

Hidden in plain sight? The impact of e-commerce on the Northern Ireland economy

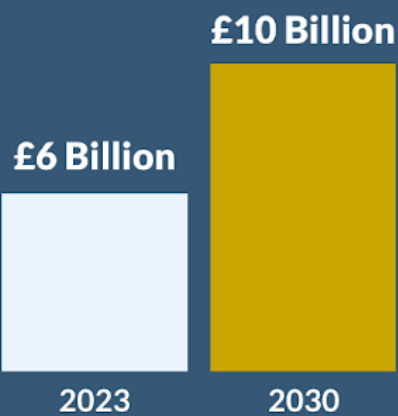


Northern Ireland's eCommerce Opportunity



17%
of the economy

The "NI ecommerce economy" as a percentage of GDP - is much greater than any of us thought.



Gross Value Added

180,000

Jobs supported by
e-commerce
by 2030

Innovation, trading and competition will drive the ecommerce industry forward here.

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This report was prepared for IRP Commerce by Richard Johnston

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Why IRP commissioned a report on eCommerce in Northern Ireland

IRP has always believed that ecommerce is a key driver of economic growth in Northern Ireland. If a technology company like us had transacted £1.5 Billion in ecommerce sales to 170 Countries for local merchants - then there was a need to research the economics of e-commerce here.

We were delighted to work with the economist Richard Johnston to produce this report. We believe his work offers, perhaps for the first time, information on the value of ecommerce to the NI economy, and more importantly - the opportunity that exists "hidden in plain sight".

Ecommerce is many things: a large market, a growing market, a stratum from high tech to manual work, export based, location independent - with great companies appearing in places no one would expect and sending goods to markets we never knew we could reach from our province - with trading, teamwork and innovation as the drivers of large volumes of regional and export trade.

£6 Billion Gross Value Added

17% of NI economy supported by E-Commerce

How does Northern Ireland take this trading opportunity?

Some believe the trading arrangements have gifted NI with a unique opportunity to be an "E-commerce Free Trade Zone". Whether this advantage lasts or not is unimportant - Northern Ireland has an opportunity to become a centre of e-commerce excellence.

IRP has witnessed something unusual in e-commerce. When a partnership means shared success and shared profits, a remarkable thing happens - people self-organise. Markets like e-commerce need minimal management - they only need the ability to measure and then to connect people around trading and profits.

It is from this unique way that IRP technology can measure e-commerce and connect people, data and profit that we believe IRP can help spark a wider opportunity. Using a market-based approach, this opportunity will effectively "take itself" rather than any individual taking it.

IRP hopes to be part of a collaboration where our success is incidental to the success of the local companies - merchants, service providers, educators, technology and logistics companies - who collectively drive forward an ecosystem built on regional and international trade.



The IRP Team

www.irpcommerce.com

1. Executive Summary

1.1 Hidden in plain sight?

- 1.1 The origins of e-commerce can be traced back around four decades to teleshopping¹, or to the 1990's when Amazon launched one of the first e-commerce websites. Many of us now take for granted the ability to order on our phones and have goods delivered in a few days, something that would have been marvelled at a decade ago.
- 1.2 Consideration of the evidence shows that two thirds of all EU citizens² and more than one fifth of EU businesses³ now use E-Commerce to buy and sell goods and services. This increases to nine out of ten young people and 45% of businesses in Ireland. The surge in the use of e-commerce is remarkable – from just 10% of UK retail sales a decade ago to 30% now.
- 1.3 Despite these striking figures it is surprising that there is no e-commerce data published for NI. It may be a consequence or coincidence that there are only a small number of Government supports available. This research bridges the evidence gap by modelling initial estimates of the impact of e-commerce in NI. One of the main recommendations is that either the ONS, or NISRA, boost UK surveys or gather NI specific data, which can be deployed to support & inform effective policy development.

Table E1: Estimates of E-Commerce supported GVA & employment in NI, 2019, 2023 & 2030

	GVA (£Bn)			GVA (% of total)		
	2019	2023	2030	2019	2023	2030
Low scenario	£4.1	£5.3	£7.6	9%	11%	14%
Central scenario	£4.8	£6.3	£9.5	11%	13%	17%
High scenario	£5.5	£7.6	£12.1	13%	16%	22%

	Employment			Employment (% of total)		
	2019	2023	2030	2019	2023	2030
Low scenario	90,000	111,000	147,000	10%	12%	14%
Central scenario	105,000	132,000	182,000	12%	14%	17%
High scenario	121,000	158,000	231,000	13%	17%	22%

¹ [The History of E-Commerce: How Did it All Begin? \(Video Included\) \(iwdagency.com\)](#)

² [E-commerce statistics for individuals - Statistics Explained \(europa.eu\)](#)

³ [E-commerce statistics - Statistics Explained \(europa.eu\)](#)

Figure E1: E-commerce supported GVA in NI, (% of total), 2014-2030

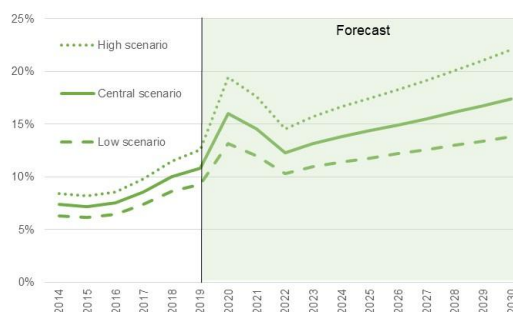
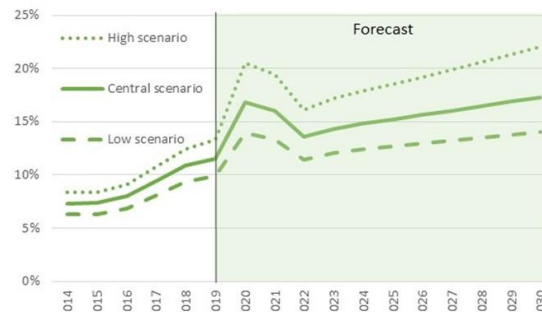


Figure E2: E-commerce supported employment in NI (% of total), 2014-2030



1.2 Strong strategic alignment with Government strategy

1.4 The research found that e-commerce is used by firms right across the UK. Many are in rural areas and generate jobs at a range of skill and qualification levels. This challenges the perception that all e-commerce jobs are city based “tech jobs”.

E-commerce aligns very well with the aims and objectives contained within the key strategies published by Executive Departments, InterTradeIreland, Invest NI, and a number of Councils. These include 10x, innovation, exports, levelling-up, employment creation, inclusion, and wealth generation.

1.3 Making the most of megatrends, exiting competitive advantage and unique market access

1.5 Online trade continues to increase, NI has a competitive digital infrastructure, a relatively skilled and youthful workforce and unique market access to both the UK and EU markets where trade is increasing. At the time of writing, the Windsor agreement is being negotiated, aiming to reduce a range of frictions and many grace periods remain in place.

1.6 There is a clear opportunity for NI to use e-commerce to tap into international megatrends towards digitisation and simultaneously make the most of unique market access in order to boost trade, employment, wages, sub-regional levelling up and GVA, building a better and brighter economic future for NI.

1.7 The estimates developed in this report are considered to be conservative. For context, around 40% of businesses in Ireland and Denmark are already using e-commerce (compared to c12% in NI). It is estimated that by 2030, £10bn of GVA & 180,000 jobs (17% of total) could be supported by e-commerce. However, with better data and a supportive and targeted policy environment, the impact could be even greater.

2. Introduction

2.1 Why E-Commerce matters for the future of NI

- 2.2 E-Commerce is a large part of life for many individuals and enterprises, making it a critical and increasingly important part of the economy. It is cross sector, cross border and used throughout supply chains, making it ubiquitous in terms of trade.
- 2.3 The world is increasingly digital, and COVID-19 accelerated the pace of E-Commerce growth, shunting activity forward by 5 – 10 years as consumers and enterprises moved online during various lockdowns. EU Exit, the NI protocol and most recently, the Windsor agreement changed and will continue to change the shape of trade relationships as NI firms have unique access to both EU and GB markets. As such, there is a renewed interest in E-Commerce activity in NI, its economic impact and how society might make the most of opportunities that will be presented in the future.
- 2.4 This research aims to;
- Assess the current level of strategic and operational focus on E-Commerce in NI;
 - Estimate the current and potential future impact of E-Commerce on the NI economy;
 - Estimate the potential impact of the COVID-19 pandemic, EU Exit and the cost-of-living crisis on E-Commerce activity; and
 - Consider ways in which E-Commerce can be encouraged to boost economic growth.
- 2.5 For the purposes of this research, E-Commerce is defined by the Office of National Statistics as;

"Electronic or digital commerce, commonly known as e-commerce, is where the buying and selling of products or services is conducted over electronic systems such as the Internet and other computer networks"⁴

⁴ ONS. [Monitoring E-Commerce](#). August 2014

3 Strategic alignment of E-Commerce

3.1 This section of the report considers how E-Commerce fits with and supports the delivery of a range of strategies and plans that the NI Executive, Departments and Councils have published and are working towards. It is clear from a review of the key strategies that the E-Commerce sector supports their delivery across a range of objectives. These are outlined in full below.

3.1 Strong alignment with central Government strategies

NI Executive: Building forward: Consolidated COVID recovery plan, 2021⁵

3.2 The Consolidated COVID recovery plan sets out the NI Executive’s plans in terms of how it will deal with the challenges of COVID, including details of interventions to be progressed over a two-year period to help facilitate economic recovery. The elements of strategic intent that are relevant to E-Commerce in NI include “Recovery from the recession” and “Tackling inequalities”. Although the worst of the economic impacts of the pandemic have now passed, this plan will still be in effect until Summer of 2023. It has therefore been included in this section.

Table 3.1: Building forward: Consolidated COVID recovery plan

Indicator	Measurement
<p>Sustainable Economic Development</p> <p>Our economy is revived, resilient and dynamic</p>	<ul style="list-style-type: none"> - Invest in high growth industries leveraging R&D, technology & innovation - Activate targeted support to NI companies to drive innovation - Supporting businesses to enhance processes and productivity and diversify customers and supply chains to build resilience - Develop and accelerate locality work for places with high levels of vulnerability - Develop and accelerate locality work for places with high levels of vulnerability - Increase support for value added R&D projects to increase wealth creation and deliver additional jobs - Promote NI as a global cyber security hub to achieve 5,000 roles in cyber security by 2030
<p>Tackling Inequalities</p> <p>We have an inclusive society where people have equal access to opportunities</p>	<ul style="list-style-type: none"> - Generate jobs for people most impacted - Increase digital inclusion

⁵ NI Executive. [Building Forward: Consolidated Covid-19 Recovery Plan](#). August 2021

NI Executive: New Decade, New Approach⁶

3.3 Published in January 2020, this New Decade, New Approach was announced as part of the restoration of a devolved Government in NI and detailed a range of economic, social and environmental priorities that were agreed by the parties within the NI Executive and included a range of commitments from both the UK and Irish Governments. The focus of the New Decade, New Approach document on trade opportunities aligns well with the increased utilisation of E-Commerce to boost trade opportunities.

Table 3.2: New Decade, New Approach

Indicator	Measurement
Investing for the future to ensure Northern Ireland is equipped to harness opportunities.... including opportunities for future trade as we leave the EU	<ul style="list-style-type: none">- The economic context has changed considerably in the past three years. A top priority of the Executive will be to develop a regionally balanced economy with opportunities for all.- This will include supporting the delivery of the Northern Ireland International Trade plan, establishing a new Trade Advisory Board, appointment of Northern Ireland Trade Ambassadors, and developing a Trade Accelerator Plan and a "Made in NI" campaign.

NI Executive: Programme for Government Draft Outcomes Framework, 2021⁷

3.4 The Programme for Government details the outcomes that the NI Executive aims to achieve for the benefit of society in NI. The Programme for Government draft outcomes framework that are relevant to E-Commerce in NI include;

- Our economy is globally competitive, regionally balanced and carbon-neutral; and
- People want to live, work and visit here.

3.5 A range of strategies and indicators cascade from the desired outcomes for society, which will enable the progress towards the outcomes to be measured. Those that are relevant to E-Commerce are detailed in the table below.

⁶ UK Government. [New Decade, New Approach](#). January 2020

⁷ NI Executive. [Programme for Government](#). 2021

Table 3.3: Programme for Government Draft Outcomes Framework indicators, 2021

Indicator	Measurement
<p>Our economy is globally competitive, regionally balanced and carbon-neutral</p>	<ul style="list-style-type: none"> - Competing Globally Dealing with the outworking of the EU Exit Protocol and developing internationalisation to help Northern Ireland compete on the global stage, and to promote Northern Ireland as a sector to visit and invest in. - Growth Growing the economy to attract and stimulate investment across Northern Ireland, including building sustainable investment, encouraging business start-ups and development through City and Growth Deals and supporting sustainable development of rural industries. - Innovation Helping companies engage in innovation and research and develop creativity and entrepreneurship.
<p>People want to live, work and visit here</p>	<ul style="list-style-type: none"> - Competing Globally Retaining our workforce and attracting newcomers and inward investment. Dealing with the impacts of EU Exit. Meeting international environmental standards. Promotion of Northern Ireland as a place to live, study, work and visit. - Better Jobs Creating varied, fulfilling and quality employment opportunities for our workforce to support retention of our workforce, and attracting skilled workers to Northern Ireland's industries.

Department for the Economy: Innovation Strategy – 2014-25⁸

3.6 The Innovation Strategy was published by the Department for Enterprise, Trade and Investment (DfE's predecessor) focussing on boosting Innovation, R&D and creativity as one pillar of the Economic Strategy. The vision for NI was to;

"be recognised as an innovation hub and one of the UK's leading high-growth, knowledge-based regions which embraces creativity and innovation at all levels of society by 2030".

3.7 The Innovation Strategy is one of the few strategies in NI that specifically identifies E-Commerce as a driver of innovation and delivery mechanism for stronger economic growth as a pillar of the Economic strategy.

⁸ Department for the Economy. [Northern Ireland Innovation Strategy 2014-25](#). September 2014

Table 3.4: Innovation Strategy, 2014-25

Indicator	Measurement
Exploiting E-Commerce	<ul style="list-style-type: none"> - E-Commerce continues to provide tremendous opportunities for local companies to compete on a global basis. Through an investment of more than £60 million, we have built one of Europe’s most extensive regional broadband networks. - The challenge we face now is how to fully exploit this opportunity. We will continue to improve the competitiveness of businesses through e-business support which will: <ul style="list-style-type: none"> o Integrate e-business and digital communications into every aspect of business; o Increase the e-capability of NI businesses through awareness building and training; o Increase the volume and value of export sales through e-commerce; o Target support for businesses, to enable them to both understand the business potential of the digital platform and also ensure they fully exploit the technology; and o Engage key players across government, industry and academia, to drive forward Pathfinder initiatives, which will result in a step change business performance as a result of exploitation of the digital platform.

Department for the Economy: Economic Strategy⁹

3.8 The Economic Strategy was published by the Department for Enterprise, Trade and Investment (DfE’s predecessor) focussing on rebalancing and rebuilding the NI economy following the 2008 financial crisis and recession. The vision for NI was;

“An economy characterised by a sustainable and growing private sector, where a greater number of firms compete in global markets and there is growing employment and prosperity for all”

Table 3.5: Economic Strategy, 2014-25

Indicator	Measurement
Overarching economic goals	<ul style="list-style-type: none"> - increase the level of exports and external sales as a proportion of NI output; - increase the proportion of the working age population in employment; - NI private sector output growth to exceed the UK average; and - NI’s economic competitiveness to improve relative to other developed economies.

⁹ Department for the Economy. [Economic Strategy](#). March 2012

Rebalancing	<ul style="list-style-type: none"> - Increase the proportion of innovation active firms; - Significantly increase the value of exports / external sales - Promote £400m of investment and 6,300 jobs in locally owned companies (with 50% paying salaries above the Private Sector Median) and a further 6,500 new jobs in new start-up businesses - Support projects that improve competitiveness and encourage diversification of the rural economy
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Department for the Economy: A10x Economy¹⁰

3.9 The 10x Economic Strategy was published by DfE focussing on driving a decade of innovation in NI across the key pillars of Technologies and Clusters, Talent, Diffusion, Funding and Place. The table below details the elements that are relevant to E-Commerce in NI and the vision for the 10x strategy was;

"The ambition we have set out in this economic vision is for a '10x Economy'. Northern Ireland's decade of innovation will encourage greater collaboration and innovation to deliver a ten times better economy with benefits for all our people. We will realise this ambition by focussing on innovation in areas where we have real strengths and making sure these gains mean something to all businesses, people and places in Northern Ireland. Overall, we will see a positive impact on our economic, societal and environmental wellbeing"

Table 3.6: 10x Economy, 2021

Indicator	Measurement
Technologies and Clusters	<ul style="list-style-type: none"> - Focussing on priority clusters where NI can be a global leader, building on existing strengths and capitalising on windows of opportunity.
Talent	<ul style="list-style-type: none"> - Inspiring and preparing a future generation of workers that can respond flexibly to future skills requirements, ensuring that everyone across NI has opportunities to thrive.
Diffusion	<ul style="list-style-type: none"> - Ensuring that innovation provides opportunities across all sectors, not just those at the cutting edge and disperses economic and societal benefits

Department for the Economy: Trade and Investment for a 10x Economy¹¹

3.10 The Trade & Investment for a 10x Economy paper was published by DfE, as one of the key pillars in achieving the overall 10x vision. It focuses on how Trade and Investment Trade can support the ambitions of the 10X Economy across the board – in terms of inclusive, green growth; diffusion of technology and innovation; and increased competitiveness.

¹⁰ Department for the Economy. [10X Economy – an economic vision for a decade of innovation](#). May 2021

¹¹ Department for the Economy. [Trade and Investment for a 10X Economy](#). June 2021

Table 3.7: Trade and Investment for a 10x Economy

Indicator	Measurement
Trade and Investment ambition	<ul style="list-style-type: none"> - become a magnet for regionally balanced inward investment from high quality new Foreign Direct Investment and follow-on expansions; - increase the number of businesses of all sizes selling goods and services, outside of NI – to GB, RoI, rest of EU and rest of world customers – for the first time; - increase the value of goods and services sold outside of Northern Ireland – as exports to RoI, rest of EU and rest of world customers; - strengthen our presence in established markets and diversify into new overseas markets with high growth potential, aligned with our areas of competitive strength; - maintain the level of goods market access with our main trading partner, Great Britain, and increase external sales in that key market.

NI Executive: High Street Task Force: Delivering a 21st Century High Street¹²

- 3.11 The High Street Task Force (HSTF) Report was published by the NI Executive in March 2022. The HSTF's purpose was to identify the challenges and issues facing NI high streets, and to oversee the development of solutions and actions that could be taken to support them.
- 3.12 This has some relevance to E-Commerce in NI, as its outcomes could have some bearing on the extent to which consumers shop online or in face-to-face settings in future. The HSTF plan outlines actions for the short term (year one), medium term (years 2-3) and longer term (towards 2050).

Its agreed vision is:

"Sustainable city, town and village centres which are thriving places for people to do business, socialise, shop, be creative and use public services as well as being great places to live"

3.2 Clear alignment with local Government and NDPB strategies

Ards & North Down Borough Council: The Big Plan, 2017-32¹³

- 3.13 Ards and North Down Borough Council is the only one of eleven councils in NI to specifically mention E-Commerce in their Community Plan. The plan focuses on improving five key outcomes for the people of Ards and North Down, they are "All people in Ards and North Down";
1. Fulfil their lifelong potential
 2. Enjoy good health and wellbeing
 3. Live in communities where they are respected, are safe and feel secure
 4. Benefit from a prosperous economy
 5. Feel pride from having access to a well-managed sustainable environment

¹² NI Executive. [High Street Task Force – Report and Recommendations](#). March 2022

¹³ Ards & North Down Borough Council. [The Big Plan, 2017-32](#). May 2017

Table 3.8: The Big Plan

Indicator	Measurement
All people in Ards and North Down benefit from a prosperous economy	- Future economies will need to focus on innovation and enterprise, where the latest technology and E-Commerce can help provide new employment opportunities.

3.14 Similarly, the three City deals focus on growing and developing the economy through a range of innovative, digital, infrastructure, skills, tourism, healthcare and regeneration projects, but do not focus specifically on E-Commerce as a delivery mechanism or enabling technology.

3.3 A range of (small) E-Commerce advice and support programmes

Invest NI's COVID-19 Digital Selling Grant¹⁴

3.15 Invest NI delivered the COVID-19 Digital Selling Grant to delivered £5m of support to 400 retail and wholesale businesses grow their online sales during 2021 and 2022. The support was available to small and medium retail and wholesale enterprises until February 2022. The maximum rate of support was 50% of costs up to a grant ceiling of £20,000.

Invest NI's COVID-19 micro-business E-Commerce Grant¹⁵

3.16 Invest NI delivered £3m of support via the COVID-19 Micro-Business E-Commerce Grant to micro enterprises during 2021. The maximum rate of support was 80% of costs up to a grant ceiling of £250,000. It covered activities such as

- engaging the services of a supplier to review your current digital marketing capabilities and online sales channels
- develop an e-commerce strategy
- develop or enhance your e-commerce website or online presence to drive increased sales,
- help improve the digital marketing and e-commerce capability of the employees in the business.

NIbusinessinfo.co.uk¹⁶

3.17 Invest NI delivers the "NI business info" website, which includes a section dedicated to E-Commerce and online selling. The advice includes;

- Planning for E-Commerce
- Creating an online shop
- Search engine optimisation
- Pay-per-click advertising
- Accepting online payments
- Fulfilling orders online

¹⁴ [Lyons welcomes digital Covid scheme support for over 700 NI businesses | Department for the Economy \(economy-ni.gov.uk\)](https://www.economy-ni.gov.uk/news/lyons-welcomes-digital-covid-scheme-support-for-over-700-ni-businesses)

¹⁵ [New £3m fund to help retail micro-businesses move online | Invest Northern Ireland \(investni.com\)](https://www.investni.com/news/new-3m-fund-to-help-retail-micro-businesses-move-online)

¹⁶ NI Business Info. [E-Commerce](https://www.ni-businessinfo.co.uk)

- Developing digital marketing plans
- E-marketplaces, auctions and exchanges
- Common E-Commerce pitfalls
- Measuring online marketing.

Invest NI's E-Commerce Tutorial on NIBusinessinfo¹⁷

- 3.18 Invest NI provides an E-Commerce online tutorial for those who are thinking of engaging in E-Commerce for the first time. It includes;
- An introduction to E-Commerce
 - E-Commerce research
 - Online digital marketplaces
 - Digital Marketing and E-Commerce
 - Legal and Security issues with E-Commerce

InterTradeIreland's Digital Sales Supports¹⁸

- 3.19 InterTradeIreland delivers the Digital Sales support programme, which provides up to 20 days worth of fully funded consultancy support across a range of disciplines. It includes;
- A digital diagnostic check
 - Tailored digital and E-Commerce Solutions which are developed in line with the needs of the business
- 3.20 InterTradeIreland also delivers free 2 hour Digital Sales webinars, which provide practical guidance for businesses wishing to develop their digital skills and knowhow.

Department for Agriculture, Environment and Rural Affairs (DAERA) & Local councils¹⁹

- 3.21 DAERA and the eleven local Council worked together during 2021 to deliver a Rural Development Grant of £5,000, up to 50% of total costs for rural microbusinesses to open an e-commerce store.

Fermanagh and Omagh District Council²⁰

- 3.22 Fermanagh and Omagh District Council has a website development programme that supports businesses in the district;
- Improving their website and user journey
 - Create valuable content
 - Updating marketing collateral
 - Developing a Google Ad / Facebook Ad strategy
 - Build their profile and audience on social media (Youtube, Twitter, LinkedIn, Facebook, Instagram, Tiktok)
 - Devise a marketing strategy for the post COVID-19 world

¹⁷ [E-commerce - Reach new customers and boost your sales | Invest Northern Ireland \(investni.com\)](https://investni.com)

¹⁸ InterTradeIreland. [Digital Sales Supports | InterTradeIreland](https://www.intertradeireland.com) March 2023

¹⁹ [Rural Business Development Grant NI | How To Apply \(grofuse.com\)](https://www.grofuse.com)

²⁰ Fermanagh & Omagh District Council. [Digital Support Programme – Fermanagh & Omagh District Council \(fermanaghomagh.com\)](https://www.fermanaghomagh.com)

3.4 Summary of strategic alignment and support programmes

- 3.23 There are a range of strategies that align well with the deployment and development of E-Commerce as an avenue to increase sales outside NI and generate wealth and income to the region. However, only one (the Innovation Strategy) specifically mentions E-Commerce.
- 3.24 The strategies that E-Commerce potentially aligns with are;
- Building Forward: Consolidated COVID recovery plan;
 - New Decade, New Approach;
 - Draft Programme for Government;
 - Rebuilding a stronger economy – the medium-term recovery towards a more competitive, inclusive and sustainable economy;
 - Innovation Strategy;
 - Economic Strategy;
 - 10X economy;
 - High Street Task Force Plan; and the
 - Ards & North Down District Council Community Plan – The Big Plan.
- 3.25 There are also a range of support programmes in place across NI to support enterprises in boosting their E-Commerce presence, capability and sales. Some predated the COVID-19 pandemic, but many were developed in response to the restrictions on activity and movement, in order to provide businesses with an additional route to market.
- 3.26 These programmes are delivered by a range of organisations including the Department for the Economy via Invest NI, the Department for Agriculture, Environment and Rural Affairs, InterTradeIreland and local councils. Some programmes provide financial support, others provide consultancy support and the remainder provide advice.
- 3.27 The programmes and supports that are, or were available in NI, are targeted at microbusinesses and SME's. These smaller businesses have the lowest levels of e-commerce engagement and are therefore the types of business in most need of e-commerce support. The specific data are discussed later in the report.
- 3.28 In conclusion, **it would seem that there is an opportunity for a more strategic and joined up approach to supporting E-Commerce**, led by the NI Executive, especially given
- the changes that were evident in consumer behaviour towards online purchasing prior to and throughout the COVID-19 pandemic;
 - the opportunities that are presented for companies to sell into both GB and the EU markets as a result of the NI Protocol and Windsor Agreement; and
 - The opportunities for both firms and consumers to shop online to minimise costs as society works through the cost-of-living crisis

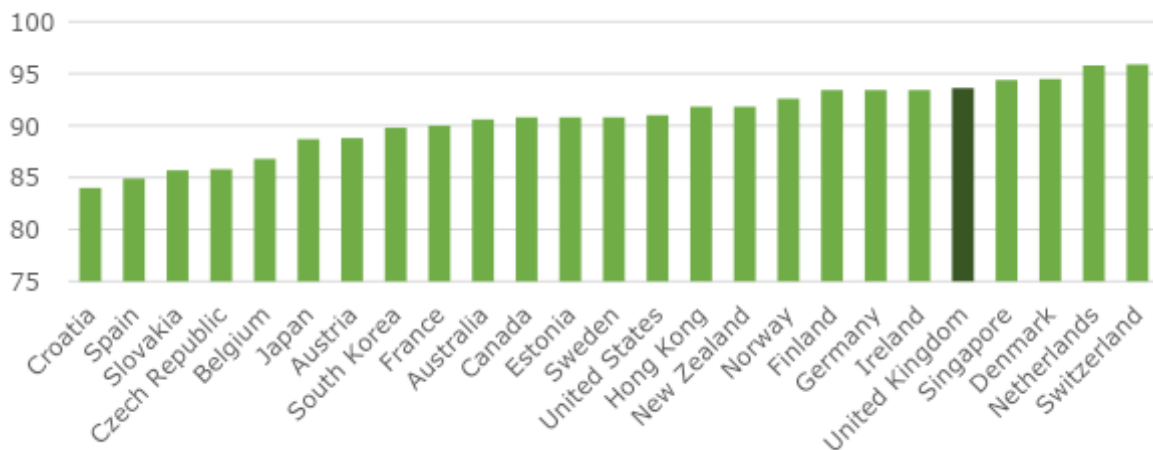
These factors will be explored in more detail later in the report.

4 An International perspective on E-Commerce statistics

4.1 UK performs well on International E-Commerce indices

4.1 An international perspective on E-Commerce activity sets the context and whilst some of the statistics are a little dated, it provides a perspective on the rapid rise of E-Commerce in recent years. The UK was ranked 5th in the latest published UNCTAD E-Commerce Index, just over two percentage points behind the leading nations – Switzerland and the Netherlands – making it one of the best places in the world for companies to engage in E-Commerce.

Figure 4.1: Top 25 countries in the UNCTAD B2C, E-Commerce Index, 2020

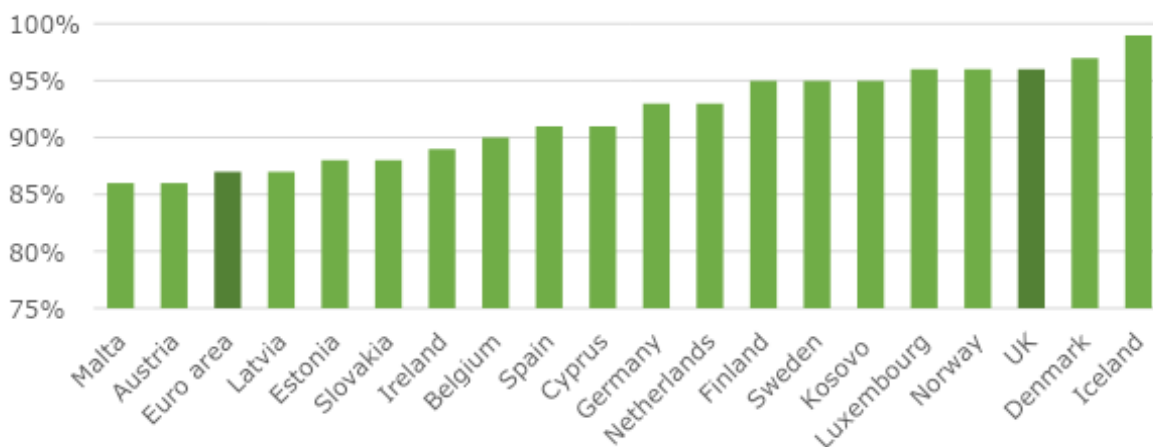


Source: World Bank

4.2 Individuals are digitally connected

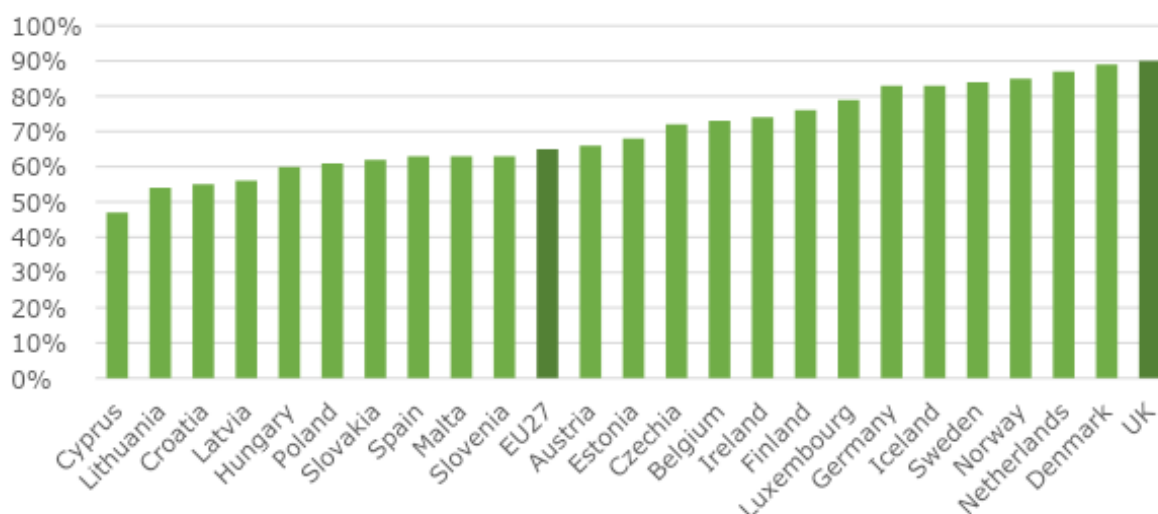
4.2 The UK performs well in terms of digital inclusion, with 96% of individuals accessing the internet at least once a week over the last year, demonstrating that the necessary infrastructure is available for individuals and enterprises to engage in E-Commerce.

Figure 4.2: Digital inclusion - proportion of individuals who have accessed the internet at least once a week, top 20 countries, 2020



4.3 It should be noted that Eurostat publishes international data up to 2022, however some countries – including Iceland and the UK are undisclosed, and therefore these charts 4.2 and 4.3 contain the latest available data for the UK (2020).

Figure 4.3: Proportion of individuals who have purchased online in the last 12 months, 2020

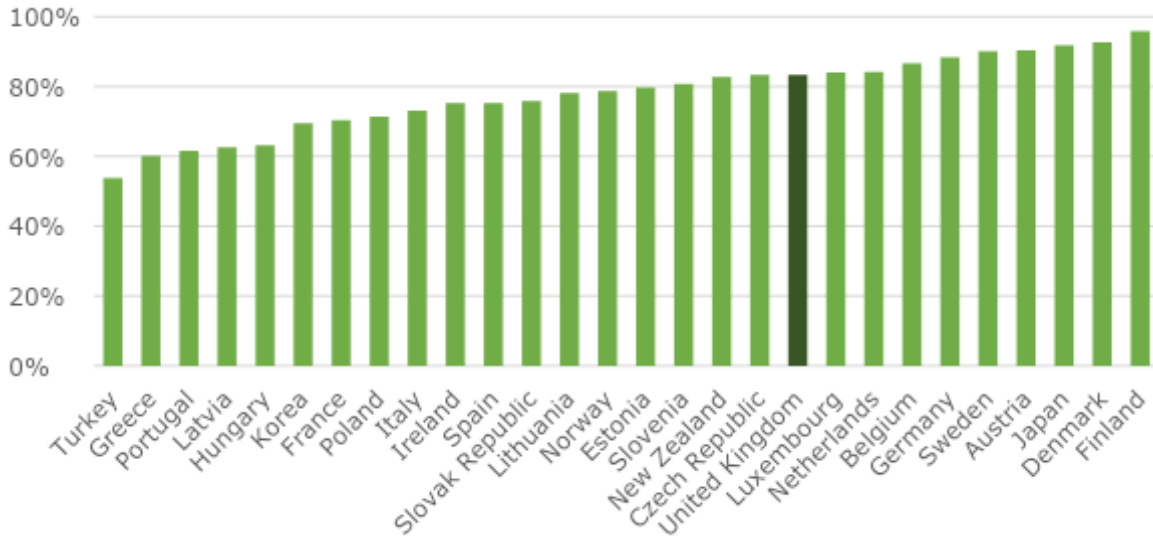


4.3 Businesses could improve their digital presence

4.4 The UK is ranked 10th out of OECD countries²¹ in terms of the proportion of businesses that have a website or home page. Over the decade, the proportion of businesses that have a website or home page has increased from 76% to 83%, however the ranking against other countries has remained reasonably consistent.

Figure 4.4: Businesses with a website or home page (%), OECD countries, 2020

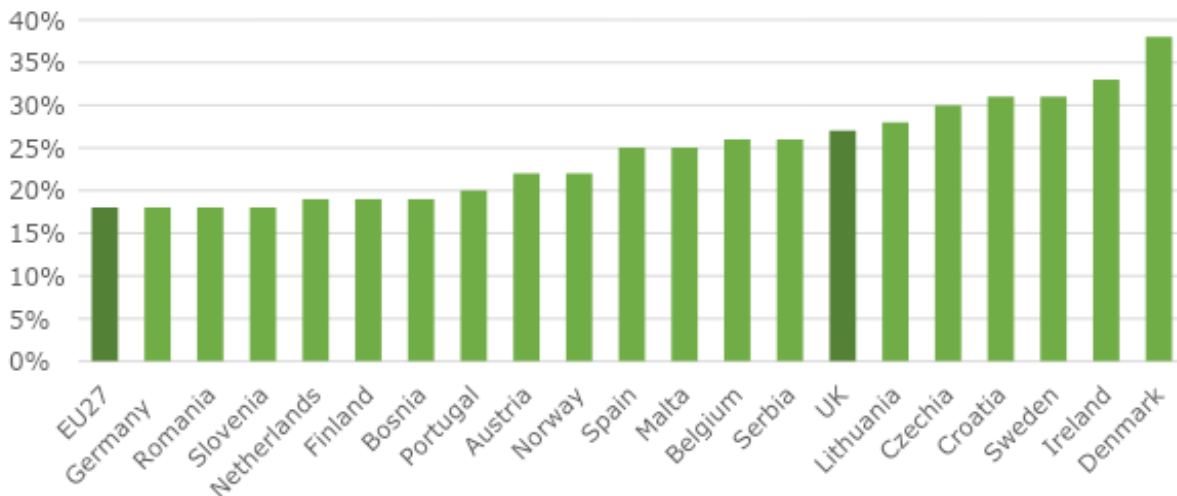
²¹ Comparable data for 2020 is not available for some OECD countries (Australia, Canada, Iceland, Switzerland, the United States)



Source: OECD

4.5 Whilst the figure above shows that more than four in five businesses have a website, only one in four actively engage in selling via e-commerce (as shown below). Again, the UK is in the leading group of countries in terms of this indicator and has improved its position from 14th to 7th of the EU27 countries over the decade. Ireland has performed strongly, with a third of sales from E-Commerce and has ranked first or second in this indicator over the past five years, reflecting the strength of its technology sector.

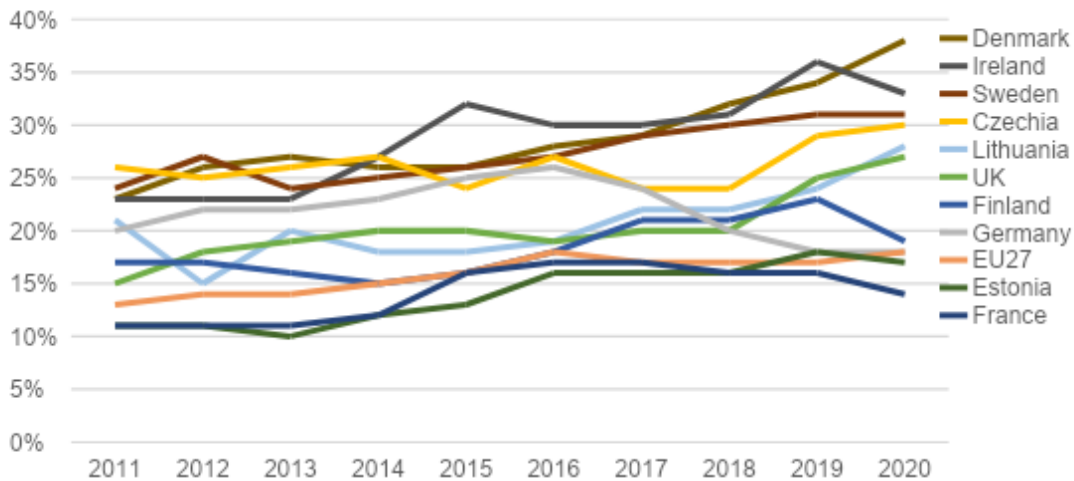
Figure 4.5: Proportion of enterprises selling via E-Commerce, 2020



Source: Eurostat

4.6 The proportion of businesses selling via E-Commerce is on an upward trajectory, increasing from 15% to 20% over the decade, as would be expected in an increasingly digitally oriented world. Interestingly, the proportion of businesses selling via E-Commerce during the first year of the COVID-19 pandemic increased markedly in Lithuania and Denmark, but decreased in other countries including Ireland, Finland and Estonia.

Figure 4.6: Proportion of enterprises selling via E-Commerce, selected countries, 2011 - 2020

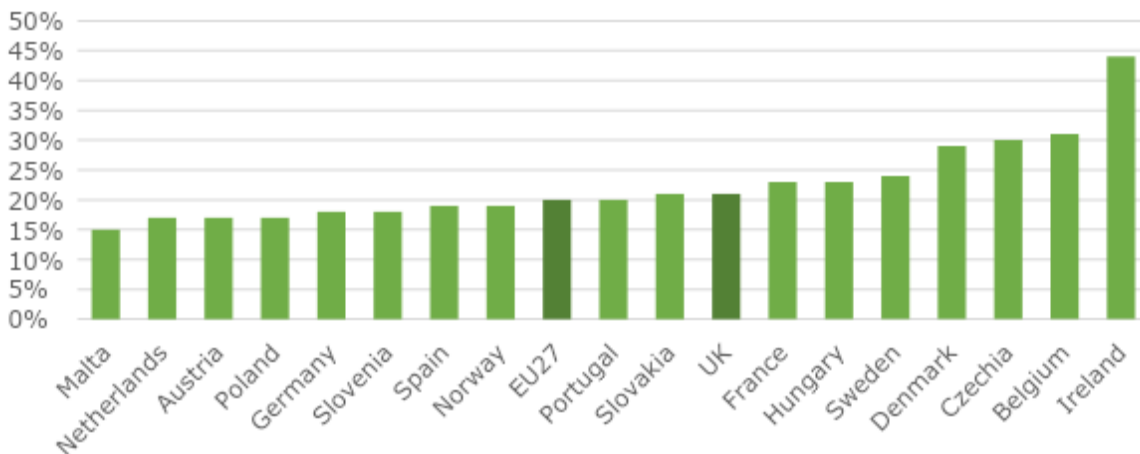


Source: Eurostat

4.7 Ireland leads the way in terms of the proportion of turnover with two euros in every five generated through E-Commerce. The strong performance in this indicator underlines the impact of the internationally focussed technology sector in Ireland. The UK is in the top third of countries with one pound in every five generated from E-Commerce sales.

4.8 Whilst the proportion of turnover generated from E-Commerce has increased in the UK, other nations have increased more rapidly, resulting in the UK moving from 4th to 8th over the decade. In contrast, Ireland moved from 6th to 1st and has maintained this position for the last eight years. Similar to the proportion of businesses selling via E-Commerce, the % of turnover generated via E-Commerce has increased over the decade from 12% to 17%.

Figure 4.7: Proportion of enterprises total turnover from E-Commerce sales, 2020



Source: Eurostat

4.4 The UK & Ireland are internationally competitive in e-commerce

4.9 In an international context the use of E-Commerce has increased over the last decade – as would be expected as society has become more digitally enabled and oriented. **The UK and Ireland perform well in an international context on a range of E-Commerce indicators.**

4.10 **The UK is strong on digital inclusion, access to and use of the internet and in the top tier of countries in terms of E-Commerce sales and business engagement. Ireland tops the table or is second in terms of the proportion of turnover generated and businesses selling via E-Commerce,** reflecting the sectoral structure, external and technological focus of the Irish Economy. The strong performances of Ireland and the UK both bode well for NI in terms of infrastructure, regulation, application of relevant skills and knowledge, suggesting that there should be some competitive advantage for NI in international terms.

5 UK E-Commerce statistics under the microscope

5.1 2019 data are the latest available creating problems for policymakers

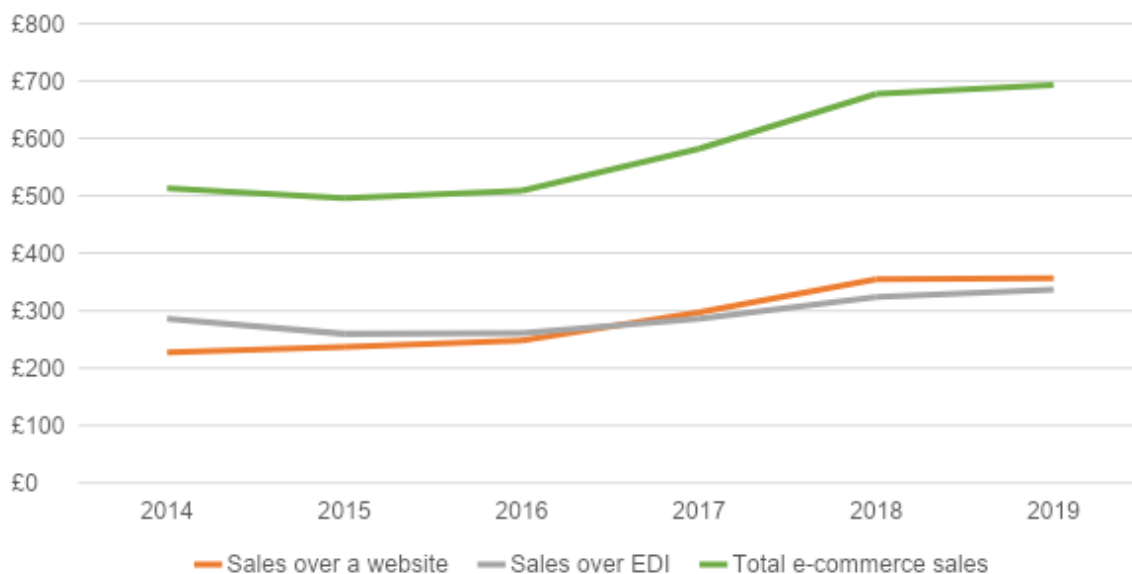
5.1 E-Commerce data for the UK are now very dated - the latest publicly available data are for 2019. The ONS stated during 2021 that it had paused the E-Commerce and ICT activity survey for one year²² to allow the survey to be enhanced in response to the emerging requirements of the COVID pandemic and changing behaviours. Internet access survey questions were not included in the Opinions and Lifestyle Survey due to the additional demands of the COVID-19 pandemic on data collection. During 2023, the ONS announced that it had paused the new Digital Economy Survey²³, which was introduced to replace the E-Commerce and ICT Activity Survey. As a result, the UK is in the invidious position of not having up-to-date E-Commerce data to inform policy development.

5.2 Brisk e-commerce sales growth

5.2 According to the latest available ONS data, UK E-Commerce sales were £693bn in 2019. Over the previous five years, E-Commerce sales grew by 6.2% annually compared to 3.5%²⁴ for the broader economy. E-Commerce sales made up 17% of all UK sales in 2019, excluding Financial Services and the Public Sector, increasing from 15% in 2014.

5.3 The split between sales driven through websites and other Electronic Data Interchanges²⁵ (EDI) has remained reasonably consistent at around 50% over the five years.

Figure 5.1: UK E-Commerce sales, all enterprises, 2009 to 2019, £bn



Source: ONS E-Commerce & ICT Activity Survey

²² [Measuring the digital economy: Adapting and Evolving | National Statistical \(ons.gov.uk\)](https://www.ons.gov.uk/digital-economy/digital-economy-surveys-and-reports/measuring-the-digital-economy-adapting-and-evolving)

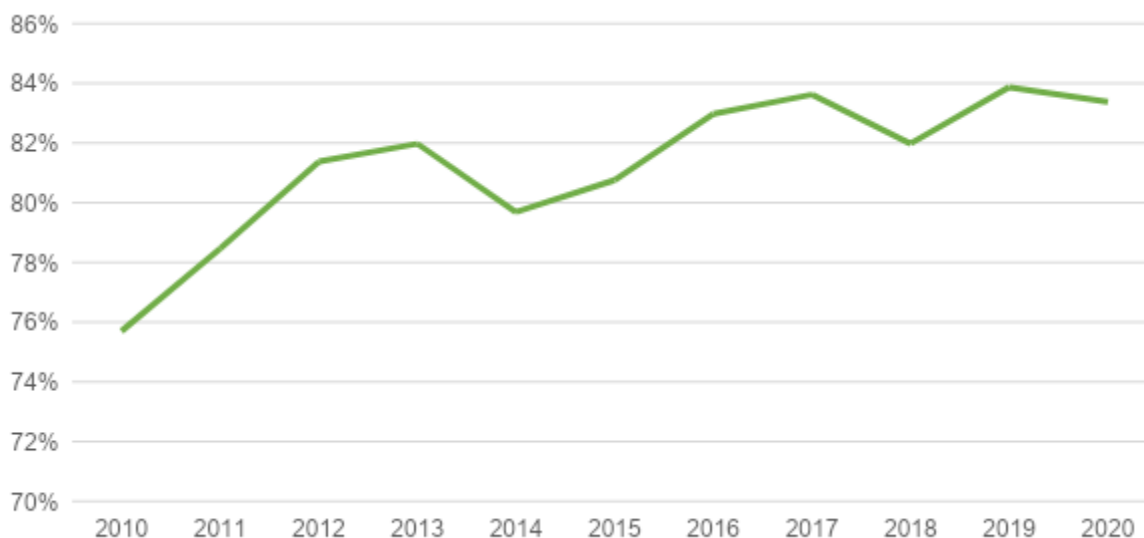
²³ [Digital Economy Survey - Office for National Statistics \(ons.gov.uk\)](https://www.ons.gov.uk/digital-economy/digital-economy-surveys-and-reports/digital-economy-survey)

²⁴ Source; UK Annual Business Survey, which excludes inflation, financial services and the public sector

²⁵ Electronic Data Interchange is the intercompany communication of business documents in a standard format. The simple definition of EDI is a standard electronic format that replaces paper-based documents such as purchase orders or invoices.

- 5.4 83% of UK businesses now have a web page, an increase of 8 percentage points over the decade, with the upward trend flattening in recent years.

Figure 5.2: UK Businesses with a website or home page (%)

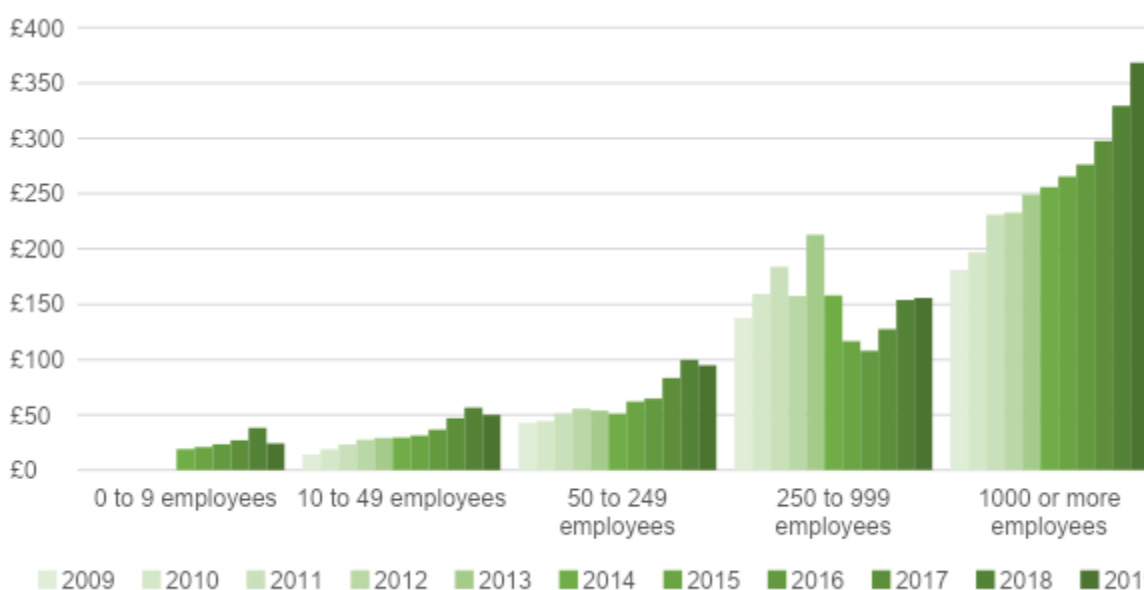


Source: OECD

5.3 The largest companies dominate the e-commerce landscape

- 5.5 E-Commerce sales are dominated by very large companies, which make up more than half of all E-Commerce sales. Large companies (250+ employees) were responsible for 76% of all E-Commerce sales in 2019. Interestingly, between 2009 – 2019, E-Commerce sales for firms employing 10-49 people grew by much more than the average (13% vs 6%) – albeit from a very low baseline.

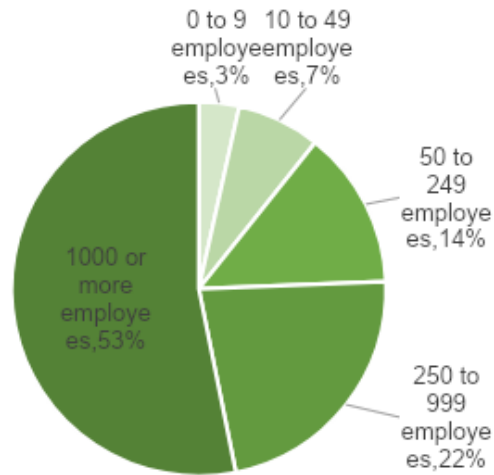
Figure 5.3: UK E-Commerce sales, by size of business, 2009 to 2019, £bn



Source: ONS E-Commerce & ICT Activity Survey

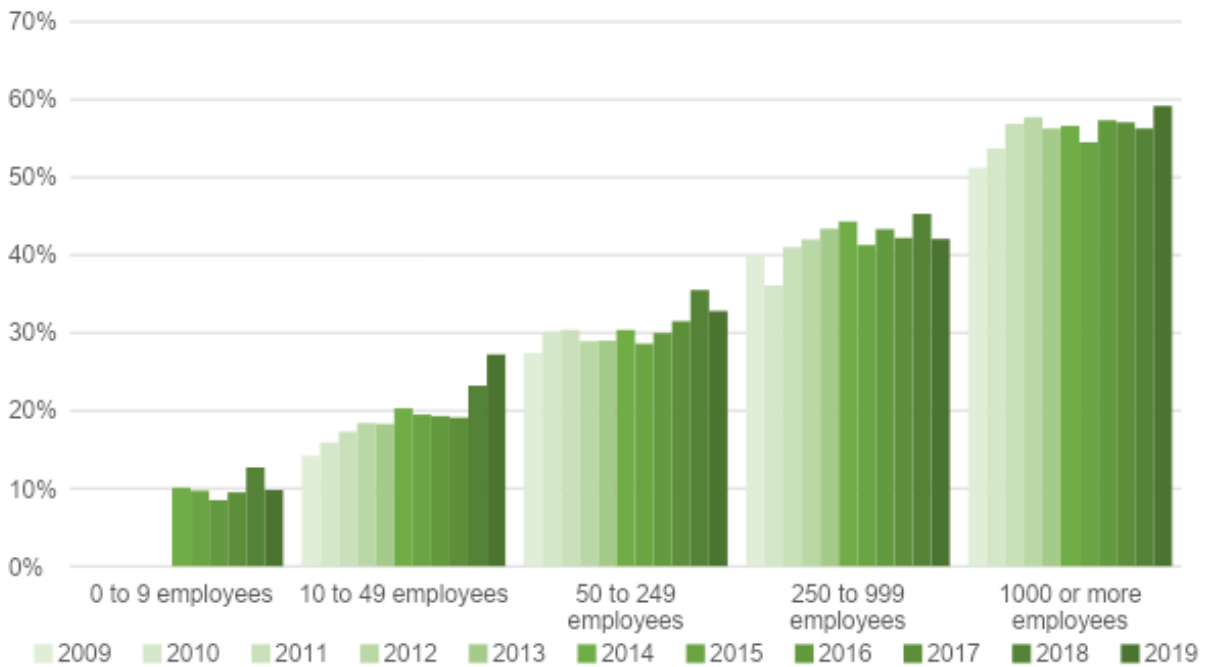
Note: Data for micro businesses (0-9 employees) are available only for 2014-19

Figure 5.4: UK E-Commerce sales, by size of business, 2019



Source: ONS E-Commerce & ICT Activity Survey

Figure 5.5: Proportion of UK businesses making E-Commerce sales, by size of business, 2009 to 2019

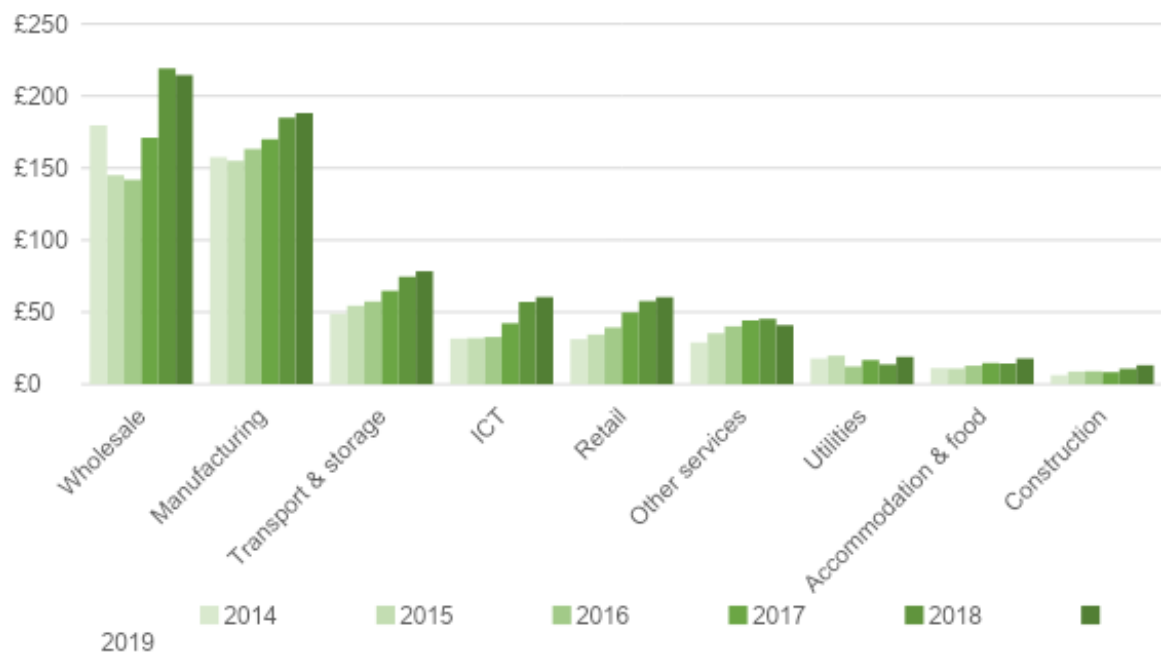


Source: ONS E-Commerce & ICT Activity Survey
 Note: Data for micro businesses (0-9 employees) are available only for 2014-19

5.4 Sectoral perspectives

5.6 E-Commerce sales are dominated by Wholesale and Manufacturing, which together make up three fifths of all E-Commerce sales. ICT and retail each drive 9% of E-Commerce sales and have grown by an impressive 14% per annum over the last five years (compared to 6% overall).

Figure 5.6: E-Commerce sales, by industry sector, all enterprises, 2014 to 2019, £bn



Source: ONS E-Commerce & ICT Activity Survey
 Note: Financial Services are not included in the ONS E-Commerce Survey

5.5 Retail and the “COVID bounce” in e-commerce sales

5.7 Data for the retail sector is available for a longer time series, going back to 2006 and includes the COVID-19 pandemic and introduction of restrictions on movement and trade from March 2020. Whilst this is just one sector of the economy, the consistent upward trend of E-Commerce sales is striking, as is the step up in spring 2020 when consumers moved an additional 50% of retail spending online. COVID-19 is no longer the societal challenge that it was in 2020. The sharp “step up” in retail sales brought about by the shift towards online shopping has now settled somewhat. However, there is still a distinct upward trend in retail sales, and the UK continues to lag other developed economies such as Denmark and Ireland, suggesting that there is capacity to increase the proportion in the UK.

Figure 5.7: UK internet sales as a percentage of total retail sales, January 2007 – January 2023

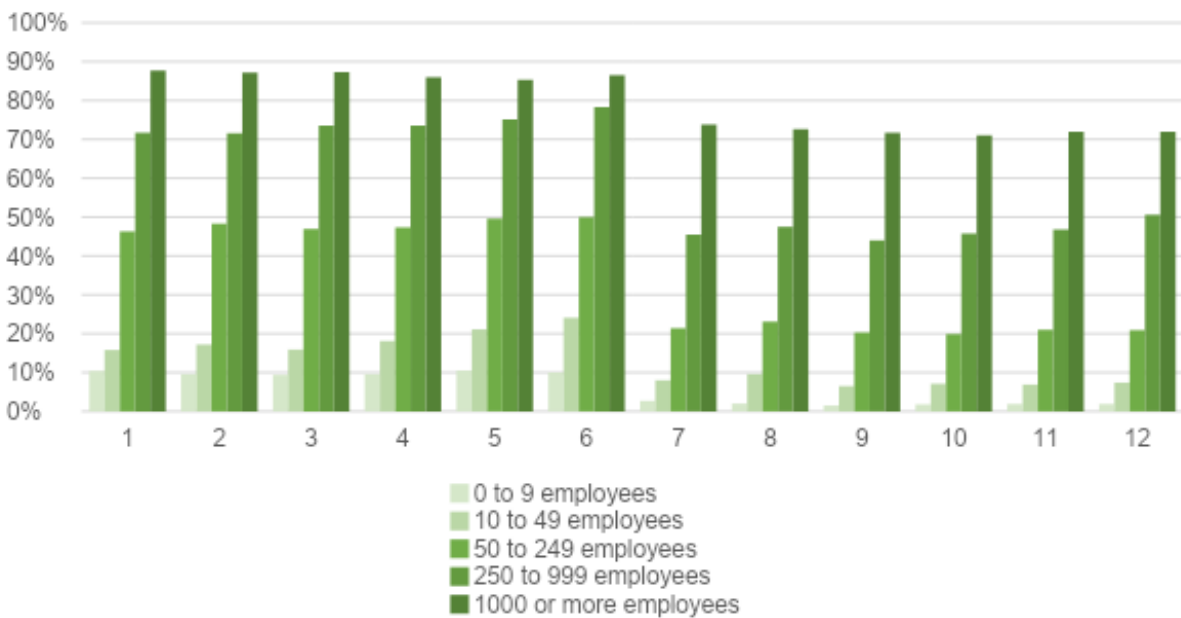


Source: ONS Retail Sales Index Time Series

5.6 Demand for ICT skills driven by large firms

5.8 The skill requirements by size of firm are reflective of the proportions engaging in E-Commerce. Large and very large firms dominate in terms of employing and recruiting IT specialists, and will have the resources necessary to fund these posts. Small and micro firms are least likely to employ (or try to employ) IT specialists –as evidenced by the smaller proportions engaged directly in E-Commerce.

Figure 5.8: Proportion of UK Businesses employing or trying to recruit IT specialists by size, 2014 - 2019



Source: ONS E-Commerce & ICT Activity Survey

5.7 Summary of UK E-Commerce statistics

- 5.9 E-Commerce is a large and rapidly expanding area of the UK economy, spanning firms across a range of sectors and size groups. As might be expected, the pace of E-Commerce sales growth was more rapid than the overall economy, underlining a long-term trend of consumption patterns moving online. In 2019, E-Commerce was worth almost £700bn, making up 17% of total UK sales.
- 5.10 Three in ten businesses in the UK are engaged in E-Commerce – with large firms, wholesalers and manufacturers making up the majority. The drivers of growth were across all sectors and size groupings, although ICT, retail and SMEs saw the most rapid increases.
- 5.11 **E-Commerce statistics are now very dated**, with the latest available data in most cases for 2019, prior to the pandemic. E-Commerce has the potential to provide significant economic growth, much of it from outside the UK and therefore, the lack of current data is a significant challenge for policymakers.
- 5.12 One indicator that is available on a monthly basis is internet sales as a proportion of retail sales, which reveals that the changes in consumer behaviour as a result of regulations increased online trade from around 20% of transactions to around 38% at their peak in early 2021. Whilst the retail E-Commerce figures have dropped back from this peak, there is evidence of a “step up” in online purchasing, and a return to an increasing trend over time.
- 5.13 In terms of skills, the largest firms, which are most heavily engaged in E-Commerce are also those that are most likely to employ or be trying to recruit IT professionals.

6 Recent challenges – COVID-19 and the cost of living crisis

6.1 The COVID-19 e-commerce sales bounce

- 6.1 The COVID-19 pandemic was one of the largest economic disruptions that the global economy has experienced. However, with vaccination rollouts, improved healthcare outcomes and better understanding of the COVID-19 virus and variants, Governments were able to relax restrictions at the soonest opportunity. The majority of advanced economies had recovered to pre-pandemic levels by the end of 2021.
- 6.2 The restrictions introduced on travel and trade to slow the spread of the COVID-19 and reduce burden on the healthcare system had a significant impact on how consumers, businesses and governments interact and trade.
- 6.3 Many sectors were adversely affected by the restrictions – particularly those that required face-to-face interaction or carrying out work in a fixed place around other people (retail, hospitality, manufacturing, construction). However, this drove a number of behavioural shifts in consumers – hence the programmes launched by NI Departments, Councils and InterTradeIreland. The UN²⁶ estimates that the value of global E-Commerce Sales increased to around £20 trillion during 2020 as the proportion of sales that were placed online increased from 16% to 19% during the first year of the pandemic. Estimates from the same source for the UK were that online sales rose from £66bn (16%) in 2019 to £97bn (23%) in 2020, illustrating that the UK moved online to a greater extent than the global average.
- 6.4 OfCom reported that online sales had increased by 48% from 2019 to 2020 and IRG Caggemini online retail index²⁷ reported that online sales in the UK had increased by 36.6% over the year.
- 6.5 The conclusion of these research papers was that E-Commerce sales in the UK increased by at least a third and possibly by as much as half as a direct result of the COVID-19 pandemic and associated restrictions. It should be noted that many of these businesses were large enterprises²⁸ that already had significant E-Commerce capability (indeed, some are based entirely online) and will therefore have had a competitive online offering prior to the onset of the pandemic. All economic disruptions will create winners and losers and, in this context, small and micro companies, those that had no online presence and / or required personal interaction (such as hair and beauty etc.) are those that will have lost out through the pandemic.
- 6.6 Growth in online sales has fallen back from the very high levels seen during the pandemic. There is also evidence that following the significant jump in online sales during 2020 and the early part of 2021, that online sales plateaued for some forms of retail shopping. For example, In GB, Morrisons²⁹ reduced their online grocery delivery service as demand subsided post-lockdown.

²⁶ United Nations. [Global e-commerce jumps to \\$26.7 trillion, fuelled by COVID-19](#). May 2021

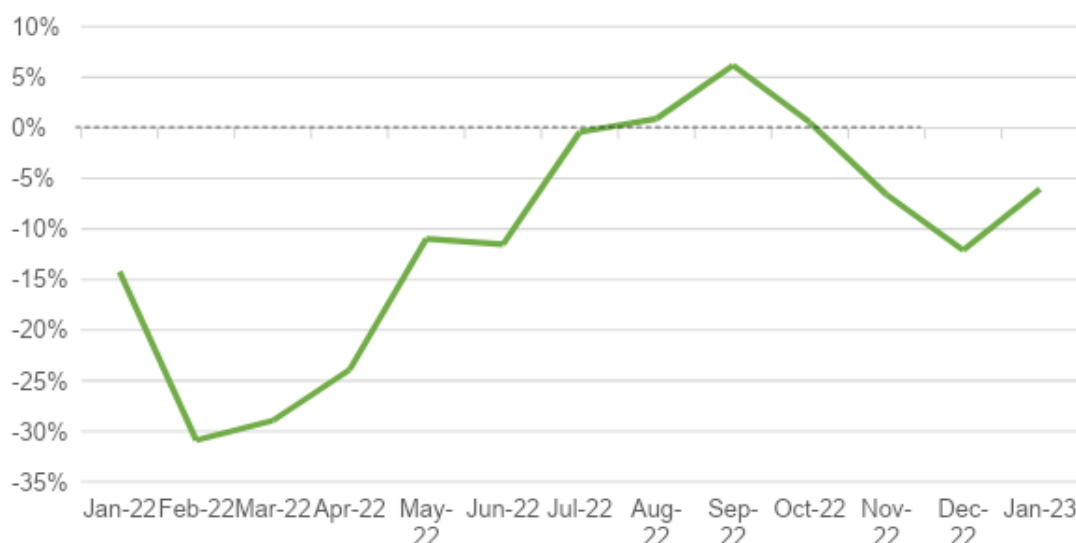
²⁷ IRG Caggemini. [Online Retail Index](#)

²⁸ Large is defined as 250+ employees

²⁹ Retail Insight Network. [Morrisons axes online delivery services as pre-pandemic consumer behaviour returns](#). September 2021

- 6.7 More recently, IRP Commerce data³⁰ shows that E-Commerce sales growth has remained negative for most of the past twelve months, aligning with the overall UK perspective from the ONS on retail sales via e-commerce in figure 5.7. As of January 2023 annual sales growth was -6.1% (i.e. 6.1% lower than in January 2022) – see Figure 6.1 below.

Figure 6.1: UK E-Commerce sales growth 2023 vs 2022, January 2022 – January 2023



Source: IRP Commerce

- 6.8 The evidence in both figure 5.7 for the UK and in 6.1 for IRP Commerce customers suggests that around a third of activity shifted online during the pandemic, then as restrictions eased and “normal” activity began to resume, around quarter of consumer activity shing away from online, representing a “step up” in online sales that are now embedded in consumer behaviour. In terms of long-term trends, the global trends towards more online purchases is likely to continue, and the UK has some headroom to catch up with other developed countries such as Ireland and Denmark.

6.2 Inflation, staff shortages and supply chain disruptions

- 6.9 In 2021 and especially geopolitics in 2022, businesses in all sectors of the economy began encountering a range of new challenges. Rising input costs, wage inflation, strong consumer demand, staff shortages and supply chain disruptions were becoming more significant issues³¹.

- 6.10 For consumers, the cost of living increased significantly across the UK during 2021 and 2022. The annual rate of inflation peaked at 11.1% in October 2022³² – its highest level in 41 years – before easing gradually to 10.1% in January 2023. Put in perspective, the rate of inflation was as low as 5.5% at the start of 2022³³.

³⁰ IRP Commerce. [Ecommerce Market Data and Ecommerce Benchmarks](#)

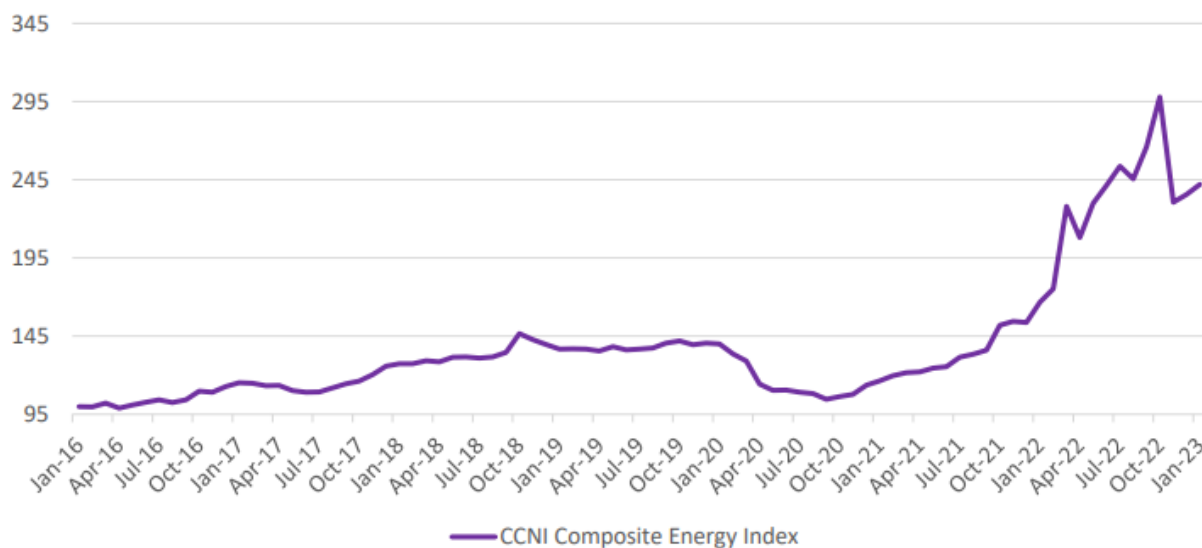
³¹ McKinsey. [The next normal arrives: Trends that will define 2021 - and beyond](#). January 2021

³² In other words, consumer prices as measured by the Consumer Price Index (CPI) were 11.1% higher in October 2022 than in October 2021.

³³ ONS. [Consumer price inflation, UK](#). January 2023

6.11 Energy prices in particular have driven much of this increase in inflation. The Consumer Council NI's Home Energy Index (HEI)³⁴ shows that home energy costs have risen sharply in the past year (see Figure 6.2 below). The HEI reached its highest level on record in October 2022, before falling again due to the introduction of the Government Energy Price Guarantee (EPG).

Figure 6.2: Home Energy Index, NI, January 2016- January 2023



Source: Consumer Council NI

6.12 Rising inflation affects companies that engage in e-commerce (and face-to-face sales) in a range of ways including;

- Changing consumption patterns towards essential goods and services;
- Increase in input prices (labour and energy in particular), squeezing profit margins and in many cases necessitating price increases and
- For consumers reducing the affordability of goods and services.

6.3 A sector working through disruption

6.13 The COVID-19 pandemic and associated restrictions on movement and trade resulted in one of the sharpest and deepest recessions that the global economy has witnessed. While the UK and NI economies contracted by around 10%, the disruption moved consumer purchases online – resulting in a significant step up in E-Commerce activity to take a much larger share of the market.

6.14 Online retail sales – in part - have returned to face-to-face retail shopping, although a “step up” from pre-pandemic levels is evident and the overall increasing trend is expected to continue and online retail sales are expected to grow in the medium term (see section 9), albeit at a much more moderate pace than during the pandemic.

³⁴ Consumer Council NI. [The Consumer Council's Home Energy Index](#). January 2023

7 EU Exit & e-commerce opportunities

7.1 Overview of EU Exit

7.1 The UK officially left the EU on 31 January 2020 and entered into a “transition” period, before leaving the EU Single Market and Customs Union on 31 December 2020. The EU-UK Trade and Cooperation Agreement³⁵ became operational on 1 January 2021 and includes a range of general provisions including:

- Market access to ensure that there are no restrictions such as economic needs test, or restrictions on investment or equity caps etc;
- National treatment to provide for non-discriminatory treatment between UK & EU service suppliers and investors;
- Local presence – to ensure that cross border trade is not inhibited by establishment requirements;
- Prohibition of performance requirements to ensure that investments are not subject to domestic content requirements or export restrictions;
- No restrictions on the nationality of board members and senior executives; and
- A “Most Favoured Nation” statement to ensure that the agreement keeps pace with future Free Trade Agreements.

7.2 Digital trade also features specifically in the Agreement, aiming to promote trade in digital services and to facilitate new forms of trade in goods and services. This was the first time that the EU had agreed provisions on data in a free trade agreement. The text included:

- Prohibition of requirements to store data or process data in a certain location – facilitating the flow of cross border data and avoiding costs for UK businesses;
- Strong data protection requirements to protect consumers and promote trust;
- Ensures that most contracts can be completed digitally and electronic signatures will be required;
- Protection against the forced transfer of source code, protecting IP;
- A novel provision on open government data, where non-personal or anonymised government data can be made available and accessible in machine readable forms.
-

7.2 Encouraging changes in trade patterns since EU Exit

7.3 Since the EU exit vote in June 2016, the value of exports from Northern Ireland has increased by 26% (including inflation, which was c11% over the period³⁶) to a record £12.2bn. The main driver was service sector exports (+61%), although goods exports grew by 18%.

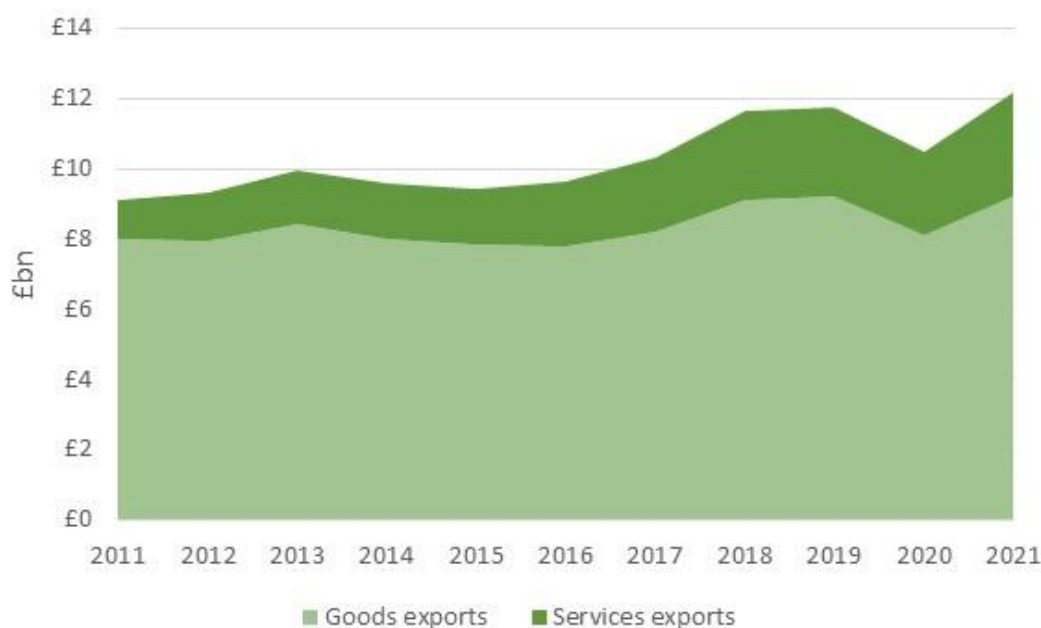
7.4 As the following chart shows, the COVID-19 pandemic caused a significant reduction in exports during 2020 (-11%), mostly in the export of goods (-12%), although service sector exports contracted by -5%.

³⁵ European Commission. [The EU-UK Trade and Cooperation Agreement](#). April 2021

³⁶ CPIH Inflation from June 2016 – June 2021

7.5 The rebound in exports was very strong during 2021 (+16%), with services exports growing by almost a quarter and goods exports growing by 14%. This growth was in the context of inflation being 2% from June 2020 to June 2021.

Figure 7.1: Exports from NI, 2011 – 2021, £bn



Source; NISRA, Exporting NI survey

7.6 Making progress through the Protocol

7.3 A range of legal instruments were constructed to enable and manage the UK's exit from the EU. These determine NI's post-Brexit trading arrangements with the EU and GB. In addition to the Trade and Cooperation Agreement (TCA) between the UK and EU, these legal instruments included:

- **The Protocol on Ireland / Northern Ireland³⁷ (referred to as "The Protocol")**

- The Protocol was published on 10 December 2020 with the objectives of;
- Protecting the progress made since the 1998 Northern Ireland Good Friday Agreement;
 - Avoiding a hard border between NI and the RoI;
 - Protecting the integrity of the EU single market for goods;
 - Facilitating access to the GB market for goods produced in NI; and
 - The inclusion of NI in Free Trade Agreements between the UK and third countries.

Essentially, since its introduction, the Protocol has governed the unique customs issues at the border in the island of Ireland between the UK and EU, and on some aspects of trade in goods between Northern Ireland and the rest of the United Kingdom.

³⁷ European Commission. [The Protocol on Ireland / Northern Ireland](#). January 2020

Unlike the rest of the UK, as a result of the Protocol, NI has had dual status, meaning that it has remained part of the U.K. customs territory but also part of the EU single market for goods.

This also means that NI has remained in the UK VAT area but, while aligning with certain EU VAT and State Aid rules. NI's terms of trade are also dictated by the decisions and declarations of the Protocol's Joint Committee which was established to support the implementation and application of the Agreement Decisions that need to be jointly agreed by the UK and EU.

- **The Internal Market Act 2020³⁸ (IMA)** - The IMA's aim is to create the conditions to enable the continued functioning of the UK Internal Market in a post-EU context. The IMA also sought to avoid trade barriers within the UK Internal Market, despite the existence of the Protocol. The effect of the Protocol is to create different regulatory regimes within the UK Internal Market. Such variance in regulatory regimes has created barriers within the UK Internal Market. The IMA contains provisions to prevent or minimise such barriers. It does so by seeking to streamline the trade in goods from GB to NI; securing unfettered access for goods moving from NI to GB; and, modifying the UK Market Access Principles for goods with respect to NI, as a consequence of the Protocol.

- **The Windsor Framework 2023³⁹** - The Windsor Framework – announced on 27 February 2023 – is a proposed post-Brexit legal agreement between the EU and the UK which seeks to resolve the issue of the movement of goods between the European Single Market and the UK in the current Northern Ireland Protocol. Among other proposals, it would introduce “green” and “red” lanes to reduce checks and paperwork on goods that are destined for NI and separate them from goods at risk of moving into the EU Common Market. At this point in time, it is the subject of negotiation.

7.7 Opportunities for NI's E-Commerce businesses from dual market access

7.4 Existing legal instruments have created trading arrangements for NI that are different from those in the rest of the UK. Consequently, NI's businesses that trade in goods, including those who trade using E-Commerce are provided with a number of apparent advantages including:

³⁸ Legislation.gov.uk. [The UK Internal Market Act 2020](#). December 2020

³⁹ The Prime Minister's Office. [The Windsor Framework](#). March 2023.

- **Competitive advantage through unfettered access** - Unlike the rest of the UK, NI's businesses are in a unique position in that they have "unfettered access" to both the UK Internal Market and the EU Single Market (in relation to the latter, this applies to both goods sold to, and bought from, the EU Single Market). Specifically, the EU's Union Customs Code will apply to Northern Ireland shipments to/from EU27 countries, meaning no clearance, tariffs or restrictions on trade in either direction. This provides NI E-Commerce businesses and others trading in goods with a distinct competitive advantage over their GB counterparts.

Under the proposed Windsor Framework, NI would retain this access to the UK Internal Market and EU Single Market – with potentially reduced trade "frictions" for the movement of goods from GB to NI.

- **Ability to benefit from FTA with third countries** - Whilst NI no longer benefits from the EU Free Trade Agreement (FTAs) with third countries, on the basis that NI remains part of the UK's customs territory, the region's E-Commerce businesses and others trading in goods will fully benefit from current and future UK FTA with third countries (those outside the EU) which could not have been independently negotiated when the UK was part of the EU; and
- **Competitive advantage through the currency movements** - Emerging markets such as China, South Africa and Brazil are accounting for a larger proportion of consumer spending every year. The historic trend of depreciation of Sterling against other currencies makes NI products (and those made in the rest of the UK) relatively cheaper in international markets, which could make them more competitive.
- **Competitive advantage through continued participation in the Digital Single Market** - NI continues to benefit from the Digital Single Market (an extension of the European Single Market that covers E-Commerce) which has established new digital opportunities for businesses and consumers by removing national barriers to transactions that take place online, thereby removing key differences between online and offline worlds, breaking down the barriers to cross-border online activity.

NI will also have the opportunity to benefit from any newly formed digital legislation established at the national UK level (which no longer forms part of the DSM). Given the timing of its creation, there is an opportunity for this legislation to be appropriate for the modern digital age, as well as support innovation, growth and the use of modern technology. Similarly, there may be opportunities for NI E-Commerce businesses to benefit from any reshaped and improved E-Commerce Directive.

7.8 EU Exit & and e-commerce opportunity

- 7.5 It is now almost seven years since the UK electorate voted to leave the EU. The post-Brexit trade environment continues to evolve as legislation is better

understood and companies adapt to new and changing arrangements. The impacts of decisions on the Internal Market Act, Protocol, and Windsor Framework are therefore still emerging across the economy and society.

- 7.6 Consequently, EU Exit has offered a range of potential opportunities to businesses that are engaged in the trade of goods. Those who are actively engaged in E-Commerce should be well placed to make the most of these opportunities, as a unique comparative advantage. The trade statistics suggest that some of that opportunity has been grasped, although more opportunities should present themselves in the future.
- 7.7 However, the ongoing debate around the Protocol and Windsor Framework means that the trading arrangements could change. Any substantive changes to the Protocol may impact on the nature and scale of opportunities for NI E-commerce businesses.

8 Sizing up NI's E-Commerce sector

8.1 Why is estimating the impacts of e-commerce in NI a challenge?

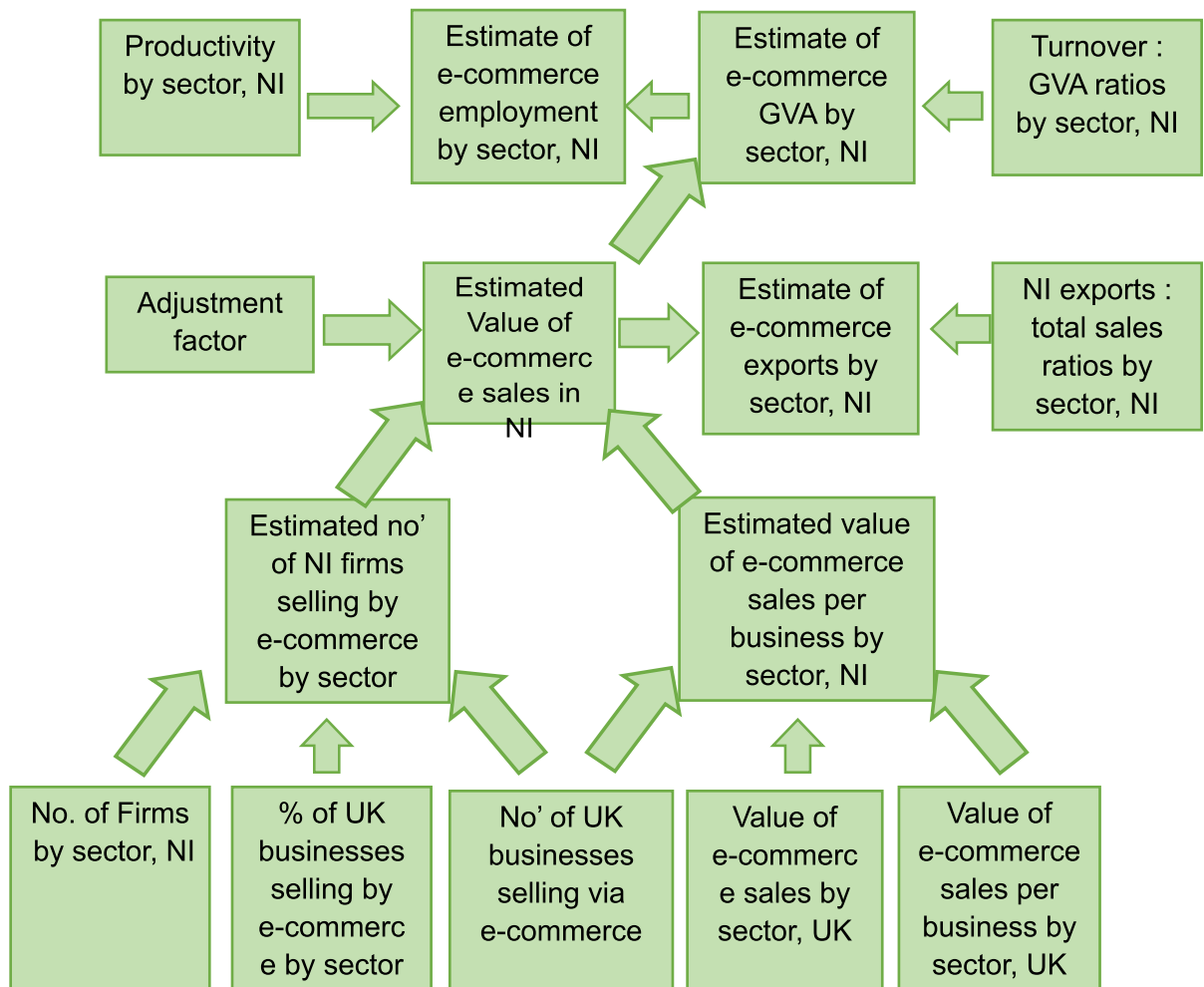
- 8.1 It is challenging to quantify accurately the specific economic impacts of E-Commerce in NI. There are a range of reasons why this is the case; these are;
- o The latest UK data are for 2019;
 - o There are no official statistics on E-Commerce for NI (as sample sizes in the E-Commerce and ICT activity are too small to enable regional analysis);
 - o Private sector E-Commerce surveys in NI have focussed on the sectors, strategies, challenges and security issues faces; and
 - o Rather than being categorised within the official statistics as a sector in itself, E-Commerce enables trade across a range of sectors. For example, E-Commerce enables retail, wholesale and manufacturing trade and the employment, GVA and export impacts are recorded across those sectors.
- 8.2 As a result, there are no existing estimates of the economic impact of E-Commerce in NI and this section of the report focuses on estimating the range of potential impacts, for the years that UK data are available.

8.2 What method has been used?

- 8.3 Figure 8.1 details the methodology that was used to estimate the value of E-Commerce GVA (wages and profits) and employment in NI. This model is dependent on the data published in the range of surveys noted and the confidence intervals associated with the data as well as the adjustment factor which is included to model the impact of NI being, on average, further behind the UK. The adjustment factor is set at 60%, 70% and 80% of the UK for the low, central and high scenarios respectively.
- 8.4 The model was also tested using two other methods, (firm size and employment shares) which delivered very similar outputs. The preferred method used for this report is based on the sectoral shares (firms and employment) as it utilises more NI specific data in its construction.
- 8.5 It should be noted that the UK E-Commerce survey excludes a number of sectors. Therefore, the estimates for NI are prepared on the same basis as this is the only official data source available. The sectors that are excluded are;
- o Agriculture, forestry and fishing
 - o Mining and quarrying
 - o Financial and insurance activities
 - o Veterinary activities
 - o Public administration and defence, social security
 - o Education
 - o Health and social work
 - o Arts, entertainment and recreation
 - o Other service activities except SIC 95.1, Repair of computers

8.6 A number of these sectors are reliant to an extent on E-Commerce – specifically finance and insurance; and arts, entertainment and recreation, which might be expected to be at the more reliant end of the spectrum. However, this is the only official source of data and must be used despite these sectoral limitations.

Figure 8.1: Methodology for estimating E-Commerce GVA & employment in NI



Sources: UK E-Commerce & ICT Activity Survey, Business Register & Employment Survey, Inter-Departmental Business Register, NI Annual Business Inquiry, Broad Economy Exports Survey

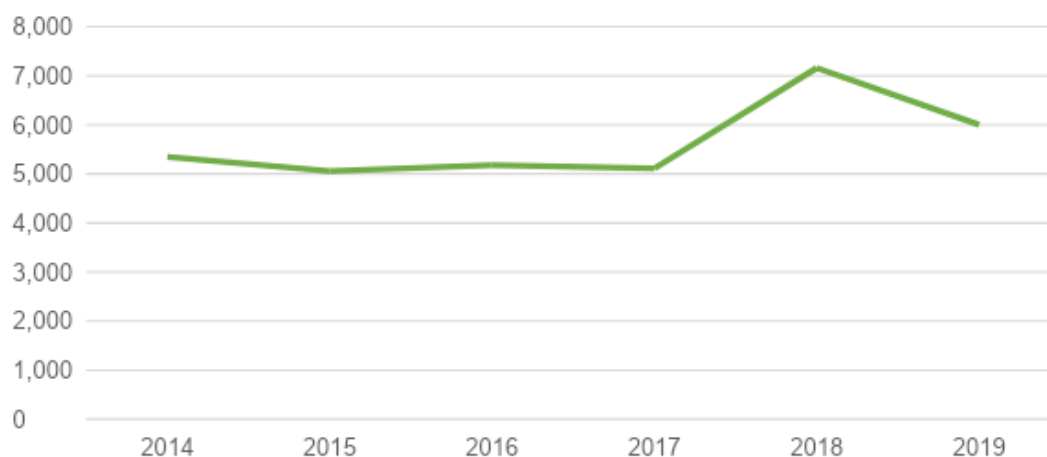
Notes: Figure 8.1 details the methodology deployed for sectoral structure, two alternative methods were also deployed using this framework and firm sizes bands in one instance and employment shares another rather than the sectoral structure

8.3 How many firms might engage in E-Commerce?

8.7 The UK E-Commerce Survey provides evidence of the proportion of firms, by sector, that are engaged in E-Commerce activity. Applying these UK sectoral proportions to the number of firms in these sectors in NI provides an estimate of the number of firms NI that might be engaged in E-Commerce activity, assuming that NI follows the UK trends and concentrations.

8.8 Estimates show that, on average 5,600 firms in NI were engaged in E-Commerce during the period of 2014-19. As discussed in the previous section, the impact of COVID will have changed behaviours and sales channels⁴⁰. The proportion of firms engaged in E-Commerce averaged 8% over the five years, slightly behind the UK average of 11% due to NI's sectoral structure, however, the trend is upward in terms of both numbers and proportions and the gap with the UK average is closing.

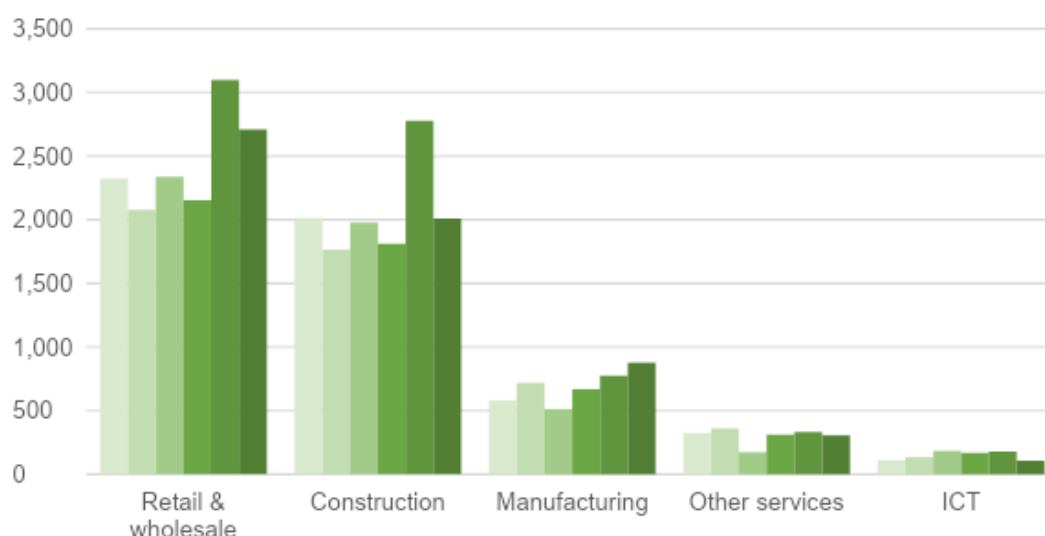
Figure 8.2: Estimated number of NI businesses engaged in e-commerce, 2014 to 2019



8.9 In NI, the retail and wholesale sector is the most heavily engaged in E-Commerce, with Construction close behind. It is estimated that four out of every five firms that are engaged in E-Commerce in NI are in these two sectors. Manufacturing, ICT and other services make up the remainder.

⁴⁰ Note: the most recently available E-commerce and ICT activity dataset from the ONS was published in February 2021 and covers up to 2019.

Figure 8.3 Estimated number of NI businesses engaged in e-commerce, by sector, 2014 to 2019



- 8.10 The value of E-Commerce sales is then estimated for NI by:
- multiplying the number of firms that are engaged in E-Commerce by;
 - the average value of sales by sector by;
 - the NI adjustment factor of 0.6, 0.7 and 0.8 for the low, central and high scenarios respectively to take account of the fact that the NI Economy generally lags the UK economy across most economic indicators and in particular, those related to technology.
- 8.11 On this basis, it is estimated that the value of E-Commerce sales has increased by more than a third from c£8.7bn in 2014 to c£12.4bn in 2019 in the central scenario.

Table 8.1: Estimated value of E-Commerce sales by NI firms, £bn, central scenario, 2014 to 2019

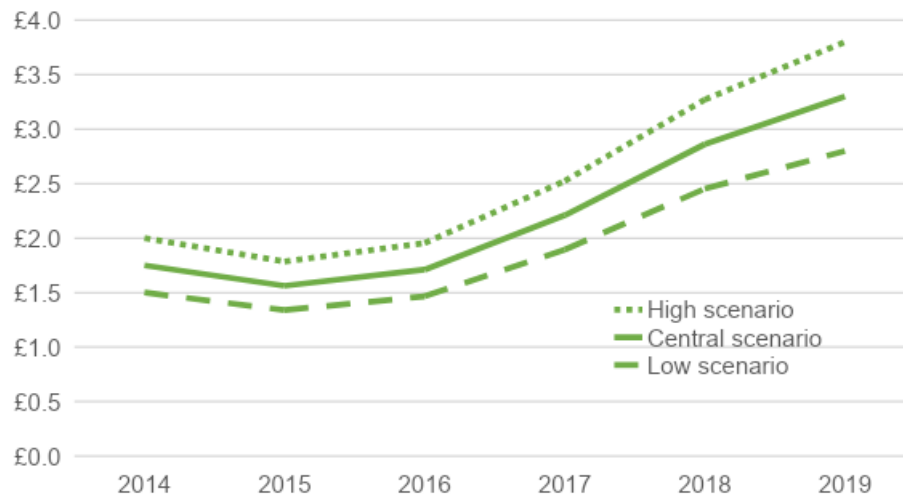
	2014	2015	2016	2017	2018	2019
Retail & Wholesale	£4.5	£3.8	£3.9	£4.6	£5.9	£6.3
Manufacturing	£3.3	£3.2	£3.4	£3.6	£4.0	£4.2
Construction	£0.2	£0.2	£0.2	£0.2	£0.2	£0.3
Other services	£0.6	£0.7	£0.8	£0.9	£1.0	£1.2
ICT	£0.2	£0.2	£0.2	£0.2	£0.3	£0.4
Total	£8.7	£8.1	£8.4	£9.6	£11.5	£12.4

8.4 What is the value of E-Commerce exports?

- 8.12 Broad estimates of the value of E-Commerce exports from NI are calculated by applying sectoral exports to total sales ratios from the Broad Economy Sales and Exports Survey ("BESES") to the estimates of E-Commerce sales outlined above. It could be reasonably argued that E-Commerce trade is more likely to be outside the UK than trade facilitated in other ways, and therefore this method will produce a conservative estimate of export values.

8.13 This analysis suggests that the value of E-Commerce exports has increased from £1.8bn to £3.3bn in the central scenario, or from 18% to 26% of total exports in NI from 2014-19.

Figure 8.4: Estimates of E-Commerce exports from NI, 2014-19, £bn



8.14 NI’s manufacturing sector is particularly export intensive, with exports making up 37% of total sales on average between 2014 and 2019. In contrast, 28% of ICT sales and just 8% of retail and wholesale sales comprised exports over the same period. On this basis, it is estimated that manufacturing generates almost two-thirds of E-Commerce exports, although these estimates should be used with some caution.

Figure 8.5; Estimates of E-Commerce exports from NI, by sector, central scenario (£bn)

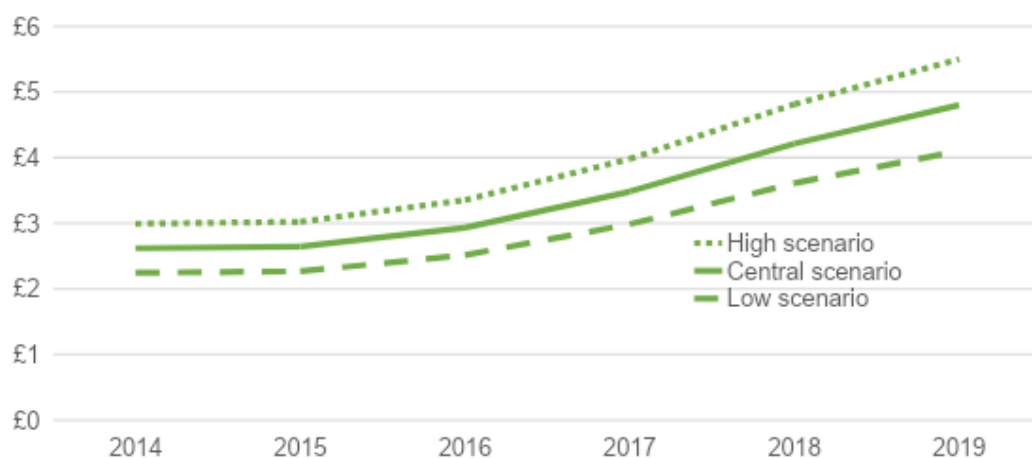


8.5 How much GVA might be generated from E-Commerce?

8.15 GVA estimates are calculated by applying the sectoral GVA : Turnover ratios from the Annual Business Inquiry to the estimated value of E-Commerce sales (as shown in Table 8.1). This analysis suggests that the value of GVA generated from E-Commerce has increased from £2.6bn to £4.8bn in the central scenario, or from 7% to 11% of total GVA in NI from 2014-19.

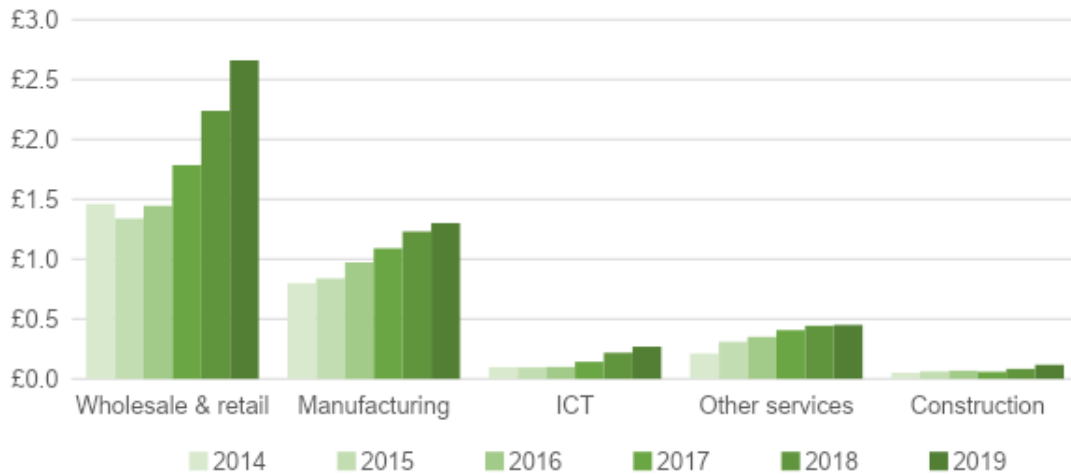
8.16 Upper and lower scenario estimates are in the range of £5.5m (13% of GVA) and £4.1m (or 9% of GVA). **On this basis the estimates suggest that around 9% of NI's GVA could be generated via E-Commerce.**

Figure 8.6: Estimates of E-Commerce supported GVA in NI, 2014-2019, £bn



8.17 Similar to turnover, the Retail & Wholesale and manufacturing sectors dominate, with more than 4 out of every five pounds of GVA generated through E-Commerce derived from these sectors. Retail and wholesale in particular grew rapidly over the five-year period, adding £1.2bn to E-Commerce sales, although ICT is the most rapid rate from a small base - by 176% over the period.

Figure 8.7: Estimates of E-Commerce GVA in NI by sector, central scenario, 2014 – 2019, £bn

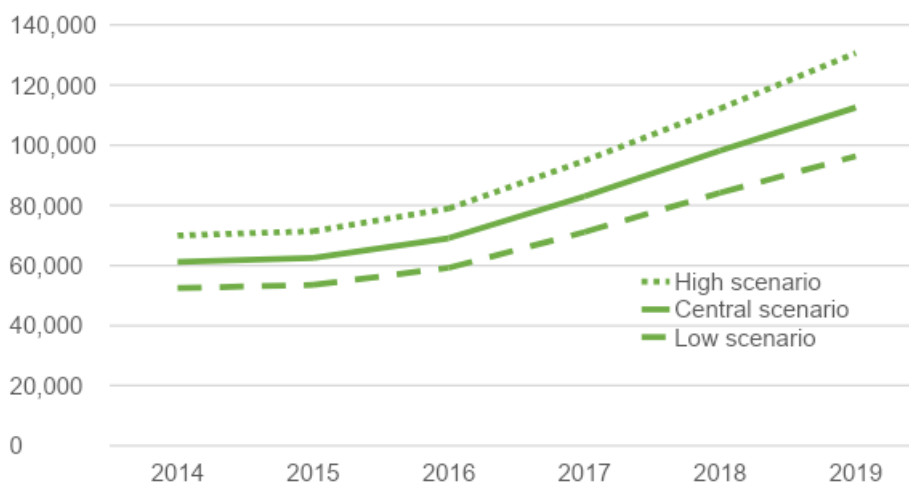


8.6 How many jobs does e-commerce support?

8.18 Employment estimates can be derived by applying NI sectoral productivity data to the estimates of sectoral GVA. Again, the rate of growth is strong, almost doubling from around 60,000 to over 112,000 employee jobs in the central scenario and from 7% to 12% of employment in the central scenario.

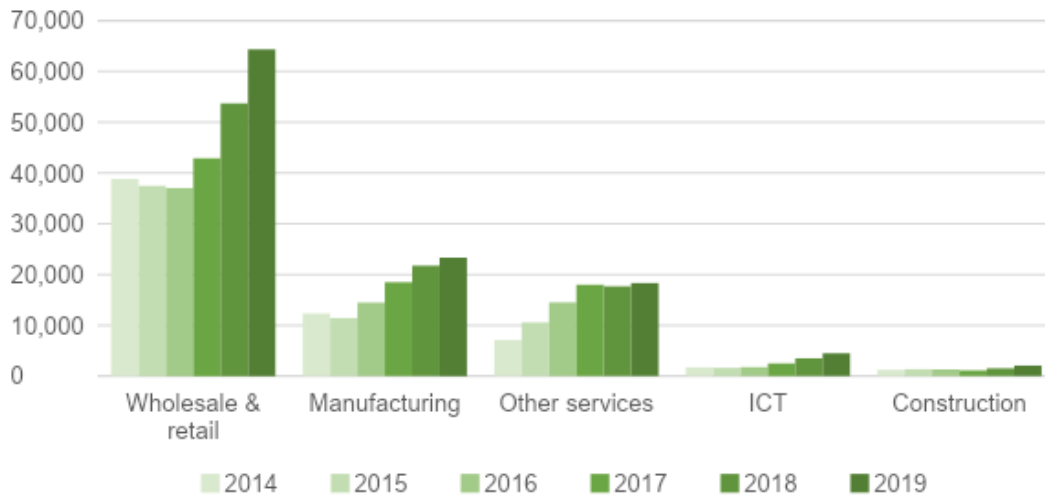
8.19 The lower and upper scenarios estimate that in 2019, there were between 96,000 (11%) and 130,000 (14%) employee jobs supported by E-Commerce in NI. **On this basis the estimates suggest that more than 10% of NI's employment is generated or supported by E-Commerce.**

Figure 8.8: Estimates of E-Commerce supported employment in NI, 2014-19



8.20 In terms of sectoral employment estimates, similar to turnover and GVA, four in every five E-Commerce supported jobs are in the Wholesale & Retail and Manufacturing sectors. E-Commerce employment in the Wholesale & Retail sector increased by around 25,000 jobs between 2014 and 2019. The ICT sector grew rapidly during this time (around 160%) – albeit from a lower base.

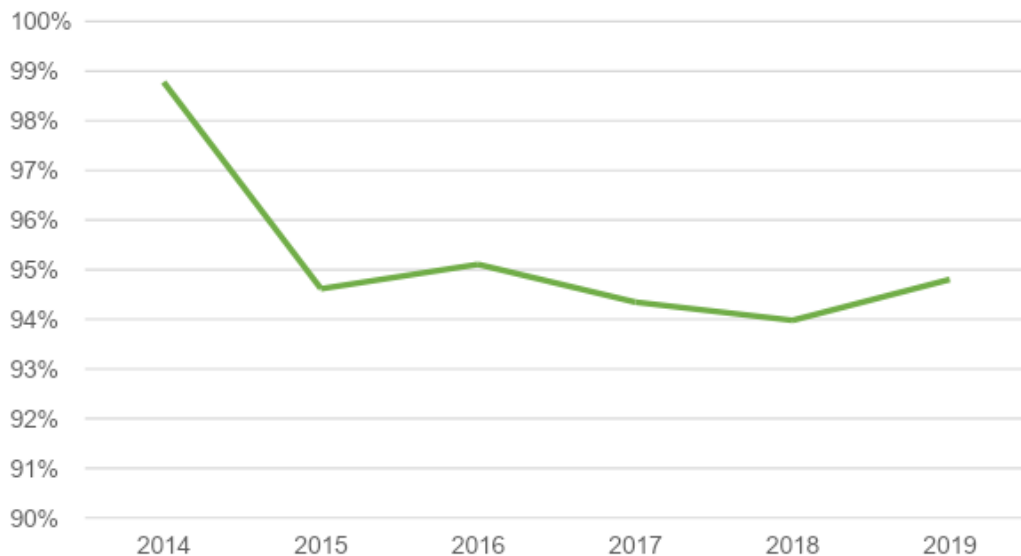
Figure 8.9; Estimates of E-Commerce Employment in NI, by sector, central scenario, 2014-2019



8.7 What is the productivity impact?

8.21 Estimates of the productivity impacts of those engaged in E-Commerce are derived by dividing sectoral GVA by the corresponding number of employees. These estimates suggest that productivity is just below the NI average and is driven to a large extent by the large numbers of jobs in retail and wholesale.

Figure 8.10: Estimates of E-Commerce productivity in NI, as a % of the NI average, 2014-19



8.8 Distributional impacts of e-commerce are wider than at first glance

8.22 It is also important to consider the potential distributional impacts of e-commerce – that is the impacts that accrue to different groups in society. As there is no

published data on e-commerce in NI, evidence from case studies developed by IRP commerce are used to provide an overview.

Table 8.2; Estimates of E-Commerce Employment in NI, by sector,

Company	Activity	Location	Employees
Christies Direct	Dog grooming products	Ballymoney	67
Jonzara	Women's clothing	Newtownards	25
KWM Wines and Spirits	Alcohol sales	Newry	6
Chain reaction cycles	Cycling & cycling equipment	Mallusk	173
Old Mill Saddlery	Equestrian	Ballycarry	20
Argento	Jewellery	Belfast	200

Source: [IRP Platform Case Studies \(irpcommerce.com\)](http://irpcommerce.com) & companies house for employment estimates.

8.23 These case studies demonstrate that e-commerce can support economic activity outside the main business hubs. This is important in the context of levelling-up between various geographies or sub-regions, providing employment opportunities in areas that have lower employment rates.

8.24 These companies also provide a range of jobs that require different levels of skills and formal qualification. There are sales roles, purchasing, finance, shopfloor, packaging, IT, manager and director roles in these companies, providing employment opportunities at a range of levels.

8.25 Whilst the number of case studies included is small, it nevertheless demonstrates that e-commerce can support sales and help to generate employment across all skill levels and geographies. The e-commerce development itself requires high-level programming and development skills, but it should be noted that the impact is broader than the companies providing the e-commerce solutions.

8.9 A vibrant, growing sector

8.26 It has been necessary to estimate the key E-Commerce indicators for NI, because there are as yet, no official statistics published at a regional level. E-Commerce is an activity that takes place across a range of sectors and firm sizes, rather than being a sector in itself. Firm sector and size are the traditional ways in which data are collected and presented and therefore, the figures presented in this section should be considered as a best estimate for NI.

8.27 The modelling suggests that E-Commerce supports around 10% or slightly more of the NI economy, when considered across the number of firms, GVA and employment and the three scenarios. Exports are the exception, with E-Commerce generating around a quarter of export sales due to the externally focussed nature of the manufacturing sector in NI.

8.28 The case studies illustrate that e-commerce can support activity and help generate sales for companies across a range of geographies, and at different skill levels, supporting inclusive growth throughout the UK.

Table 8.3: Estimates of key E-Commerce Economic indicators, 2019

	Low	Central	High		Low	Central	High
Firms	5,250	6,000	7,000	Firms	8%	9%	10%
Exports (£bn)	£2.5	£3.0	£3.3	Exports (£bn)	22%	26%	28%
GVA (£bn)	£4.1	£4.8	£5.5	GVA (£bn)	9%	11%	13%
Employment	90,000	105,000	121,000	Employment	10%	12%	13%

8.29 Given the upward trajectory of E-Commerce in the global and UK markets, and its strategic alignment with strategies such as the 10x and COVID recovery plans, and the ability of e-commerce to support inclusive growth and levelling-up, it would be beneficial to policymaking in NI to have better data on E-Commerce to inform decisions.

9 The E-Commerce outlook

9.1 The tribulations of building an e-commerce forecast

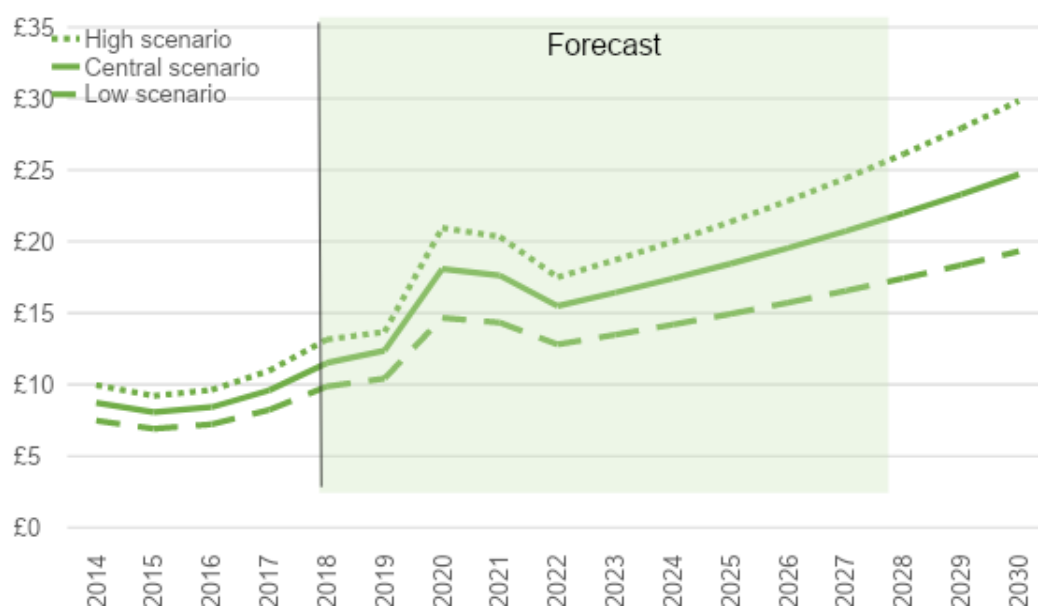
- 9.1 This section of the report builds upon the estimates of the economic impact of E-Commerce in NI and, utilising the context from the COVID-19, cost of living and EU Exit evidence presented in earlier sections of the report, presents forecasts on the potential economic impact of E-Commerce in NI on sales, employment and GVA to 2030.
- 9.2 The forecasting environment is very challenging at this juncture. The main reasons are that;
- The latest available UK data are only up to 2019,
 - NI data are estimates as there are no published data
 - Global disruptions including the COVID-19 pandemic, geopolitics and a cost-of-living crisis have taken place and
 - EU Exit, the NI Protocol and Windsor agreement continue to evolve.
- 9.3 These disruptions necessitated the creation of very large, novel policy responses in order to minimise the damage caused by the pandemic and associated restrictions. As a result, consumers changed their behaviour to a large degree in the early stages of the pandemic, then again as restrictions were relaxed and most recently as inflation has eroded spending power. There remains a significant degree of uncertainty in terms of the outlook as new trading arrangements are discussed following the announcement of the “Windsor Framework”; inflation and supply chain shortages take hold and Governments around the world seek to repair their finances. In this context, it is more challenging than normal to forecast economic outcomes, but using the available evidence and prudent assumptions, forecasts have been developed for three scenarios.

9.2 E-Commerce sales estimates

- 9.4 E-Commerce sales in NI were estimated to range from £10.4 - £13.7bn in 2019 – based on UK E-Commerce sales and sectoral shares⁴¹. As the research has found, UK E-Commerce retail sales increased by 46% during 2020, and then decreased by 3% and 12% respectively in 2021 and 2022. While many consumers have returned to face-to-face shopping, the strong upward trend in online shopping is expected to continue.
- 9.5 Based on these forecasts, E-Commerce sales are estimated to have ranged from £15bn to £21bn during 2021, before dropping back slightly in 2022 and 2023; then returning roughly to the trend rate of growth thereafter (5.3% to 7.0%).

⁴¹ Note: The ONS E-commerce and ICT activity was last published in February 2021, and covered up to 2019. This means that the start point for forecasts in this section is 2019 – because data points for 2020 and 2021 have not yet been published.

Figure 9.1: Estimated value and forecasts for e-commerce sales in NI, £bn, nominal terms, 2014-2030



9.3 E-Commerce GVA outlook

9.6 Translating these sales forecasts to GVA using sales : GVA ratios suggests that pre-pandemic, around £4.1bn to £5.5bn (9% - 13%) of NI’s GVA across a range of sectors was generated via E-Commerce transactions during 2019. **In 2023, GVA generated from E-Commerce transactions could have been worth an estimated £5.3bn - £7.6bn (11% to 16%). This is forecast to fall slightly from 2020 when the pandemic pushed these percentages up to c13% to c19%.**

9.7 These forecasts are considered prudent, based on the sectoral composition of NI, in the context of the ONS Retail Sales Index Time series⁴². The ONS reports that 31% of UK retail sales were via E-Commerce during 2021. This fell to 27% in 2022. Applying these ratios to NI would result in a GVA of £11.7bn in 2021 and £10.7bn in 2022 – both of which are higher than the “high” scenario forecasts. However, these estimates do not take account of NI’s sectoral composition and the lower propensity of other sectors such as construction to sell online.

⁴² ONS. [Internet sales as a percentage of total retail sales](#). February 2023

Figure 9.2: Estimated average value of e-commerce GVA in NI, £bn, 2014-2030

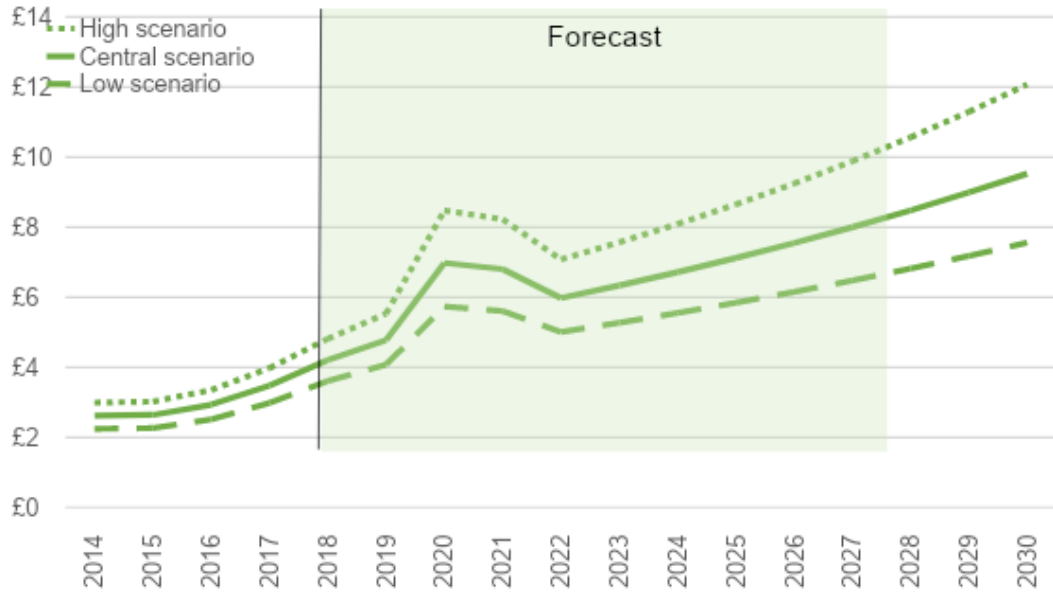
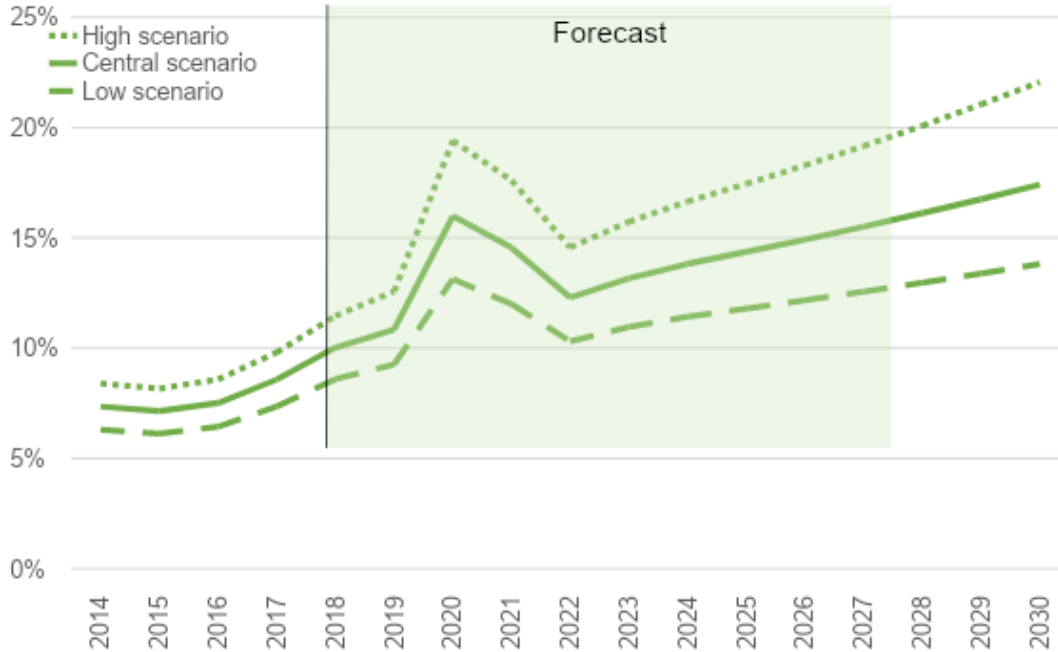


Figure 9.3: Estimated average value of e-commerce GVA in NI, (% of total GVA), 2014-2030



Note: NI GVA growth forecasts are sourced from the and the Danske Bank 2022 Q4 Forecasts for 2020, 21 and 23, with 1% estimated for 2024 and 2% per annum thereafter⁴³

⁴³ Danske Bank. [Northern Ireland Quarterly Sectoral Forecasts, 2022 Q4](#). December 2022

9.4 E-Commerce supported employment predictions

9.8 GVA forecasts can then be converted to employment forecasts by dividing GVA by productivity forecasts⁴⁴ and suggest that around 90,000 to 121,000 jobs were supported by E-Commerce transactions (10% - 13% of total) across a range of sectors in 2019. **Estimates for 2023 are that employment supported by E-Commerce transactions could range from 110,000 to 160,000 (12% to 17%).** E-Commerce supported employment is forecast to grow by an average of between 4% and 6% annually between 2023 and 2030.

Figure 9.4: Estimated e-commerce supported employment in NI, 2014-2030

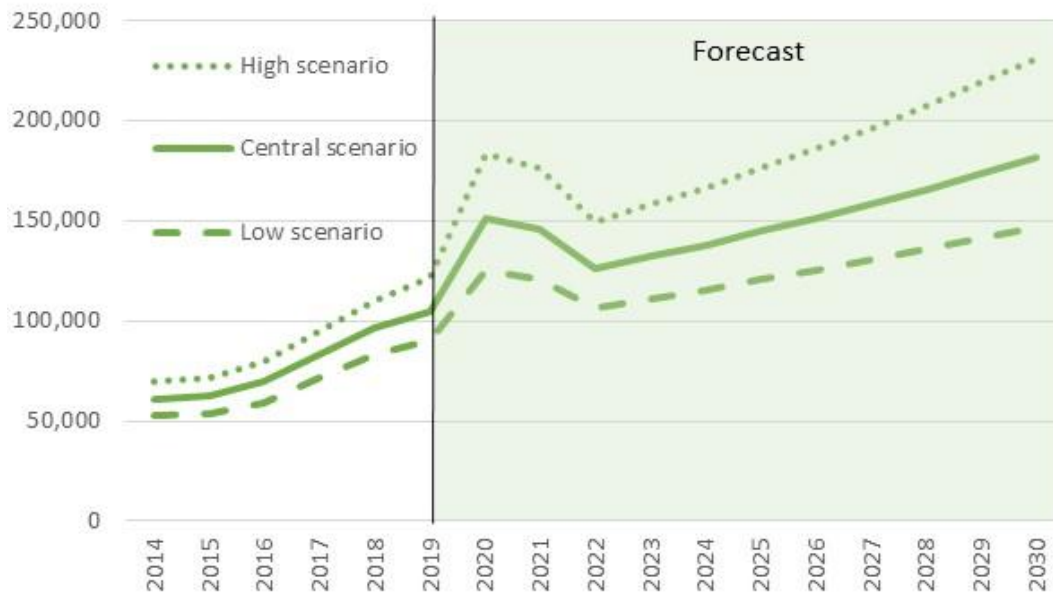
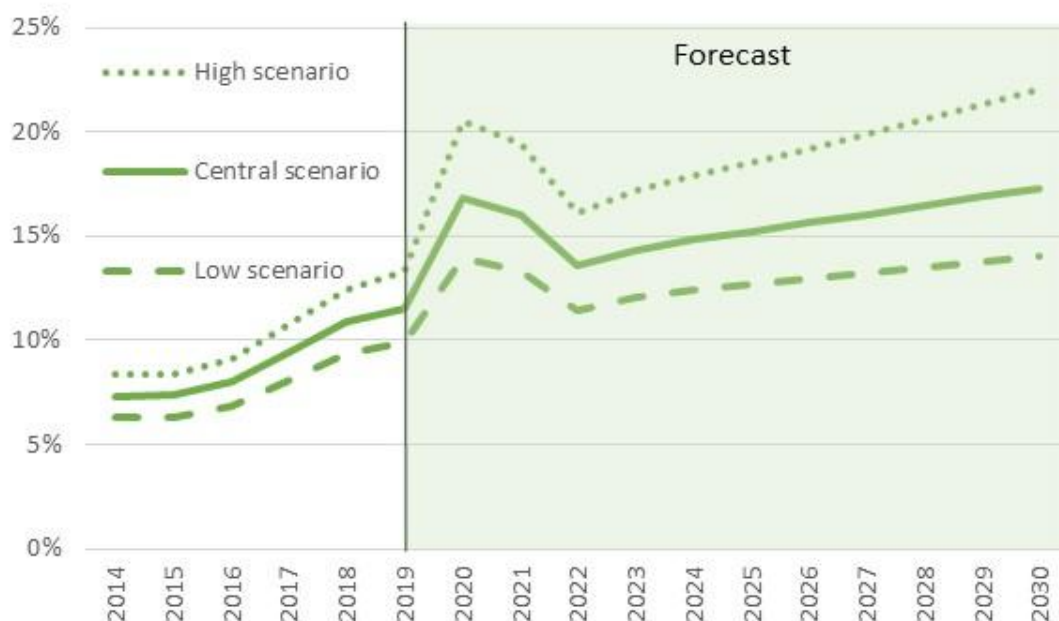


Figure 9.5: Estimated e-commerce supported employment in NI (% of total employment), 2014-2030



Note: NI employment growth forecasts for 2021, 22 & 23 are sourced from Danske Banks Quarterly Sectoral Forecasts, Q4 2022 and are assumed at 2% per annum thereafter

⁴⁴ See footnote 39

9.5 A bright future for e-commerce in NI

- 9.9 Over the past five years, as a series of significant disruptions (COVID-19, geopolitics & cost of living crisis) and government policy responses (CJRS, eat out to help out, energy supports etc.) have had a significant impact on consumer behaviours and as a consequence, economic growth. The rate and timing of recovery are the subject of much debate and means that economic forecasting is challenging in the current macroeconomic environment.
- 9.10 Forecasting E-Commerce activity for NI is very challenging, firstly due to the current macroeconomic environment; secondly due to UK E-Commerce data only being available until 2019; and thirdly due to having to develop NI estimates, as none are published.
- 9.11 Despite these challenges, the economic impact of E-Commerce activity in NI has been modelled within a mathematical framework. The table below provides a snapshot of the economic impact of e-commerce activity in NI. It is estimated that E-Commerce currently generates £6.3bn of GVA and 132,000 jobs in NI. By 2030, estimates suggest that e-commerce could generate 17% of all economic activity in NI, accounting for £9.5bn of GVA and 182,000 jobs.
- 9.12 These estimates are considered to be conservative, based on the sectoral structure of the NI economy. Close to 35% of GVA was generated by e-commerce in both Ireland and Denmark in 2020, and NI now has the added advantage of being able to trade goods into both the EU and UK markets. On this basis, there is the potential for NI to exceed the 2030 forecasts in a supportive policy environment. markets if they are to remain competitive in this increasingly connected world.

Table 9.1: Estimates of E-Commerce supported GVA & employment in NI, 2019, 2023 & 2030

	GVA (£Bn)			GVA (% of total)		
	2019	2023	2030	2019	2023	2030
Low scenario	£4.1	£5.3	£7.6	9%	11%	14%
Central scenario	£4.8	£6.3	£9.5	11%	13%	17%
High scenario	£5.5	£7.6	£12.1	13%	16%	22%

	Employment			Employment (% of total)		
	2019	2023	2030	2019	2023	2030
Low scenario	90,000	111,000	147,000	10%	12%	14%
Central scenario	105,000	132,000	182,000	12%	14%	17%
High scenario	121,000	158,000	231,000	13%	17%	22%

10 Key takeaways

10.1 Hidden in plain sight?

10.1 **Two thirds of all EU citizens⁴⁵ and more than one fifth of EU businesses⁴⁶ use E-Commerce** to buy and sell goods and services. This increases to **nine out of ten young people** and **45% of businesses in Ireland**. The **surge in the use of e-commerce is remarkable** – from just 10% of UK retail sales a decade ago to 30% now. This upward trajectory is expected to continue.

10.2 **Despite these striking figures** which underline the importance of e-commerce as a route to market for many firms, **there are no published data for NI**. This research aims to bridge the evidence gap, by creating initial estimates of the impact of e-commerce in NI.

10.2 Estimating the impact of e-commerce on the NI economy

10.3 **Economies have been disrupted by many events in recent years including COVID-19, EU Exit, supply chain disruptions, geopolitics, energy price shocks and a cost-of-living crisis**. Some of these disruptions **moved trade and consumption online**, others changed consumer behaviour. Most recently, **some** – but not all trade that had moved online **returned to face-to-face** transactions. It is in this fluid environment that this research has taken place and the following estimates have been developed.

10.4 Initial estimates suggest that **in 2023, around £6bn of GVA and 130,000 jobs (13% / 14% of NI totals) are supported by e-commerce in NI**. **By 2030, forecasts suggest that e-commerce could support almost £10bn of GVA and 180,000 jobs in NI (17% of totals)**.

10.5 Interestingly, case study evidence demonstrates that e-commerce is used by firms across the UK, **many are in rural areas and generate jobs at a range of skill and qualification levels**. This challenges the perception that all e-commerce jobs are city based “tech jobs” and therefore **the sector presents opportunities for both sub-regional levelling up and inclusive growth**.

10.3 Strong alignment with Government strategies

10.6 **E-Commerce aligns very well with the aims and objectives** contained within the **key strategies published by Executive Departments, InterTradeIreland, Invest NI, and a number of Councils**. These include 10x, innovation, exports, levelling-up, employment creation, inclusion, and wealth generation.

10.4 Limited direct policy support

10.7 There are **a small number of small programmes in place to boost e-commerce** activity (c£3m - £5m). These are appropriately focussed on the areas of greatest need (micro businesses / SME's / rural areas). The number of programmes increased in response to COVID-19, although some have now closed. Some programmes provide financial support on a sectoral basis; others provide consultancy support and the remainder provide advice. It would seem that **there is an opportunity for a more strategic approach, with perhaps**

⁴⁵ [E-commerce statistics for individuals - Statistics Explained \(europa.eu\)](#)

⁴⁶ [E-commerce statistics - Statistics Explained \(europa.eu\)](#)

one organisation in the lead, to boost E-Commerce activity throughout NI.

10.5 Unique market access

10.8 The UK is competitive in terms of e-commerce and Ireland benefits from a strong, internationally focused tech sector. **NI benefits from unique market access in terms of trade in goods into both the UK and EU markets** as a result of the NI protocol. At the time of writing, many grace periods remain and the Windsor Framework is under consideration aiming to reduce a range of frictions. **NI should be well placed to benefit from this unique trading position, and e-commerce provides a medium through which to engage with customers in markets throughout the UK and Europe.**

10.6 NI benefits from its competitive digital infrastructure

10.9 NI's digital infrastructure is competitive and easily accessible, enabling e-commerce activity. However, competitor nations are also investing and therefore, **NI must re-invest to ensure that the digital infrastructure remains competitive.**

10.7 Enhancing digital and trade skills supply

10.10 NI will need to ensure an adequate **supply of relevant skills** – including digital, computer science and trade skills. **Interventions may be required to support smaller companies and enable them to improve the skills base within their workforce and to access to export markets.**

10.8 Better evidence required to inform e-commerce policy development

10.11 The origins of e-commerce can be traced back around four decades to teleshopping⁴⁷, or to the 1990's when Amazon launched one of the first e-commerce websites. Given the passage of time, the scale of e-commerce activity (especially during COVID), its ability to facilitate trade across borders and trajectory of future growth, **it is surprising that no e-commerce data exists for NI.** This is a significant impediment to effective policy development.

10.12 It is recommended that either the **ONS boosts the sample size** of the UK-wide **Digital Trade Survey** in NI in order to provide representative data or that **NISRA deploys an annual e-commerce survey** or **expands the Annual Business Survey to include e-commerce** to address this information gap.

10.9 Raising aspirations

10.13 The world is an **increasingly digital place, and younger generations are more digitally connected than ever** before. It is well known that the NI economy has a range of challenges including low productivity & employment rates and a relatively narrow export base. There is **a clear opportunity for NI use e-commerce to tap into international megatrends towards digitisation and simultaneously make the most of unique market access** in order to boost trade, employment, wages, sub-regional levelling up and GVA, **building a better economic future for NI.**

10.14 The economic impact estimates developed in this report are considered to be conservative. For context, **around 40% of businesses in Ireland and**

⁴⁷ [The History of E-Commerce: How Did it All Begin? \(Video Included\) \(iwdagency.com\)](https://www.iwdagency.com/news/the-history-of-e-commerce-how-did-it-all-begin/)

Denmark are already using e-commerce (compared to c12% in NI). It is estimated that by 2030, £10bn of GVA & 180,000 jobs (17% of total) could be supported by e-commerce. However, with a supportive policy environment, the figures could be even greater.

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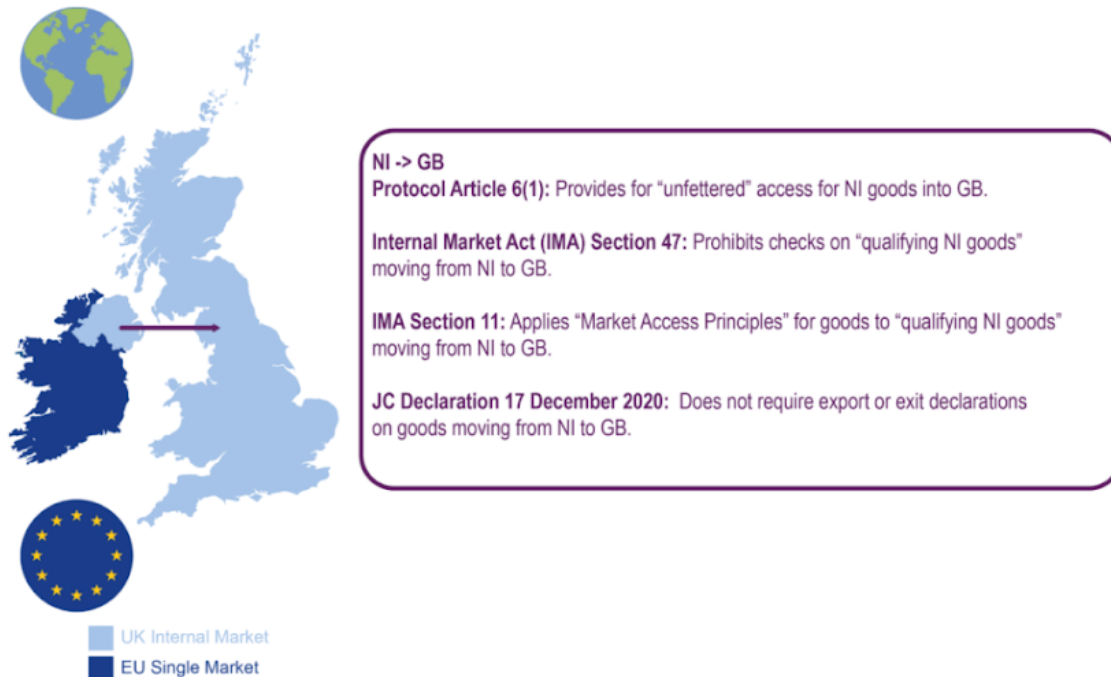
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Appendix 1: The Trading of NI Goods in a post-Brexit Operating Environment

Goods trade from NI to GB

The chart below examines how the Protocol, the Internal Market Act 2020 (IMA) and a Joint Committee (JC) Declaration collectively work together, to ensure the 'unfettered' movement of goods from NI to GB. To that end, Article 6(1) of the Protocol states that nothing in the Protocol "shall prevent the United Kingdom from ensuring unfettered market access for goods moving from Northern Ireland to other parts of the United Kingdom's internal market."



That provision is supported by two sections contained in the IMA. Specifically, Section 47, which generally prohibits the introduction of new checks, or the use of existing checks in a new way, on 'qualifying NI goods' moving from NI to GB; with some limited exceptions – for example, when such goods checks are required by UK or EU international obligations.

The other IMA provision, Section 11, ensures that the Act's Market Access Principles for goods apply to qualifying NI goods in GB markets. That means such goods can benefit from the principles of mutual recognition and non-discrimination across the UK.

Given both Sections 47 and 11 of the IMA, 'qualifying NI goods' are defined as:

- Goods that are either present in NI, and not subject to customs procedures; or
- Goods that either have undergone processing in NI and are made up of components not subject to customs procedures, or components that have successfully completed customs procedures.

In addition to the above, the unfettered access of NI goods to GB markets was supported by a JC declaration of 17 December 2020, which ensured export and exit declarations are not required on goods moving from NI to GB.

Goods trade from GB to NI

Article 5 of the Protocol provided that no customs duties would be payable on goods moving in this direction unless the goods were 'at risk' of moving into the EU Single Market. It also provided that goods would be considered 'at risk' of moving into the EU Single Market if they underwent processing in NI.

The noted Protocol Article 5 provisions were subsequently modified by a JC Decision of 17 December 2020. That Decision;

- Declared goods moving from GB to NI were not 'at risk' of entering the Single Market (where the EU tariff is zero);
- Excluded specific types of processing from the 'at risk' category; and
- Provided that goods moved by authorised traders would not be considered 'at risk'.



GB -> NI

Protocol Article 5(2): No customs duties payable on goods moving from GB to NI, unless "at risk" of subsequent movement into the EU. Additionally, goods considered "at risk" if subject to commercial processing in NI. Provision subsequently affected by the Trade and TCA and JC Decision (see below).

Protocol Article 5: Applies various EU laws to UK in respect of NI, resulting on regulatory checks on goods moving from GB to NI. Provision subsequently affected by JC Declarations (see below).

Protocol Article 6(2): EU and UK will use "best endeavours" to facilitate trade between NI and GB.

IMA Section 46: Appropriate authorities should have "special regard" for NI's place in UK internal market and customs union, and facilitating GB to NI trade when exercising functions implementing Protocol or relating to movement of goods in within UK.

TCA: No duties payable on goods of UK origin moving from GB to NI.

JC Decision 17 December 2020: Goods moving from GB to NI will not be considered at risk where the EU tariff is zero. Certain types of commercial processing excluded from "at risk". Goods not considered at risk if moved by "authorised trader".

JC Declarations 17 December 2020: Three-month grace period for Sanitary & Phytosanitary checks on agri-food products (unilaterally extended by UK Government). Six-month grace period for chilled meats. One-year grace period on human and veterinary medicine.

The above concept of authorised trader, also known as the 'UK Trader Scheme', allows businesses moving goods from GB to NI, to self-declare that their goods are not at risk of entering the EU Single Market if the businesses meet certain criteria. For example, for NI importers, the specified criteria include a business established in NI, with a fixed place of business in that region. In addition to the above JC Decision, the TCA specified no duties were to be payable on goods of UK origin moving from GB to NI.

Article 5 of the Protocol also aligned NI to certain aspects of EU law, resulting in regulatory checks on goods moving from GB to NI. Those provisions were subsequently affected by JC Declarations issued on 17 December 2020, which introduced grace periods on the full implementation of specific types of checks.

Finally, in relation to GB to NI goods flows, Article 6(2) of the Protocol provided that *"having regard to Northern Ireland's integral place in the UK's internal market, the Union and the UK shall use their best endeavours to facilitate trade between Northern Ireland and other parts of the UK, in accordance with the applicable legislation and taking into account their respective regulatory regimes as well as the implementation thereof."*

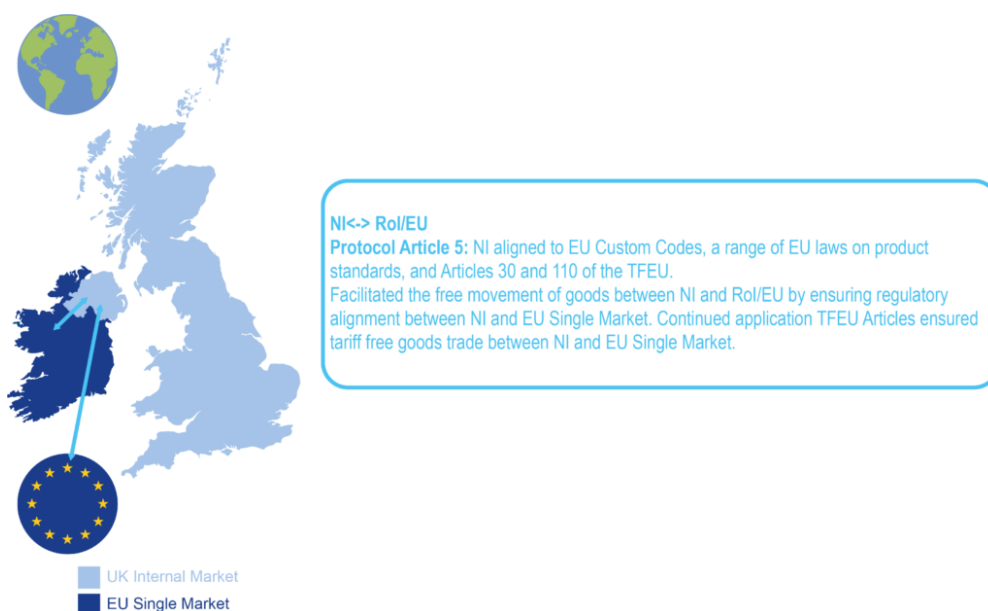
This was 'supported' by IMA Section 46, which provided that appropriate authorities exercising any function implementing the Protocol, or relating to the movement of goods within the UK, should have 'special regard' for both:

- NI's place in the UK Internal Market and Customs Unions; and
- Trade facilitation between GB and NI.

As noted above, Section 47 of the IMA prohibits checks on goods moving from NI to GB. The IMA has no equivalent prohibition on checking goods moving from GB to NI.

NI Goods Trade with the EU Single Market

The chart below summarises the Protocol's impact on goods trade between NI and the EU Single Market. In particular, it highlights how Article 5 of the Protocol aligned NI with certain EU law. This alignment enables goods to flow between the two markets without the need for checks or tariffs.



NI Goods Trade with the Rest of World

Article 4 of the Protocol provides that NI is part of the UK Customs Territory and is to be included in any UK Free Trade Agreements (FTAs). There is no equivalent provision in the Protocol enabling NI to benefit from EU FTAs. As such, since 1 January 2021 businesses in NI can only utilise trade agreements that the UK has in place with other countries or trade blocs.



NI <-> RoW

Protocol Article 4: NI part of the UK Customs Territory and will be included in UK FTAs. From 1 January 2021 businesses in NI can only utilise trade agreements which the UK has in place with other countries or trading blocs.

Protocol Article 5(2): Goods from outside the UK and EU will pay UK tariff unless "at risk" of being moved into EU. Goods considered at risk if subject to commercial processing in NI. Provision subsequently affected by the JC Decision (see below).

JC Decision 17 December 2020: Goods moving to NI from outside UK and EU not considered at risk when EU tariff is lower than the UK tariff. Certain types of commercial processing excluded from "at risk".

Additionally, Protocol Article 5(2) provides that goods moving to NI from outside of the UK and the EU would pay the UK tariff unless they were 'at risk' of movement into the EU Single Market. It also provided that goods that were processed in NI would be considered 'at risk' of movement into the EU. A JC Decision on the 17 December 2020 modified that position. The Decision declared goods moving into NI from outside the EU and the UK would be considered at risk only when the EU tariff is lower than the UK tariff. It also excluded certain types of commercial processing from the 'at risk' category.

GB trade with the EU Single Market

Trade between the GB and the EU Single Market is governed by the terms of the Trade and Cooperation Agreement between the UK and the EU. Amongst other things, that Agreement provided for the removal of quotas and tariffs on trade between the two parties. It did not provide for the removal of checks on goods, including sanitary and phytosanitary checks. Nor did it remove the need for goods moving from GB to the EU, to demonstrate compliance with EU standards.



GB <-> Ro/EU

GB goods trade with the EU Single Market is governed by the terms of the TCA. In short, this provided for the removal of quotas and tariffs on trade between the two parties – provided "Rules of Origin" are met. UK and EU maintain separate regulatory regimes for human, plant and animal health, resulting in SPS checks. Goods moving from GB to EU will need to demonstrate compliance with EU standards.

Appendix 2: GVA and employment estimates and forecasts generated from E-Commerce activity in NI

GVA (£Bn)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Low scenario	2.2	2.3	2.5	3.0	3.6	4.1	5.7	5.6	5.0	5.3	5.6	5.8	6.2	6.5	6.8	7.2	7.6
Central scenario	2.6	2.6	2.9	3.5	4.2	4.8	7.0	6.8	6.0	6.3	6.7	7.1	7.5	8.0	8.5	9.0	9.5
High scenario	3.0	3.0	3.4	4.0	4.8	5.5	8.5	8.2	7.1	7.6	8.1	8.6	9.2	9.9	10.6	11.3	12.1

Employment

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Low scenario	52,000	53,000	59,000	71,000	83,000	90,000	125,000	121,000	107,000	111,000	116,000	120,000	125,000	130,000	136,000	141,000	147,000
Central scenario	61,000	62,000	69,000	83,000	97,000	105,000	151,000	145,000	126,000	132,000	138,000	145,000	151,000	158,000	166,000	173,000	182,000
High scenario	70,000	71,000	79,000	95,000	110,000	121,000	184,000	176,000	150,000	158,000	167,000	176,000	186,000	196,000	207,000	219,000	231,000

GVA (% of total)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Low scenario	6%	6%	6%	7%	9%	9%	13%	12%	10%	11%	11%	12%	12%	13%	13%	13%	14%
Central scenario	7%	7%	8%	9%	10%	11%	16%	15%	12%	13%	14%	14%	15%	16%	16%	17%	17%
High scenario	8%	8%	9%	10%	11%	13%	19%	18%	15%	16%	17%	17%	18%	19%	20%	21%	22%

Employment (% of total)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Low scenario	6%	6%	7%	8%	9%	10%	14%	13%	11%	12%	12%	13%	13%	13%	13%	14%	14%
Central scenario	7%	7%	8%	9%	11%	12%	17%	16%	14%	14%	15%	15%	16%	16%	16%	17%	17%
High scenario	8%	8%	9%	11%	12%	13%	20%	19%	16%	17%	18%	19%	19%	20%	21%	21%	22%