The impact of Covid-19 on the NI economy: modelled results for Q4 2020

March 2021

Background

The Fraser of Allander Institute is working on a project examining the potential impact of the current coronavirus pandemic on the Northern Ireland economy, on behalf of the Department for the Economy.

The figures contained in this analysis are modelled from (mainly) UK level sectoral detail. It does not replace the official NI Composite Economic Index (NICEI) available on the NISRA website.

Therefore, the analysis should only be used with appropriate caveats. Primarily it is based on UK GDP data. However, different countries and regions in UK have had slightly different lockdown experiences, with slightly different restrictions and differential timing of when these were relaxed. Therefore, the modelled results for Q4 may be less certain compared to the modelled results for Q2 and Q3.

Impacts on headline GDP

We have been provided with the detailed weights and sources used to build the short-term indicator for NI and are also examining the methodology used for the new GDP measure.

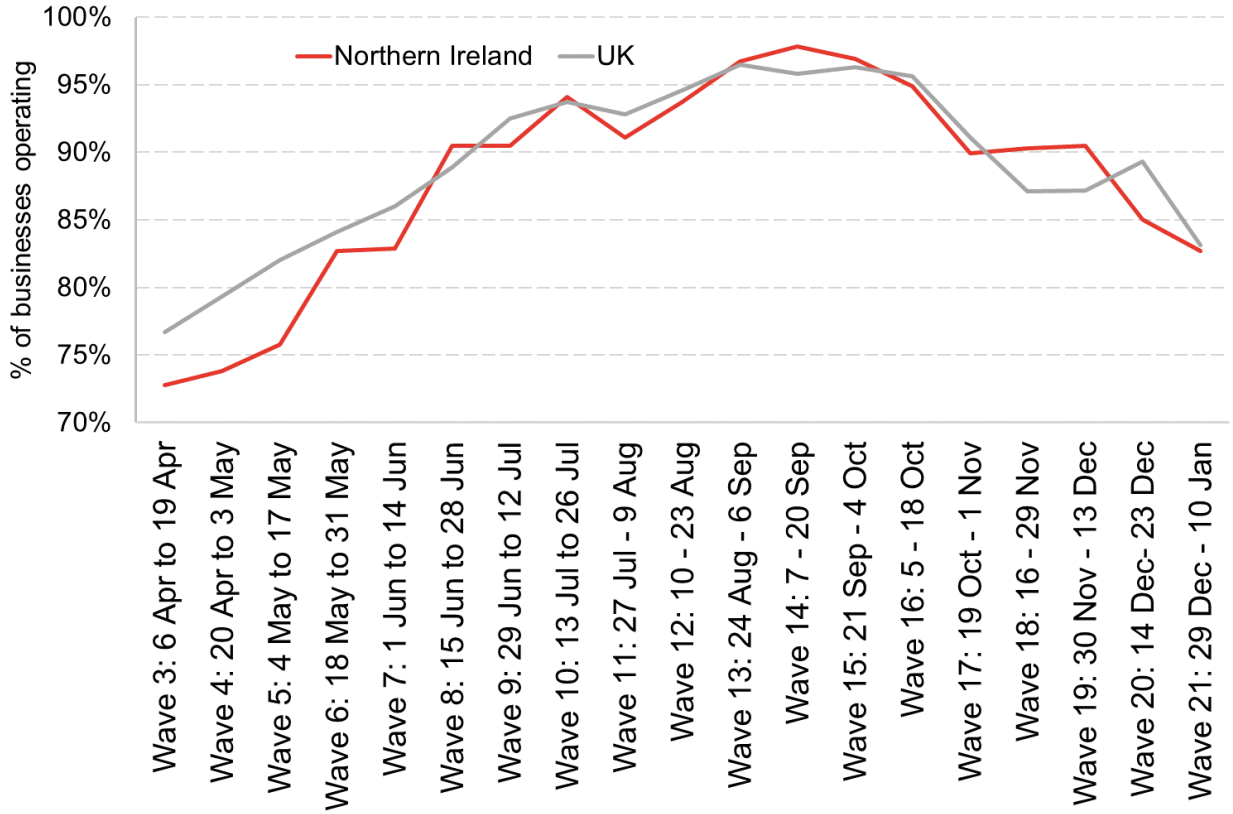
Following the publication of UK GDP in February 2021, we have produced a detailed set of quarterly results based on:

- The low-level aggregates data which shows very detailed sectoral changes in Q2, Q3, & Q4 2020 at the UK level;
- Monthly GDP data;
- The Business Impacts of Coronavirus Survey (BICS), up to wave 21; and
- BRES 2019 for NI, to calculate updated regional impacts.

Data from the BICS survey at the start of the first lockdown in April has shown that there was a higher level of business closure in Northern Ireland than the UK average (Chart 1). In Q3 the gap

in the level of openness between the UK and NI narrowed as more businesses resumed trading. In Q4 there have been differences in timing in the introduction and easing of restrictions across different nations. However, averaged across the whole quarter, the level of openness between NI and the UK was similar for Q4 in the main regional BICS series.

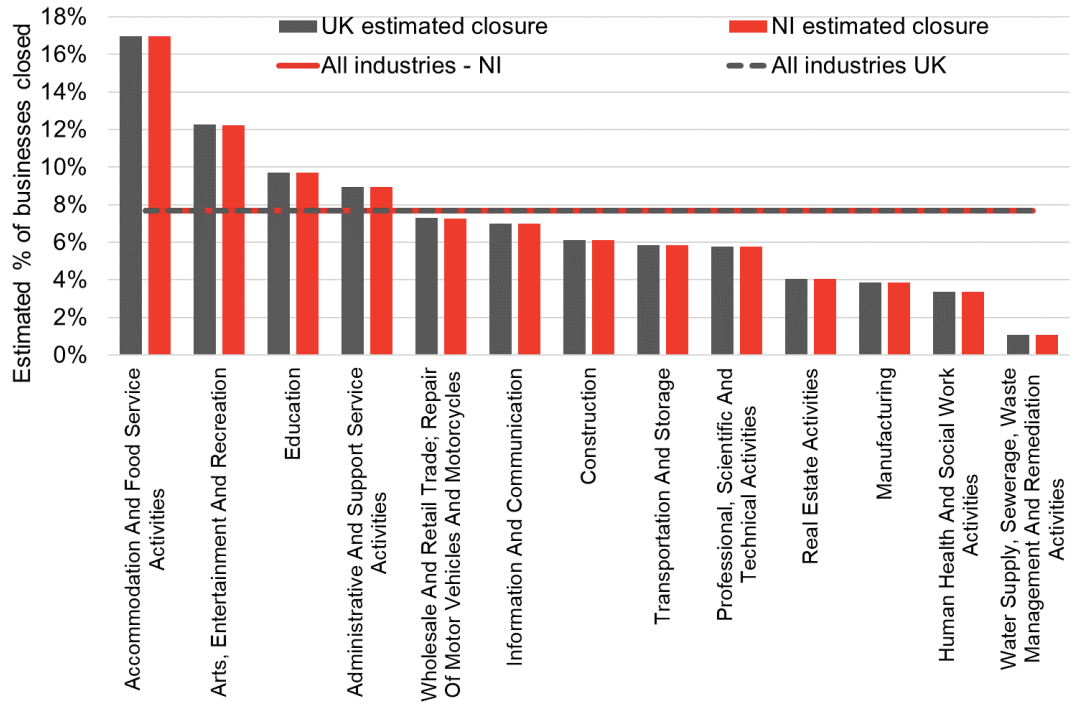
Chart 1: Level of openness of businesses, early April 2020 to early January 2021



Source: ONS BICS Survey

Whilst the BICS data does not show any major differences in the average level of openness between the NI and UK in Q4, there have been differences in openness across sectors. Since the BICS survey does not have a detailed split of trading status by region / sector, we have estimated the level of closure across sectors by applying the relative difference in the level of openness across the whole economy in NI and the UK to the detailed sectoral data available for the UK.

Chart 2: Estimated level of closure across different sectors, NI and UK, Q4 2020



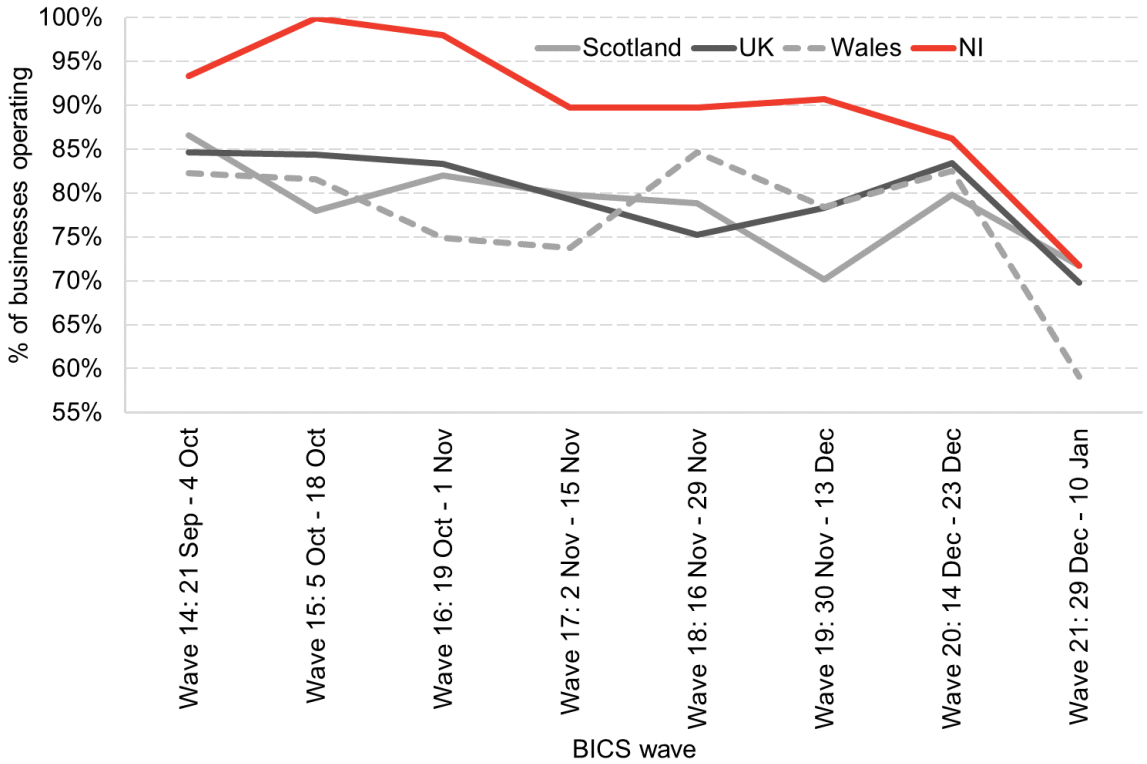
Source: ONS BICS Survey, FAI calculations

We can see that the accommodation & food service and arts, entertainment & recreation sectors had around 17% and 12% of businesses temporarily closed in Q4. On the other hand, manufacturing, human health, and water supply remained the most open sectors in Q4.

At the beginning of February 2021, the ONS published their first experimental subnational BICS estimates for some main business indicators. These are weighted, but due to technical concerns they only include single-site businesses. As a result, the data will only represent the situation amongst small and medium sized businesses, and it will not reflect the situation amongst large businesses with multiple sites across the UK. In addition, the estimates are based on a small sample size for Northern Ireland and thus only allow a broad level sectoral disaggregation (production vs. service sector). Although the estimates are not directly comparable to the main BICS regional series, they are still useful for tracking the effect of differences in timing of new restrictions across the devolved nations.

Overall, the experimental data shows a higher level of openness of the NI economy compared to the rest of the UK in Q4.

Chart 3: Estimated level of openness in the services sector, single-site businesses, UK and devolved nations, 21st September 2020 – 10th January 2021

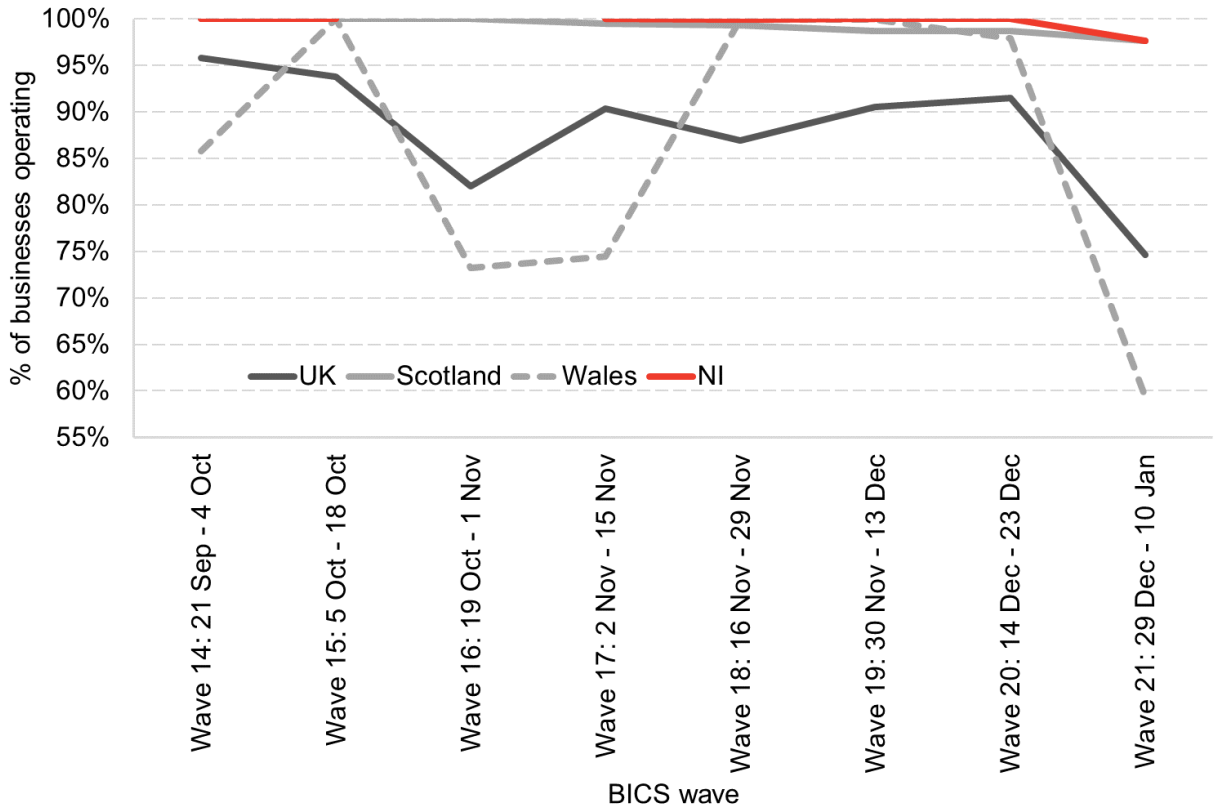


Source: ONS BICS Survey

In particular, the service sector was more open relative to the rest of the UK at the beginning of Q4. Circa 8% of NI businesses in the service sector closed or paused trading during November due to the 'circuit-breaker' lockdown. Another 20% of businesses subsequently paused trading during the second half of December / start of January as further restrictions were brought into place.

The data further shows that the NI production sector remained fully open through most of Q4 and that is has been more open relative to England and the other devolved nations.

Chart 4: Estimated level of openness in the production sector, single-site businesses, UK and devolved nations, 21st September 2020 – 10th January 2021



Source: ONS BICS Survey

Note: the data for wave 16 for NI is not available due to the sample size being too small.

We have incorporated any regional disparities and sectoral levels of closure apparent in the BICS into our modelling to try to capture the differential impact on the NI economy.

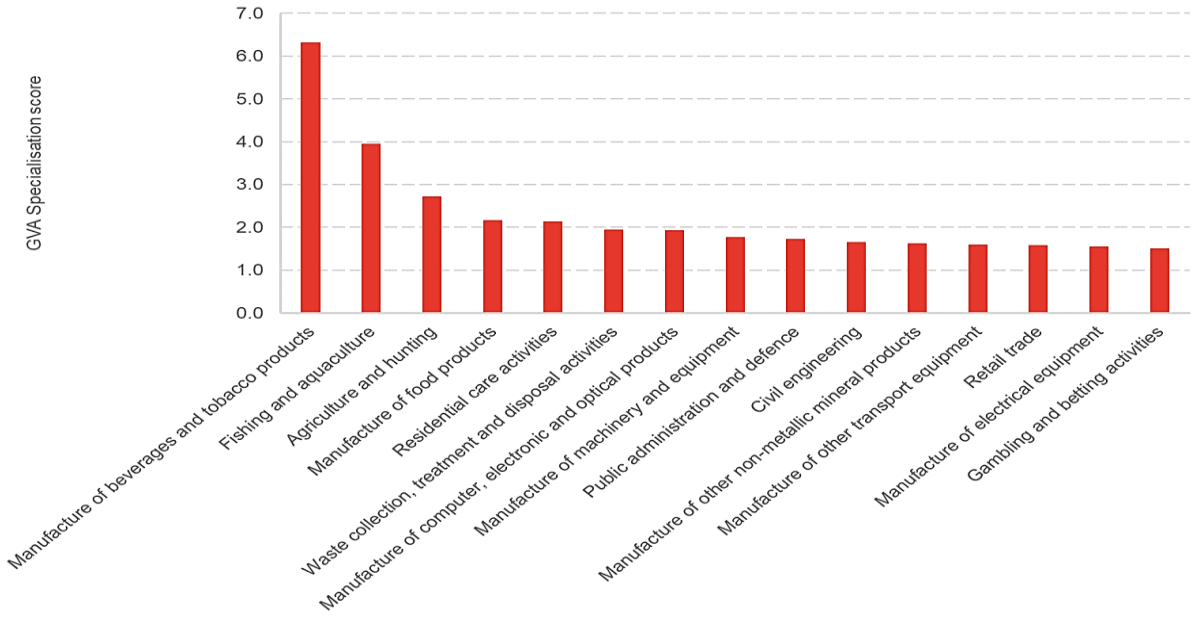
Table 1: Modelled growth in NI and outturn data for the UK: Q2, Q3 & Q4 2020

		NI				UK			
SIC code	**Sector name**	**Weight**	**Q2**	**Q3**	**Q4**	**Weight**	**Q2**	**Q3**	**Q4**
A	Agriculture	1.8%	-14.4%	6.1%	1.0%	0.6%	-13.5%	5.4%	0.7%
B	Mining and Quarrying	0.2%	-2.8%	-1.3%	-6.0%	1.1%	-2.8%	-1.3%	-6.0%
C	Manufacturing	15.2%	-23.1%	19.5%	0.8%	10.1%	-20.9%	20.5%	3.3%
D	Electricity	1.2%	-6.7%	8.0%	-1.8%	1.4%	-6.7%	8.0%	-1.8%
E	Water Supply	1.6%	-6.6%	1.7%	0.9%	1.3%	-5.7%	5.3%	0.9%
F	Construction	6.7%	-38.0%	18.4%	4.7%	6.4%	-32.7%	40.7%	4.7%
G	Wholesale and retail	13.8%	-22.7%	36.4%	-1.5%	10.4%	-20.3%	30.9%	-1.9%
H	Transport & storage	3.9%	-33.8%	14.2%	2.4%	4.0%	-26.5%	18.3%	5.1%
I	Accommodation & food services	2.5%	-104.3%	369.9%	-32.8%	2.9%	-84.1%	404.1%	-32.7%
J	Info & communication	3.5%	-9.5%	-0.6%	-0.5%	6.6%	-10.2%	4.7%	0.3%
K	Finance & insurance	3.6%	-5.7%	1.5%	-0.1%	6.8%	-4.0%	2.0%	0.0%
L	Real estate	11.4%	-2.1%	0.2%	0.1%	13.5%	-2.6%	0.7%	0.2%
M	Professional, scientific & tech	4.0%	-15.3%	2.7%	3.7%	7.7%	-15.5%	10.0%	4.0%
N	Admin & support services	3.1%	-27.1%	6.0%	3.2%	5.3%	-28.3%	16.5%	2.5%
O	Public admin. and defence	8.4%	0.7%	0.6%	0.4%	4.9%	0.7%	0.6%	0.4%
P	Education	5.4%	-26.5%	1.0%	5.6%	5.7%	-23.3%	24.8%	5.6%
Q	Human health & social work	10.6%	-21.3%	7.6%	8.3%	7.5%	-20.8%	18.3%	8.3%
R	Arts, entertainment, & recreation	1.2%	-52.9%	9.8%	-1.0%	1.6%	-41.9%	31.9%	-1.6%
S	Other services	1.4%	-40.5%	69.3%	-0.8%	1.8%	-41.2%	53.7%	-9.0%
T	Activities of HHs as employers	0.2%	0.0%	0.0%	0.0%	0.3%	-51.0%	11.6%	-7.9%
			-19.2%	**21.5%**	**0.8%**		**-18.2%**	**16.1%**	**1.1%**

Source: FAI Analysis

The table above shows the results of our analysis. The results suggest, as before, that in Q2 we saw a more severe initial impact on the NI economy followed by a faster recovery than the UK average in Q3. In Q4 the path of GDP growth between NI and UK was very similar, with NI growing marginally slower compared to the UK. However, this masks larger differences at a sectoral level given the detailed weighting of the NI economy.

Chart 5: Specialisation in the NI Economy

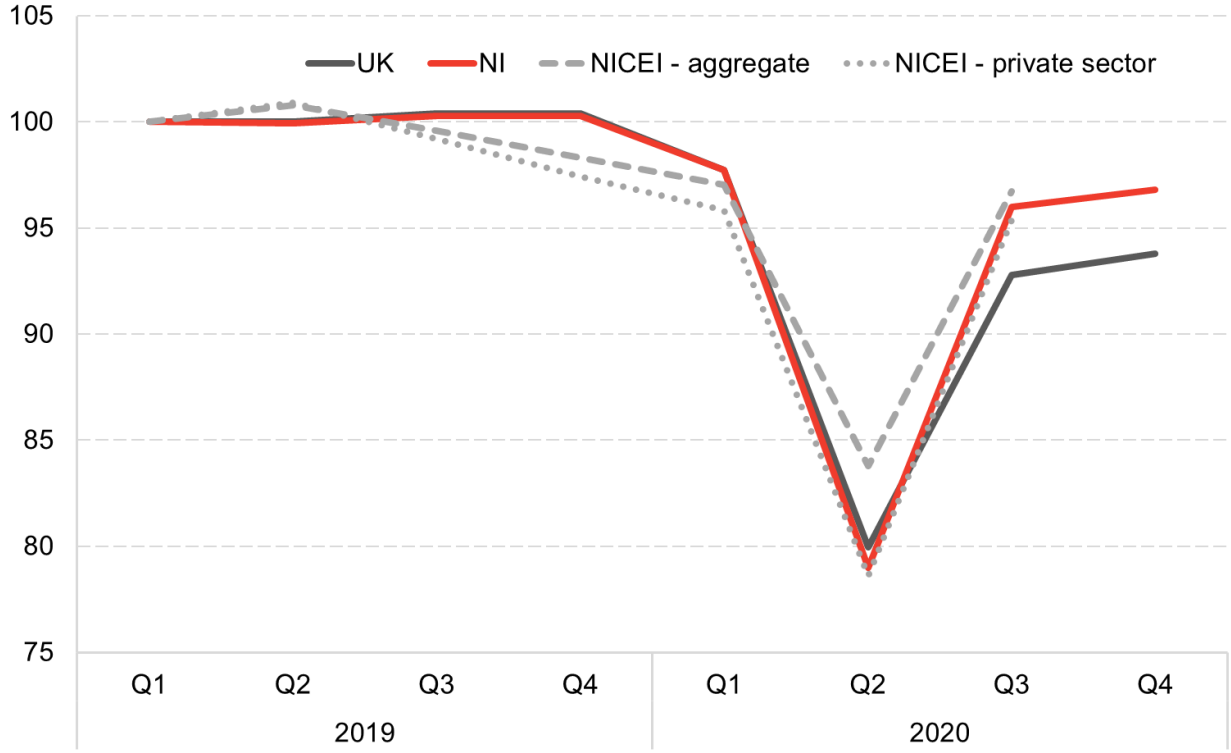


Source: FAI Analysis

Chart 5 above shows the areas where the NI economy has a specialisation compared to the UK average, based on the GVA weights. For example, the modelled larger fall in agriculture, forestry and fishing in NI compared to the UK in Q2 is because of the relative size of the Fishing and aquaculture industry in NI, which has been hit harder than agriculture or forestry.

Again, we need to remember that this may not be how the results manifest themselves in the published Northern Ireland Composite Economic Index. Obviously, this will have actual outturn data from businesses in NI to draw on for most of the economy. In addition, the measurement of the public sector in the index is currently based on employment, so will not show the falls that we would see in a GDP measure, which captures output (mainly through cost-weighted activity indices). We show, for completeness, our modelled GDP estimate from Q1 2019 to Q4 2020 compared to the NICEI.

Chart 6: Modelled fall in NI GDP / CEI based on UK sectoral falls and UK outturn GDP (Q1 2019=100)



Source: FAI Analysis

The quarterly data mask somewhat the path of the lockdown (during March and April) followed by the easing of restrictions (during May to September). Whilst the monthly data is not as detailed as the quarterly data, we have also modelled the pathway of monthly GDP based on the UK sectoral pathways, benchmarked to the quarterly growth rates we have modelled above.

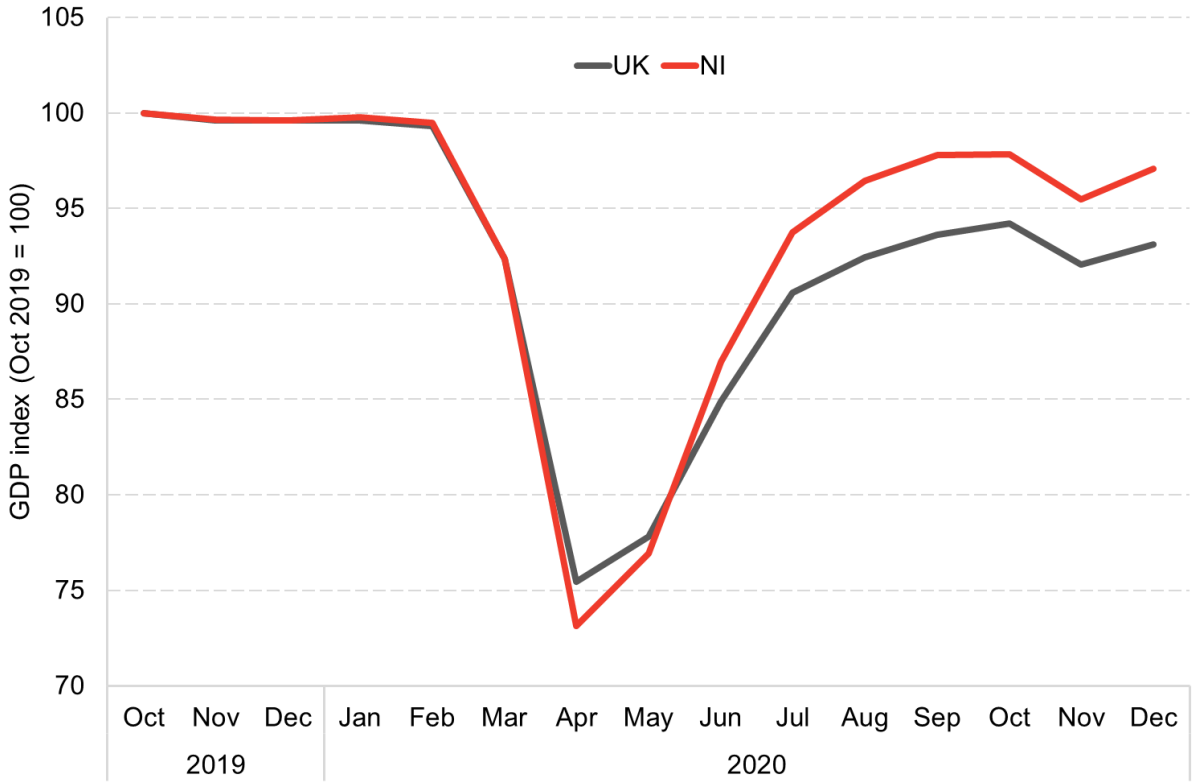
Table 2: Modelled monthly growth in NI and outturn data for the UK: March to December 2020, trough to peak and change since February 2020

Time period	NI (modelled)	UK
March	-7.2%	-7.0%
April	-20.8%	-18.3%
May	5.2%	3.1%
June	13.0%	9.1%
July	7.8%	6.7%
August	2.9%	2.1%
September	1.4%	1.3%
October	0.0%	0.6%
November	-2.4%	-2.3%
December	1.7%	1.2%
Trough to peak (growth from April to December)	32.8%	23.4%
Current position vs February	-2.4%	-6.2%

Source: FAI Analysis

The table above shows a larger fall in NI during March and April. However, the modelled results suggest that the recovery has been more rapid for this lower base in NI, with higher growth than the UK average throughout May to September. In October, our modelled estimates show that the NI economy did not grow whereas the UK economy grew by 0.6%. These differences arise mainly due to the sectoral composition of the NI economy relative to the UK, but they are supported by developments in high-frequency data sources. In the second half of October NI implemented a 'circuit-breaker lockdown' which required hospitality and close contact services to close for a number of weeks. This lockdown contributed to the weak monthly performance of the economy in October and November. The higher concentration of the wholesale & retail sector in NI relative to the UK allowed NI to grow marginally faster in December.

Chart 7: UK and NI (modelled) monthly GDP (October 2019 =100)

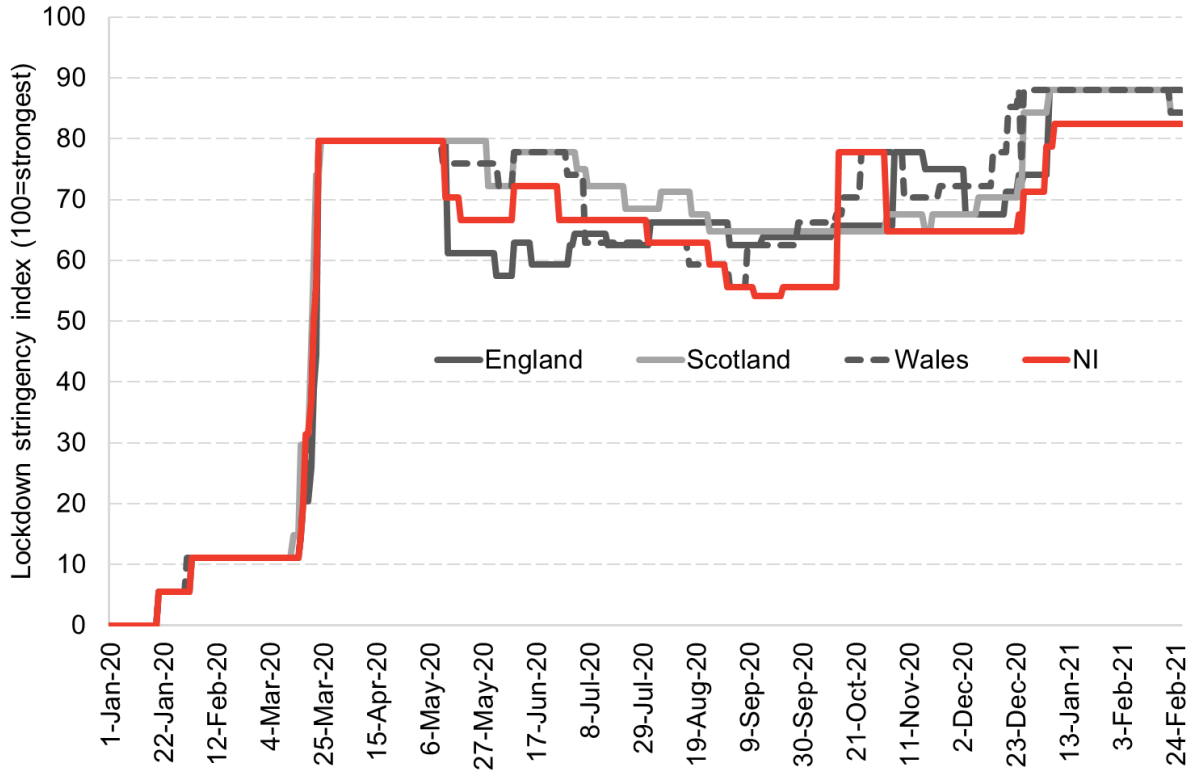


Source: FAI Analysis

Alternative real-time economic indicators for Northern Ireland

Traditional economic indicators such as GDP or the unemployment rate are usually available with a significant lag. During the Covid-19 pandemic the FAI has been using several other high-frequency indicators to track developments in the economy. Below we present some of these indicators to give a more complete picture of developments in Northern Ireland compared to the rest of the UK.

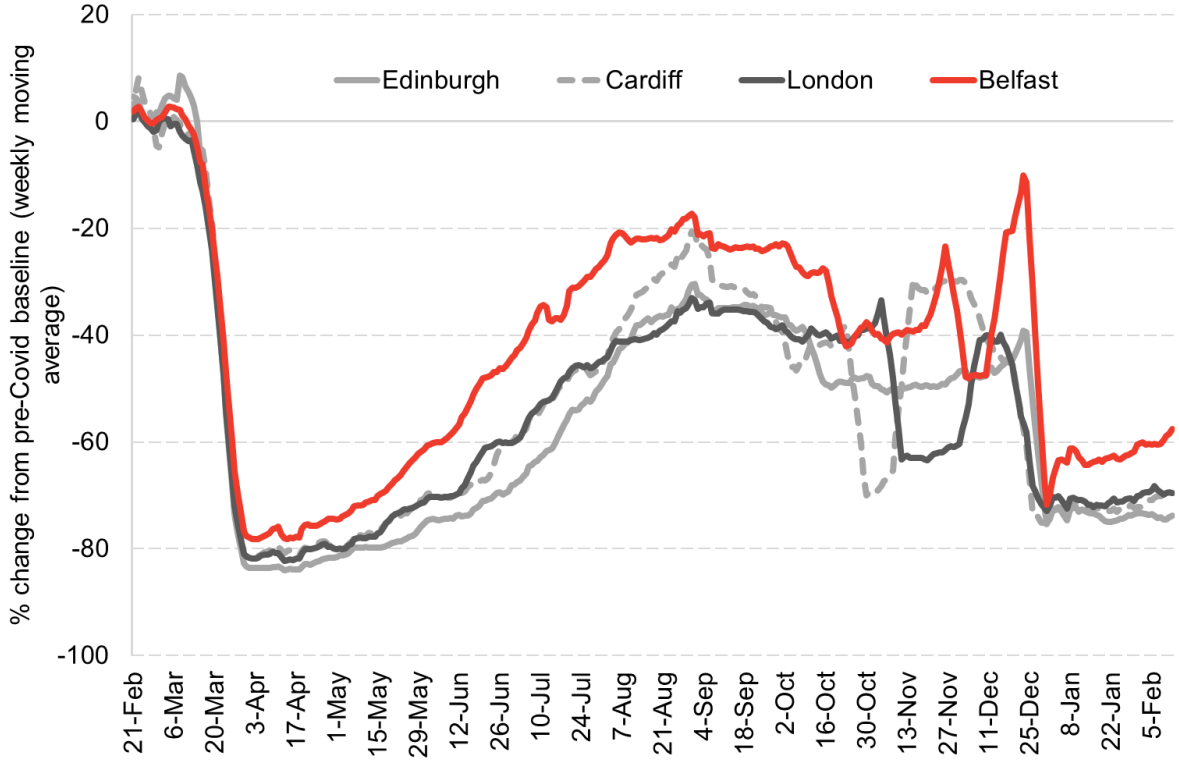
Chart 8: Lockdown stringency index, UK nations, 1st January 2020 – 26th February 2021



Source: University of Oxford

The lockdown stringency index developed by the University of Oxford shows the differing strength of lockdowns across the nations of the UK based on the following 9 indicators: school closure, workplace closure, cancellation of public events, restrictions on size gathering, closure of public transport, stay at home requirements, restrictions on internal movement, restrictions on international travel, and the public information campaign. The timing of restrictions varied across the nations. The index also shows that compared to other UK nations NI had less stringent restrictions up until mid-October, followed by a subsequent tightening due to the circuit breaker lockdown.

Chart 9: Mobility to retail and recreational venues, major UK cities, 21st February 2020 – 12th February 2021



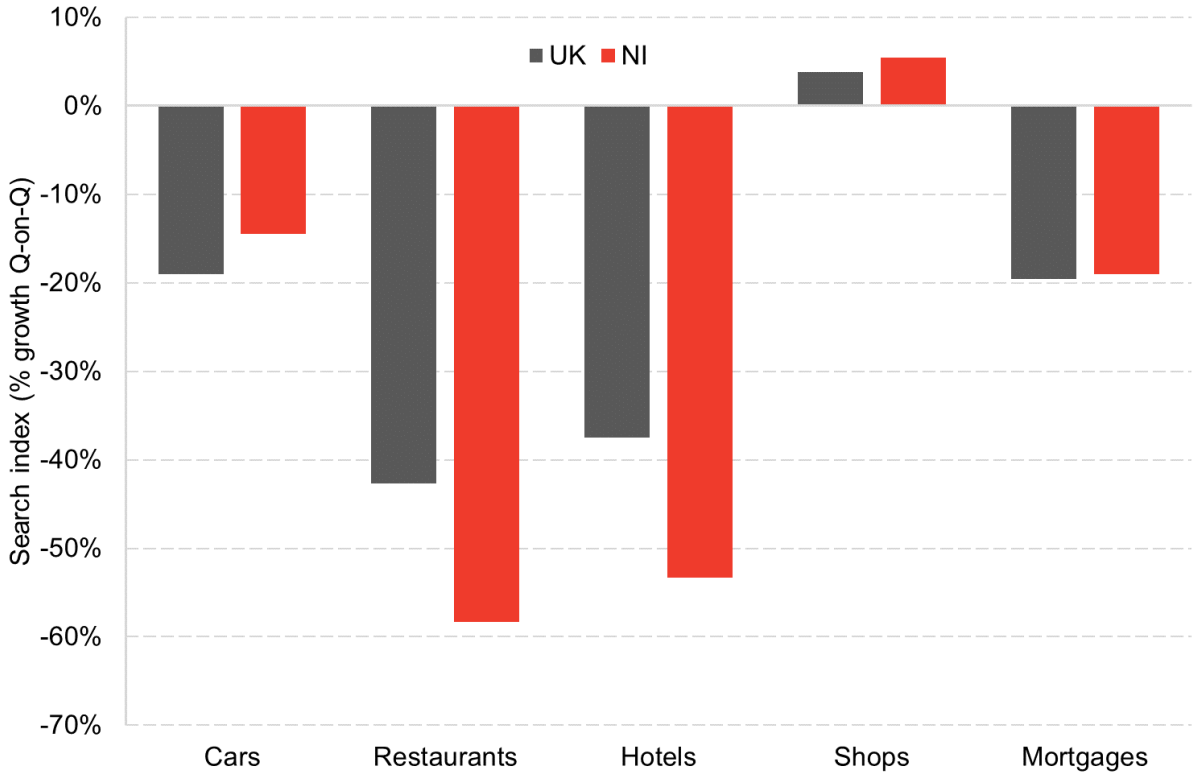
Source: Google Covid Mobility Trends, FAI calculations

Mobility to retail and recreational facilities can serve as a useful indicator of consumer spending. Mobility fell sharply at the start of the pandemic, but it started recovering throughout Q2 and Q3. The capitals of the devolved nations and London followed similar trends during Q2 and Q3, with Belfast recovering slightly faster compared to the other cities. However, the differing timing of new restrictions across devolved nations led to a divergence in Q4. Belfast saw a decline in retail & recreational mobility between mid-October to mid-November, followed by two more waves of increases and decreases in mobility due to the easing and tightening of restrictions by the NI Executive.

Trends in Google searches are another useful indicator of consumer sentiment. They can also provide an indication about other macroeconomic variables such as demand for investment and credit. Chart 10 below shows the quarterly change in search intensity across different categories of products and services.

Both the UK and NI experienced a sharp fall in searches for restaurants and hotels in Q4. However, the decline in NI was larger by approximately 16 percentage points across both categories. Search interest in cars fell slightly more in the UK and search interest in mortgages fell by circa 20% in both the UK and NI. Searches for shops were the only category which experienced quarterly growth, fuelled by the run-up to Christmas.

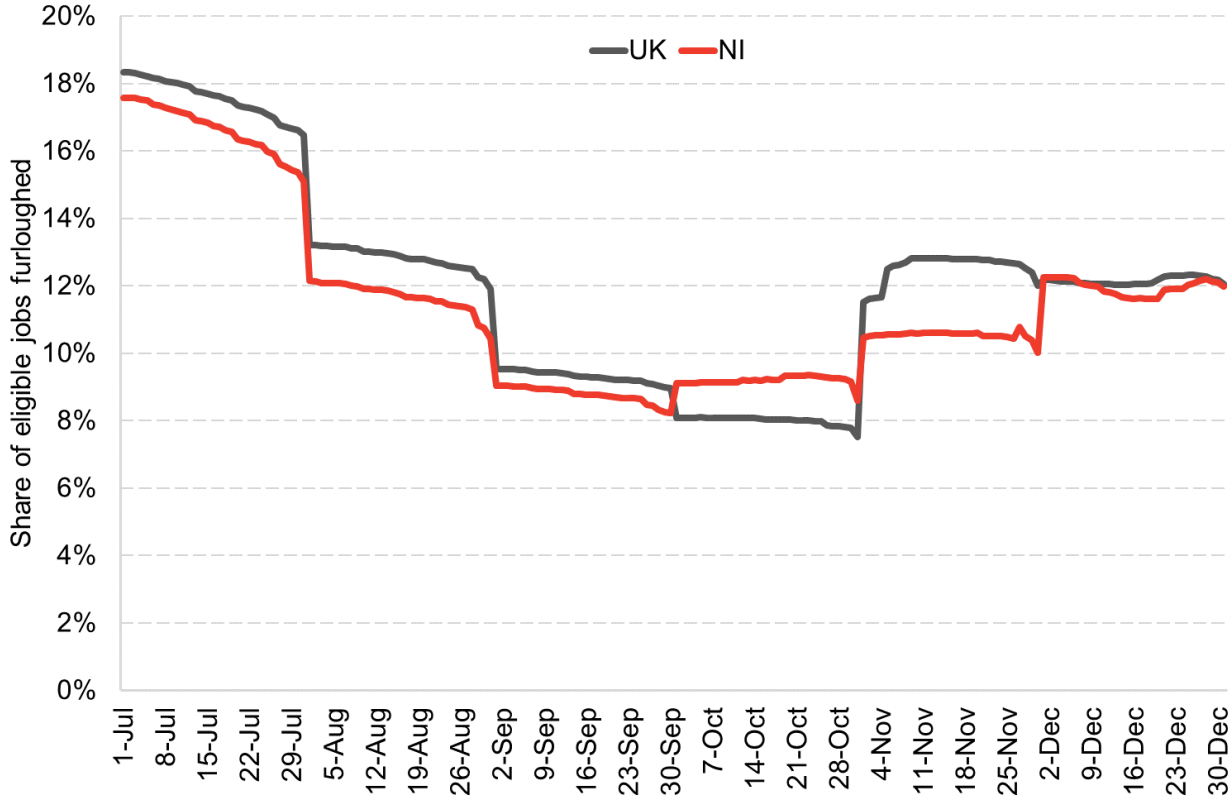
Chart 10: Google searches for various products & services, NI and UK, Q3 and Q4



Source: Google Trends, FAI calculations
Note: The search index is an average for the 5 most sold car brands in the UK.

As shown in Chart 11, Northern Ireland had a lower share of the workforce on furlough between July and September compared to the rest of the UK. The 'circuit-breaker' lockdown introduced in NI in mid-October led to an increase in furloughing, whereas the share of furloughed employees continued to decline in the rest of the UK throughout October. The share of furloughed workers in the UK rose above the NI level again in November as new restrictions were imposed in England. The NI share subsequently rose again in December aligning up with the UK level.

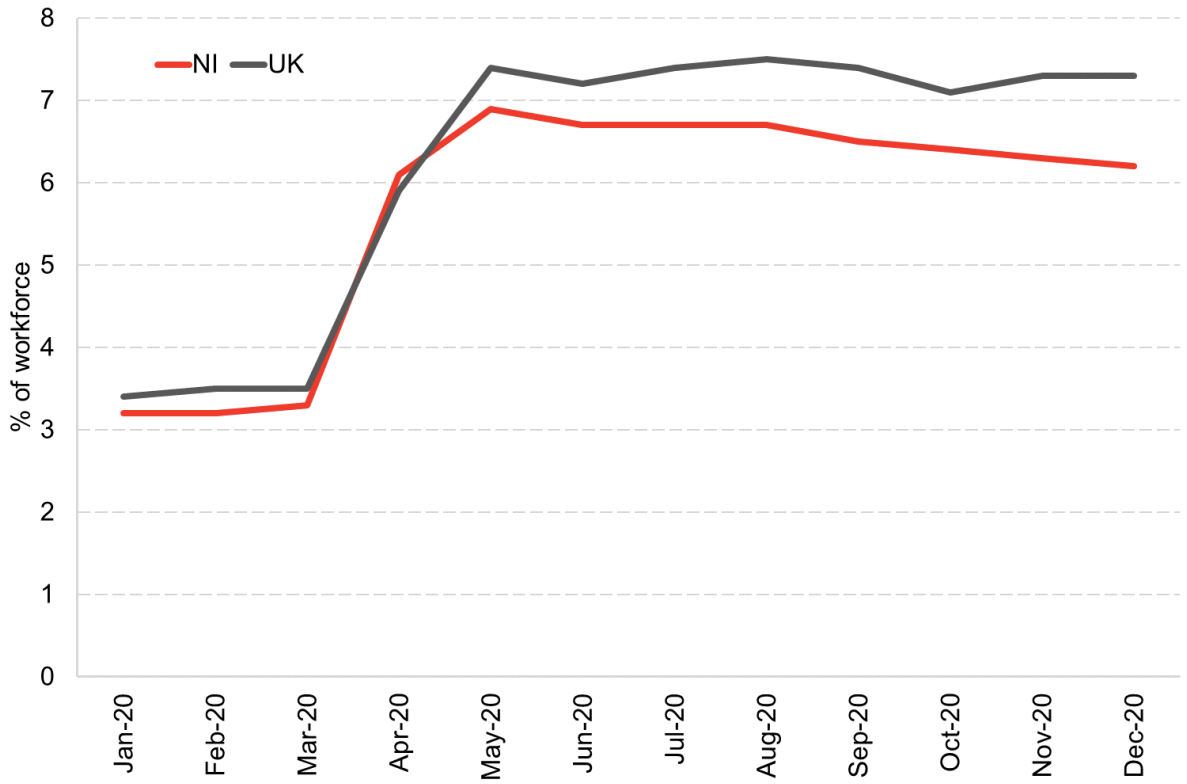
Chart 11: Share of eligible employments furloughed, NI and UK, 1st July – 31st December 2020



Source: HMRC, FAI calculations

Despite support from the furlough scheme many employers have had to resort to job cuts. Chart 12 shows the Claimant Count (the number of people claiming Universal Credit and Job Seekers Allowance) as a share of the workforce. Although not directly comparable to the unemployment rate, the Claimant Count gives an indication of the number of people out of work in a timelier fashion.

Chart 12: Claimant Count as a share of the workforce, January – December 2020

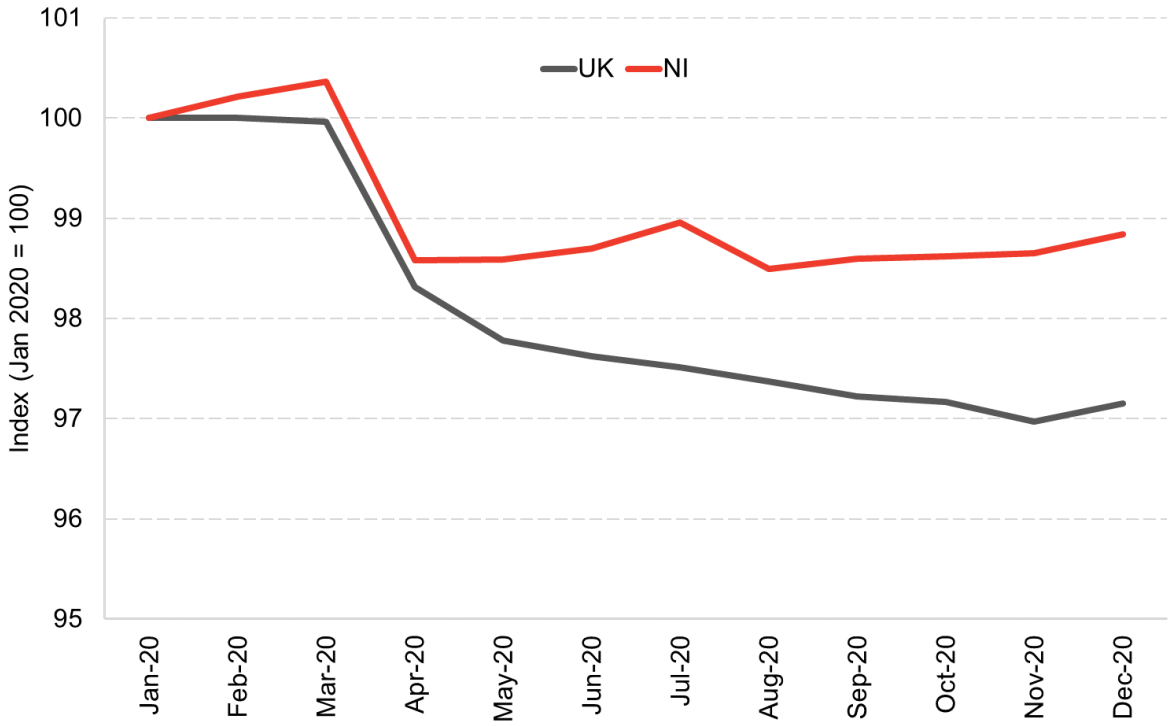


Source: NOMIS

In February the share of claimants in the working age population was 0.3 percentage points higher in the UK compared to NI. In subsequent months the number of claimants rose sharply across all regions, but NI was proportionately less affected. In December the share of claimants was higher by 1.1 percentage points in the UK compared to NI.

The number of employees registered for PAYE is another timely indicator which can provide signs about the health of regional labour markets.

Chart 13: Index of employees registered for PAYE, Northern Ireland and the UK, January 2020 – December 2020 (January 2020 = 100)

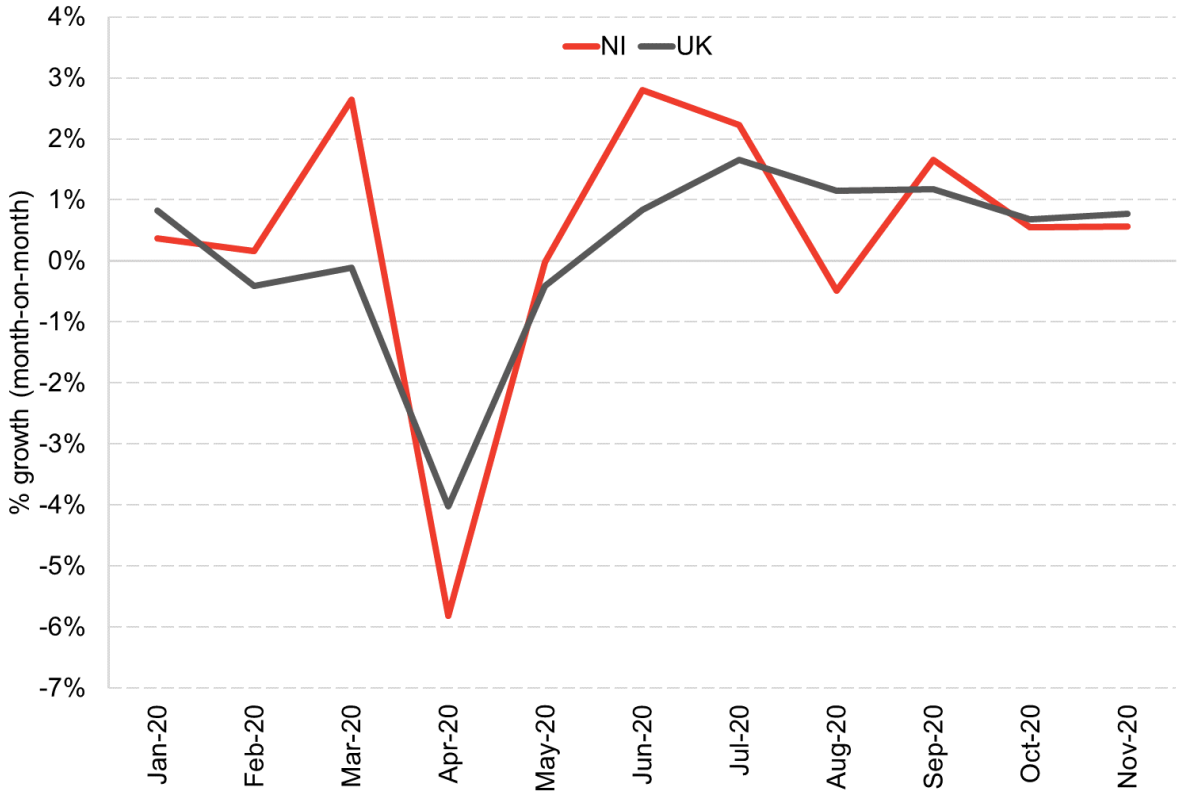


Source: ONS, FAI calculations

Between February and September, the number of employees in Northern Ireland fell by 1.6% compared to a decline of 2.8% in the UK. The number of employees continued to fall in the UK during the period between September to November, before seeing growth in December for the first time since the start of the pandemic. The number of employees in NI grew slightly every month in Q4 at an average monthly rate of 0.1%.

The decline in aggregate pay in April was stronger in Northern Ireland compared to the UK by 1.7 percentage points. However, between May and September aggregate pay grew faster in Northern Ireland each month except August. In October and November aggregate pay in NI and the UK grew at a similar pace.

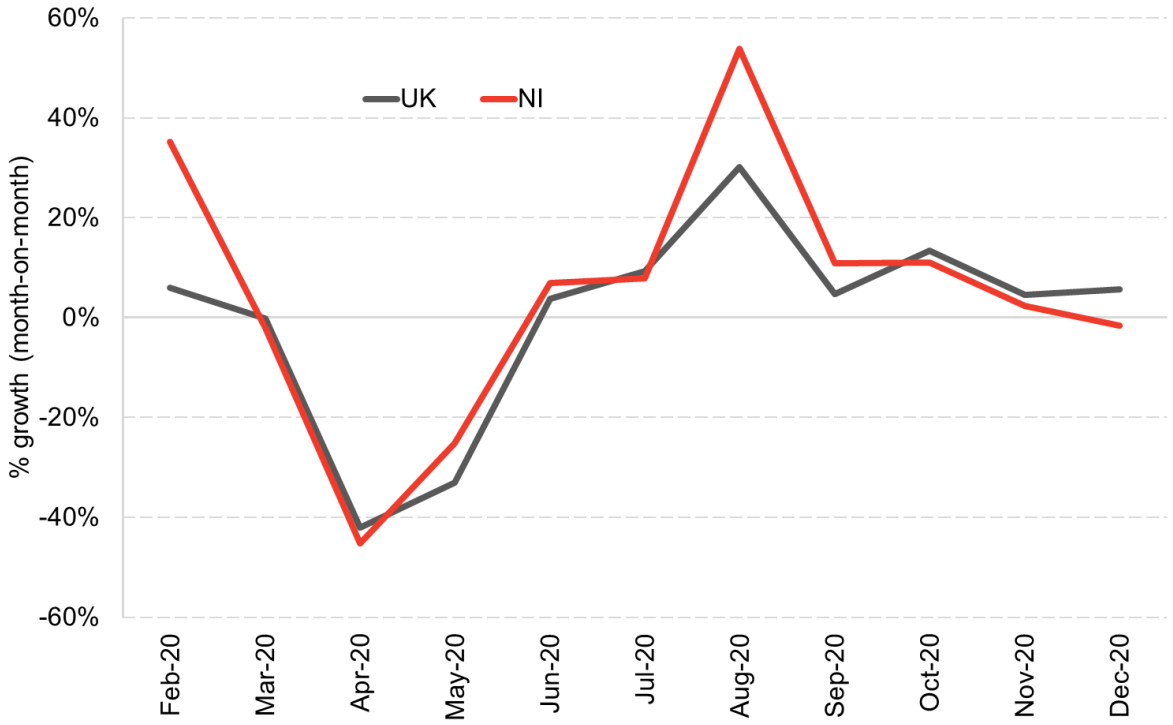
Chart 14: Aggregate pay growth from PAYE RTI, Northern Ireland and UK, January – November 2020



Source: ONS, FAI calculations

Data on vacancies is available from job search engine Adzuna which collates information on the number of jobs advertised from different sources. These range from direct employers' websites to recruitment software providers to traditional job boards thus providing a comprehensive view of current online job adverts.

Chart 15: Growth in advertised vacancies, Northern Ireland and the UK, February – December 2020



Source: Adzuna Labour Market Stats

The magnitude of decline in vacancies between February and May was similar for NI and the UK, but the subsequent recovery has been faster in NI during Q2 and Q3. In Q4 growth in vacancies slowed down in NI and was outpaced by the UK. In December, vacancies in NI declined for the first time since April. Nevertheless, in terms of levels, vacancies in NI were circa 20% higher in December 2020 compared to January 2020 whereas the number of vacancies in the UK remained circa 20% below the levels seen in January 2020.

Overall, real-time indicators of economic activity and the labour market suggest a broad-based slowdown in economic activity and marginally slower growth of the NI economy relative to the UK in Q4.

Fraser of Allander Institute

March 2021