THE POTENTIAL ECONOMIC IMPACT OF THE 4-WEEK CIRCUIT BREAKER

Covid-19 and the associated restrictions have had a profound impact on the Northern Ireland economy. At the height of spring lockdown, output in the economy was operating at around 25% below normal levels, with many sectors shutdown. Where Northern Ireland's pre-pandemic economy was worth around £42bn, in Gross Value Added (GVA) terms, per annum, it is estimated that approximately £5bn of output could be lost during 2020.

Many jobs were not viable under the restrictions and so the HMRC Coronavirus Job Retention Scheme (CJRS) and Self-Employment Income Support Scheme (SEISS) paid income for these workers.

Almost 250,000 employments availed of CJRS and over 70,000 claimed from the SEISS. While these are cumulative figures, figures from the latest HMRC release show that many employments were 'unfurloughed' over the summer, as the NI Executive reopened the local economy and businesses began trading again.

Even though the furlough schemes have both been instrumental in avoiding more widespread job losses, the Claimant Count doubled from its pre-pandemic level of around 30,000 to just over 60,000 in the latest figures released for October 2020.

Despite a recovery underway over the summer, the local economy then faced fresh restrictions due to rising Covid-19 infection levels. Beginning in mid-October, Regulations closed many food and accommodation businesses, hairdressers, beauticians, as well as indoor museums, galleries, bingo halls etc. These restrictions are to last four weeks.

The Department for the Economy has undertaken an initial assessment of the economic impact of the four-week circuit breaker, and this paper considers that the measure is likely to have had the following impact:

- Initial indications are that the four-week circuit breaker introduced in Northern Ireland may lead to **a loss of £400m to our economy**. Even if this is an overestimate, we consider the impact is probably in the magnitude of hundreds of millions of pounds (i.e. £200m plus).
- The figures include direct and indirect losses along with the costs of a potential delay to the partial recovery.
- This comes on top of **losses of £4bn to 5bn already caused by the impact of Covid-19 and the original lockdown earlier this year**.
- Severe financial consequences experienced by the Accommodation & Food, Close Contact Services and the Arts, Entertainment & Recreation sectors, and supply chain businesses, with a **direct impact of the circuit breaker on around 60,000 jobs**.
- Many workers have been affected, but indications are that **females, younger workers and those on low pay may have been most adversely affected**.

Context of Current Situation

The future of the Northern Ireland economy will be determined by how well we adapt to Covid-19 and any new trade relationships. Our relative economic position could be worse if we fail to move as quickly and effectively as those around us. According to McKinsey, *"countries that deliberately shape the next normal, rather than moving to the next stage haphazardly, will have greater success in saving both lives and livelihoods."* [i]

The United Kingdom is perhaps on a current course of action which is insufficient at the present time to deliver full economic recovery. It is essential for the future success of Northern Ireland that it does not experience a pattern of stuttered growth. Businesses are asking for certainty. Those businesses and workers which have invested physical and human capital in their future need to know they are not facing a cumulative series of setbacks.

In a single year, we may now face three quarters where growth will have been materially negative (Q1, Q2 and Q4). This will have human welfare consequences – on livelihoods, incomes and future prospects. Actions now may avert a situation of long-term 'scarring' to the Northern Ireland economy.

Assessment of Direct Impact on Economic Output

Northern Ireland's pre-pandemic economic output was around £42bn in Gross Value Added[ii] (GVA) terms and £49bn in Gross Domestic Product[iii] (GDP) terms.

With ever-available outturn data, we are able to quantify the magnitude of the economic decline due to the lockdown in late March 2020. At the height of spring lockdown, output in the economy was operating at around 25% below normal levels, with many sectors shutdown. Consequent losses are estimated to be around £4bn to £5bn in 2020 as a whole.

It has also been possible to track the recovery over the summer months as businesses were able to trade more freely again and consumers felt more comfortable to visit establishments. This was facilitated by the NI Executive reopening the NI Economy. However, while the rebound was strong, the economy had not yet fully reverted back to pre-pandemic levels before it was impacted by the 4-week circuit breaker.

While it may be possible to theoretically assess the impact of an identical lockdown scenario as spring, other restriction measures are difficult to model. Therefore, it should be noted that the economic and health situation is highly fluid and uncertain and that any estimates are only provided in good faith, to the best of our knowledge. For that reason, the estimates below are intentionally not provided with precision attached, but merely to give a possible impact, based on the recent experience.

The direct impacts of the 4-week circuit breaker fall on hospitality, sport, arts, entertainment and recreation as well as close contact services. By examining the Regulations, we can establish the three sectors most directly affected by the 4-week circuit breaker.

Pre-Covid-19 Annual GVA in Northern Ireland (Directly Affected Sectors Only)

Directly Affected Sector	Annual GVA (£bn)
Accommodation & Food Service Activities (Hospitality)	£1.05
Arts, Entertainment and Recreation	£0.49
Other Service Activities	£0.61
Total for Selected Sectors	**£2.15**

For simplicity, if we assume that this GVA is not produced for a month, this works out as a loss of £180m per month (i.e. £2,150m / 12 = £180m). It should be noted for example that some limited activities are permitted – such as takeaway sales. There may also be ongoing economic activity still being undertaken within these sectors perhaps which can be counted in GVA statistics.

In considering all this, we suggest that the **direct impact to Northern Ireland's economic output from the four-week partial lockdown could be over £120m**[1]. This appears a good starting point for the direct impact only, but could be subject to further refinement.

This figure is assuming a swift reopening and 'bounce-back' once restrictions are lifted after four weeks, perhaps exhibiting pent-up demand. It is worth noting however, that it took a few months for UK output to recover to the latest partial recovery levels after the spring lockdown. A number of stimulus measures were introduced to help encourage demand (Eat Out to Help Out Scheme and a VAT cut for hospitality and tourism) and these may not be repeated.

Sectors such as hospitality and close contact services rely upon bookings, which may take a few weeks / months to fully materialise.

It is also important to note, this estimated monthly amount, comes on top of losses of £4bn to 5bn already factored in for 2020 due to the impact of Covid-19 and the original lockdown. Four forecasts (UUEPC, EY, Danske Bank, KPMG) for 2020 output converge roughly around a -11% hit to the Northern Ireland economy.

It is difficult to know with certainty, exactly how the affected sectors would have performed over the four weeks if the measures were not introduced. In addition, it is important to note that modern economies are a network of complex relationships between businesses, workers and wages, supply chains etc. Economic sectors in Northern Ireland are interlinked and interdependent. This direct impact has not taken into account:

- Mitigation measures (grants, CJRS, SEISS etc).[iv].
- Potential spend elsewhere offsetting the losses (for example consumers buying food, alcohol, hair dye in the supermarket).
- Recently announced Departmental expenditure.[v]

[1] This is in GVA terms. Turnover lost within these sectors may be substantially higher. Gross value added is the value of output minus the value of intermediate consumption.

- A negative multiplier effect from this reduced activity.[2] Possible effects of closures on other sectors, such as retail, transportation & storage, manufacture of food products etc.
- Closure of schools impacting on labour supply and affecting output in other sectors.
- Loss of confidence which could impact on current and future investment and spending.
- Possible delay to the date of full recovery to pre-pandemic levels, meaning any losses would be cumulative over time.

Tourism and hospitality businesses have been massively impacted by Covid-19. Closure in March and restricted partial re-opening from July (on a social distancing basis and associated reduction in venue capacity) has significantly reduced the potential to generate the revenue needed to see the industry through the Autumn and Winter period. The current four-week restriction period has exacerbated the challenge faced by tourism and hospitality businesses. Those that have been required to close have missed an opportunity to generate much need revenue (Government supports help offset this but only in part), while those that have been permitted to stay open have experienced falls in custom as a result of the message that there should be no unnecessary travel.

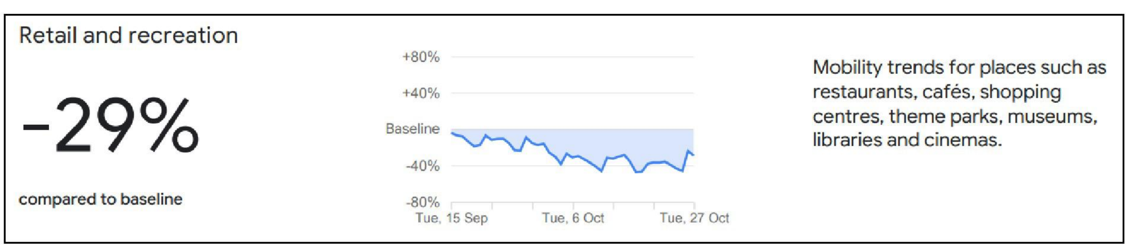
Assessment of Confidence and Retail Impact on Economic Output

The closure of bars, restaurants, cafes, hairdressers and other hospitality and close-contact businesses has very likely had a knock-on effect on other parts of the economy due to reduced footfall in towns and cities across Northern Ireland. Speaking soon after the circuit breaker was introduced, Retail NI chief executive Glyn Roberts said: [vi]

> *"Without a doubt, since last Friday's shutdown of the hospitality sector members have reported a significant reduction in footfall and trade…..That is why we were so opposed to closing the hospitality sector, because the impact goes far beyond just that sector…..It has an impact on city centres, on high streets, and of course the supply chain as well."* [3]

There is anecdotal evidence that the earlier partial lockdown in Derry City & Strabane District Council impacted on retail activity. Indeed, data on people movements by district council would support this.

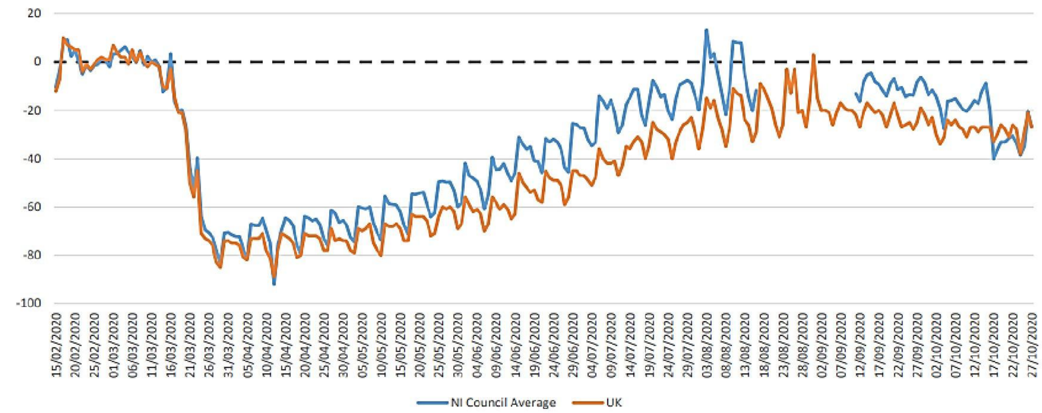
Derry City & Strabane District Council Mobility Levels - Retail & Recreation



[2] The negative multiplier effect occurs when an initial withdrawal of spending from the economy leads to knock-on effects and a bigger final fall in real GDP.
[3] As reported in the NewsLetter on 22 October 2020.

There has been a notable decrease in retail and recreation mobility levels for all other Local Government Districts, beginning around the time that the latest restrictions on the hospitality and recreation sectors were discussed / announced / implemented. [vii]

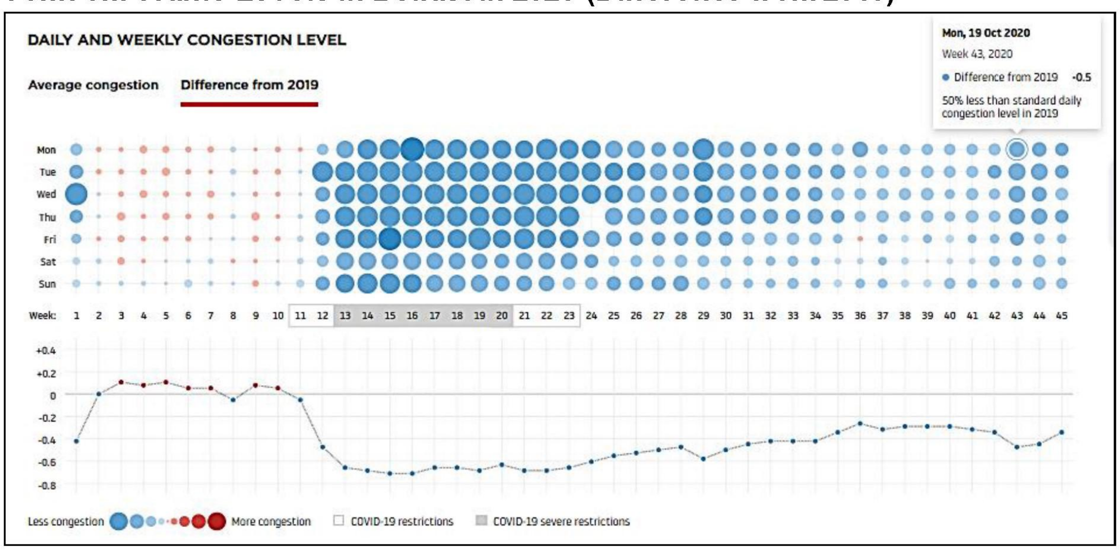
Google Mobility Graph for Retail & Recreation (NI Average)



Note: Figures for NI are based on an average of council-level figures.
Data for Retail & Recreation from the 17th August – 8th September has been revised and updated by Google to ensure consistent data reporting across categories.
Data is not presented between 17th Aug – 10th Sep at NI level due to insufficient data.
Link to Google Mobility Report: https://www.google.com/covid19/mobility/index.html?hl=en

Current mobility data shows a reduction of people movement levels of late, from the summertime and especially around the time of Eat Out to Help Out. It should be noted however when interpreting the above graphs that the latest restrictions on the hospitality and recreation sectors is also being picked up in the reduction, and not just lower movements to shopping centres etc (although the two are probably linked). Therefore we also consider traffic levels and the latest footfall data below. The latest TomTom data for Belfast shows that congestion levels are lower since the partial lockdown was introduced. **The reduction in congestion may be partly related to schools being off**.

TomTom Traffic Levels in Belfast in 2020 (Difference from 2019)[viii]



Note: Less congestion is a larger / darker blue circle.

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Data from Springboard (26 October 2020) reveals material declines in footfall. By far the most modest decline in footfall of -0.9% from the week before occurred in England, while in Scotland it dropped by -2.7%, by -3.8% in Wales and by -12.2% in Northern Ireland. In Northern Ireland, as across the UK as a whole, it was in high streets where footfall was most impacted, with a decline of -15.5%, versus just -2.6% in shopping centres and a rise of +1.5% in retail parks. High street footfall in Northern Ireland was impacted across the entire day, but more severely in the period post-5pm when it dropped by -29.7% versus -15.3% in Wales, -9.9% in Scotland and by an average of -2.1% across England's regions. [ix]

Retail NI chief executive Glyn Roberts described the figures as *"a stark illustration of the scale of the huge threat facing our high streets in Northern Ireland"* as he appealed for government intervention to aid the sector. Mr Roberts stated that *"translating this data means tens of thousands of jobs in retail, hospitality and the wider supply chain are at risk over the next few months…."* and that it was *"vital for our high streets that our hospitality sector is allowed to reopen at the end of this current circuit breaker."* [4]

In more up-to-date data, it was reported on 5 November 2020 that "*The firebreak in Wales and the closure of hospitality in Northern Ireland led to high street footfall dropping in the final week of October by 78.5 per cent in Wales and 50.3 per cent in Northern Ireland."* Referring to prospects for the month of November 2020, Springboard stated that *"the loss of this trading opportunity will be irreversible for many businesses…..The spending lost from these stores in these key trading weeks will simply not be recovered."* [x]

Latest information from the Ulster Bank Purchasing Managers Index (PMI) for Northern Ireland shows that the retail element of the index fell to 46.0 in October 2020, its lowest level for five months. Any number below 50 signifies a decrease/contraction, compared to the previous month. It is difficult to know however at this moment in time, if the 4-week circuit breaker has been partly responsible for this sentiment.

It should also be noted that different retail data and surveys is showing mixed news at the present time – ranging from a small / negligible impact or a more noticeable impact.

In considering all the above, we can say therefore that in addition to the direct impact on the hospitality, arts and close contact services, there may be a general feeling of negativity and lack of confidence that relates to even just a partial lockdown, and that this may impact on consumer spend (even though non-essential retail was not closed by the Regulations).[5] It is difficult to know the duration this will take. Perhaps with schools reopening, retail activity will improve somewhat.

By way of example, a 10% or 20% decline in Retail GVA in Northern Ireland, for a month only, in a sector worth £5.81bn a year, equates to an **additional £50m or**

[4] As reported in the NewsLetter on 27 October 2020.
[5] Given the unique circumstances of Covid-19, this a secondary impact of the partial lockdown, rather than an indirect effect in a conventional modelling sense (i.e. supply chains impact etc).

£100m loss, respectively, on top of substantial losses already sustained in 2020 from the first lockdown. We are not saying that this additional loss will necessarily materialise, but we include it for the purposes of this impact paper, as a possible knock-on consequence / scenario.

This is the time of year, referred to as the 'golden quarter' in which retailers aim to make increased sales. Research by the Bank of England indicates that a typical household in the UK spends over £800 extra in December - in addition to typical household spend of over £2,500 each month normally.[xi] There may be a timing effect, where consumption which would have occurred is deferred until later and in an optimistic scenario, any purchases not made locally by families in October / November this year, may be saved for December.

Assessment of Indirect and Induced Impact on Economic Output

Economic sectors in Northern Ireland are interlinked and interdependent. A fall in one sector may impact on others.

In a growing economy, if there is an increase in final use for a particular industry output, we can assume that there will be an increase in the output of that industry, as producers react to meet the increased use; this is the **direct effect**.

As these producers increase their output, there will also be an increase in use on their suppliers and so on down the supply chain; this is the **indirect effect**.

As a result of the direct and indirect effects the level of household income throughout the economy will increase as a result of increased employment. A proportion of this increased income may be re-spent on final products, this is the **induced effect**.

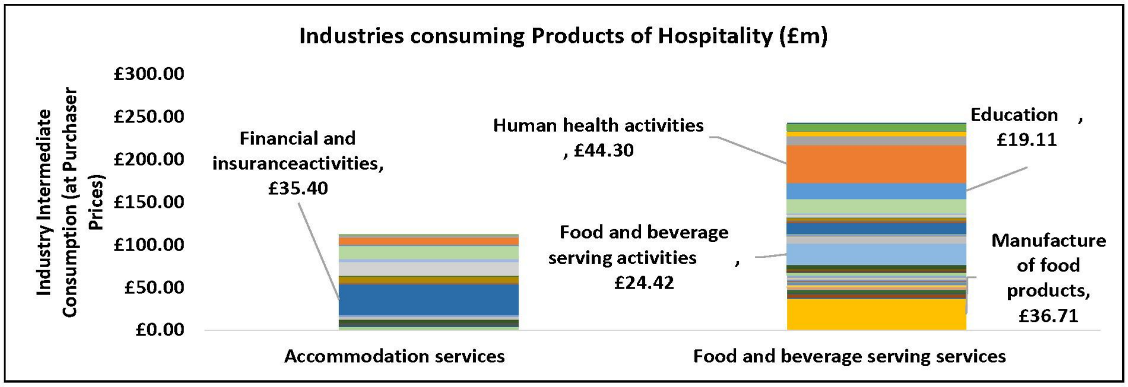
The ability to quantify these multiplier effects is important as it allows economic impact analyses to be carried out on the NI economy.[xii]

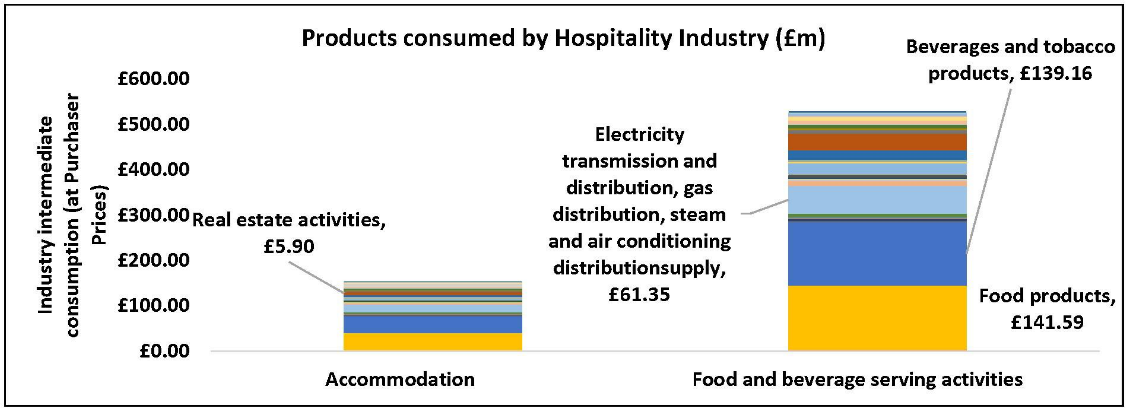
However, in current circumstances, with businesses being forced to close, a **negative multiplier effect** is more likely. The negative multiplier effect occurs when an initial withdrawal of spending from the economy leads to knock-on effects and a bigger final fall in real GDP.

NISRA have Supply-Use Tables, which can form the starting point for the production of the Input-Output tables. Using this information, some of the knock-on impact from the most affected sectors from the 4-week circuit breaker are shown below[6].

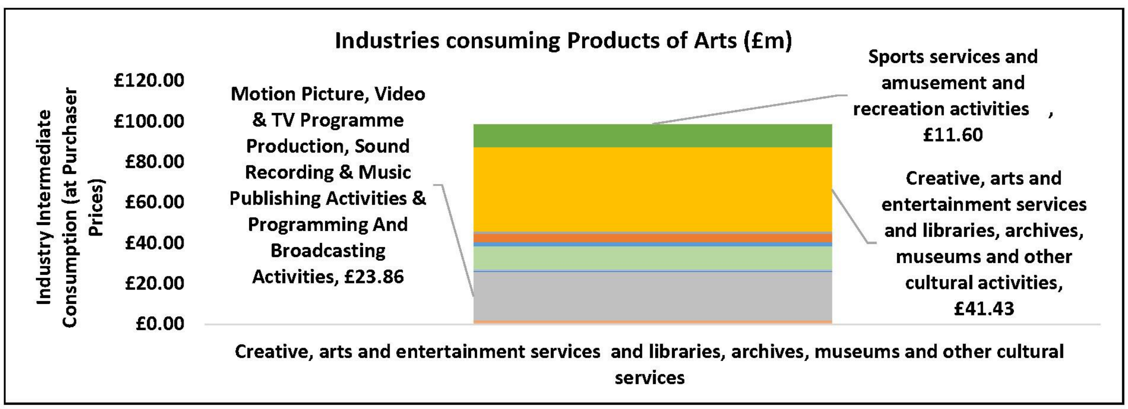
[6] Note that this is annual data from 2016. Users should adopt a cautious approach to the use of the multipliers, which are prototype in nature. A list of assumptions and limitations are provided by NISRA. Input-Output Table Multipliers are not well suited, for example, to estimate very large scale changes to the economy or aspects of the economy experiencing significant or rapid changes from the reference year.

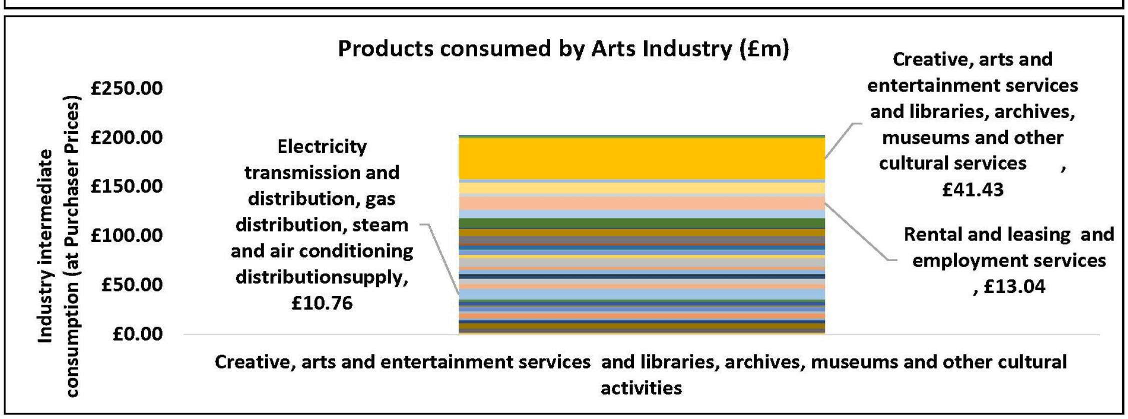
Hospitality Sector – Intermediate Consumption (£m) (Annual Data for 2016)



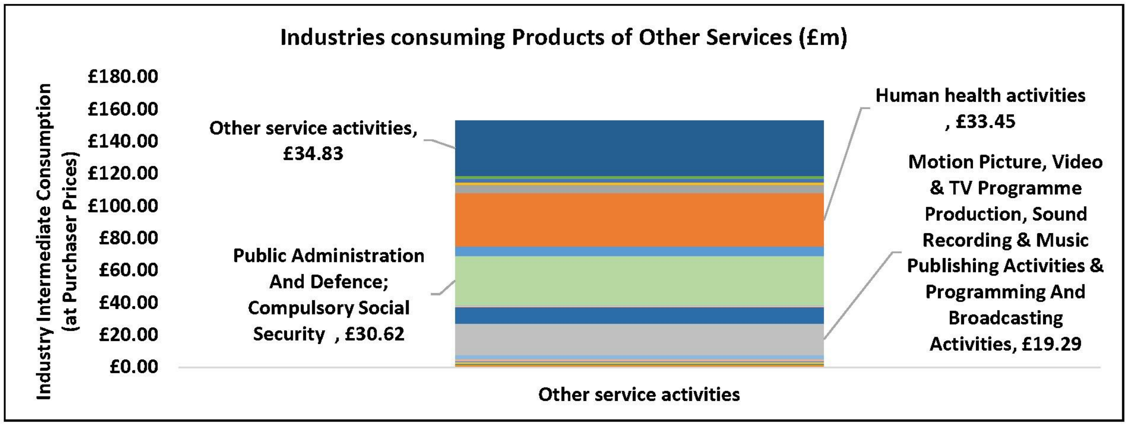


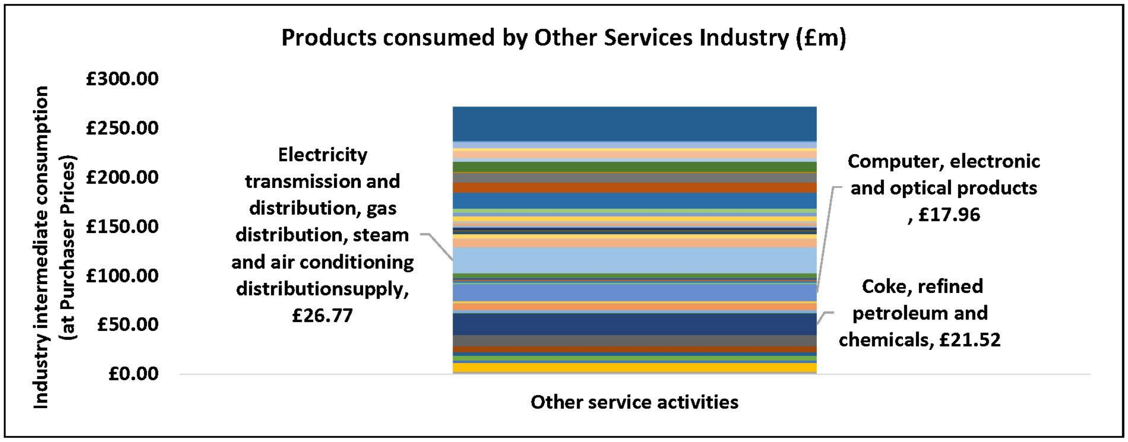
Arts, Entertainment & Recreation Sector – Intermediate Consumption (£m)





Other Services Sector – Intermediate Consumption (£m)





In looking at the October PMI data Richard Ramsey at Ulster Bank stated that *"Services orders slumped, which is not surprising given the closure of the hospitality sector and other services firms due to lockdown."* [xiii]

In considering the information above, there may be merit in supposing **that approximately £80m of losses may relate to indirect spending** over the 4-week period of the circuit breaker, such as on manufacture of food products etc.

Assessment of Impact of Non-Immediate Bounce-Back on Economic Output

If we then consider that there could be a delay to activity returning to relative normality after the 4-week break, then this may cost, say a quarter, or half as much again (of the £120m + £80m mentioned above), perhaps with **losses of another £50m to £100m.**

However, the longer the delay, the larger the losses. If this delay to recovery was measured in many months and quarters then the figures above would be a substantial underestimate.

There could be a case for saying that once businesses re-open pent up demand will lead to a higher than normal surge in business. This may occur for some sub-sectors. However, those businesses which rely on bookings may take some time to experience busy times again. Some activities, such as a man getting his hair cut, are unlikely to now occur twice in quick succession just because the barber was closed for a month.

If given the chance, the Retail sector should still perform relatively well in December, especially as many families in Northern Ireland are looking forward to Christmas, given the challenging year 2020 has delivered.

Overall Assessment Impact on Economic Output and Other Methodologies

Adding the direct and other estimates together, along with a potential delay to the partial recovery, we consider that losses of up to £400m seem possible. This is a very approximate estimate and is dependent on the outcomes outlined and roughly quantified above materialising.

While noting the uncertain nature of the calculation, in GVA terms, **a reduction of around 1 percentage point from annual GVA**, on top of losses of 11% or so already sustained, are conceivable at this point in time.[7] [8]

In terms of sense-checking this approximate 1 percentage point reduction, it is worth noting that the Bank of England has increased its estimate of a UK-wide GDP contraction for 2020 by a further 1.5 percentage points following recent restrictions across the UK nations. The Bank of England's projections are conditioned on an assumption that Covid-19 restrictions weigh materially on UK and global activity in the near term. The forecast includes UK restrictions announced up to and including 31 October 2020. Those restrictions include heightened England-wide measures for the period 5 November to 2 December, following an intensification of regional and sub-regional tiered restrictions; the five-level system of restrictions announced by the Scottish Government that came in on 2 November; the fire-break lockdown in Wales, which came to an end on 9 November, after just over two weeks; and a four-week period of additional restrictions in Northern Ireland ending on 13 November 2020. [xiv]

For Northern Ireland, a 1 percentage point reduction[9] in annual GVA is still a significant loss, especially when considered on top of losses of £4bn to £5n already factored in for 2020 from the spring lockdown. The spring lockdown had more stringent restrictions and thus had a more severe impact however, where it was estimated that every one month of lockdown lowered annual GDP growth by 2-3 percentage points.[xv] Many forecasters are expecting current restrictions to further delay recovery.

It is very possible that the above analysis is an underestimate. If other sectors are materially affected as a consequence of the 4-week circuit breaker (construction, manufacturing etc) then it will look more like a Q2 outcome and losses could be £1bn

[7] By way of comparison, the CEBR considered that new hospitality restrictions in England could cause GDP to sink between three and five per cent in the final three months of the year.
[8] We have modelled potential GVA month-to-month. As the situation is so changeable and fluid over the year, this approach allows short-term impacts to be estimated.
[9] Even in a more optimistic view, a 0.5 percentage point / £200m loss is still sizeable.

to £2bn, meaning a reduction of 3-5p.p. from annual GVA. At the moment we are assuming that the impact of the circuit breaker is relatively contained.

By way of context, Dr Esmond Birnie, senior economist at Ulster University, has said a six-week lockdown, on the same scale as was implemented during the first Covid-19 wave, could result in the GDP in Northern Ireland reducing by up to 5%, amounting to around £2.2bn of losses.[xvi] Dr Birnie stated *"It would be very serious, there's no doubt that it would be grave."*

While we assume that a six–week lockdown "on the same scale" probably factors in a wider impact on manufacturing, construction and retail than the 4-week circuit breaker, it does provide a level by which to compare the circuit breaker calculations above with, especially if the partial lockdown was to continue and/or if the scope of the lockdown measures were widened to more sectors.

Richard Ramsey at Ulster Bank has estimated that Northern Ireland is on track for a contraction of 15% in 2020, mentioning the correlation between the coronavirus restrictions and economic decline:

> *"The resurgence of the Covid-19 virus and the reintroduction of lockdowns across Europe is expected to see economies contract over the course of the fourth quarter……The longer the restrictions remain in place the deeper the contraction will be."* [xvii]

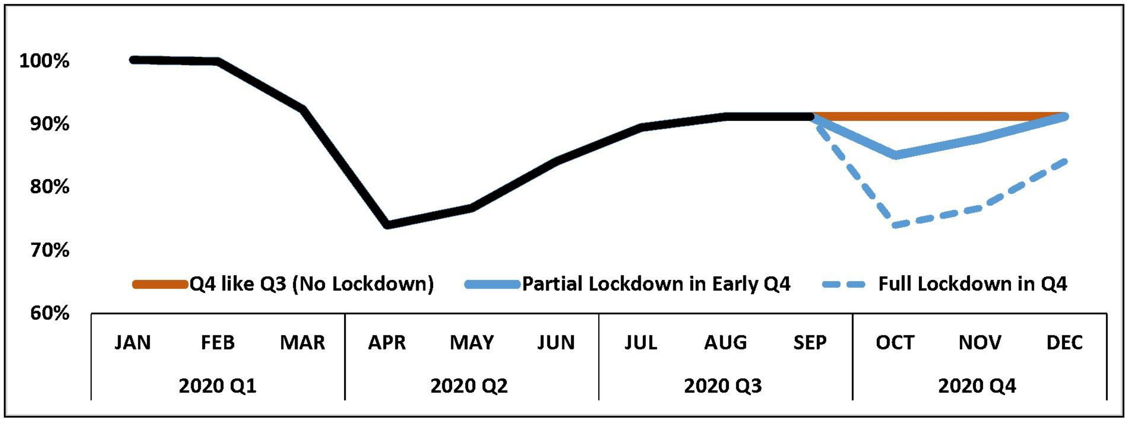
A 15% reduction over 2020 would mark a serious downgrade of growth, by a number of percentage points, over the consensus of around -11% made by various organisations before the latest restrictions.

It is also important to be mindful that 2020 Q4 may have seen the cementing and improvement of a recovery path towards 100% of output. At the present time it is difficult to ascertain an exact counterfactual. Regardless of the exact counterfactual scenario, we still consider that the 4-week circuit breaker will have an adverse economic impact. The precise impact may never be known, even with outturn data.

In the graph below we chart a partial lockdown akin to the 4-week circuit breaker, using an output profile approach informed by UK Monthly GDP estimates. The blue solid line for the partial lockdown assumes that the output foregone in early Q4 is not as severe as at height of spring lockdown, which was around 25% below normal levels. However, this 4-week circuit breaker may still represent an economy around 15% below normal levels, due to the restrictions and the fact that many businesses have been forced to close, as well as a legacy demand impact from earlier in the year.

If GVA exhibits an output profile matching the solid blue line, it represents **a loss of some £350m** when compared to a situation where output remains steady over Q4 (which is a modest assumption given that recovery could have continued upwards).

Potential Output Profile for Northern Ireland in 2020



Source: DfE Analysis

By way of comparison, a separate, alternative short paper on the possible direct, indirect and induced impact of the current 4-week circuit breaker is available at Annex A. This analysis was undertaken using a Hypothetical Extraction Model on the Northern Ireland economy (pre-pandemic), built for DfE by the Fraser of Allander Institute.

The theoretical modelling indicates the cumulative annual effect of the closure of these services could result in a direct output loss of £2.56bn to Northern Ireland's Economy, due to the reduction of expenditure by these firms. The reduction in final use has knock-on effects for both indirect and induced impacts, which cumulatively has a total output effect of £5.12bn. **However if these losses were contained within the 4-week circuit breaker, the total output effect would be a £423m loss to the economy.**

Therefore, based on all available information at this moment in time and considering other methodologies, **in an initial assessment we consider the four-week circuit breaker introduced in Northern Ireland may lead to a loss of £400m** but acknowledge it comes with a sizeable margin of error (positive and negative) as could be materially higher or lower.

Summary of Estimates of 4-Week Circuit Breaker Losses

Methodology Adopted	Estimate	Notes
'Possible Range' Approach	Up to £400m	This looked separately at potential direct impact, indirect impact, hit to confidence, non-immediate bounce-back etc, step-by-step.
Output Profiling Approach *(As per graph above)*	£350m	Assumes a dip in output early in Q4, but this recovers somewhat by December.
Extraction Model Approach *(Direct + Indirect + Induced)*	£423m	Assumes losses contained within 4-week circuit breaker.
Overall Estimate Adopted	**£400m**	**Based on all available information we adopt a plausible figure of £400m, but acknowledge a sizeable margin of error. Even if this is an overestimate, we consider the impact is probably in the magnitude of hundreds of millions of pounds (i.e. £200m plus).**

It should be remembered that wider factors are at play than just the current restrictions in Northern Ireland. Many of these factors are outside the control of the NI Executive. For example, many external sales from Northern Ireland go to Great Britain, which has seen many local lockdowns lately (including one now which is England-wide). The Republic of Ireland has recently restricted cross-border car movements[xviii] which may have an impact on retail sales in border towns and cities in Northern Ireland.

It is also important to be mindful of the limitations of our output calculations, which cannot ever account for all factors. Warning about the impact of a second lockdown scenario across the UK, the Centre for Economics and Business Research (CEBR) has stated:

> "*The bigger cost is the unmeasurable cost – many people feel that progress going into reverse would knock the stuffing out of consumer and business confidence. Whereas the first lockdown was bearable on the assumption that it was temporary, a second lockdown will make many people lose confidence in a recovery in the foreseeable future. This will have knock on effects on investment and business shutdowns as well as on jobs. Many people are being kept on, not because of their current productivity but so that they will be available when business picks up. If people start to lose hope in the economy recovering in the foreseeable future, the knock-on effect could well be a multiple of anything that could emerge from an economics calculation.*" [xix]

There are a number of risks associated with the 4-week circuit breaker coming so soon after the spring lockdown and some of these may be difficult to measure. This assessment cannot take into account intangible concepts such as entrepreneurial spirit being damaged, skills deteriorating over time and confidence in institutions weakening. All of these may impact on growth in the long-term.

A more longer-term 'scarring effect' from partial lockdowns cannot be ruled out, even if less pronounced than a full lockdown. Going into a full lockdown for the second time would have severe consequences, business experts have warned. Julian Jessop, a fellow at the Institute of Economic Affairs, said:

> *"We can take one hit to the economy, but not two of that size…..It would lead to permanent scarring in the economy, and much higher levels of unemployment for longer."* [xx]

Assessment of Financial Resilience

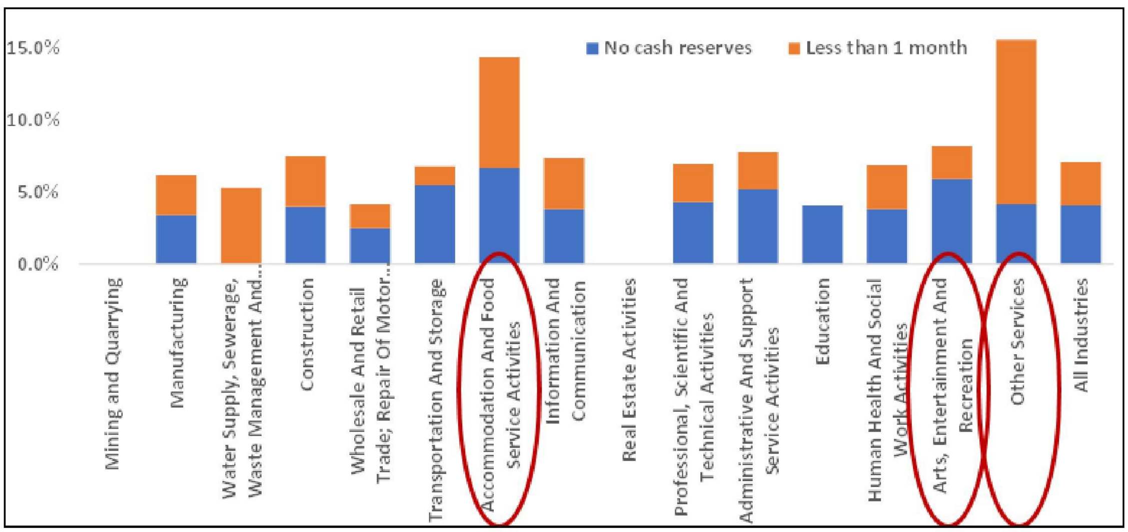
While businesses in the early spring of 2020 were in reasonable financial health entering the first lockdown, this 4-week circuit breaker comes at a time of extreme financial stress. It should also be noted that cash reserves for stressed businesses might be very low. This may be the final straw for many businesses in Northern Ireland, especially if they consider there is no hope for the future, but instead, face an endless cycle of lockdowns.

UK-wide, amongst businesses who have not permanently stopped trading, the Accommodation & Food Service Activities industry had the highest percentage of businesses with no cash reserves. The Other Services Sector had over 15% reporting they had cash reserves of less than one month, when we also include those businesses saying they had no cash reserves.[xxi] It should be noted that this ONS data relates UK-wide and was surveyed before some of the latest restrictions took effect. Circumstances may now be more challenging.

Whilst business support loans are available, some firms may not wish to take on more borrowing when sales and revenues are falling as ultimately it would be unclear how such loans would be repaid. According to recent research by UUEPC on the Impact of Covid-19 on Northern Ireland Business Activity:

> *"Businesses in NI were exposed to cashflow problems during the lockdown, with many overhead costs still being incurred even while businesses were temporarily closed. The outflow of money with no, or reduced, income to redress the balance substantially impacted the viability of businesses to remain in operation. In fact, cash flow has been identified as a critical component of firms' ability to withstand economic crises."* [xxii]

UK Business Cash Reserves, by Sector (ONS BICS – 21 Sep to 4 Oct 2020)



Assessment of Directly Impacted Jobs

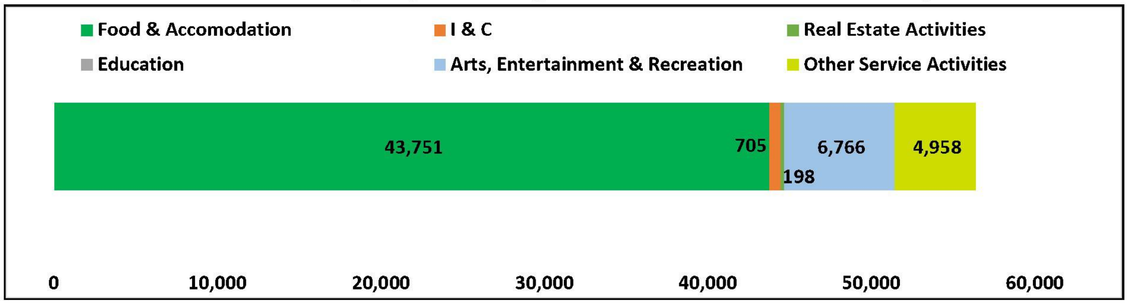
Some sub-sectors are likely to be impacted somewhat differently by the Regulations. It is not always possible to exactly match economic data with legal definitions. However, using disaggregated data prior to Covid-19 from BRES 5-Digit SIC (which is publically available)[xxiii], we consider there may be around 60,000 jobs in total 'locked out' by the Regulations. There will be thousands, or tens of thousands of self-employed on top of this number.

Additional work is ongoing to try and finesse/cross-check the estimates, but at the present time we consider employment in the sectors directly impacted by the 4-week circuit breaker is approximately as follows:

- Restaurants / cafes / bars / hotels and similar accommodation (but not takeaways) – Over 40,000 Jobs / Employments, plus some self-employed in addition.

- Close contact services potentially around 5,000 jobs / employments with further, significant, self-employed as well.
- Other sectors that continue to be impacted include arts venues, theatres and other such venues – these have the potential to see around 7,000 jobs / employments impacted.[10]
- Around 1,000 jobs may be impacted within the Information and Communication sector as motion picture projection activities are put on hold.

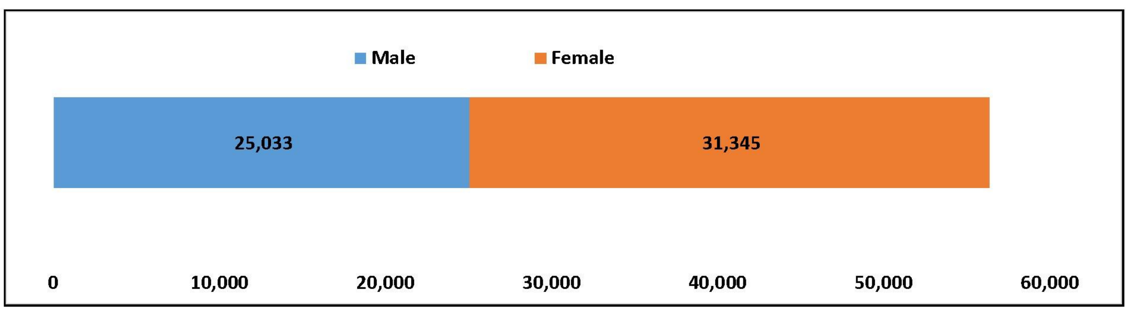
Estimate of Jobs Possibly Impacted by 4-Week Circuit Breaker, by Sector



Impact on Females

There may be a gender imbalance in terms of jobs impacted by the 4-week circuit breaker. The indications are that around 5,000 more jobs for females will be impacted than for males. This is partly as a result of the female employment levels in close contact service businesses such as hairdressers and beauticians.

Estimate of Jobs Possibly Impacted by 4-Week Circuit Breaker, by Gender



This is illustrated in the chart and table on the following pages, which breaks down those sub-sectors and activities likely to be impacted, by male and female.

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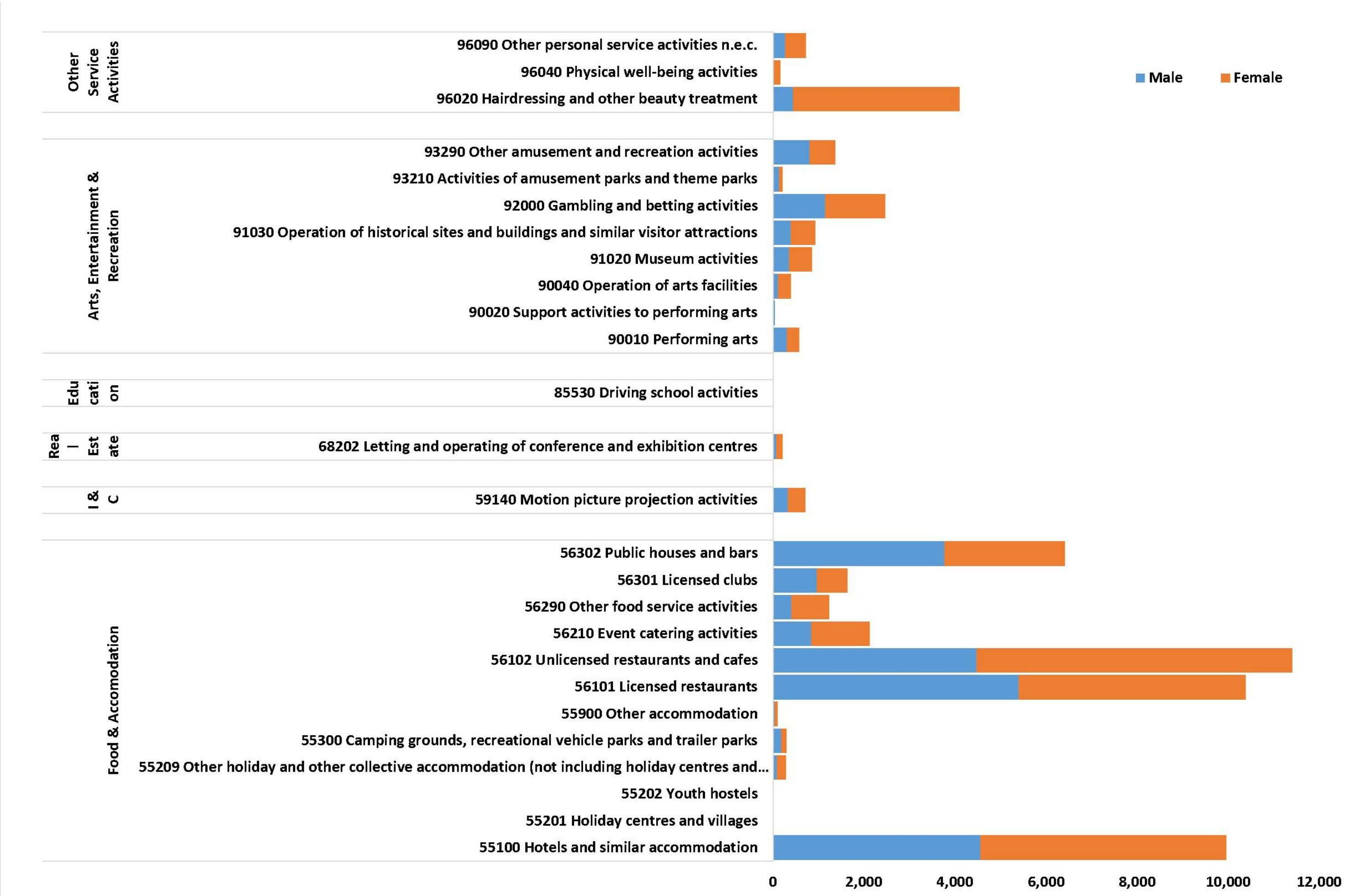
[10] This does not take into account some sports related 5 digit SIC codes.

LIST OF 5-DIGIT SIC LEVEL JOBS POSSIBLY DIRECTLY AFFECTED BY 4-WEEK CIRCUIT BREAKER [11]



Close contact services, such as hairdressers, beauticians, make-up and nails, tattoo and piercing parlours, tanning shops, sports and massage therapy not permitted.

Amusement arcades, skating rinks and funfairs are not permitted to open.
Gyms remain open, so 93130 not included.
No indoor sports.
Bingo halls closed.
Indoor museums, galleries, visitor and other cultural attractions are not permitted to open.
Libraries only 'call and collect' service now.
Theatres and concert halls are permitted to open for rehearsals or a live recording without an audience.

Driving instructors not permitted to operate.

Cinemas not permitted to open.

Bars, restaurants, coffee shops to close.

56103 Take away food shops and mobile food stands not included

Hospitality venues can only remain open for takeaway and delivery of food and non-alcoholic drinks.
Campsites and services for touring caravans must close.

Hotels, guesthouses and bed and breakfast establishments will only be able to operate on a restricted basis.

[11] Some sectors may have been withheld and show as zero due to disclosure issues.

Selected Job Categories at 5-Digit SIC

SECTOR	SELECTED 5-DIGIT SIC	MALE	FEMALE	MALE + FEMALE
Food & Accommodation	55100 Hotels and similar accommodation	4,553	5,400	9,953
	55201 Holiday centres and villages	*	*	
	55202 Youth hostels	*	*	
	55209 Other holiday and other collective accommodation	83	191	274
	55300 Camping grounds, vehicle parks and trailer parks	180	105	285
	55900 Other accommodation	34	54	88
	56101 Licensed restaurants	5,401	4,976	10,377
	56102 Unlicensed restaurants and cafes	4,472	6,934	11,406
	56210 Event catering activities	836	1,279	2,115
	56290 Other food service activities	399	829	1,228
	56301 Licensed clubs	964	663	1,627
	56302 Public houses and bars	3,764	2,634	6,398
I & C	59140 Motion picture projection activities	327	378	705
Real Estate	68202 Letting and operating of conference and exhibition centres	74	124	198
Education	85530 Driving school activities	*	*	
Arts, Entertainment & Recreation	90010 Performing arts	300	265	565
	90020 Support activities to performing arts	30	*	
	90040 Operation of arts facilities	107	282	389
	91020 Museum activities	348	502	850
	91030 Historical sites and buildings and similar visitor attractions	382	536	918
	92000 Gambling and betting activities	1,137	1,314	2,451
	93210 Activities of amusement parks and theme parks	125	81	206
	93290 Other amusement and recreation activities	805	552	1,357
Other Service Activities	96020 Hairdressing and other beauty treatment	431	3,656	4,087
	96040 Physical well-being activities	16	141	157
	96090 Other personal service activities n.e.c.	265	449	714
		25,033	**31,345**	**56,348**

Notes:
Only shows selected job categories, for indicative purposes only – for example, code *56103 Take away food shops and mobile food stands* and code *93130 Fitness facilities* not included etc.
Self-employed not included.
Figures may not sum due to rounding.
* Data suppressed for disclosure purposes. Suppressed data not added in total.
Source: NI Business Register and Employment Survey (BRES) - September 2019.
NISRA - BRES Publications and Tables 2019

Comparing Jobs Impacted under 4-week Circuit Breaker with Spring Lockdown

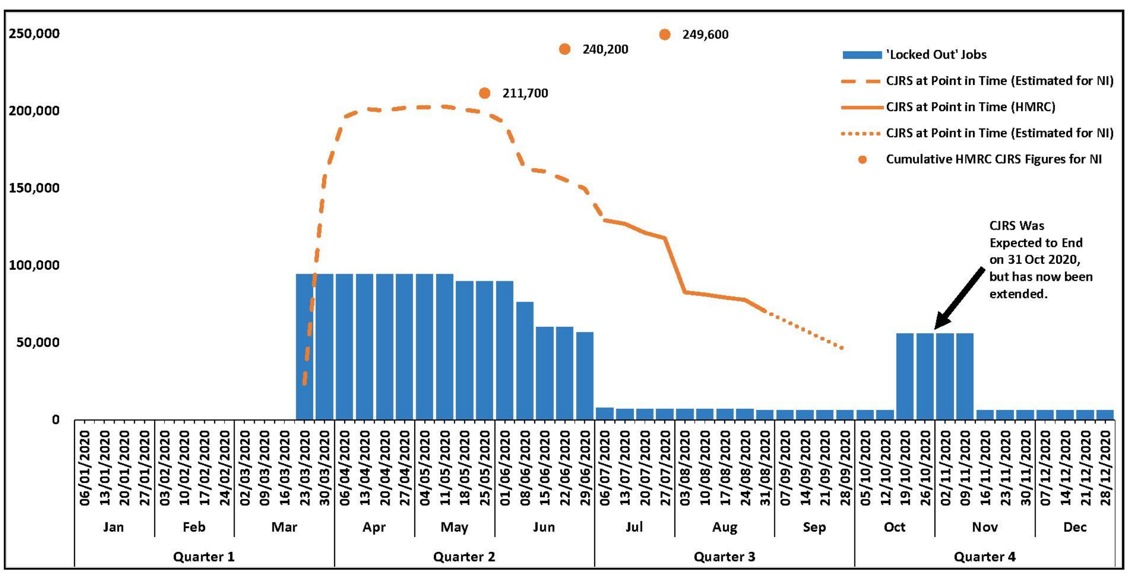
HMRC's Coronavirus Job Retention Scheme (CJRS) and Self-Employment Income Support Scheme (SEISS) have both been instrumental in avoiding widespread job losses[xxiv]. Over 9 million have used the CJRS UK-wide, while over 2 million have claimed from SEISS.

In Northern Ireland, a total of 249,600 employments were furloughed on CJRS. While these are cumulative figures, figures from the latest HMRC release show that while many employments have been 'unfurloughed' over the summer, some 70,500 employments were still furloughed as at 31 August 2020, using CJRS. NI had 23,700 staff flexibly furloughed, just over a third (34%) of furloughed employments. In addition to this, around 78,000 self-employed individuals in Northern Ireland had claimed the first SEISS grant. Many also claimed the second SEISS grant.

Although originally due to end on 31 October 2020, the **CJRS has now been extended to March 2021**.[xxv]

The graph below illustrates how employment restrictions during the 4-week circuit breaker may compare to those seen during the Spring Lockdown. We term 'locked out' jobs as employment numbers relating to a sub-sector explicitly not permitted to open under Regulations, or subsequent amendments to those Regulations.

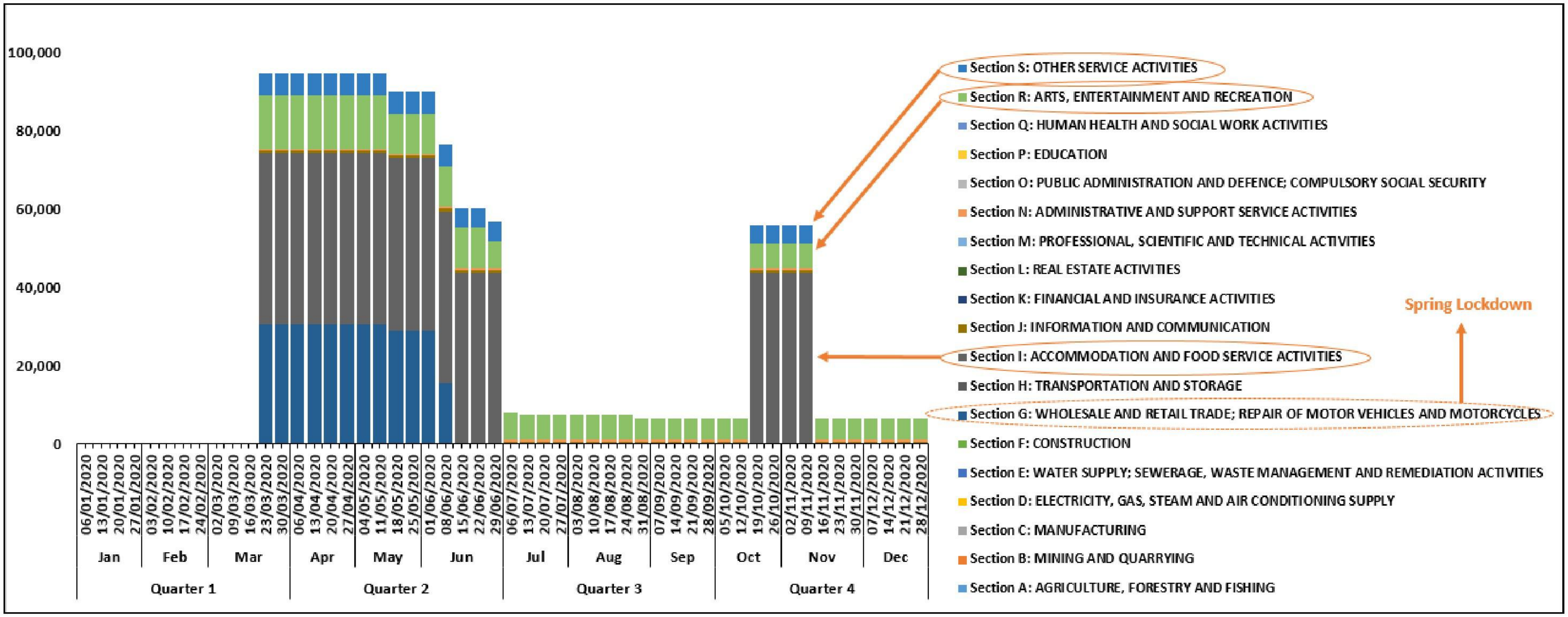
Employment in Sub-Sectors 'Officially Closed' during 2020, by Week



Notes:
The dashed line has been calculated from UK-wide HMRC CJRS data and apportioned to Northern Ireland by DfE. The solid line has been created by using official HMRC CJRS data specifically relating to Northern Ireland. The dotted line has been calculated from a Bank of England estimate of around 2m UK-wide still on furlough by end of September 2020 (using BICS data).[xxvi] This was then apportioned to Northern Ireland by DfE. Use of the CJRS scheme may increase in October and November 2020 due to the 4-week circuit breaker, with usage coming from both those sectors legally closed and those sectors open (but experiencing reduced demand).
Self-employed not included.
The 'locked out' jobs estimates are only intended to be indicative / illustrative and some sub-sectors may be omitted or erroneously included. After circuit breaker ends, assumed return to previous levels.

A sectoral breakdown of those sectors impacted can be seen below.

Employment in Sub-Sectors 'Officially Closed' during 2020, by Week, by Sector



Notes:
The 'locked out' jobs estimates are only intended to be indicative / illustrative and some sub-sectors may be omitted or erroneously included. After circuit breaker ends, assumed return to previous levels.
Self-employed not included.

The restrictions during the Spring lockdown legally impacted around 100,000 jobs, but in reality the impacts spread far beyond this. Ultimately, economic activity was running at about 25% below normal, with over 300,000 people in total availing of CJRS or SEISS (by the summer).

In the Spring lockdown, for every one job that was specifically closed by the Regulations and on furlough, nearly another two were also on furlough[12] and this demonstrates both the supply chain impact and also the various ripple effects of the restrictions beyond those that specifically required sectors to close down.

It is important to note that furlough is not a panacea. Under the schemes workers only receive a proportion of normal income levels. Over the long-term it is not a substitute for a fully functioning economy.

Impact on Younger Workers

According to analysis by the Centre for Economic Performance (CEP), young workers experienced poor labour market outcomes in terms of job loss, not working and earnings losses during and after lockdown.

Those aged 16-25 were over twice as likely as older employees to have suffered job loss, with over one in ten losing their job, and just under six in ten seeing their earnings fall. Labour market losses are more pronounced for women, the self-employed and those who grew up in a poor family.[xxvii]

While the CEP research is UK-wide, local research from UUEPC after the first lockdown points to the fact that over one-third (36%) of people employed in the accommodation and food sector are under 25 years old. This group represent just over one-tenth (12%) of total employment in Northern Ireland, therefore the impact within the accommodation and food sector has been intensively felt by young people. [xxviii]

The recent increase in the Northern Ireland unemployment rate of 1.2pps to 3.7% between March-May and June-August is notable as the largest quarterly increase since 2012. The data indicates that the increase was driven by those under 35 years. Within this, the youth unemployment rate (16-24 years) doubled to an estimated 11.8%. In June-August 2020, the percentage of unemployed who have been unemployed for one year or more (long-term) was 34.7% in Northern Ireland.[13]

UK-wide, younger females have been slightly more likely to be furloughed than younger males. In general, furlough take-up rates for younger workers have been higher than those for older workers.

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[12] Figure for jobs specifically closed by the Regulations does not include those that are self-employed, while they are included in the furlough figure (as those claiming SEISS).

[13] Estimates for both long-term and youth unemployment for Northern Ireland are based on a smaller sample size. This may result in less precise estimates which should be used with caution.

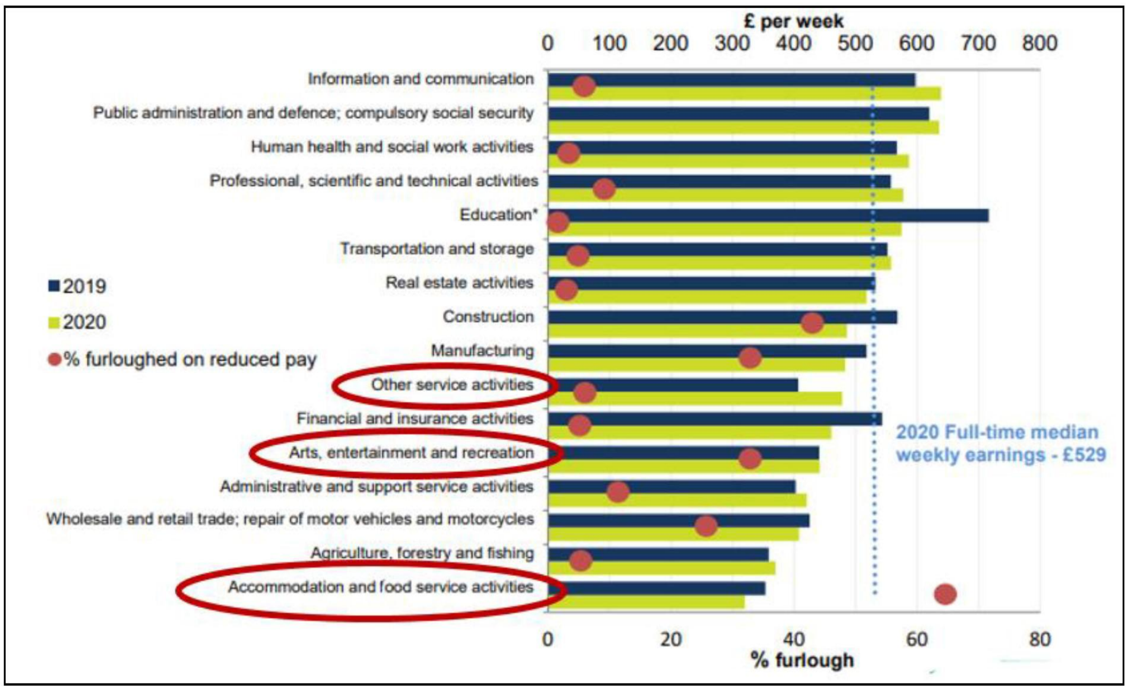
Impact on Lower Paid

According to the FT, more than 2m UK employees earned less than the statutory minimum wage in April, because the lowest paid were the most likely to be furloughed. The Annual Survey of Hours and Earnings (ASHE) by ONS gives a stark illustration of the immediate impact the first coronavirus lockdown had on living standards, choking off growth in private sector pay and hitting young, part-time workers in particular.[xxix]

Recent data from the Northern Ireland ASHE shows that weekly earnings for full-time employees at April 2020 were highest in 'Information and communication' (£639) and lowest in 'Accommodation and food service activities' (£320). [xxx]

As shown in the graph below, the three sectors most directly affected by the 4-week circuit breaker were earning below the Northern Ireland median in 2019 and 2020.

Median gross weekly earnings for full-time employees in NI, April 2020



Source: ASHE 2020 (NISRA)

According to NISRA, four of the five industries with the largest proportion (all above 25%) of employees furloughed on reduced pay during the survey period saw decreases in earnings over the year ranging from 4.1% to 14%.

The impact of furlough on individual industry sectors is dependent on the number of employees furloughed, where they are in the earnings distribution, and the distribution range.

Macroeconomic Situation

Even though three quarters of 2020 have now passed there still exists some uncertainty for output for the year as a whole and as to how long it will be before output recovers to its pre-pandemic levels.

The Ulster University Economic Policy Centre (UUEPC) has estimated that output in Northern Ireland, measured by GVA, will decline by 11.6%. This estimate, in July, suggested that the contraction may be less severe than was initially expected as shutdowns started to unwind more quickly than first anticipated. However, it remains to be seen how new restrictions may affect this estimate.

The table below illustrates forecasts on how Northern Ireland's output will be affected in 2020, by UUEPC, Danske Bank, EY and KPMG. These estimates were made before the 4-week circuit breaker began in Northern Ireland.

Estimates of Output Growth for Northern Ireland in 2020

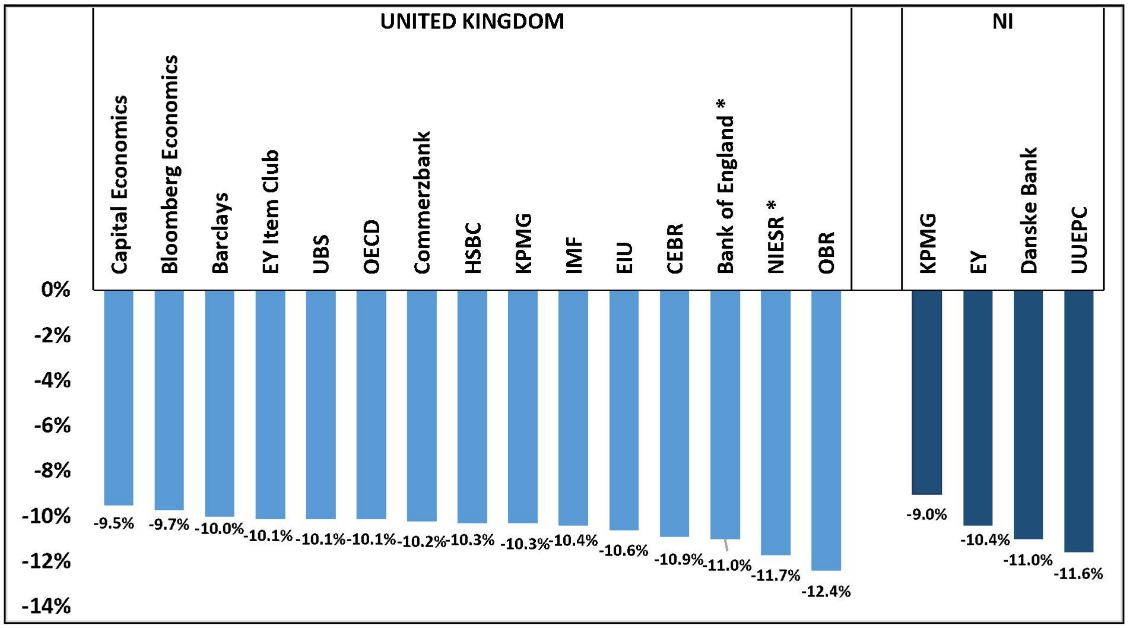
Organisation	Forecast (& Date)	Assumptions for Q3 and Q4 2020
UUEPC	-11.6% (July 2020)	Reduction in output in Q1 2020, followed by a further sharp decline in Q2, but growth returning in Q3 and Q4, but from a very low base set in Q2
Danske Bank	-11.0% (July 2020)	Given the easing of restrictions during Q3, Danske Bank expects the economy to return to growth in the later stages of 2020, but expects the recovery to be gradual.
EY	-10.4% (Aug 2020)	In the Base Case Scenario output is expected to recover later in the year, with no nationwide shutdowns assumed. However, a more pessimistic scenario from EY factors in higher job losses and an even worse downturn, with growth of -15.2%.
KPMG	-9.0% (Sep 2020)	The gradual reopening of the economy in Q3 led to a sharp uptick in activity following the severe recession in the first half of the year caused by lockdown. Continued uncertainty about the pandemic's evolution and the winding down of CJRS will mean more muted growth in Q4.

In their July paper, UUEPC provided upper and lower scenarios for recovery in Northern Ireland. The upper scenario indicates that the NI economy will reach its previous output peak by Q4 2023, while the lower scenario indicates that this peak will take a further year to achieve (Q4 2024).

UUEPC also provided upper and lower recovery scenarios for the NI labour market – both show a sharp rise in unemployment rate in late 2020, before a slow recovery which takes many years to reach previous unemployment levels.

A summary of economic forecasts for the UK and for Northern Ireland is provided in the graph below. Many forecasters are now downgrading 2020 growth estimates following the latest restrictions.

Recent Estimates of UK and NI Economic Growth for 2020



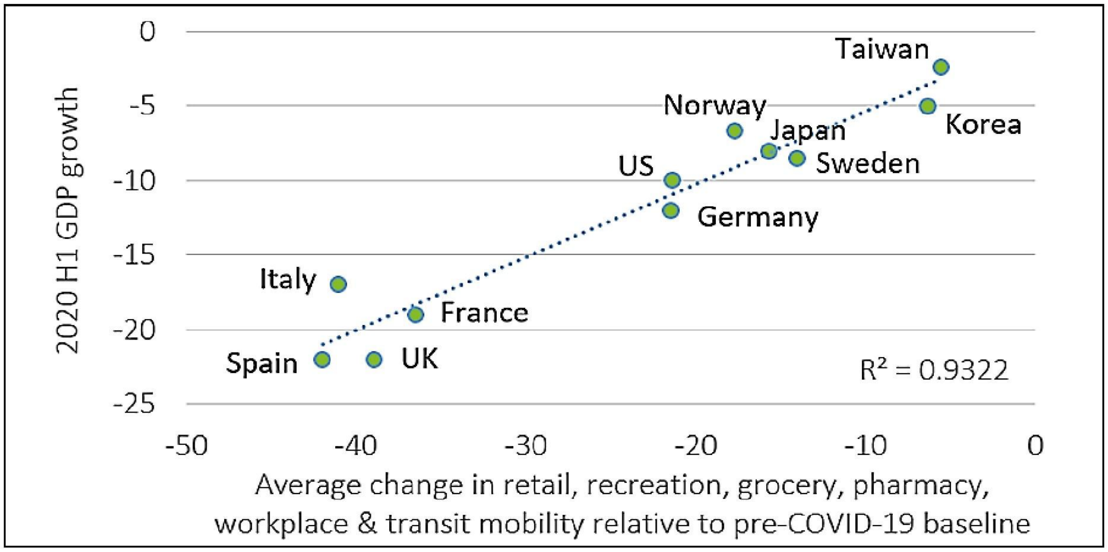
Sources: HM Treasury Independent Forecasts, BoE, KPMG, EY, Danske Bank and UUEPC
Note: Forecasts with an asterisk (*) are estimates made after restrictions announced.

Growth forecasts are beginning to be downgraded by a number of organisations, from estimates which were already gloomy for the year.

The Bank of England now expects UK GDP to shrink 11% in 2020, a worsening on its previous projection of a 9.5% decline, made in August.[xxxi] The National Institute of Economic & Social Research (NIESR) has recently revised down its forecast for UK GDP growth in 2020, from -10.5% to -11.7%.[xxxii] These represent a downgrade of 1.5 percentage points and 1.2 percentage points, respectively. This is a higher impact than the estimate made earlier in this paper of the estimated impact of Northern Ireland's 4-week circuit breaker (around a 1 percentage point decline).

With modern economies being highly service dominated, face-to-face transactions are very important. Those countries that have seen lower day-to-day movements of people seen the largest economic impact in the first half of 2020.

Relationship between Mobility and GDP [xxxiii]



Lockdown stringency has played a part in this, and can also be correlated with declines in GDP.[xxxiv] According to the ONS, *"There have been record quarterly falls in services, production and construction output in Quarter 2 2020, which have been particularly prevalent in those industries that have been most exposed to government restrictions."*[xxxv]

Gertjan Vlieghe, External Member of the Monetary Policy Committee at the Bank of England did caution however, that it is *"difficult to disentangle how much of the reduction in aggregate spending was the result of people voluntarily restricting their own activities due to concerns about the virus, as opposed to the result of the government imposing restrictions."*

It is also important that we do not automatically assume and apply the same behavioural response, as was the situation in March 2020, to people's behaviour right now. While at the beginning Covid-19 and its effects on the population were largely unknown, it is fair to say that more is now known about the virus, than before. We have no way of knowing in advance the level of tolerance from the UK public for a certain infection level. What we can see from emerging survey data is that a slight uptick in concern for the risk of Covid-19 has been uncovered by a recent Ipsos MORI survey.[xxxvi]

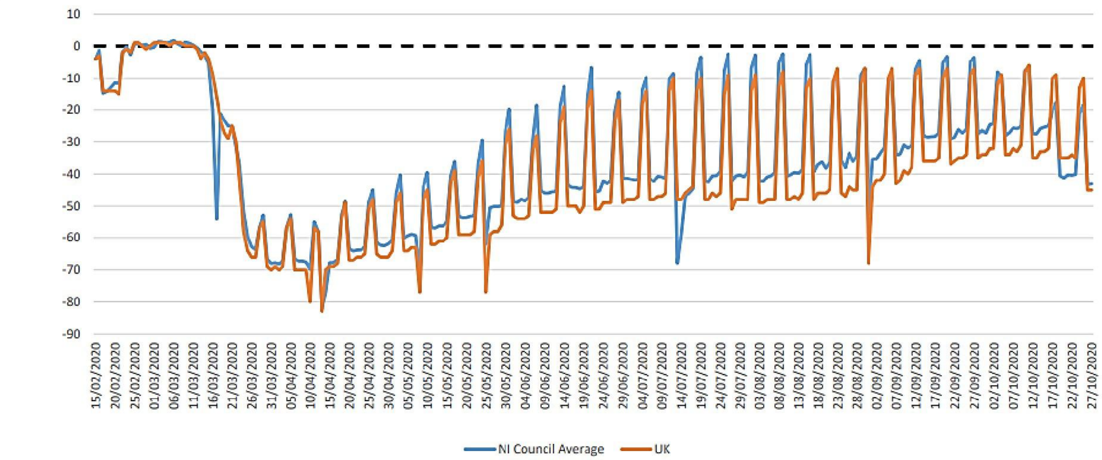
It is fair to say that the current levels of concern are lower than earlier in the year when details of the virus were not as well known. In fact, a number of scientists have warned about society becoming too comfortable with the virus, fatigued by restrictions and a sense of complacency may set in.[xxxvii] Younger people seem less worried about the virus, than those that are older.[xxxviii]

It is worth noting however, that firms in Northern Ireland have modified their business operations, making them safer for customers, investing significant outlays on screens, signs and PPE etc and following practical advice available from relevant sources (such as NI Business Info).[xxxix] The Northern Ireland Retail Consortium, Retail NI and Belfast

Chamber estimate that shop owners in Northern Ireland have spent more than £10m on Covid-19 safety measures since the start of the pandemic.[xl]

As can be seen in the graph below, workplace mobility is still below pre-pandemic levels. Some of this may be related to staff working from home, where possible.

Google Mobility Graph for Workplaces (NI Average)



Note: Figures for NI are based on an average of council-level figures.
Data for Workplace from the 17th August – 8th September has been revised and updated by Google to ensure consistent data reporting across categories.
Link to Google Mobility Report: https://www.google.com/covid19/mobility/index.html?hl=en

Unemployment tends to be a lagging indicator in most recessions. Therefore, job losses may continue even as output recovers, and more so as key supports end. Whilst some businesses have managed to return to levels of demand near to what they experienced before the start of coronavirus, or have found creative and innovative ways to adapt to the new economic reality, others continue to face challenges.

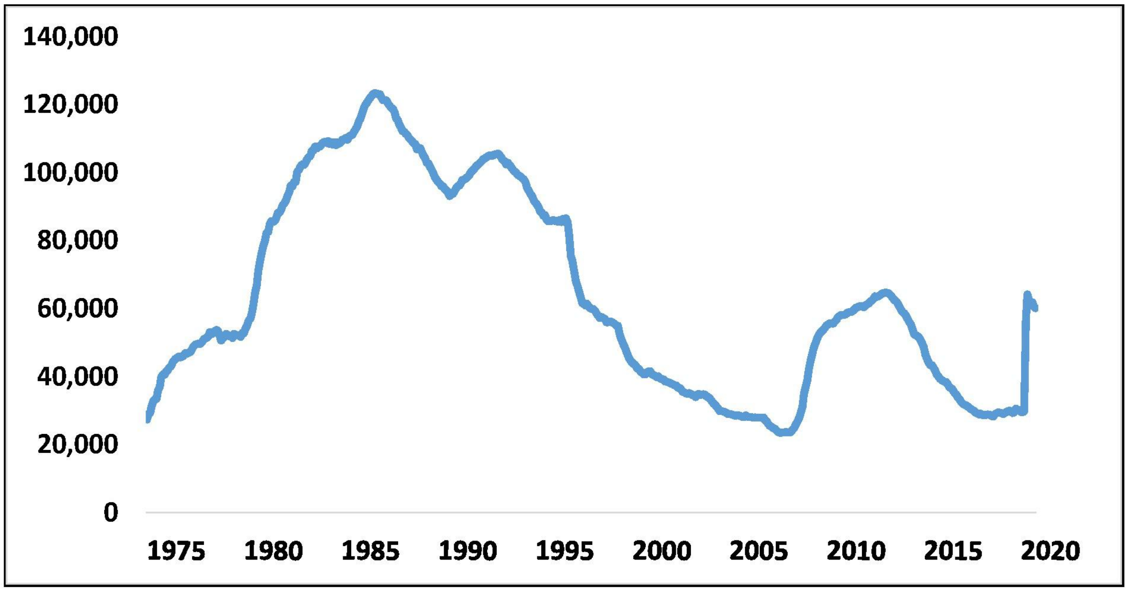
Although due to end on 31 October 2020, the **CJRS has now been extended to March 2021**. This may help mitigate many job losses that could have occurred in Q4, although some workers may still have been made redundant. The Claimant Count in October 2020 stood at 60,200. This was the sixth consecutive month where the number of claimants exceeded 60,000 and is more than double the count in March. [xli].
Even with the extension of CJRS, further job losses cannot be ruled out.

In predictions made before the latest restrictions and the Chancellor's recent announcements on furlough, it is worth noting that:

- EY consider that jobs could reduce by 38,000 under their Base Case and by 56,000 in their more pessimistic scenario.
- UUEPC have forecast a rise in unemployment based on the emerging indicators. Unemployment to peak at 13% as they expect the claimant count numbers to rise significantly in the autumn.
- KPMG state that the Job Retention Scheme has been greatly effective in keeping unemployment down during the peak of the crisis but as the scheme unwinds, and the economy continues to operate below capacity, UK unemployment could rise to just over 9% in the fourth quarter of 2020.

- Danske Bank expect there to be significant job losses in the consumer-focused sectors in 2020. *"The annual average unemployment rate could increase to 4.3% in 2020, with the rate expected to rise to between 7-8% in the final quarter of the year, and then average 6.5% in 2021."*

Claimant Count 1975-2020



Source: NISRA

Notes: Users should note that revisions are to be expected while the Claimant Count series is experimental and improvements are being made to the process. NISRA stated in July 2020 that although there is a large degree of overlap between Claimant Count and LFS unemployment, it is possible for a person to be within the definition of one measure but not the other. Claimant Count does not meet the internationally agreed definition of unemployment specified by the International Labour Organisation (ILO). Some people recorded in the Claimant Count would not be counted as unemployed. For example, in certain circumstances people can claim Jobseeker's Allowance or Universal Credit while they have relatively low earnings from part-time work. [xlii]

Looking at HMRC's CJRS data, it is reassuring that a large number of Northern Ireland workers have been 'unfurloughed', however there are still tens of thousands on full or flexible furlough. In reflecting all factors, we consider that the peak Claimant Count in 2020 or 2021 may still go higher than the current 60,000 plus figure in Northern Ireland. However, by how much greatly depends on the level of restrictions and as to how successful the furlough scheme has been and will be, now it has been extended.

As reported in the Guardian, Gerwyn Davies, the senior labour market adviser for the Chartered Institute of Personnel and Development (CIPD) said: *"The best that can be said is that the situation is getting worse more slowly. Employment looks set to keep falling and the relatively weak demand for labour means that it is going to be a long and hard winter, affecting young jobseekers in particular."* [xliii]

The extension of CJRS may have arrived too late to have saved some jobs towards the end of 2020.

Current Impact of Restrictions within Other UK Regions

The recent announcement of a lockdown across England has led to the downgrading of growth forecasts for the UK economy in Q4. The National Institute for Economic and Social Research (NIESR) said the announcement of a further shutdown in November would tip the economy back into contraction in the final three months of the year. It downgraded its forecast of fourth-quarter GDP growth of 1.5%, to a fall of 3.3%.

Howard Archer, chief economic adviser to economic forecaster the EY Item Club, told The Times: *"There seems little doubt a renewed national lockdown will cause the economy to contract in the fourth quarter — and very possibly by an appreciable amount."*

Paul Dales, chief UK economist at Capital Economics, said he had been expecting UK GDP to move sideways in November but was now expecting a monthly fall of 5%. [xliv]

The FT reports that retailers warned that the forced closure of all non-essential shops would be a *"nightmare before Christmas".* British Retail Consortium chief executive Helen Dickinson said the lockdown *"will cause untold damage to the high street in the run-up to Christmas, cost countless jobs and permanently set back the recovery of the wider economy".* According to the FT, companies scrambled to put staff back on a furlough scheme that was originally due to close at the end of October. However, others warned that it was already too late as staff had been made redundant ahead of the end of the closure of the original scheme.

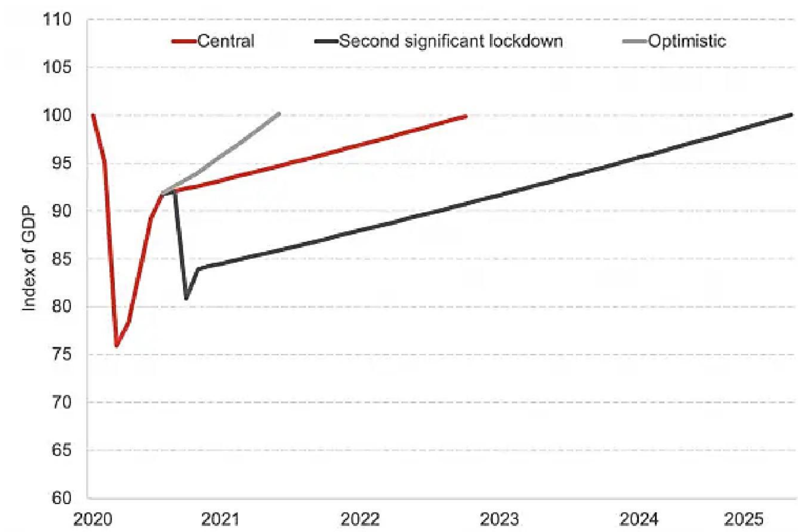
Smaller businesses are expected to be particularly hard hit given that many lack the financial resources to survive another lockdown, with pubs and restaurants across England warning that this could push them into collapse having been hoping for a busy pre-Christmas period. Adam Marshall, director-general of the British Chambers of Commerce, said the restrictions would be a *"devastating blow to business communities who have done everything in their power to adapt and operate safely".* He added: *"Many firms are in a much weaker position now than at the start of the pandemic, making it far more challenging to survive extended closures or demand restrictions."* [xlv]

The weeks of socialising in the run-up to Christmas and new-year are also extremely important for Britain's struggling pubs, restaurants and hotels. Some venues bank as much as 40% of their annual profits between Halloween and January. But this year nearly 53,000 pubs, restaurants and cafes in England will have to shut, according to data from the retail estate adviser Altus Group. [xlvi]

In Scotland, given the uncertainty in the economy, the Fraser of Allander Institute (FAI) have avoided providing any specific point estimates or a central forecast for the next few years. Instead, they highlight different scenarios. In FAI's central scenario, any hope for a 'v-shaped' recovery is all but gone, looking more towards a 'k-shaped' recovery. This scenario predicts certain industries to recover quicker than others, with the economy not recovering fully until Autumn 2022.

FAI also provide a scenario taking a second significant lockdown into consideration. If the Scottish economy were to go back to similar lockdown restrictions as to what was experienced in March, it would take the economy up to 4 years to recover fully.

Scottish Economic Growth Scenarios: 2020 to 2025



Source: *FAI Calculations*

The Government of Wales undertook various impact assessments on the so-called "fire-break". The fire-break will have a negative impact on output in Wales, which will further constrain the economic recovery as it entails closing a significant proportion of customer-facing businesses including non-essential retail, hospitality, tourism and creative arts. In 2019, there were approximately 18,800 businesses headquartered in Wales operating under industries that were told to close under the fire-break, with approximately 206,000 employees in total (2018).

During the **two-week** fire-break the three sectors most likely to be adversely affected were retail, accommodation and food, arts, entertainment and recreation. Their value to Welsh GVA for these three sectors is more than £9bn, which may equate to around £300m over the firebreak period (though the actual figure is uncertain as some retail and other sectors remained open). [14] In their Equality Impact Assessment, the Welsh Government considered that the fire-break will have a negative impact on low income households, stating that *"The nature of employment in the most affected sectors means that effects will tend to worsen inequalities – the most affected tend to be low paid, in insecure employment, and young people."* [xlvii]

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[14] It should be noted that this figure is only indicative – there are a number of factors that should be taken into consideration regarding accuracy: (i) the data is for 2018; (ii) seasonality means some periods of the year may be associated with differing levels of GVA (e.g. Christmas, holiday periods etc; (iii) Some businesses may be able to remain trading; (iv) It is impossible to assess how far output might fall even in the absence of restrictions if people respond to higher disease prevalence by modifying their behaviour; (v) Given the uncertain nature of the estimate a conservative figure is recommended. It should also be noted that the **figure is a direct estimate i.e. not including supply chain effects**.

SOURCES

[i] McKinsey & Company - How to restart national economies during the coronavirus crisis
[ii] ONS - Regional gross value added (balanced) per head and income components
[iii] ONS - Regional economic activity by gross domestic product, UK: 1998 to 2018
[iv] NI Business Info - Coronavirus: Support for businesses in Northern Ireland
[v] Department of Finance
[vi] News Letter - Some retailers 'better off closed' due to circuit-breaker downturn
[vii] Department of Health - COVID-19 mobility reports
[viii] TomTom - Belfast Traffic Report
[ix] Furniture News - Devolved nations bearing brunt of shopper decline, says Springboard
[x] Retail Gazette
[xi] Bank of England - What do we spend at Christmas?
[xii] NISRA - The Analytical Input-Output tables
[xiii] Irish News - NI economy on course to contract by 15% in 2020 after fresh Covid-19 restrictions - Ulster Bank report
[xiv] Bank of England - Monetary Policy Report - November 2020
[xv] Cru Group - Month of lockdown lowers annual GDP by 2-3%
[xvi] Belfast Telegraph - New Covid lockdown 'could wipe over £2bn off Northern Ireland economy'
[xvii] Irish News - NI economy on course to contract by 15% in 2020 after fresh Covid-19 restrictions - Ulster Bank report
[xviii] BBC - Tailbacks as gardaí enforce restrictions at border
[xix] CEBR - WILL THE SECOND WAVE STOP THE ECONOMIC REVIVAL IN ITS TRACKS?
[xx] Metro - Second national lockdown 'would lead to permanent scarring in the economy'
[xxi] ONS - Coronavirus and the economic impacts on the UK: 5 November 2020
[xxii] UUEPC - The Impact of Covid-19 on Northern Ireland Business Activity
[xxiii] NISRA - BRES Publications and Tables 2019
[xxiv] HMRC coronavirus (COVID-19) statistics
[xxv] Gov.uk - Check if you can claim the Job Support Scheme
[xxvi] Bank of England - Assessing the Health of the Economy
[xxvii] Centre for Economic Performance - Generation COVID: Emerging work and education inequalities
[xxviii] UUEPC - Labour market implications of Covid-19
[xxix] FT - Furlough leaves 2m UK employees earning less than minimum wage
[xxx] NISRA - Northern Ireland Annual Survey of Hours and Earnings
[xxxi] Bank of England - Monetary Policy Report - November 2020
[xxxii] NIESR - An update to our review forecast for the November lockdown
[xxxiii] Global Economic Outlook: Waves of uncertainty
[xxxiv] Global Economic Outlook: Waves of uncertainty
[xxxv] ONS - GDP quarterly national accounts, UK: April to June 2020
[xxxvi] Ipsos MORI - Coronavirus Polling
[xxxvii] ITV - Health Minister warns NI 'can't police Covid-19 out of existence'
[xxxviii] ONS - Coronavirus and the social impacts on young people in Great Britain: 3 April to 10 May 2020
[xxxix] NI Business Info - Working safely in different business settings
[xl] BBC - Covid-19: NI retailers spend "over £10m" on safety measures
[xli] NISRA - Claimant Count Tables
[xlii] ONS - A guide to labour market statistics
[xliii] The Guardian - UK faces pre-Christmas slump on back of new Covid restrictions
[xliv] The Guardian - Second England lockdown fuels fears of Covid double-dip recession
[xlv] FT - British business warns of 'devastating' lockdown hit
[xlvi] The Guardian - Second England lockdown fuels fears of Covid double-dip recession
[xlvii] Welsh Government - Summary of the effects of coronavirus restrictions