



A COVID Counterfactual: What if Government had not provided support?

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1 Introduction

Background

1. As the economy has emerged from the worst impacts of the pandemic, the focus of attention is shifting to the lessons learned from the experience, primarily to inform economic recovery as well as any potential future response to a global economic/ health/ societal shock.
2. This research is NOT an evaluation of government interventions, nor does it make a value for money assessment of the significant financial support provided to all parts of the economy by the government. Its aim is to consider a potential 'COVID counterfactual' scenario to estimate the impact of the pandemic on the economy in the absence of government interventions.
3. Separately, this research was undertaken against the backdrop of the escalating war in Ukraine and the resultant deteriorating global economic conditions. Given the purpose of this work is to consider a COVID counterfactual scenario, the analysis does not attempt to combine the counterfactual estimates with the currently uncertain economic outcome associated with the war in Ukraine.
4. Intuitively, economies supported by their governments during the pandemic would be better placed to withstand the impact of the current energy price shock than those not supported, but this has not been tested.

Areas covered

5. This report examines the following areas:
 - Scale of impact and current economic position – this section contrasts the pre-COVID economic picture with the scale of economic shock across a range of variables including: GVA, labour market, mobility, trade, investment, debt and insolvencies.
 - Policy actions/ interventions – a brief overview is provided of the fiscal interventions by both the UK Government and the NI Executive and also the monetary policy response from the Bank of England.
 - COVID Counterfactual – this section estimates the impact on the NI economy in the absence of UK Government/ NI Executive interventions. This includes an assessment of the impact across a range of GVA, labour market and business solvency indicators. These estimates are based on:
 - historical analysis of the impacts of previous recessions;
 - literature review of similar 'counterfactual' studies undertaken in other jurisdictions (where available);

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- consultations undertaken by UUEPC on research completed during the pandemic.
- Conclusions and conditions on future interventions – overview of the impact of government interventions on the speed of economic recovery and discussion on the appropriate conditions for large scale government interventions.

2 The COVID economic impact and recovery

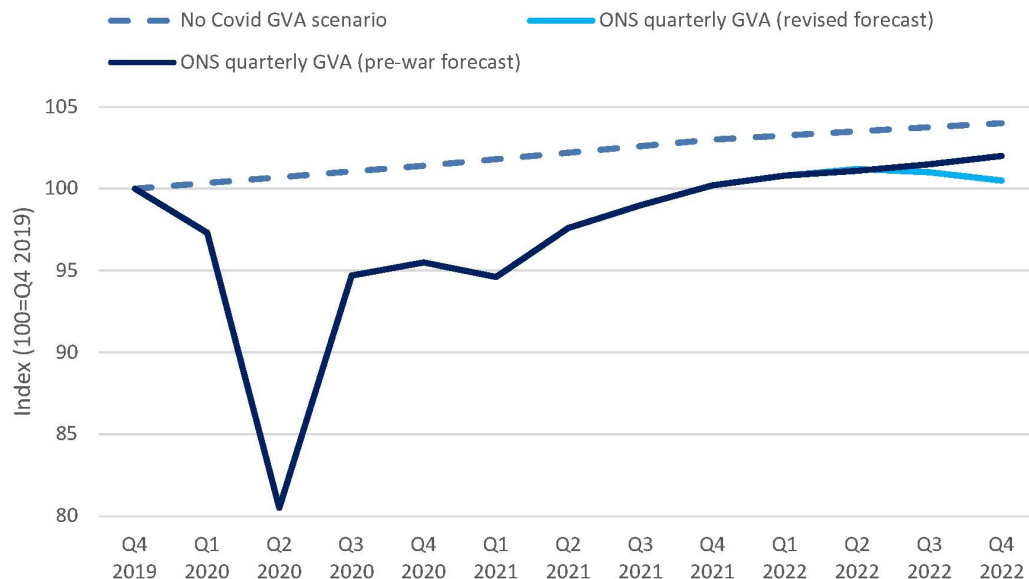
Introduction

1. This section of the report assesses the impact of the pandemic on the economy in terms of GVA, across the labour market and the impact on business. This provides a context to the scale of the economic shock experienced.

Impact on GVA

2. Gross Value Added (GVA) is the primary measure used to assess economic activity and therefore the impact of COVID on the economy is often expressed in terms of impact on GVA.
3. Like most economies, the NI economy contracted by a record 17.8% in Q2 2020, but rebounded strongly in Q3 2020 and had passed its pre-pandemic GVA peak by Q4 2021. Figure 2.1 below also provides a forecast developed prior to Russia's invasion of the Ukraine and a second more recent forecast showing the resultant economic slowdown.

Fig. 2.1: NI Real GVA Index



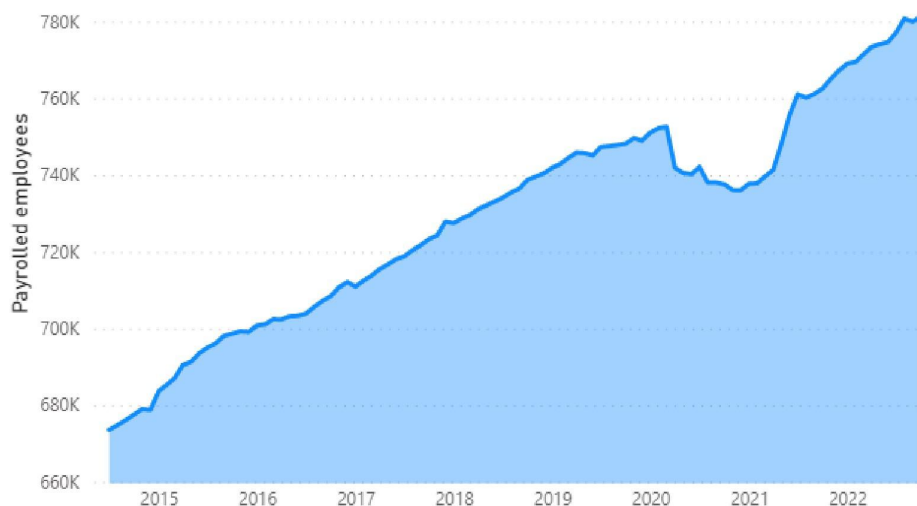
Source: ONS and UUEPC analysis

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Impact on the labour market

4. Assessment of **payrolled employees**, suggests that the labour market has held up well and not only passed its pre-pandemic peak but is also back to its pre-pandemic trendline. Overall, employees increased steadily from 684k in January 2015 to 753k in March 2020 before falling by approx.. 2% to 736k in December 2020 before growing to an all-time high of 781k in October 2022 (latest data).

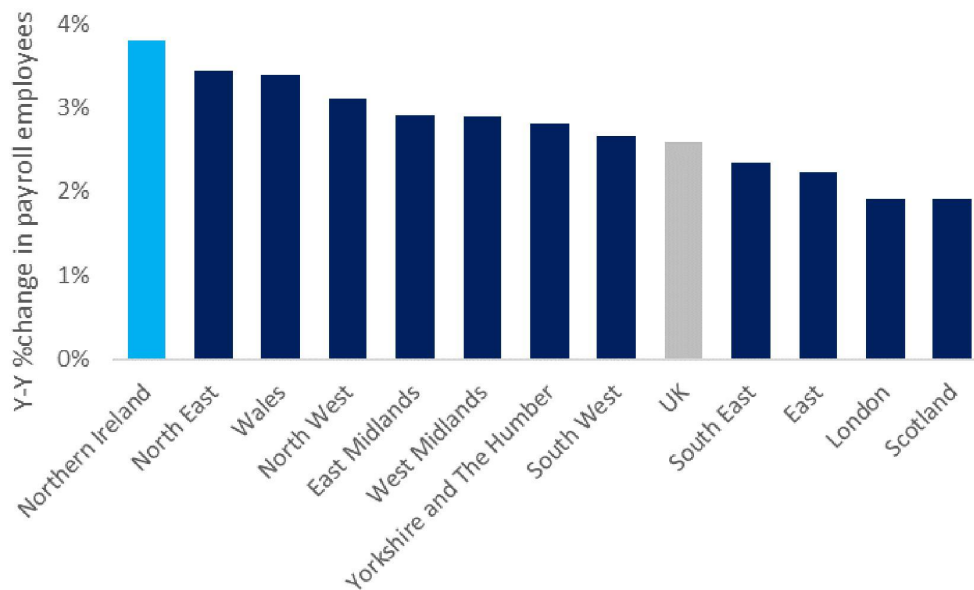
Fig. 2.2: Payrolled Employees, NI, 2015 – Sept 2022



Source: HMRC

5. Since the outbreak of the pandemic, NI has experienced the fastest growth in payrolled employees across all 12 UK regions.

Fig. 2.3: Payrolled employees, % change, UK Regions, Mar 20 to Sept 22

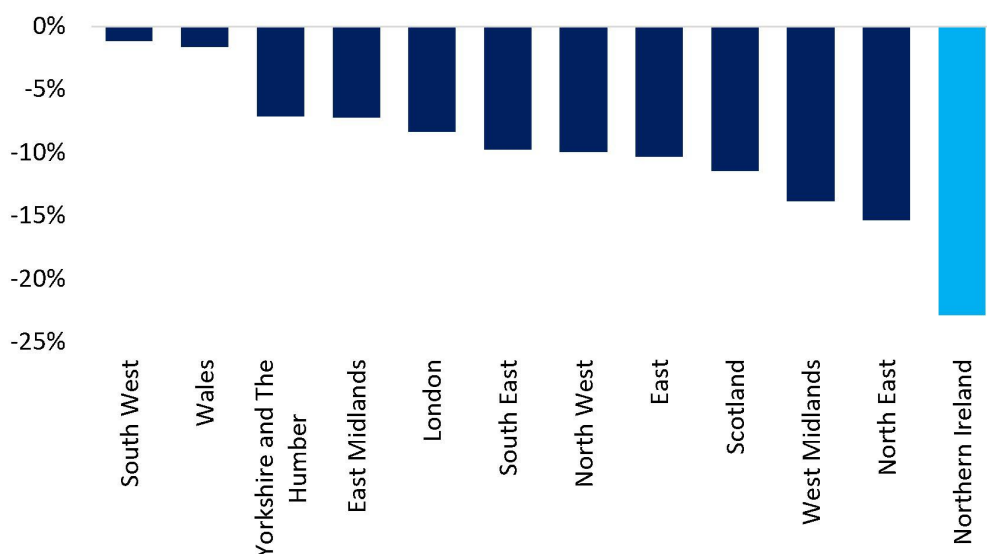


Source: HMRC, NISRA

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6. However the **self-employed** position is less positive, experiencing a fall from 129k in Q1 2020 to a low of 84k in Q2 2021. Self-employment levels have started to recover, increasing to 100k in Q3 2022 (latest data), but NI has experienced one of the worst contractions in self-employment numbers across all 12 UK regions since the start of the pandemic. [This issue is explored further under business impacts and in particular mirrors a large reduction in micro/ one person firms].

Fig. 2.4: Self-employed, % change, UK Regions, Mar 2020 to Sept 2022



Source: NOMIS

7. Looking at the overall number of jobs (i.e. jobs not people), the number is still below pre-pandemic levels, falling from 917k in Q3 2019 to a low of 861k in Q2 2021, but has since recovered to 906k.

Fig. 2.5: Workforce Jobs, NI Q1 2015 to Q3 2022

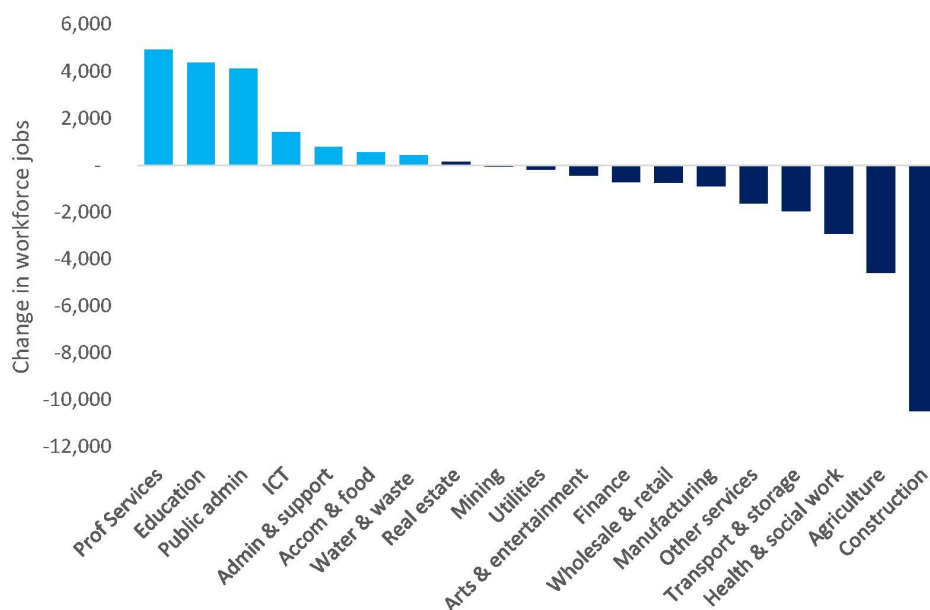


Source: NOMIS

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8. The impact at the sectoral level has been mixed. Some areas of the public sector (Education and Public Admin) along with Professional Services have seen relatively significant increases in total employment in the two years following the pandemic. In contrast, three sectors (construction, agriculture and health) have experienced large falls (totalling almost 18k) and are responsible for the overall net negative position. Most sectors have experienced marginal increases or decreases.

Fig. 2.6: Change in employment by sector, NI Q1 2020 to Q3 2022



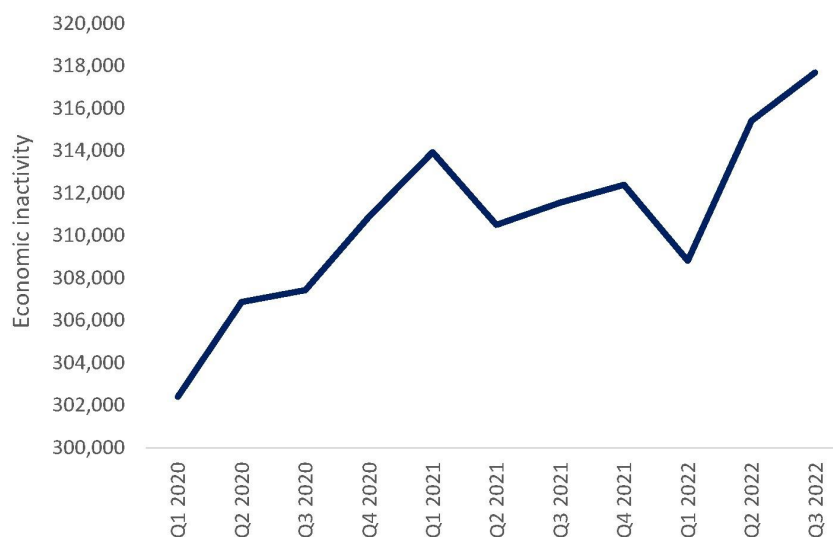
Source: NOMIS

Impact on the economically inactive

9. The NI economic inactivity rate has fallen only very slowly over the last 20+ years, down from 32% in 2000 to 28% in 2022. However, this relatively slow decline masks some significant changes at the more detailed level, for example student numbers have increased from 68k to 88k from the turn of the century and those looking after the home/ family has fallen dramatically from 100k to 53k over the same time period. Unfortunately, no progress has been made in reducing the numbers on long term sick which have increased from 98k in 2000 to 122k in 2021. The sickness rate currently sits at 10.1% compared to a UK average of just 6.1% and therefore remains one of the key challenges facing the NI economy.
10. More recently, the pandemic has resulted in volatility in the economically inactive numbers, rising from 302k in Q1 2020 to 314k in late 2021, before falling 308k in Q1 2022, but rising again to 318k in Q3 2022.

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Fig. 2.7: Total Economically Inactive 16-64, NI, Q1 2020 – Q3 2022



Source: UUEPC, LFS

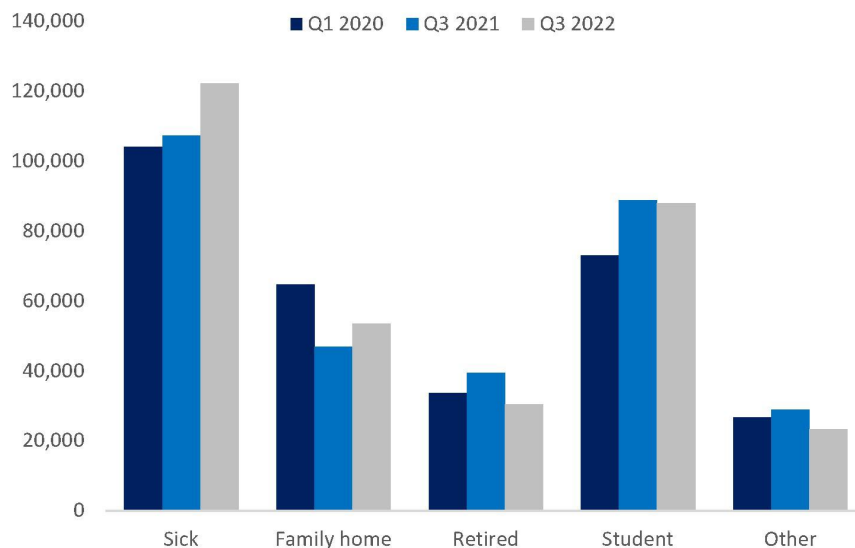
11. Economic inactivity has increased significantly since the pandemic and there have been some notable changes across the different groups of economically inactive between pre-pandemic and the latest data:

- **Long term sick** has increased by 18k – perhaps unsurprising in a pandemic but this represents a significant increase of 17%;
- **Family and home care** has decreased by 11k – after the pandemic the number economically inactive due to family or home care fell significantly from approx. 65k to 45k, but the more recent data shows the trend moving into reverse and numbers are increasing again and currently sits at 54k. This raises a separate policy question: has increased working from home made it easier for those with caring responsibilities to return to the labour market? Separately, has a return to the office caused the numbers to increase again?
- **Retired** has *decreased* by 3k from pre-COVID levels – this is perhaps the most surprising finding from the inactivity data. The number of economically inactive retired increased from 34k in Q1 2020 to 39k by Q3 2021 (which is consistent with the broader narrative of increased retirements due to the pandemic across the UK). However, the number has dropped significantly to just 30k in Q3 2022. This is currently unexplained but may be as result of lower levels of household wealth in NI which in turn requires people to stay in work longer, particularly as the more recent cost of living challenges take effect.

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- Number of **students** has increased by 15k – this significant increase is unsurprising given the uncertainty in the labour market caused by the pandemic and encouragement given to young people to stay in education longer and/ or increase in the number of people returning to education. In addition, teacher assessed grades led to a significant increase in the number of school pupils who became eligible for a place in Higher Education.

Fig. 2.8: Change in economically inactive by reason, Q1 2020 – Q3 2022



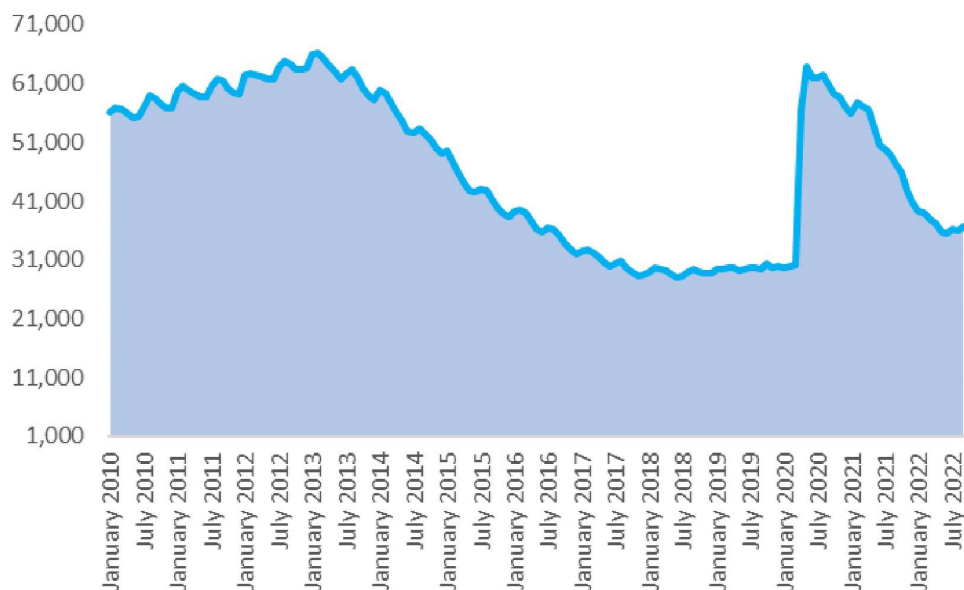
Source: LFS

Claimant Count

12. The net loss in employment is partially reflected in the claimant count, which more than doubled between April and June 2020, but since then it has contracted significantly and importantly that downward trend by the end of the furlough scheme. NI had 26k people on furlough on 30 September 2021 (the last day of the scheme) and this data suggests that the vast majority have been absorbed back into employment.
13. The claimant count is currently at approx. 35k compared to pre-pandemic levels of just under 30k, but in recent months the downward trend has stalled as economic challenges become more apparent.

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Fig. 2.9: Claimant count (16-64), NI, Jan 2010 to Sept 2022



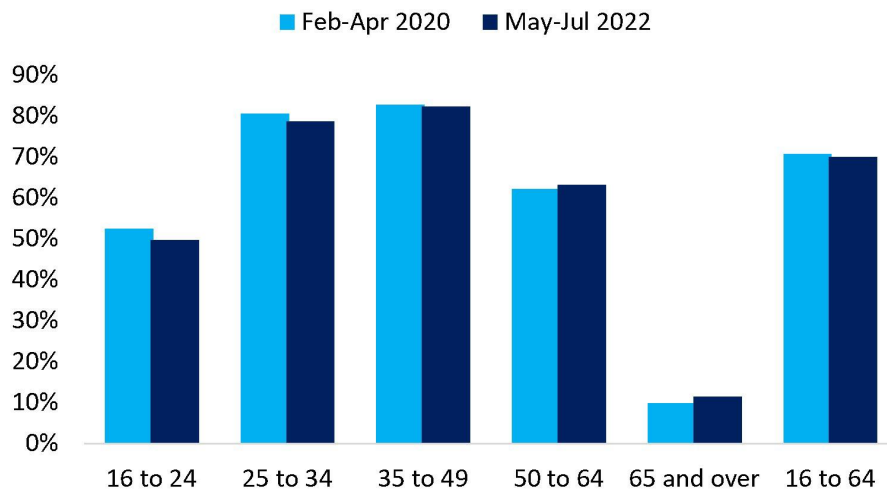
Source: Nomis

Groups most impacted

Young people more impacted

- The economic fall-out from lockdown did not impact all groups equally, with the greatest impact (in employment terms) being felt by the young. The employment rate for all age groups have held broadly steady with the exception of the 16-24 cohort, which fell from 52.4% in Feb-Apr 2020 to 41.6% in Aug-Oct 2021, it has since rebounded but is still almost 3 percentage points below its pre-pandemic level at 49.7%. This coincides with the increase in student numbers.

Fig. 2.10: Change in employment rate by age, 2020 to 2022



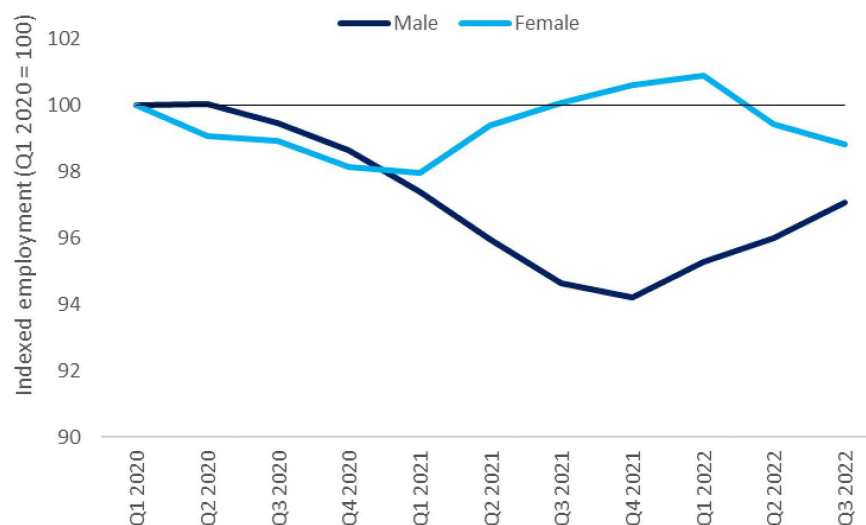
Source: LFS

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Male employment fell much further but has returned strongly

15. The gender impact has also been uneven. Female employment initially fell at the outset of the pandemic but recovered quickly and returned to pre-pandemic levels in early 2021, but has since fallen back below pre-pandemic levels (consistent with the more recent increase in people economically inactive with caring responsibilities). In contrast, male employment initially held up, then fell by 8 percentage points but has started to recover.

Fig. 2.11: Employment by Gender (aged 16-64), NI, Q1 2020 = 100



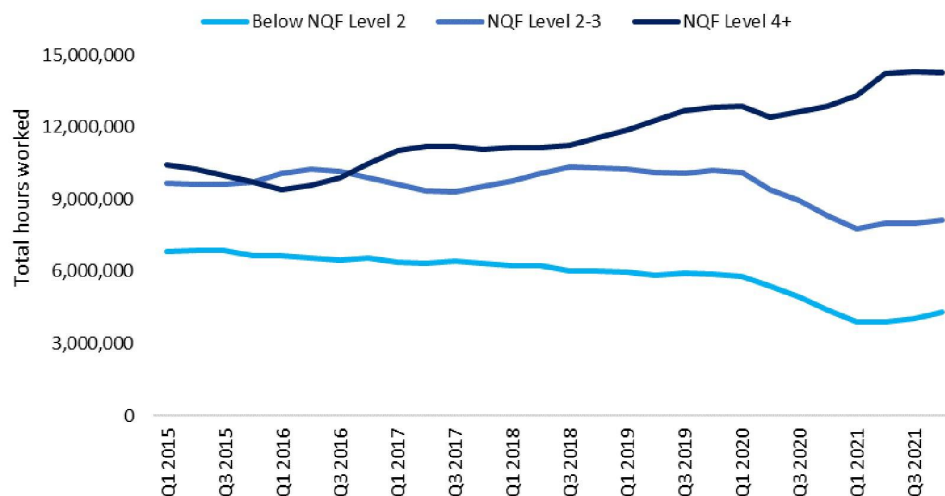
Source: UUEPC, LFS

The lower skilled also more impacted

16. The pandemic also impacted those with lower qualifications more than those with higher level skills. The number of hours worked by those with high level qualifications (NQF Level 4+) has been on an upward trend for many years and similarly the hours worked by those with lower level qualifications has been on a long term downward trajectory. However, following the outbreak of COVID there has been an acceleration in both trends as it seems that the pandemic put a premium on higher level qualifications.

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Fig. 2.12: Total weekly hours worked by NQF Level, NI, Q1 2015 to Q4 2021



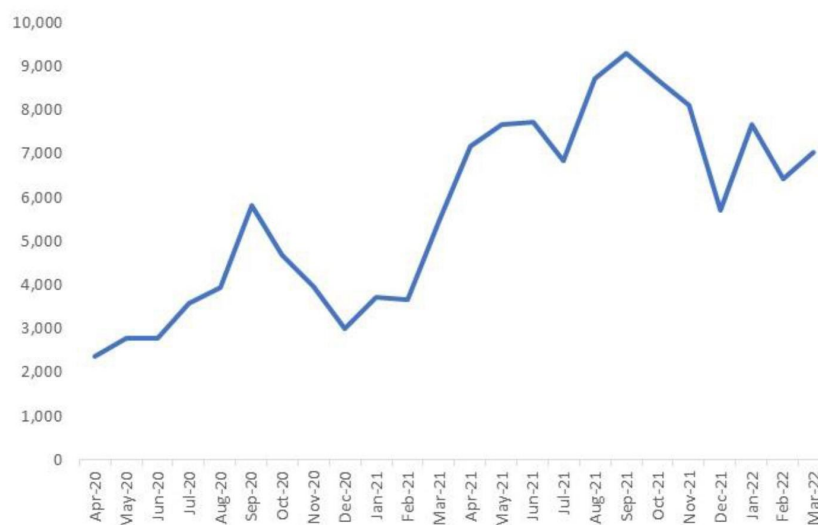
Source: LFS

17. It is also interesting to note that the trend of increased demand for higher skills (and reduced demand for lower skills) has not returned to pre-COVID levels. The pandemic has created a step change in demand for skills and will be important to continue to monitor moving forward.

Vacancies

18. The level of vacancies in the economy has also been highlighted in recent times as a key issue impacting growth and has experienced increased volatility following the outbreak of the pandemic. Vacancies were on an upward trajectory prior to the pandemic, before falling in early 2020, however have strongly recovered.

Fig. 2.13: Total Vacancies, NI, 2015 to 2022

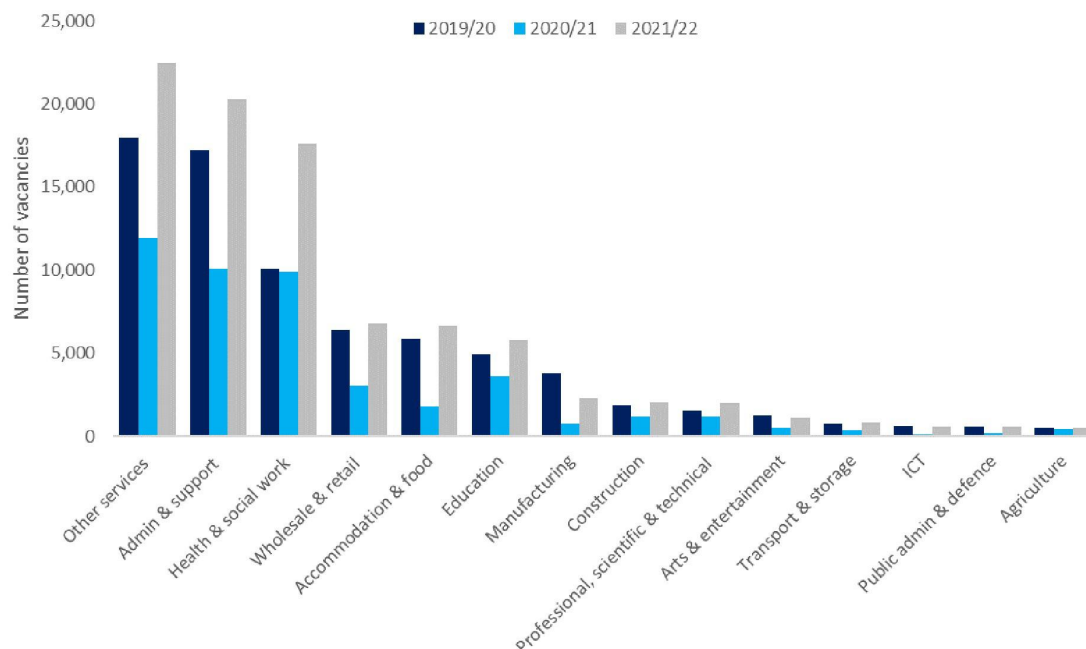


Source: DfC

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19. In the most recent data, just three sectors made up approx. 70% of the total vacancies – Administration Services, Other Services (e.g. close contact services) and Health. In almost all sectors vacancies in 2021/22 were higher than in the previous two years.

Fig. 2.14: Total Vacancies per sector, NI, 2019/20 – 2021/22



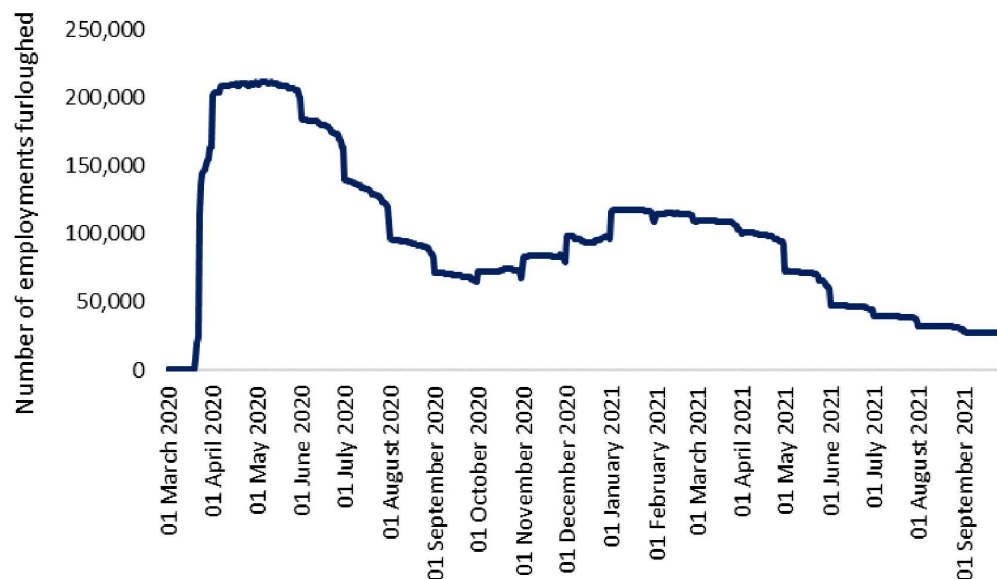
Source: DfC

Coronavirus Job Retention Scheme (CJRS)

20. The CJRS (or furlough scheme) was introduced to coincide with lockdown and hit a peak of approx. 212k in early May 2020 before reaching an interim low of approx. 65k in September 2020. Further restrictions were then introduced which saw employments furloughed increase again to 116k in February 2021, before reducing slowly to 27k in September 2021, at which time the scheme was then closed.

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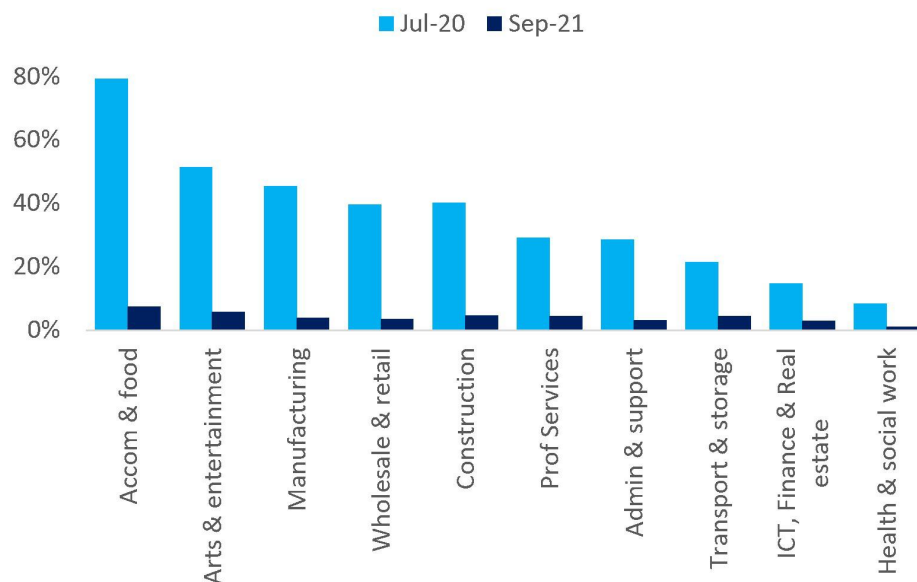
Fig. 2.15: No. of Employments Furloughed, NI



Source: HMRC

21. Given the nature of restriction, some sectors were significantly more impacted than others. In particular, hospitality, Arts & entertainment, manufacturing, retail and construction had significant numbers on furlough in the initial months of the pandemic. However, by September 2021, this had fallen significantly but those same sectors still had the highest proportions of staff on furlough.

Fig. 2.16: Proportion of employments furloughed by sector, NI, July 2020 & Sept 2021



Source: HMRC

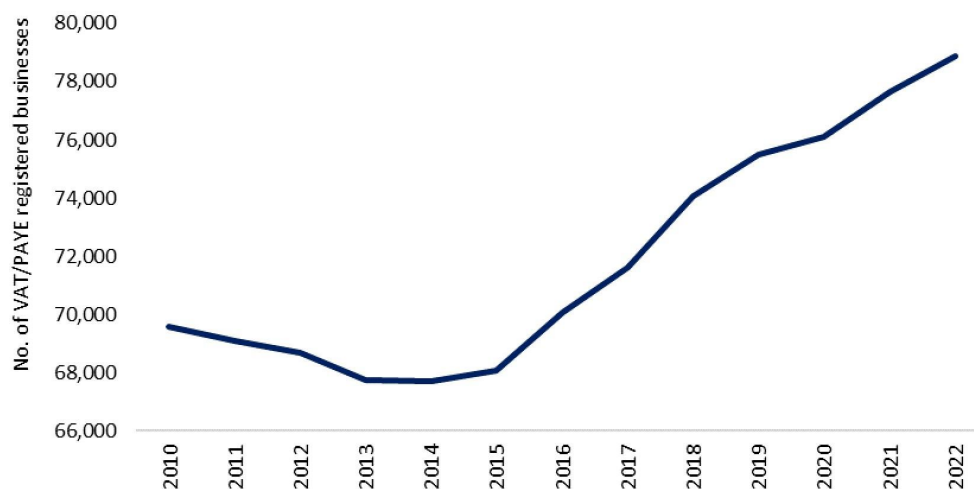
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Impact on Businesses

VAT and PAYE registered businesses continued to grow

22. In addition to a focus on the labour market, the pandemic had a surprising impact on businesses. The number of VAT and/ or PAYE registered businesses in NI have continued to increase year on year through the pandemic.
23. This unexpectedly better outcome in terms of business survival has been explained at least partially by pandemic related factors. Firstly, the scale of business supports put in place by both Westminster and Stormont, secondly the introduction of the Corporate Insolvency and Governance Bill (to create “breathing space” for companies to maximise their chances of survival) and finally the pause in the legal process related to insolvency during lockdown.
24. Given the changing economic outlook moving forward, with rising costs, higher interest rates and a squeeze on consumer spending, combined with the withdrawal of pandemic related business supports, a reversal of this trend is possible in 2023.

Fig. 2.17: VAT and/ or PAYE registered businesses, NI, 2010-2022



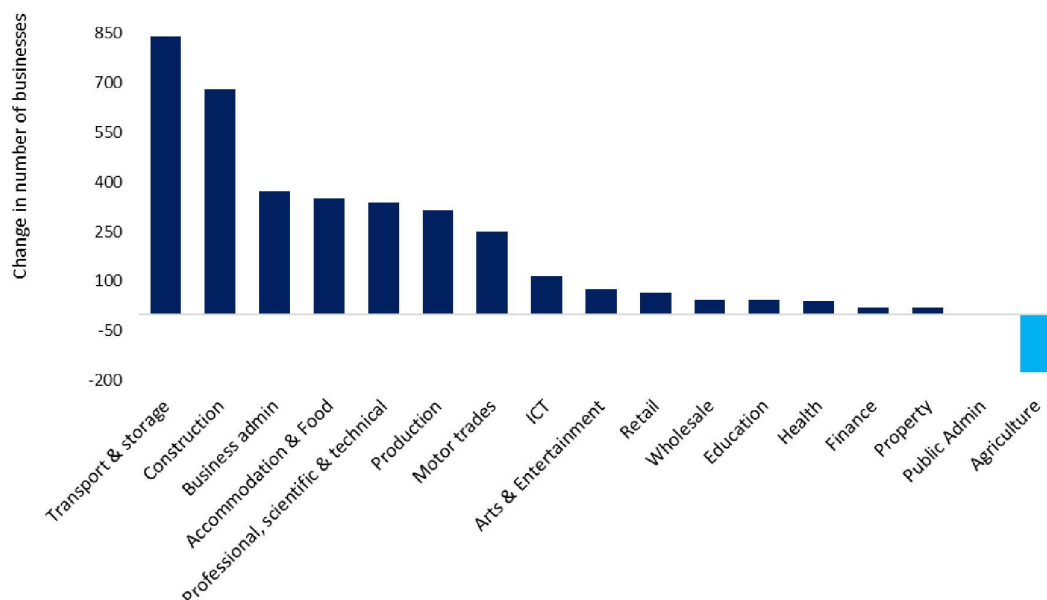
Source: NI IDBR

Note: The data for 2022 was taken on March 2022

25. This strong performance is reflected at a sectoral level, with all but one sector showing an increase in 2022 over 2019 levels (the number of agriculture businesses fell by 175 or less than 1% of the total number of businesses in that sector). The largest increase was experienced in Transport followed by Construction.

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Fig. 2.18: Change in VAT/ PAYE registered businesses by sector, NI, 2019 – 2022



Source: IDBR

Non VAT/ PAYE registered businesses reduced significantly

26. In contrast to the positive picture in respect of registered business, the experience of smaller businesses not registered for VAT or PAYE has been very different. Between 2020 and 2021 the number of non-registered businesses in NI fell by 26k, a fall of 17% of the total number of businesses in NI and a 34% fall in the number of unregistered businesses in NI.
27. These findings are entirely consistent with the self-employment statistics which remain below pre-pandemic levels. Given these firms are very small in financial terms, many had zero employees and therefore the self-employed owner may have transferred to employed status.
28. A similar trend was experienced across the UK but on a smaller scale, with the total number of businesses falling by 6.5% (17% in NI) and non-registered businesses falling by 12% (34% in NI). As in NI, the fall in the total number of businesses in the UK is entirely attributable to the reduction in unregistered businesses.

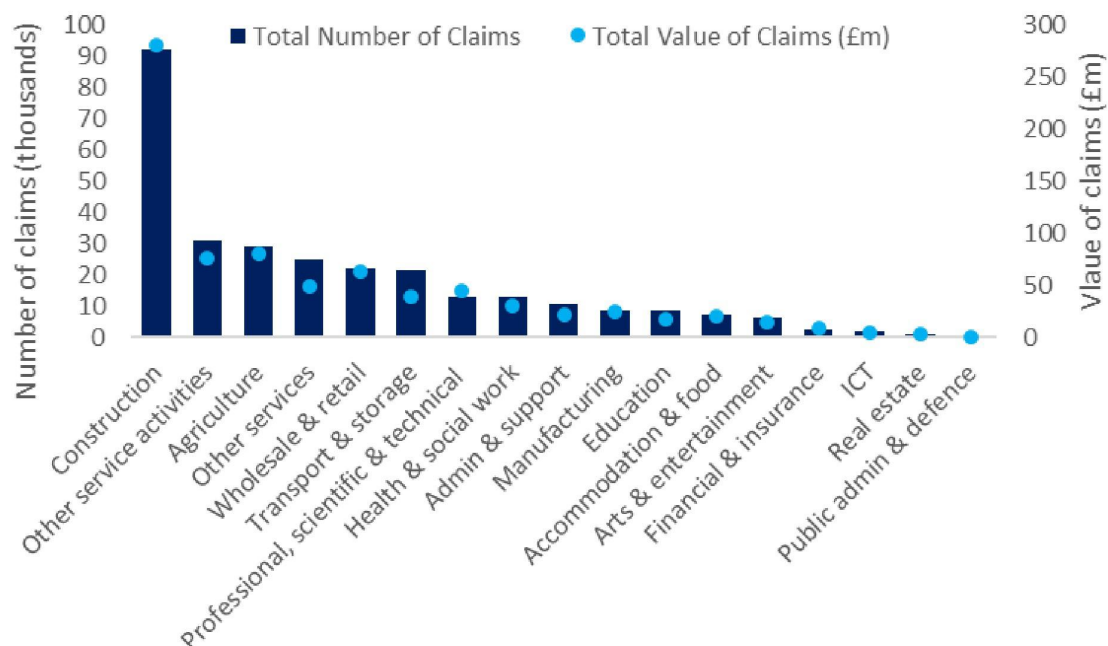
Self-Employed Income Support Scheme (SEISS)

29. The SEISS scheme was introduced to help the self-employed, as the CJRS (or Furlough scheme) was introduced to support employees. It was targeted at individuals or partnerships, not limited companies, with trading profits under £50k and therefore typically would have been small businesses.

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30. In NI, 85k individuals claimed across the five SEISS grants, making a total of 294k claims¹, with a total value of £783m. The number of claims made and the average claim value (of approx. £2,700) was broadly equivalent to the UK average. The Construction sector alone represented 36% of the total value of claims made, with Agriculture accounting for a further 10%.

Fig. 2.19: NI SEISS claims by sector 2020/21



Source: HMRC

¹ <https://www.gov.uk/government/statistics/self-employment-income-support-scheme-statistics-december-2021>

3 Scale of policy response

Introduction

1. The policy response to the COVID-19 pandemic was swift, with significant fiscal measures implemented by Governments around the world. The priority was to limit the adverse economic effects of the public health measures on businesses and households and the main fiscal policy tools (identified by the OECD² and IMF³) were:
 - Direct Government spending and cash transfers;
 - Tax cuts and exemptions;
 - Tax and social security contribution deferrals;
 - Debt relief;
 - Government credit assistance; and
 - Government subsidies to business.

Global comparison

2. The scale of fiscal response varied across countries, with higher income economies allocating resources more quickly and on a larger scale given their greater access to external funding⁴.
3. The IMF estimate that the cumulative global COVID-19 fiscal response (i.e. additional or accelerated spending and foregone revenues) to April 2021, was equivalent to 10.2% of global GDP (of which 1.4% was health related and 8.6% non-health related spending). In addition, liquidity supports were equivalent to a further 6.2% of GDP.
4. Taking a closer look at advanced economies, the US implemented the largest fiscal response both in value and % of GDP terms, followed by the UK and Australia. Italy, Japan and Germany led the way in terms of liquidity support, but interestingly, the US provided amongst the lowest level of liquidity support,

² OECD, 2020, Tax and fiscal policy in response to the Coronavirus crisis: Strengthening confidence and resilience. Available at <http://www.oecd.org/ctp/tax-policy/tax-and-fiscal-policy-in-response-to-the-coronavirus-crisis-strengthening-confidence-and-resilience.htm>

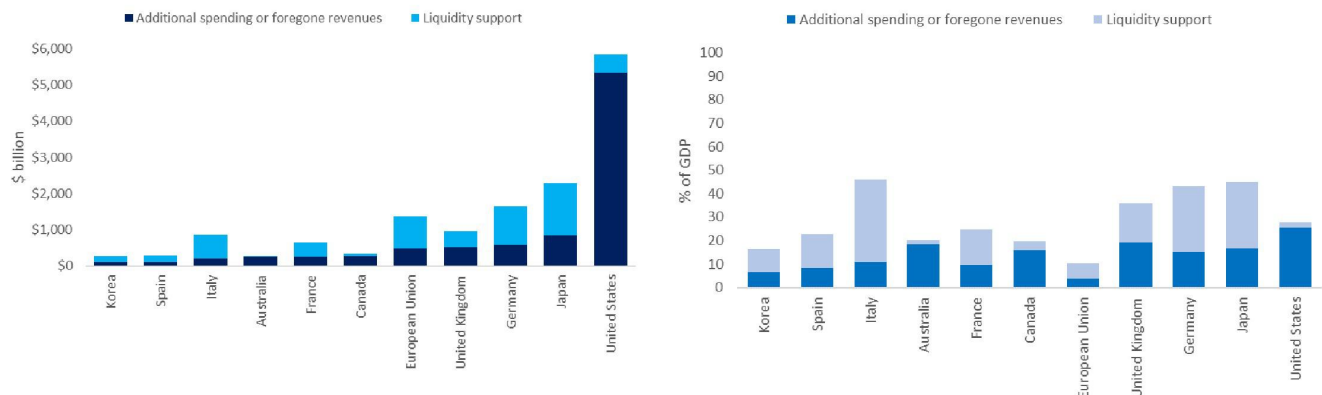
³ IMF's Tracker of Policy Responses to COVID-19., 2020, Available at <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19>

⁴ Can Chen, Yu Shi, Ping Zhang & Chengri Ding (2021) A Cross-Country Comparison of Fiscal Policy Responses to the COVID-19 Global Pandemic, *Journal of Comparative Policy Analysis: Research and Practice*, 23:2, 262-273

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indicating different policy approaches across different countries. Overall, the UK's response was particularly strong against European peers.

Fig. 3.1: Fiscal Response to COVID-19 to April 2021, \$ billion (left chart) and % of GDP (right chart), by Advanced Country



Source: IMF <https://www.imf.org/en/Topics/imf-and-covid19/Fiscal-Policies-Database-in-Response-to-COVID-19>

5. A summary of the main UK (incl. NI) policy interventions is provided in Annex A.

Initial assessment of Government Interventions

6. The Government's economic interventions in the wake of the COVID pandemic sought primarily to protect employment/ household income and support business solvency. Given the pace of economic recovery and the strength of the labour market, the stated objectives have been achieved. However, with the priority on speed of implementation, initial supports were universal and therefore some unintended consequences may have arisen.
7. A review of the initial research to consider the wider consequences was undertaken and some of the key findings is discussed further below. These studies focused on the impact at a national level in the UK, Europe and North America. There were no reviews undertaken of research completed on Northern Ireland specific measures as part of this research. However, it is important to acknowledge that the NI Executive (along with the other devolved administrations) put additional support measures in place for both people and businesses and these are included in Annex A of this report.

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Zombification only a factor in a relatively small proportion of businesses

8. Evidence from across the UK and Europe⁵⁶ suggests that **supporting unproductive firms**, which may have otherwise ceased trading even in normal trading conditions, increases the risk of 'zombification' of parts of the economy which in turn could act as a drag on productivity growth in future.
9. It is important to recognise the context in which these funding decisions were made and in an early evaluation by the British Business Bank⁷ of the loan schemes, the risks of large-scale government contingent liabilities, deadweight and potential for fraud were acknowledged by Ministers in advance. The evaluation made the following findings:
 - the largest volume of lending went to two sectors (Wholesale & Retail and Construction) which were responsible for the largest contribution to GDP contraction;
 - an additional 146k – 505k BBLS borrowers (10%-34%) and an additional 5k – 21k CBILS/CLBILS borrowers (7-28%) could have permanently ceased trading in 2020, in the absence of the COVID-19 Loan Guarantee Schemes, resulting in an estimated loss of 500k to 2.9m jobs⁸;
 - the majority of borrowers were profitable in the preceding year with only a minority facing liquidity issues. However, approx. 60% of borrowers, did not have sufficient reserves to cover 3 months of operating expenditure and almost all were facing financial or operational challenges due to the pandemic.
10. As a result, the risk of 'zombification' is likely to be only a factor in a relatively small proportion of businesses.

⁵ Altomonte, C., M. Demertzis, L. Fontagné and S. Mueller (2021) 'COVID-19 financial aid and productivity: has support been well spent?' Policy Contribution 21/2021, Bruegel

⁶ Anderson, J., Papadia, F and Véron, N. (2021) 'COVID-19 Credit Support Programs in Europe's Five Largest Economies' Peterson Institute for International Economics Working Paper, April 2021

⁷ British Business Bank (2022) 'Evaluation of the Bounce Back Loan Scheme Coronavirus Business Interruption Loan Scheme, and Coronavirus Large Business Interruption Loan Scheme', Process evaluation and early impact assessment June 2022

⁸ In population terms this would equate to approx. 10k to 60k job losses in NI. This reflects the estimated impact of Government loan supports only.

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Furlough scheme was effective at minimising impact on employment levels

11. The CJRS (furlough) scheme sought to protect jobs by maintaining the employer-employee link and enabling businesses to recover more quickly as economic activity resumed. The policy was considered a success in late 2020, with the Institute for Government (IFG)⁹ finding that most of the 6 to 7 million people who had left the furlough scheme had returned to work, rather than becoming unemployed. They also estimated that the number of employees in the economy was never more than 800k lower than pre-coronavirus levels¹⁰.
12. The Resolution Foundation also supported the efficacy of the scheme, identifying that despite the pandemic causing the worst recession in 300 years, the unemployment rate had the smallest rise in any recession, peaking at just 5.2%¹¹.
13. The UK, Germany and France each provided a wage subsidy scheme to keep workers furloughed during the pandemic. The UK scheme was the most generous at 80%, compared to 70% in France and 60% in Germany (or 67% for those with children).
14. Initially Canada provided enhanced unemployment benefits but an Emergency Wage Scheme was launched later. This was accessible to firms experiencing a drop in turnover of at least 15% and paid 75% of employee wages (whether the employee was working or not) with the employer paying the remaining 25%. Separately, US employers could apply for payroll protection loans.

⁹ https://www.instituteforgovernment.org.uk/sites/default/files/publications/coronavirus-job-retention-scheme_0.pdf

¹⁰

<https://www.instituteforgovernment.org.uk/sites/default/files/publications/coronavirus-job-retention-scheme-success.pdf>

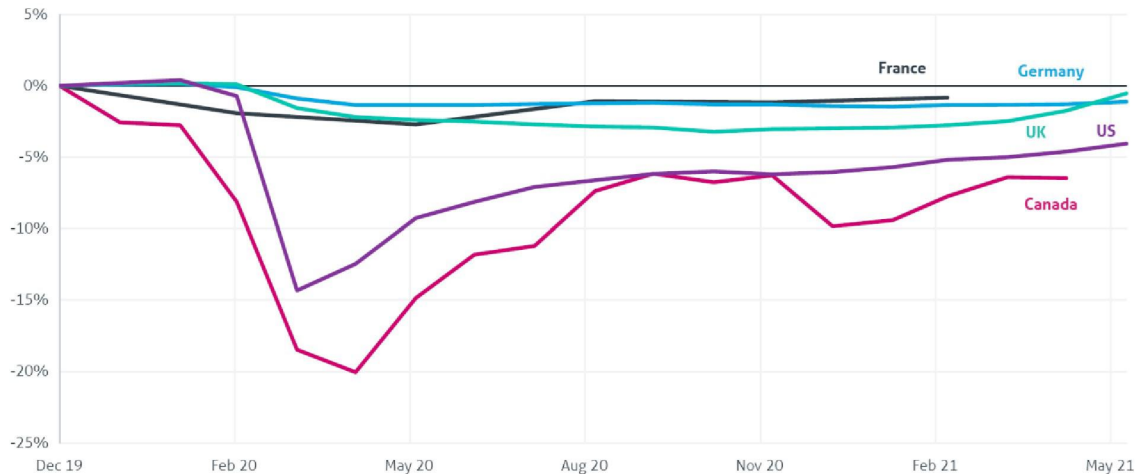
¹¹ [https://www.resolutionfoundation.org/publications/job-well-done/#:~:text=The%20Coronavirus%20Job%20Retention%20Scheme%20\(JRS\)%20ends%20in%20just%20a,billion%20\(in%20gross%20terms\).](https://www.resolutionfoundation.org/publications/job-well-done/#:~:text=The%20Coronavirus%20Job%20Retention%20Scheme%20(JRS)%20ends%20in%20just%20a,billion%20(in%20gross%20terms).)

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North American employment levels fell more significantly

15. Given the European approach sought to keep a closer link between employer and employee relative to the approaches adopted in North America, employment levels dropped much less significantly.

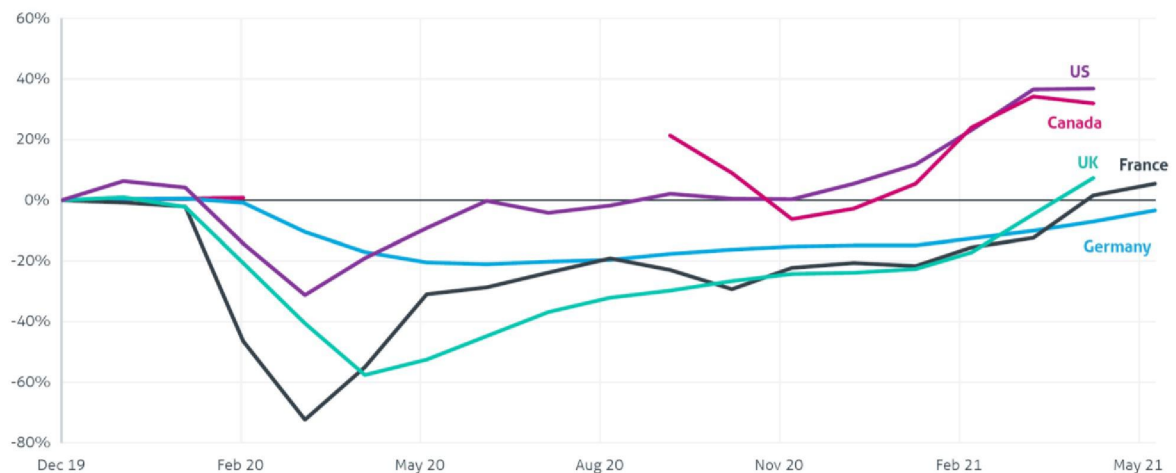
Fig. 3.2: Change in employees, Selected economies Dec 2019 - May 2021



Source: IFG (2021)

16. Reflecting that different approach, when the economies opened up again and demand for staff increased, vacancy rates in North America were higher than in Europe. This strongly suggests that the likes of the CJRS scheme in the UK (where employer-employee links were maintained) reduced the need to formally rehire/recruit new staff relative to the US and Canada.

Fig. 3.3: Change in number of job vacancies Dec 2019- May 2021



Source: IFG (2021)

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Furlough did not significantly impact labour market mobility

17. One potential negative economic consequence of the CJRS cited in research was the reduction in the reallocation of employees from low productivity/ unviable jobs to higher productivity/ viable jobs. This risk was considered higher the longer the scheme progressed. However given employers had to make a contribution to employee salaries in the later stages of the scheme suggests that those jobs, although still furloughed, remained viable. In addition, vacancy rates in 2021 remained high in occupations typically associated with lower wages and less favourable working conditions, suggesting that workers were reluctant to return to lower productivity jobs¹².

Schemes unlikely to have contributed to higher inflation

18. Inflation is a key challenge currently facing the global economy caused primarily by higher energy and food prices following the Russian invasion of Ukraine. However, prices were rising last year as economies emerged from lockdown and global supply chains were unable to meet the sudden increase in demand.
19. It has been suggested that schemes, such as furlough, may have been too generous allowing excess savings to be accumulated acting as a catalyst for higher inflation. Further research would be required to confirm (or otherwise) this hypothesis, but it is recognised that the excess savings tended to be accumulated by higher income households, who were less likely to be furloughed. Furthermore, in Q2 2022 the Bank of England indicated that much of the £200 billion excess savings accumulated during lockdown remained unspent.
20. Based on the limited evidence to date, it is difficult to conclude that overgenerous schemes had a significant impact on inflation in late 2021. It is more likely that the impact of lockdowns on global supply chains had a more significant role in raising inflation prior to the energy and food price issues currently being experienced.

Further lessons will be learned as more detailed evaluations are undertaken

21. In future, more detailed evaluations of individual schemes implemented around the world, as well as locally in Northern Ireland, should provide further analysis of the success (or otherwise) of government economic interventions during the pandemic. Given the speed with which these schemes were developed and implemented, it is highly likely that significant lessons will be learned in terms of their implementation. However, this brief overview of some initial research undertaken on job support schemes and business support loans suggests that the schemes were broadly successful and achieved their goals.

¹² Pizzinelli, C. and Shibata, I. (2022). Has COVID-19 Induced Labor Market Mismatch? Evidence from the US and the UK. IMF Working Paper WP/22/5

4 COVID Counterfactual scenarios

Introduction

1. Given the scale of government interventions, particularly across developed economies, it is reasonable to ask if the public funds spent have resulted in a significant improvement in economic conditions than would otherwise have been the case.
2. Towards the end of 2020 media publications were reporting headlines such as 'What our 2020 economy might have looked like without COVID-19?' or 'Coronavirus: how the pandemic has changed the world economy'.¹³ Therefore the concept of counterfactuals (what might have happened without a pandemic or without the measures adopted) has been considered since the relatively early stages of the pandemic.
3. Importantly, when considering counterfactual scenarios, the purpose is not to be critical with the benefit hindsight, but to learn potential lessons for the future and recognise that schemes had to be developed and implemented at significant pace. The lead time for schemes of this nature would typically have been months or years but in the pandemic this was compressed into days or weeks.
4. As the global economy now attempts to deal with the energy price shock and the war in Ukraine, two counter-factual scenarios are considered for Northern Ireland associated with the economic impact of the COVID-19 pandemic:
 - i. 'No COVID' scenario – how the NI economy would have continued in the absence of a pandemic.
 - ii. 'COVID but no policy supports' scenario – how the NI economy would have been impacted by COVID in the absence of any government (Westminster and Stormont) supports and with all public health restrictions on trading and 'staying at home' being strictly enforced.

¹³ For these see [A year without COVID: What our 2020 might have looked like with no pandemic | The Star](#) (Toronto Star, 30 Dec. 2020) and [Coronavirus: How the pandemic has changed the world economy - BBC News](#) (24 Jan. 2021).

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'No COVID' scenario

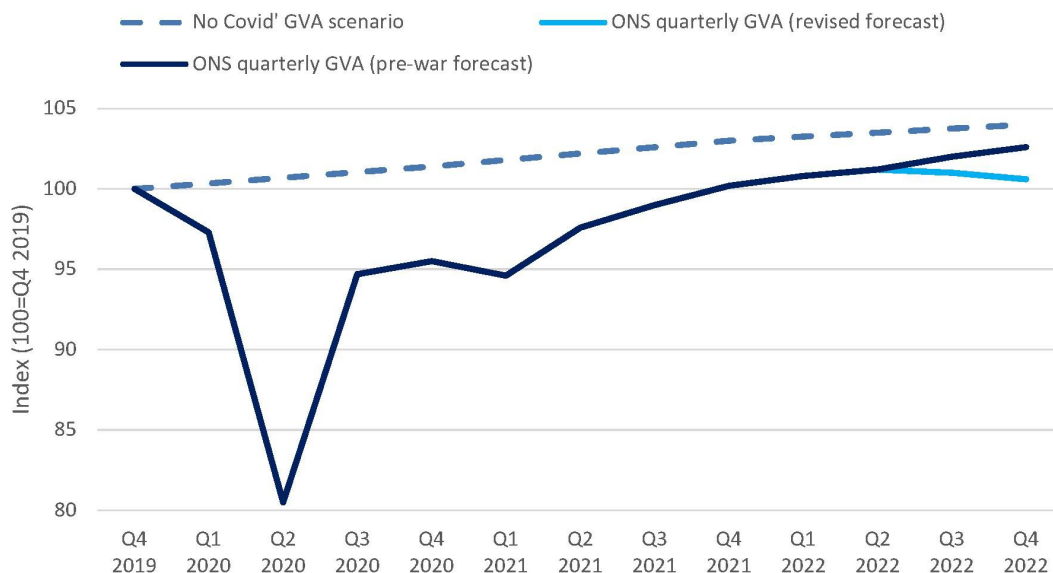
5. This scenario is based on pre-COVID (Q3 2019) NI economic forecasts, in both output and employment terms, and makes a comparison against outturn to 2022. The following comments outline the prevailing economic conditions prior to the outbreak of the pandemic:
 - the global economic outlook suggested a period of low growth – forecasts had a very cautious outlook for the global economy where a period of simultaneous growth in the US, EU and Chinese economies had ended.
 - the local economy was also expected to slow – employment growth was strong in 2019 (workforce jobs increased by more than 30,000) but output (as per the NICEI) grew by just 0.6%. Business and consumer sentiment surveys suggested the economy was on the verge of a downturn and therefore average annual GVA growth for the 2019 to 2022 period was estimated at just 1.1% and employment growth at 0.4% p.a..
 - it was also a period of significant political uncertainty locally – the NI Executive would only be restored in January 2020 and both the NI Protocol and the UK-EU Trade & Cooperation Agreement were only agreed in December 2019, so there was significant uncertainty as to how their operation would impact the economy.

Economic activity (GVA) impact – 'No-COVID' vs Outturn

6. After the collapse in GVA in Q2 2020, economic activity initially responded positively in Q3 2020 when restrictions were first lifted, but their re-imposition in the final quarter of 2020 stalled growth. The economy then returned to growth in 2021 and based on ONS quarterly GVA data, it reached its Q4 2019 level in Q4 2021.
7. Comparisons between outturn and the pre-COVID counterfactual after Q2 2022 is complicated by the impact of the war in Ukraine and the associated energy price shock. This has pushed inflation and in turn interest rates much higher and therefore economic growth has been negatively impacted.

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Fig. 4.1: Real GVA across scenarios, NI, Q4 2019 to Q4 2022



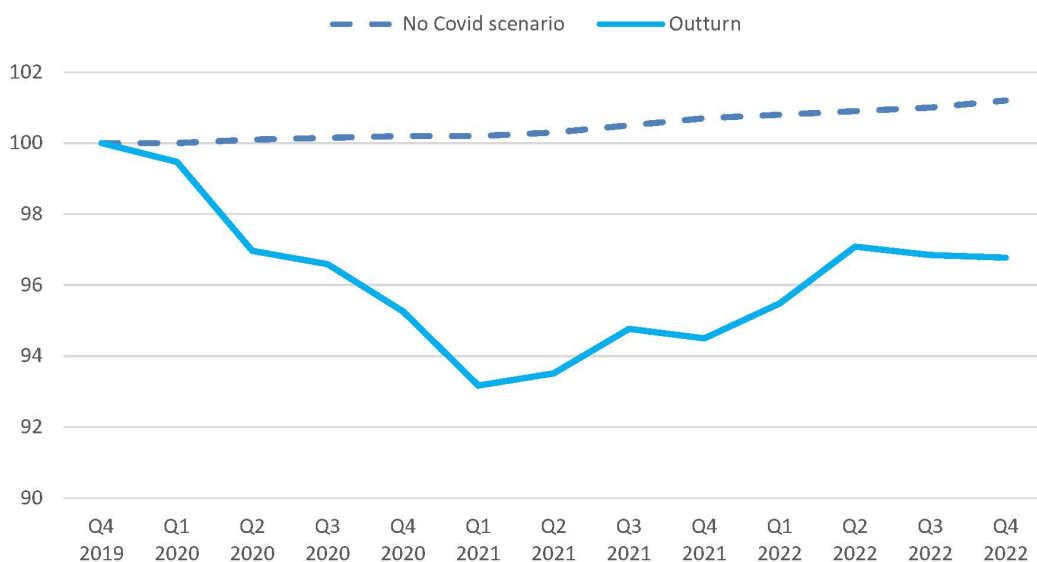
Source: ONS; UUEPC analysis

Note: ONS quarterly GVA data is available to Q1 2022, Q2 to Q4 2022 derived by UUEPC.

Employment impact – 'No- COVID' vs Outturn

8. In the absence of a pandemic, employment growth in NI was expected to slow after very strong jobs creation over the period 2012 to 2019. Anticipated growth was estimated at approx.. 3,500 jobs p.a. out to 2022.

Fig. 4.2: Total Employment across scenarios, NI, Q4 2019 to Q4 2022



Source: ONS LFS and UUEPC analysis

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9. In summary, although the labour market has held up reasonably well since early 2020, employment remained approx.. 25k below pre-pandemic levels. Therefore, the employment impacts of the pandemic, even with the significant supports, may be more significant in the medium term than losses in GVA.
10. This suggests that overall productivity may have increased, with two potential explanations. Firstly, lower productivity sectors, such as retail and hospitality, were more impacted by the pandemic and therefore lower productivity jobs were more vulnerable to losses. As a result, this increase in productivity may be the outworking of the mathematics of the productivity calculation. The second reason could indicate an increase in productivity elsewhere in the economy where sectors capable of facilitating remote working, digitisation or an increased use of eCommerce were able to grow at a faster pace. The increase in hours worked by those with Level 4+ qualifications would support this and may increase productivity in the medium to long-term.

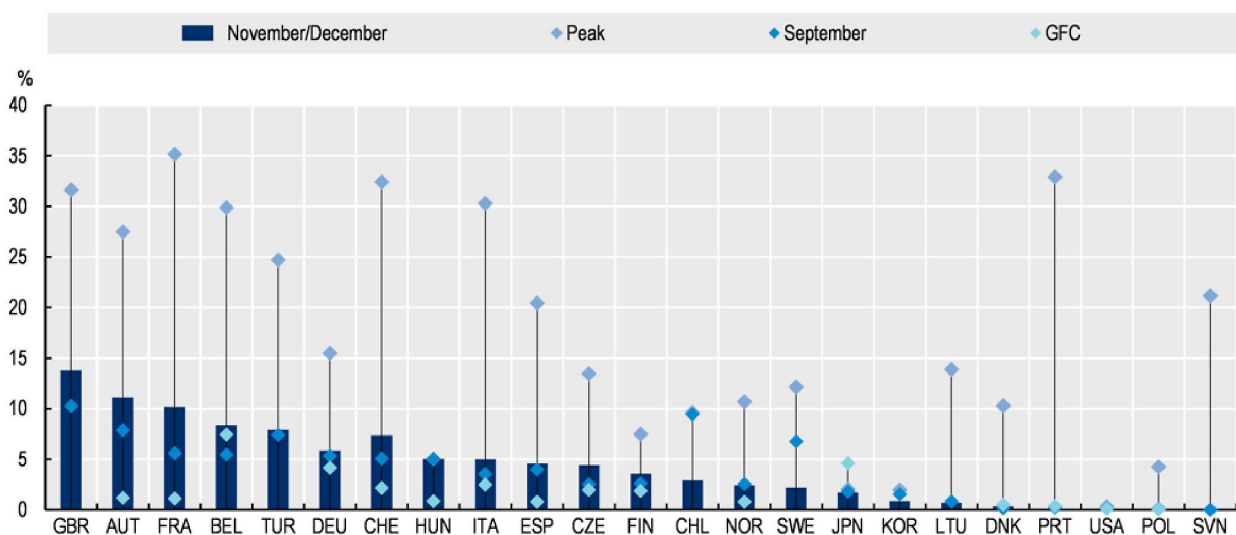
COVID caused a different type of recession

11. The public health restrictions implemented in response to the pandemic caused a wide range of recessionary impacts, including:
 - Economic activity reduced – some sectors had to close entirely, such as the hospitality and arts & recreation sectors, and others had to operate with fewer staff due to social distancing requirements, such as in construction and manufacturing.
 - Lower productivity and reduced hours worked – people also took time off for other reasons including to self-isolate and to fulfil caring responsibilities. As a result, key skills were not available to the economy.
 - Lower consumer spending and business investment – during times of greater economic uncertainty, individuals are much more likely to defer spending because of the increased risk of losing their job and businesses are more likely to defer investment decisions given the greater likelihood of a reduction in customer demand.
 - Supply chain challenges – with global lockdowns and industry closures, global supply chains and transport logistics were significantly disrupted impacting economic activity even when restrictions were lifted and demand returned.

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- Lower demand for assets – it was initially anticipated that there was an increased risk that demand for a range of assets such as machinery would fall impacting their prices.¹⁴
12. However, many of these potential impacts were mitigated, particularly in advanced economies, as governments introduced a series of interventions to support businesses through grants and loans and individuals' incomes through furlough and wage subsidy schemes.
 13. At the peak of the pandemic (early summer 2020), up to a third of workers in advanced economies were supported by job retention schemes. By September 2020 this had fallen to less than 10%, but then increased to over 12% in November/ December 2020 as the second wave resulted in the re-imposition of restrictions. A similar trend was followed in NI, (peak 26%, September 8% and December 13%).

Fig. 4.3: Participation in job retention schemes as % of eligible workforce, OECD countries, 2020



Source: OECD

14. This analysis also shows the scale of interventions introduced in response to COVID compared to the period following the Global Financial Crisis (GFC) and marked the COVID support schemes as a radical departure from previous policy responses. Furthermore, COVID supports remained in place for much longer than initially anticipated, for example, the furlough scheme was

¹⁴ Lonoel, C. & Young, G., Modelling the impact of Covid-19 on the UK economy: An application of a disaggregated New-Keynesian model, *NIESR discussion papers 531* (12 Aug. 2020), p. 3.

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originally planned to run until October 2020 but remained in place until September 2021.

15. Given the scale of interventions, recovery was much quicker than initially anticipated. Those initial estimates, based on past experience and the assumption of smaller scale interventions, led to suggestions that it could take four to five years for GVA to recover to Q4 2019 levels. In addition, it was estimated that up to a quarter of the 82k jobs still furloughed in NI in August 2020 could be lost, unemployment could reach 9% and it could take until 2030 to recover to the pre-COVID unemployment rate.¹⁵
16. Following the Global Financial Crisis, a range of other economic indicators took even longer to recover:
 - Gross Domestic Household Income (GDHI) – in real terms GDHI only returned to 2007 levels in 2018;
 - Wages (median gross weekly rates) – real wages only returned to the 2009 peak in 2019;
 - Registered businesses – the number of registered businesses only reached their previous GFC peak of 72.3k in 2018.
17. This evidence all suggests that, in a 'normal' recession, the NI economy would have taken a significant period of time to recover and sets a context for the period of time for the economy to recovery from the pandemic in the absence of the wide range of government supports.
18. A small number of counter-factual studies assessing the potential economic impacts of the pandemic in the absence of government supports have been completed. These have considered firm financial distress and failure and subsequent impact on GDP/ GVA; and employment and/or income loss in the absence of the CJRS. These studies have been used to inform the potential impact in NI if policy supports had not been put in place.

¹⁵ UUEPC, Pathways to economic recovery after Covid-19 in Northern Ireland (5 Aug. 2020).

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'No policy supports' counter-factual – potential GVA impact

19. The economic shock of the pandemic prompted research to stress-test firms (in particular cash-flow impacts across sectors¹⁶) and to test firm behaviour against a shock like the pandemic¹⁷. The counter-factual scenarios use similar methodologies to explore the liquidity and solvency of firms and estimate potential business failures in scenarios with and without government support measures (such as JRS, tax deferrals and easier credit).¹⁸
20. This research provides estimates of business failure and, subsequently, economic output against both *normal conditions* and *a policy simulation of no government support* (Barnes et al, 2021; Gourinchas et al, 2020). Barnes et al focused on the UK economy and Gourinchas et al provided a cross-country analysis, but both reach a similar conclusion, that policy measures, in particular the loans such as Bounce Back Loans and CBILS, played a significant role in reducing levels of business failures, even below the levels expected in the absence of a pandemic.
21. As per Barnes et al (2021), business failure rates in the UK would typically be in the range of 10% p.a. in 'normal' economic conditions (based on five-year running average). The policy supports introduced to protect businesses during the pandemic reduced business failure rate to approximately 5%, i.e. half the normal rate and a third of the 15% rate estimated if no policy measures were put in place.
22. The impact varies significantly across sectors, with hospitality and manufacturing businesses likely to have experienced the most closures in the absence of supports. Professional & Technical Services also has a high failure rate in the absence of policy measures, which reflects a high failure rate in normal economic conditions.

¹⁶ Bank of England (2020), *Interim Financial Stability Report*: May 2020 (Technical Annex: The cash-flow deficit of UK companies in a Covid-19 scenario).

¹⁷ Sharma, D. et al (2020), 'V-, U-, L-, or W-shaped recovery after COVID: Insights from an Agent Based Model', SSRN Electronic Journal, <http://arxiv.org/abs/2006.08469> ; Pichler et al (2020), 'Production networks and epidemic spreading: How to restart the UK economy', *Covid Economics*, 23.

¹⁸ Barnes et al (2021), 'The impact of Covid-19 on corporate fragility in the United Kingdom', OECD Economics Department working papers 1674; Gourinchas, P. et al. (2020), 'Covid-19 and SME failures', NBER Working Paper Series, No. 27887; McCann, F. et al (2021), 'SME viability in the Covid-19 recovery', Central Bank of Ireland Research Technical papers 09/21.

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Table 4.1: Proportion of firm failures in each sector by Q4 2021, UK

Sector	Policy measures (%)	No policy measures (%)	Normal times (%)
Accommodation & Food	6.1	24.9	10.5
Manufacturing	4.7	20.4	13.5
Prof & Technical Services	8.1	18.0	15.0
Wholesale & Retail	1.9	15.6	6.2
Energy & Water Utilities	0.0	15.5	9.4
Transport	5.3	14.5	7.3
Construction	5.3	13.1	10.8
ICT	4.6	12.6	9.6
Health & Social Care	4.8	11.9	9.7
Arts & Entertainment	1.2	9.1	3.2
Real Estate	1.7	6.7	5.7
TOTAL	5.1	15.6	10.5

Source: Barnes et al (2020)

Note: The accuracy of the modelled results has been confirmed in subsequent data releases where the failure rates by sector were close to the later reported levels in 2020 and 2021. Outturn level of insolvencies were much lower than either the normal/ historic rates or the levels first expected at the outset of the pandemic.

23. Gourinchas et al (2020)¹⁹ estimated that 12% of SMEs across seventeen countries would have failed during the pandemic without supports. They also questioned the efficiency of 'blanket' or non-targeted supports and estimated that targeted support would save approximately 5% of employment at a fiscal cost of just 1.1% of GDP. However, the challenge of identifying firms in need was also acknowledged.
24. Both Barnes et al (2021) and Gourinchas et al (2020) recognise that early withdrawal of CJRS and loans support (for example in March 2021 as opposed to end of September) would have seen the rate of business failures increase.²⁰ The authors estimate that, in the case of an end to *both* furlough and loan schemes in March 2021, business failure rates at the end of 2021

¹⁹ This can also be seen in a presentation by the authors to an OECD conference in June 2020; see <https://www.oecd.org/global-forum-productivity/webinars/Gourinchas-Kalemli-Ozcan-covid-19-and-business-failures.pdf>

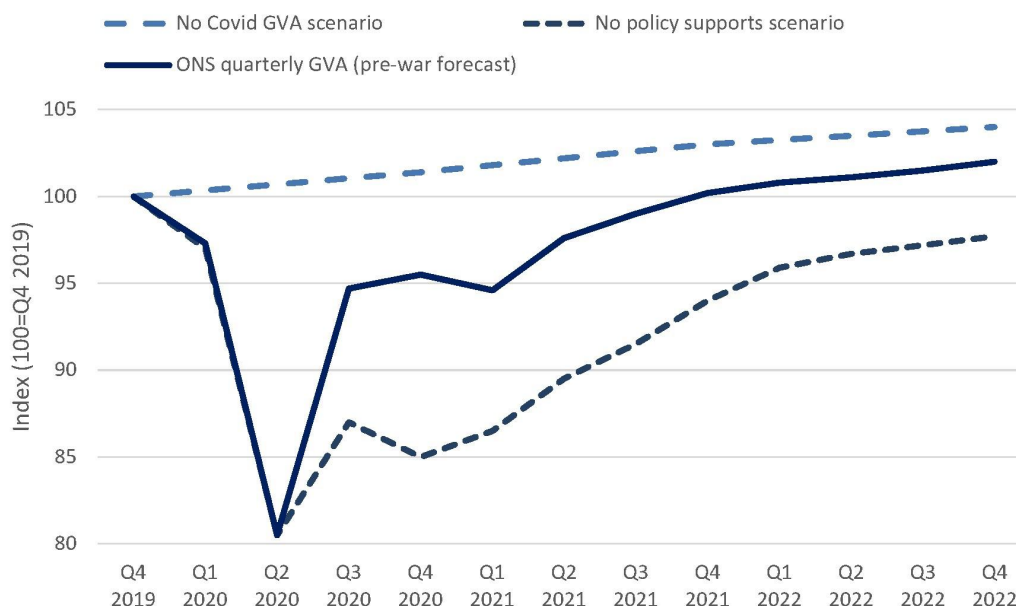
²⁰ Gourinchas et al (2021), 'Covid-19 and SMEs: A 2021 "Time Bomb"?', *AEA Papers and Proceedings*, 111 (May 2021) revisit their earlier work and conclude that the greater danger to SMEs would be a contraction in credit in 2021, not a withdrawal of supports.

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would have returned to near their normal (or no COVID) levels. Interestingly, the effect of ending CJRS was considered less than that of ending the loans schemes, probably reflecting the fall in numbers on furlough by Spring 2021.

25. The viability of Irish SMEs in the recovery period from the initial shock of COVID-19 was assessed by McCann et al, 2021. This analysis focusses on the issue of financial distress, defined as a mixture of liquidity problems (cash flow) and solvency difficulties (unable to meet debt repayments). They estimate that the peak level of financial distress in 2020 was 12% of all firms but that, in the absence of government supports, this would have increased to 30%. They forecast that, as economic recovery took hold, peak financial distress would fall to 7% by 2024, but also that most of those firms (5% of the 7% of firms in 2024) were already financially distressed before 2020 and many would have struggled to avoid insolvency.
26. Barnes et al (2021) went on to use their simulations of business failures to estimate the fall in GVA in the UK economy, in a 'no policy supports' scenario. This has been applied to local GVA to identify a similar counterfactual scenario for Northern Ireland.

Fig. 4.4: COVID Counter-factual GVA scenarios, NI, 2019-2022



Source: Barnes et al (2021) and UUEPC analysis

Note: Barnes et al analysis undertaken out to Jan 2022, UUEPC extrapolation thereafter.

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27. **This analysis excludes the impact of the war in Ukraine and suggests that in the absence of policy supports, by Q4 2022, NI GVA would have been approx.. 4.3% (or approx. £1.9bn²¹) below its outturn level. Furthermore, the economy would only be likely to return to pre-pandemic (Q4 2019) levels by Q4 2023, two years after it reached pre-pandemic levels with policy interventions.**
28. **As with any counterfactual study, there is an inherent uncertainty around this estimate and based on the academic research the impact on GVA could vary by approx.. 0.75 percentage points.**

'No supports' counter-factual – potential employment impact

29. Fewer counter-factual studies have been completed on employment impacts. Lenoel & Young (2021) applied a 1% shock to GDP to final and intermediate demand in the Private Non-Trade Services (PNTS) sectors (including Retail, Accommodation, Other/Personal Services, Arts & Entertainment) which account for 28% of employment in the UK economy. They estimated this would create a fall of less than 1% in employment in those sectors (32k jobs in the UK) with some reallocation to other industries.²² They estimated that if the CJRS not been in place, job losses in the PNTS sectors would increase to approx 6%, but with some reallocation of labour into other sectors.
30. The enhanced unemployment schemes, such as the Pandemic Unemployment Payment (PUP) in the Republic of Ireland and the Canadian Emergency Response Benefit (CERB)²³, provide an insight into the potential scale of job losses in the absence of a job retention/ furlough scheme. A job retention scheme was subsequently introduced in both Canada and the Republic of Ireland but, by then, many employers had already made redundancies and those staff had applied for the enhanced unemployment schemes.
31. Figure 4.6 shows the proportion of employees in receipt of the PUP and CERB by sector at peak. Unsurprisingly the sectors most impacted in Ireland and Canada are the same as those sectors who placed most staff on the CJRS in NI. Sectors with more potential for remote working or classified as providing

²¹ This is broadly equivalent to the size of the Professional, technical and scientific services 1 digit-SIC sector in NI.

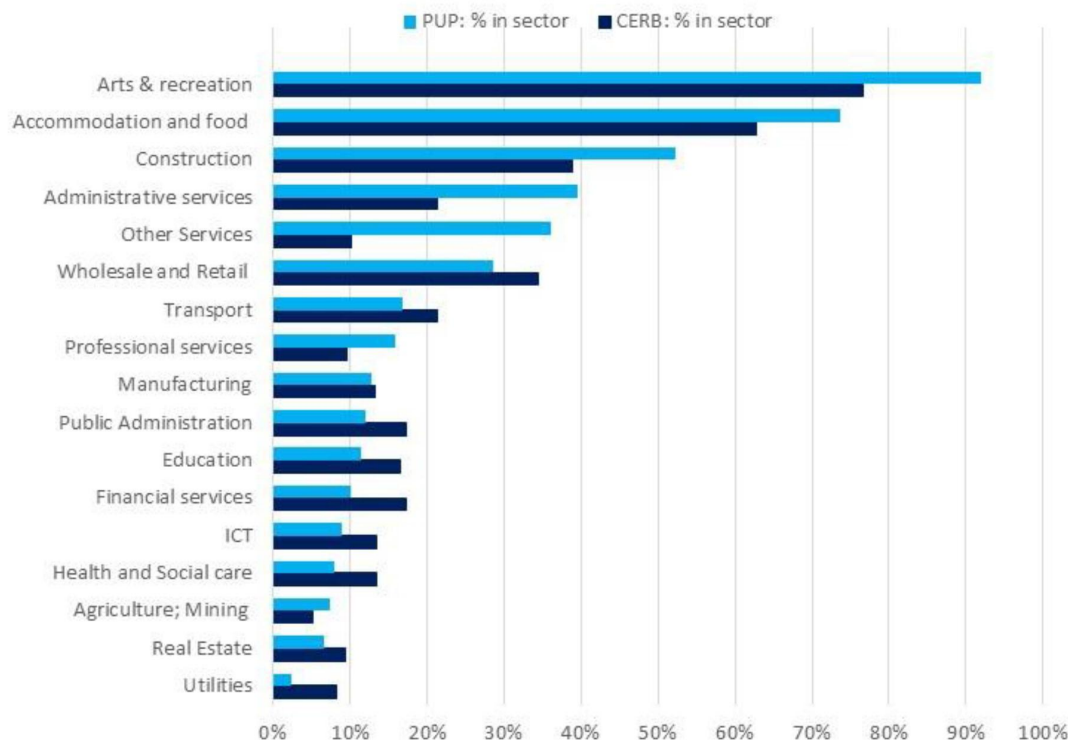
²² Lenoel, C. & Young, G. (2021), Modelling the impact of Covid-19 on the UK economy: An application of a disaggregated New-Keynesian model, *NIESR discussion papers* 531.

²³ During 2020 the CERB supported 35% of all Canadian employees and self-employed who earned over CAD€5,000 in 2019 and were over 15 years old. At peak in May 2020 there were 5.8 million people claiming CERB.

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an essential service remained open and lost much fewer staff to the PUP and CERB schemes.

Fig. 4.5: % employed in receipt of PUP or CERB at peak, by sector, Ireland and Canada, 2020



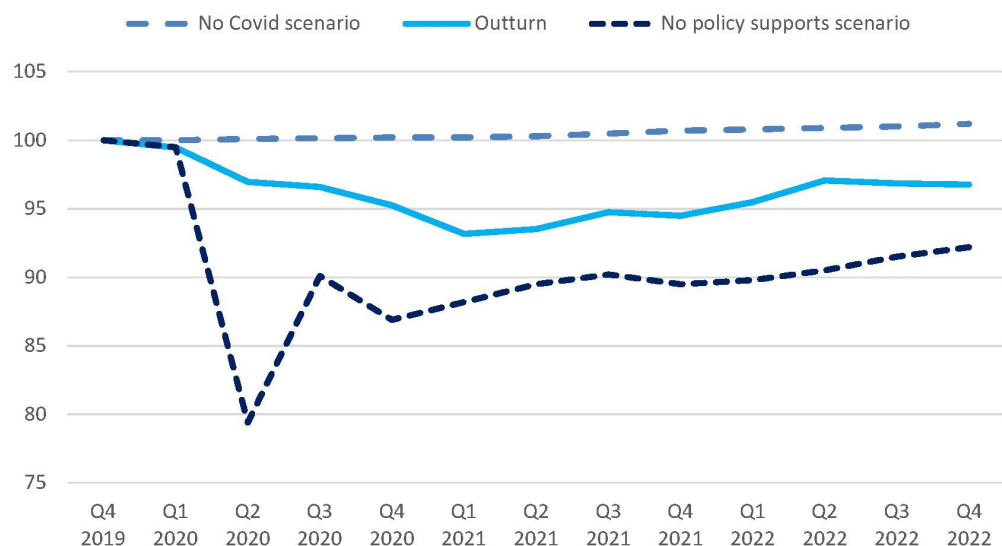
Source: CSO; StatCan; UUEPC analysis

32. A 'No policy' counter-factual was developed taking the average of the proportions of employees per sector moving onto the PUP and CERB schemes and used as the basis to estimate job losses both at peak and as recovery started (in August 2020). This approach would indicate that 192k jobs could have been lost in NI at the peak of the crisis (which compares to 212k jobs furloughed at its peak in May 2020). This suggests that only 20k jobs furloughed would have been maintained by firms in the absence of supports, only 9% of the total protected.
33. In terms of the initial recovery phase in August 2020, job losses could still potentially have been in the region of 92k (similar to the number furloughed at that time). This suggests that perhaps 90k jobs would have been restarted quickly as the recovery took hold.
34. Job losses of 192k would equate to an ILO unemployment rate of almost 27%, and even when the initial losses were reversed as the economy recovered in Q3 2020 and some reallocation had taken place, the unemployment rate would still have been approximately 13%.

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35. Estimating recovery post-Q3 2020 should consider the additional losses to household incomes and recognise that the link between employer and employee that was maintained by the CJRS/ furlough scheme would have been lost.
36. In the UK, the median household income replacement rate, including the Universal Credit uplift, is 53% or 58% in the case of a single adult²⁴. However, the median income replacement rate for those placed on furlough was 91% and 88% for the self-employed qualifying for SEISS.²⁵ In RoI, an income impact analysis estimated that if 600k people had been laid off (cf to 591k on PUP), 510k households would have been worse off in the absence the PUP.²⁶ When the Temporary Wage Subsidy Scheme was introduced in Ireland, many households were worse off than under the more generous PUP.
37. This lower level of household income would have slowed the pace of any economic recovery after the lifting of restrictions. Figure 4.7 shows the potential employment trajectory from Q4 2019 (baseline 100) to Q4 2022 in a 'No policy supports' scenario. The chart also includes a 'No COVID' scenario and an 'Outturn'.

Fig. 4.6: Employment counterfactual scenarios, NI, 2019-2022



Source: UUEPC analysis

²⁴ i.e. when a person ceases employment their median household income falls to 53% of their previous employment income level.

²⁵ Brewer, M. & Gardiner, L. (2020), 'The initial impact of Covid-19 and policy responses on household incomes', *Oxford Review of Economic Policy*, 36:1 (2020), 187-199.

²⁶ Beirne et al (2020), The potential costs and distributional effect of Covid-19 related unemployment in Ireland, *ESRI Budget Perspectives 2021, No 1*.

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38. The following comments are made in respect of the findings from this analysis:

- Employment growth in the 'No COVID scenario' was low as forecasts at the time indicated the economy could be entering a minor contraction.
- Even with policy supports in place, jobs were lost and overall employment remains below pre-COVID levels. Strong growth in employee jobs has been offset by poor performance in levels of self-employment. However, vacancy rates remain high, suggesting that some of the reduction in labour is voluntary and the current lower outturn level of employment is due to a change in peoples' decision making, rather than a weaker economic position. This suggests that **the supports put in place protected the labour market to a greater extent than the current levels of employment would indicate.**
- Estimates of the losses in employment seen without policy supports are much more severe and although employment responds well following the lifting of restrictions in Q3 2020, subsequent lockdowns and lower levels of retained savings and household incomes result in a slower recovery. Although difficult to determine, it is highly unlikely vacancy rates would have been as high in the 'no policy supports' scenario.
- The current economic environment with high inflation and rising interest rates associated with the war in Ukraine will most likely have a negative impact on employment in 2023 and push back even further the time taken to reach pre-COVID employment. However, even in a (further) scenario where economies maintained their pre-Ukraine war recovery trajectories, it would likely have been early 2025 before employment would have returned to 2019 levels in the absence of policy supports.
- **This analysis suggests that without policy measures employment would be approximately 4.6% lower than current levels, equivalent to approximately 40k people in employment.** The sectoral breakdown analysis from Canada and the Republic of Ireland points to those areas of the economy most reliant on discretionary spend – such as hospitality, non-food retail and arts/leisure sectors – being more likely to have been very significantly impacted in the absence of policy measures. These sectors tend to employ a greater proportion of younger people, those with lower levels of formal qualifications and those in lower income groups.
- **As with GVA, there is also an inherent variability around this estimate and based on the academic research the impact on employment could vary by approx.. 1.2 percentage points.**

5 Will governments be expected to intervene more often in future?

Introduction

1. Governments globally have responded to the last three major economic crises with very significant levels of government intervention. The financial sector was bailed out after the Global Financial Crisis (GFC) in 2008/09. Governments responded to the COVID-19 pandemic by providing unprecedented levels of support to businesses and households and most recently, governments are implementing hugely expensive interventions to mitigate the worst impacts of high energy prices.
2. In addition, following the GFC bailout, governments responded by cutting back their spending in an attempt to reduce their deficits (a so called pro-cyclical policy) and the general economic consensus now considers this to have been the wrong approach to pursue. Therefore, over the last 20 years there has been an increased tendency for governments to intervene in response to economic shocks.
3. One needs to go back to the recession of the early 1990's to find a time when governments did not respond to an economic slowdown by introducing specific interventions.
4. As a result, this may have created a public perception that it is the role of government to intervene during all economic crises²⁷ and potentially raises very difficult issues for politicians and policy makers in future.

Different types of intervention

5. Typically governments can choose to implement different types of interventions which have different objectives. For the purposes of this research, the following definitions apply (other researchers may apply different definitions to these measures):
 - **Bailouts** – typically these are the most extreme types of interventions and are required to rescue a business (or sector) which is on the verge of bankruptcy due to either a lack of liquidity or the business is no longer viable. This intervention was applied to the financial sector following the GFC.
 - **Support packages** – these interventions are required to support a business (or sector) through a period of economic/ financial difficulty. This may prevent businesses from going bankrupt or limit the longer

²⁷ [The world enters a new era: Bail-outs for everyone! | The Economist](#)

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term damage caused by the economic disruption. Many of the measures implemented during the COVID pandemic such as the Government back loans, rates relief and the furlough scheme would be examples of support measures.

- **Stimulus measures** – these interventions typically spur economic activity in response to a slowdown. Governments have historically increased spending in areas such as infrastructure to stimulate economic activity during a period of economic slowdown. However, more recently interventions such as Eat Out to Help Out and the High Street Voucher Scheme would also be examples of stimulus measures.

The challenges with Government interventions

6. There are several reasons Governments should be cautious about providing significant intervention in times of economic emergency. The first being **moral hazard**, where firms are more likely to engage in risky behaviour if they believe they will be bailed out if their investment decisions would otherwise bankrupt the company.
7. This is a particular issue if the criteria for a bailout are made clear and gives rise to the *bailout paradox*, where on the one hand governments have to appear to be reluctant to intervene and provide bailout support (to mitigate against moral hazard) but also be willing and able to provide support to avoid economic catastrophe.
8. Separately, the moral hazard problem can also be reduced if the equity holders are required to take their share of the pain, which happened in the case of the GFC. Another solution is the creation of an ex ante insurance scheme, where the potential beneficiaries of a bailout are required to make annual premium payments to build up a fund which could be used to finance a future bailout and protect the public purse.
9. The second challenge is the **risk of fraud**. In particular, significant government intervention is typically required during times of emergency and as result there is considerable urgency to allocate funding to individuals/ parts of the economy in greatest need. This urgency can result in a reduction in the number of checks which would normally be put in place when Government programmes are implemented and therefore increases the opportunity for fraud.
10. This risk can be mitigated if existing systems/ programmes can be used for the allocation of support, for example using the benefits system to provide support to lower income households (although this could still leave gaps in provision). Similarly the High Street Voucher Scheme seems to have been reasonably effective at mitigating fraud risk because it was able benefit from good practice developed by the financial services sector and it took a significant period of time to develop and implement the scheme.

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11. Another challenge is the risk of **considering sunk costs**. This is a particular issue when unviable companies have been provided support over a long period of time. There can be a tendency to include the significant investment already made in a firm in the decision about future investment. This is an emotional attachment, but previous investments are a 'sunk cost' and should not form part of any future looking decision making.

Attaching conditions to Government support

12. When government interventions are justified, conditions could be applied to the support offered. Typically the conditions applied to businesses in receipt of Government intervention should be proportionate to the level of support being offered and examples include:
 - **Equity stake or support provided as a loan** – government could take an equity stake in a business to which it is providing support, or the support could be provided as a repayable loan. This occurred during the financial crisis where governments took significant shareholdings in several banks in return for the bailout funding received and/ or provided loan support.
 - **Financial constraints** – several financial constraints could form a condition of support, for example:
 - Pay restraint at the executive level and 'fair pay' for more junior staff;
 - Reduced dividend payments and share buy-backs;
 - Increased allocation of spend on Research & Development.
 - **Responsible business practices** – this could be linked to corporate governance reform and may include measures to secure jobs; improve working conditions; address societal inequality; and commit to environmental sustainability goals.
13. Conditions of this type tend to be reserved for larger companies. Monitoring the implementation of conditions across thousands of small businesses and managing equity stakes in companies which are not publicly traded would require significant resources and is impractical. However, one potential solution could be to indirectly 'contract out' monitoring to a third party, for example only providing support to organisations with an appropriate accreditation. In practice, the accreditation body would monitor their member organisations' adherence to specific standards providing at least some level of assurance to Government.
14. The World Economic Forum identified the following examples of conditions applied to support provided during the pandemic:

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- France, Denmark and Poland denied some supports to businesses headquartered in tax havens outside Europe;
- UK banned dividends in companies accessing loan schemes;
- US companies which accessed some support schemes had to maintain employment levels above 90% of pre-pandemic levels for a fixed period of time and Italy put a temporary blanket ban on dismissals;
- The French Government attached environmental conditions to its Air France – KLM bailout committing it to halving its CO2 emissions from 2005 levels by 2030.

Principles for large scale interventions

15. The following principles have been identified which could be considered when making decisions to intervene and provide government bailouts to the private sector:

- **Minimise expense to the public purse** – this is typically delivered by only providing support to businesses that are long-term viable. However, it is recognised that this can be very difficult to determine in the fast moving environment of an economic crisis. The conditions applied to the support could potentially give taxpayers some return on bailout funds e.g. by taking an equity stake or support is offered by way of a loan.

Preventing an economic collapse or returning an economy to growth more quickly also brings significant benefits to the public purse. So in effect a cost-benefit assessment is important, albeit with imperfect information.

- **Limiting contagion** – this is a greater issue where individual organisations are systemically important (i.e. their failure could lead to a series of failures with very significant economic consequences). This is controversial because it makes the case for bailing out financial institutions much stronger than for non-financial institutions.
- **Fairness** – during the GFC, large banks received funding from government but individual homeowners did not. Therefore, care needs to be taken when determining which groups will not benefit from a support/ intervention package.

Other factors government should consider

16. Even if a government is supportive of intervention, other factors must be considered before large scale measures can be implemented:

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- **Structural deficit and scale of national debt** – countries with a small budget deficit (or even surplus) and national debt are better placed to afford large scale interventions. Prior to the GFC, national debt levels of most developed economies were relatively low, however, following the scale of interventions implemented in response to the last three economic shocks, the ability of governments to continue with large scale spending interventions in response to future shocks will be more limited.
- **Cost of borrowing and strength of bond market** – this is linked to the point above, but in addition to the size of the public sector deficit, the cost of borrowing is another factor governments need to consider. In addition, if several governments are seeking to borrow significant funds at the same time, when public debt is already at elevated levels, confidence in the bond market could be lost and interest rates could spike higher. Although an intervention from the central bank could calm markets in the short term, it indicates excessive borrowing is not sustainable in the longer term.
- **Ability to target support** – one of the key features of the supports provided during the COVID pandemic was the need to allocate the funding urgently. As a result, time was not available to develop schemes that could have targeted support to those in greatest need. Given governments are likely to have reduced fiscal headroom for future interventions, an ability to target support will be increasingly important.
- **Clear exit strategy** – the objective should be to fund viable businesses only, who find themselves in financial difficulty because of the specific circumstances relating to the shock (e.g. forced to close to comply with public health regulations during the pandemic). When the conditions no longer apply (e.g. public health restrictions are lifted), the support is withdrawn providing a clear exit strategy for governments. This is important because support mechanisms are popular when they are introduced and therefore politically difficult to withdraw, creating the risk of a longer term dependency culture.

Considerations for the NI Executive

17. The types of largescale bailouts required in response to a global pandemic, financial crisis or energy crisis need to be coordinated at a national and international level, rather than at a devolved administration level. However, there are potential lessons the NI Executive could apply to support programmes it needs/ chooses to provide in future. These lessons could also apply in non-economic crises situations when government is seeking to provide support to the private sector.

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18. Importantly, the Executive is more constrained from a financial perspective and any programme would need to be funded either from within existing budgets or through a Barnett consequential from a similar scale programme in GB. Some potential considerations include:

- **Support should be targeted** – whenever possible support should be targeted at the groups in greatest need. This will ensure best value for money for the public purse and impacts maximised.
- **Support should have clear objectives** – for example from an economic perspective this could include: supporting employment, nurturing innovation, encouraging sustainability and/ or promoting inclusiveness
- **Be prepared** – to support the targeting of funding, it is important that policy makers can access relevant information as quickly as possible. Legacy computer systems are effective at delivering the programmes for which they were designed, but can lack flexibility in terms of being applied for other uses. These issues should be considered in greater detail during the design process for new IT systems within government.
- **Access to information** – linked to the point above, different parts of government retain information for specific purposes. However legal restrictions can limit this information being used in a broader context (e.g. in terms of identifying individuals/ groups to target support). Therefore finding ways for government to access as much information as possible should be explored.
- **Other points identified above** – such as: having a clear exit strategy; applying conditions to support; and avoiding sunk cost bias.

6 Conclusions

1. In the absence of government supports (i.e. the COVID counterfactual), the economic outcome would have been significantly worse:

- This analysis excludes the impact of the war in Ukraine and suggests that in the absence of policy supports, by Q4 2022, NI GVA would have been approximately 4.3% (or £1.9 billion) below its current/ outturn level and the economy would only be likely to return to pre-pandemic levels around Q4 2023, two years after it reached pre-pandemic levels with policy interventions. Given the inherent uncertainty in counterfactual studies, the impact on GVA could vary by approx.. 0.75 percentage points.
- Furthermore, without policy measures it is estimated that employment would be approximately 4.6% lower than current levels, equivalent to approximately 40k people in employment. The impact on employment could vary by approx.. 1.2 percentage points
- Therefore the impact on employment would have been greater than the impact on GVA. This is intuitively correct as the sectors most impacted (Hospitality, Arts & Entertainment and Retail) and therefore most likely to make staff redundant, tend to have lower levels of productivity²⁸.
- Although employment remains below pre-COVID levels, record high vacancy rates has been a significant constraint on growth. Given economic inactivity has also increased, this suggests that some of the reduction in labour is voluntary and reflects a change in peoples' decision making, rather than a weaker economic position. As a result, it would be reasonable to assume that both GVA and employment outturn would have been higher if more people had chosen to (re-)enter the labour market. This suggests that **the supports put in place protected the labour market to a greater extent than the current levels of employment would indicate.**
- Although very difficult to measure, it is also possible that, in the absence of interventions, longer term damage could have been done to research and innovation capacity. In addition, businesses and entrepreneurs could have become more risk adverse and reduce business investment. This could have created longer term productivity issues and made it more challenging for government to implement strategies such as 10X.

²⁸ In addition, the GVA estimates are based on estimates of business failure and could under-estimate the scope for businesses to reduce their output/ working hours rather than full business closure.

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2. Government interventions had a significant impact on speeding up the recovery:

- The NI economy was one of the first regions in the UK to return to pre-COVID levels of GVA;
- Sectors such as Construction; Retail; and Agriculture experienced the most significant reduction in employment;
- Volatility in the economically inactive group – with an increase in the numbers of long-term sick and students but a reduction in the numbers with caring responsibilities and those retired;

3. Micro-businesses more impacted than SMEs and larger businesses and younger people and those with lower qualifications also more impacted:

- The number of VAT and PAYE registered businesses in NI have continued to increase year-on-year through the pandemic;
- In contrast the number of non-VAT/ PAYE registered businesses (i.e. very small businesses with turnover less than £85k) fell by 26k between 2020 and 2021 – that is a 17% fall in the number of total businesses and a 34% fall in the number of unregistered businesses;
- Given the strong increase in the number of employees in 2021, this suggests that many of the self-employed owners of these non-registered businesses transferred to employed status;
- It is also clear from the data that supports to protect employees (CJRS) were more effective than supports to protect the self-employed (SEISS). This may have been an important driver in the transfer of those self-employed into employed status;
- Some groups were more impacted, in particular the young and those with lower levels of formal qualifications. This reflects some of the sectors most affected in particular hospitality and non-food retail. Given these sectors are more reliant on discretionary spend, the absence of government supports would most likely have exacerbated the challenges faced and made the inclusivity goals under the 10X strategy more difficult to attain.

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4. Government responses varied across countries:

- Over the first year of the pandemic (to April 2021), the IMF estimates that the fiscal response was equivalent to 10.2% of global GDP and liquidity supports equivalent to 6.2% of GDP;
- The US focused on the provision of fiscal supports (i.e. additional taxes and taxes foregone) rather than liquidity supports. In contrast EU nations were more likely to provide a greater proportion of liquidity supports (such as debt relief and government credit assistance). The UK struck a middle pat with a broadly equal measure of fiscal and liquidity support;
- Overall, the UK provided greater support than most peer group nations but less than Germany, Japan and Italy.

5. Some observations from international research:

- Zombification (i.e. where unviable businesses were supported through the pandemic period and would have otherwise gone bankrupt) is likely to have been a factor only in a small number cases;
- The furlough scheme (CJRS) minimised impact on employment levels and the significant majority of people on furlough returned to work rather than becoming unemployed. Unemployment peaked at 5.2% in the UK despite the worst recession in 300 years;
- Government schemes are unlikely to have contributed to inflation – the excess savings accumulated were predominantly accrued by higher income households, who were much less likely to have been furloughed. The higher inflation is more likely to have been caused by a supply chain unable to meet significant increases in demand following the lifting of restrictions. In Q2 2022, the Bank England reported that much of the accumulated savings remained unspent.

6. Lessons for the future:

- It is important for government to have clear principles for large scale interventions when making decisions on potential future bailouts or support measures in times of economic crisis. In particular around minimising the expense to the public purse, limiting contagion and fairness to all groups in society;
- One potential criticism of supports provided during the pandemic was their universality, when a more targeted approach may have delivered a similar outcome at a much reduced public expense. Whilst each crisis is different and it is not practical or affordable to plan for every eventuality, governments should amend their existing contingency plans to include

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exploring the ability to access information already held by other government departments, reviewing exit strategies in place for support schemes and also reviewing the conditions applied to companies in receipt of support;

- The high level of vacancies in the economy also highlights an important lesson for companies in terms of retaining skilled staff in challenging economic times. The pandemic has shown the problems of recruitment when an economic crisis eases.

Annex A – Summary of UK (incl NI) interventions

Note: this is NOT an exhaustive list of all support schemes put in place, but includes the more significant interventions. Other smaller tailored schemes were also developed.

Coronavirus Job Retention Scheme (CJRS)

Aim	The CJRS sought to provide support businesses with wage costs to retain the employer-employee link during the period of public health restrictions.
Background	The scheme was open to all employer businesses with a PAYE scheme and a UK bank account. It enabled businesses claim grants to cover 80% of the value of individual furloughed staff wages, up to a maximum of £2,500 per month per member of staff. In July 2021, the grant was reduced to a 70% contribution (up to a maximum of £2,167), with employers contributing 10%. In August 2021 the grant was further reduced to 60% (up to a maximum of £1,875), with employers contributing 20%.
Cost	<p>A total of £70bn was claimed under the CJRS in the in the UK with 11.7m employments were furloughed across 1.3 million employers²⁹.</p> <p>A total of 287,100 employments were furloughed in NI at an estimated cost of £1.7bn (based on share of UK figures).</p>
Time Period	The CJRS operated from 1 March 2020 to 30 September 2021.

²⁹ <https://www.gov.uk/government/statistics/coronavirus-job-retention-scheme-statistics-16-december-2021>

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Eat Out to Help Out (EOHO)

Aim	The EOHO scheme aimed to support hospitality businesses reopening after the COVID-19 lockdown period.
Background	The scheme provided 50% off food and/or non-alcoholic drinks eaten in participating establishments during Mon-Wed from 3-31 August 2020. The discount was capped at £10 per head and participating restaurants claimed the discount back from HMRC.
Cost	<p>A total of 78,116 participating outlets and 161.9m meals were claimed to a total value of £849m in the UK. The average claim per meal was £5.24³⁰.</p> <p>A total of 1,810 participating outlets and 4.6m meals were claimed to a value of £25.9m in NI. The average claim per meal was £5.66³¹.</p>
Time Period	The scheme ran from 3-31 st august 2020.

Self-Employment Income Support Scheme (SEISS)

Aim	SEISS supported the self-employed (including partnerships) during the pandemic through the provision of a total of five grants. The self-employed could continue working whilst in receipt of grants.
Background	The first round of grants covered period May-July 2020 were equivalent to 80% of average trading profit over a three-month period up to a maximum of £7,500. The second grant covered the period July-Oct 2020, worth 70% of average profits, up to £6,570. The third and fourth rounds covered Nov 2020-Jan 2021, and April-June 2021 respectively and both paid 80% of average profits up to £7,500. The fifth and final round covered July-Sept 2021 and, depending on eligibility, either paid 30% of average profits capped at £2,850, or 80% capped at £7,500.
Cost	<p>A total of 10.4m claims to the value of £28.1bn was paid across the five rounds in the UK. The first grant had the highest uptake (77% of those eligible) falling to 38% for the fifth grant. The average value of claims for each grant was £2,700³².</p> <p>A total of 294k claims (value £783m) was claimed across the five SEISS grants in NI. The first grant had the highest uptake at 82% (of those eligible) falling to 32% for the fifth grant.</p>
Time Period	The scheme ran from May 2020 – September 2021.

³⁰ <https://www.gov.uk/government/statistics/eat-out-to-help-out-statistics/eat-out-to-help-out-statistics-commentary>

³¹ <https://www.gov.uk/government/statistics/eat-out-to-help-out-statistics-geographic-breakdown/eat-out-to-help-out-statistics-geographic-breakdown-commentary>

³² <https://www.gov.uk/government/statistics/self-employment-income-support-scheme-statistics-december-2021>

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Coronavirus Business Interruption Loan Scheme (CBILS)

Aim	CBILS provided support to businesses experiencing disruptions in cashflow and losses in revenue due to COVID-19 with turnover up to £45m p.a.
Background	Invoice finance and asset finance facilities were available from £1k to £5m, while term loans and revolving credit facilities were available from £50k to £5m. The government made a payment to cover interest and lender-levied fees under CBILS for the first 12 months. CBILS loans were 80% backed by the Government and made available through accredited lenders.
Cost	A total of 109,877 CBILS loans worth £26.4bn offered in the UK ³³ . A total of 2,440 CBILS loans valued at £784.8m were offered in NI. The loans in NI represented 2% of total UK loans, equivalent to the NI proportion of the UK business population.
Time Period	Launched in March 2020 and closed on 31st March 2021.

Coronavirus Large Business Interruption Loan Scheme (CLBILS)

Aim	CLBILS were targeted at medium and larger business with a turnover of over £45m and offered loans of up to £200m.
Background	CLBILS could be used to support term loans, revolving credit facilities, invoice finance facilities and asset finance facilities. The maximum size for invoice finance facilities and asset finance facilities was £50m. Companies borrowing more than £50m through CLBILS were subject to restrictions on dividend payments, senior pay and share buy-backs during the period of the loan. CLBILS loans were 80% backed by the Government and made available through accredited lenders.
Cost	A total of 753 loans worth £5.6bn offered through CLBILS across the UK ³⁴ . There is no regional breakdown for CLBILS.
Time Period	The CLBILS launched in April 2020 and closed on 31st March 2021.

³³ <https://www.british-business-bank.co.uk/press-release/analysis-of-final-coronavirus-loan-scheme-data-shows-79-3bn-of-loans-to-1-67m-businesses-evenly-distributed-across-whole-of-the-uk/>

³⁴ <https://www.british-business-bank.co.uk/press-release/analysis-of-final-coronavirus-loan-scheme-data-shows-79-3bn-of-loans-to-1-67m-businesses-evenly-distributed-across-whole-of-the-uk/>

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Bounce Back Loan Scheme (BBLs)

Aim	BBLs sought to allow small and micro businesses experiencing cashflow issues and losses in revenue to rapidly gain access to finance during the pandemic.
Background	BBLs was a demand-led scheme providing loans from £2k up to 25% of annual (capped at £50k). The scheme provided lenders with a 100% government-backed guarantee and enabled businesses to obtain a six-year term loan at a government set interest rate of 2.5% a year. The government covered interest payable in the first year.
Cost	A total of 1,560,309 Bounce Back Loans worth £47.4bn were offered in the UK. A total of 42,133 BBLs loans were offered in NI valued at £1.3bn.
Time Period	BBLs launched in May 2020 and closed on 31st March 2021.

Future Fund (FF)

Aim	The Future Fund was administered by the British Business Bank and was a co-investment scheme between the private and public sectors aimed at securing equity investment for UK-based start-up companies unable to access existing state-backed loan schemes.
Background	The scheme provided convertible loans of between £125k and £5m to UK start-ups (companies reliant on equity investment that were pre-revenue or pre-profit). The loans required both match funding from private investors and must have already raised at least £250k in equity investment from third-party investors in the previous five years.
Cost	A total of 1,190 companies accessed £1.14bn under the scheme in the UK. A total of 13 convertible loans completed to a value of £11.6m in NI ³⁵ .
Time Period	The FF scheme launched in May 2020 and closed to new applications on 31 January 2021.

The UK Government also provided a series of tax deferral and time to pay schemes to support businesses through this period. These are not detailed in this annex.

³⁵ <https://www.british-business-bank.co.uk/press-release/final-future-fund-final-data-shows-scheme-completed-1-14bn-of-convertible-loan-agreements/>

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NI-specific interventions

Business Rates Relief

Aim	The rates relief scheme was designed to take cost pressures off businesses during the pandemic.
Background	<p>The initial package of measures, to cover the 2020-21 rating year, provided a four-month rates holiday to all businesses in NI and a full year rate holiday to businesses in specific sectors requiring additional support i.e. hospitality, leisure and tourism, childcare, parts of retail, and the airports. Manufacturing and newspapers were subsequently added.</p> <p>A further 12-month rates holiday covering the 2021-22 rating year was announced for hospitality, tourism and leisure, parts of retail and retail services, childcare, the airports, newspapers and manufacturing businesses in receipt of Industrial Derating.</p> <p>A third package of measures for 2022-23 provides all businesses (with the exception of public bodies, utilities, larger food stores and off-licenses) a one month rates holiday. A three months rates holiday has been extended to retail, hospitality, tourism, leisure, childcare, newspapers and airports.</p>
Cost	<p>The total estimated cost was £290.8m³⁶ for 2020-21.</p> <p>An additional allocation of £230m was set aside to cover the cost for 2021-22.</p> <p>A further £50m support package was announced for the 2022-23 rating year.</p>
Time Period	The financial years 2020-21 and 2021-22.

£10k Small Business Support Grant Scheme

Aim	To provide financial support to the most vulnerable businesses to help with cash flow during the pandemic.
Background	The scheme provided a £10k grant to small businesses in NI – those eligible for the Small Business Rate Relief (SBRR), i.e. with a rateable value (NAV) of £15k or less.
Cost	A total of 24,611 small businesses had received £244.8m ³⁷ .
Time Period	Launched in March 2020 and closed to applications on 20 May 2020.

³⁶ <https://www.niauditoffice.gov.uk/publications/overview-northern-ireland-executives-response-covid-19-pandemic-second-report>

³⁷ <https://www.niauditoffice.gov.uk/publications/design-and-administration-northern-ireland-small-business-support-grant-scheme>

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£25k Tourism, Leisure and Hospitality Business Support Grant Scheme and Large Tourism, Leisure and Hospitality Grant Scheme

Aim	To provide financial support to help with cash flow during the pandemic.
Background	<p>The £25k scheme provided a grant of £25,000 to all businesses in the Tourism, Leisure and Hospitality sectors with a total NAV of between £15,001 and £51,000.</p> <p>The 'Large Tourism, Leisure and Hospitality Grant Scheme' provided a one-off grant to large businesses in these sectors with a NAV of £51,001 and above.</p>
Cost	<p>A total of 3,002 applications were approved under the £25k scheme receiving a total of £73.6m³⁸.</p> <p>A total of £39.9m was paid out under the Large Tourism, Leisure and Hospitality Grant Scheme.</p>
Time Period	Launched in March 2020 and closed to applications on 20 May 2020.

Localised Restrictions Support Scheme (LRSS)

Aim	To provide support to businesses which had to close or had business activity at their premises directly curtailed by the Health Protection Regulations.
Background	Eligible businesses received a grant of either £800 (NAV<£15k), £1,200 (NAV £15-51k) or £1,600 (NAV>£51k) per week.
Cost	Total estimated at £310m was paid out (to May 2021) ³⁹ .
Time Period	Opened on 16 October 2020 and closed to applications on 7 April 2021

³⁸ <https://www.niauditoffice.gov.uk/publications/design-and-administration-northern-ireland-small-business-support-grant-scheme>

³⁹ stet

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COVID Restrictions Business Support Scheme (CRBSS)

Aim	To provide support to businesses impacted by the Health Protection Regulations and not eligible for the LRSS.
Background	<p>Part A of this scheme was open to businesses named in the Health Protection Regulations (not eligible for LRSS) who were restricted or required to close/cease trading. Eligible businesses received a grant of up to £600 for each week they were required to close.</p> <p>Part B of this scheme was open to supply chain businesses impacted by customers who were restricted or forced to close/cease trading under the Health Protection Regulations. Eligible businesses received weekly grants depending on their NAV, of £400 (NAV<£15k), £600 (NAV £15-51k) or £800 (NAV>£51k). Those not paying rates received £300 a week.</p>
Cost	A total £76.9m was paid out under this scheme ⁴⁰ .
Time Period	Opened on 16 Oct 2020 and initially closed on 16 Dec 2020, but re-opened in Jan 2021 and both parts of this scheme were extended to 31 Mar 2021.

Micro-Business Hardship Fund

Aim	To support micro-businesses (1-9 employees) and qualifying social enterprises, who were not eligible for other regional and national support, and who were facing immediate cash flow difficulties.
Background	Grants up to £10,000 were available to businesses that paid business rates and up to £5,000 for those that did not pay business rates.
Cost	A total of £23.2m was paid out ⁴¹ .
Time Period	Launched in May 2020 and closed on 12 June 2020

Limited Company Directors' Support Scheme (LCDSS)

Aim	The LCDSS was designed to provide a one-off taxable grant of £3,500 to company directors who had been adversely impacted by COVID-19 and found themselves in financial difficulty
Cost	A total of £20.5m was paid out ⁴² .
Time Period	Launched in Jan 2021 and closed for applications on 4 Mar 2021.

⁴⁰ stet

⁴¹ stet

⁴² stet

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Newly Self-Employed Support Scheme (NSESS)

Aim	The NSESS aimed to provide financial support to newly self-employed individuals (sole traders and those in partnerships) whose business had been adversely impacted by COVID and who had not been able to access support from the UK government's SEISS.
Background	Newly self-employed individuals were eligible for the NSESS if they commenced trading as self-employed between 6 April 2019 and 5 April 2020. The scheme provided a one-off taxable grant of £3,500.
Cost	A total of £8.7m was paid out. ⁴³
Time Period	Launched in Dec 2020 and closed to applications on 19 Feb 2021

Bed & Breakfast Support Scheme

Aim	To support tourist accommodation establishments in certification categories which were required to close between March 2020 and the start of July 2020, many of which were unable to access grant support.
Background	The scheme provided support to five of the eight tourism accommodation categories under the Tourism (NI) Order 1992. Applicants needed to be in compliance with the Order, and to hold a current certificate from Tourism NI under one of the following eligible scheme categories: Bed & Breakfast; Guest House; Guest Accommodation; Hostel (following an extension of the scheme); and Bunk house (following an extension of the scheme).
Cost	A total of 456 businesses were supported under the programme, with 429 under the first iteration of the scheme and 27 under the subsequent extension. This equated to a total package of £1.8m issued in grant payments.
Time Period	The Bed & Breakfast, Guest House and Guest Accommodation Scheme, opened for applications on 28 th January 2021 and closed on 11 th February 2021. The Hostels and Bunk Houses extension opened for applications on 23 rd February 2021 and closed on 9 th March 2021.

⁴³ stet

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Wet Pubs Support Scheme

Aim	The Wet Pubs Business Support Scheme provided support to drink-only public houses required to remain closed between 4 July 2020 and 23 September 2020 when the rest of the hospitality sector was permitted to open and trade.
Background	Qualifying Wet Pubs were identified by DfE from a list of recipients of the Localised Restrictions Support Scheme provided by Land & Property Services. Qualifying pubs were then invited to make an application to the scheme with successful applicants receiving an amount based on the total NAV of their Wet Pub for each full week they remained closed during this period.
Cost	Funding of £10.6million was available for the scheme. In total, 430 successful applicants received £4.0m.
Time Period	Scheme opened 11 January 2021 and closed to new applications 31 March 2021.

VAT

In addition to the above supports, the NI Executive agreed to an extension of the 5% VAT rate for hospitality businesses to the end of September 2021 and a further interim 12.5% VAT rate to the end of March 2022

Annex B – LGD analysis conducted in 2020

GVA impact

1. The UUEPC conducted analysis in 2020 to estimate the impact of the pandemic across local government districts (LGDs) between Q2 2020 and Q4 2020. This analysis was completed at a time when only very limited policy supports had been announced or were expected and therefore provides a useful alternative 'no policy' counterfactual.
2. These estimates are set out in table 1 below alongside the ONS outturn (i.e. includes policy interventions) for the year. The LGDs with larger impacts typically reflect larger private sector concentrations. Although not set out in the analysis, the effects were concentrated in the most-impacted sectors (Hospitality, Arts & Entertainment and Retail) and also in other sectors which re-opened relatively quickly but other challenges emerged such as longer-term supply chain difficulties (primarily Construction and Manufacturing). It is estimated that in a 'no policy intervention' scenario, the NI economy would have contracted by 12.5% in 2020.

Table 1: Estimates of decline in Real GVA in 2020 with and without policy supports, NI and LGDs

	% Annual GVA Decline: Policy Measures	% Annual GVA Decline: No Policy Measures
Belfast	-7.9%	-12.3%
Armagh, Banbridge and Craigavon	-6.7%	-11.3%
Newry, Mourne and Down	-8.4%	-12.7%
Ards and North Down	-8.0%	-12.5%
Derry City and Strabane	-6.3%	-11.0%
Mid Ulster	-9.8%	-15.7%
Causeway Coast and Glens	-9.2%	-14.1%
Antrim and Newtownabbey	-7.2%	-12.4%
Lisburn and Castlereagh	-5.0%	-10.5%
Mid and East Antrim	-11.1%	-13.7%
Fermanagh and Omagh	-8.4%	-12.4%
Northern Ireland	-7.9%	-12.5%

Source: UUEPC analysis

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Employment impact

- Table 2 estimates peak employee job losses in both late April 2020 and then after the initial recovery in late August 2020. The shares of jobs lost at peak do not vary significantly across LGDs, most are approx. one quarter of employee jobs lost. However, in late August when the recovery is underway, performance differs, with Belfast City and Causeway Coast still approximately 10% of jobs lost, in contrast other council areas with greater Manufacturing and Construction employment (such as Armagh, Banbridge & Craigavon; Newry, Mourne and Down; and Mid Ulster) employment recovery would likely have been realised more quickly.

Table 2: Estimated employment decline in Apr 2020 and Aug 2020 without policy supports, across NI LGDs

	Total Employees Q4 2019	Peak Losses: No Furlough Measure	Q3 Recovery Losses: No Furlough Measure
Belfast	232,800	57,400	22,900
Armagh City, Banbridge and Craigavon	79,400	19,300	6,700
Newry, Mourne and Down	63,800	16,400	5,700
Ards and North Down	38,300	11,000	4,500
Derry City and Strabane	57,100	14,000	5,300
Mid Ulster	59,500	15,100	4,700
Causeway Coast and Glens	42,100	11,900	4,200
Antrim and Newtownabbey	65,900	15,800	5,500
Lisburn and Castlereagh	61,000	15,200	5,500
Mid and East Antrim	46,500	12,100	4,300
Fermanagh and Omagh	42,200	10,500	3,600
Northern Ireland	788,600	198,700	72,900

Source: UUEPC analysis