THE IMPACT OF MINIMUM TOBACCO PACK SIZES ON INCIDENTAL RETAIL SPEND AND TAX RECEIPTS

A REPORT FOR THE TOBACCO MANUFACTURERS’ ASSOCIATION
Lower incidental spend from minimum pack sizes
Oxford Economics

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EXECUTIVE SUMMARY

In early 2014, the European Council and Parliament formally approved the second Tobacco Products Directive. This contains a broad range of tobacco control measures. This paper focuses on one element of the Directive, the introduction of minimum pack sizes, which ban cigarette packs of less than 20 cigarettes and the sale of hand-rolling tobacco in pouches of less than 30 grams. Having been passed into UK law in 2015, these measures will take effect from 20 May 2016, although retailers have a year to sell old stock.

The introduction of minimum pack sizes for cigarettes and hand-rolled tobacco from 20 May 2016 can be expected to hit retail turnover. Currently some 24 percent of cigarette smokers report that they purchase packs of ten cigarettes, while 71 percent of smokers of hand-rolling tobacco buy pouches which weigh less than 30 grams. The minimum pack size legislation will eliminate these packs sizes from 20 May 2016 onwards.

Survey evidence suggests that a proportion of tobacco buyers, unable to purchase their preferred products, will switch to foreign sources of supply or will seek to acquire tobacco in the illicit market. This will reduce the number of visitors to shops. Those who switch to buying larger packs from UK retailers are also likely to visit stores less frequently. Both factors will have the effect of reducing spur-of-the-moment purchases on non-tobacco incidentals—an important source of revenue, especially for smaller retailers.

Those consumers who currently buy packs of ten cigarettes were asked how they might respond to the change in the law. Some 64 percent said they expected to still purchase tobacco products from UK retailers but that they would switch to larger packs or to hand-rolled tobacco. But 28 percent said they would switch from UK retailers to alternative sources of supply (such as foreign duty-paid or illicit). Similar results were identified for consumers of hand-rolled tobacco.

The survey evidence suggests that a strong tendency exists for buyers of tobacco from retail outlets to make other purchases as well. Nearly 91 percent reported that they always or sometimes buy other goods along with their tobacco. These additional purchases include newspapers and magazines, sweets and chocolates, snacks and soft drinks. These non-tobacco purchases are typically worth an additional £7 per visit in convenience stores and £17 extra in supermarkets. Nearly 44 percent of those who reported purchasing other items said that they either would not or may not make them without the trip to buy tobacco.

It is estimated that the impact of minimum pack size regulations will have an estimated cost to retailers of somewhere between £230 and £844 million in foregone turnover in the first year after its full introduction from the reduced sale of incidentals as customers visit retailers less frequently and use alternative sources of supply. This equates to a loss of between £40 and £145 million in gross value added, lowering retailing’s contribution to UK GDP. It is estimated that this loss of GDP will reduce retail sector employment by between 1,710 and 6,260 jobs.
If the revenue (excluding excise duty and VAT) from foregone tobacco purchases is included as well as the incidental losses, retailers can be expected to lose between £896 and £1,509 million in the first year. This will cost between 6,640, and 11,190 jobs and reduce the sector’s contribution to GDP by between £154 and £260 million in gross value added.

It is estimated that 43–46 percent of the estimated loss in turnover will occur at convenience stores, which will affect certain groups and areas more than others. Smaller convenience stores, for example, tend to play an important role in rural and deprived communities. Any loss of local shops as a result of declining revenues will be more keenly felt in those areas where local shops provide an important service infrastructure—helping to reduce the need to travel, improving the availability of fresh produce, adding to the attractiveness of location as a place to live and providing important points of social contact, especially for the elderly.

If consumers respond to the banning of their preferred tobacco products in the way that survey respondents suggest they will, the government is likely to lose tax receipts. We estimate the switching to non-domestic duty paid sources of supply will result in a loss of excise duty and VAT of around £2.1 billion a year.
1. RETAILERS’ LOSS OF TURNOVER

From 20 May 2016, consumers in the UK will only be able to purchase new cigarettes in minimum pack sizes of 20 cigarettes and roll your own (RYO) in pouches of 30 grams or more.¹ This reflects the UK’s implementation of the 2014 Tobacco Products Directive through the Standardised Packing of Tobacco Products Regulations which both Houses of Parliament debated in March 2015.²

Survey evidence suggests that 24 percent of cigarette smokers currently purchase packs of ten cigarettes and that 71 percent of RYO smokers currently buy smaller pouches than will be available from May. The banning of smaller packs and pouches will affect the shopping behaviour of these consumers.

Evidence suggests that buyers of tobacco products typically make purchases of other goods when visiting the shops for their cigarettes or RYO. A significant proportion of these purchases are of non-essentials (‘incidentals’) that would not be bought in the absence of a trip to buy tobacco. The value of such goods is fairly substantial; in many cases in excess of the tobacco purchase price (and often on goods with higher retail margins than tobacco).

In this context, the extent to which the banning of packs of ten cigarettes and pouches of less than 30 grams can be expected to result in fewer trips to buy tobacco will be particularly important. The same person, who might at present, visit a local shop on two occasions over a period of days, buying two packs of ten, and two sets of ‘incidental’ purchases, might, under the new rules, visit only once in the same time period in the future (purchasing just one pack of 20), and therefore making only one set of ‘incidental’ purchases. The change in the law is therefore likely to result in a reduction in the incidental purchases made by tobacco users as visits become less frequent, or even stop altogether if consumers instead switch away from the UK retail sector entirely, and seek to purchase products from foreign markets or illicit sources instead. In turn, any reduction in retailer turnover can be expected to have an impact on the contribution of the sector to GDP and the number of jobs that it supports.

In order to explore more fully the possible implications of the new legislation in terms of consumer behaviour, in February 2016, the Tobacco Manufacturers’ Association commissioned an online poll of some 2,200 smokers aged 18 years old and over on their purchasing habits. The survey was undertaken by Mitchla Marketing/SSI. The following sections outline what the survey revealed about how such habits might change, and the economic impact of this for retailers, their employees and government tax receipts.

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¹ Retailers will have a year to sell old stock.
² The 2014 Tobacco Products Directive governs the manufacture, presentation and sale of tobacco and related products. Its mains provisions focus on minimum pack sizes; harmonised reporting of ingredients and emissions; minimum size of health warnings; banning flavours such as menthol; banning descriptors such as “natural” and “organic”; introducing a traceability system; regulating electronic cigarettes and associated refill cartridges and regulating herbal cigarettes.
1.1 SPENDING BEHAVIOUR OF TOBACCO USERS

The survey examined both where consumers usually purchased their tobacco products and also what else they purchased at the same time. The results of the survey revealed that supermarkets and convenience stores, defined as corner shops and newsagents in the survey, were the most frequently visited outlets for tobacco purchases. Some 52 percent of consumers reported that they usually purchase their cigarettes or RYO from supermarkets, while 30 percent of purchasers reported that they usually buy their tobacco from convenience stores (Fig. 1). The third (petrol stations) and fourth (from abroad) most popular sources are significantly less popular, being the usual place of purchase for five and three percent of consumers, respectively.

**Fig. 1. Locations where people usually purchase their cigarettes or hand-rolled tobacco**

There are marked differences in the frequency with which people purchasing tobacco from supermarkets and convenience stores visit each type of outlet. Those usually buying from convenience stores make far more regular purchases. A quarter of respondents using newsagents or tobacconists reported that they bought tobacco every day, with around half making four or more visits each week (Fig. 2). On average, those usually using convenience stores bought tobacco from one of these stores every three days. The pattern of purchases from supermarkets reflects less regular visits to purchase a larger shopping basket. Nevertheless, nearly a third of the respondents who usually buy tobacco from supermarkets do so on four or more visits per week. Those purchasing their tobacco from supermarkets, visit a store on average every five days.
The survey provided evidence of a strong tendency for buyers of tobacco from retail outlets to make other purchases along with their tobacco (cigarettes or hand-rolled). Some 28 percent report always buying other goods along with their tobacco, while a further 70 percent sometimes make additional purchases. The most popular products bought along with tobacco are essentials like milk and bread (60 percent), followed by newspapers and magazines (44 percent), groceries (43 percent) and sweets and chocolates (41 percent) (Fig. 3). On average, according to the survey, this spend amounted to £17 per supermarket visit and £7 per convenience store visit, in addition to the customers’ expenditure on tobacco.

Fig. 2. Frequency by which consumers visit supermarkets and convenience stores to buy tobacco

The survey provided evidence of a strong tendency for buyers of tobacco from retail outlets to make other purchases along with their tobacco (cigarettes or hand-rolled). Some 28 percent report always buying other goods along with their tobacco, while a further 70 percent sometimes make additional purchases. The most popular products bought along with tobacco are essentials like milk and bread (60 percent), followed by newspapers and magazines (44 percent), groceries (43 percent) and sweets and chocolates (41 percent) (Fig. 3). On average, according to the survey, this spend amounted to £17 per supermarket visit and £7 per convenience store visit, in addition to the customers’ expenditure on tobacco.

Fig. 3. Purchases typically made at the time of purchasing tobacco
The survey evidence suggests a proportion of these purchases would not have gone ahead if the customer had not needed to buy any tobacco products. Some 13 percent of respondents usually using convenience stores for tobacco purchases reported that they would not or would have been unlikely to make these non-tobacco purchases if they had not been visiting the shop to buy cigarettes or RYO, with a further 31 percent saying that there was some doubt whether the additional purchases would have occurred. For supermarkets, the comparable figures are lower. Only 8 percent would not have made or would have been unlikely to make these non-tobacco purchases if they had not been visiting the supermarket to purchase tobacco and 29 percent who said there was some doubt.

1.2 THE IMPACT OF MINIMUM PACK SIZES ON CONSUMER BEHAVIOUR

It is worth stating that the results of survey should be treated with some caution. Although questioning asked people how they expect to behave from 20 May onwards, their actual behaviour may be different to what they anticipate. The survey also asked consumers to report their likelihood of adopting options that are illegal, and these results ought to be treated with caution too. There are two opposing dimensions in the framing of questions on illegality. On the one hand, respondents may under-report the likely take-up of illegal options—not wanting to admit to such behavioural intent. On the other hand, others may over-report the likelihood of such illegal behaviour—when in the event social, legal and access constraints may prevent this course of action. Respondents were only allowed to specify one answer. In reality, people are likely to respond to the introduction of minimum pack sizes in a variety of ways and the preferred response may vary over time.

Nonetheless, the survey results do provide some important insights. They suggest that a significant portion of tobacco consumers tend to purchase products that will no longer be available from May 2016. The patterns are different in supermarkets and convenience stores. Some 22 percent of those who usually buy cigarettes from supermarkets purchase packs of ten cigarettes, while 69 percent of those who buy hand-rolling tobacco purchase pouches which weigh less than 30 grams (Fig. 4). For convenience stores, the proportions purchasing packs and pouches that will no longer be available from 20 May are higher. Some 28 percent of those who usually buy their cigarettes at convenience stores do so by purchasing packs of ten cigarettes, while 75 percent purchasing RYO buy pouches weighing less than 30 grams.

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3 The survey question asked “If you didn’t need to buy any tobacco products would you still go to the shops to buy?”
The shopping habits of purchasers of these products will change from 20 May 2016 onwards when the products become unavailable. To investigate how their behaviour might change, purchasers of packs of 10 cigarettes were asked what they expect to do when their preferred pack size is outlawed. Some 55 percent said they will switch to buying packets of 20 cigarettes (Fig. 5). Another 9 percent said they would switch to buying pouches of RYO of at least 30 grams. A further 28 percent said they would switch to alternative sources of supply. Of these, the most popular option, selected by 21 percent of respondents, will be to purchase foreign duty-paid cigarettes while they are abroad. This was followed two illegal options. Some four percent said they would buy counterfeit cigarettes in the UK and three percent reported they would buy foreign-duty paid cigarettes illegally sold in the UK. The remaining eight percent did not indicate their likely behaviour.

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4 The survey results on the consequences of the introduction of minimum pack sizes for the illicit market are at odds with the Department of Health’s impact assessment of all of the Tobacco Product Directive’s provisions. This states in paragraph 162 “There are expected to be no significant increases in the consumption of illicit tobacco.” Although, the two could be consistent if the Directive’s other provisions (for example, track and trace) offset the impact from minimum pack sizes.
The 71 percent of purchasers of RYO tobacco who currently buy pouch sizes that will become illegal after 20 May 2016, were asked how they expect to change their purchasing behaviour. Some 58 percent replied that they expect to switch to the larger pouch sizes (Fig. 6). Another five percent would start purchasing ready-made cigarettes in packs of 20 or more. Some 19 percent would buy foreign-duty paid cigarettes while abroad and six percent said they would buy foreign-duty paid cigarettes sold illicitly in the UK. A further four percent reported they would switch to counterfeit products.
1.3 THE LOSS OF INCIDENTAL RETAIL SPEND

The patterns of behaviour reported in the survey have important implications for sales revenues for retailers and tax revenues for government. Following the introduction of the minimum pack requirements on 20 May 2016 retailers can expect to lose a portion of the spend that purchasers of tobacco have previously made with them, for two reasons. First, the survey suggests only 64 percent of purchasers of packs of 10 cigarettes and 63 percent of buyers of pouches of less than 30 grams will continue to buy their tobacco from UK retail outlets. The rest will switch to alternative sources of supply, regardless of their legality. Second, those who continue to purchase from UK retail outlets will visit stores less frequently as they will have to buy larger packs or pouches. This means they will make fewer incidental purchases alongside the purchase of tobacco products.

Calibrating the effect on retail revenue of lost incidental spend requires us to make a number of assumptions about the future spending behaviour of consumers.

The results presented in the tables below develop a number of scenarios. These are based on an assumption that those consumers who continue to purchase products from UK retailers continue to consume the same amount of cigarettes or tobacco as before the change in legislation. For example, this means that a typical purchaser of packs of ten cigarettes is assumed to make half as many shop visits to buy tobacco when the minimum pack size increases to 20, while purchasers of RYO will visit shops to make just over half the number of visits (56 percent, reflecting the more complex existing range of pouch sizes bought, and as shown in Fig. 4).

We analyse three different scenarios based on the extent to which reported patterns of non-tobacco spend is truly incidental, that is, it would not have been purchased were it not for the visit to buy tobacco.

The results presented reflect the impact of a reduction in the number of visits to UK retail outlets. This is in line with the percentage of survey respondent who no longer use UK retail outlets and the reduction in the number of visit by smokers who are now buying larger packs. This reduction in the number of visits has an impact on turnover in the retailing sector. Using standard economy-wide relationships for turnover to gross value added and employment in the relevant retailing segments, we provide a measure of the economic impact of the introduction of the new minimum pack sizes.

Our results suggest that the introduction of minimum pack size regulations will cost retailers somewhere between £230 and £844 million in foregone turnover.

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5 The percentages include those who will swap from currently buying cigarettes to RYO and the converse.
6 Other assumptions could have been made about consumption levels.
7 Gross value added measures the contribution to the economy of each individual producer, industry or sector in the United Kingdom. It is probably easiest thought of as the price the goods or services are sold for minus the costs of the bought inputs of goods and services used to make the output.
8 Data used for SIC 47.11 which is retail sale in non-specialised stores with food, beverages or tobacco predominating. This includes both newsagents and supermarkets. Data from ONS, “UK Non-Financial Business Economy: 2014 Provisional Results”, (2015).
from the sale of incidentals in the first year (Fig. 7). This equates to a loss of between £40 and £145 million in gross value added, lowering retailing’s contribution to UK GDP. In employment terms, it equates to between 1,710 and 6,260 fewer jobs in retailing. The wide range reflects the different assumptions about how much spend is truly incidental and therefore likely to be foregone.

**Fig. 7. Economic impact from reduced incidental spending of introducing minimum pack sizes**

<table>
<thead>
<tr>
<th>Assumptions: Share of non-tobacco spend that is entirely incidental</th>
<th>Economic impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience</td>
<td>Supermarkets</td>
</tr>
<tr>
<td>Scenario 1</td>
<td>10%</td>
</tr>
<tr>
<td>Scenario 2</td>
<td>20%</td>
</tr>
<tr>
<td>Scenario 3</td>
<td>30%</td>
</tr>
</tbody>
</table>

Source: Oxford Economics

**1.4 LOSS OF REVENUE FROM TOBACCO SALES**

The previous set of results do not take account of the revenue retailers can also be expected to lose from the reduction in tobacco sales following the introduction of the new minimum pack sizes. The survey suggests some 28-29 percent of the current purchasers of packs of 10 cigarettes and pouches of less than 30 grams will, in response to the changes in legislation, switch away from UK retailers entirely. They will join the 15 percent and 6 percent of cigarette consumers whom KPMG (2015) estimates used counterfeit and contraband, and non-domestic but legal sources of cigarettes in 2014 (Fig. 8).
Based on the survey evidence, it is possible to estimate the additional losses in retailers’ revenue from the sale of less tobacco. The results are calculated excluding the excise duty and VAT paid on tobacco. The two sets of results can be summed to estimate the total impact on retailers from the introduction of minimum pack sizes. The results suggest they will lose between £896 and £1,509 million in revenue (Fig. 9). On this revenue, retailers would have made a gross value added contribution to UK GDP of between £154 and £260 million. This equates to between 6,640 and 11,190 less jobs in retailing.

**Fig. 9. Economic impact of introducing minimum pack sizes on lost incidental sales and tobacco sales**

| Assumptions: Share of non-tobacco spend that is entirely incidental | Economic impact |
|---|---|---|---|
| | Convenience | Supermarkets | Turnover (£ million) | Gross value added (£ million) | Employment (people) |
| Scenario 1 | 10% | 2% | 896 | 154 | 6,640 |
| Scenario 2 | 20% | 5% | 1,164 | 201 | 8,630 |
| Scenario 3 | 30% | 10% | 1,509 | 260 | 11,190 |

Source: Oxford Economics

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10 Calculations assume 84 percent and 73 percent of the price of a pack of cigarettes and pouch of hand-rolling tobacco is comprised of excise duty and VAT.
1.5 IMPACT ON TAX RECEIPTS

A substantial portion (44 to 74 percent) of the loss in turnover that might be suffered by retailers when the minimum pack size regulations come into effect is expected to flow from increased penetration of non-domestic duty paid supplies into the UK marketplace. This loss of these sales will impact on the receipts from tobacco taxation.

If patterns of behaviour are in line with the expected changes that survey respondents suggest they will make, then the loss of excise duty and VAT would be around £2.1 billion. Of this, the majority (or £1.2 billion) is lost to legal personal imports from abroad and the remainder to illicit activity (£850 million).

The scale of the illicit tax loss compares with a mid-point estimate by HMRC for revenue losses from illicit tobacco purchases in 2013-14 of £2.1 billion.11 Thus, the potential revenue losses following the implementation of minimum pack sizes could add over a third to the Exchequer’s existing losses from illicit markets.

2. IMPACT ON CONVENIENCE STORES

Convenience stores play an important role in the economy, providing customers with more choices about when and where to shop. This role is particularly important in both rural and deprived areas. For example, local shops can reduce the need to travel to shop and access key services, improve the availability of fresh produce, add to the attractiveness of a location as a place to live and provide a point of social contact. This is likely to be particularly important for those with limited transport options, for example, the elderly.

Sales of tobacco are important for the survival of convenience stores. Tobacco sales provide 19 percent of their total revenues (Fig. 10). Typical incidentals such as soft drinks, confectionery and papers and magazines provide a further 15 percent of sales. The loss of revenue from both incidental sales and from tobacco turnover from the introduction of minimum pack sizes could therefore threaten the existence of the more marginal businesses.

Fig. 10. Average sales contribution to convenience stores sales by each product type

![Bar chart showing average sales contribution to convenience stores sales by each product type]

On the basis of buying behaviour reported by respondents to the survey and their expected responses to the introduction of minimum pack sizes on 20 May 2016, we have calculated the likely impact for convenience stores as a distinct segment. These stores are predicted to lose between £386 and 693 million in revenue (Fig. 11) from lost incidental spend and tobacco revenue (excluding excise duty and VAT) from the banning of smaller packs and pouches. This is between 43 and 46 percent of the total revenue lost by retailers (with the

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Lower incidental spend from minimum pack sizes. This equates to between £67 million and £120 million in gross value added and 2,860 and 5,140 jobs.

**Fig. 11. Economic impact of introducing minimum pack sizes on the convenience stores via reduced incidental spending and reduced tobacco sales**

<table>
<thead>
<tr>
<th>Assumptions: Share of non-tobacco spend that is entirely incidental</th>
<th>Economic impact</th>
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<td>Convenience</td>
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<td>Scenario 2</td>
<td>20%</td>
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<tr>
<td>Scenario 3</td>
<td>30%</td>
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</tbody>
</table>

Source: Oxford Economics
3. REGIONAL IMPACT ACROSS THE UK

The results of the introduction of minimum pack sizes on retailers are not uniform across the UK. This reflects two main factors: the numbers of smokers and the level of incidental spend while purchasing tobacco varies by region. This section looks at how retailers across the UK’s nations and regions will be impacted.

The numbers of smokers in each region varies. It is a function of the size of the adult population and the proportion of people who smoke in each region. The adult population size varies from 1.4 million in Northern Ireland to 7.0 million in the South East. Smoking incidence ranges from 17 percent in the South East to 22 percent in the North East and Northern Ireland. Retailers in regions with the largest number of smokers (like the South East and London (Fig. 12)) are likely to be impacted more by the introduction of minimum pack sizes than those where the numbers are lower.

Fig. 12. Numbers of smokers in the UK’s nations and regions, mid 2014

The TMA’s Smokers’ Panel Poll also points at considerable variation in the amount people purchasing tobacco spend on other items while in the store. People in the East of England spend the most on other items, spending £15 per visit to purchase tobacco (Fig. 13). Customers in the North East spend the least, spending just under £10 per visit to buy tobacco. A reduction in the number of store visits due to the new minimum pack sizes, will have a greater

impact on retailers in the regions where the spend on non-tobacco items is the largest.

**Fig. 13. Average spend on non-tobacco items while buying tobacco, February 2016**

![Graph showing average spend on non-tobacco items](image)

The results suggest the loss of incidental spend due to the introduction of minimum pack sizes will be greatest in the South East followed by London. Retailers in these two regions are predicted to lose between £33 and £120 million and £28 and £103 million, respectively, depending on amount of the spend on non-tobacco items that is assumed to be incidental (Fig. 14).

**Fig. 14. Estimate impact on retail turnover of introducing minimum pack sizes via reduced incidental spending (£ million) in first year**

<table>
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<tr>
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<th>South East</th>
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Source: Oxford Economics

The geographical pattern of revenue losses to the retail sector when the reduction of tobacco sales revenue is included is shown in Fig. 15. Again, the South East and London suffer the largest losses in retailers’ revenue.
Fig. 15. Estimated impact on retail turnover of introducing minimum pack sizes via reduced incidental spending and lower tobacco sales (£ million) in first year

<table>
<thead>
<tr>
<th>Region</th>
<th>Scenario 1</th>
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<td>896</td>
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Source: Oxford Economics
4. CONCLUSION

Survey evidence suggests some 24 percent of cigarette smokers and 71 percent of hand-rolling tobacco purchasers currently buy pack sizes that will be banned from 20 May 2016. The minimum pack size legislation will change purchasing patterns of these consumers. Some consumers will simply switch to larger pack sizes and visit stores to make such purchases with less frequency. But others will switch away from the UK retail sector partially or altogether, instead purchasing foreign or illicit cigarettes. Both effects will reduce retailer turnover whether on tobacco products and on incidental spur-of-the-moment purchases made at the same time.

Assuming behaviours change as indicated by the survey, the introduction of minimum pack size legislation can be estimated to cost retailers between £896 and £1,509 million a year in lost turnover. This equates to between 6,640 and 11,190 jobs. It can also be estimated that this will reduce the gross value added contribution to GDP of the retailing sector by between £154 and £260 million. Between 43 and 46 percent of these losses will affect smaller, local convenience stores rather than supermarkets.

If patterns of behaviour are as reported in the survey, government finances will also suffer. The changes in purchasing behaviour associated with the new pack sizes can be estimated to cost the Exchequer £2.1 billion in excise duty and VAT receipts on an annual basis.