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Economic Research Digest Quarter 3 2022

The **Economic Research Digest** monitors recently published research across a number of economic areas relevant to the work of the Department for the Economy such as competitiveness, innovation, enterprise, trade, FDI, tourism and infrastructure. The Skills Research Digest deals separately with recently published skills and labour market research.

In each case, we provide a short summary of the key points and web links to the full article or report*. A full list of sources can be found at the end of the publication.

Highlights this quarter include:

- A report published by PwC shows the UK economy shrank by 0.6% in June with polarised growth recorded at regional levels. The June 2022 economic output stood at 0.9% above its pre-pandemic level in February 2020.
- Analysis by the ONS shows business investment grew by a revised 3.7% in Q2 with 'Other buildings and structures' the main driver. Business investment has grown by 5.2% compared with the same quarter a year ago.
- The BoE noted that price growth has been particularly high in the goods sector relative to services. In the three months to August, annual goods price inflation was 9.1%, compared with 6.6% for the services sector.

** Links are correct at the time of publication; however, it is likely that some will break over time. The list of sources has more general links, which should help the reader to track down the original report.*

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Economic Outcomes

COMPETITIVENESS

Northern Ireland's Productivity Challenge: Exploring the issues **published by Nevin Economic Research Institute**

- Addressing poor productivity is particularly important for Northern Ireland. It has the worst performance of any region in the UK, and it also lags behind the Republic of Ireland. The most recent data show that Northern Ireland has a 15% gap to the UK level when measured by GVA ('gross value added') per job, widening to 18% when measured per hour worked. This low productivity has been identified as the central reason for the local economy's slow growth over the past two decades.
- The structure of Northern Ireland's economy is one of the earliest explanations for its low productivity. The structural view suggests that if Northern Ireland had the same economic structure as the UK, the productivity gap would disappear. This view reflects Northern Ireland's past concentration in the declining staple industries of textiles and shipbuilding, and policymakers today still emphasise economic structure as a main cause of low productivity. Yet the evidence shows that economic structure is responsible for just under half of the productivity gap. Sector productivity failings are just as important and include a long-tail of firms that underperform relative to their peers.
- By being further away from other economic centres, Northern Ireland faces higher costs for importing raw materials and exporting finished goods. While there is evidence transport costs were higher during the early twentieth century, these were on average the same or only marginally higher by the 1980s and could not explain the sizeable productivity gap.
- Low levels of human capital has the most extensive evidence to support its role in explaining Northern Ireland's low productivity. It is the result of a 'brain drain', where there are too few in the workforce with tertiary qualifications; and an 'attainment gap', where too many individuals leave school without the skills they need. A skilled workforce is key to attracting inward investment, but other factors related to human capital may also matter. There is evidence of a managerial skills gap, where firms lag behind in the adoption of best practice, while a shortage of entrepreneurship has also been identified.

PRODUCTIVITY AND GROWTH

Northern Ireland Composite Economic Index Q2 2022 **published by Northern Ireland Statistics Research Agency (NISRA)**

- The NICEI is a quarterly measure of economic activity in NI which is based on available official statistics. The NICEI is broadly equivalent to the output measure of Gross Domestic Product (GDP) produced by the Office for National Statistics (ONS).
- The NICEI indicates that economic output decreased by 0.1% over the quarter to June 2022 and increased by 2.4% over the year to June 2022. It is important to recognise there has been some volatility in the NICEI during the COVID-19 pandemic as lockdown measures were introduced to mitigate the spread of COVID-19 and subsequently eased.
- As a result, it is perhaps worth considering triennial change, comparing the change over three years. In terms of triennial change, NI economic output has increased at a faster rate (4.6%) compared to the annual change (2.4%) in the NICEI to Q2 2022.
- The overall decrease in the NICEI was driven primarily by the Services sector (-0.1 pps), followed by positive contributions from the Public Sector (0.1 pps) and the Production sector (0.1 pps), whilst the contribution from the Construction sector remained unchanged (0.0 pps).
- Although the measures are not produced on a fully equivalent basis, comparisons with the UK show that NI Economic Activity and UK GDP both fell over the quarter (-0.1%). NI output increased at a faster rate than UK GDP triennially (i.e., over 3 years, 4.6% vs 1.1%), however, UK GDP grew at a faster rate than the NICEI over the year (2.4% for NI vs 2.9% for the UK) and rolling annual average (5.1% for NI and 6.3% for the UK). Over the same timeframe, GDP in Ireland increased by 1.8% over the quarter, 10.8% over the year and 32.1% over the last three years to Quarter 2 2022.
- NI's Private sector output as measured by the NICEI decreased over the quarter (- 0.2%) but increased over the year (2.3%) and on a triennial basis (4.4%). Meanwhile, the NICEI Public Sector

(employee jobs) index increased over the quarter (0.3%), over the year (2.6%) and on a triennial basis (5.2%).

- For the Private sector, average growth for the four quarters to Quarter 2 2022 compared to the previous four quarters increased by 5.9%. Whilst the Public sector (employee jobs) index increased by 2.4% over the same period.
- The quarterly decline in the NICEI between Q1 2022 and Q2 2022 meant that currently the NICEI is 0.2% below the maximum value recorded in Quarter 2 2007. UK GDP in Quarter 2 2022 is estimated to be 16.2% higher than its pre-economic downturn peak of Quarter 1 2008.

UK Economic Outlook September 2022 **published by PwC provides the latest analysis of the UK economy, which focuses on how we expect geopolitical changes and the rising cost of living to impact the outlook for GDP growth and inflation**

- The UK economy shrank by 0.6% in June with polarised growth recorded at regional levels. The June 2022 economic output stood at 0.9% above its pre-pandemic level in February 2020. However, some regions have struggled to make a breakthrough beyond pre-pandemic levels, deepening the regional growth imbalance.
- Latest data shows London growing at the fastest rate of 2.3% in Q3 of 2021 and is now 1.3% above the pre-crisis level. Most regions such as the North East, the Midlands and Wales, however, experienced a contraction of between 1.2% and 0.3%, and remain around 3.3% smaller than pre-pandemic levels. Given the persistent productivity gaps between UK regions, it is likely these regional growth imbalances will widen in the short to medium term.
- Household consumption contracted 0.2%, quarter-on-quarter, in Q2 2022, breaking the previous four-quarter trend of consecutive growth. The cost of living crisis has seen households cutting back on both discretionary and essential spending, with spending on energy being hit the hardest with a 10% increase in the proportion of people reducing energy consumption.
- Real government expenditure fell for the second consecutive quarter, dropping by 2.9% in Q2 2022. This was mainly due to declines in COVID-19 related activities such as Test and Trace and vaccinations. Although there has been a 0.7 ppt increase in public sector net debt (PSND), excluding public banks and Bank of England (BoE) as a percentage of GDP at the end of June, this was mainly due to falls in GDP combined with reduction in cash receipts. Latest data, however, shows a slight improvement in the Government's fiscal position in July, with PSND as a percentage of GDP reducing by -0.4ppts.
- Economic inactivity rates in the three months to June were unchanged compared to the previous three-month period, meaning they still mostly stand above pre-pandemic levels. Economic inactivity was 21.4% in the UK in Q2 2022, 1.0 ppts higher than it was in Q1 2020 when it reached its all-time low. The East Midlands and Northern Ireland have experienced the largest relative increases, with inactivity increasing by 2.9 ppts and 1.9 ppts respectively.
- Ongoing supply chain disruptions and high commodity prices are likely to hamper global economic growth as shortages of raw materials and persistently high gas and other commodity prices push up production costs. While disruptions in global supply chains are expected to gradually ease, the extent to which it cools down may vary across countries. Sluggish global economic growth and high inflation could potentially weigh down on world activity in general and foreign investment.
- The BoE continued to raise interest rates sharply to 1.75% in August 2022 in response to the UK's record high inflation. This is the sixth time in succession it raised Bank Rate in just under a year, and the biggest rise in 27 years.

LIVING STANDARDS, WELLBEING AND PROSPERITY

A Blank Cheque- An analysis of the new cap on energy prices **published by Resolution Foundation**

- The typical household energy bill was due to rise to an annualised £3,549 from 1 October (as already announced by Ofgem) and then to a predicted £4,586 from 1 January 2023. Instead, the combination of the £2,500 energy price guarantee (EPG) price cap and the existing £400 Energy Bill Support Scheme rebate (due to be credited against bills in instalments over the winter months) will keep the cost of energy for a typical household this winter broadly where it would have been under the current (April-September 2022) price cap.
- This will soften the coming squeeze on incomes by reducing inflation by around four percentage points in January 2023 (and the fact that energy is a higher share of low-income households'

budgets means that this rises to almost six percentage points for the poorest tenth of households) at the cost of potentially prolonging elevated inflation or higher interest rates.

- These factors, along with the short-term rise in unemployment expected by the Bank, produce a shocking outlook for living standards. The crisis will hit households hard not only this winter (even after considering the value of the temporary cost of living support for households announced earlier this year) but will also continue into 2023-24 as well.

In at the Deep End- The living standard crisis facing the new Prime Minister **published by Resolution Foundation.**

- The typical income is projected to be 5 per cent lower in 2022-23 than in 2021-22, and then fall again by 6 per cent in 2023-24 if the Government does not intervene. The combined fall in typical income of 10 per cent between 2021-22 and 2023-24 is twice as severe as that seen between 2009-10 and 2011-12 (a 5 per cent fall), and worse than in the mid-1970s, when there was an 8 per cent fall.
- Median incomes are projected to fall by 10 per cent between 2021-22 and 2023-24, or £2,800 in absolute terms. This combined fall in income across 2022-23 and 2023-24 is, at a minimum, the worst two-year income fall since 1961. The only comparable income fall happened between 1973 and 1975, where the typical median income of non-pensioners fell by 8 per cent (though BoE income data does not show such a pronounced fall). This fall is twice as large as the fall during the financial crisis between 2009-10 and 2011-12 of 5 per cent. Even in the depths of the Second World War, the average real disposable income fell by at most 4 per cent.
- It is stark how much inflation forecasts have changed over the past several months. The BoE's inflation forecast from February this year projected that inflation would peak in Q2 of 2022 at 7.0 per cent, hit 5.8 per cent in Q4 of 2022, and then fall back to around 2 per cent at the start of 2024. Just six months later, the Bank projected inflation to peak later, at 13.1 per cent in Q4 of 2022, and for it to stay high through 2023, reaching the Bank's 2 per cent target only in Q3 of 2024.

Decision Maker Panel survey - 2022 Q3 **published by BoE is a survey of Chief Financial Officers from small, medium and large UK businesses.**

- Realised and expected output price growth reported by DMP respondents have continued to increase. In the three months to August, realised annual price growth was, on average, 7.7% up from 6.9% compared with the three months to May.
- This refers to prices charged by businesses across the whole economy, rather than just by those businesses that sell directly to consumers. Price growth has been broad-based, with 66% of firms reporting increases above 5%, and 30% of firms reporting increases above 10%.
- Price growth has been particularly high in the goods sector relative to services. In the three months to August, annual goods price inflation was 9.1%, compared with 6.6% for the services sector. The continuing rise in reported inflation within the DMP data likely reflects multiple factors including significantly higher energy prices as well as supply and labour shortages.
- In addition to increases in realised inflation, expected year-ahead price inflation has also increased, reaching 6.5% in the three months to August, up from 5.9% in the three months to May. Thus, firms expect strong price growth in the following 12 months, although slightly less than over the past year.
- In August, firms' realised wage growth over the past 12 months was 6.4%, an increase from 5.5% in May. Wage growth is currently lower than both firms' own price inflation and CPI inflation rates.
- The accommodation & food and transport & storage sectors reported the strongest annual wage growth in the last three months, at around 9.1% and 7.9%, respectively. Over the next 12 months, firms expect wage growth to be slightly lower than over the past year, at 5.5%. That implies firms do not expect the current high rates of inflation to lead to a further acceleration in wage growth over the next year.

Innovation and Enterprise

INNOVATION

Innovate UK strategic delivery plan 2022 to 2025 **published by Innovate UK**

- Innovate UK's strategic delivery plan details how it will work across the research and innovation ecosystem to inspire innovative businesses to create value through innovation, involve relevant organisations and people, and invest in innovation to make a clearly tangible and positive impact on the UK's economy and society.

- The Innovate UK's strategic delivery plan details their 6 objectives, a summary of which is provided below:

    - Objective 1: World-class people and careers - People are at the heart of the research and innovation ecosystem in the UK. Innovate UK recognises the importance of focusing on people to support business innovation, with talent and skills and equality, diversity, and inclusion (EDI) two of the strong foundations that run through all we do. Prioritising and championing these two foundations will enable opportunities for innovative businesses to engage with diverse talent for innovation and develop the right talent and skills to increase productivity, embed an innovation culture, and grow their business.
    - Objective 2: - World class places - To secure the UK's position as a global innovation hub we need to develop an agile and responsive innovation ecosystem that will make it easy for businesses to navigate and access the institutions, infrastructure and help that exists in the UK.
    - Objective 3: World-class ideas - To tap the potential that exists in UK businesses, Innovate UK will ensure that their products and services are directed where they are most needed, at the best ideas which will gain the most from public finance, and where we can best leverage the private sector investment that will be required to make these ideas a commercial reality.
    - Objective 4: World-class innovation - Growing innovating businesses are key to a strong, sustainable, and competitive UK economy. Innovate UK will use their leadership and connectivity to help more businesses to adapt, innovate, grow and scale. Businesses scaling up appear in all sectors, and successful scaling is relevant to companies of all sizes. Innovate UK note that it is important to enhance their offer so that more high-potential and scaling businesses can become investment ready and crowd-in growth capital.
    - Objective 5: World-class impacts – A growing global population, improving the quality of life for all, and the need to conserve resources and protect the environment mean the global economy will look very different by the end of this century. We must do things differently if we want to have a stronger, more equitable economy and protect the environment. Business innovation is essential to delivering these world-class impacts and the UK has the breadth and depth of research, innovation, and technological capabilities to lead the response to these global challenges.
    - Objective 6: A world-class organisation - Leading by example, Innovate UK will be energised and maintain their position as a world-class innovation agency for the benefit of businesses and the innovation ecosystem as a whole. Their Plan for Action signals the start of a new chapter for Innovate UK as they build on their early successes and learnings to create a more efficient, agile, and responsive organisation that will help deliver the Government's and UKRI's visions, and champion diversity, creativity, and collaboration across the innovation ecosystem.

RESEARCH AND DEVELOPMENT

Research and Development expenditure by the UK government **published by ONS**

- The UK government's net expenditure on Research and Development (R&D) reached a new high of £15.3 billion in 2020, an increase since 2019 of £1.7 billion (in current prices), representing the largest percentage increase in current or constant prices since 2013. This represented 0.7% of gross domestic product (GDP), which was in-line with the long-term trend of 0.6% to 0.7% since 2009.

- UK Research and Innovation (UKRI), which includes the UK's seven research councils, contributed the most to net expenditure on R&D and knowledge transfer activities in 2020, at £6.1 billion, 40% of the total.

- In constant prices, civil net expenditure on R&D and knowledge transfer activities (excluding EU R&D budget contributions) increased by 29.1% over the long term, from £10.2 billion in 2009 to £13.2 billion in 2020. While UK contributions to EU R&D expenditure decreased to £1.3 billion in 2020, down from the peak of £1.4 billion (in current prices) in 2019.

SECTORS AND TECHNOLOGIES

Agents' summary of business conditions - 2022 Q3 **published by the Bank of England**

- Food retailers continued to report customers trading down due to cheaper goods and cutting back on non-essential items, such as confectionery. Discount chains continued to gain market share. Sales volumes of household items, such as furniture, electrical goods and home-improvement products continued to fall. Consumer services contacts reported that squeezed household incomes had weighed on demand. In hospitality, sales volumes were below pre-Covid levels, and many pubs reported falling revenues, though demand for takeaways and fast food remained robust.
- Business services contacts continued to report strong annual growth in turnover, particularly in IT, recruitment services and consultancy. Within professional and financial services, investment banks and accountancy firms reported strong demand. Insolvency practitioners also reported a modest pickup in demand. By contrast, merger and acquisition activity was reported to be slowing to more normal levels.
- Annual growth in manufacturing output slowed as demand weakened; supply constraints also continued to hold back production though to a lesser extent than previously. Output growth was very weak, reflecting a drop in demand for consumer goods and retailers reducing order sizes. Demand for capital equipment, for example for mining and construction machinery, also slowed, reflecting higher operating costs and heightened uncertainty about the economic outlook.
- Investment intentions were positive but had eased due to uncertainty about the economic outlook, rising costs and softer demand. Contacts reported that they were continuing to spend on improving IT and automation, on energy-saving measures and on refurbishment and repurposing of premises.
- Contacts said that the availability of bank and non-bank finance for small and medium-sized enterprises had tightened for consumer-facing firms or those exposed to higher costs. Insolvencies and restructuring activity among these firms continued to increase and was expected to pick up further in H2, albeit from a low base.
- Contacts said that prospective homebuyers had become more cautious due to concerns about rising living costs. This could weigh on house price inflation in the months ahead, though demand for property still exceeded supply. Demand for rented properties remained strong, supporting rent inflation.

Construction output in Great Britain: July 2022 **published by ONS shows the short-term measures of output in the construction industry.**

- In June 2022 there was a 1.4% decrease in monthly construction output, which was followed by a 0.8% decrease in volume terms in July 2022: a second consecutive decrease in monthly construction output after seven consecutive months of growth. The decrease in monthly construction output in July 2022 came solely from a decrease in repair and maintenance (2.6%) as new work saw a slight increase (0.3%) on the month.
- At the sector level, the main contributors to the decrease seen in July 2022 were public housing new work, and public and private housing repair and maintenance, which decreased 13.1%, 8.0% and 2.6%, respectively. The level of construction output in July 2022 was 2.1% (£300 million) above the February 2020 pre-coronavirus (COVID-19) pandemic level; new work was below at 1.9% (£181 million) its February 2020 level, while repair and maintenance work was 9.7% (£481 million) above the February 2020 level.
- Despite the monthly decrease, construction output increased 1.4% in the three months to July 2022; this came solely from an increase seen in new work (2.7%) as repair and maintenance saw a slight decrease (0.7%), and this is the ninth consecutive period of growth in the three-month-on-three-month series, but the slowest rate of growth since the three months to December 2021 (1.0%).

ENTREPRENEURSHIP

GEM Northern Ireland Report 2021 **published by Queens University Belfast and Aston University Birmingham UK.**

- The rate of total early-stage entrepreneurship (TEA) in Northern Ireland in 2021 is 9.1%, a strong rebound from being hit hard by the pandemic to the level of only 5.4% in 2020. However, it is still significantly lower than a figure of 11.5% in the UK overall or 11.8% in England, and also slightly lower than that of 10.3% in Wales and 9.5% in Scotland.
- Pooling the data over the most recent three years (2019-21), to remove annual fluctuations, gives a TEA rate of 7% for Northern Ireland. This rate, along with that in Scotland and Wales (8% and 7.9%, respectively), is significantly lower than the rate of 10% in England and 9.6% in the UK.
- The proportion of non-entrepreneurial working age adults in Northern Ireland who expect to start a business within the next three years is 20.1% in 2021, a further increase from 19.5% in 2020. For the UK, this figure also increased from 16.2% in 2020 to 18.2% in 2021, slightly narrowing the gap although still lower than the rate in Northern Ireland.
- In 2021, more than one-fifth of Northern Ireland early-stage business owners expect to achieve high growth, a considerable increase from 17% in 2020, while this figure remains stable at around 18-19% in the UK over the most recent years.
- In 2021, probably due to the continuing effect of Covid-19 pandemic, "to earn a living because jobs are scarce" remained to be a major motivation for entrepreneurs in Northern Ireland, even though it has slightly decreased from 79.3% in 2020 to 64.1%. In contrast, this figure remained stable around 66% for the UK. Still, more than half of early-stage entrepreneurs in both Northern Ireland and the UK were motivated by making a difference, building wealth and to earn a living in 2021. Starting a business to continue a family tradition is the least motivating factor and is significantly lower than all other reasons.
- More than half of individuals in Northern Ireland claimed that there has not been any substantial change in their household income due to the Covid-19 pandemic. This positive note might be attributable to the effectiveness of several of the government's supporting schemes such as furlough.

BUSINESS GROWTH

Business insights and impact on the UK economy **published by the ONS, shows the impact of challenges facing the economy and other events on UK businesses.**

- In late September 2022, the percentage of businesses that reported they were trading was 94%, with 86% fully trading and 8% partially trading (for example, trading with reduced hours or staff numbers). Meanwhile, 5% of businesses reported "temporarily paused trading" and 1% "permanently ceased trading" as their business's trading status.
- More than two-thirds (70%) of businesses reported they had some form of concern for their business in October 2022, with this percentage rising to 83% for businesses with 10 or more employees. The accommodation and food service activities industry had the highest proportion of all size businesses reporting some form of concern, at 90%.
- Businesses not permanently stopped trading reported on the frequency that their bills are paid. This represented 61% of businesses for electricity and 42% for gas. Approximately 7 in 10 of these businesses expect to see some form of increase following the expiration of their contacts (72% for electricity and 70% for gas). In contrast, 29% of businesses reported their energy usage is currently on a variable plan for both energy forms.
- In late September 2022, businesses not permanently stopped trading were asked to what extent they had already passed through higher costs to prices. This refers to changes in the prices of goods or services following an increase in the costs it incurred producing them. More than a quarter (27%) of businesses reported that they had passed on less than 50% of their higher costs to customers, while 11% reported that they had passed on 50% or more.
- Nearly one in five (18%) businesses not permanently stopped trading with 10 or more employees reported they were experiencing global supply chain disruption. This is the lowest percentage reported since the question was introduced in December 2021.

BUSINESS REGULATION

Red tape cut for thousands of growing businesses **published by Department for Business, Energy & Industrial Strategy**

- Thousands of the UK's fastest-growing businesses will be released from reporting requirements and other regulations in the future, as part of plans aimed at boosting productivity and supercharging growth.
- Currently, small businesses are presumed to be exempt from certain regulations. However, many medium sized businesses – those with between 50 and 249 employees - still report that they are spending over 22 staff days per month on average dealing with regulation, and over half of all businesses consider regulation to be a burden to their operation.
- The UK Government has announced plans to widen these exemptions to businesses with fewer than 500 employees for future and reviewed regulations, meaning an additional 40,000 businesses will be freed from future bureaucracy and the accompanying paperwork that is expensive and burdensome for all but the largest firms. The exemption will be applied in a proportionate way to ensure workers' rights and other standards will be protected, while at the same time reducing the burden for growing businesses.

Succeeding Globally

TRADE

UK trade: August 2022 **published by ONS shows Total value of UK exports and imports of goods and services in current prices, chained volume measures and implied deflators.**

- Total imports of goods to the UK increased by £4.7 billion (3.0%) in the three months to August 2022, compared with the three months to May 2022. Imports from non-EU countries increased during this time, while imports from EU countries decreased. Exports of goods over the same period increased by £3.9 billion (4.0%) because of increasing exports to both EU and non-EU countries.
- Imports from the EU decreased in August, with a £0.4 billion fall in imports of machinery and transport equipment and a £0.2 billion decrease in imports of material manufactures partially offset by small increases in chemicals and crude materials. The fall in imports of machinery and transport equipment in August was because of reduced car imports from Germany, France and Italy.
- The decrease in exports to the EU was driven by a drop in exports of chemicals (£0.3 billion) and fuels (£0.1 billion) along with smaller increases in most other commodities. The decrease in exports of chemicals was driven by decreasing exports of organic chemicals to Ireland.
- The UK's total trade deficit for goods and services, excluding precious metals, widened by £0.2 billion to £25.6 billion in the three months to August 2022. Total imports increased by £7.1 billion to £219.4 billion, and total exports increased by £6.8 to £193.8 billion while the total trade deficit, excluding precious metals, narrowed by £6.5 billion to £11.9 billion in the three months to August 2022. Exports increased by £2.5 billion to £165.1 billion, and imports decreased by £4.0 billion to £177.0 billion in chained volume terms.

INWARD INVESTMENT

Business investment in the UK: April to June 2022 revised results **published by ONS shows estimates of short-term indicators of investment in non-financial assets, business investment, and asset and sector breakdowns of total capital formation.**

- Business investment grew by a revised 3.7% in Q2 with Other buildings and structures the main driver. Business investment has grown by 5.2% compared with the same quarter a year ago.
- The economy-wide investment measure of gross fixed capital formation (GFCF) fell by 1.4% in Q2 2022, revised down from the provisional estimate of 0.6%. A fall in government investment, particularly in Other buildings and structures was the cause in the fall of GFCF.
- The level of business investment in Q2 2022, remains 8.0% lower than the pre-coronavirus (COVID-19) pandemic level in Q4 2019; GFCF is only 1.7% lower.
- Business investment has grown by 5.2% compared with the same quarter a year ago, while gross fixed capital formation (GFCF) has risen by 3.9%, reflecting a fall in government investment.

- In terms of GFCG, the UK performed poorly in comparison to the rest of the G7 nations in the first quarter of 2021 before bouncing back strongly in the following quarter. The final two quarters of 2021 saw the UK have the second and third highest growths, respectively.
- In Quarter 1 2022 the UK had the second largest growth, marginally behind Italy, before having the second lowest growth in Quarter 2 2022, only having higher growth than Canada. Italy showed strong growth throughout 2021 and into 2022 with the largest growths of all the G7 nations in all but one quarter.

TOURISM

[No relevant material sourced for this quarter's release.]

Economic Infrastructure

ENERGY

Energy Trends September 2022 **published by ONS shows information on energy production, trade, and consumption in the UK for total energy and by specific fuels.**

- In the second quarter of 2022 UK total energy production was 27.4 million tonnes of oil equivalent, 21 per cent higher than in the second quarter of 2021. The main reason for the increase is the impact of significant maintenance on the North Sea (notably the shutdown of the Forties Pipeline System) in Summer 2021, which severely reduced oil and gas output.
- Total final energy consumption (excluding non-energy use) was 0.2 per cent lower compared to the second quarter of 2021. Domestic consumption fell by 28 per cent with average temperatures warmer than a year earlier, other final users' consumption fell by 3.0 per cent and industrial consumption fell by 0.2 per cent. On a seasonally and temperature adjusted basis, final energy consumption rose by 4.9 per cent, with rises in all sectors except domestic which fell by 7.5 per cent.
- Overall coal production for the second quarter of 2022 fell to 190 thousand tonnes, down 48 per cent on the second quarter of 2021. Surface mining production fell to 179 thousand tonnes. Mine closures and a pattern of generally falling demand contributed to lower production. In the second quarter of 2022, coal imports rose to 1.4 million tonnes, 44 per cent up on the same period last year. The USA was the largest supplier of coal into the UK at 54 per cent of total imports. Russia provided 19 per cent of coal imports, down from 48 per cent in the same period last year mirroring the decreasing reliance on Russian energy seen in oil and gas.
- In Q2 2022, production of primary oils rose by 9.3 per cent, recovering from a low in the previous year. In Quarter 2 2021, production reached the second lowest level recorded due to extensive scheduled maintenance on key North Sea infrastructure. However, despite the recent increase, production remains below pre-pandemic levels. At the same time gas exports reached a record high as the UK supported European efforts to move away from Russian gas. Reduced domestic demand meant that the UK acted as a land-bridge for increased global exports to European markets, utilising interconnectors between the UK, Belgium, and the Netherlands.
- Q2 2022 saw total electricity generation increase by 8.2 per cent compared to the same period in 2021, in contrast to a 5.5 per cent decrease in total demand. This came as a result of the UK becoming a net exporter of electricity in Quarter 2, with net exports of 4.0 TWh. Domestic consumption decreased substantially in Quarter 2 2022, down 15.8 per cent, while both nondomestic sectors saw slightly increased consumption levels. This reflects warmer average temperatures in April and May reducing heating demand, partially offsetting increased demand from the lifting of Covid-19 restrictions.
- Also, in Q2 2022 renewable electricity generation was 30.5 TWh, 12 per cent up on the same quarter last year, and a record for Q2. A strong increase in wind generation (up by 42 per cent) more than offset lower generation from bioenergy (down by 16 per cent). Renewable capacity is 3.2 GW (6.5 per cent) higher than 2021 Q2. The bulk of the new capacity is in offshore wind (2.4 GW), though onshore wind saw 0.4 GW installed and 0.3 GW in solar PV. Renewables share of electricity generation was 38.6 per cent in Quarter 2 2022, higher than the same quarter last year (37.3 per cent) but lower than fossil fuels' share (41.9 per cent).

TELECOMS

[Telecommunications Market Data Update Q1 2022](#) published by Ofcom

- UK fixed voice service revenues totalled £1.43bn in Q1 2022; a decrease of £44m (3%) from the previous quarter and £182m (11.3%) year-on-year. BT's share of these revenues was 49.4%. UK landlines (including managed VoIP connections) generated 8.8 billion minutes of outgoing calls in Q1 2022, down 301 million minutes (3.3%) from Q4 and 2.9 billion minutes (24.7%) compared to Q1 2021.
- Access and add-on call bundle revenues accounted for 89.7% of total fixed voice revenues in Q1 2022, a 1.5 percentage point increase from the same period a year ago. Access and add-on call bundle revenues accounted for 89.7% of total fixed voice revenues in Q1 2022, a 1.5 percentage point increase from the same period a year ago.
- There were 27.7 million fixed broadband lines at the end of Q1 2022, an increase of 296k (1.1%) from Q1 2021. The number of ADSL lines fell by 377k (10.1%), while the number of 'Other inc. FTTx' lines increased by 348k (1.9%) during the quarter.
- Mobile telephony services generated £3.0bn in retail revenues in Q1 2022, a £3m (0.1%) increase from a year previously. Average monthly retail revenue per subscriber was £11.94 in Q1 2022, with post-pay subscribers generating more revenue than pre-pay users (averaging £14.36 compared to £4.87 for pre-pay).
- The number of mobile-originated voice call minutes decreased by 1.5 billion (3.2%) to 46.9 billion minutes year-on-year, with calls to landlines decreasing by 10.6% to 9.4 billion minutes.
- The number of mobile messages (including SMS and MMS) saw a year-on-year decline, down 0.1 billion messages (1.3%) to 9.5 billion. Data usage continued to rise rapidly, with volumes up 311 PB (24.3%) year-on-year to 1,592 PB.

AIR ACCESS

Overseas travel and tourism, provisional: January to March **2022 published by the ONS shows Visits to the UK by overseas residents, visits abroad by UK residents and spending by travellers, using provisional passenger traffic data.**

- There were 8.3 million overseas visits made by overseas' residents in Quarter 1 2019 before the coronavirus (COVID-19) pandemic. In Quarter 1 2022, visits fell by 53% to 3.8 million and spending also decreased by 36% to £3.1 billion when compared with Quarter 1 2019. This shows visitor numbers are still short of pre-coronavirus pandemic levels but are starting to increase.
- Visits to the UK by overseas visitors increased in Quarter 1 2022 when compared with Quarter 1 2021. Although holiday visits increased in 2022, visiting friends or relatives was still the most common reason for visiting the UK, and increased from 151,000 to 1.7 million visits. Holiday visits increased from 8,000 to 928,000 visits, and business trips increased from 34,000 to 787,000.
- Estimated spending in the UK by overseas visitors was £3.1 billion in Quarter 1 2022, compared with £287 million in Quarter 1 2021. Similar levels of increase were seen for all areas of the world in Quarter 1 2021.
- UK residents made 9.5 million visits abroad in Q1 2022. This compares with 918,000 visits by air in the same Quarter in 2021. This large increase in visits overseas could be attributed to the lifting of the coronavirus pandemic travel restrictions. However, the visits abroad in Quarter 1 2022 were 48% down on pre-pandemic levels. The disruption at airports across the UK caused by staff shortages or by the rising cost of living could be linked to this slower growth of UK residents visits abroad. The largest number of visits abroad were made to Europe (7.1 million), an increase of 6.6 million visits from Quarter 1 in 2021.

Government

NORTHERN IRELAND

Measuring Success - 10X Metrics to achieve a 10X Economy **published by Department for the Economy**

- A key objective of this Baseline Report is to show how Northern Ireland is positioned when compared to a group of 16 other small advanced economies (Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, Iceland, Rep. of Ireland, Israel, Luxembourg, New Zealand, Norway, Sweden, Switzerland, Scotland, Wales) across a number of globally recognised metrics. The Baseline Report also tracks results over time, charting performance over a number of years (10+) to understand key trends, as well as progress made to date in key areas.

- This Baseline Report will be used as a reference point in subsequent years to measure outcomes resulting from delivery of the 10X Vision. It identifies any gaps in economic performance relative to others and will provide a foundation for policy areas to learn key lessons and make informed policy decisions while we are moving towards achievement of the 10X Vision.
- Around 70% of Gross Expenditure on R&D spend in Northern Ireland comes from the business sector. In 2018 Northern Ireland ranked 10th out of the 17 economies on Business Expenditure on R&D as a % of GDP. Northern Ireland outperforms economies such as Norway, New Zealand, and Wales. Israel leads the small advanced economy group by a substantial margin, having the highest BERD percentage in 2018 followed by Sweden and Switzerland.
- Over the period 2010 – 2020, productivity per hour worked in Northern Ireland has followed a consistent and steady trend below the small advanced economy group; with Northern Ireland's productivity 78% of the average in 2020, a similar gap seen in 2010 (79%). Comparing Northern Ireland against the top performers, per hour worked productivity is some 88% higher in Luxembourg, 60% higher in Norway and 53% higher in Denmark. Northern Ireland ranks within the five least productive small advanced economies, above just Israel, New Zealand, Czech Republic and Estonia.
- Northern Ireland has seen its employment rate increase, from 66.1% in 2010, to 72.1% in 2019, before declining to 68.4% in 2021. Overall, the percentage of the working age population in employment in Northern Ireland has lagged behind the small advanced economy average throughout the past decade. Northern Ireland ranked 15th out of the 17 small advanced economies for 2021, with a higher employment rate than Israel and Belgium. Iceland and Switzerland lead on this metric, with their employment rates over 10 percentage points higher than Northern Ireland.
- Northern Ireland performs relatively well in terms of the level of CO_2 emissions, ranking 9th out of the 17 Small Advanced Economies for 2019. Sweden, Switzerland, and Denmark lead on this metric, although it should be noted that all the economies saw reductions in CO_2 emissions when compared to their 2009 levels.
- Northern Ireland has made significant progress on electricity from renewable sources as a percentage of total electricity generation over the years 2009-2019. In 2009 the Northern Ireland electricity generation from renewable sources was only around 10% of total electricity generation, but this increased to 44% in 2019. Northern Ireland ranked 10th out of the 17 small advanced economies in 2019, which placed it ahead of economies like Wales and Israel. Iceland and Norway place as top performers, with approximately 100% of electricity from renewable sources as a percentage of total electricity generation.

ENGLAND

[No relevant material sourced for this quarter's release.]

SCOTLAND

Monthly Economic Brief July 2022 **published by the Office of the Chief Economic Adviser**

- Following a fall of 0.5% in April, Scotland's output grew by 0.6% in May and although the economy has returned to growth, over the last two months there has been cumulative growth of just 0.1%, with business survey data pointing to further slowing in June across sectors. However, this is currently most evident in the manufacturing sector which is facing a range of challenges, largely driven by high input costs and a slowing of new orders. Following a fourth consecutive monthly fall in manufacturing output in May, businesses surveys currently point to a further fall in June.
- Over the period March to May, Scotland's labour market remained tight with unemployment at 3.5%, near record lows, while the payroll employee level continued to rise in June and there has been further falls in the claimant count. High vacancy rates remain a key feature of the labour market with labour and skills shortages continuing to affect Scottish businesses in June.
- In response to price rises, 58% of all businesses in May reported having to absorb costs (up from 50% in May), while 38% had to pass increased costs onto consumers. Scottish PMI data also indicated a further pass through of higher input costs to customers in June.
- The latest labour market statistics for March to May 2022 in Scotland show there were 2.7 million people in employment (rate of 75.4%, up 1.4 percentage points over the year), 99,000 people

unemployed (rate of 3.5%, down 0.9 percentage points) and 748,000 people economically inactive (rate of 21.8%, down 0.8 percentage points).

- Scotland's Claimant Count also continued its downward trend in May, falling 4.4% over the month to 110,600; a claimant count rate of 3.6%. Overall, the claimant count has fallen 50% from its peak in August 2020 and is 1,900 claimants below its pre-pandemic level in February 2020.
- Retail sales volumes fell by 0.1% in June 2022, following a fall of 0.8% in May and have fallen 5.9% over the year, however sales volumes remain 2.2% above their pre-pandemic level. Non-food stores sales fell 0.7% over the month driven by falls in clothing stores (-4.7%) and household goods stores (-3.7%). Food stores rose by 3.1% over the month with retailers attributing increased sales due to the Queen's Jubilee celebrations.

WALES

Annual Report – September 2022 **published by Economic Intelligence Wales, a partnership between the Development Bank of Wales, Cardiff Business School, Bangor Business School, the Enterprise Research Centre, and the Office for National Statistics (ONS).**

- The Welsh economy recorded quarterly GDP change at -0.3%. The industry with the largest growth in 2021 Q2 was accommodation and food service activities, while the industry with the largest decline in 2021 Q3 was mining and quarrying.
- In Wales the number of payrolled employees grew by almost 15,000 between March and May 2022 to approximately 1.3 million, a higher growth rate compared with the last period (January to March 2022). By April 2022, the number of payrolled employees in Wales in almost all sectors was higher than pre-pandemic levels. For example, in arts, entertainment and recreation the number of payrolled employees was 10% above that in May 2020.
- In Wales, 66,275 people claimed unemployment-related benefits (equal to 3.4% of the working age population, compared with 3.8% for the UK) in May 2022. The Welsh areas with the highest proportion of working age population claiming unemployment-related benefits were Newport (5.0%), Blaenau Gwent (4.3%), Merthyr Tydfil (3.9%) and Torfaen (3.9%), and those with the lowest proportions were Monmouthshire (2.3%), Powys (2.4%) and Ceredigion (2.6%). The proportion of the working age population claiming unemployment-related benefits in May 2022 continued to decline in almost all sub regions of Wales.
- In 2021/22 the Development Bank of Wales completed 519 investments, with a total value of £109m. These investments were associated with almost 2,630 new and safeguarded jobs. Nearly 43% of the total value of investments was made to firms located in South East Wales during 2021/22, with firms in north Wales and mid and south west Wales each receiving approximately 30% of investment funds.

REPUBLIC OF IRELAND (ROI)

Ireland's Competitiveness Challenge 2022 **published by published by the National Competitiveness and Productivity Council**

- Ongoing supply chain disruptions and rising inflation worldwide have stifled the burgeoning recovery in the aftermath of COVID-19 related disruptions. The Russian invasion of Ukraine in February 2022 has triggered a global cost of living crisis driven by steep increases in the price of energy, food, and other commodities and has added to the exceptionally high level of uncertainty surrounding the global economic outlook.
- The Irish economy has been directly impacted by these developments and the outlook for the economy has been revised downwards for 2022 and 2023. Modified domestic demand, a more appropriate measure of economic activity in the economy, is expected to grow at a solid pace of around 4.3% in 2022 and 4.2% in 2023.
- Risks to the economic outlook have increased significantly over the course of 2022 and further downward revisions are possible as higher inflation, rising ECB interest rates and lower confidence are likely to hold back consumer spending and business investment.
- Improving the quality of infrastructure is essential to ensure Ireland has the capacity to achieve sustainable long-term growth and plays a key role in enhancing productivity. To ensure that the targets are met, upskilling of construction workers with the skills relating to Modern Methods of Construction is required, particularly in the context of a constrained labour market with rising cost pressures.

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CBRE

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