	0.55	0.57	4.1	0.55	0.55	0.57	3.8
Smirnoff Red Label	Spirits	0.55	0.56	0.57	0.4	0.57	0.59	0.60	2.3
The Famous Grouse	Spirits	0.62	0.64	0.63	-1.5	0.61	0.62	0.64	2.6
Whyte And Mackay	Spirits	0.55	0.57	0.57	-0.5	0.50	0.52	0.52	0.6
Kopparberg Flavoured	Cider	1.10	1.09	1.07	-2.4	1.03	1.04	1.05	1.4
Magners Original	Cider	0.52	0.51	0.56	9.0	0.50	0.50	0.52	3.5

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Strongbow Dark Fruit	Cider	0.69	0.66	0.67	1.8	0.68	0.69	0.70	1.8
Strongbow Original	Cider	0.41	0.43	0.54	25.9	0.44	0.46	0.47	2.7
Buckfast Tonic Wine	FW	0.66	0.67	0.65	-3.1	0.74	0.76	0.74	-1.8
MD 20/20	FW	0.77	0.82	0.87	5.2	0.87	0.90	0.88	-2.9
Dragon Soop	RTD	0.80	0.80	0.80	>-0.1	0.79	0.80	0.80	<0.1
Lambrini Original	Perry	0.34	0.34	0.51	49.2	0.34	0.35	0.40	13.9

Note: EW = England & Wales; FW = Fortified wine. Percentage change is 2018–19 (post-MUP year) compared to 2017–18 (pre-MUP year). Twenty-two brands were excluded (see Methods, Strengths and Limitations).

3.1.3. Price per litre for total alcohol and by drink category

NielsenIQ data showed that the trends in price per litre were similar to price per unit of alcohol, with increases in Scotland in the first year of MUP being greater than those between the prior two years and in England & Wales. At a total coverage level (supermarkets and convenience stores combined), there was an overall increase from £7.14 per litre natural volume on average in 2017–18 to £7.71 (+8.0%) in the first year of MUP – compared to +2.8% in England & Wales and +3.2% between 2016–17 and 2017–18 in Scotland (Table 10). Again, there was a larger increase in supermarkets than convenience stores.

Table 10: Average annual price per litre (£) of pure alcohol

Country	Year	Convenience stores	Supermarkets	Total coverage
Scotland	2016–17	7.27	6.55	6.91
Scotland	2017–18	7.52	6.76	7.14
Scotland	2018–19	7.78	7.65	7.71
EW	2016–17	7.40	6.46	6.93
EW	2017–18	7.69	6.68	7.19
EW	2018–19	7.94	6.83	7.39

Note: EW = England & Wales.

Price per litre natural volume varies greatly across categories of products, although there is a trend for higher ABV products (spirits, fortified wine and wine) to be more expensive than products with lower ABVs (beer, cider, RTDs and perry). This was also true after MUP was implemented, although every category increased in price at a total coverage level (supermarkets and convenience stores combined) to a greater degree than between 2016–17 and 2017–18 (Table 11 to Table 13) and compared to England & Wales. Similar to price per unit of pure alcohol, the increases in price per litre natural volume of cider (+25.6%) and perry (+49.1%) were greater than for other categories. Again, the only category that reduced in price in either sector was fortified wine in convenience stores, from £10.13 in 2017-18 to £9.90 in the first year of MUP (-2.3%).

Table 11: Average price per litre of alcohol (£) by drink category

Country	Year	Beer	Wine	Spirits	Cider	FW	RTD	Perry
Scotland	2016–17	2.28	7.31	19.71	2.12	9.44	4.87	2.18
Scotland	2017–18	2.40	7.63	20.50	2.10	9.69	4.96	2.27
Scotland	2018–19	2.61	8.00	21.93	2.63	10.06	5.18	3.39
EW	2016–17	2.30	7.50	19.92	2.10	8.90	4.95	2.13
EW	2017–18	2.41	7.82	20.67	2.09	9.32	5.04	2.18
EW	2018–19	2.45	8.06	21.10	2.10	9.76	5.16	2.20

Note: EW = England & Wales; FW = Fortified wine.

Table 12: Average price per litre of alcohol (£) in supermarkets by drink category

Country	Year	Beer	Wine	Spirits	Cider	FW	RTD	Perry
Scotland	2016–17	2.11	6.85	19.10	2.14	9.00	4.61	2.02
Scotland	2017–18	2.21	7.13	19.82	2.18	9.20	4.71	2.09
Scotland	2018–19	2.53	7.63	21.84	2.77	10.24	4.96	3.56
EW	2016–17	2.11	7.01	18.79	2.11	8.37	4.86	1.98
EW	2017–18	2.22	7.28	19.51	2.16	8.63	4.94	2.03
EW	2018–19	2.25	7.50	19.91	2.15	8.92	5.05	2.05

Note: EW = England & Wales; FW = Fortified wine.

Table 13: Average price per litre of alcohol (£) in convenience stores by drink category

Country	Year	Beer	Wine	Spirits	Cider	FW	RTD	Perry
Scotland	2016–17	2.55	8.07	20.66	2.09	9.85	5.24	2.38
Scotland	2017–18	2.68	8.47	21.57	2.00	10.13	5.26	2.51
Scotland	2018–19	2.72	8.62	22.08	2.46	9.90	5.44	3.21
EW	2016–17	2.57	8.27	21.66	2.10	9.79	5.09	2.30
EW	2017–18	2.67	8.67	22.48	2.00	10.51	5.17	2.35
EW	2018–19	2.73	8.96	22.95	2.04	11.22	5.32	2.37

Note: EW = England & Wales; FW = Fortified wine.

3.2. Price: Aldi and Lidl

The data used for this section were price per unit of alcohol data from Knowledge Gaps on Aldi and Lidl.

3.2.1. Beer

A total of 86 different beer products were included in the analysis for Scotland compared to 13 for England (Table 14). There was a very small occurrence of beer products common to both Scotland and England, with many products appearing to be sold only in Scotland. In Scotland the average price per unit of alcohol for beer products sold in Aldi and Lidl rose by 2.2% – from £0.65 per unit before MUP was implemented to £0.66 per unit after implementation. In England the average retail price remained at £0.61 per unit throughout the time series.

In Scotland, of the 86 beer products included in the analysis, 17 increased in price, by an average of £0.05 per unit, from £0.52 per unit before MUP was implemented to £0.57 per unit after implementation. Seven products were lower in price following MUP implementation and 19 stayed the same. Of the remainder, 20 products had no sales data (possibly discontinued) and 23 were introduced; overall 15 (34.9%) of those changes were made within four weeks of MUP being implemented in Scotland.

In England, of the 13 beer products included in the analysis, one increased in price, one lowered in price and one stayed the same. Of the remainder, two products were discontinued and eight were introduced with none of those changes being made within four weeks of MUP being implemented in Scotland.

3.2.2. Cider

A total of 56 cider products were included in the analysis for Scotland and 77 for England. There was a high degree of commonality between the products being sold in Scotland and England. In Scotland the average retail price per unit for cider products sold in Aldi and Lidl rose by 28.2%, from £0.47 per unit before MUP was implemented to £0.60 per unit after implementation. In England the average retail price remained at £0.50 per unit throughout the time series.

In Scotland, of the 56 cider products included in the analysis, 20 increased in price, by an average of £0.16 per unit, from £0.41 per unit before MUP was implemented to £0.57 per unit after implementation. No cider products were lower in price after MUP was implemented and five stayed the same. Of the remainder, eight products were discontinued and 23 were introduced; overall 12 (38.7%) of those changes were made within four weeks either side of MUP being implemented in Scotland.

In England, of the 77 cider products included in the analysis, nine increased in price, four lowered in price and 29 stayed the same. Of the remainder, 10 products were discontinued and 25 were introduced; overall three (8.6%) of those changes were made within four weeks of MUP being implemented in Scotland.

3.2.3. Spirits

The spirits analysis incorporated 46 individual products common to both Scotland and England and across a range of different sub-categories (vodka, whisky and so on). Data for an additional 98 products were captured, with the vast majority being sold in England only.

In Scotland, the average retail price per unit for spirits sold in Aldi and Lidl rose by 18.6%, from £0.45 per unit before MUP was implemented to £0.53 per unit after implementation. There were increases across all the spirit sub-categories but with some variation in magnitude; of the main sub-categories, whisky increased by 16.6% (£0.49 per unit to £0.57 per unit), gin by 19.2% (£0.42 per unit to £0.50 per unit) and vodka by 20.0% (£0.40 per unit to £0.50 per unit). In England, the average retail price remained at £0.45 per unit throughout the time series and there were no substantial changes across the spirit sub-categories.

In Scotland, of the 46 individual spirits products, 40 increased in price, by an average of £0.10 per unit, from £0.43 per unit before MUP was implemented to £0.53 per unit after implementation. The remaining six products did not change, maintaining an average of £0.54 per unit throughout the time series. In England, of the 46 individual spirits products, nine increased in price, four lowered in price and 33 stayed the same.

Table 14: Average retail price per unit (£) in Aldi and Lidl (combined), Scotland and England by drink category

Country	Category	Total number of products	Before MUP implementation (£)	After MUP implementation (£)	Percentage change (%)	Increase in price after MUP implementation (N, (average change in price per unit (£)))	Decrease in price after MUP implementation (N, (average change in price per unit (£)))	No change in price
Scotland	Beer	86	0.65	0.66	2.2	17, (£0.05)	7, (-£0.02)	19
Scotland	Cider	56	0.47	0.60	28.2	20, (£0.16)	0	5
Scotland	Spirits	46	0.45	0.53	18.6	40, (£0.10)	0	6
England	Beer	13	0.61	0.61	0.0	1, (£0.02)	1, (-£0.01)	1
England	Cider	77	0.50	0.50	0.0	9, (£0.02)	4, (-£0.04)	29
England	Spirits	46	0.45	0.45	0.0	9, (£0.01)	4, (-£0.02)	33

3.3. Price: Wholesale

The SalesOut wholesale data are weekly from 9 April 2017 to 31 March 2019, giving approximately 13 months pre-MUP and 11 months post-MUP implementation. Price per unit was calculated by dividing the value of sales by the natural volume in litres, and then by brand-specific ABV.

Price changes to the wholesale sector shared some similarities to those seen in convenience stores (i.e. the retail sector that purchases from wholesale) but were not distributed evenly across categories, similar to retail (Table 15). Similar changes were observed in wholesale and convenience stores for cider (+22.4% compared to +22.0% in convenience stores) and RTDs (+6.4% compared to +4.3%). Perry saw a much smaller price increase in wholesale than in retail (+13.3% compared to +28.6%). Fortified wine increased in price in wholesale and decreased in convenience stores (+3.2% compared to -3.0%). Wine and spirits saw prices decrease in wholesale and increase in convenience stores (-1.5% compared to +1.4% in convenience stores for wine and -5.9% and +1.6% for spirits). However, the wholesale and convenience samples for spirits may not be comparable – wholesale spirits were priced above retail in 2017–18, possibly due to over-representation of more expensive brands in the SalesOut sample, especially some premium gins, whiskies and liqueurs.

Beer saw a much bigger increase in wholesale prices than in convenience stores (+21.8% compared to +1.6%), but again this was likely to be due to differences in samples. The price of beer was unexpectedly high compared to the retail sector, at £0.72 per unit of alcohol in the year before MUP and £0.88 in the first year of MUP, compared to £0.61 and £0.62 respectively in convenience stores. This may have been driven by over-representation of low-alcohol beers in the wholesale data, which can have much higher prices per unit because they contain only a fraction of the alcohol but sell for similar prices (the average for beers with ABVs of 0.05% or less was £34.60 per unit of alcohol). If beers with 0.05% or lower ABV are removed from the wholesale data (0.2% of the total sales value), the average price for beers was £0.49 in the year prior to MUP to £0.53 in the first year of the policy, an increase of 8.2% compared to the previous year.

Table 15: Wholesale average price per unit (£) per year in alcohol categories in Scotland compared to convenience stores

Year and sector	Beer	Wine	Spirits	Cider	FW	RTDs	Perry
2017–18, wholesale	0.72	0.52	0.64	0.39	0.44	0.62	0.22
2018–19, wholesale	0.88	0.51	0.60	0.48	0.46	0.66	0.25
% change	21.8	-1.5	-5.9	22.4	3.2	6.4	13.3
2017–18, convenience	0.61	0.74	0.60	0.41	0.66	0.97	0.42
2018–19, convenience	0.62	0.75	0.61	0.50	0.64	1.01	0.54
% change	1.6	1.4	1.6	22.0	-3.0	4.1	28.6

3.4. Containers

The container size data were measured in litres of natural volume per adult. They are presented by category at a total coverage level for Scotland and for England & Wales (i.e. supermarkets and convenience stores combined for each category) with data collapsed into ranges of container sizes across single and multipacks. The volume of results necessitated that comparison across sectors be restricted to a limited number of examples. Brand-level results on container size are also included (grouped by category), but given the volume of data, these are presented as changes to the average container sizes of brands rather than across several categories of container size. Average container size was calculated by dividing the natural volume by the number of items sold. This was done separately for single packs and multipacks in both the convenience and supermarket sectors. Brand-level data are presented at the end of this section in Table 23 to Table 26. See section 3.9 for more detailed information on container sizes for some case-study brands.

3.4.1. Beer

Both before MUP was implemented and during the first year after implementation (and in England & Wales) most beer was sold in multipacks (87.2% in the year before MUP and 86.4% in the first year of MUP). However, the largest multipacks of beer of 13 or more items decreased by 34.3% from 9.87L per adult to 6.48L, a decline from a 29.2% to 19.0% share of total beer sales (Table 16). Conversely, there were increases in the amount and the proportion sold in smaller multipacks (between two and 12 items) and in the largest single item containers (greater than 569ml). This was not observed in England & Wales.

Table 16: Litres of natural volume beer per adult in different ranges of container sizes for singles and multipacks

Container size	Scotland, 2016–17	Scotland 2017–18	Scotland 2018–19	England & Wales 2016–17	England & Wales 2017–18	England & Wales 2018–19
Single – Less than 330ml	0.01 (0%)	0 (0.0%)	0 (0.0%)	0.03 (0.1%)	0.02 (0.1%)	0.01 (0.0%)
Single – 330ml to 439ml	0.41 (1.2%)	0.45 (1.3%)	0.47 (1.4%)	0.4 (1.2%)	0.48 (1.5%)	0.5 (1.4%)
Single – 440ml to 568ml	2.06 (6.0%)	2.26 (6.7%)	2.2 (6.5%)	2.9 (8.6%)	2.76 (8.4%)	2.76 (7.9%)
Single – 569ml or greater	1.45 (4.2%)	1.57 (4.7%)	1.95 (5.7%)	1.84 (5.5%)	1.98 (6.0%)	2.27 (6.5%)
Multipack – 2–6 items	10.44 (30.4%)	10.88 (32.2%)	12.78 (37.5%)	11.51 (34.2%)	11.57 (35.1%)	12.28 (35%)
Multipack – 7–12 items	9.18 (26.7%)	8.71 (25.8%)	10.19 (29.9%)	6.66 (19.8%)	6.95 (21.1%)	7.2 (20.5%)
Multipack – 13 or more items	10.81 (31.5%)	9.87 (29.2%)	6.48 (19.0%)	10.37 (30.8%)	9.24 (28%)	10.03 (28.6%)

Beer brands

There were no overriding patterns for changes to average container size for the beer brands in the supermarket and convenience samples. Of the 15 brands that were present in both samples, four saw average container sizes for single container products in Scotland in the first year of MUP increase in both sectors (Foster's, McEwan's, Heineken and Tennent's), while three (Carling, Corona, and San Miguel) saw decreases in both sectors. For the average size of multipacks, Budweiser, Carlsberg, Foster's, McEwan's and San Miguel increased in both sectors while Kronenbourg 1664 decreased in both.

For single container products across all sampled beer brands, the biggest increases were seen in Heineken (+77.3 in supermarkets) and Tennent's (+201.5% in supermarkets and +98.3% in convenience stores). This was driven by sharp increases in 5L single packs (mini kegs) for these brands. The largest decrease was in Stella Artois in supermarkets (-49.3%) which was driven by a large reduction in 5L containers. All other brands saw smaller changes of between +14.9% (Kronenbourg 1664, convenience sector) and -19.7% (Miller Genuine Draft, supermarkets) with most changing less than 5% in either sector. The average for these brands was +7.1% in convenience stores and +10.6% in supermarkets with Heineken and Tennent's included, but 1.8% and -4.6% without.

Without the outlier effect in single packs caused by the 5L containers, the scale of change in multipacks was lower, and ranged between +20.5% (McEwan's) and -20.0% (Stella Artois EU Import) with around half of selected beer brands in both sectors changing by less than 5% and an average decrease in the convenience sector for these brands of -1.8% and 0.4% in supermarkets.

Changes in England & Wales tended to be within 10% of those in Scotland for single packs in both sectors and for multipacks in supermarkets, although the direction of change matched in only around half of cases. Differences between countries tended to be greatest in the average size of multipacks in the convenience sector.

3.4.2. Wine

At a category level, there was little change in wine compared to some other categories. For example, 750ml bottles accounted for the vast majority across the time series in both Scotland and England & Wales, although the proportion tended to be higher in England & Wales (Table 17).

Table 17: Litres of natural volume wine per adult in different ranges of container sizes

Container size	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	England & Wales, 2016–17	England & Wales, 2017–18	England & Wales, 2018–19
Less than 750ml	0.24 (1.6%)	0.24 (1.6%)	0.25 (1.7%)	0.19 (1.3%)	0.19 (1.3%)	0.19 (1.4%)
750ml	13.44 (88.7%)	13.24 (88.6%)	13.12 (89.3%)	13.29 (91.5%)	12.98 (91.5%)	12.71 (92%)
751ml or greater	1.46 (9.6%)	1.45 (9.7%)	1.33 (9.0%)	1.04 (7.2%)	1.01 (7.1%)	0.92 (6.7%)

Wine brands

Wine does not tend to sell outside of single packs and the vast majority for each brand was sold in 750ml bottles. Changes to average container size tended to be small, with reductions reflecting more sales in containers smaller than 750ml and increases reflecting fewer sales in smaller containers. Exceptions included larger increases in Campo Viejo and own-brand Soave which both saw sharp increases in larger containers (1.5 and 2.25L respectively). Changes to the average size of wine containers in England & Wales were largely similar to Scotland in supermarkets and convenience stores.

3.4.3. Spirits

At a category level, there were notable changes in the distribution across container sizes in Scotland (Table 18). Container sizes of 700 to 999ml (predominantly 700ml containers) increased by 13.9% from 2.30L per adult to 2.62L, an increase in share from 39.6% to 46.3% (Figure 3). Meanwhile, larger container sizes of 1,000ml or greater, predominantly 1,000ml containers, decreased 18.9% from 2.81L per adult to 2.28L, a decrease in share from 48.4% to 40.3%. England & Wales tended to have a more even split between these two groupings that did not change notably across the time series.

Table 18: Litres of natural volume spirits per adult in different ranges of container sizes

Container size	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	England & Wales, 2016–17	England & Wales, 2017–18	England & Wales, 2018–19
Less than 700ml	0.69 (11.8%)	0.7 (12.0%)	0.76 (13.4%)	0.51 (13.2%)	0.52 (13.1%)	0.54 (13.0%)
700-999ml	2.33 (40.0%)	2.3 (39.6%)	2.62 (46.3%)	1.73 (44.8%)	1.72 (43.4%)	1.8 (43.5%)
1,000ml or greater	2.81 (48.2%)	2.81 (48.4%)	2.28 (40.3%)	1.62 (42%)	1.72 (43.4%)	1.8 (43.5%)

Spirits brands

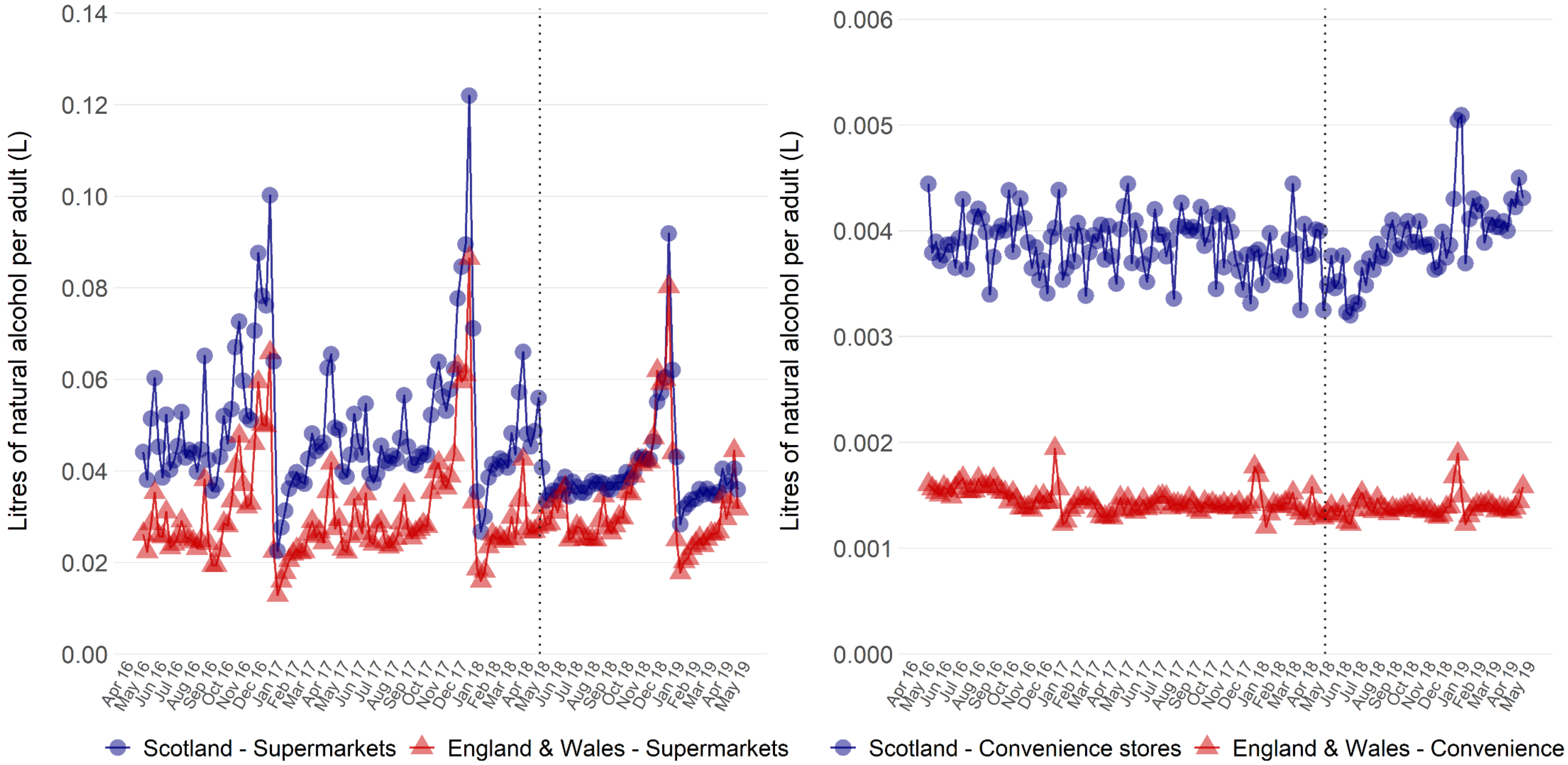
In general, spirits do not tend to sell in multipacks. Of the brands present in both samples, Captain Morgan Spiced, Gordon's and The Famous Grouse all saw decreased average container sizes in convenience stores and supermarkets while none saw increased container sizes in both sectors. Bell's, Russian Standard, Smirnoff Red Label, and own-brand vodka all increased in convenience stores while decreasing in supermarkets. Glen's decreased in convenience stores while increasing in supermarkets.

Overall changes were small, with the range in convenience stores being from +9.4% (Bell's Original) and -6.4% (Captain Morgan Spiced), and in supermarkets from +7.9% (Glen's) and -21.1% (The Famous Grouse). The reductions in The Famous

Grouse and Jack Daniel's were largely due to a sharp decline in the 4.5L and 3L containers respectively.

Most brands in England & Wales increased in average container size and those that decreased did so by less than 6.0%. Changes to container sizes in Scotland were 6.5% lower in supermarkets on average and 2.2% lower in convenience stores.

Figure 3: Litres of natural volume spirits per adult sold in container sizes of 1,000ml or greater



Note: this pair of graphs use different scales; the vertical dotted line represents the beginning of MUP on 1 May 2018

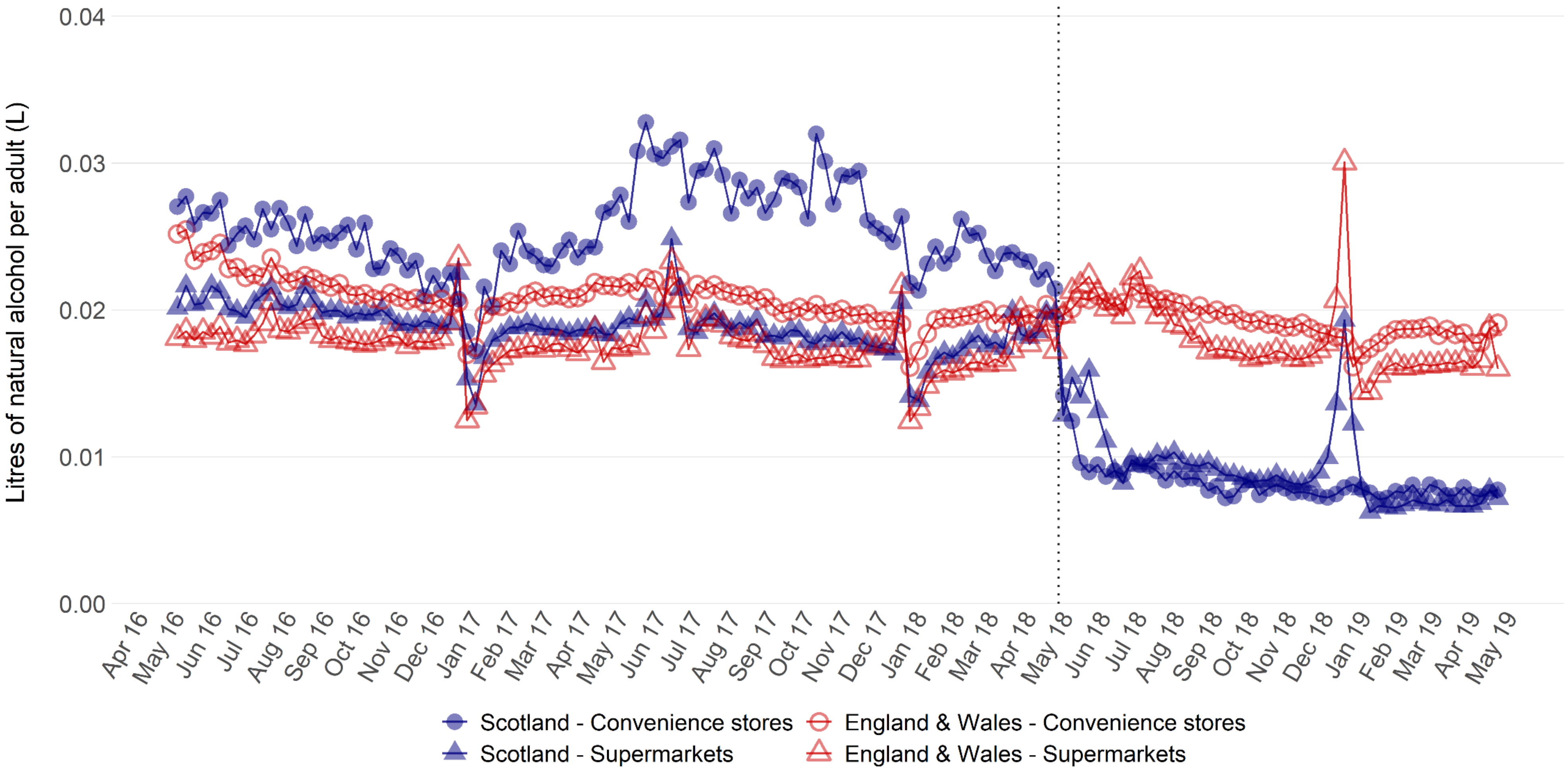
3.4.4. Cider

In both countries and in all years, more cider was sold in multipacks than single packs. However, the most notable change in Scotland was the decrease in single containers of 1,000ml or greater, which reduced by 61.3%, from 2.35L per adult to 0.91L. This represented a drop in share from 22.9% to 10.7% (Table 19). This decrease was similar across the supermarket and convenience sectors and was not observed in England & Wales (Figure 4). Multipacks of between two and six items and seven and twelve items both increased in Scotland, although the amount in the largest multipack decreased from 1.33L per adult to 0.42L per adult, a decrease from 12.9% to 4.9%. These changes were not observed in England & Wales, where the distribution remained similar to pre-MUP Scotland.

Table 19: Litres of natural volume cider per adult in different ranges of container sizes for singles and multipacks

Container size	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	England & Wales, 2016–17	England & Wales, 2017–18	England & Wales, 2018–19
Single – Less than 440ml	0.05 (0.5%)	0.07 (0.7%)	0.09 (1.1%)	0.02 (0.2%)	0.05 (0.6%)	0.05 (0.5%)
Single – 440ml to 499ml	0.02 (0.2%)	0.02 (0.2%)	0.03 (0.4%)	0.02 (0.2%)	0.01 (0.1%)	0.02 (0.2%)
Single – 500ml to 999ml	1.58 (15.8%)	1.54 (15.0%)	1.37 (16.1%)	1.64 (18.5%)	1.52 (17.1%)	1.54 (16.3%)
Single – 1,000ml or greater	2.27 (22.8%)	2.35 (22.9%)	0.91 (10.7%)	2.05 (23.1%)	1.96 (22.0%)	1.94 (20.6%)
Multipack – 2–6 items	2.25 (22.6%)	2.52 (24.5%)	2.97 (34.9%)	2.35 (26.5%)	2.61 (29.3%)	2.82 (29.9%)
Multipack – 7–12 items	2.21 (22.2%)	2.44 (23.7%)	2.72 (32.0%)	1.58 (17.8%)	1.69 (19.0%)	1.97 (20.9%)
Multipack – 13 or more items	1.58 (15.9%)	1.33 (12.9%)	0.42 (4.9%)	1.2 (13.5%)	1.07 (12.0%)	1.08 (11.5%)

Figure 4: Litres of natural volume cider per adult sold in single containers of 1,000ml or greater



Note: the vertical dotted line represents the beginning of MUP on 1 May 2018.

Cider brands

There were large increases in average container sizes for single packs in three of the five ciders that were present in both the supermarket and convenience samples in Scotland; Kopparberg (supermarkets), Strongbow Dark Fruit and Strongbow Original (supermarkets and convenience stores). Each of these was driven by sharp increases in the largest container sizes, especially 5L, which skewed the average despite representing a relatively low amount in each instance. Changes for these brands in multipacks were much smaller. For the strong cider brands in the convenience sample, changes in average container size tended to be smaller, averaging -1.3% in single packs and near zero in multipacks.

Changes to average containers sizes in supermarkets were largely similar between Scotland and England & Wales. This was also the case for multipacks in convenience stores (except Strongbow Original which increased by less than 1% compared to -14.5% in Scotland). However, there were large differences between single pack containers in convenience stores in Scotland compared to England & Wales. Kopparberg and Strongbow Original saw 5L kegs sell more in Scotland, resulting in larger increases in average container size in Scotland. Omega White also saw average single pack container sizes in Scotland increase in the context of a pronounced reduction in overall sales compared to a decrease in container size in England & Wales. Strongbow Dark Fruit decreased in average container size in Scotland while increasing in England & Wales.

3.4.5. Fortified wine

Fortified wine saw an increase in the 375ml to 999ml range (Table 20) from 0.76L of natural volume fortified wine per adult in 2017–18 to 0.96L in 2018–19, in Scotland. There was also an increase in the share of fortified wine from 67.9% to 73.3%. This increase was mainly in convenience stores and was not observed for England & Wales (Figure 5). The far lower amount of fortified wine sold in England & Wales had a dissimilar distribution across container sizes compared to Scotland, for example, in 2017–18, 67.9% was sold in the 375 to 999ml range in Scotland compared to 48.1% in England & Wales.

Fortified wine brands

The average container size of single pack Buckfast Tonic Wine decreased -1.7% while MD 20/20 decreased -3.7%. This was similar in England & Wales.

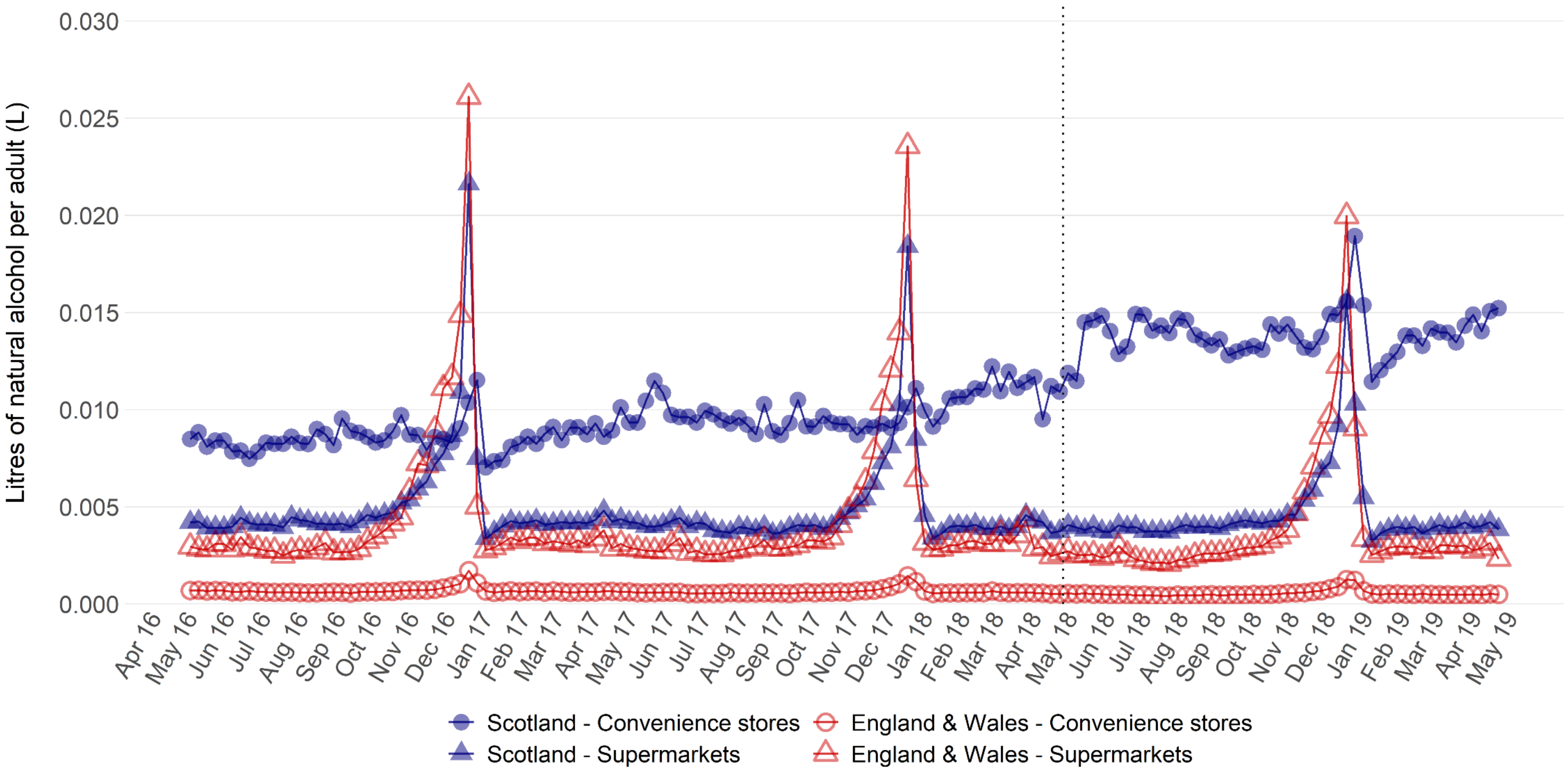
Table 20: Fortified wine container sizes; total litres of natural volume per adult per year

Container size	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	England & Wales, 2016–17	England & Wales, 2017–18	England & Wales, 2018–19
Less than 375ml	0.11 (10.4%)	0.13 (11.6%)	0.15 (11.5%)	0.01 (1.8%)	0.01 (1.9%)	0.01 (2.1%)
375–999ml	0.71 (67.0%)	0.76 (67.9%)	0.96 (73.3%)	0.27 (49.1%)	0.25 (48.1%)	0.23 (48.9%)
1,000–1,499ml	0.22 (20.8%)	0.21 (18.7%)	0.19 (14.5%)	0.24 (43.6%)	0.23 (44.2%)	0.21 (44.7%)
1,500ml	0.02 (1.9%)	0.02 (1.8%)	0.01 (0.8%)	0.03 (5.5%)	0.03 (5.8%)	0.02 (4.3%)

3.4.6. RTDs

There was relatively little change in the distribution of RTDs across container sizes in the first year of MUP (Table 21) in Scotland. For example, prior to MUP around half of RTDs tended to be sold in single item containers of between 300ml and 749ml, and this was also the case after MUP was implemented. England & Wales also saw an increase in the amount sold in single containers below 750ml. In both countries, however, the majority of RTDs (around 80%) was sold as single items, with the remainder approximately evenly split between multipacks of 2–6 times and 7–12 items. Only a negligible amount was sold in multipacks with more than 13 items.

Figure 5: Litres of natural volume fortified wine per adult sold in container sizes of 375–999ml



Note: the vertical dotted line represents the beginning of MUP on 1 May 2018.

Table 21: RTDs container sizes; total litres of natural volume per adult per year

Container size	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	England & Wales, 2016–17	England & Wales, 2017–18	England & Wales, 2018–19
Single – Less than 300ml	0.75 (29.0%)	0.78 (27.1%)	1.05 (30.6%)	0.65 (36.7%)	0.68 (37.8%)	0.9 (42.1%)
Single – 300–749ml	1.28 (49.4%)	1.48 (51.4%)	1.71 (49.9%)	0.78 (44.1%)	0.75 (41.7%)	0.79 (36.9%)
Single – 750ml or greater	0.04 (1.5%)	0.04 (1.4%)	0.03 (0.9%)	0.02 (1.1%)	0.02 (1.1%)	0.02 (0.9%)
Multipack – 2–6 items	0.12 (9.2%)	0.13 (9.0%)	0.15 (8.7%)	0.08 (9.1%)	0.09 (10.0%)	0.09 (8.4%)
Multipack – 7–12 items	0.14 (10.8%)	0.16 (11.1%)	0.17 (9.9%)	0.08 (9.1%)	0.09 (10.0%)	0.12 (11.2%)
Multipack – 13 or more items	<0.1 (<0.1%)	<0.1 (<0.1%)	<0.1 (<0.1%)	<0.1 (<0.1%)	<0.1 (<0.1%)	<0.1 (<0.1%)

RTD brands

Dragon Soop sold only in single containers and increased by less than one percent in average container size in both countries. WKD decreased in average container size by -0.2% in single containers (compared to +4.7% in England & Wales) and increased by 4.2% in the average size of multipacks (4.0% in England & Wales).

3.4.7. Perry

Perry saw the greatest change in sales in different container sizes of any category in Scotland (Table 22). There was a large decrease in natural volume perry sold in the largest single item containers of greater than 1250ml, while a new 1250ml product was introduced which came to account for 30.2% of all perry sales in the first 12 months after MUP was implemented (Figure 6). Multipacks represented a small proportion of natural volume perry sold per adult, all of which was sold in smaller packs of 2–6 items. In the year prior to MUP, an average of around 0.8% of all perry in Scotland was sold in multipacks. This proportion increased to around 1.3% after MUP was implemented. These changes were mainly observed in convenience stores and were not observed in England & Wales. The distribution of perry across ranges of container sizes in England & Wales was largely similar to pre-MUP Scotland, and did not appear to change after MUP was implemented in Scotland.

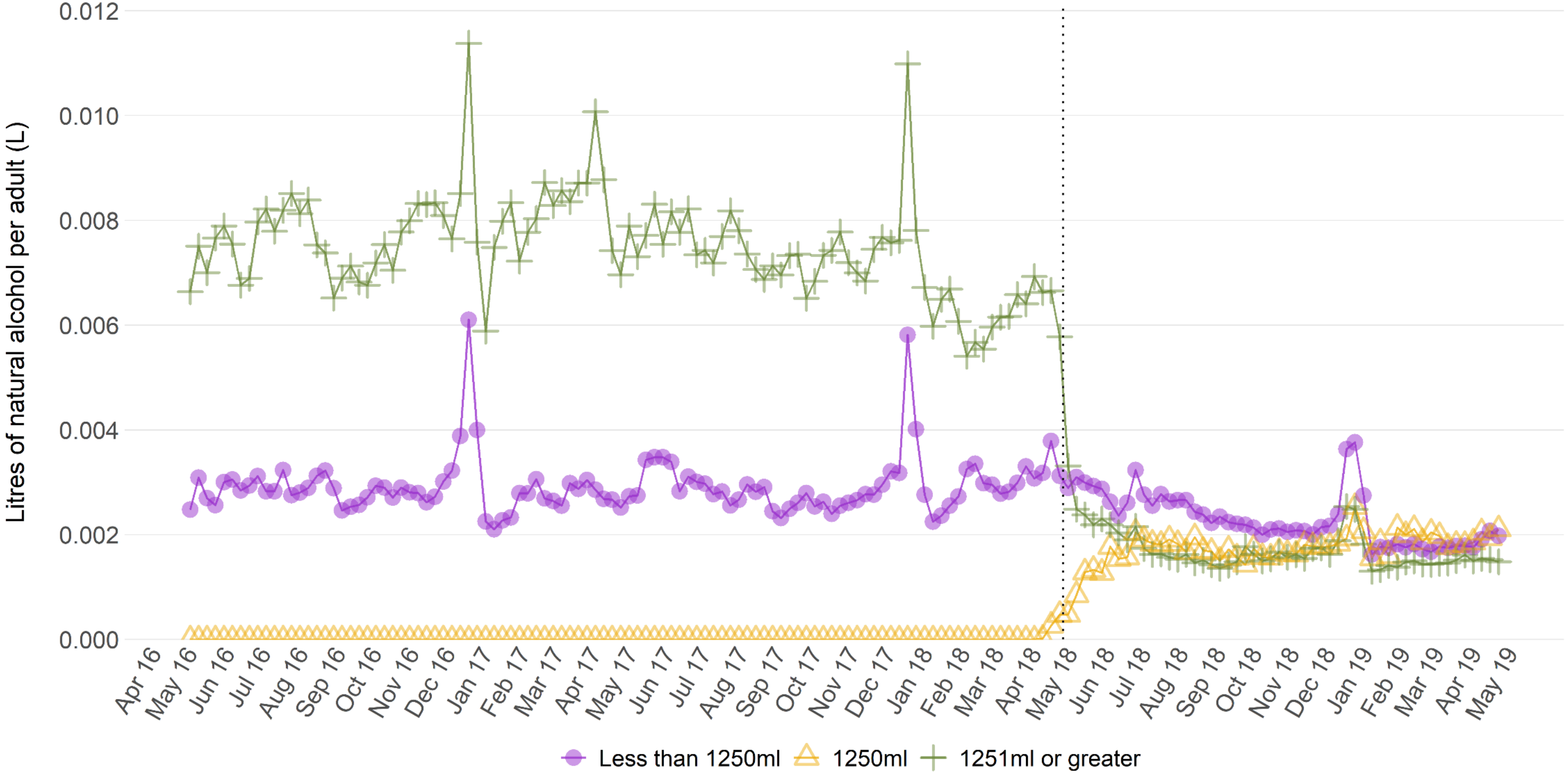
Table 22: Perry container sizes; total litres of natural volume per adult per year

Container size	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	England & Wales, 2016–17	England & Wales, 2017–18	England & Wales, 2018–19
Single – less than 1,250ml	0.292 (26.2%)	0.299 (28.5%)	0.232 (38.8%)	0.276 (23.3%)	0.268 (23.3%)	0.260 (22.3%)
Single – 1,250ml	0 (0%)	0.002 (0.1%)	0.181 (30.2%)	0 (0%)	0 (0%)	0.004 (<0.1%)
Single – 1,251ml or greater	0.814 (73.0%)	0.741 (70.6%)	0.179 (29.8%)	0.894 (75.5%)	0.871 (75.7%)	0.894 (76.7%)
Multipack – 2–6 items	0.009 (0.8%)	0.008 (0.8%)	0.007 (1.2%)	0.014 (1.2%)	0.012 (1%)	0.011 (1%)

Perry brands

The category-level trends were largely driven by the only perry in the brand sample – the average container size of single pack Lambrini decreased by -2.2% in Scotland in the first year of MUP (-2.4% in England & Wales). New 1,250L containers were introduced in April 2018 (just before MUP was implemented) that came to account for almost half of Lambrini sales in Scotland in the first year of MUP while all other container sizes (750ml, 1.5L, 3L) declined sharply. While 1.25L containers were also introduced in England & Wales around the same time, they only accounted for 0.1% of Lambrini sales.

Figure 6: Litres of natural volume perry per adult sold in single item containers in Scotland



Note: the vertical dotted line represents the beginning of MUP on 1 May 2018.

Table 23: Single pack average annual container size (L) and percentage change in the post-MUP year for top 50 brands in the supermarket sector, Scotland compared to England & Wales

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
Beck's Bier	Beer	0.65	0.65	0.61	-5.9	0.55	0.62	0.60	-2.8
Brewdog Punk IPA	Beer	0.42	0.41	0.42	2.1	0.42	0.41	0.40	-2.0
Bud Light	Beer	0.44	0.44	0.44	-0.8	0.44	0.44	0.44	-0.6
Budweiser	Beer	0.63	0.56	0.52	-6.1	0.53	0.52	0.87	68.2
Carling	Beer	0.50	0.50	0.50	0.0	1.31	1.26	1.02	-18.6
Carlsberg Pilsner	Beer	0.49	0.47	0.49	4.1	0.45	0.44	0.44	-0.2
Coors Light	Beer	0.71	0.70	0.69	-1.5	0.65	0.69	0.68	-1.0
Corona	Beer	0.53	0.56	0.56	-0.3	0.46	0.51	0.55	6.5
Foster's	Beer	0.50	0.46	0.50	8.4	0.50	0.48	0.47	-2.2
Heineken	Beer	0.49	0.92	1.63	77.3	0.49	0.91	1.54	70.0
John Smith's Extra Smooth	Beer	0.44	0.44	0.44	0.0	0.44	0.44	0.44	0.0

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
Kronen-bourg 1664	Beer	0.63	0.58	0.53	-9.8	0.56	0.55	0.51	-7.5
McEwan's Export Ale	Beer	0.50	0.50	0.50	0.0	0.50	0.50	0.50	0.0
Miller Genuine Draft	Beer	0.50	0.42	0.33	-19.7	0.33	NA	0.33	NA
Peroni Nastro Azzurro	Beer	0.58	0.59	0.58	-1.3	0.62	0.59	0.58	-1.0
San Miguel	Beer	0.47	0.48	0.46	-4.3	0.45	0.46	0.47	1.8
Stella Artois	Beer	0.51	1.81	0.92	-49.3	0.76	1.15	0.98	-15.3
Tennent's	Beer	0.53	0.58	1.74	201.5	NA	NA	4.58	NA
Tyskie	Beer	0.54	0.55	0.59	6.1	0.54	0.55	0.57	4.0
Guinness Draught	Beer	NA	NA	0.43	NA	NA	NA	0.43	NA
Campo Viejo	Wine	0.47	0.42	0.59	41.8	0.47	0.39	0.53	37.5

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
Casillero Del Diablo Reserva	Wine	0.52	0.69	0.71	3.1	0.61	0.68	0.71	4.6
Plaza Centro	Wine	0.82	0.82	0.61	-25.1	0.82	0.82	0.73	-10.2
Own-brand Chardon-nay	Wine	0.85	0.84	0.95	13.4	0.85	0.84	0.97	15.8
Own-brand Pinot Grigio	Wine	1.22	1.18	0.97	-18.0	1.21	1.17	1.07	-8.4
Own-brand Sauvignon Blanc	Wine	0.94	0.96	0.89	-7.2	0.93	0.96	0.95	-0.6
Own-brand Soave	Wine	0.75	0.81	1.13	39.2	0.75	0.81	1.13	39.2
Own-brand Sparkling Wine, Italy	Wine	0.72	0.78	0.93	18.5	1.13	1.11	1.12	0.7
Own-brand Sparkling	Wine	0.48	0.47	0.48	0.0	0.48	0.47	0.48	0.0

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
Wine, Spain									
Prosecco	Wine	0.75	0.75	0.75	0.0	0.75	0.75	0.75	0.0
Villa Maria Private Bin	Wine	0.75	0.75	0.69	-7.7	0.75	0.75	0.71	-5.0
Bacardi Carta Blanca	Spirits	0.68	0.66	0.71	7.8	0.69	0.67	0.70	4.3
Baileys Original	Spirits	0.57	0.63	0.64	2.0	0.47	0.54	0.61	13.0
Bell's Original	Spirits	0.59	0.60	0.58	-2.7	0.56	0.60	0.59	-1.2
Captain Morgan Spiced	Spirits	0.70	0.71	0.69	-3.5	0.77	0.78	0.99	26.9
Glen's	Spirits	0.60	0.58	0.63	7.9	0.65	0.67	0.66	-1.7
Gordon's	Spirits	0.56	0.55	0.54	-0.7	0.53	0.52	0.60	14.4
Jack Daniel's	Spirits	0.70	0.64	0.75	18.2	0.70	0.61	0.65	6.4

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
Tennessee Whiskey									
Own-brand Blended Scotch	Spirits	0.67	0.62	0.59	-5.7	0.67	0.62	0.59	-5.7
Own-brand Gin	Spirits	0.64	0.63	0.63	0.1	0.63	0.63	0.63	0.6
Own-brand Vodka	Spirits	0.65	0.65	0.63	-3.0	0.65	0.65	0.63	-2.5
Russian Standard	Spirits	0.56	0.58	0.57	-1.2	0.50	0.55	0.57	2.4
Smirnoff Red Label	Spirits	0.54	0.53	0.51	-5.4	0.55	0.59	0.61	3.4
The Famous Grouse	Spirits	0.56	0.91	0.72	-21.1	0.57	0.77	0.93	20.9
Whyte And Mackay	Spirits	0.67	0.68	0.66	-2.4	0.65	0.69	0.69	0.3
Kopparberg Flavoured	Cider	0.47	0.60	0.78	30.1	0.55	0.72	0.88	22.9

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
Magners Original	Cider	0.55	0.55	0.54	-1.2	0.59	0.58	0.56	-3.2
Own-brand Cider	Cider	1.00	0.94	0.87	-8.3	0.97	0.92	0.86	-7.2
Strongbow Dark Fruit	Cider	0.44	0.98	2.72	177.3	0.45	1.10	2.68	142.9
Strongbow Original	Cider	0.89	0.94	1.93	106.4	1.38	1.48	2.46	66.1

Note: EW = England & Wales. Percentage change is 2018–19 (post-MUP year) compared to 2017–18 (pre-MUP year).

Table 24: Single pack average annual container size (L) and percentage change in the post-MUP year for top 50 brands in the convenience sector, Scotland compared to England & Wales

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Budweiser	Beer	0.48	0.51	0.51	-1.0	0.45	0.46	0.48	5.1
Carling	Beer	0.50	0.50	0.52	3.9	0.49	0.51	0.51	0.9
Carlsberg Pilsner	Beer	0.53	0.53	0.51	-4.5	0.48	0.47	0.48	1.2
Carlsberg Special Brew	Beer	0.50	0.49	0.47	-5.0	0.44	0.45	0.46	2.5
Coors Light	Beer	0.68	0.62	0.71	14.2	0.40	0.43	0.52	19.2
Corona	Beer	0.46	0.51	0.50	-1.9	0.52	0.53	0.50	-5.1
Foster's	Beer	0.52	0.52	0.53	1.4	0.52	0.51	0.52	0.5
Heineken	Beer	0.56	0.57	0.66	14.6	0.45	0.46	0.73	58.9
Karpackie Super Mocne	Beer	0.50	0.50	0.50	0.0	0.50	0.50	0.50	0.0
Kronen-bourg 1664	Beer	0.52	0.50	0.57	14.9	0.49	0.48	0.48	-1.7

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
McEwan's Export Ale	Beer	0.50	0.50	0.50	0.4	0.50	0.50	0.50	-0.6
Peroni Nastro Azzurro	Beer	0.44	0.43	0.44	3.3	0.50	0.48	0.49	3.0
Red Stripe	Beer	0.47	0.50	0.47	-5.9	0.41	0.39	0.43	8.6
San Miguel	Beer	0.54	0.57	0.52	-9.0	0.47	0.49	0.49	-0.1
Stella Artois	Beer	0.48	0.47	0.47	1.0	0.48	0.53	0.49	-7.0
Tennent's	Beer	0.54	0.54	1.07	98.3	0.57	0.57	3.10	445.5
Tennent's Super	Beer	0.49	0.47	0.50	6.6	0.49	0.49	0.49	-0.7
Tyskie	Beer	0.51	0.53	0.51	-2.7	0.51	0.52	0.53	1.2
Guinness Draught	Beer	NA	NA	0.40	NA	0.48	0.49	0.50	2.0
Stella	Beer	NA	NA	NA	NA	0.44	0.43	0.44	1.9
Echo Falls	Wine	0.83	0.89	0.84	-5.7	0.86	0.89	0.96	8.3
Hardys Bin	Wine	0.75	0.75	0.75	0.0	0.75	0.75	0.75	0.1

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
I Heart	Wine	0.63	0.66	0.71	7.0	0.58	0.65	0.70	8.1
Isla Negra Seashore	Wine	0.75	0.75	0.77	3.2	0.75	0.75	0.76	1.8
Bell's Original	Spirits	0.50	0.48	0.53	9.4	0.58	0.58	0.57	-1.5
Captain Morgan Spiced	Spirits	0.60	0.57	0.54	-6.4	0.57	0.55	0.55	0.2
Glen's	Spirits	0.52	0.56	0.54	-3.9	0.44	0.50	0.51	3.4
Gordon's	Spirits	0.60	0.70	0.67	-4.0	0.82	0.79	0.79	-1.1
High Commissioner	Spirits	0.54	0.54	0.48	-11.7	0.47	0.48	0.51	7.0
Own-brand Vodka	Spirits	0.55	0.53	0.53	0.1	0.55	0.55	0.60	8.3
Russian Standard	Spirits	0.52	0.50	0.53	4.4	0.47	0.48	0.48	-1.3
Smirnoff Red Label	Spirits	0.52	0.48	0.51	6.4	0.44	0.44	0.48	8.0

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
The Famous Grouse	Spirits	0.45	0.45	0.44	-1.6	0.47	0.47	0.45	-3.3
Whyte And Mackay	Spirits	0.53	0.52	0.53	1.5	0.59	0.59	0.57	-3.6
Frosty Jack's	Cider	1.71	1.81	1.74	-3.5	1.92	1.88	2.04	8.4
HCC Black	Cider	0.50	0.50	0.50	0.0	0.50	0.50	0.50	0.0
HCC Black Pear	Cider	0.50	0.50	0.50	0.0	0.50	0.50	0.50	0.0
K Cider	Cider	0.48	0.47	0.44	-5.4	0.48	0.48	0.49	2.2
Kopparberg Flavoured	Cider	0.50	0.59	0.59	0.23	0.49	0.75	0.66	-12.92
Magners Original	Cider	0.72	0.69	0.66	-5.0	0.57	0.58	0.58	-0.8
Omega White Cider	Cider	2.00	2.00	2.30	14.9	2.00	2.00	1.92	-4.0
Own-brand Cider	Cider	1.50	1.50	1.50	0.0	1.50	1.43	1.35	-6.0

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Strongbow Original	Cider	1.93	1.95	1.54	-21.4	1.20	1.07	1.27	19.2
White Ace	Cider	1.65	1.59	1.37	-13.6	1.79	1.75	1.40	-2.0
Strongbow Dark Fruit	Cider	NA	0.44	1.40	217.9	0.45	0.57	1.32	130.9
Buckfast Tonic Wine	FW	0.37	0.37	0.36	-1.7	0.52	0.52	0.52	-0.8
Dragon Soop	RTD	0.50	0.50	0.50	0.0	0.50	0.50	0.50	0.2
MD 20/20	RTD	0.75	0.75	0.72	-3.7	0.61	0.68	0.64	-6.4
WKD	RTD	0.62	0.66	0.66	-0.2	0.52	0.55	0.57	4.7
Lambrini Original	Perry	1.10	1.11	1.09	-2.2	1.15	1.09	1.07	-2.4

Note: EW = England & Wales; FW = Fortified wine. Percentage change is 2018–19 (post-MUP year) compared to 2017–18 (pre-MUP year).

Table 25: Multipack average annual container size (L) and percentage change in the post-MUP year for top brands in the supermarket sector, Scotland compared to England & Wales*

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
Beck's Bier	Beer	3.10	2.87	3.06	6.8	3.14	2.89	3.03	4.8
Brewdog Punk IPA	Beer	1.86	2.25	1.90	-15.4	1.64	1.89	1.87	-0.8
Bud Light	Beer	4.68	4.48	3.80	-15.3	4.42	4.47	3.99	-10.7
Budweiser	Beer	3.79	3.94	3.96	0.3	3.65	3.66	3.88	5.9
Carling	Beer	4.56	4.67	4.72	1.0	5.21	5.16	4.76	-7.8
Carlsberg Pilsner	Beer	4.00	4.54	4.79	5.5	4.06	4.83	4.99	3.5
Coors Light	Beer	4.11	4.14	4.28	3.5	3.61	3.86	3.67	-4.9
Corona	Beer	3.10	2.86	2.93	2.3	3.02	3.01	2.85	-5.3
Foster's	Beer	4.20	4.24	4.89	15.4	5.33	5.30	5.64	6.4
Guinness Draught	Beer	3.49	3.71	3.59	-3.4	3.67	3.81	3.86	1.2
Heineken	Beer	2.54	2.56	2.85	11.3	3.09	2.98	3.03	1.7

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
John Smith's Extra Smooth	Beer	4.86	4.84	4.36	-9.9	4.37	4.37	3.82	-12.5
Kronen-bourg 1664	Beer	3.62	3.43	3.30	-3.8	3.45	3.25	3.48	7.0
McEwan's Export Ale	Beer	3.03	3.16	3.62	14.7	2.67	2.85	2.87	0.6
Miller Genuine Draft	Beer	3.15	3.26	3.38	3.7	3.36	3.27	2.33	-28.6
Peroni Nastro Azzurro	Beer	2.36	2.28	2.48	8.4	2.38	2.24	2.27	1.2
San Miguel	Beer	2.78	2.44	2.47	1.6	2.50	2.51	2.71	8.1
Stella Artois	Beer	3.57	3.66	3.35	-8.5	3.69	3.67	3.60	-1.7
Tennent's	Beer	4.35	4.33	3.85	-11.0	4.58	4.07	3.83	-5.9
Tyskie	Beer	2.00	2.00	2.00	0.0	2.00	2.00	2.00	0.0

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
Kopparberg Flavoured	Cider	2.78	2.76	2.77	<0.0	2.72	2.70	2.66	-1.5
Magners Original	Cider	4.29	4.29	3.96	-7.6	4.78	4.42	4.48	1.3
Own-brand Cider	Cider	4.08	3.73	3.60	-3.4	4.11	3.73	3.73	-0.1
Strongbow Dark Fruit	Cider	3.08	3.39	4.03	18.9	3.36	3.39	3.93	16.1
Strongbow Original	Cider	4.57	4.44	4.66	5.0	4.99	5.05	4.88	-3.4

Note: EW = England & Wales. Percentage change is 2018–19 (post-MUP year) compared to 2017–18 (pre-MUP year).

*There are fewer than 50 brands because many brands do not sell in multipacks.

Table 26: Multipack average annual container size (L) and percentage change in the post-MUP year for top brands in the convenience sector, Scotland compared to England & Wales

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Budweiser	Beer	2.98	3.01	3.07	2.0	3.39	3.16	3.29	4.1
Carling	Beer	4.22	4.27	3.37	-21.0	3.89	3.76	3.53	-6.1
Carlsberg Pilsner	Beer	3.70	3.29	3.41	3.6	3.96	3.68	3.94	6.9
Carlsberg Special Brew	Beer	1.93	1.92	1.89	-1.8	1.74	1.83	1.82	-0.3
Coors Light	Beer	3.38	3.00	2.57	-14.3	3.33	3.24	3.22	-0.7
Corona	Beer	2.97	3.12	2.89	-7.4	2.86	2.95	3.24	9.8
Foster's	Beer	3.50	2.87	3.10	8.1	3.62	3.32	3.36	1.2
Guinness Draught	Beer	2.70	2.30	2.53	9.8	3.18	2.75	2.90	5.3
Heineken	Beer	2.30	2.33	2.30	-1.0	2.21	2.34	3.02	29.0
Kronen-bourg 1664	Beer	2.40	2.31	2.24	-3.1	3.06	2.90	3.51	21.0

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
McEwan's Export Ale	Beer	1.88	2.00	2.42	20.5	1.88	2.01	2.03	1.4
Peroni Nastro Azzurro	Beer	2.56	2.39	2.16	-9.6	2.31	2.42	2.30	-4.7
Red Stripe	Beer	1.95	1.94	1.95	0.5	2.15	1.95	1.96	0.4
San Miguel	Beer	2.10	2.10	2.19	4.4	2.17	2.27	2.44	7.4
Stella Artois EU Import	Beer	2.84	2.36	1.89	-20.0	3.65	3.28	3.02	-7.8
Stella Artois	Beer	2.54	2.45	2.65	8.3	3.22	3.01	3.22	7.0
Tennent's	Beer	3.49	3.57	3.25	-9.1	3.25	2.78	2.78	0.0
Tennent's Super	Beer	1.89	1.89	1.88	-0.2	1.89	1.86	1.84	-0.7
Tyskie	Beer	2.00	2.19	2.09	-4.3	2.30	2.22	2.06	-7.3
Frosty Jack's	Cider	2.00	2.00	2.00	0.0	2.00	2.00	2.00	0.0
HCC Black	Cider	2.00	2.00	2.00	0.0	2.00	2.00	2.00	0.0

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
K Cider	Cider	2.00	2.00	2.00	0.0	1.99	2.00	1.99	-0.1
Kopparberg Flavoured	Cider	2.35	2.09	2.25	7.8	2.48	2.37	2.57	8.7
Magners Original	Cider	3.52	3.56	3.52	-1.2	3.64	3.51	3.40	-3.3
Omega White Cider	Cider	2.00	2.00	2.00	0.0	2.00	2.00	2.00	0.0
Own-brand Cider	Cider	1.76	1.76	1.77	0.4	1.98	1.82	1.76	-3.1
Strongbow Dark Fruit	Cider	2.50	2.36	2.46	4.1	2.34	2.29	2.47	8.0
Strongbow Original	Cider	3.68	3.43	2.94	-14.5	3.12	3.15	3.15	0.1
WKD	RTD	1.59	1.45	1.51	4.2	1.79	1.77	1.84	4.0

Note: EW = England & Wales; FW = Fortified wine. Percentage change is 2018–19 (post-MUP year) compared to 2017–18 (pre-MUP year).

*There are fewer than 50 brands because many brands do not sell in multipacks.

3.5. Discontinuation and introduction

The term discontinuation is used here to describe instances in which a product sees its natural volume sales drop to 0 and remain at that level until the end of the time series. Introduction, on the other hand, means a later increase for a product that had 0 natural volume sales at the beginning of the time series. At a category level it is not generally possible to discern discontinuation or introduction of containers due to aggregation of products.

However, for the brand-level convenience stores and supermarkets samples combined (i.e. the top 50 brands from each sector in 2017) more containers were discontinued between 2016–17 and 2017–18 than between 2017–18 and the first year after MUP was implemented in Scotland (27 compared to 32, with 506 unique products at baseline). Most of these discontinuations were for products that represented small portions of the brand's overall sales (such as 3,000ml own-brand Pinot Grigio and Sauvignon Blanc). However, coinciding with the introduction of MUP, product(s) with high overall volumes that were previously responsible for the largest natural volume sales for Foster's (20x 440ml), Miller Genuine Draft (12x 275ml and 20x 275ml), Strongbow Original (20x 440ml) and Tennent's (20x 440ml) saw steep declines leading to 0 sales. Note this did not necessarily translate into an overall loss in sales for those brands (see Section 3.7 starting on page 83).

Similarly, more new products were introduced across the 73 brands in 2017–18 compared to the first year after MUP was implemented (52 compared to 33, with 506 unique products at baseline and 591 by the end of the time series) in Scotland. Some of the products that were introduced in the first year of MUP appeared to coincide with the introduction of MUP. The most notable of these were 1,250ml Lambrini Original, which was introduced in the weeks before MUP and came to account for around a third of all Lambrini sales in the first year of MUP in Scotland, and own-brand Soave which saw 2,250ml containers introduced at the start of MUP and came to account for around half of all natural volume sales. Other products introduced close to the implementation of MUP for other brands sold much less, but the largest of these included Bud Light (20x 300ml and 12x300ml), Foster's (18x 440ml), Heineken (15x 440ml and 4x 440ml), Isla Negra Seashore (2250ml), Miller Genuine Draft (12x 330ml pack), San Miguel (10x 440ml) and Strongbow Dark Fruits (15x 440ml).

Using the Knowledge Gaps ABV data, 5.2%, (n=132) of all products assessed were discontinued between February 2018 and February 2019 in Scotland. Of those products that were discontinued, the majority were wines (n=44), spirits (n=38) and beers (n=31).

3.6. ABV

An analysis of ABV data from Knowledge Gaps showed that only a small proportion of products in Scotland, approximately 4.4%, had a change in ABV in February 2019 compared to February 2018. Of all products, 2.9% (n=73) had a reduction in ABV while 1.5% (n=37) had a higher ABV after MUP was implemented. The majority of those products that demonstrated a change in ABV were wines (n=82, 74.5%) and more had a lower ABV in February 2019 (n=60). A smaller proportion of beers (n=16, 1.5%) and spirits (n=9, 1.7%) showed a change in ABV after MUP was implemented. More spirits products (n=8) had a lower ABV than higher and these were all in the liqueurs sub-category. More beers (n=12) had a higher ABV in February 2019 compared to February 2018. For the top 50 products in supermarkets and convenience stores extracted from the NielsenIQ data, the only ABV change identified outside of the wines was for Tyskie beer – the Knowledge Gaps data for February 2018 gave an ABV of 5.5% compared to 5.0% in February 2019.

Table 27: Changes to ABV at a category level in Scotland

	Total number	Lowered		Increased		No change		Discontinued		No data	
		Count	%	Count	%	Count	%	Count	%	Count	%
Total	2,534	73	2.9%	37	1.5%	2,267	89.5%	132	5.2%	25	1.0%
Beer	1,111	4	0.4%	12	1.1%	1,040	93.6%	31	2.8%	24	2.2%
Wine	342	60	17.5%	22	6.4%	216	63.2%	44	12.9%	0	0.0%
Spirits	517	8	1.5%	1	0.2%	470	90.9%	38	7.4%	0	0.0%
Cider	332	1	0.3%	0	0.0%	328	98.8%	2	0.6%	1	0.3%
Fortified wine	97	0	0.0%	2	2.1%	90	92.8%	5	5.2%	0	0.0%
RTD	135	0	0.0%	0	0.0%	123	91.1%	12	8.9%	0	0.0%

3.7. Natural volume sales

Using the NielsenIQ data, natural volume is the volume in litres of liquid sold for any given product. The results from this section are thus not directly comparable to the pure alcohol volume estimates published in other PHS studies, which used pure alcohol measures (for example, spirits tend to have a much higher ratio of pure alcohol to natural volume than other categories of alcoholic drinks).

3.7.1. Total off-trade alcohol

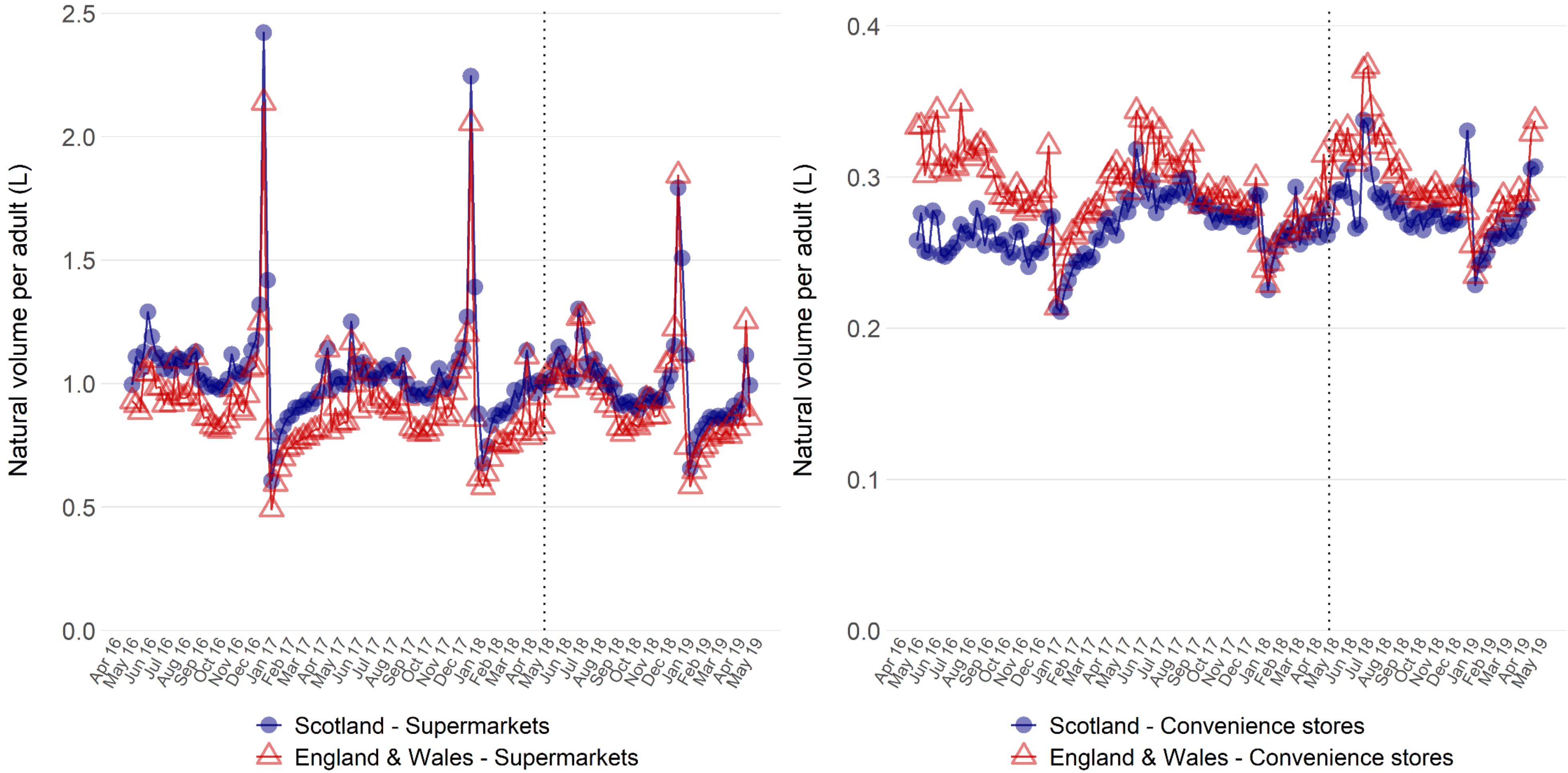
In the first year of MUP, there was a decline of around 2.4% in the amount of natural volume alcohol sold through the off-trade compared to the prior year, with a fall from 67.9 to 66.3 litres per adult (Table 28, Figure 7). Over the same time period, the amount sold in England & Wales increased by 4.1% from 62.0 to 64.6 litres per adult. In Scotland, the supermarket sector saw a decrease of -3.2% (compared to an increase of +4.4% in England & Wales) while convenience stores saw an increase of +0.7% (compared to an increase of +3.0%).

Table 28: Annual natural volume sales (litres per adult) across supermarkets and convenience stores, Scotland compared to England & Wales

Country and year	Year	Convenience stores	Supermarkets	Total coverage
Scotland	2016–17	13.3	54.9	68.2
Scotland	2017–18	14.4	53.5	67.9
Scotland	2018–19	14.5	51.8	66.3
EW	2016–17	15.3	47.7	63.0
EW	2017–18	15.0	47.0	62.0
EW	2018–19	15.5	49.1	64.6

Note: EW = England & Wales.

Figure 7: Weekly natural volume sales per adult through the off-trade (litres)



Note: this pair of graphs uses different scales; the vertical dotted line represents the beginning of MUP on 1 May 2018.

3.7.2. Off-trade alcohol by drink category

While the amount of natural volume alcohol per adult sold in Scotland in the first year of MUP was less overall than in the prior two years, this change was not the same across the drink categories or within the different sectors (Table 29 to Table 31). Overall, in the first year of MUP the greatest reductions in natural volume sales were seen in cider (-17%) and perry (-40%) while increases were seen in fortified wines (18%) and RTDs (21%). With the exception of RTDs, these changes were different to those seen in England and Wales over the same time period, where the level of sales either stayed relatively stable or increased for these drink categories. Natural volume sales of RTDs increased by around the same percentage in both areas.

In the supermarket sector in Scotland, reductions were seen in every drink category in the year after MUP was implemented, with the exception of RTDs, although the magnitude of the change was variable. The greatest declines were seen in perry (-54%) and cider (-12%) with smaller reductions being seen in the other drink categories. This was somewhat different to what was seen in England & Wales, where increases were observed in 2018–19 for beer, spirits, cider and perry. Natural volume sales of RTDs increased in both areas but the increase was greater in England & Wales than in Scotland.

In the convenience sector, a slightly different pattern was seen across the drink categories. As in the supermarket sector, reductions in natural volume sales were seen in cider (-27%), perry (-20%) and spirits (-2%) in the year following MUP implementation. However, increases in natural volume sales were observed for beer (12%), wine (2%) and fortified wine (37%). Again, this was different to the pattern observed in England & Wales where natural volume sales of spirits (1%) and cider (3%) both saw modest increases while sales of fortified wines through the convenience sector fell (-14%). As in the supermarket sector, sales of RTDs increased in both areas, although the increase in the convenience sector in Scotland was greater than in supermarkets.

Table 29: Annual natural volume sales (litres per adult) by drink category

Country	Year	Beer	Wine	Spirits	Cider	FW	RTD	Perry
Scotland	2016–17	34.3	15.2	5.8	10.0	1.1	1.3	0.6
Scotland	2017–18	33.8	14.9	5.8	10.3	1.1	1.4	0.5
Scotland	2018–19	34.1	14.7	5.7	8.5	1.3	1.7	0.3
EW	2016–17	33.7	14.5	3.9	8.9	0.5	0.9	0.6
EW	2017–18	33.0	14.2	4.0	8.9	0.5	0.9	0.6
EW	2018–19	35.1	13.8	4.1	9.4	0.5	1.1	0.6

Note: EW = England & Wales; FW = Fortified wine.

Table 30: Annual natural volume sales (litres per adult) in supermarkets by drink category

Country	Year	Beer	Wine	Spirits	Cider	FW	RTD	Perry
Scotland	2016–17	28.19	13.35	4.83	6.72	0.51	0.96	0.38
Scotland	2017–18	27.32	13.09	4.83	6.46	0.48	0.97	0.36
Scotland	2018–19	26.86	12.83	4.69	5.72	0.45	1.10	0.17
EW	2016–17	25.22	12.05	3.17	5.74	0.50	0.67	0.36
EW	2017–18	24.77	11.84	3.28	5.63	0.47	0.68	0.36
EW	2018–19	26.46	11.54	3.45	6.07	0.42	0.80	0.37

Note: EW = England & Wales; FW = Fortified wine.

Table 31: Annual natural volume sales (litres per adult) in convenience stores, by drink category

Country	Year	Beer	Wine	Spirits	Cider	FW	RTD	Perry
Scotland	2016–17	6.16	1.80	1.01	3.25	0.56	0.34	0.18
Scotland	2017–18	6.44	1.84	0.99	3.82	0.64	0.47	0.17
Scotland	2018–19	7.22	1.88	0.97	2.79	0.87	0.62	0.13
EW	2016–17	8.49	2.48	0.68	3.12	0.05	0.22	0.23
EW	2017–18	8.22	2.35	0.68	3.28	0.05	0.22	0.22
EW	2018–19	8.60	2.28	0.69	3.37	0.04	0.27	0.22

Note: EW = England & Wales; FW = Fortified wine.

3.7.3. Off-trade alcohol by brand

Brand-level data for natural volume sales are presented from page 91 for supermarkets (Table 32) and conveniences stores (Table 33).

3.7.3.1. Beer

Of the 15 brands sold in both supermarkets and convenience stores, there was no clear pattern in terms of systematic increases or decreases in natural volume sales in Scotland in the year following the implementation of MUP. Five brands (Budweiser, Coors Light, Foster's, Tennent's and Stella Artois) were found to increase in natural volume sales in the convenience sector while sales fell in supermarkets. Four brands (Corona, Heineken, McEwan's Export and Peroni) were found to increase natural volume sales in both supermarkets and the convenience sector and four brands (Carling, Carlsberg Pilsner, Kronenbourg 1664 and Tyskie) were found to decrease sales in both sectors. Only San Miguel was found to increase in natural volume sales in supermarkets while sales fell in convenience stores. Similarly, there was no clear pattern in whether the same changes were observed for these brands in either the pre-MUP years or in England & Wales.

For the remaining five brands sold through supermarkets, three (Beck's Bier, John Smith's and Miller Genuine Draft) showed reductions in sales in the year following

MUP. Taking the 2016/17 sales into account, these brands were already declining and showed a similar pattern in England & Wales. The remaining two brands (Bud Light and Brewdog Punk IPA) increased in sales. For the remaining five brands sold through the convenience sector natural volume sales decreased for two brands (Karpackie Super Mocne and Stella Artois EU Import) while sales for the other three (Carlsberg Special Brew, Red Stripe and Tennent's Super) increased. This pattern was not always in line with observations for England & Wales.

3.7.3.2. Wine

For those brands that were included in the brand-level analysis, the majority (10 of 15) showed a decline in natural volume sales from the pre-MUP year to the post-MUP year, although this varied in magnitude. For those wine brands sold in supermarkets, eight of the eleven declined in natural volume sales in the year after MUP was implemented, with the decline ranging from 2% to 19%. The three remaining wines brands, where increases in natural volume sales were observed, were all own-label brands. Own-brand Soave was a clear outlier, increasing in natural volume sales by more than 1.5 times compared to the volume sold in the year prior to MUP. However, sales of this brand were comparatively low and would have had little impact on natural volume sales at a category level. Increases in natural volume sales of the other two brands were much more modest at between 1% and 5%. Of the four brands sold through convenience stores, two increased in natural sales volume and two decreased. In England & Wales, the same pattern (increase or decrease in the year following MUP implementation in Scotland, compared to the pre-MUP year) was observed in 14 of the 15 wine brands included in the analysis.

3.7.3.3. Spirits

Of the 15 spirits brands included in the brand-level analysis, nine were common to both supermarkets and convenience stores, five were included for supermarket sales only and one for convenience sales only. Of the nine brands common to both supermarkets and convenience stores, six brands (Bell's whisky, Captain Morgan Spiced rum, Glen's vodka, Famous Grouse whisky, own-brand vodka and Russian Standard vodka) all decreased sales in the year following MUP with the biggest relative decrease (40%) being observed in own-brand vodka sold through supermarkets. Both Smirnoff Red Label vodka and Whyte and Mackay blended whisky showed declines in sales through supermarkets but increases in natural volume sales in the convenience sector following the implementation of MUP. Only Gordon's gin was found to increase in sales, by a relatively small percentage, in both supermarkets and convenience stores. Natural volume sales of supermarket own-brand blended whisky and gin both fell in the year following MUP.

3.7.3.4. Cider

Of the five brands common to both supermarkets and convenience stores, three (own-brand cider, Magners Original and Strongbow Original) decreased in natural volume sales in both sectors, by varying magnitude, following the implementation of MUP. The remaining two brands (Kopparberg and Strongbow Dark Fruit) increased natural volume sales in both sectors following MUP implementation. This was not the case in England & Wales where all but one instance (Strongbow Original sold through supermarkets) increased in natural volume sales over the same time period.

Of the six high-strength ciders included in the convenience sample, all but one (K Cider) showed substantial declines in natural volume sales in Scotland in the year following the implementation of MUP. In general, the declines seen in Scotland in 2018–19 were at odds with sales in the previous two years and with the trend seen in England & Wales over the same time period. K Cider is notable as the only high-strength cider brand to have shown an increase in sales in Scotland in the year following MUP; the relative increase observed in 2018–19 is considerably less than that seen between the two pre-MUP years but greater than the increase observed in England & Wales.

3.7.3.5. Fortified wine

Natural volume sales of both Buckfast Tonic Wine and MD 20/20 increased in Scotland in the year following MUP implementation, with per-adult sales of Buckfast increasing the greatest at 40%, a considerably greater relative increase than was seen between the two pre-MUP years. While sales of MD 20/20 increased in 2018–19, the increase was less than that seen between the two pre-MUP years. Sales of both brands in England & Wales were a fraction of those in Scotland and decreased over the same time period.

3.7.3.6. Ready-to-drink beverages (RTDs)

Natural volume sales of both brands increased in Scotland in the year following MUP implementation, with sales of Dragon Soop increasing the most and at a greater rate than in the two pre-MUP years. While sales of WKD increased, the level of increase was less than in the pre-MUP years and compared to that seen in England and Wales. It is worthy of note that per-adult sales of both brands were less (substantially so in the case of Dragon Soop) in England & Wales compared to Scotland across the time period.

3.7.3.7. Perry

Natural volume sales of Lambrini Original was found to decrease in Scotland in the year following MUP implementation. This was different to the pre-MUP trend in Scotland and to the trend observed in England & Wales over the same time period.

Table 32: Annual natural volume sales (litres per adult) and percentage change in the post-MUP year for top 50 brands in the supermarket sector, Scotland compared to England & Wales

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, % change	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Beck's Bier	Beer	0.35	0.32	0.25	-20.1	0.47	0.44	0.34	-23.0
Brewdog Punk IPA	Beer	0.14	0.23	0.25	12.4	0.09	0.15	0.16	12.6
Bud Light	Beer	0.07	0.41	0.68	64.9	0.06	0.31	0.29	-6.6
Budweiser	Beer	3.97	3.56	2.98	-16.2	2.51	2.57	2.80	8.8
Carling	Beer	1.20	1.24	0.58	-52.8	2.95	3.02	2.94	-2.7
Carlsberg Pilsner	Beer	0.45	0.29	0.28	-5.6	0.80	0.55	0.65	17.9
Coors Light	Beer	0.92	0.90	0.82	-8.5	0.70	0.77	0.69	-10.7
Corona	Beer	0.83	0.84	1.16	38.3	0.68	0.71	0.82	14.7
Foster's	Beer	1.47	1.19	1.04	-13.2	3.33	2.75	2.94	7.0
Guinness Draught	Beer	0.51	0.48	0.48	0.5	0.48	0.46	0.49	7.7
Heineken	Beer	0.33	0.30	0.58	94.7	0.36	0.32	0.69	118.6
John Smith's	Beer	0.43	0.38	0.37	-4.1	0.64	0.56	0.55	-2.7

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, % change	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Extra Smooth									
Kronen-bourg 1664	Beer	0.50	0.44	0.40	-7.0	0.88	0.77	0.86	12.5
McEwan's Export Ale	Beer	0.53	0.50	0.51	1.7	0.04	0.04	0.05	10.7
Miller Genuine Draft	Beer	0.70	0.49	0.23	-52.2	0.00	0.00	0.00	-4.9
Peroni Nastro Azzurro	Beer	0.52	0.54	0.59	9.2	0.49	0.51	0.55	8.1
San Miguel	Beer	0.38	0.45	0.49	7.0	0.59	0.68	0.79	14.9
Stella Artois	Beer	2.91	2.84	2.57	-9.3	3.20	3.26	3.41	4.8
Tennent's	Beer	5.67	5.43	5.18	-4.5	0.00	0.00	0.00	207.4
Tyskie	Beer	0.25	0.22	0.21	-6.2	0.09	0.11	0.10	-10.8
Campo Viejo	Wine	0.14	0.13	0.12	-7.0	0.13	0.12	0.11	-10.6

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, % change	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Casillero Del Diablo Reserva	Wine	0.10	0.12	0.10	-9.8	0.08	0.08	0.08	-9.5
Plaza Centro	Wine	0.18	0.20	0.16	-19.0	0.17	0.17	0.16	-5.4
Own-brand Chardon-nay	Wine	0.28	0.31	0.26	-16.8	0.21	0.22	0.22	-3.2
Own-brand Pinot Grigio	Wine	0.95	1.05	0.94	-10.7	0.81	0.97	0.87	-10.7
Own-brand Sauvignon Blanc	Wine	0.37	0.41	0.41	1.4	0.30	0.33	0.33	1.1
Own-brand Soave	Wine	0.02	0.02	0.06	157.8	0.03	0.03	0.04	34.3
Own-brand Sparkling Wine, Italy	Wine	0.56	0.61	0.64	5.0	0.55	0.61	0.63	2.5
Own-brand Sparkling Wine, Spain	Wine	0.27	0.28	0.26	-4.2	0.28	0.27	0.25	-9.3

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, % change	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Prosecco	Wine	0.16	0.17	0.17	-1.9	0.10	0.13	0.12	-8.6
Villa Maria Private Bin	Wine	0.11	0.14	0.12	-14.5	0.10	0.12	0.10	-16.3
Bacardi Carta Blanca	Spirits	0.16	0.15	0.13	-13.5	0.09	0.09	0.08	-1.8
Baileys Original	Spirits	0.09	0.10	0.10	0.5	0.12	0.14	0.14	-2.0
Bell's Original	Spirits	0.16	0.14	0.10	-28.3	0.13	0.12	0.11	-7.7
Captain Morgan Spiced	Spirits	0.16	0.15	0.13	-13.6	0.07	0.07	0.07	3.5
Glen's	Spirits	0.29	0.23	0.22	-2.7	0.03	0.02	0.02	-13.7
Gordon's	Spirits	0.26	0.27	0.28	3.2	0.16	0.17	0.19	11.4
Jack Daniel's Tennessee Whiskey	Spirits	0.07	0.07	0.08	11.4	0.09	0.10	0.10	2.5

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, % change	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Own-brand Blended Scotch	Spirits	0.13	0.13	0.09	-31.6	0.11	0.11	0.11	-2.6
Own-brand Gin	Spirits	0.11	0.12	0.09	-22.7	0.09	0.10	0.11	7.7
Own-brand Vodka	Spirits	0.25	0.27	0.16	-40.1	0.23	0.23	0.24	1.5
Russian Standard	Spirits	0.17	0.17	0.14	-16.3	0.11	0.11	0.12	5.3
Smirnoff Red Label	Spirits	0.76	0.73	0.71	-2.1	0.30	0.28	0.28	1.0
The Famous Grouse	Spirits	0.33	0.33	0.30	-9.9	0.19	0.19	0.19	-1.4
Whyte And Mackay	Spirits	0.20	0.18	0.16	-10.5	0.07	0.06	0.05	-16.1
Kopparberg Flavoured	Cider	0.85	0.78	0.83	6.3	0.55	0.56	0.59	6.1
Magners Original	Cider	0.67	0.66	0.63	-3.7	0.39	0.37	0.40	6.6

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, % change	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Own-brand Cider	Cider	0.45	0.48	0.21	-55.4	0.55	0.61	0.67	10.6
Strongbow Dark Fruit	Cider	0.67	0.68	1.16	71.3	0.48	0.44	0.69	56.2
Strongbow Original	Cider	1.93	1.64	1.08	-34.4	1.38	1.18	1.21	2.8

Note: EW = England & Wales. Percentage change is 2018–19 (post-MUP year) compared to 2017–18 (pre-MUP year).

Table 33: Annual natural volume sales (litres per adult) and percentage change in the post-MUP year for top 50 brands in the convenience sector, Scotland compared to England & Wales

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Budweiser	Beer	0.85	0.87	1.12	28.3	0.60	0.64	0.74	14.9
Carling	Beer	0.34	0.28	0.21	-25.5	1.11	1.03	0.98	-5.0
Carlsberg Pilsner	Beer	0.30	0.23	0.20	-13.5	0.67	0.58	0.58	0.5
Carlsberg Special Brew	Beer	0.04	0.05	0.06	7.7	0.09	0.08	0.08	9.9
Coors Light	Beer	0.09	0.09	0.12	23.9	0.16	0.19	0.19	0.2
Corona	Beer	0.14	0.16	0.17	6.8	0.13	0.14	0.16	11.5
Foster's	Beer	0.43	0.41	0.56	37.1	1.22	1.12	1.05	-6.9
Guinness Draught	Beer	0.10	0.13	0.12	-5.3	0.11	0.11	0.12	7.4
Heineken	Beer	0.05	0.08	0.09	17.6	0.14	0.15	0.19	30.4
Karpackie Super Mocne	Beer	0.01	0.08	0.02	-81.9	0.02	0.03	0.03	2.2

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Kronenbourg 1664	Beer	0.08	0.10	0.09	-12.5	0.33	0.33	0.31	-6.3
McEwan's Export Ale	Beer	0.13	0.10	0.12	19.9	0.01	0.00	0.00	-9.7
Peroni Nastro Azzurro	Beer	0.08	0.09	0.11	17.0	0.12	0.13	0.14	6.3
Red Stripe	Beer	0.07	0.07	0.08	5.9	0.08	0.09	0.11	19.1
San Miguel	Beer	0.05	0.06	0.06	-6.1	0.20	0.20	0.26	30.0
Stella Artois EU Import	Beer	0.09	0.05	0.00	-92.3	0.09	0.05	0.02	-57.8
Stella Artois	Beer	0.66	0.77	0.90	17.5	1.16	1.19	1.39	17.2
Tennent's	Beer	1.69	1.51	2.04	35.2	0.00	0.00	0.00	60.5
Tennent's Super	Beer	0.05	0.04	0.07	67.6	0.05	0.02	0.02	-5.4
Tyskie	Beer	0.11	0.14	0.11	-19.7	0.13	0.13	0.13	2.7
Echo Falls	Wine	0.13	0.12	0.10	-13.0	0.18	0.16	0.11	-27.3

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Hardy's Bin	Wine	0.09	0.10	0.11	16.2	0.07	0.08	0.08	7.5
I Heart	Wine	0.07	0.07	0.08	4.3	0.07	0.07	0.09	19.5
Isla Negra Seashore	Wine	0.10	0.10	0.09	-1.2	0.07	0.06	0.08	20.2
Bell's Original	Spirits	0.02	0.02	0.02	-17.7	0.03	0.02	0.02	-14.0
Captain Morgan's Spiced	Spirits	0.03	0.03	0.03	-8.5	0.01	0.02	0.02	17.1
Glen's	Spirits	0.43	0.40	0.37	-6.9	0.08	0.07	0.08	7.8
Gordon's	Spirits	0.03	0.03	0.03	0.6	0.02	0.03	0.03	14.0
High Commissioner	Spirits	0.03	0.02	0.02	-1.3	0.02	0.02	0.02	-12.8
Own-brand Vodka	Spirits	0.02	0.02	0.01	-15.1	0.02	0.03	0.03	25.9
Russian Standard	Spirits	0.02	0.03	0.02	-22.2	0.02	0.02	0.02	-11.7

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Smirnoff Red Label	Spirits	0.14	0.15	0.18	16.4	0.12	0.11	0.11	-0.2
The Famous Grouse	Spirits	0.04	0.04	0.04	-6.8	0.02	0.02	0.02	-3.1
Whyte And Mackay	Spirits	0.03	0.03	0.04	32.7	0.00	0.01	0.01	27.0
Frosty Jack's	Cider	0.48	0.51	0.06	-89.3	0.32	0.29	0.30	2.3
HCC Black	Cider	0.08	0.10	0.07	-33.8	0.01	0.01	0.02	34.3
HCC Black Pear	Cider	0.06	0.06	0.00	-94.0	0.00	0.00	0.00	-4.3
K Cider	Cider	0.13	0.30	0.40	37.0	0.12	0.33	0.35	5.1
Kopparberg Flavoured	Cider	0.12	0.13	0.17	29.7	0.12	0.13	0.15	17.1
Magners Original	Cider	0.16	0.39	0.22	-44.0	0.10	0.09	0.10	5.9
Omega White Cider	Cider	0.14	0.20	0.00	-98.5	0.20	0.23	0.27	14.3

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Own-brand Cider	Cider	0.11	0.09	0.05	-48.3	0.08	0.08	0.09	5.6
Strongbow Dark Fruit	Cider	0.29	0.40	0.57	42.5	0.25	0.28	0.32	13.5
Strongbow Original	Cider	1.06	0.90	0.88	-1.8	0.61	0.56	0.54	-3.8
White Ace	Cider	0.02	0.18	0.02	-90.8	0.07	0.07	0.16	130.0
Buckfast Tonic Wine	FW	0.46	0.53	0.74	40.4	0.00	0.00	0.00	-13.4
MD 20/20	FW	0.05	0.06	0.07	15.0	0.00	0.00	0.00	-38.3
Dragon Soop	RTD	0.13	0.18	0.28	55.5	0.00	0.00	0.00	10.4
WKD	RTD	0.08	0.11	0.12	5.6	0.07	0.06	0.07	9.2
Lambrini Original	Perry	0.12	0.13	0.10	-22.2	0.14	0.13	0.14	4.9

Note: EW = England & Wales; FW = Fortified wine. Percentage change is 2018–19 (post-MUP year) compared to 2017–18 (pre-MUP year).

3.8. Sales value

Using the NielsenIQ data, value is presented as the total value per adult (£) per year for all alcohol products, at a category level and at a brand level.

3.8.1. Total off-trade alcohol

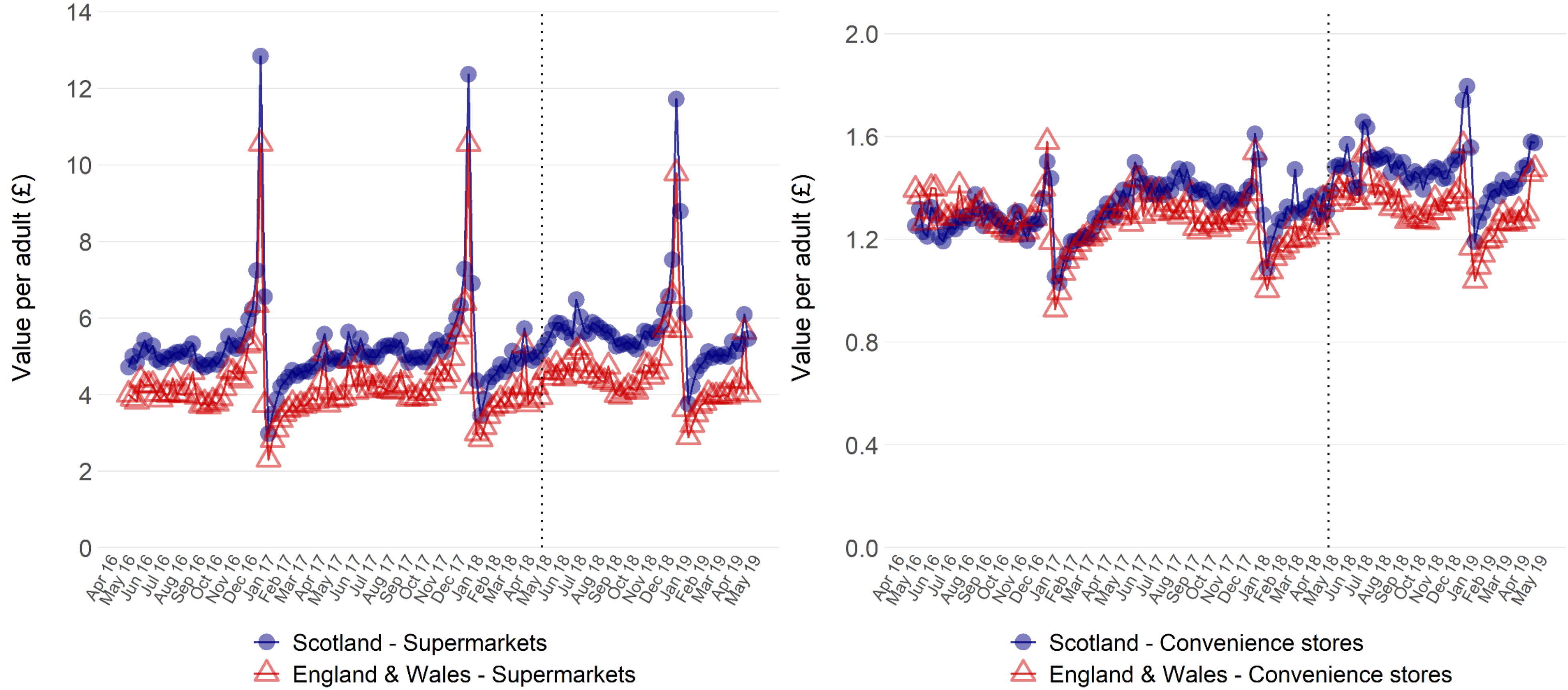
For total alcohol, the value of per-adult sales (£) in the off-trade increased +7.8% in the first year of MUP compared to the previous year, from £344.39 to £371.39 (Table 34, Figure 8). England & Wales, which saw lower values across the time series, saw a smaller increase than Scotland of +4.7%, from £291.40 in 2017–18 to £305.15 in 2018–19. These increases were similar in both the supermarket and convenience sectors in both countries (for example, Scotland saw +8.0% in supermarkets and +7.4% in convenience).

Table 34: Annual value per adult (£) sales in supermarkets and convenience stores, Scotland compared to England & Wales

Country and year	Year	Convenience stores	Supermarkets	Total coverage
Scotland	2016–17	65.58	266.94	332.52
Scotland	2017–18	71.21	273.18	344.39
Scotland	2018–19	76.46	294.93	371.39
EW	2016–17	65.90	217.15	283.05
EW	2017–18	66.28	225.12	291.40
EW	2018–19	68.99	236.16	305.15

Note: EW = England & Wales.

Figure 8: Weekly value per adult (£) in supermarkets and convenience stores, Scotland compared to England & Wales



Note: this pair of graphs uses different scales; the vertical dotted line represents the beginning of MUP on 1 May 2018.

3.8.2. Off-trade alcohol by drink category

Value per adult increased for most categories in Scotland in the first year after MUP was implemented (Table 35 to Table 37), with the largest increases seen in RTDs and fortified wine, although RTDs increased by a similar magnitude in England & Wales while fortified wine decreased. Beer (+13.0%) and wine (+4.7%) increased more in Scotland than in England & Wales (+8.0% and +0.3% respectively). Other categories tended to be very similar between the two countries, including cider which increased 4.5% in Scotland and 6.7% in England & Wales. Perry, however, decreased by 12.6% in Scotland in the first year of MUP implementation compared to the previous year, while value per adult increased slightly in England & Wales over the same time period.

In Scotland, some categories saw differential changes in value per adult by sector. The value of cider per adult sales increased +12.3% in supermarkets while decreasing -9.9% in convenience stores and perry decreased -21.2% in supermarkets while increasing +2.8% in convenience stores. The value of per-adult sales of fortified wine and RTDs, however, increased much more in the convenience sector (+33.8% and +35.6%) than in supermarkets (+3.5% and +18.8%), although the increase in supermarkets for RTDs was much higher than fortified wine. Beer and wine increased by similar amounts in both sectors, but spirits mainly increased in supermarkets while increasing by less than 1% in convenience stores.

Table 35: Annual value per adult (£) by drink category

Country	Year	Beer	Wine	Spirits	Cider	FW	RTD	Perry
Scotland	2016–17	74.89	106.09	112.83	21.17	10.16	6.18	1.19
Scotland	2017–18	77.50	109.07	116.92	21.76	10.93	7.05	1.17
Scotland	2018–19	87.58	114.19	123.81	22.74	13.26	8.79	1.02
EW	2016–17	74.68	104.92	74.37	18.70	4.78	4.35	1.25
EW	2017–18	76.66	106.55	78.97	18.82	4.70	4.47	1.24
EW	2018–19	82.81	106.91	84.28	20.07	4.36	5.45	1.26

Note: EW = England & Wales; FW = Fortified wine.

Table 36: Annual value per adult (£) in supermarkets, by drink category

Country	Year	Beer	Wine	Spirits	Cider	FW	RTD	Perry
Scotland	2016–17	59.15	91.52	92.05	14.37	4.68	4.41	0.77
Scotland	2017–18	60.21	93.43	95.59	14.13	4.50	4.57	0.75
Scotland	2018–19	67.94	98.00	102.45	15.86	4.65	5.42	0.59
EW	2016–17	52.89	84.37	59.53	12.15	4.27	3.23	0.71
EW	2017–18	54.70	86.13	63.78	12.25	4.19	3.33	0.73
EW	2018–19	59.36	86.42	68.54	13.15	3.89	4.04	0.75

Note: EW = England & Wales; FW = Fortified wine.

Table 37: Annual value per adult (£) in convenience stores by drink

Country	Year	Beer	Wine	Spirits	Cider	FW	RTD	Perry
Scotland	2016–17	15.75	14.58	20.79	6.80	5.47	1.77	0.42
Scotland	2017–18	17.29	15.64	21.33	7.63	6.43	2.48	0.42
Scotland	2018–19	19.64	16.19	21.36	6.87	8.60	3.36	0.43
EW	2016–17	21.79	20.55	14.84	6.56	0.51	1.11	0.54
EW	2017–18	21.96	20.42	15.18	6.56	0.50	1.13	0.51
EW	2018–19	23.46	20.49	15.74	6.92	0.47	1.41	0.51

Note: EW = England & Wales; FW = Fortified wine.

3.8.3. Off-trade alcohol by brand

Brand-level data are presented from page 112 for supermarkets (Table 38) and conveniences stores (Table 39).

3.8.3.1. Beer

Of the 15 beer brands featured in both the supermarkets and convenience sector samples, most increased in value of sales per adult in Scotland. Five brands, however, saw decreases – Carling in both sectors, and the others in the convenience sector only – Carlsberg Pilsner, Kronenbourg 1664, San Miguel, and Tyskie. Heineken saw the biggest increase (95.5% in supermarkets) and Carling saw the largest decrease (33.6%, again in supermarkets). While most of these 15 brands saw somewhat similar changes in England & Wales as in Scotland, some did not, such as Coors Light (much smaller increases in England & Wales convenience sector and decrease in supermarkets), Budweiser (almost twice as great an increase in Scottish convenience stores as in England & Wales), Carling (-33.6% decrease in Scottish supermarkets compared to -1.3% in England & Wales), and Tennent's (+21.2% in Scottish supermarkets compared to +225.5% in England and Wales (from 0.00 to 0.01)). However, where Carling tends to have much higher value per adult in England & Wales, the reverse is true for Tennent's.

Of the brands that featured only in the supermarket sample, two decreased in value per adult (Beck's Bier and Miller Genuine Draft) while the others increased (Brewdog Punk IPA, Bud Light and John Smith's). Changes were similar in both countries for Brewdog IPA and Beck's Bier, while Bud Light (+79.4% in Scotland compared to -1.6% in England & Wales), John Smith's (+3.1% in Scotland, -1.5% in England & Wales) and Miller Genuine Draft (-50.1% in Scotland and -5.0% in England & Wales) were different. Of the remaining brands from the convenience sector, two increased in value in both countries (Carlsberg Special Brew and Red Stripe), one decreased in both (Stella Artois EU Import) one decreased in Scotland while increasing in England & Wales (Karpackie Super Mocne) and one increased in Scotland while decreasing in England & Wales (Tennent's Super).

3.8.3.2. Wine

For the 15 wine brands from the supermarket and convenience samples, the changes in value per adult ranged from -15% to +20.6%. Six brands decreased in value per adult in Scotland. Of these, only Campo Viejo (supermarkets) increased in England & Wales. Out of the remaining nine brands that increased in Scotland, only Prosecco decreased in England & Wales. The difference between the countries tended to be within 10 percentage points for the supermarket sample (excepting the own-brand Soave outlier) but were greater in the convenience sector in England & Wales except for I Heart, which increased by a lower amount in Scotland.

3.8.3.3. Spirits

Of the nine spirits brands featured in both the supermarkets and convenience samples in Scotland, there were decreases in the value per adult of sales for four brands in both supermarkets and convenience stores (Bell's Original, Captain Morgan Spiced, Russian Standard, and own-brand vodka), while only The Famous Grouse decreased in one sector (convenience stores) while increasing in another. Of the three brands that featured only in the supermarkets sample, Bacardi and Baileys decreased while Jack Daniel's increased. The brands that saw the largest decreases (own-brand spirits in supermarkets and Bell's and Russian Standard across sectors) did not see similar decreases in England & Wales. The largest relative increase was in Whyte and Mackay in convenience stores, which was almost triple the next highest increase in Gordon's in supermarkets, although similar increases were observed in England & Wales.

3.8.3.4. Cider

Of the five brands common to both the supermarket and convenience samples, (Kopparberg Flavoured, Magners Original, own-brand, Strongbow Dark Fruit, and Strongbow Original) all increased in value in both sectors in Scotland except for Magners Original in convenience stores and own-brand cider in both sectors. The largest increases were in Strongbow Dark Fruit, which increased 73.8% in supermarkets and 45.6% in convenience store, although there were also large increases in England & Wales. Kopparberg Flavoured and Strongbow Original also saw large increases in convenience stores as well as Magners Original in supermarkets. Five of the six strong cider brands specific to the convenience sample saw decreases of between 66% and 98% (Frosty Jack's, HCC Black, HCC Black Pear, Omega White Cider, and White Ace). K Cider, however, saw an increase of 59.1%. Changes in England & Wales were generally dissimilar for strong ciders.

3.8.3.5. Fortified wine

In convenience stores Buckfast Tonic Wine increased in value per adult by 36.1% in the first year of MUP while MD 20/20 increased by 23.5%. At the same time, both brands saw value decline England & Wales (-15.1% and -39.9% respectively).

3.8.3.6. Ready-to-drink beverages (RTDs)

In Scotland, value per adult for Dragon Soop and WKD in convenience stores both increased, although Dragon Soop to a much greater degree (+55.5% compared to +5.8%). In England & Wales, Dragon Soop increased by 10.4% while WKD saw a larger increase than in Scotland of +6.7%.

3.8.3.7. Perry

Lambrini Original saw an increase of +2.4% value per adult in convenience stores in Scotland compared to +5.4% in England & Wales.

Table 38: Average annual value per adult (£) and percentage change in the post-MUP year for top 50 brands in the supermarket sector, Scotland compared to England & Wales

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
Beck's Bier	Beer	0.79	0.75	0.64	-14.1	1.09	1.01	0.79	-22.2
Brewdog Punk IPA	Beer	0.64	0.95	1.04	9.5	0.42	0.64	0.71	10.0
Bud Light	Beer	0.12	0.73	1.31	79.4	0.09	0.55	0.54	-1.6
Budweiser	Beer	7.92	7.21	7.23	0.3	5.10	5.26	5.76	9.5
Carling	Beer	1.66	1.77	1.17	-33.6	4.17	4.43	4.38	-1.3
Carlsberg Pilsner	Beer	0.64	0.45	0.53	17.6	1.21	0.92	1.03	12.2
Coors Light	Beer	1.68	1.70	1.77	4.3	1.29	1.46	1.32	-9.2
Corona	Beer	2.33	2.45	3.32	35.3	1.92	2.07	2.37	14.6
Foster's	Beer	2.23	1.97	2.12	7.2	5.10	4.52	4.90	8.3
Guinness Draught	Beer	1.10	1.07	1.15	7.7	1.04	1.02	1.11	8.5
Heineken	Beer	0.88	0.81	1.57	95.5	0.91	0.84	1.66	96.9

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
John Smith's Extra Smooth	Beer	0.75	0.71	0.73	3.1	1.11	1.04	1.02	-1.5
Kronen-bourg 1664	Beer	1.08	0.98	1.02	4.5	1.83	1.70	1.88	10.4
McEwan's Export Ale	Beer	1.09	1.04	1.16	11.2	0.09	0.09	0.09	7.2
Miller Genuine Draft	Beer	1.61	1.16	0.58	-50.1	0.00	0.00	0.00	-5.0
Peroni Nastro Azzurro	Beer	1.96	2.05	2.22	8.5	1.83	1.93	2.08	7.8
San Miguel	Beer	0.95	1.17	1.33	13.3	1.48	1.74	2.00	14.8
Stella Artois	Beer	5.91	5.93	6.41	8.1	6.56	6.88	7.32	6.4
Tennent's	Beer	8.74	8.79	10.70	21.8	0.00	0.00	0.01	225.5
Tyskie	Beer	0.67	0.61	0.58	-5.6	0.25	0.30	0.26	-13.0

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
Campo Viejo	Wine	1.14	1.12	1.14	1.9	1.09	1.09	1.01	-6.6
Casillero Del Diablo Reserva	Wine	0.79	0.95	0.90	-4.9	0.60	0.68	0.63	-7.0
Plaza Centro	Wine	1.54	1.73	1.47	-15.1	1.40	1.42	1.35	-5.1
Own-brand Chardon-nay	Wine	1.63	1.89	1.80	-4.7	1.25	1.40	1.39	-0.9
Own-brand Pinot Grigio	Wine	6.03	6.96	6.66	-4.2	5.19	6.31	5.95	-5.7
Own-brand Sauvignon Blanc	Wine	2.60	3.02	3.25	7.8	2.18	2.47	2.56	3.6
Own-brand Soave	Wine	0.12	0.13	0.33	157.0	0.17	0.19	0.25	34.1
Own-brand Sparkling Wine, Italy	Wine	5.85	6.55	6.88	5.0	5.60	6.34	6.46	1.9

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
Own-brand Sparkling Wine, Spain	Wine	2.10	2.25	2.17	-3.1	2.13	2.18	2.01	-7.5
Prosecco	Wine	1.04	1.24	1.26	1.8	0.69	0.90	0.85	-6.1
Villa Maria Private Bin	Wine	1.13	1.39	1.19	-13.9	0.99	1.15	0.98	-14.9
Bacardi Carta Blanca	Spirits	2.83	2.62	2.52	-4.0	1.60	1.53	1.50	-2.2
Baileys Original	Spirits	1.39	1.50	1.50	0.0	1.78	1.96	1.91	-2.3
Bell's Original	Spirits	2.75	2.48	2.07	-16.2	2.21	2.11	1.94	-7.7
Captain Morgan Spiced	Spirits	2.76	2.72	2.52	-7.1	1.24	1.29	1.32	2.3
Glen's	Spirits	4.77	3.97	4.26	7.3	0.45	0.31	0.28	-11.7
Gordon's	Spirits	4.42	4.72	5.37	13.7	2.75	3.08	3.43	11.2

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
Jack Daniel's Tennessee Whiskey	Spirits	1.81	1.84	2.01	9.5	2.34	2.49	2.51	1.1
Own-brand Blended Scotch	Spirits	2.36	2.25	1.74	-22.8	1.93	1.93	1.89	-2.3
Own-brand Gin	Spirits	1.76	1.97	1.77	-10.2	1.46	1.74	1.88	8.1
Own-brand Vodka	Spirits	3.90	4.29	3.04	-29.1	3.61	3.83	3.88	1.5
Russian Standard	Spirits	3.00	3.02	2.84	-6.0	1.89	1.92	2.01	4.6
Smirnoff Red Label	Spirits	12.88	12.78	13.88	8.6	5.18	5.02	5.03	0.3
The Famous Grouse	Spirits	5.60	5.77	6.06	5.0	3.23	3.29	3.26	-1.1
Whyte And Mackay	Spirits	3.42	3.16	3.18	0.5	1.12	1.01	0.84	-16.5

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, change (%)
Kopparberg Flavoured	Cider	3.18	2.94	3.04	3.5	2.06	2.10	2.18	4.1
Magners Original	Cider	1.16	1.17	1.47	25.7	0.67	0.63	0.65	3.0
Own-brand Cider	Cider	0.64	0.69	0.56	-18.7	0.78	0.90	1.01	12.1
Strongbow Dark Fruit	Cider	1.48	1.58	2.75	73.8	1.03	1.05	1.56	48.9
Strongbow Original	Cider	2.95	2.55	2.69	5.5	2.07	1.82	1.89	3.4

Note: EW = England & Wales. Percentage change is 2018–19 (post-MUP year) compared to 2017–18 (pre-MUP year).

Table 39: Average annual value per adult (£) and percentage change in the post-MUP year for top 50 brands in the convenience sector, Scotland compared to England & Wales

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Budweiser	Beer	2.31	2.42	3.10	28.1	1.65	1.81	2.08	15.2
Carling	Beer	0.66	0.56	0.46	-16.7	2.18	2.08	2.04	-2.2
Carlsberg Pilsner	Beer	0.61	0.50	0.45	-10.7	1.34	1.21	1.22	1.0
Corona	Beer	0.51	0.61	0.66	7.2	0.48	0.52	0.61	16.5
Foster's	Beer	0.95	0.89	1.27	41.6	2.58	2.46	2.35	-4.4
Stella Artois	Beer	1.77	2.09	2.50	19.8	2.97	3.17	3.71	17.1
Tennent's	Beer	3.52	3.29	4.68	42.4	0.00	0.00	0.00	70.1
Echo Falls	Wine	0.96	0.90	0.80	-11.4	1.31	1.16	0.87	-25.0
Hardys Bin	Wine	0.58	0.70	0.85	20.6	0.45	0.54	0.60	11.8
I Heart	Wine	0.50	0.60	0.63	6.0	0.50	0.57	0.69	20.5
Isla Negra Seashore	Wine	0.68	0.71	0.72	0.4	0.47	0.48	0.58	20.2
Bell's Original	Spirits	0.49	0.50	0.41	-17.9	0.61	0.60	0.52	-12.0

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Captain Morgan Spiced	Spirits	0.54	0.61	0.57	-6.4	0.26	0.34	0.41	18.9
Glen's	Spirits	7.75	7.46	7.36	-1.4	1.54	1.46	1.58	8.3
Gordon's	Spirits	0.56	0.66	0.67	1.5	0.46	0.55	0.64	15.4
High Commis-sioner	Spirits	0.56	0.50	0.52	2.7	0.50	0.41	0.37	-11.6
Russian Standard	Spirits	0.44	0.57	0.46	-19.2	0.39	0.47	0.43	-8.5
Smirnoff Red Label	Spirits	2.91	3.26	3.81	16.8	2.49	2.48	2.53	2.1
The Famous Grouse	Spirits	1.08	0.97	0.89	-8.1	0.48	0.52	0.52	-0.4
Whyte And Mackay	Spirits	0.68	0.62	0.82	32.1	0.08	0.11	0.14	28.2
Kopparberg Flavoured	Cider	0.55	0.58	0.73	25.6	0.52	0.55	0.65	17.4

Brand	Drink category	Scotland, 2016–17	Scotland, 2017–18	Scotland, 2018–19	Scotland, change (%)	EW, 2016–17	EW, 2017–18	EW, 2018–19	EW, % change
Magners Original	Cider	0.38	0.90	0.55	-39.0	0.23	0.21	0.23	10.1
Strongbow Dark Fruit	Cider	0.80	1.04	1.51	45.6	0.68	0.78	0.91	15.8
Strongbow Original	Cider	1.97	1.73	2.13	23.6	1.21	1.15	1.14	-1.3
Buckfast Tonic Wine	FW	4.53	5.33	7.25	36.1	0.04	0.05	0.04	-15.1
Dragon Soop	RTD	0.79	1.09	1.69	55.5	0.02	0.02	0.02	10.4
MD 20/20	RTD	0.47	0.62	0.77	23.5	0.01	0.01	0.00	-39.9
Lambrini Original	Perry	0.27	0.31	0.31	2.4	0.32	0.32	0.33	5.4

Note: EW = England & Wales; FW = Fortified wine. Percentage change is 2018–19 (post-MUP year) compared to 2017–18 (pre-MUP year). Twenty-two brands were excluded (see Methods, Strengths and Limitations).

3.9. Brand-level case studies

Using the NielsenIQ data, one brand was selected from each category (beer, wine, spirits, cider, fortified wine, RTDs and perry) as well as some sub-categories that had the lowest-priced brands prior to MUP (super-strength beer, strong cider, vodka and blended whisky). The selected brand from each category had the highest natural volume sales per adult in the year before MUP (2017–18) in Scotland. If a brand appeared in both the convenience store and supermarket samples then these data were combined, otherwise data were specific to the sector sample in which the brand was identified. For example, data presented below for Buckfast Tonic Wine were for convenience stores only, own-brand Pinot Grigio from supermarkets only, and Tennent's for both. The case study brands are presented in Table 40. Note that there can be a large difference in the quantity of sales between these brands (for example, across the whole time series, Tennent's, the top selling beer in Scotland, sold around three times as much as Strongbow Original, the top selling regular cider).

Table 40: Case studies: Brands with the highest natural volume sales per adult in selected categories

Brand	Sector	Category
Tennent's	Both	Beer
Karpackie Super Mocne	Convenience stores	Super-strength beer
Own-brand Pinot Grigio*	Supermarkets	Wine
Smirnoff Red Label	Both	Spirits and vodka
Bell's Original	Both	Blended whisky
Strongbow Original	Both	Cider
Frosty Jack's	Convenience stores	Strong cider
Buckfast Tonic Wine	Convenience stores	Fortified wine
Dragon Soop	Convenience stores	RTDs
Lambrini Original	Convenience stores	Perry

* Given the multiplicity of wine brands and products and the comparatively high sales of own-brand wines, supermarket own-brand Pinot Grigio was selected to represent the wine category despite our not being able to determine if the data represented one brand.

Data are presented in Table 41 on percentage change between 2017–18 and the first year of MUP in Scotland for each of the case study brands for several outcomes: price per unit; average container size in single packs; average container size in multipacks; natural volume sales per adult (L); and sales value per adult (£). Trends were largely in line with the analyses above. The case-study brands that were priced above £0.50 in the months prior to MUP saw smaller increases in price than those that tended to be priced below the price floor (Frosty Jack's, Karpackie Super Mocne, Lambrini Original and Strongbow Original, Figure 10).

Changes to container sizes were mixed. Karpackie Super Mocne did not change (selling only in one container size both before and after MUP was implemented). Frosty Jack's container sizes reduced for single packs but continued selling in only one container size in multipacks. Lambrini reduced slightly for single packs. Lambrini and Frosty Jack's, alongside own-brand Pinot Grigio and Bell's Original, also saw large reductions to the proportion sold in the largest containers (Figure 11). Strongbow Original saw average container sizes decrease in convenience stores for both single and multipacks, while in supermarkets the average container size of single and multipacks both increased. The relatively high increase in single packs in supermarkets was due to 5L containers. This was also observed for Tennent's, although both Strongbow Original and Tennent's mainly sold in multipacks (only 3% of Tennent's was sold in single packs). For both Strongbow Original and Tennent's there was also a decline in the proportion sold in the largest multipacks of greater than 4,000ml in total, with the proportion halving for Strongbow Original and dropping by a third for Tennent's (Figure 12).

Small changes in average container sizes could mask underlying trends. For example, Lambrini Original reduced in average container size by 2.2% but 1.25L containers accounted for only a small proportion in 2017–18 compared to almost half in the first year of MUP. In the case of Frosty Jack's, the large overall decline also contributed to masking underlying trends. For single pack Frosty Jack's in the convenience sector, for example, the larger container sizes declined much more than the smaller: -97.4% for 3L; -91.9% for 2L; -62.0% for 1L; and -29.1% for 500ml. A new container size of 2.5L was introduced in Scotland in the first year of MUP but came to account for less than one percent of natural volume sales.

Tennent's also saw a large decline in a multipack with 8,800ml (20x440ml) which accounted for 39.4% of all Tennent's in the year before MUP but only 0.2% during the first year of MUP. However, this reduction appeared to be a displacement into other packs – natural volume Tennent's grew from 6.94L per adult in 2017–18 to 7.22L in the first year after MUP was implemented and saw the 6,600ml pack (15x440ml) grow from 9.2% to 34.4% the following year. Similarly, Strongbow Original saw a large decline in its 8,800ml pack (20x440ml) from 33.8% to 0.01%, with large increases in 1,760ml (4x440ml, from 5.9% to 18.8%) and 2,272ml (4x568ml from 5.5% to 17.0%). Unlike Tennent's, however, Strongbow Original declined markedly in terms of natural volume per adult. Note that Strongbow Dark Fruit increased such that the total for Strongbow Original and Strongbow Dark Fruit combined increased from 3.61L per adult natural volume in the year before MUP was implemented to 3.68L, although this led to a very slight reduction in pure alcohol volume due to the lower ABV of Strongbow Dark Fruit.

The only case-study brands to increase in sales volume were in convenience stores: Tennent's, Smirnoff Red Label, Buckfast Tonic Wine, and Dragon Soop. Buckfast Tonic Wine reduced in price, convenience store Smirnoff Red Label and Dragon Soop increased less than the average compared to total alcohol, while convenience store Tennent's increased in price by 10.5%. However, the large changes to convenience store Tennent's container sizes may have been a mechanism whereby the effect of price increase on sales was mitigated, with a large increase in the average size of single packs and a decline in the proportion sold in the largest multipacks and thus the average size of multipacks.

The brands with large price increases, such as Frosty Jack's, declined in sales volume (natural volume per adult) and sales value (pounds Sterling per adult), while those with lower price increases, such as Bell's Original, saw much smaller declines in sales volume and sales value (Figure 13). Others, such as own-brand Pinot Grigio, declined in sales volume but increased in sales value. Buckfast Tonic Wine, which saw a small decline in price in the first year after MUP was implemented, saw large increases in both sales volume and value. However, most of the case-study brands increased in sales value, with the largest increases in Dragon Soop, Tennent's, Buckfast Tonic Wine, convenience store Strongbow Original, and Smirnoff Red Label. Of these, convenience store Strongbow Original was the only one with a large price increase, as well as a reduction in sales volume. However, the brand also saw large decreases in the average volume of both single pack and multipack containers, perhaps suggesting that smaller containers were a mechanism for offsetting the price increase and reduced sales volume.

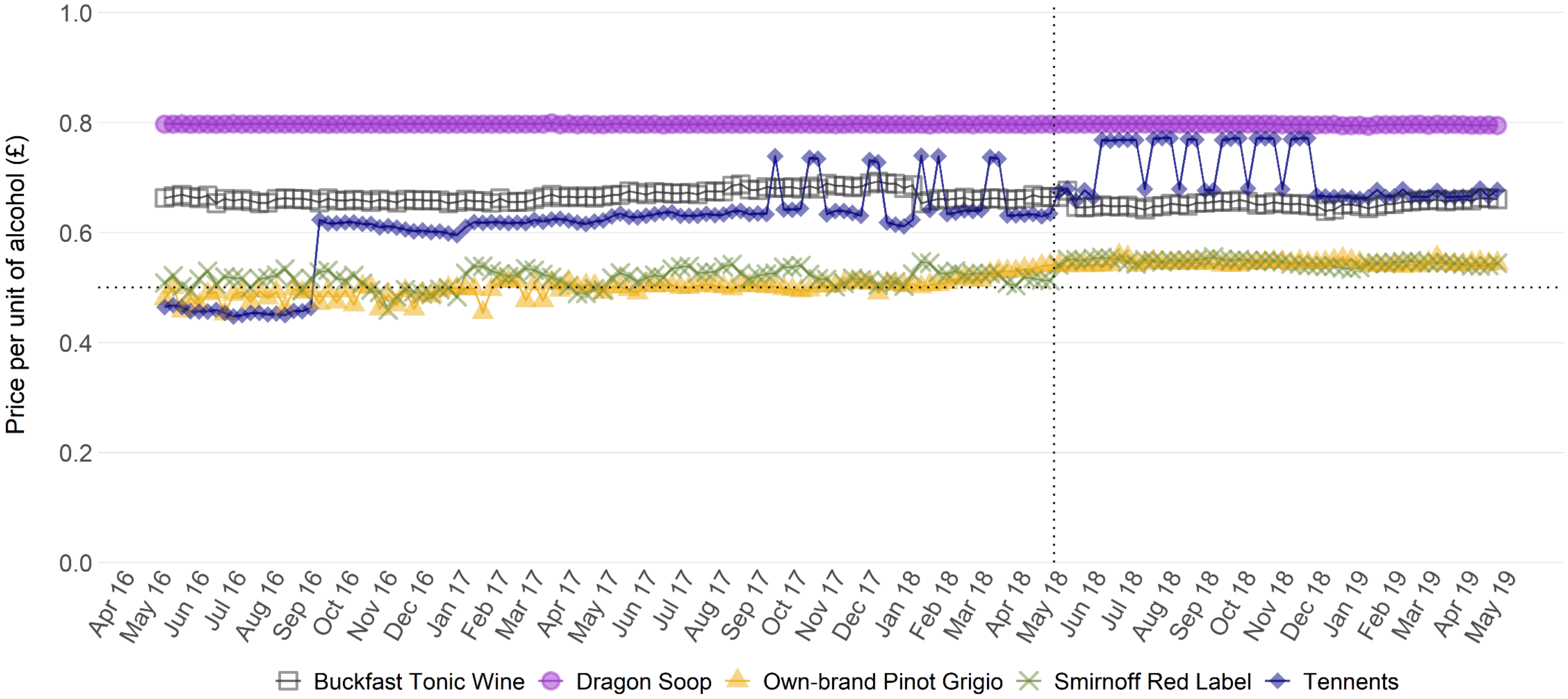
Table 41: Percentage change between 2017–18 and 2018–19 for case study brands, by sectors in Scotland

Brand	Sector	Price per unit	Average container size single	Average container size multipack	Natural sales volume per adult	Sales value per adult
Tennent's	Supermarkets	8.0	201.5	-11.0	-4.5	21.8
Tennent's	Convenience	10.5	98.3	-9.1	35.2	42.4
Karpackie Super Mocne*	Convenience	34.9	0.0	N/A	-81.9	-75.0
Own-brand Pinot Grigio	Supermarkets	7.1	-18.0	N/A	-10.7	-4.2
Smirnoff Red Label	Supermarkets	9.5	-5.4	N/A	-2.1	8.6
Smirnoff Red Label	Convenience	0.4	6.4	N/A	16.4	16.8
Bell's Original	Supermarkets	15.4	-2.7	N/A	-28.3	-16.2
Bell's Original	Convenience	-0.5	9.4	N/A	-17.7	-17.9
Strongbow Original	Supermarkets	59.9	106.4	5.0	-34.4	5.5
Strongbow Original	Convenience	25.9	-21.4	-14.5	-1.8	23.6

Frosty Jack's*	Convenience	112.2	-3.5	0.0	-89.3	-77.8
Buckfast Tonic Wine	Convenience	-3.1	-1.7	N/A	40.4	36.1
Dragon Soop	Convenience	<0.0	0.0	N/A	55.5	55.5
Lambrini Original	Convenience	49.2	-2.2	N/A	-22.2	2.4

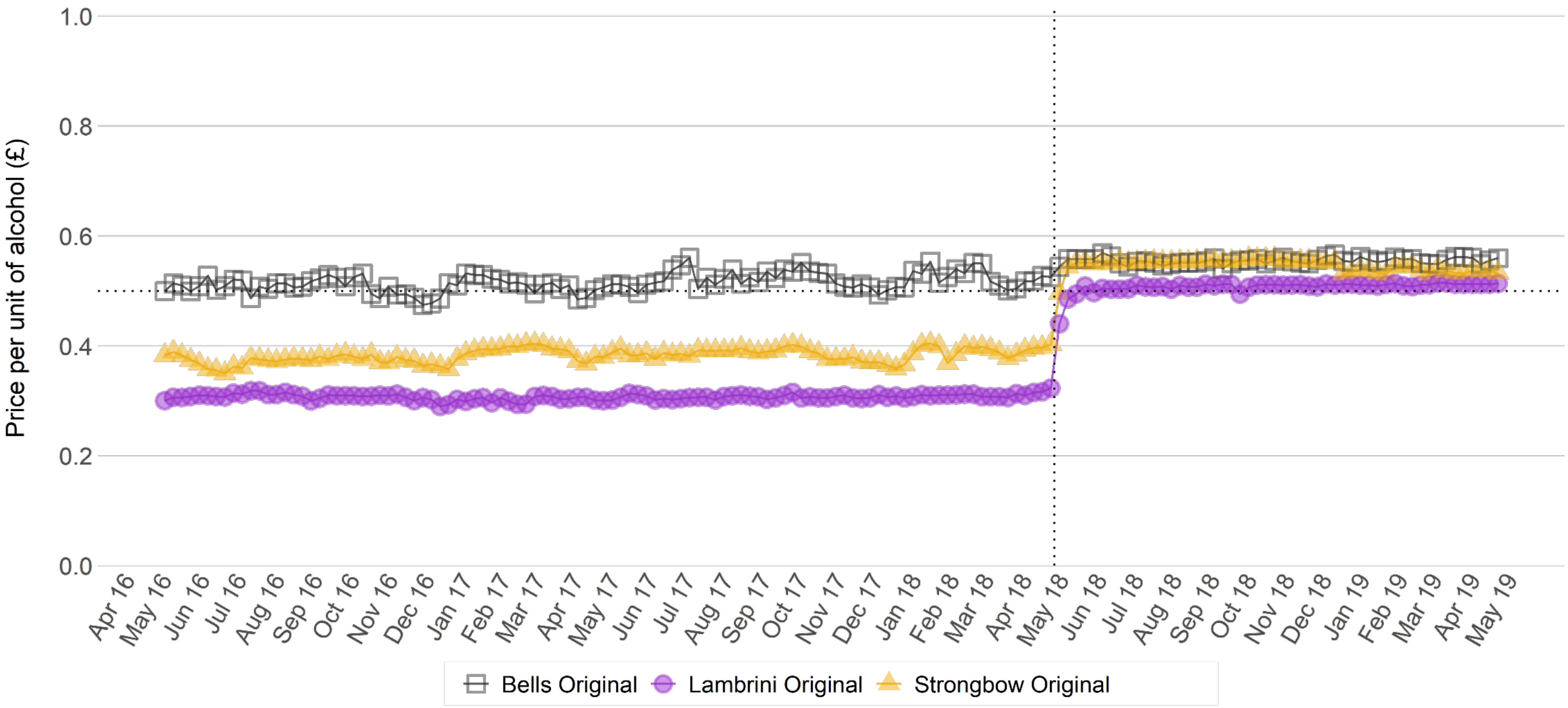
*The price and value data are not presented elsewhere for these brands. See the Methods and Strengths and Limitations sections for more detail.

Figure 9: Average price per unit of alcohol for case study brands usually priced close to or above £0.50 prior to MUP, Scotland



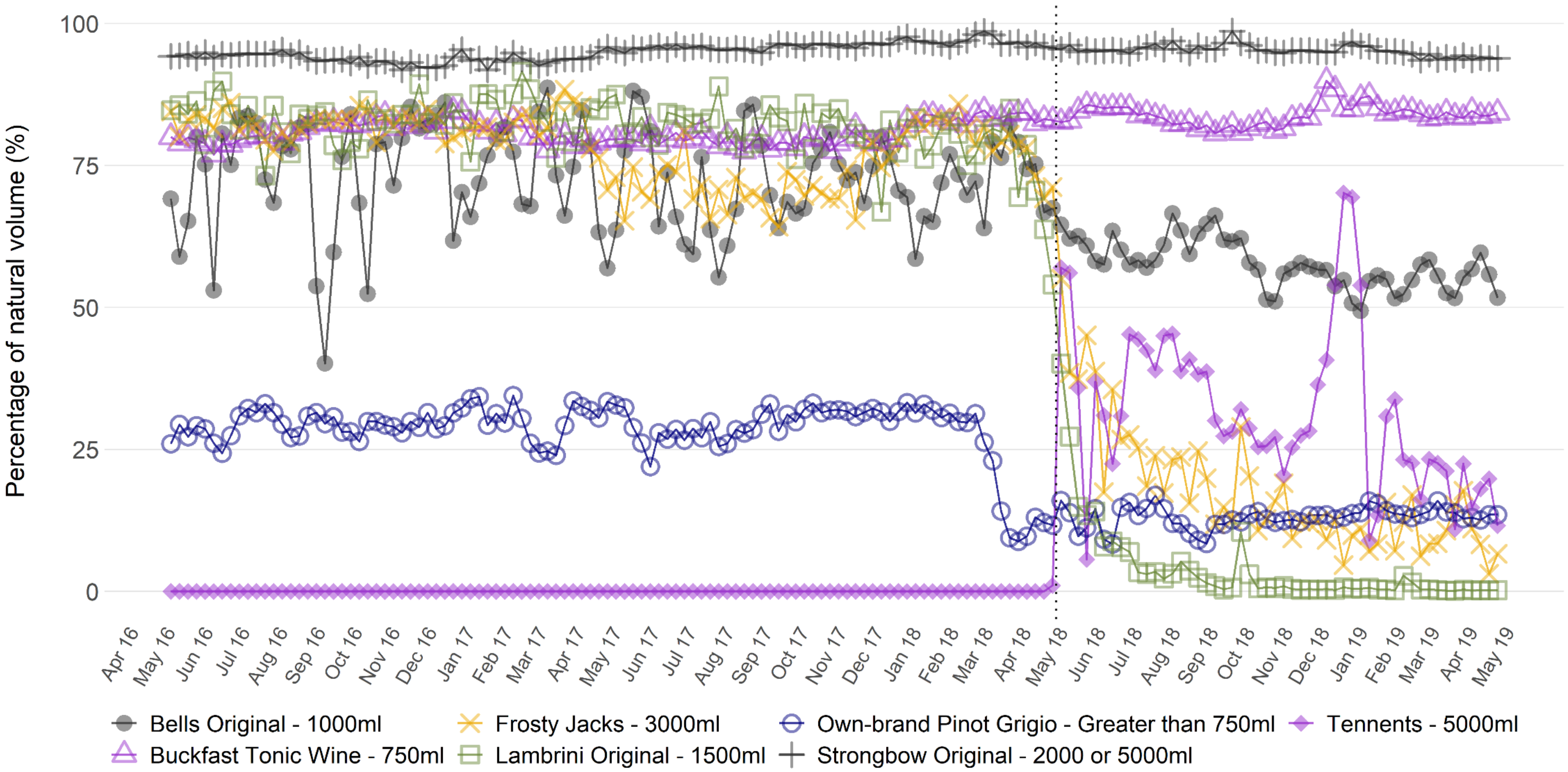
Note: the vertical dotted line represents the beginning of MUP on 1 May 2018; the horizontal dotted line represents the price floor of £0.50 per unit of alcohol.

Figure 10: Average price per unit of alcohol for case study brands priced close to or below £0.50 prior to MUP, Scotland



Note: the vertical dotted line represents the beginning of MUP on 1 May 2018; the horizontal dotted line represents the price floor of £0.50 per unit of alcohol.

Figure 11: Percentage of single pack natural volume in the largest container sizes, Scotland



Note: the vertical dotted line represents the beginning of MUP on 1 May 2018.

Figure 12: Percentage of natural volume in multipacks in Strongbow Original and Tennent's, Scotland

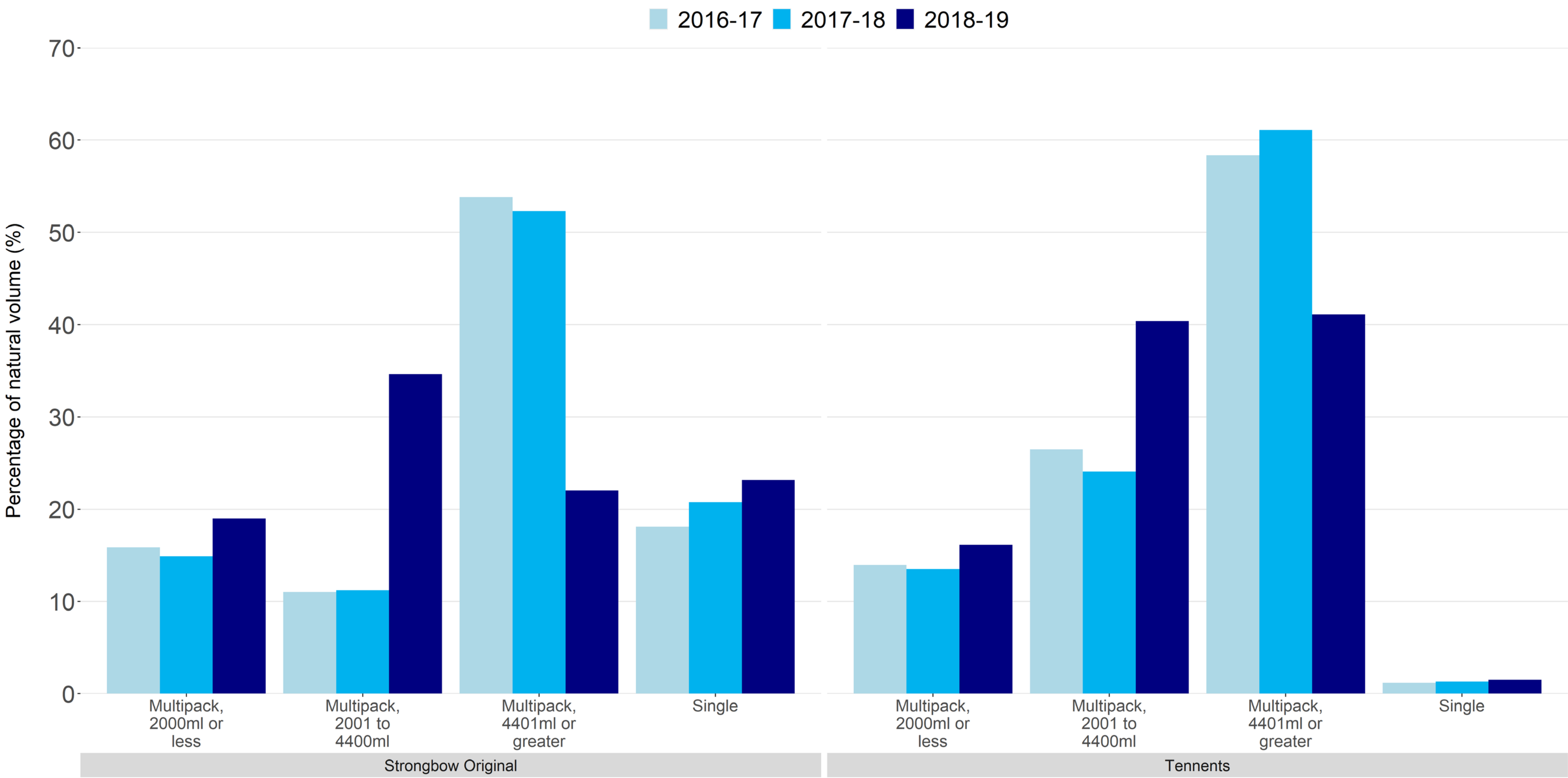
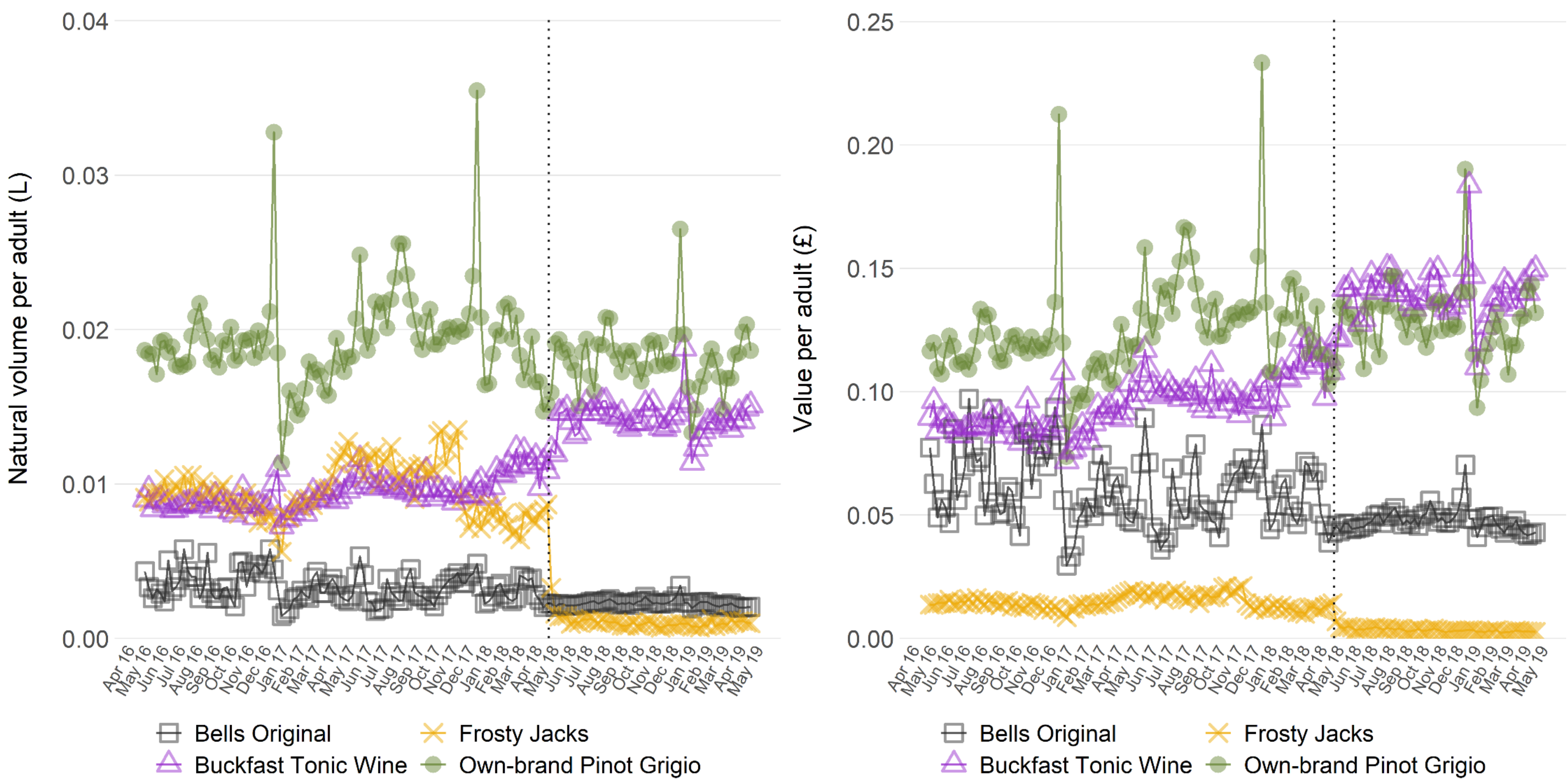


Figure 13: Changes to natural volume per adult sales (L) and value per adult sales (£), Scotland



Note: this pair of graphs use different scales; the vertical dotted line represents the beginning of MUP on 1 May 2018.

4. Discussion

4.1. Principal findings

Research question 1: How did the price (pence per unit and price per litre) of alcohol products sold in the retail and wholesale sectors change in Scotland after the implementation of MUP?

- Overall, average prices (per unit of alcohol and per litre natural volume) increased in the first year of MUP, from £0.60 per unit of alcohol to £0.66 (+10.0%). This was greater than the price increase in England & Wales (+1.7% from £0.60 to £0.61 per unit) and between the two previous years in Scotland (+3.4% from £0.58 to £0.60 per unit).

- Price increases in supermarkets (+17.9% from £0.56 to £0.66 per unit) were greater than in convenience stores (+6.3% from £0,63 to £0.67 per unit). The average price per unit of alcohol sold in supermarkets and convenience stores was much more similar in Scotland following the implementation of MUP than before implementation, or in England & Wales.

- The types of alcoholic drink products with the lowest price per unit of alcohol before MUP saw the greatest increases. This particularly affected the cider (+25.6%) and perry (+50.0%) categories as well as own-brand spirits in supermarkets, such as own-brand vodka (+18.5%), gin (+16.1%), and blended whisky (+12.8%).

- For Aldi and Lidl, the average price per unit for cider and spirits increased (by 28.2% and 18.6% respectively) while it remained broadly similar for beer. The average price per unit of alcohol for both ciders and spirits prior to MUP being implemented was lower than £0.50 per unit of alcohol, but not for beers.

- Price changes in the wholesale sample varied compared to the convenience store sample, including price decreases in wholesale for wine and spirits, but increases in the convenience sector, and price increases for fortified wine in wholesale but price decreases in convenience stores. However, it is unclear to what extent the differences are due to the relatively low coverage of the wholesale data.

Research question 2: How did the range of alcohol products (container size, multipacks, discontinuation or introduction of products, ABV) change in Scotland following the implementation of MUP?

- There were some changes to the size of containers. Most notably a large reduction (-61.3%) in the amount of cider sold in container sizes of 1,000ml or greater, in the amount of beer and cider sold in the largest multipacks, and a reduction (-18.9%) for spirits in 1,000ml containers that coincided with an increase in 700ml containers (+13.9%).

- There were reduced sales in larger multipacks with 13 or more constituent items for beer (-34.3% and a drop in share from 29.2% to 19.0%) and cider (-68.4% and a drop in share from 12.9% to 4.9%). Conversely, there were increased sales in smaller multipacks for beer (+17.3% overall) and cider (+14% overall). The proportion sold in multipacks was largely stable for beer and went up for cider (largely due to the steep decline in single packs over 1,000ml).

- There was limited evidence of containers being discontinued or introduced as a result of MUP. Out of the top 50 brands in convenience stores and supermarkets, more containers were introduced in 2017–18 than in the first year of MUP and more containers were discontinued in 2017–18 than in the first year of MUP. However, two products also saw a product introduced that came to represent a substantial proportion of sales post MUP implementation.

- ABV decreased for 2.9% of products and increased for 1.5%; there was limited evidence that the observed changes to ABV were attributable to the implementation of MUP.

Research question 3: How did the total volume and value of sales change in Scotland following the implementation of MUP?

- Natural volume sales declined 2.4%, with larger declines associated with larger price increases.

- Products that saw larger price increases, such as some ciders, perries and own-brand spirits in supermarkets, tended to see larger reductions in sales. The cider category reduced 7.0% overall, with some strong ciders seeing reductions in convenience stores of over 90%, and the perry category reduced by 40.0% overall. There were also large reductions for supermarket own-brand blended whisky (-31.6%), gin (-22.7%) and vodka (-40.1%).

- Overall, the impact of MUP on the sales volume of beer, wines and spirits was small, with the exception of larger declines in own-brand spirits and some other beers and spirits that were priced below £0.50 per unit prior to MUP.

- RTDs (+21.0%) increased in sales volume and were the category with the smallest increase in price. Fortified wine (+18.0%) also increased in sales volume and, while the category increased in price overall, it was the only category to see a price decrease in a specific sector (convenience stores).

- Despite the 2.4% decline in natural sales volume overall, the monetary value of sales increased by 7.8% in the first year of MUP – more than in England & Wales or than between the previous two years in Scotland, indicating that the increase in price more than offset the decline in sales volume.

4.2. Strengths and limitations

The primary strength of this study is in the use of electronic point of sale data from most major supermarkets and a representative sample of smaller convenience stores and independents. These data provide a detailed picture of weekly trends in key outcomes at various levels of aggregation. The data allow us to compare the outcomes in the first year of MUP implementation to the two prior years in Scotland, and to England & Wales where MUP was not implemented. This provides greater confidence that any observed changes in the outcome measures are as a result of the implementation of MUP in Scotland, rather than some other factor.

NielsenIQ does not include data on sales through Aldi and Lidl. While we were able to obtain some data on Aldi and Lidl from different sources, these were not as comprehensive, meaning that an important source of alcohol sales is missing from the data. Further, category-level ABVs were used to calculate pure alcohol volume (required when estimating price per unit of alcohol). However, while this may introduce a degree of inaccuracy, this is likely to be small.[12] ABVs for brand-level products were also averages based on data from Knowledge Gaps and online research. This is likely to introduce inaccuracy in the price data for brands with greater diversity in product recipes, such as wine brands that produce different types of wine (such as Pinot Grigio, Merlot, etc.). We were also unable to inspect introductions and discontinuations of products at a category level due to aggregation; instead we were restricted to the brand-level samples, which only covered the top 50 brands in supermarkets and the top 50 brands in convenience stores.

A further issue is how retail practice may impact on electronic sales records due to the potential for manual override of barcodes during till operation. There are several ways in which this could be problematic, and while most brands will either not be affected or only affected minimally, others may be affected in more than one way. Multipack splits, which occur when retailers split a multipack into its individual items and sell them, can result in lower prices in sales records that do not reflect actual in-store sales. Because the barcode on the individual item can be the same as the multipack, this can misrepresent the number of sales as equalling the number of split containers, rather than the one multipack. Thus a four-pack of 500ml, when split, can be misrepresented as four multipacks rather than four individual items (i.e. 16 individual tins being sold for the price of four, or 8 litres for the price of 2 litres). There may also be instances of barcodes being incorrect on the retailer end, potentially due to a lag between changes being made to barcodes (by the producer/wholesaler) and barcodes being updated on retailer systems. Furthermore, human error during till operation can affect sales data.

A final issue with the NielsenIQ data, which can interact with retail practice, is inaccuracy when there are lower numbers of sales in convenience stores. This relates to challenges with sampling methods that are common in quantitative data analysis (e.g. sample size). For the current study, this was especially problematic for some strong ciders and beers in the convenience store sector in the first year of MUP in Scotland (during which these brands tended to see large price increases and large reductions in sales volumes). This meant that we could not present granular price or value data for some of the products that many commentators expected to be the most affected by the policy under study. However, while these data were not reliable at a granular level, they were sufficient for discussing overall trends (i.e. large price increases in strong ciders in general leading to large reductions in sales in general). This is for several reasons, including that the reduction in sales for such products has been broadly reported elsewhere[13,14,15,16,17,18] and indeed that such a consequence (i.e. inaccuracy related to lower sales) is in keeping with expectations on how MUP was likely to impact on products in the off-trade.

The SalesOut wholesale data, while being the best available for analysis of the wholesale sector, cover only around half of the sector, meaning they were not likely to be representative of the wholesale sector overall. This may have been observed in the data with possible over-representation of low-alcohol beers and premium spirits, resulting in prices that were counter-intuitively higher in wholesale than in retail.

The ABV data used to investigate changes in ABV as a result of MUP did not cover England & Wales and so were insufficient to infer if alcohol drink producers responded to MUP by changing the formulation of their products (for example to account for the ABV-defined price floor by reducing ABV to maintain lower prices).

In general, the NielsenIQ data for England and Wales appeared to be a suitable comparator – for alcoholic drinks overall and for most categories of alcoholic drinks the countries experienced largely similar trends pre-MUP. The brand-level patterns were more complex (much of which was likely due to normal market activity) but were comparable in aggregate, for example, the extent to which Tennent's sells more per adult in Scotland reflects the extent to which Carling sells more in England & Wales. However, one limitation pertained to fortified wine, at both a category level and for the sampled brands (Buckfast Tonic Wine and MD 20/20), in that Scotland prior to MUP being implemented appears to be dissimilar to England & Wales. This means that any inferences that changes to fortified wine were due to MUP, in the context of these data, must be made without comparison to a suitable setting that did not have MUP in place.

This report uses descriptive analysis only, with comparisons of pre- and post-MUP periods in Scotland and with England & Wales. We were unable to adjust for external factors (such as price inflation due to reason beyond MUP) or to provide statistical measures of confidence (e.g. p-values and confidence intervals) with which to support any of the reported findings.

4.3. Interpretation

Price

This study found strong evidence for widespread increases in the prices of alcoholic drink products in order to meet the 50 pence per unit price floor in Scotland. There were few examples of prices being decreased. One potential exception is the fortified wine category in the convenience sector. As other inflationary factors were not controlled for in our analyses, there was no conclusive evidence as to whether or not some products increased prices in order to maintain a price differential.

Price and product range

The amount of natural volume alcohol sold in larger container sizes or larger multipacks declined in Scotland, especially for products that saw larger price increases. Around 4.5% of products sampled changed ABV between February 2018 and February 2019, with around twice as many decreasing their ABV as increasing it. However, we were not able to compare these figures to previous trends, so could not attribute it to MUP. There was limited evidence of MUP affecting product discontinuations and introductions, although more products were discontinued and introduced in the year before MUP was implemented than after. The analysis of Aldi and Lidl data found that around a third of the discontinuations of beer and cider occurred within four weeks of MUP being implemented.

Price and sales volume and value

There appeared to be an inverse relationship between price and natural volume sales. Products that saw larger price increases tended to see larger reductions in sales, and products that saw small price increases or that decreased in price tended to see smaller reductions in sales volumes or increases. However, sales value increased overall, only tending to decrease for the products that saw the largest decreases in sales volume.

Further evidence from Public Health Scotland

The findings of this study were largely consistent with others from the MUP Evaluation.

- Price distribution. This **study**[8], published in June 2021, also used electronic point of sale data from NielsenIQ, and found similar changes to pricing in the first year of MUP, with a large decline in the proportion of products priced below £0.50 per unit, and a large increase in products priced in the £0.50–£0.65 per unit range.

- Small retailers. The small retailers **study**[10], published in May 2020, used pre-MUP Scotland data to investigate changes to price and product ranges in a sample of small retailers in the first nine months of MUP. Findings largely corroborated the current study's analysis of the convenience sector. There was a reduction in the number of distinct cider products sold in small retailers, echoing the sharp decline in strong ciders described above. The increase in the number of distinct RTDs being sold in small retailers also supports the above finding that RTDs increased in sales volume and sales value. There were also reductions in container sizes and in the larger multipacks. Similar to the current study, researchers on the small retailers study also found some limited indication of an effect of MUP on ABV, with reductions in ABV for some variants of Lambrini Original and Frosty Jack's (from 7.5% to 6.0% for both).

- Economic impact on the alcoholic drinks industry. This **study**[19], published in October 2019, took a mixed-methods approach to investigate a broad range of outcomes pertaining to the economic impact of MUP on producers and retailers. There were qualitative findings from interviews that suggested there was little effect on retailer revenue, and that a decline was mitigated by increased margins compensating for decreased sales volume. The contrast to the current study's finding that sales value increased overall may be due to differences in qualitative interview data and EPoS data. This study also noted some de-listing (discontinuation) of some cider and perry products. An update to this study is due in late 2022.

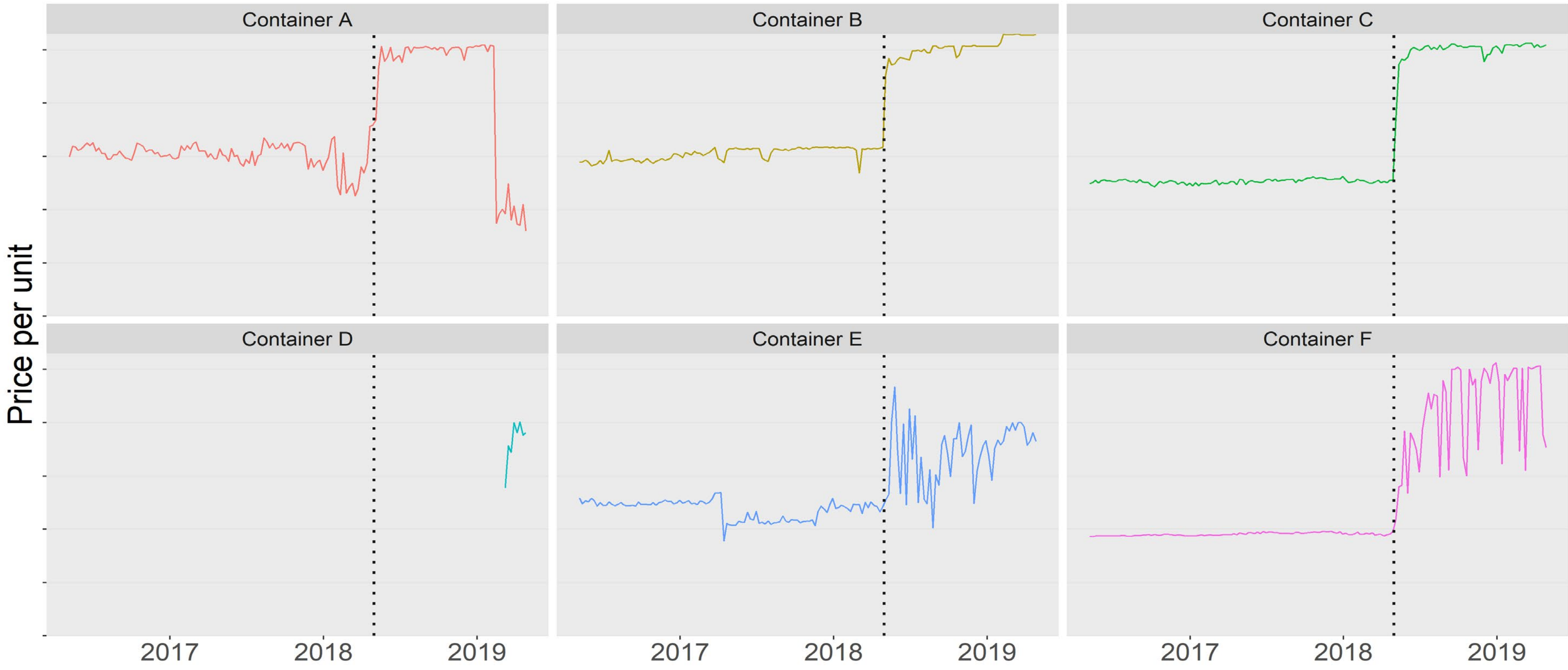
- Sales-based consumption. This suite of studies investigates population-level sales and consumption post-implementation. The most recent **publication**[20] from March 2021 found that the introduction of MUP in Scotland was associated with a reduction in per-adult off-trade alcohol sales of 3.5% in the 12 months following the implementation of MUP after adjusting for the best available geographical control. This echoed the finding from the current study that natural volume sales reduced in Scotland by 2.4%.

4.4. Conclusion

This study found that, in the first year of MUP in Scotland, the average price of alcoholic drink products increased at a greater rate than in England & Wales or between the two prior years in Scotland. Products that saw greater increases in price also tended to see greater reductions in overall sales, as well as reductions or smaller increases in sales value. There were also reductions in larger container sizes and larger multipacks, not just limited to brands that saw higher price increases, but there were also increases in the amounts sold in smaller multipacks that appeared to compensate. There was limited evidence of an effect of MUP on the introduction of new products, the discontinuation of existing products, or for changes to alcohol by volume (ABV).

Appendix A

Convenience store average price per unit of alcohol for a brand with sales below 0.006L pure alcohol for 2018/19



Note: the vertical dotted lines represent the implementation of MUP on 1 May 2018.

References

[1] Scottish Government. Changing Scotland's Relationship with Alcohol: A Framework for Action. Edinburgh; 2009. Available online: **www.ias.org.uk/uploads/pdf/News%20stories/scotland-alcohol-report0209.pdf**

[2] Scottish Government. Alcohol framework 2018: Preventing harm, next steps on changing our relationship with alcohol. Edinburgh; 2018. Available online: **www.gov.scot/publications/alcohol-framework-2018-preventing-harm-next-stepschanging-relationship-alcohol/**

[3] Scottish Government. Final Business and Regulatory Impact Assessment Alcohol (Minimum Pricing) (Scotland) Act 2012. The Alcohol (Minimum Price per Unit) (Scotland) Order 2018. Edinburgh; 2018. Available online: **www.legislation.gov.uk/ssi/2018/135/pdfs/ssifia_20180135_en.pdf**

[4] Alcohol (Minimum Pricing) (Scotland) Act 2012 (asp 4) [cited 10 Oct 2018] Available online: **www.legislation.gov.uk/asp/2012/4/contents/enacted**

[5] United Kingdom Supreme Court (UKSC 76) Scotch Whisky Association and others (Appellants) v The Lord Advocate and another (Respondents) (Scotland); 2017. Available online: **www.supremecourt.uk/cases/docs/uksc-19.917-0025-judgment.pdf**

[6] The Alcohol (Minimum Price per Unit) (Scotland) Order 2018. No. 135. Available online: **www.legislation.gov.uk/ssi/2018/135/contents/made**

[7] Beeston C, Craig N, Robinson M et al. Protocol for the evaluation of alcohol minimum unit pricing in Scotland. Edinburgh: NHS Health Scotland; 2019. Available online: **www.healthscotland.scot/media/2581/protocol-for-the-evaluation-of-minimumunit-pricing-for-alcohol_english_june2019.pdf**

[8] Ferguson K, Giles L, Beeston C. Evaluating the impact of Minimum Unit Pricing (MUP) on the price distribution of off-trade alcohol in Scotland. Edinburgh: Public

Health Scotland; 2021. Available online: **www.publichealthscotland.scot/media/7669/mup-price-distribution-report-english-june2021.pdf**

[9] Thorpe R, Robinson M, McCartney G, Beeston C. Monitoring and Evaluating Scotland's Alcohol Strategy: A review of the validity and reliability of alcohol retail sales data for the purpose of monitoring and evaluating Scotland's alcohol strategy. Edinburgh: NHS Health Scotland; 2012. Available online: **www.healthscotland.com/uploads/documents/18793-MESAS%20-%20Validityofalcoholretailsalesdata%20_Rev052012BMKD.pdf**

[10] Stead M, Critchlow N, Eadie D et al. Evaluating the impact of alcohol minimum unit pricing in Scotland: Observational study of small retailers. Available online: **www.stir.ac.uk/media/stirling/services/faculties/sport-and-healthsciences/research/documents/MUP-evaluation-Small-Convenience-Stores-report.pdf**

[11] Dickie E, Mellor R, Myers F, Beeston C. Minimum Unit Pricing (MUP) for alcohol evaluation: Compliance (licensing) study. Edinburgh: NHS Health Scotland; 2019. Available online: **www.healthscotland.scot/media/2660/minimum-unit-pricing-for-alcohol-evaluation-compliance-study-english-july2019.pdf**

[12] Giles L, Richardson E, Mackay D, Beeston C. Estimating population alcohol consumption in Scotland: the impact of using different sources of alcohol retail data. Edinburgh: Public Health Scotland. Available online: **www.publichealthscotland.scot/media/12233/estimating-population-alcohol-consumption-in-scotland-the-impact-of-using-different-sources-of-alcohol-retail-sales-data.pdf**

[13] O'Donnell A, Anderson P, Jané-Llopis E et al. Immediate impact of minimum unit pricing on alcohol purchases in Scotland: controlled interrupted time series analysis for 2015-18. The BMJ; 2019. Available online: **www.bmj.com/content/366/bmj.l5274**

[14] Robinson M, Mackay D, Giles L, Lewsey J, Richardson E, Beeston C. Evaluating the impact of minimum unit pricing (MUP) on off-trade alcohol sales in Scotland: an interrupted time-series study. Addiction; 2021. Available online: **https://onlinelibrary.wiley.com/doi/full/10.1111/add.15478**

[15] Anderson P, Kokole D, Jané Llopis E. Impact of minimum unit pricing on shifting purchases from higher to lower strength beer sin Scotland: controlled interrupted time series analyses, 2015-2020. Drug and Alcohol Review; 2021. Available online: **https://onlinelibrary.wiley.com/doi/full/10.1111/dar.13408**

[16] Stead M, Eadie D, Purves R et al. Implementation of alcohol minimum unit pricing (MUP): a qualitative study with small retailers. Drugs: Education, Prevention and Policy; 2022. Available online: **www.tandfonline.com/doi/full/10.1080/09687637.2022.2075251**

[17] Buykx P, Perkins A, Hughes J et al. Evaluating the impact of Minimum Unit Pricing in Scotland on people who are drinking at harmful levels. 2022. Available online: **www.publichealthscotland.scot/media/13486/evaluating-the-impact-of-minimum-unit-pricing-in-scotland-on-people-who-are-drinking-at-harmful-levels-report.pdf**

[18] Christie B. Cheap alcohol disappears from shelves in Scotland as minimum unit price starts. The British Medical Journal; 2018. Available online: **www.proquest.com/openview/53c44659261e3e410ac799f633e97a0e/1?pq-origsite=gscholar&cbl=2043523**

[19] Frontier Economics. Minimum unit alcohol pricing: Evaluating the impacts on the alcohol drinks industry in Scotland; baseline evidence and initial impacts. 2019. Available online: **www.healthscotland.scot/media/2810/frontier-economics-mupevaluating-the-impacts-on-the-alcoholic-drinks-industry-in-scotland.pdf**

[20] Giles L, Richardson E, Beeston C. Using alcohol retail sales data to estimate population alcohol consumption in Scotland: an update of previously published estimates. Edinburgh: Public Health Scotland; 2021. Available online: **www.healthscotland.scot/media/3327/using-alcohol-retail-sales-data-to-estimatepopulation-alcohol-consumption-in-scotland-an-update-of-previously-publishedestimates.pdf**