Covid-19 and the convenience store sector

A Food Foundation and Peas Please Report, July 2020

What is the likely impact of Covid-19 on food supply and consumption? How might consumer habits and attitudes to food change and what might this mean for the sector?

The impact of Covid-19 on the wider food environment continues to evolve. Although much has been written - and continues to be written - about the impact of Covid-19 on UK shopping, cooking and eating habits, it's important to note that evidence continues to emerge. While the pandemic and associated social distancing measures have changed our day-to-day behaviour and attitudes towards food as citizens and consumers, it remains to be seen how many of these changes will persist as lockdown continues to ease and some form of normality resumes.

Even before the pandemic, the food system was facing a number of challenges at both a national and global level. Poor diet is the number one risk factor for disease in the UK [1], with both obesity and food poverty co-existing across the country. Social and economic inequalities are a key driver of health – with children from the most deprived areas twice as likely to have obesity as those from the least deprived areas [2]. Covid-19 is likely to worsen these pre-exiting weaknesses in the food system and has already negatively affected levels of poverty and hunger. What's more, the way we currently produce and consume food is having a detrimental impact on the environment. Our food systems are responsible for approximately 30% of human-made greenhouse gas emissions, 70% of freshwater withdrawals, and are key drivers of both terrestrial and marine biodiversity loss - yet a third of the food that we produce is lost or wasted [3]. Although over 4 million people are employed by the UK food sector, 16% earn the minimum wage or below [4, 5].

These challenges are complex and formidable, but not unsurmountable. The food system describes the totality of all actors, actions, and interactions that get our food from farm to fork and from bait to plate. Every stage of the food chain has, and potentially will be, affected by Covid-19. Different issues may also interact with each other given the interconnectedness of the food chain, as Figure 1 illustrates. Yet throughout the food chain there is opportunity to change the food system so that it delivers more healthy and sustainable diets that are affordable for everyone.

In this report we will provide an overview of how Covid-19 has impacted on the food industry, look at how this has in turn affected consumer behaviour, explore what the current and future impact on the wider food system will be and the possible implications for the convenience store sector.

Figure 1: The food system (Source: Malik et al, 2018 [6])

How is Covid-19 changing the shape of the food industry?

Covid-19 has impacted the downstream food sector (supermarkets, restaurant chains, and catering companies) in a number of different ways. The lockdown saw significant growth in food sales for the supermarkets (albeit with a reported increase in operating costs), but almost universally negative impacts on restaurant chains and caterers, due to either forced closure or loss of business due to wider lockdown implications between March 23rd and July 4th 2020.

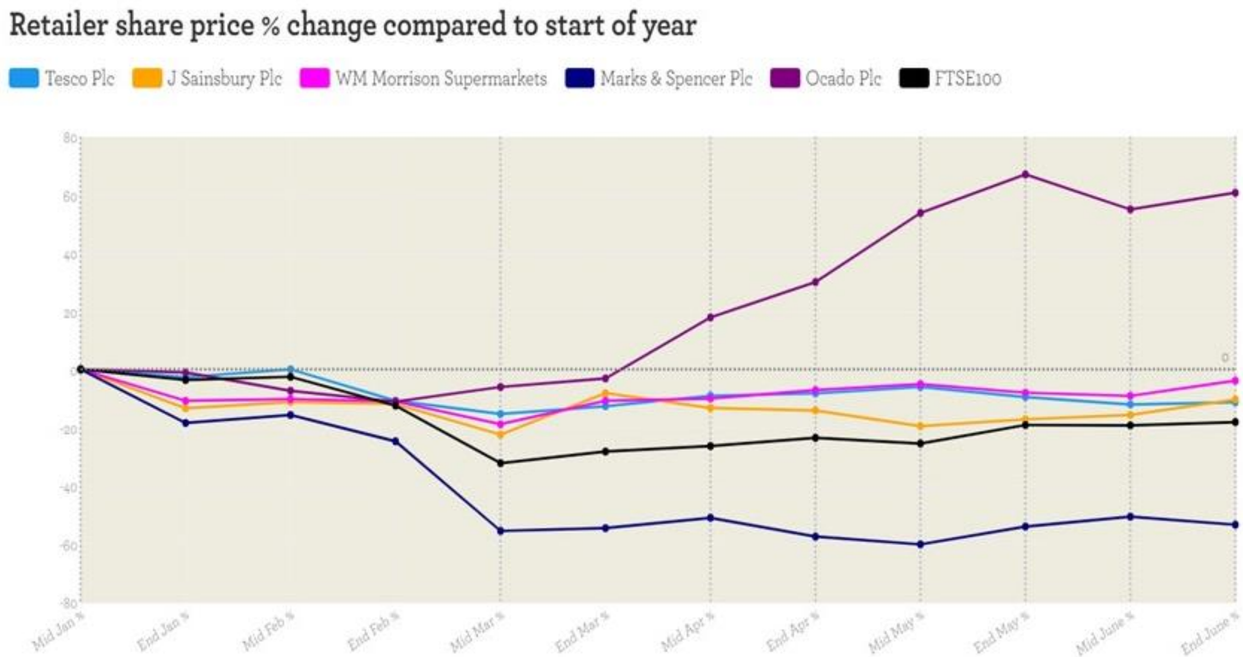
Here we summarise these impacts and comment on what future trends might be of relevance to the convenience store sector. The past few months have seen:

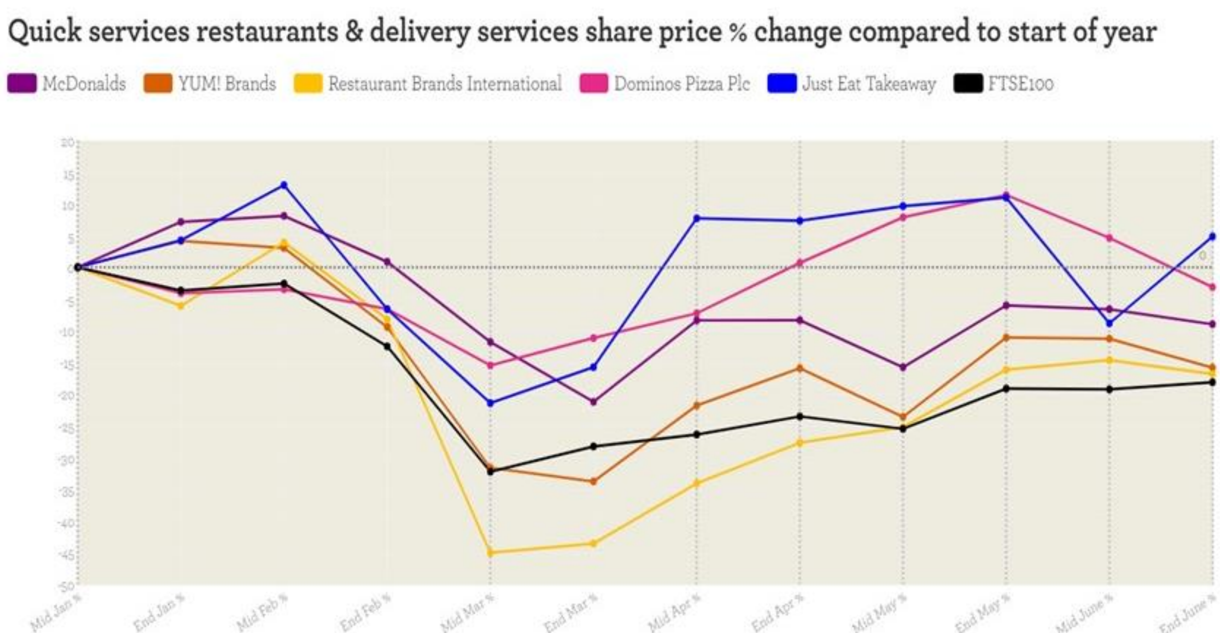
- A 13.7% growth in food sales for retailers in the 12 weeks leading up to mid-June, compared to last year [7].
- Online sales growth of up to 90%, benefiting online specialists and resulting in around 40% sales growth for Ocado [7].
- Confusing evidence for shopper habits, with supermarkets reporting fewer but larger shopping trips and independent stores also seeing growth in overall sales.
- Unsurprisingly, significant revenue losses for the Out Of Home sector, although fast food operators were able to reopen in May and June through takeaway and drive-through services.
- Some takeaway food operators, such as Domino's Pizza, remained open throughout, often with restricted menus.
- Most pubs and restaurants remained primarily closed until 4th July, with the hospitality sector experiencing a 90% loss in revenues during the lockdown [8].
- Long-term outcomes for the Out Of Home sector vary and are hard to predict, with some pointing to 22% of hospitality outlets being permanently closed by the end of the year [8].

Using share price fluctuations for publicly listed food businesses as a proxy, these different impacts are clearly mirrored by the financial performance of companies in the food industry (see Figures 2a, b, c). Covid-19 has favoured food retailers, especially those able to capitalise on the increased demand for home delivery services. Within the Out Of Home sector, those able to offer food and menus compatible with takeaway or home delivery have recovered more easily than those dependent on customers physically eating inside their premises.

There have been concerns raised that Covid-19 will lead to further consolidation of the food industry, however, there is only mixed evidence for this. Plenty of large companies are experiencing significant economic difficulties, such as The Restaurant Group and the SSP Group in the casual dining and quick service restaurant sector, with both announcing large scale closures and job losses. While the bigger operators seem unlikely to fail completely, but instead are likely to undergo significant contraction, smaller operators may be less able to respond through partial closures. Where the food retail sector is concerned, while the major retailers have seen sales growth so too have many smaller independent retailers (see the next section), pointing to a more nuanced outcome than simply a consolidation of the industry.

__Figures 2 a, b, c, showing share price % changes for publicly listed companies compared to January 2020 (Source: Food Foundation)__





High street chain share price % change compared to start of year

How has Covid-19 impacted on consumer behaviour?

The near total shutdown of the Out Of Home sector on March 23rd 2020 and subsequent partial reopening have led to large increases in retail grocery sales across the board, given that we would typically eat 20-25% of our calories out of the home [9].

Convenience stores have so far mostly benefitted from the changing retail environment as consumers look closer to home

In the four weeks leading up to March 22nd consumers spent considerably more than normal on groceries as they stocked up on store cupboard staples, food, and – of course - loo roll. Convenience stores in particular benefitted from this change, with sales increasing by 30.1% during this period as offices closed, anxiety increased and citizens were told to stay away from restaurants, cafes and pubs [10].

Since March convenience stores have continued to see an upward sales trend, although the initial surge in sales has been somewhat moderated as consumers have adapted to a new normal. Data from Kantar comparing the 12 weeks to 14th June 2020 to the same period of time in 2019, found that symbol and other independent stores increased their share of the grocery market from 1.7% to 2.6%. In comparison, Tesco's share of the market dropped from 27.3% to 26.9% [11].

Yet changes in our shopping and working patterns have not been felt equally

Despite an overall lift in market share, geographical location appears to have played a significant role in determining how individual convenience stores fared during lockdown. With more of us working from home, it is likely that this has benefitted those convenience stores in residential areas. With many supermarkets seeing long queues and with consumers confronted by empty shelves during the first few weeks of the pandemic, convenience and local stores may have benefitted from shorter queues and better stocked shelves. According to research undertaken by McKinsey, of those shoppers that changed retailer, 41% said they had done so to find a less crowded shop - compared with 25% who listed finding cheaper prices as their main priority [12].

However, for those stores located in city centres, petrol forecourts, or transport hubs, sales declined as shoppers were told to 'stay home' and avoid all but essential travel. A survey undertaken by the Association of Convenience Stores (ACS) in April found that while two-thirds of stores said they had seen sales increase since the UK went into lockdown, 34% said their sales had fallen, while 26% reported that sales had fallen significantly [13].

Changing consumer behaviour: a tale of two lockdowns

Two narratives have emerged during Covid-19, depending on people's flexibility in being able to adapt to the pandemic. One, emphasizing the growth in consumers cooking more from scratch and embracing local food suppliers, with sales of snacks and alcohol increasing. The other, increasing levels of food insecurity amidst economic uncertainty. It is too early to say for the time being what significant dietary changes have occurred at a population level with the vast majority of evidence on changing cooking and eating patterns coming from self-reported data collected via online questionnaires. While it seems true that some have been able to use this time to cook, try new things, and exercise more, this does not appear to have been the case for those on lower incomes or with pre-existing health conditions.

What patterns have been emerging?

A recent survey from the *British Nutrition Foundation* found a diverse range of responses in eating and cooking patterns in the UK during lockdown [14]. The survey of 2,067 UK adults in June found that:

- while 27% of respondents felt they had been eating less healthily during lockdown, 50% said their habits had not changed
- 22% said they had been eating more healthily than usual
- 19% reported getting better at using store cupboard ingredients and 23% had been trying new recipes.
- Just 7% had been ordering more takeaways during lockdown.

These findings are similar to those reported by *Obesity Action Scotland* [15], which found:

- 29% reported eating more vegetables since lockdown while 35% felt the quality of their overall diet had actually decreased since lockdown came into force
- 43% were cooking more meals from scratch
- 44% reported they had ordered fewer takeaways,

The shift towards people returning to more traditional domestic habits is one that can be seen in a number of surveys. The charity WRAP cite a 34% drop in how much food people say they are throwing away, with households reporting that they were doing more pre-shop planning, better managing food at home and using more creative approaches to cooking [16]. A poll undertaken in March 2020 by the Food Foundation and the RSA also found that more than 19 million people (38%) say they are cooking more from scratch and 17 million are throwing away less food (33%) [17]. Four months later, a subsequent Food Foundation survey in July found that 17% felt they and their children had been eating more healthily since the start of lockdown and 28% less so.

These new behaviours appear to be evidenced by increased consumer demand for ingredients such as flour, eggs, and cooking sauces. Yet the factor that links all these activities together is the increased amount of time many people have had throughout lockdown (with fewer commutes and for some, working hours), with families able to eat meals together rather than having different mealtimes. The more positive dietary and cooking behaviours seen have been more pronounced among the younger, wealthier, more urban demographic. Once the Out Of Home sector reopens and home working decreases it remains to be seen how many of these new activities will persist.

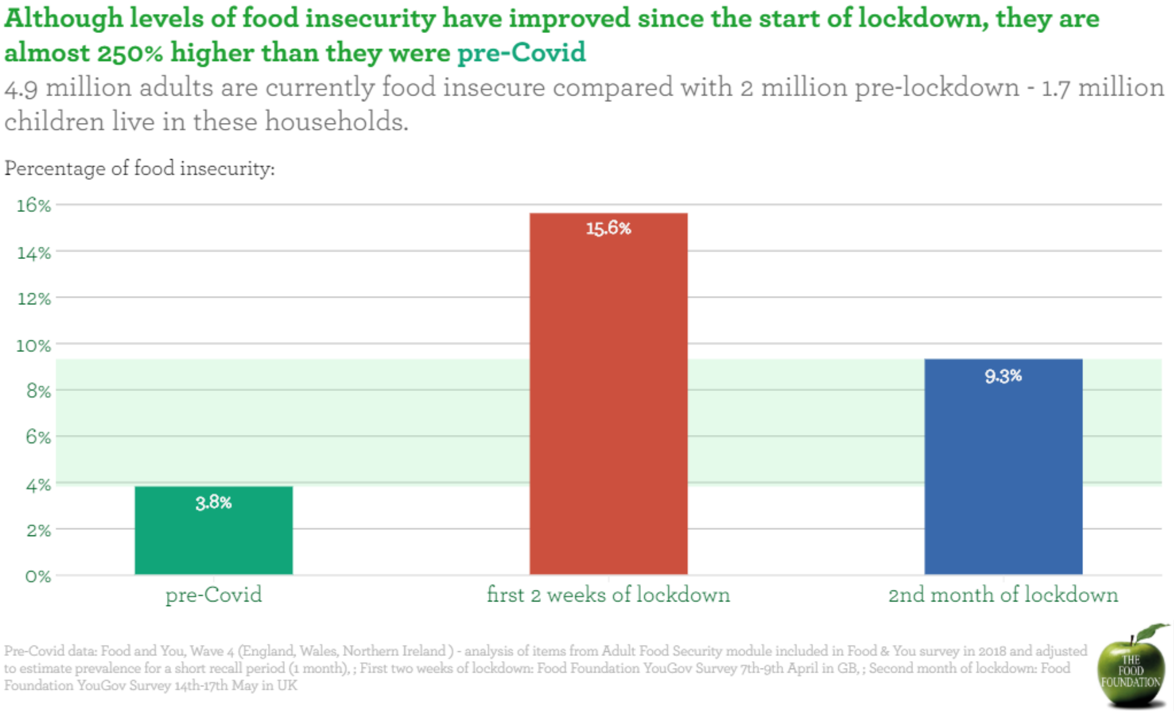
Despite some positive changes, the impact of Covid-19 is not being felt equally with food insecurity increasing

Food insecurity is when individuals do not have reliable access (both physical and economic) to a sufficient quantity of affordable, nutritious food. Two months into lockdown, nearly five million adults in the UK (9%) were experiencing food insecurity, despite the fact that supermarket shelves were better stocked. 1.7 million (12%) children live in these households. Food insecurity in the UK is now almost 250% higher than pre-Covid-19 levels, with the situation likely to worsen in an economic recession [18].

Compared to the average, households which face at least 1.5 times greater than average levels of food insecurity are those:

- with a BAME adult compared to respondents of white ethnicity
- with a disabled adult
- with children dependent on free school meals
- where adults are self-isolating

Figure 3, Levels of food insecurity before and during lockdown. (Source: The Food Foundation)



How is Covid-19 impacting on the wider food environment?

Although retailers were generally quick to respond to the initial shortages caused by larger shopping trips and the general upheaval, as we emerge from lockdown into a probable recession with Brexit on the horizon, the resilience of the UK's food system is likely to be tested further.

There is currently a patchy picture on food prices, with fruit and vegetables particularly at risk of price rises

The Consumer Price Index (CPI) is used to measure inflation in the UK, tracking the average retail price of 'typically' purchased goods in the UK. To date, the CPI index shows a drop in inflation overall since lockdown, but an uneven picture where food prices are concerned. Food and drink was the only category where inflation increased between April and May 2020, yet this reversed between May and June 2020, with prices falling by 0.6% compared with a rise of 0.1% for the same time period a year ago [19].

Food Foundation analysis of CPI data shows that while average retail prices of vegetables as of June were up 1.38% since January 2019, they had actually fallen 5.16% since January 2020. Average prices of fruit meanwhile have been more stable, up just 0.66% on January 2019 and down 0.03% since the start of this year [20]. Any sudden price rises following the end of the British summer harvest season should be closely monitored, given that fruit and vegetables have a number of health and environmental benefits yet are three times as expensive per kilocalorie than more energy dense and less healthy foods. If prices rise following the end of the British summer harvest season, diets – particularly those of lower income families – may be negatively impacted.

Volatile wholesale prices suggest that further price rises may yet have filtered through to consumers, with price rises here likely currently being felt mostly by markets and smaller shops. According to data from Mintec, many fruits were at least a third more expensive in May than in March, with the price of lemons shooting up by 45% over the period [21]. Increased retail demand, strained logistics, and concerns over labour shortages have all been cited as contributing to price rises.

Moreover, according to data by Kantar, overall grocery inflation hit 3.1% in May, the highest level since January 2018 [22]. According to research by the Institute of Fiscal Studies, this is in part being driven by a major drop in price promotions. The number of items on promotion dropped by around 15% from the beginning of lockdown. Before lockdown measures were brought into effect in the UK, 31% of total sales value was through promotions [23].

Shortages appear to be affecting certain foods more than others

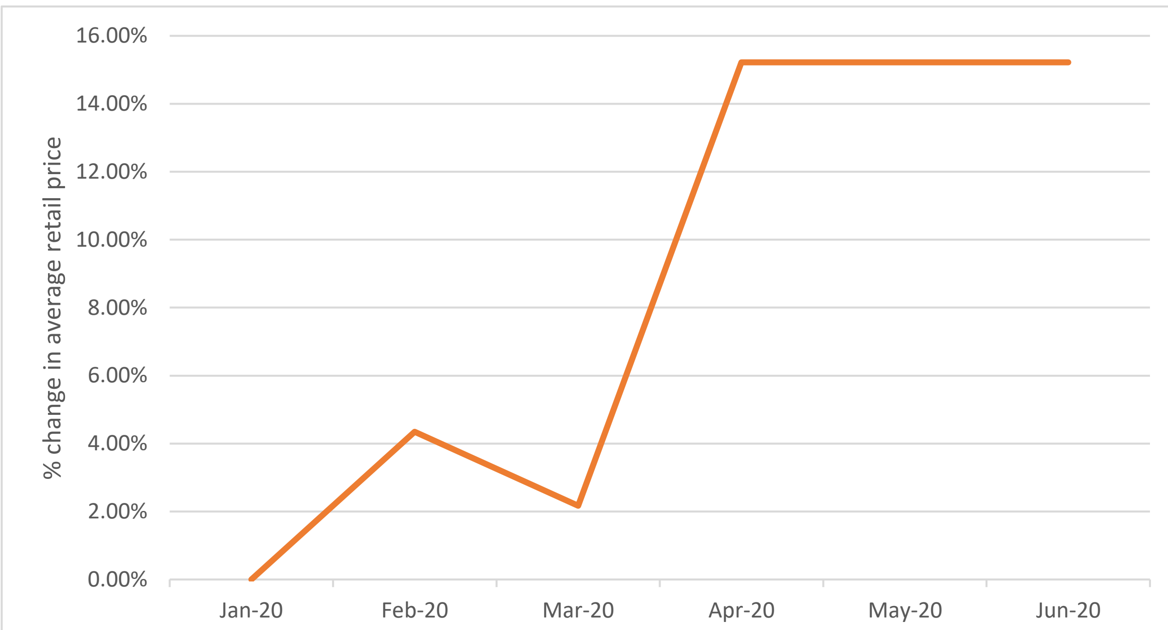
Which foods have been most affected by price rises and shortages is being driven either by changing consumer demand, or by a combination of high demand coinciding with labour shortages. This is both a risk and an opportunity for retailers. Examples of shortages seen to date include:

- Demand for flour soared following lockdown as Brits enthusiastically embraced home-baking during the first few weeks of lockdown. Grocery sales of flour were up 92% in the four weeks to 22 March 2020 compared to the same period in 2019 [24]
- British soft fruit and vegetable crops - typically ready for picking during late spring and early summer – do not seem to have suffered as badly as some initially predicted, when given the

timing of the pandemic many farmers were concerned that worker shortages would lead to a reduction in their usual crop harvests. However, the recent outbreak of Covid-19 on a Herefordshire vegetable farm and packing business which supplies many of the major supermarkets, demonstrated the ongoing challenges the virus is posing for the sector.

- Tinned tomatoes are a good example of a product facing a squeeze at both ends of the supply chain. After demand surged 30% in the UK as citizens stocked up on non-perishable pantry staples, tinned tomato suppliers began rationing stocks to supermarkets [25]. The seasonality of vegetable production was a concern in this instance, with Italian tomatoes making up about three-quarters of UK stocks and usually canned between June and September. With Italy seeing extensive lockdown measures, high prices since March suggests that Covid-19 is affecting tomato harvesting and impacting on price.

Figure 4. Monthly % change in the average retail price of canned tomatoes (390-400g) since January 2020 (Source: Food Foundation analysis using ONS CPI data)

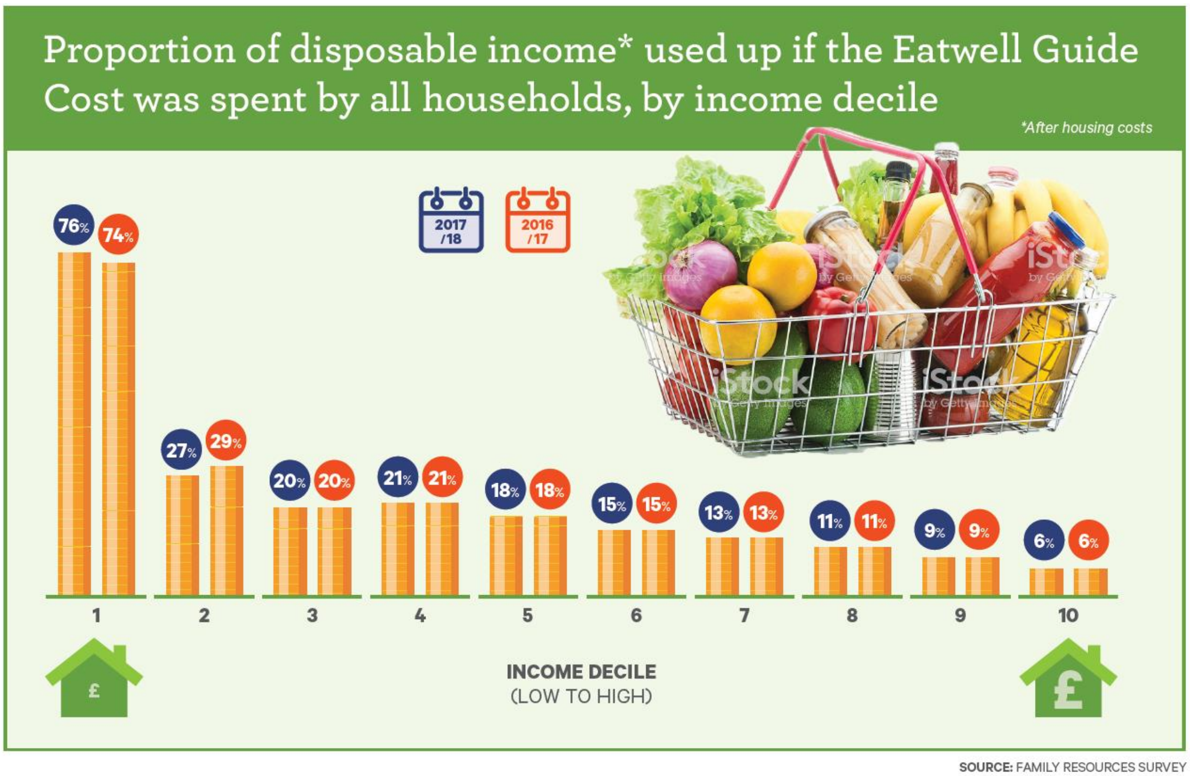


A prolonged economic recession will further squeeze household disposable incomes

The UK's economy shrank by 20.4% in April – the largest monthly contraction ever recorded [26]. The contraction is three times greater than the decline seen during the whole of the 2008 financial crisis, with a prolonged recession looking likely. The Bank of England has warned that the coronavirus pandemic will push the UK economy into its deepest recession on record. Consumer confidence also remains low, despite the gradual easing of lockdown measures, with household spending in the last week of May 18.5% lower than in the equivalent week of 2019 [27]. Preliminary data following the reopening of pubs and restaurants showed spending remained depressed, with the value of card and bank transactions 23% down on last year's levels in the week ending 5th July 2020 [28].

With many companies warning of impending job cuts, particularly once the furlough scheme comes to an end on October 31st, it is likely that wide-spread redundancies will follow with obvious ramifications for consumer spending. The amount families spend on food is heavily dependent on household disposable income, with those earning the least having to spend the largest proportion of their income after housing costs on basic, healthy foods – such as those in the government's dietary recommendations (the Eatwell guide).

Figure 5. The affordability of a government recommended diet by income decile. (Source: The Food Foundation, The Broken Plate, 2020 [29])



Supply chain pressures are likely to face continuing pressure given the globalised nature of our food chain

Although many initially predicted sharp rises in food prices with warnings of global food shortages, four months into the pandemic, the situation is not quite so clear cut. Unlike the spike in food prices seen for staple goods in 2008 - when wheat and rice prices nearly doubled due to a combination of rising oil prices, greater demand and protectionist trade policies - as of April 28th just 15 countries had imposed binding export bans on food [30].

Labour shortages have to date caused most concern for the UK's food supply chain in the face of worldwide travel restrictions and staff shortages. As travel restrictions came into force, a government-backed '*Pick for Britain*' campaign was launched in an attempt to encourage UK workers to take the 75,000 seasonal fruit and veg picking jobs usually filled by migrant workers (just 1% of UK horticultural workers are UK residents)[31].

We are currently in the middle of the British harvest season, with the majority of the Southern hemisphere's harvest season taking place during our wintertime. With cases of Covid-19 increasing in low and middle income countries as infection rates slowly decrease in Western Europe, it may well be that planting delays being experienced in the Global South due to infection control measures will lead to shortages of some foods in the Northern Hemisphere further down the line. António Guterres, Secretary General of the UN, looking ahead to the longer-term global effects of the pandemic in a recent report warned: *"Even in countries with abundant food, we see risks of disruption in the food supply chain."*

What are the implications and opportunities for the convenience store sector?

Changes in consumer shopping, eating and food preparation habits offer a number of entry points for convenience stores interested in responding and adapting to the new food landscape.

1. Capitalise on the unique role many convenience stores play in local communities

The ACS's 2020 rural shop report found that rural shops generated over £15bn in sales over the last year, with more than half (53%) of rural shops operating with no other retail/service businesses close by [32]. Given that many individuals have become newly involved in local community schemes and mutual aid groups during the pandemic (with 40% of people saying they feel a stronger sense of local community)[33], convenience stores have an opportunity to build on this spirit of community togetherness.

Diversifying to act as a hub for other community and local food schemes for example, could act as another revenue stream in addition to fostering customer loyalty. Sales of veg boxes for example increased by 110% during lockdown [34]. With rural consumers reporting that one of the most valuable services offered in their local convenience store is fresh food to go, linking into local food producers and suppliers would align with this renewed interest in local food. Shorter supply chains have the ability to support and strengthen both urban and rural local economies and can sometimes also be a more sustainable production method.

2. Stock a wider variety of cooking ingredients

With many cooking at home more there may be an opportunity for convenience stores to extend their range of available foods and ingredients – particularly if working from home continues at higher rates to pre-Covid-19. Sales of ready meals for example fell by 15.4% during lockdown compared to the previous year [35]. Pulses, fruits, and vegetables are not only versatile cooking ingredients but are also foods within the scope of the Healthy Start voucher scheme, which many convenience stores already accept in store to be redeemed onsite.

One category that has benefitted during Covid-19 is frozen food. Sales data released by the British Frozen Food Federation for the four weeks ending 22nd March 2020 showed sales increased by 28% compared to the same period of time the year before. Sales of frozen veg were particularly buoyant, increasing by 42.5% [36]. Although buyers have since returned to more normal shopping habits sales of frozen foods have yet to return to baseline levels. Sales were up 6.1% in June 2020 year on year, and in the 12-week period to June 14th frozen food outperformed the total grocery market as well as fresh and chilled categories [37]. Many are now predicting that first time buyers of frozen foods during lockdown will continue to buy frozen going forward. Frozen fruit and veg are an affordable and convenient way of obtaining your 5-a-day and can even be more nutritious than fresh fruit and veg given the nutrient losses that can occur during transport and storage. Depending on storage facilities, convenience stores could consider responding to this increased demand for frozen foods.

3. New markets for home workers and click and collect and online delivery options

The number of people working mainly from home had been gradually increasing prior to Covid-19, rising from 4.3% in 2015 to 5.1% (an estimated 1.7 million people) in 2019 [38]. This trend has of course been drastically increased due to lockdown (with government sources pointing to 41% of adults in employment working from home in May) [39] and a number of large global and UK employers are now openly discussing adopting more flexible working patterns in the future [40]. Whilst home-working has previously been more prevalent in the South East of England, it may be that the future of flexible working sees an accelerated increase in home-working across the UK.

This represents a potential market for local food retailers in meeting the demand for convenient lunch solutions. Whilst it should be expected that a proportion of home workers will simply continue to include their lunch requirements in their overall weekly shop, shopping data during lockdown suggests that this will not necessarily be the case. **As such, providing healthy, affordable and easy to prepare services and products could be a growth area for all retailers, including local convenience stores.** Additionally, offering services that are more similar to restaurants, or collaborating with restaurants to provide pre-prepared but healthy meals could be a growth area for this sector.

As mentioned earlier, increased online food ordering and home delivery has been one of the biggest changes in consumer behaviour, and consequently business service provision, during the lockdown. It remains unclear how the online market will actually develop in the forthcoming years, with "at scale" delivery models perhaps still unproven from an economic perspective, but there is a growing consensus that the demand will largely persist across different food industry sectors. Coupled with the potential for more locally based home workers, building on the online capacity that convenience stores have developed in response to the lockdown is an obvious opportunity area.

However, as with the initial impacts of Covid-19, the risks and opportunities across the sector will vary. Transport hubs may remain under-utilized throughout 2020 and food businesses reliant on mobility, such as SSP Group, are already announcing significant business restructuring and job losses with air and train travel hit hard by the lockdown [41].

4. Convenience stores could help to solve society's need for affordable and healthy food

With many having been forced to self-isolate or shield during lockdown, and with job losses set to increase, It is likely that some of these groups may wish to avoid large groups of people at supermarkets (such as those who are medically vulnerable and self-isolating), or be more likely to make smaller shopping trips due to budget and time constraints.

Convenience stores could therefore offer a useful alternative. Healthy Start vouchers for example, are currently accepted by a third of ACS members and provide a useful way of encouraging young families to shop more regularly at convenience stores. Given that some of the more positive reported changes in eating habits (for example eating more fruit and vegetables and buying locally from farmers, butchers and other suppliers) have been seen more among higher income groups, convenience stores could look to support lower income households, for example by offering price promotions on fruit and veg.

What else lies in store over the coming years?

Before the majority of us had ever heard of Covid-19, the biggest potential impact on the food industry came from the uncertainty around post-Brexit trade agreements when the UK left the European Union. This uncertainty remains and could compound the Covid-related risks and opportunities for convenience stores, primarily through shifts in demand and supply. It is outside of the scope of this report to predict any future agreements that the UK will make with the European Union or other countries, but it would be remiss of us not to mention it. Expect more uncertainty for a while yet.

Time will tell if many of the observed changes in how we shop, cook, and eat will last as we start to return to some semblance of normality. Nevertheless, many different interest groups are calling for long-term changes to the UK food system (including NGOs, businesses, and investors) and to some extent there is evidence that citizens also want change. The Obesity Health Alliance has found public opinion moving in favour of more interventionist dietary policies in the wake of a number of studies indicating an association between diet-related diseases and more severe outcomes from Covid-19. 79% support a national plan to improve public health, with 72% of people supporting restrictions on shops promoting unhealthy foods in prominent areas such as checkouts and shop entrances [41]. With the National Food Strategy set for publication in 2021 and promising a rethink of the UK's food system, now is an opportune moment for retailers of all shapes and sizes to engage with food system challenges and opportunities.

Many are now increasingly referring to the period of rebuilding that will follow Covid-19 as Build Back Better. It is often the case that a time of crisis offers up in return an opportunity to fix age old problems, or at least, that is often the narrative: "don't waste a good crisis." As outlined at the beginning of this report, none of the previous challenges that affect our food systems (such as climate change, malnutrition, and biodiversity loss) have gone away and while there is appetite for change, it will not happen of its own accord. As governments and businesses look to rebuild there is an opportunity for food businesses to put health and sustainability at the centre of that growth. Financial investors are increasingly looking to include environmental and social issues in their investments; governments are beginning to look towards green growth; and there are signs that society as a whole wants a better future to emerge from this crisis. The convenience sector should see itself as being part of this opportunity.

References

1. Public Health England. *The burden of disease and what it means in England*. 2015. Available from: https://publichealthmatters.blog.gov.uk/2015/09/15/the-burden-of-disease-and-what-it-means-in-england/

2. NHS Digital. *Statistics on obesity, physical activity and diet in England.* 2019. Available from: https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-obesity-physical-activity-and-diet/statistics-on-obesity-physical-activity-and-diet-england-2019/part-4-childhood-obesity

3. The Food Foundation and the Food Climate Research Network. *Plating Up Progress, part one*. 2019. Available from: https://foodfoundation.org.uk/wp-content/uploads/2019/07/Plating-up-Progress-FINAL.pdf

4. Defra. *Food Statistics in your pocket*. 2019: Summary available: https://www.gov.uk/government/publications/food-statistics-pocketbook/food-statistics-in-your-pocket-summary

5. Office for National Statistics. *Annual Survey of Hours and Earnings, 1997-2019*: Secure Access. [17/03/2020]. 15th Edition. UK Data Service. SN: 6689. DOI: 10.5255/UKDA-SN-6689-14.

6. Malik, S., et al. *ProductChain: Scalable Blockchain Framework to Support Provenance in Supply Chains.* Conference paper, 2018. Doi:10.1109/NCA.2018.8548322

7. Ingram, L. *Convenience and online drive market growth*. IGD Retail Analysis. 2020. Available from: https://retailanalysis.igd.com/news/news-article/t/convenience-and-online-drive-gb-market-growth/i/26071?utm_campaign=1765809_200624.RA.NL.UK.NONSUBS.WED&utm_medium=dmemail&utm_source=IGD%20Services%20Limited&dm_i=2Z8W,11UI9,7A77NK,40JN9,1)

8. Foad, D. *Report predicts 50% fall in hospitality and food service revenue*. Public Sector Catering. 2020. Available at: https://www.publicsectorcatering.co.uk/news/report-predicts-50-fall-hospitality-and-foodservice-revenue

9. Public Health England. *Calorie reduction: The scope and ambition for action*. 2018. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/800675/Calories_Evidence_Document.pdf

10. Kantar. *Record grocery sales as shoppers prepare for lockdown*. Kantar. 2020. Available from: https://www.kantarworldpanel.com/global/News/Record-grocery-sales-as-shoppers-prepare-for-lockdown

11. Kantar. *Grocery Market Share (12 weeks ending).* Kantar. 2020. Accessed, 15th July 2020. Available from: https://www.kantarworldpanel.com/grocery-market-share/great-britain

12. Woolfson, D. *Inflation up to 3.1% on fewer deals and change in channels.* The Grocer. 2020. Available from: https://www.thegrocer.co.uk/prices-and-promotions/inflation-up-to-31-on-fewer-deals-and-change-in-channels/605287.article?utm_source=Weekly%20Shop%20(The%20Grocer)&utm_medium=email&utm_campaign=2020-06-01&c=ND2bHTf9RZEuXrbAjFWUfA%3D%3D

13. The Association for Convenience Stores. *Covid impact survey reveals how stores have adapted since lockdown*. 2020. Available from: https://www.acs.org.uk/press-releases/covid-impact-survey-reveals-how-stores-have-adapted-lockdown

14. British Nutrition Foundation. *BNF survey reveals stress, anxiety, tiredness and boredom are the main causes of unhealthy eating habits in lockdown*. 2020. Available from: https://www.nutrition.org.uk/press-office/pressreleases/lockdownsurvey.html

15. Obesity Action Scotland. *Lifestyle of Scotland's people since the Coronavirus outbreak: summary report.* 2020. Available from: https://www.obesityactionscotland.org/media/1467/polling-summary-report-2805.pdf

16. WRAP. *Citizens and food during lockdown*. 2020. Available from: https://wrap.org.uk/content/citizens-and-food-covid-19-lockdown

17. The Food Foundation and the Food, Farming and Countryside Commission. *YouGov polling, second wave.* 2020. Available from: https://foodfoundation.org.uk/covid_19/rsa-and-food-foundation-survey-shows-changes-in-citizen-attitudes-to-the-food-system/

18. The Food Foundation. *YouGov polling, waves 1-4*. 2020. Available from: https://foodfoundation.org.uk/vulnerable-groups/

19. The Food Foundation. *Covid-19 tracker: The Big Picture.* 2020. Available from: https://foodfoundation.org.uk/covid_19/consumer-price-inflation-data-shows-food-prices-have-risen-in-may/

And: Office for National Statistics. *July Bulletin: Inflation and price indices.* 2020. Available from: https://www.ons.gov.uk/economy/inflationandpriceindices/bulletins/consumerpriceinflation/latest

20. The Food Foundation. Covid-19 tracker: The Big Picture. 2020. Available from: https://foodfoundation.org.uk/covid_19/11011-2/

21. Holmes, H. *Fruit prices soaring as pandemic puts more pressure on supplies*. The Grocer. 2020. Available from: https://www.thegrocer.co.uk/fruit-and-veg/fruit-prices-soaring-as-pandemic-puts-more-pressure-on-supplies/605078.article

22. Woolfson, D*. Inflation up to 3.1% on fewer deals and change in channels.* The Grocer. 2020. Available from: https://www.thegrocer.co.uk/prices-and-promotions/inflation-up-to-31-on-fewer-deals-and-change-in-channels/605287.article?utm_source=Weekly%20Shop%20(The%20Grocer)&utm_medium=email&utm_campaign=2020-06-01&c=ND2bHTf9RZEuXrbAjFWUfA%3D%3D

23. Jaravel, X., et al. *Inflation spike and falling product variety during the Great Lockdown*. Briefing note: The Institute for Fiscal Studies. 2020. Available from: https://www.ifs.org.uk/publications/14880

24. Horton, H. *Flour shortage means industry creates map for bakers that sell it*. The Telegraph. 2020. Available from: https://www.telegraph.co.uk/news/2020/04/27/flour-shortage-means-industry-creates-map-bakers-sell/

25. Butler, S. *Suppliers ration stocks of tinned tomatoes after surge in demand.* The Guardian. 2020. Available from: https://www.theguardian.com/business/2020/apr/17/suppliers-ration-stocks-tinned-tomatoes-after-surge-demand

26. British Broadcasting Corporation. *Bank of England 'ready to act' as economy shrinks record 20%.* BBC. 2020. Available from: https://www.bbc.co.uk/news/business-53019360

27. Romei, V., et al. *Consumers' reluctance to spend puts brake on UK recovery*. The Financial Times. 2020. Available from: https://www.ft.com/content/3d6a41ec-585f-4b3e-bab5-10b1026e0f28

28. Romei, V. *UK consumer spending down despite reopening of hospitality sector.* The Financial Times. 2020. Available from: https://www.ft.com/content/98db5d94-ce2b-4038-bd48-64838bf13be7

29. The Food Foundation. *The Broken Plate, 2020*. (Unpublished data)

30. International Food Policy Research Institute. *Project: COVID-19 Food Trade Policy Tracker*. 2020. Available from: https://www.ifpri.org/project/covid-19-food-trade-policy-tracker

31. Office for National Statistics. *Labour in the Agricultural Industry UK: February 2018*. 2018.

32. The Association for Convenience Stores. *The Rural Shop Report 2020*. 2020. Available from: https://www.acs.org.uk/research/rural-shop-report-2020

33. The Food Foundation and the Food, Farming and Countryside Commission. *YouGov polling, second wave.* 2020. Available from: https://foodfoundation.org.uk/covid_19/rsa-and-food-foundation-survey-shows-changes-in-citizen-attitudes-to-the-food-system/

34. Wheeler, A., et al. *COVID-19: UK Veg Box Report*. The Food Foundation. 2020. Available from: https://foodfoundation.org.uk/wp-content/uploads/2020/05/Food-Foundation-COVID-19-Veg-Box-Scheme-report.pdf

35. Selwood, D. *Locked-down Brits shun frozen ready meals for scratch cooking.* The Grocer. 2020. Available from: https://www.thegrocer.co.uk/consumer-trends/locked-down-brits-shun-frozen-ready-meals-for-scratch-cooking/605254.article

36. Morrison, O. *Lockdown drives frozen food sales up 28% in UK.* Food Navigator.com. 2020. Available from: https://www.foodnavigator.com/Article/2020/04/28/Lockdown-drives-frozen-food-sales-up-28-in-UK?utm_source=newsletter_weekly&utm_medium=email&utm_campaign=From%2024-Apr-2020%20to%2001-May-2020&c=9Jz799APe8PbWPoioZAxnwA7E%2FHrhOk4&p2=

37. Frozen Food Europe. *Frozen sales continue to surge in the UK.* 2020. Available from: https://www.frozenfoodeurope.com/frozen-sales-continue-to-surge-in-the-uk/

38. Office for National Statistics. *Coronavirus and homeworking in the UK labour market: 2019*. 2019. Available from: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/coronavirusandhomeworkingintheuklabourmarket/2019

39.Prime Minister's Office, 10 Downing Street. *Slides, datasets and transcripts to accompany coronavirus press conferences*. 23rd May 2020. Available from: *https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/887248/2020-05-23_COVID-19_Press_Conference_Slides.pdf*

40. Sweney, M. *Flexible working will be norm after lockdown, say Barclays and WPP bosses.* The Guardian. 2020. Available from: *https://www.theguardian.com/business/2020/apr/29/flexible-working-will-be-norm-after-covid-19-lockdown-say-barclays-and-wpp-bosses*

41. Thomas, D., et al. *UK high street suffers huge job losses.* The Financial Times. 2020. Available from*:* *https://www.ft.com/content/ac304b99-0e93-40c0-b807-e06b3deb0f93*

42. Obesity Health Alliance. *74% of the public support government action on obesity in the wake of emerging links with Covid-19.* 2020. Available from: http://obesityhealthalliance.org.uk/2020/06/03/74-of-the-public-support-government-action-on-obesity-in-the-wake-of-emerging-links-with-covid-19/