Our Big Picture: Evidence Base Report

16 December 2021

Glossary

Term	Description
3G	Third Generation mobile network technology
4G	Fourth Generation mobile network technology
5G	Fifth Generation mobile network technology
A&E	Accident and Emergency
ADSL	Asynchronous Digital Subscriber Line
Agreement	A Framework Agreement between the Isle of Man Government and KPMG LLC dated 14 April 2021 and the Purchase Order issued under it dated 24 June 2021
AML	Anti-Money Laundering
BIS	Bank for International Settlements
CAGR	Compound Annual Growth Rate
CFT	Countering the Financing of Terrorism
Client	Isle of Man Government
CPI	Consumer Price Inflation
Crown Dependencies	Collectively, the Bailiwick of Guernsey, the Bailiwick of Jersey, and the Isle of Man
CSP	Corporate Service Provider
CURA	Communications and Utilities Regulatory Authority
DEFA	Department of Environment, Food and Agriculture of the Isle of Man Government
DfE	Department for Enterprise of the Isle of Man Government
EKC	Environmental Kuznets Curve
EPC	Energy Performance Certificate
EPU	Environmental Protection Unit of the Department of Environment, Food and Agriculture
ESA10	European System of Accounts 2010
ESG	Environmental, Social and Governance
EU	European Union
FIU	Financial Intelligence Unit
Framework	The Strategic Economic Framework for the Isle of Man
FSA	Isle of Man Financial Services Authority
FTTC	Fibre To The Cabinet
FTTP	Fibre To The Premises
FY	Financial Year
G20	Group of Twenty, consisting of Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, South Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, the

	United Kingdom, the United States and the European Union
G7	Group of Seven industrialised nations, consisting of Canada, France, Germany, Italy, Japan, the United Kingdom and the United States
GDP	Gross Domestic Product
GHG	Greenhouse Gas
Government	Isle of Man Government
GP	General Practitioner
GSC	Gambling Supervision Commission
GVA	Gross Value Added
GWP	Global Warming Potential
HNWI	High Net Worth Individual
ICT	Information, Communications and Technology
IFC	International Financial Centre
IoM	Isle of Man
IOMG	Isle of Man Government
IoT	Internet of Things
Island	Isle of Man
JSL	Joint and Several Liability
KPMG	KPMG LLC, an Isle of Man Limited Liability Company
LULUCF	Land use, land use change and forestry
M&A	Mergers and Acquisitions
MNE	Multi-National Enterprise
NI	National Insurance
OECD	Organisation for Economic Co-operation and Development
OFT	Office for Fair Trading
ONS	Office for National Statistics (United Kingdom)
pp	Percentage points
Report	This document
RPI	Retail Price Inflation
SME	Subject Matter Expert
UCM	University College Isle of Man
UK	United Kingdom of Great Britain and Northern Ireland
UNESCO	United Nations Educational, Scientific and Cultural Organization
US	United States of America
VAT	Value Added Tax
VDSL	Very high bit rate Digital Subscriber Line
VFR	Visiting Friends and Relatives

Contents

1 Executive summary

This chapter of our Report highlights certain key observations and findings, which are discussed in greater detail in subsequent chapters. It should not be read in isolation.

1.1 Introduction

KPMG has been engaged by the Isle of Man Government to support in developing a strategic economic framework to support the Island's economic performance for the next 5 to 10 years.

The project comprises multiple phases, which are described further in Section 2.1. This report has been produced as part of Phase 1 of the project, which seeks to build an evidence-based assessment of the Island and its economy as it currently stands.

In addition to analysis of key economic measures based on available data, KPMG has also considered the Island's performance in respect of several key strategic themes. These themes have been determined during the preliminary stages of the project based on initial views provided by the Isle of Man Government and with input from stakeholders within the Island's business community. The following themes were determined as vital to the future economic success of the Island:

- **Attractive to Business** – It was suggested that the Island will need to ensure that its offer to businesses is attractive in a competitive and changing international market.
- **Attractive to People** – It was suggested that ensuring the Island is a vibrant place to live and work will be essential to growth by providing the conditions to retain and attract the economically active population needed by existing businesses and the entrepreneurs who will found and grow the next generation of Island businesses.
- **Sustainable** – It was suggested that more ambitious pursuit of sustainability will be a critical component in positioning the Island to retain and attract leading businesses and that there is a need to equip the Island, and its businesses, to deliver objectives around decarbonising the economy.
- **Tech Enabled** – It was suggested that innovation and growth will require an environment where the potential of new technologies can be fully realised.

The preliminary work also included exploration of an appropriate vision for the economic future of the Island. The overarching vision developed based on stakeholder feedback was "*The Isle of sustainability, prosperity and wellbeing for all.*" which was expanded as "*A resilient economy of innovative, ambitious and sustainable enterprises, supporting robust growth in the economically active population and the facilities which make the Island a great place to live and work. The government is joined up and agile, responding quickly and positively to opportunities and ensuring the Island remains a place in which enterprises and people can thrive.*"

1.2 The Isle of Man Economy

1.2.1 Economic output and growth

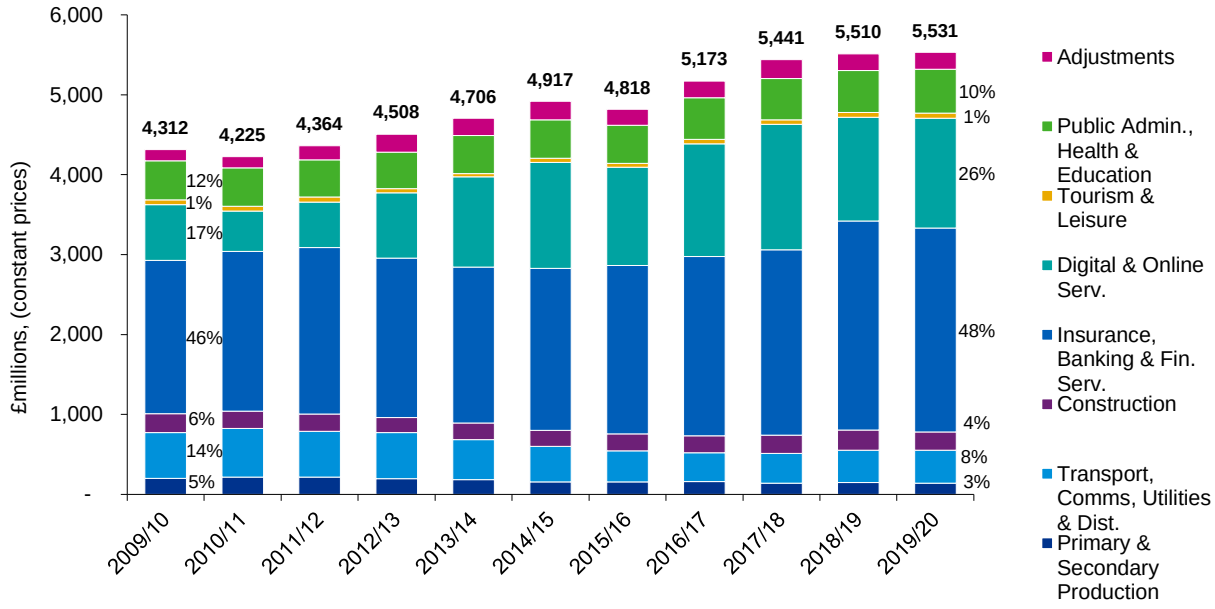
A range of measures need to be analysed to understand the economic performance of a jurisdiction. One such measure is Gross Domestic product ("GDP") which, in general, provides an indication of the size and health of an economy.

Data shows that the Island's GDP grew over the decade to 2019/20, reaching £5.53bn, as shown in Figure 3.1 on page 32. While there are some limitations to inferences that can be drawn from the Isle of Man's GDP growth due to it capturing corporate income from off-Island activities, the GDP growth does provide a signal that the total value of goods and services produced in the economy and overall income increased over the last decade.

However, growth was largely driven by expansion in the output of the eGaming and Insurance sectors: in constant prices the Island's GDP grew at an underlying annual rate of 2.5% but at a rate of only 0.8% when eGaming and Insurance were excluded. Figure 3.7 on page 41 shows sectoral GDP growth over the decade to 2019/20, with most sectors barely growing or even shrinking in percentage terms based on constant prices.

While the Island is somewhat more diversified that comparator jurisdictions such as Jersey and Guernsey, the economy is still heavily concentrated in two sector groupings. As shown in Figure 1.1 below 'Insurance, Banking, Financial and Professional Services' accounted for 48% of GDP in 2019/20 and 'Digital and Online Services' (including eGaming) accounted for 26% of GDP.

Figure 1.1 Manx GDP by Sector Grouping: 2009/10-2019/20



Source: Isle of Man National Accounts, KPMG analysis

1.2.2 Labour market

The Island has enjoyed low levels of unemployment for an extended period. After a spike in unemployment during 2020 arising following the COVID-19 pandemic, unemployment rates are now returning to pre-pandemic levels. As shown in Figure 3.14 on page 50 unemployment is often around or even below the level of vacancies.[1] Surveys and stakeholder interviews have indicated that the tight labour market and particularly the limited availability of skilled workers is a key constraint to their growth. Given the focus on employment in the economic strategy over the past decade and the high degree of government income from employment-related activities, the tight labour market has, in turn, been a drag on the Island's economic performance.

Despite the low unemployment rates, however, the Island has a relatively high proportion of the population that is not "economically active"[2] (c. 51% in 2019 compared to rates of c. 42% in Jersey) driven largely by the age profile of the Isle of Man's residents.[3]

In terms of the sector driving employment on the Island, as Figure 3.19 on page 56 shows, there is not a close relationship between sectoral employment and GDP: for example, Insurance contributed 19% of GDP in 2019/20 but only 5% of employment; similarly, eGaming contributed 17% of GDP but only 2% of employment. Conversely, Retail Distribution contributed just 2% of GDP but 12% of employment. This means that the sectors generating the most income for the Island do not create an equivalent level of jobs to support the Island's population, although the jobs created in those sectors will be higher value adding. As a result, a strategic focus on economic value generation rather than purely on the jobs created may have resulted in higher GDP growth.

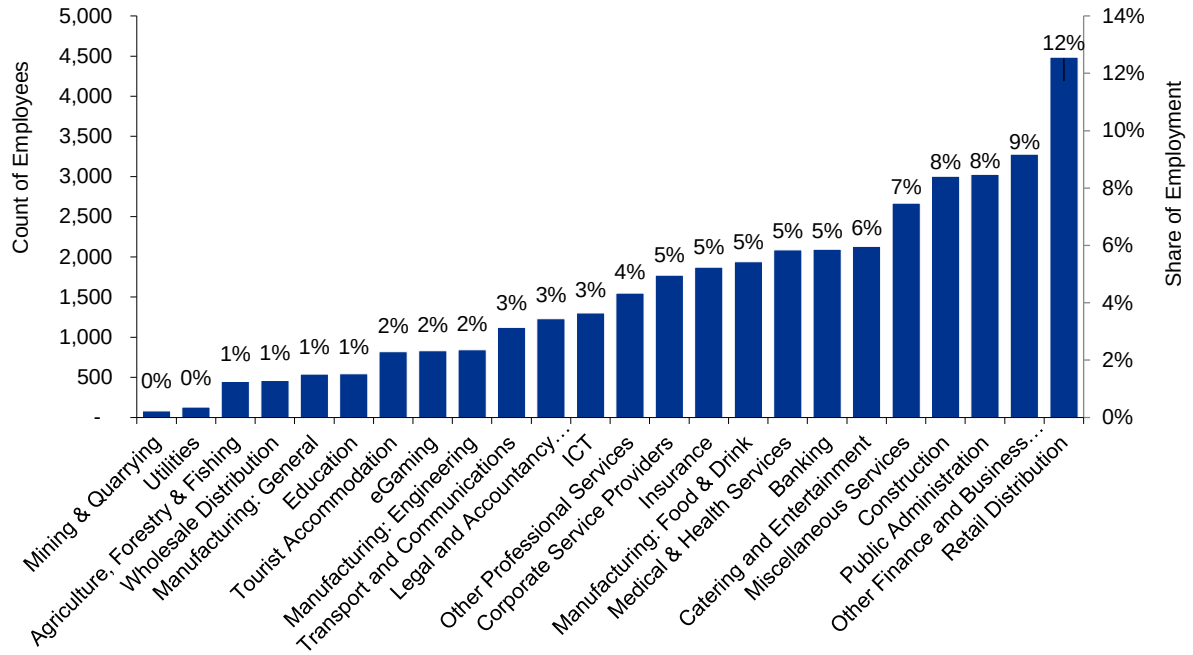
This is also reflected in the wages of employees of the Island, with the mean level of wages (the average of all wages) being substantially above the median wage (which is a measure of the wages of the average worker). While both median and mean wages have risen over the last decade the gap between them has widened. Mean annual wages rose from approximately £35,000 in 2010/11 to approximately £41,000 in 2020/21, with median wages growing more modestly from approximately £29,000 to £32,000.

In 2020/21 median wages on the Island were approximately 10% higher than those in the United Kingdom, although it should be noted that this will be driven by a range of factors including the sector and workforce compositions of each jurisdiction.

[1] It should be noted that unemployment data used here represents the number of individuals in receipt of Jobseeker's Allowance, rather than total unemployed. This is the case throughout the report except when relating to census data, which represents total unemployment.
[2] The OECD (2001) defines the economically active population as: 'all persons who furnish the supply of labour for the production of economic goods and services as defined by the United Nations System of National Accounts during a specified time period'.
[3] It is noted that residents on the Isle of Man might not be classified among the 'economically active' population (as defined above) but may still contribute to economic activity through their sources of income and as a result of spending money on the Island, for example in the retail and hospitality sectors.

The number and share of employees by sector in Q1 2020 is shown in Figure 1.2 below.[4]

Figure 1.2 Employees[5] by Sector, Isle of Man: Q1 2020



Source: IOMG Data, KPMG analysis

1.2.3 Population and demographics

The available workforce and their associated characteristics is important to understand given it is a determinant of the resources available in the economy to deliver economic output and growth.

Like other developed economies, the Isle of Man has an ageing population, but the Island's population is somewhat more unbalanced than comparators: at 20.7% in 2016, the Island's proportion of those aged 65 and over exceeds the UK (18%) as well as Jersey and Guernsey (16.5%). It also faces particularly large cohorts approaching retirement age.

Figure 3.32 on page 72 shows that the Island's dependency ratio[6] is substantially higher than comparators: 64% on the Island in 2016 compared to 56% in the UK, 50% in Jersey and just 32% in the Cayman Islands. The high dependency ratio in the Isle of Man could put pressure on residents of working age to fund the spending of Government to support the broader economy. Given the Island's current demographic profile, there is a risk that the dependency

[4] In the absence of up to date data for Public Administration sector employment, Census data from 2016 has been used to provide an estimate for the count and share of employees. This is estimated to be approximately 3,000 employees.
[5] In line with the economic indicators presented in the Isle of Man in Numbers reports, this data relates specifically to individuals who are employed and does not include individuals who are self-employed.
[6] The dependency ratio is a measure of those under 16 and those over retirement age as a proportion of those of working age. It does not take into account employment status.

ratio may worsen over time if the Island is not able to attract and retain younger economically active people: a key challenge noted by stakeholders.

1.2.4 Government finances

The Isle of Man Government's finances are in a relatively strong position, with reserves held to support the funding of future spending, for example to address economic shocks. As Table 3.7 on page 77 and Figure 3.36 on page 78 show, the Island's reserves in absolute and per capita terms were greater than those of the other Crown Dependencies prior to the COVID-19 pandemic. There was a need, however, for the Island to draw down on reserves and to run a budget deficit in FY 2020/21 to fund COVID-19 support measures and as a result of lost income through the economic downturn.

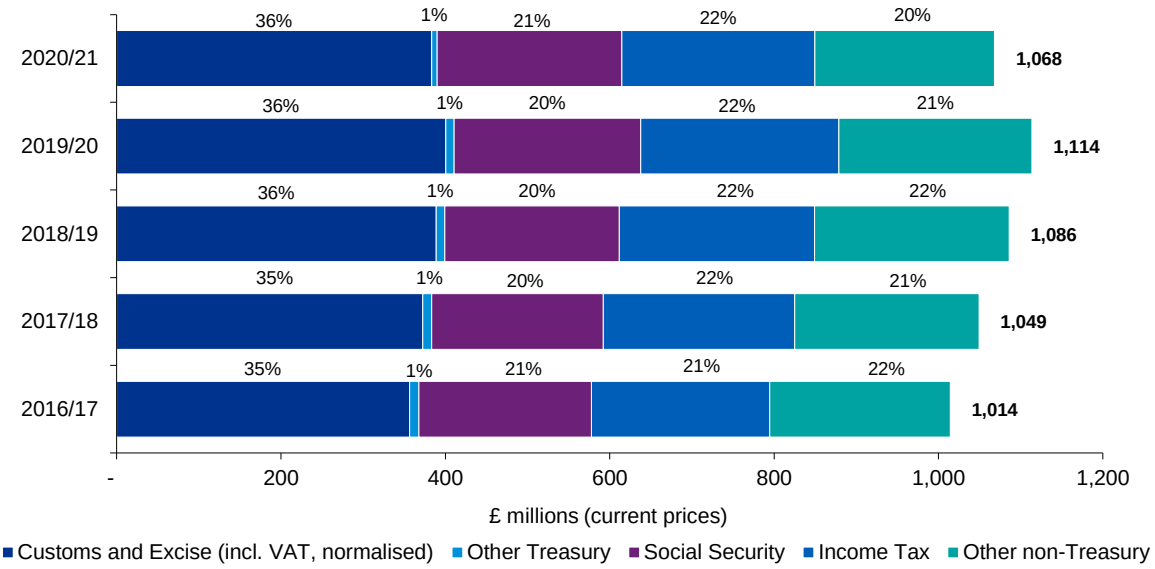
As shown in Figure 3.52 on page 91 the level of government expenditure per capita in constant prices has been relatively stable since 2016/17 and the proportion of central government expenditure by department has also been relatively stable over the same period. The largest proportions of government spending are on health and social care and social security and most recently the cost of the Island's COVID response.

Government expenditure as a proportion of GDP is relatively low on the Island compared to larger developed economies such as the UK but is similar to the other Crown Dependencies (see Figure 3.55 on page 94). Government revenues are drawn from a number of sources. As Figure 3.39 on page 80 shows, there is not a single dominant source of government funding, with VAT, income tax and social security contributions all representing significant sources of income. The significant contribution of VAT to government revenue (normalised income from Customs and Excise (including VAT) was c. £384m in 2020/21) differentiates the Island from the other Crown Dependencies.

The Isle of Man Government raises revenue from a combination of sources including customs and excise (including VAT), income tax, National Insurance and corporate tax levied on select sectors of the economy[7]. Figure 1.3 shows the Isle of Man's normalised Government revenues by source between 2016/17 and 2020/21.

[7] A 10% rate is applicable to income from banking business and for retail businesses with annual taxable profits in excess of £500,000, and a 20% rate is applicable to income from land and property on the Island.

Figure 1.3 Isle of Man Normalised Government Revenues by Source: 2016/17-2020/21

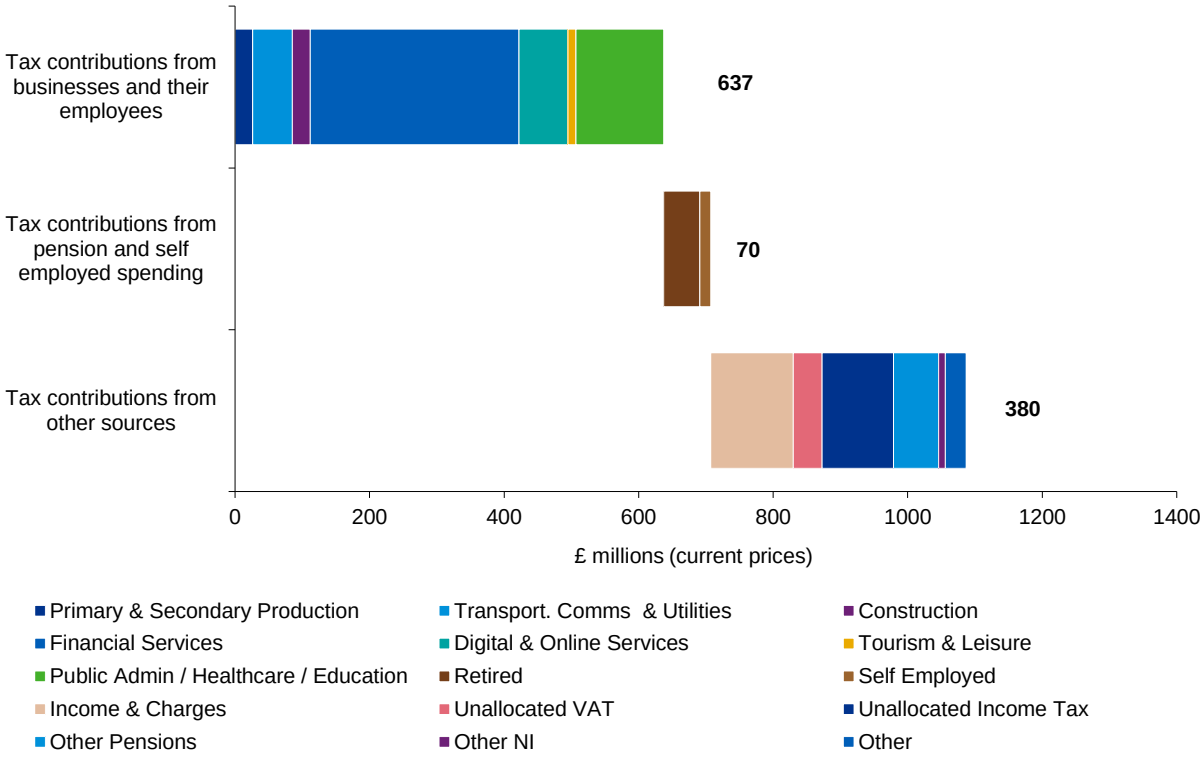


Source: Isle of Man Detailed Accounts

Although Customs and Excise revenues are the largest contributor to Government finances (accounting for 36% in 2020/21), there is no single dominant source of funding. Income tax accounted for 22% of revenues in 2020/21, social security contributions for 21% and other Treasury and non-Treasury revenues accounted for 1% and 20% respectively.

From a sector perspective, businesses and the employees working within these sectors contribute significantly toward Government income. Wider contributions are also made by the retired population and self-employed individuals, for example, through the VAT associated with their spending in the economy. This analysis is included in Section 3.6.2 and is shown in summary form in Figure 1.4 below.

Figure 1.4 Isle of Man Tax contributions, 2018/19



Source: IOMG Data, KPMG analysis

In terms of distinct sectors, the Banking sector, including the employees within this sector, contributes the largest proportion of taxes at approximately £60m, followed by Medical and Health Services at £59m, and Other Finance and Business Services at £58m. As well as the contribution of the distinct sectors of the Manx economy, a further £49m in irrecoverable VAT was attributed to Managed Structures – captured in the analysis within the Corporate Service Providers (CSP) sector.

1.2.5 Household income and expenditure

Household finances are important to assess from a welfare perspective as income data from households can reveal how GDP and wage growth are spread through the population. Household consumption is also one of the contributors to aggregate demand in an economy.

Data shows that the gap between the richest and poorest households on the Island has widened, with the income of the poorest quarter of households falling in real terms over the period 2006/07 to 2018/19 while that of the richest quarter has risen significantly over the same period. See Section 1.4 for further discussion. Across the population as a whole, on average, the largest source of income comes from wages and salaries, although compared to 2012/13, pensions have grown in importance as a source of income for households, consistent with the Island's ageing population.

In terms of expenditure, household spending has increased in real terms over the period 2012/13 to 2018/19. Of total average weekly household expenditure in 2018/19 (£1072.94),

the largest share (over £320) was non-consumption spending, comprising spending linked to investment and debt, such as mortgage interest repayment and pensions contributions. Approximately 10% of average household spending was on housing, fuel and power. However, this pattern of consumption does differ significantly across households by size and income level.

1.3 Attractive to business

We looked at a variety of measures and considered stakeholder feedback relevant to the Island being a place that is attractive for businesses to locate in, and that provides an environment that encourages and supports entrepreneurial activity and business innovation, investment and growth.

1.3.1 Infrastructure and services to support business performance

We consider key aspects of infrastructure relevant to business activity in Section 4.3.

— **Transport infrastructure and travel** are reviewed in Section 4.3.1:

- The Island has a range of road, rail, sea and air links providing connectivity on the Island and to other jurisdictions. The 2018 audit of the National Infrastructure Strategy deemed both the airport and ports to be well-positioned to meet both current and increased demand[8], although it is noted that some road network improvements around Douglas are needed to ease congestion.
- Stakeholders noted the importance of regular, reliable air links for outward-facing businesses. In particular, the connectivity into key international hubs was frequently mentioned.
- As shown in Figure 4.2 on page 112, business travel to the Island has been declining over the last decade. Following the COVID-19 pandemic new dynamics in terms of new ways of working and conducting more business meetings virtually may reduce the need for business travel in future.

— **Digital infrastructure** is reviewed in Section 4.3.2 and further assessments are covered under the 'Tech Enabled' strategic theme:

- As observed in Chapter 3, the Island has a sizeable proportion of technology-related economic activity, with the eGaming and ICT sectors together accounting for c. 25% of GDP but only c. 6% of on-island employment.
- While it is recognised that investments in high speed broadband are being made, including as part of the National Broadband Plan, stakeholder feedback on connectivity was mixed. On fixed line infrastructure the Island is clearly lagging leading smaller jurisdictions, including Jersey, in the rollout of fibre to the premises, although the pace is accelerating. On mobile infrastructure while 4G is widely available, stakeholders indicated that the lack of plans for rollout of 5G were problematic, particularly for cutting edge tech businesses and tech savvy individuals.

[8] Department of Infrastructure. (2018). 'The National Infrastructure Strategy First Monitoring Audit'

— **Business premises** are reviewed in Section 4.3.3:

- The Island devotes a significantly higher proportion of commercial floorspace per capita to offices than other uses, as might be expected given the key business sectors operating on-island.
- Stakeholder feedback was critical of the relative lack of high-quality commercial facilities readily available on the Island. Recent successful letting of quality renovation projects in Douglas was seen to demonstrate the demand for high quality office stock. It was also noted that the Island had sufficient space available to businesses that would be looking to build their own facilities.
- The Island appears to have significantly less retail floorspace on a per capita basis than the UK, albeit data available for the UK is more dated than that for the Isle of Man (2012 vs 2016), so may not capture to the same extent trends affecting the retail sector over recent years.
- Given potential changes in the use of floorspace post-COVID it will be important to consider the alternative use of existing office and retail space.

— **Business related services** are reviewed in Section 4.3.4:

- Business Confidence Survey[9] results regarding satisfaction levels with the quality of various business-related services[10] had generally declined between 2017 and 2019, with a particularly marked decline in satisfaction with the quality of hotels and accommodation services. Introduced only in the latest survey, satisfaction with the quality of road infrastructure was also particularly low in absolute terms (average of responses was 2.2 where 1 is 'Least Satisfied' and 4 is 'Most Satisfied').
- The survey results relating to satisfaction levels with the cost of various business-related services presented a more mixed picture, with satisfaction levels slightly rising in respect of the cost of utilities and transport links and declining markedly at the end of the period (between April and October 2019) for hotels and accommodation.
- Feedback during stakeholder sessions noted that costs of electricity were high on-Island compared to the UK and could prove prohibitively expensive for businesses with high electricity usage. The lack of significant green power options was also raised as an issue for businesses looking to improve their ESG performance.

1.3.2 People and skills

Results from the Business Confidence Survey show that an increasing proportion of respondents do not think that young people on the Island have the skills needed by business (up from 18% in October 2018 to 31% in October 2019). In terms of the skills identified as

[9] Isle of Man Business Confidence Surveys, 2017-2019. It should be noted that sampling differences are likely to exist across the different survey waves between 2017 and 2019. This should be kept in mind when considering this part of the analysis and results should be taken as indicative only.
[10] Services covered included: 'Government services', 'Hotels and accommodation', 'Telecommunications services', 'Transport links', 'Utilities services' and (for the latest survey only) 'Road infrastructure'.

missing, these largely focused on soft skill areas rather than hard technical skills: the most common responses were life skills (31%), personal values and resilience (27%) and interpersonal/adaptable communication skills (25%).

More broadly, across existing employees, however, the majority of respondents to the Business Confidence Survey reported that skills requirements were met (63% of respondents in October 2019 reported no skills gaps). Where skills gaps were identified, 20% of businesses reported these were relation to technical skills, 13% in relation to interpersonal/customer service skills and 14% of respondents reported gaps in terms of leadership/management skills.

Despite this survey data suggesting skills requirements frequently being met, the challenges faced by businesses in recruiting people with the right skills – particularly among school leavers, graduates and young professionals – were among the most consistent messages received throughout our engagement with the business community and across most sectors.

Given the importance of skills to the future success of the Island's economic performance, we note that the data available at present does not provide a complete, detailed view of the current and future skills requirements of the Island's businesses or of the solutions needed to address any skills gaps. Therefore, further work will be needed to inform future policy decisions.

1.3.3 Innovation and business dynamism

Business creation and closure is needed for long-run economic growth as it supports innovation and new ideas and without it productivity and wage growth can be negatively impacted.[11]

While data relating to business survival is not available, data on the stock of businesses suggests that business formation has been increasing at a faster rate than business closures for companies employing individuals (Employer firms) over the period Q1 2015 to Q1 2021. Over this timeframe, the number of employer firms increased by 11%, from 3,783 to 4,275.

Data on innovation levels in the Island's businesses is also limited, but the Business Confidence Surveys reveal a significant improvement in business satisfaction with support for innovation and emerging technologies between October 2017 and October 2019, with 66% being 'Satisfied' or 'Very Satisfied' in October 2019 versus 25% in October 2017.

However, feedback from stakeholders suggested a number of issues potentially stifling innovation and business dynamism, including:

- insufficient turnover in the Island's senior talent pool;
- the limited extent to which larger businesses had product design functions based on-Island, particularly in the financial services sector;
- difficulties in attracting workers to relocate to the Island, particularly younger people; and
- an overall limit to the extent to which dynamic and fresh thinking was part of the fabric of the local business community and – particularly but not exclusively for financial services – regulatory appetite for change.

[11] ONS (2020). 'Business dynamism in the UK economy'.

It was widely noted that the COVID-19 pandemic had required business to adapt quickly to changing circumstances.

1.3.4 Access to capital and finance

Access to required capital and finance is another condition for business success. Prior to the pandemic, surveys indicated that relatively few Island businesses reported that they were constrained by insufficient access to finance (12-16% between 2017 and 2019). Furthermore, a survey issued in connection with this report found that 47% of respondents did not use external finance in 2020/21 and 70% had not sought external finance in the same period.[12] This in itself, however, could signal a lack of appetite for business investment to drive innovation and growth.

Several issues were raised in feedback from stakeholders with respect to financing:

- Funding for start-up and scale-up businesses on the Island was limited.
- Banks on-island were viewed as being relatively conservative in their lending to support growing businesses, many forms of domestic business or in providing banking services at all to start-ups or larger businesses in certain sectors deemed 'high risk', such as eGaming, other digital businesses and many CSP clients
- Stakeholders reflected on the opportunities and innovation that could be developed with appropriate availability of funding, something other jurisdictions have managed through the formation of state-owned development banks, including Gibraltar.

1.3.5 Governance and regulation

Feedback from stakeholders indicated that the Island's regulatory frameworks for financial services and eGaming are well-respected internationally and help attract high-quality business to the Island. This is supported by Business Confidence Survey responses: in October 2019 96% of respondents 'Strongly agreed' or 'Agreed' that the Isle of Man is a safe place to do business.

However 'Regulation and red tape' was the second most commonly reported obstacle to business success in a survey run in connection with this report (44% of respondents), with 'Financial services regulations' being the most common obstacle mentioned within the category (43%).

Feedback from stakeholders identified that they consider that the Island frequently did not act with agility in responding to market needs and that Government lacked the ambition and joined-up approach required to successfully identify, pursue, and realise larger, game-changing opportunities for business growth and innovation. Additionally, it was suggested that this was potentially due to the strategic horizon of the Island often being too short (c.3-4 years) rather than looking for opportunities or mega trends that may not be capitalised for over 5 years.

[12] It should be noted that the sample size of this survey was extremely small (less than 200 and non-random). Therefore, the amount of bias within the results is potentially large and/or there may exist a large margin of error. This should be kept in mind when considering this part of the analysis and results should be taken as indicative only.

1.3.6 Business Taxation

The Island, in common with many International Financial Centres, has very competitive rates of corporate taxation. This is an important feature for attracting and retaining businesses on the Island.

The Island seeks to meet international tax compliance standards introduced by relevant bodies such as the OECD and EU, entering into double taxation agreements and information sharing agreements with many other jurisdictions and introducing substance rules in line with EU requirements.

Recently agreed proposals published by the OECD as part of its “Two Pillar Solution” are likely to lead to significant change in the international tax landscape in respect of many large multinational enterprises. Based on the current proposals most existing Island businesses fall outside the scope. However, should the size and nature of entities within the scope of such measures be expanded in future this might be expected to have a broader impact on the Island’s economy. This topic is discussed further in Section 4.8.

1.4 Attractive to people

In order to support a healthy economy, the Isle of Man needs to attract and retain a sufficient economically active population to drive economic growth, including to provide the skills and human capital to attract businesses. We have therefore looked at a variety of measures and considered stakeholder feedback relevant to the Island being a place that is attractive for people.

1.4.1 Income and cost of living

The Island’s income tax system has a number of advantages over the UK (and other large, developed economies) for high earners and High Net Worth Individuals, including competitive marginal rates of tax and the ability to elect to take a tax cap.

Section 5.3.3 of the report on page 160 discusses personal taxation as compared to the UK. Whilst the Island’s tax system offers clear advantages for higher income households, the advantages for households on lower to middle incomes are much more limited: in a simple case, a single person on a salary of £35,000 has a net income just 1% higher on the Island than in the UK.

As Table 5.5 on page 162 shows, the gap in the living wage between the Isle of Man and the UK has widened considerably between 2017 and 2021, with families with two or more children now requiring a living wage more than 50% more than their UK counterparts (£1,223 per week in the Island compared to £784 in the UK for a couple with two children: a 56% difference).

Even taking into account that wages on the Island are somewhat higher than the UK, combining the observations above about the modest tax advantage and cost of living differences it becomes clear why the Island may struggle to attract young economically active people, particularly in roles or sectors where earnings potential is more limited (albeit our analysis does not capture any potential difference in, for example, social security payments).

See Section 1.4.4 for an overview of analysis relating to cost of housing and the associated obstacles in retaining and attracting young people to the Island.

1.4.2 Education

The quality of education on the Island is important both in attracting people to live and work on the Island and in ensuring that the current and future economically active population have the skills that the economy needs. As noted elsewhere, survey data and stakeholder feedback indicate recruiting young people with the right skills is a challenge for the Island's businesses.

The Island does not compare favourably to England or Jersey in terms of attainment of top exam grades: 42% of A-level exam students on the Island in 2019 received grades A* to B compared to 51% in England and 60% in Jersey; 20% of GCSE exam students were graded A* to A compared to 21% in England and 25% in Jersey. The reason for this is unclear from the data available at present, although we note one available statistic in relation to the student to teacher ratio shows the Isle of Man performing less well than comparator jurisdictions.

Despite lower top grades than in England or Jersey, following secondary school, many young people from the Island do continue into higher education, with the majority continuing their studies off-island: 61% in 2020 versus 10% taking up a place on the Island at UCM.

1.4.3 Health and wellbeing

The Island faces a perfect storm, whereby the number of patients per GP has been rising (and per Figure 5.23 on page 181 consistently exceeds the ratio in England) at a time when the proportion of registered GP patients (and share of the population) over 65 has also been rising for several years. As shown in Figure 5.24, Table 5.11, and Figure 5.25 (starting on page 182) the Island's critical care services are also currently underperforming versus the relevant benchmarks and the NHS in England:

- In May 2021 c. 78% of patients were admitted transferred or discharged within 4 hours of arrival at A&E versus a target of 95% and performance in England over the same period of c. 84%.
- In the same month the Category 1 mean average ambulance response time was 8m42s versus a target of 7 minutes and performance in England over the same period of 7m25s.
- In April 2021 c. 71% of cancer referral patients were seen within the two-week target time versus performance in England over the same period of c. 85%.

It remains to be seen in the data available how the establishment of Manx Care in April 2021, following the recommendations made in the independent report by Sir Jonathan Michael, may affect performance.

As shown in Figure 5.11 on page 169 life expectancy at birth and at age 65 for both genders has been gradually falling on the Island over recent years and is slightly below UK life expectancy.

However, data on self-reported perceptions of physical health, mental wellbeing and stress indicate a broadly positive picture, with most residents reporting good health, moderate-to-good mental wellbeing and moderate-to-low stress levels.

1.4.4 Living environment and homes

Another factor important to consider as part of assessing the attractiveness of the Island for both existing and potential residents is the living environment. Section 5.6 of the report sets out details covering:

- The Island's rich natural environment, including its range of public outdoor spaces. Stakeholder feedback supported this as a key strength of the Island.
- The Island's cultural and leisure amenities, including theatres and cinemas, heritage attractions, sporting venues, and other outdoor and indoor attractions. Stakeholder feedback indicated that amenities on the Island – particularly indoor amenities – are lacking compared to those available in larger population centres, including those from which Island businesses might seek to recruit. Overall, hospitality and leisure amenities on offer on the Island were also perceived by stakeholders to be poor relative to those of the other Crown Dependencies, primarily in terms of quality.
- The Island's retail options, including its mix of major UK brands, larger locally-owned chains and smaller independent retailers. Stakeholders noted that the retail offer on-island was relatively unappealing compared to those available in larger population centres. It is recognised that the challenges posed to brick-and-mortar retail by the variety, convenience and price-competitiveness of online retailers are not unique to the Island. It was also recognised that the relatively small size of the Island's population presents a challenge in attracting additional large retailers and that the additional logistics costs are a particular challenge for smaller independent retailers.
- The Island's local transportation network, with short commutes being noted as an advantage over larger population centres.
- The Island's crime levels, which are significantly lower than England and Wales and comparable to those of the other Crown Dependencies.
- The housing market on the Island. Stakeholders raised concerns in relation to the quality, mix and affordability of housing on the Island and noted that housing issues present a challenge in terms of retaining and attracting people to the Island, particularly young people. While average property prices on the Island are consistently lower than in the other Crown Dependencies they are at a similar level to England as a whole and significantly higher than the other home nations (Wales, Scotland and Northern Ireland) (see Figure 5.37 on page 199). We also note that available data suggests that the Island's mix is skewed towards houses, whereas in Jersey a much greater number of flats are available (44% of occupied properties in Jersey in 2011 versus approximately 17% on the Isle of Man in 2016).

1.4.5 Tourism and travel

In addition to attracting individuals to live and work, attracting tourists to the Island can also help to generate economic activity through tourists' expenditure. Tourism levels also impact the future viability of transport links – including air routes – which are also used by residents and their families. Stakeholders also observed that positive experiences of the Island as visitors were likely to increase the Island's perceived attractiveness as a place to live.

While visitor survey data shows that the overall number of visitor arrivals to the Island has remained quite stable over recent years (pre-pandemic) the purposes of those visits have

changed, with increasing numbers of leisure visitors and individuals visiting friends and family and fewer business travellers. In 2019, the Island had approximately 152,000 leisure visitors and an additional c.101,000 friend and family visitors, compared to c.59,000 business travellers.

Third party research conducted for Visit Isle of Man[13] suggests that the Island is often not considered by holidaymakers as a destination, with perceived high costs of travel to the Island and the lack of package or travel agent deals to travel to the Island being cited as common objections. Stakeholder feedback has indicated that promotion of the Island is not sufficiently prominent, and they considered that this may partly account for limited growth in visitor numbers.

The Isle of Man's visitor economy has traditionally been heavily dependent on the TT races and Festival of Motorcycling events. In combination, the events in 2019 were estimated to have attracted 62,193 visitors, against a total of c.300,000 visitor arrivals per year. The events were cancelled in 2020 and 2021 due to the pandemic but are due to return in 2022.

Based on passenger survey data, total visitor spending increased (in both nominal and real terms) between 2009 and 2019, reaching £142m in 2019. This is driven by increases in average spending per leisure visitor (on categories of spend other than accommodation) and increases in the overall number of leisure visitors.

Concerns about accommodation quality and cost were raised by stakeholders. This is consistent with the findings from third party market research conducted on behalf of Visit Isle of Man[14] that identified cost and quality of accommodation as an issue for visitors/potential visitors to the Island. More generally, stakeholders suggested that the state of repair of the Island's built environment does not give a positive impression to business and leisure visitors.

1.5 Sustainable

The Island has recently made significant commitments in relation to climate change, including a commitment to achieving net zero emissions by 2050 and it was recognised by stakeholders as increasingly important to the Island's economic development. We have looked at a number of measures relevant to the sustainability of the Island and its economy and the extent to which the Island, and its businesses, are well positioned and equipped to deliver objectives around decarbonising the economy.

While the Island has a well-protected natural environment, holding UNESCO's Biosphere designation, and has made some positive steps in relation to sustainability including through bringing forward a Climate Change Bill and putting out to consultation a Climate Action Plan, based on the hard metrics reviewed, the Island's current sustainability related performance is poor:

— The Island's Greenhouse Gas emissions per capita exceed those of the UK and the other Crown Dependencies despite the Island being a predominantly service-led economy [see Figure 6.4 on page 217].

[13] 2020 Visitor Insights Research commissioned by Visit Isle of Man
[14] 2020 Visitor Insights Research commissioned by Visit Isle of Man

— The Island used just over 2% renewable energy in 2018 compared to 11% in the UK and over 35% in Denmark. [Figure 6.6 on page 218][15]

— The Island produces the vast majority of its electricity using fossil fuels. [Figure 6.7 on page 219]. Further, the Island currently uses diesel generators to provide the UK with additional peak power load but does not negotiate carbon offsets.

— A large proportion of premises on the Island do not have a good energy performance certificate (EPC) rating, with the majority of dwellings having a rating of either D or E (where the scale ranges from A (the most efficient) to G (the least efficient)). This compares poorly to the EPC ratings of dwellings in England, with housing stock on the Island on average being less energy efficient than England. [Figure 6.8 on page 220]

— In terms of household behaviour, the Island recycles very small quantities of materials per capita versus comparators including the UK and Jersey [Figure 6.18 on page 228], commuting is predominantly, and to a greater extent than in other jurisdictions, by private vehicles rather than by modes of active travel (cycling/ walking). However, more positively the proportion of electric vehicle use in 2021, while still very low, is higher than any of the selected comparator jurisdictions had achieved in 2019 and 2020[16].

Further points arose from stakeholder feedback:

— The Island has publicly stated its net zero commitment of 2050, similar to many countries. Stakeholder feedback has raised concern over the lack of ambition and clarity on the Island's sustainability policies.

— Stakeholders noted that the Island's sustainability position could impact the ability of global organisations based on the Island to profitably remain here if the Island does not align itself with their values and net zero commitments. Over 75% of the largest companies on the Island (over 250 employees) have net zero commitments or are compiling them now (as at Sept 2021). We note that survey evidence showed that over 50% of firms 'Always', 'Very Frequently' or 'Frequently' consider ESG factors when making investment and/or purchasing decisions.

However, as noted above, some measures are being taken by the Isle of Man Government in relation to climate change although the statistics suggest more needs to be done and at an accelerated pace. These steps do send a signal of intent to stakeholders, however, as does the recent raising of £400m through bonds issued under a sustainable finance framework.

1.6 Tech Enabled

Technology-related sectors have grown in importance in terms of their contribution to the overall economy of the Isle of Man in recent years, including eGaming and ICT. Even outside these sectors, the success of businesses in many other sectors are also already driven by –

[15] We note from discussions with IOMG that these figures do not, for example, fully reflect renewable energy imported via the interconnector with the UK.

[16] Due to data constraints, it was not possible to draw comparisons across identical time periods for the Isle of Man and relevant jurisdictions, and it is likely that the proportion of electric vehicles across comparator jurisdictions will have increased in 2021 and so possibly impacted the Isle of Man's relatively strong performance in this area.

or are subject to disruption by – technology. We have considered a range of measures of the Island's tech enablement based on available data.

1.6.1 Connectivity

As shown in Figure 7.4 on page 239 the Island currently has average internet download speeds at a similar level to the UK and in excess of Guernsey but significantly behind other comparators, notably Jersey, whose data speeds are world-leading.

The roll-out of fibre connectivity across the Island has accelerated and is currently available to over 50% of premises, although uptake is currently low (8% of households as at Q1 2021). 4G coverage extends to 99% of the population, although the Island is not currently building a 5G network.

Feedback from stakeholders recognised that the Island was not currently considered a leader in connectivity, although acceleration in the rollout of fibre services was noted. In terms of mobile connectivity, the lack of rollout of 5G networks was seen as sending a negative signal to technology businesses, which typically prefer to operate in jurisdictions at the vanguard in terms of digital infrastructure.

Results from a survey of businesses conducted for the purposes of this report found that 96% of respondents had internet access at their premises, with 83% having a fixed line connection. 70% of respondents indicated that the speed of their fixed line connection was usually sufficient for the needs of the business, while around 11% said it was not.

1.6.2 Digital Business

Digital sectors provide an important contribution to the Island's economy, but the contribution of technology to the economy goes beyond these sectors. The adoption of digital business models and use of digital technology in the workplace will help contribute to economic activity and innovation in all sectors.

For the majority of respondents to the business survey conducted for the purposes of this report, the use of technology was seen as integral to their business: 64% indicated 10 on a 10-point scale and 84% gave a score of 8 or higher.

Section 7.4 sets out further details of the types of technology used by respondent businesses.

1.6.3 Digital Skills

Further to observations and survey evidence contained in the 'Attractive to Business' chapter of the report regarding skills more generally, stakeholders highlighted challenges in respect of finding and recruiting employees with the right digital skills. Feedback suggested that:

— Young people were not coming out of school and college with the basic digital skills needed at an entry level by existing and prospective businesses.

— Businesses had a particularly challenging time enticing young professionals – both returning graduates and those with no prior connection – with digital skills to come to the Island, given the particularly competitive global market.

— The Island is relatively more attractive to more experienced people in the sector, particularly those in more highly paid positions and those with young families.

The implications of the observations above are that businesses reported finding it challenging to build complete technology teams on-island, with some maintaining sites elsewhere or engaging remote workers.

Furthermore, it was noted that, while being a significant trend globally, automation could have a particularly significant impact on the Island given the relatively high concentration of back and middle-office administrative roles, which were felt by stakeholders to be among those particularly vulnerable to automation. As a result, the need for reskilling of employees was suggested in order to equip them for new emerging roles and potentially as part of the solution to the digital skills gap.

1.6.4 Digital Government

The creation of Digital Isle of Man and the support it provides to develop the broader digital ecosystem on the Island highlights the role government has to play in helping to create an attractive environment in which tech enabled businesses can flourish. This includes providing the regulatory conditions for a stable and competitive environment, and the funding and support needed for the market to deliver digital infrastructure.

While IOMG is playing a role in supporting the growth of the Island's digital economy, in terms of Government's own adoption of digital technologies to provide its services, stakeholders did not perceive the Island to be a leader among its peers.

— It was noted that, while there had been progress in digitising some government services (e.g. tax filing), much more could be done in terms of integration and automation. Examples given included routine interaction by companies and their service providers with the Companies Registry and with regulators.

— Issuing people and entities with official digital identities was noted as an important step in the move to digital government. Denmark was given as a leading example in this regard, with Estonia also frequently cited as a role model with respect to digital government more broadly.

— Stakeholders also perceived that IOMG was relatively poor at gathering and effectively utilising data to generate high-quality actionable insight and acting on it on a timely basis.

Having a digital government was seen to be particularly important to the attraction and retention of digital and tech-enabled businesses and younger people.

Use of this report is limited – see Notice on page 28

2 Introduction

2.1 Background and context

KPMG has been engaged by the Isle of Man Government ("IOMG") to support in developing an economic framework to support the Island's economic growth for the next 5 to 10 years.

The project is split into five phases:

- In Phase 0 (Kick-off, Vision and Strategic Themes) we gave Tynwald members and members of the business community the opportunity to articulate their vision for the Island's economy in 2030 and the themes underpinning that vision as a basis for exploration during subsequent phases. The starting points for this exercise were the vision and themes set out by IOMG in the Invitation to Tender for the project.[17]
- Phase 1 (Research and Review) has involved building a picture of the Island and its economy as it currently stands. This report is an output for this Phase.
- Phase 2 (Develop Policy Levers) will consider policy options available to IOMG to capitalise on opportunities and address challenges as well as modelling the economic and wider impacts of those options to support political decision making.
- In Phase 3 (Strategic Economic Framework), having received input from political decisionmakers regarding agreed direction, a high-level action plan will be developed to support delivery of the agreed objectives.
- In Phase 4 (Monitor Delivery of Action Plan) an approach will be developed to enable IOMG to monitor delivery against the action plan and its objectives on an ongoing basis, including the development of a dashboard of key indicators.

In Phase 0, four key themes were identified by stakeholders as vital to the future economic success of the Island:

- **Attractive to Business** – It was suggested that the Island will need to ensure that its offer to businesses remains attractive in a competitive and changing international market. Aspects of this include:
    - a joined-up government responsive to opportunities and offering competitive incentives;
    - first-class infrastructure and transport links; and

[17] IOMG's original themes were 'Attractive to Business', 'Attractive to People', 'Green', 'Digital', and 'Safe Haven'.

- 'Attractive to Business' and 'Attractive to People' were not altered by Phase 0.
- 'Green' was revised to 'Sustainable'.
- 'Digital' was revised to 'Tech Enabled'.
- While safety was considered to be foundational and relevant to other themes (e.g. physical safety within the context of 'Attractive to People' and political, legal and regulatory stability within the context of 'Attractive to Business') it was considered that 'Safe Haven' did not need to be a strategic theme in its own right.

- active and well-targeted promotion of the Island as a destination for established businesses and entrepreneurs.

— **Attractive to People** – It was suggested that ensuring the Island is a vibrant place to live and work will be essential to growth by retaining and attracting the economically active population needed by existing businesses and the entrepreneurs who will found and grow the next generation of Island businesses. Aspects of this include:
  - good public services and transport links;
  - an attractive range of housing;
  - an attractive mix of amenities, including hospitality and leisure options;
  - the ability for residents to upskill and reskill in order to build rewarding careers on-island; and
  - active and well-targeted promotion of the Island as a destination for relocation.

— **Sustainable** – It was suggested that more ambitious pursuit of sustainability will be a critical component in positioning the Island to retain and attract leading businesses.

— **Tech Enabled** – It was suggested that innovation and growth will require an environment where the potential of new technologies can be fully realised. This was seen as having multiple dimensions, including:
  - high-quality digital infrastructure;
  - legislation and regulation which support and facilitate new business models and new ways of living and working; and
  - a workforce with the right technical skills.

Stakeholders consulted as part of Phase 0 included political members, Department for Enterprise ("DfE") Agency boards and business leaders via workshops and, for a group of the largest businesses, interviews.

2.2 Scope of the report

This report sets out the findings of our Phase 1 work. It is intended to give IOMG – and particularly the incoming political administration – a clear understanding of:

— How the Island's economy is performing based on an analysis of available data.

— How the Island compares to selected comparator jurisdictions and regions on key measures of economic performance and other key metrics aligned with the key themes described above.

— The principal strengths and weaknesses of the Island that are pertinent to economic development and, where practicable, validation of these against supporting evidence.

— Other existing qualitative evidence pertinent to the Island's economic development and particularly evidence aligned with the key themes described above.

Preliminary thoughts of Subject Matter Experts on potential opportunities that the Island may wish to pursue in furtherance of its economic development are set out in a separate document.

2.3 Approach to evidence gathering and key sources

This report synthesises multiple sources of evidence and information:

- A wide range of economic, financial, regulatory and social data provided by the IOMG.
- Statistics sourced from external sources (e.g., Organisation for Economic Co-operation and Development ("OECD"), European Commission).
- A questionnaire prepared by KPMG and issued by IOMG seeking financial and operational information from Island businesses to fill identified gaps in available information.
- KPMG sought to develop a picture of the Island's strengths and weaknesses through:
    - A series of workshops with agencies of the Department for Enterprise, including their non-executive board members.
    - An open forum hosted by the Isle of Man Chamber of Commerce.
    - One-on-one interviews with leaders of several of the largest Island businesses.
    - Meetings with other representative of IOMG departments and statutory boards.
    - Analysis of other representations made directly to us by members of the business community.
- We identified perceived strengths and weaknesses through analysis of the outputs of the above, identifying recurring points, which were played back to key members of DfE leadership to ensure buy-in.
- We have undertaken a high-level review of reports and other documents provided to us by the DfE agencies and others, identifying information pertinent to the economic development of the Island, including key themes described above, particularly where this supplements the quantitative analysis undertaken.
- We have engaged with Subject Matter Experts ("SMEs") in our global network and our alliance partners to obtain their preliminary views on potential opportunities for the Island pertinent to their domains of expertise. The outcome of these consultations will be presented in a separate document.

2.4 Structure of the report

The remainder of the report is structured as follows:

- Chapter 3 provides an analysis of the Isle of Man economy.
- Chapter 4 analyses strategic theme 1: Attractive to Business.
- Chapter 5 analyses strategic theme 2: Attractive to People.
- Chapter 6 analyses strategic theme 3: Sustainable.
- Chapter 7 analyses strategic theme 4: Tech Enabled.

2.5 About this Report

This Report has been prepared on the basis set out in our Framework Agreement with the Isle of Man Government (the "Client") dated 14 April 2021 and the Purchase Order issued under it dated 24 June 2021 (together, the "Agreement"), and should be read in conjunction with the Agreement.

We have not verified the reliability or accuracy of any information obtained in the course of our work, other than in the limited circumstances set out in the Agreement.

This Report is for the benefit of the Client only.

This Report has not been designed to be of benefit to anyone except the Client. In preparing this Report we have not taken into account the interests, needs or circumstances of anyone apart from the Client, even though we may have been aware that others might read this Report. We have prepared this Report for the benefit of the Client alone.

This Report is not suitable to be relied on by any party wishing to acquire rights against KPMG LLC (other than the Client) for any purpose or in any context. Any party other than the Client that obtains access to this Report and chooses to rely on this Report (or any part of it) does so at its own risk. To the fullest extent permitted by law, KPMG LLC does not assume any responsibility and will not accept any liability in respect of this Report to any party other than the Client. In particular, and without limiting the general statement above, since we have prepared this Report for the benefit of the Client alone, this Report has not been prepared for the benefit of any other person or organisation who might have an interest in the matters discussed in this Report.

Our report is not an expert report for disclosure to any competent authority, or for use in litigation. Our procedures do not to constitute any form of valuation, where a value is expressed on an entity or its business. We express no legal opinion in relation to our findings and recommend that legal advice should be taken as appropriate. We stress that an assessment of the described issues from a legal and/or tax perspective is not part of our assignment.

We have not carried out any form of statutory audit as part of this engagement. Our procedures were not part of an audit, compilation, review, or attestation services as described in the pronouncements on professional standards issued by any international or local auditing guidelines. Accordingly, we do not express an opinion or any other form of assurance on the financial statements of any entity identified herein or any financial or other information.

3 The Isle of Man economy

3.1 Introduction

Understanding the current and historic economic performance of the Isle of Man is a crucial starting point for the development of the Strategic Economic Framework for the Island looking ahead for the next 5 to 10 years ("Framework"). This Framework must be built on a robust evidence base to form a detailed understanding of the economic strengths and weaknesses of the Island. This will in turn lead to the identification of the available opportunities for growth and improvement, as well as the challenges that will need to be addressed.

There are a wide range of factors that influence a nation's potential for future productivity and economic growth as well as varied views about what constitutes strong economic performance, given this depends on both the short- and long-term objectives that a nation is seeking to achieve. In this Chapter, a wide range of indicators are used to assess the Isle of Man's economy. Individual measures do not capture the complete picture or provide evidence with respect to the distribution, or drivers, of output across an economy.[18] Equally, while an economy may appear to be performing well based on one measure of performance, such as headline economic output, it may perform less strongly, in terms of skills and/or productivity, which are important drivers of future economic growth. Subject to available data, it is therefore crucial to analyse a selection of measures which, when taken together, provide the most complete profile of an economy.

The economic indicators analysed in this Chapter have been selected based on evidence from economic literature and research about how economic performance can be assessed and what is important to drive sustainable economic growth, productivity and employment. Data availability has also constrained, to some extent, the economic measures that can be reported against for the Island, although steps have been taken to gather additional insights where possible, for example through primary research in the form of surveys and interviews.

We set out in this Chapter of the report a synthesis of the macroeconomic data and wider evidence collated. Where data permits, trends in the economic indicators over time are analysed, and comparisons are provided to other jurisdictions to help to set the Island's economic performance in context and to identify areas of relative strength and weakness.

This Chapter is structured as follows:

— Section 3.2 provides data and analysis relating to the Isle of Man's aggregate economic output and growth, including sector decompositions. It details the key sources and drivers of growth in the economy, and how this has changed over time.

— Section 3.3 sets out evidence and analysis relating to employment and the Island's labour market. It presents metrics relating to the levels and structure of employment and unemployment.

[18] Bank of England. (2021) 'What is GDP?'

— Section 3.4 presents evidence and analysis on the Island's population and demographics over time, disaggregated by relevant groupings where possible including nationality, age and employment status.

— Section 3.5 presents data and analysis regarding business demographics including the profile of the number and size of firms over time and the industries in which they operate.

— Section 3.6 provides an overview of government finances, describing recent trends in government revenues, budgets, reserves, and surpluses.

— Section 3.7 presents data and analysis on household income and expenditure.

— Section 3.8 presents data and analysis on measures of inflation.

— Section 3.9 summarises the strengths and weaknesses arising from the analysis presented in each of the earlier sub-sections.

It should be noted that wider factors that affect the Isle of Man's economic performance, including in relation to infrastructure, the business environment and skills, and the ability to attract and retain workers and visitors, are assessed in the remaining chapters of the report, linked to specific themes of the Framework. The relevance of these factors to the overall economic performance of the Island is explained in the relevant sections of the report, alongside the data and analysis of the associated indicators.

Throughout the Chapter, comparisons are made, where possible and appropriate, between the Isle of Man and the following jurisdictions:

— Jersey;

— Guernsey;

— Malta;

— Cayman Islands;

— the UK;

— Ireland; and

— Singapore.

Additionally, where possible and appropriate, data for the Isle of Man is compared to data for the following:

— EU average; and

— G7 average.

Comparators were selected based on relevance to the Isle of Man economy, together with availability of data that would allow comparisons to be made on a like for like basis.

3.2 Economic output and growth

We set out below an assessment of the Isle of Man's economy, based on several standard measures of economic output and growth, including, where data allows, sectoral breakdowns. These breakdowns provide an indication of the relative contribution of different sectors/industries to the economy, and how this has changed over time.

As well as these absolute measures of the total value in economic output and changes in these measures over time, output is analysed on a per capita basis, which for many economies can provide an indication of prosperity. Output is also reported on a per employee basis.

3.2.1 Isle of Man's Gross Domestic Product

Gross Domestic Product ("GDP") is a standard measure of the size and health of an economy over a period of time (often measured, monthly, quarterly, and/ or annually).[19] It captures the total value of all goods and services produced in an economy and is a well-recognised and commonly used indicator for comparative purposes across economies. When GDP is increasing, the economy is growing, and the total value of goods and services produced in the economy, income and spending is expanding.

In the case of the Isle of Man, GDP is measured on an annual basis, with the most recent available data covering the year 2019/20.

There are different approaches available to analyse GDP. One standard methodology is the expenditure approach, where the GDP is calculated based on the market value of the goods and services produced in an economy. An income approach can also be used (which is the approach taken by the Isle of Man), where GDP is measured based on the total income generated by the production of goods and services within the economy. This includes an aggregation of income earned by companies (corporations/businesses), employees and the self-employed. [20] A key advantage of using the income approach to GDP calculation is that it can be easily estimated using figures regularly collected as part of income tax returns

For the Isle of Man, GDP is measured using the income approach. As this measure includes income earned by companies, a portion of GDP is due to off-Island activities of the individuals and companies that are resident on the Isle of Man. As such it can be difficult to compare Manx GDP with that of jurisdictions where offshore activity makes up a smaller portion of measured economic activity. See Section 3.2.2 for further details of the constituent components of GDP that are analysed in this report.

Figure 3.1 sets out GDP in current prices and constant prices for the Isle of Man between FY 2009/10 and FY 2019/20. Constant prices fix the price level used to measure GDP at the prices of a specific year, enabling the identification of economic growth. Current price GDP does not control for price changes. When comparing GDP from two different time periods, constant price GDP is typically used as it naturally removes the distorting effect of inflation, and as such constant prices are used to calculate growth rates.

A measure of price change (inflation) is required to calculate constant price GDP figures. Consumer Price Inflation (CPI) from the UK has been used in these calculations. Other measures of constant GDP may use other inflation indexes such as CPI on the Isle of Man.

[19] Office for National Statistics. (2021). 'What is GDP?'

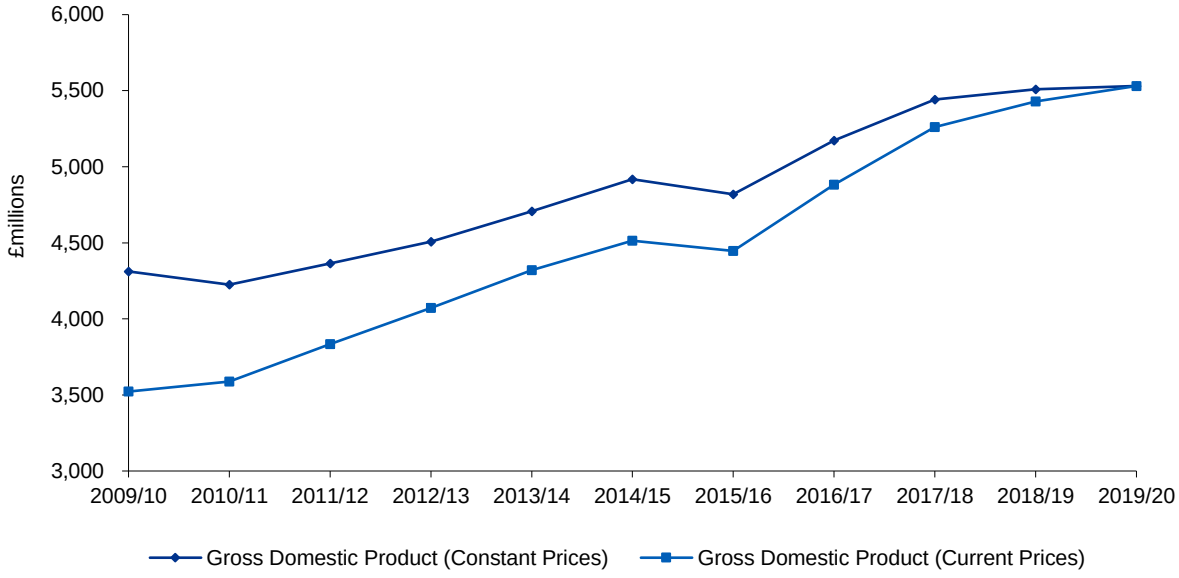
[20] Within each measure of GDP, there are two further types of GDP that are referenced in this report: (1) Manx GDP which captures the GDP of individual sectors of the Isle of Man economy and can be summed across all sectors in the economy; and (2) Total GDP which adjusts Manx GDP to include: imputed rents; Financial intermediation services; government depreciation; non-profit institution serving households; and ESA10 adjustments. When we consider sector decompositions of GDP, Manx GDP is used in line with Isle of Man National Accounts; for aggregate GDP, GDP growth and comparator analysis, Total GDP is used.

Due to the close relationship between inflation on the Isle of Man and in the UK (see section 3.8), the resulting GDP measures are highly similar.

The analysis shows that output on the Isle of Man, as measured in terms of GDP, has been rising steadily between 2009/10 and 2019/20, albeit with a minor decline in output in 2015/16.[21] This was the first year of negative GDP growth for the Isle of Man's economy in 32 years (in current price terms)[22] and was largely due to a decline in output in the eGaming sector arising from changes in the structure of a large local operator which caused certain revenue streams to move to another jurisdiction.

Total GDP reached £5.53bn in 2019/20 and over the period 2015/16 to 2019/2020 grew at an average annual rate of 5%.

Figure 3.1 Isle of Man GDP: 2009/10-2019/20



Source: Isle of Man National Accounts, KPMG analysis

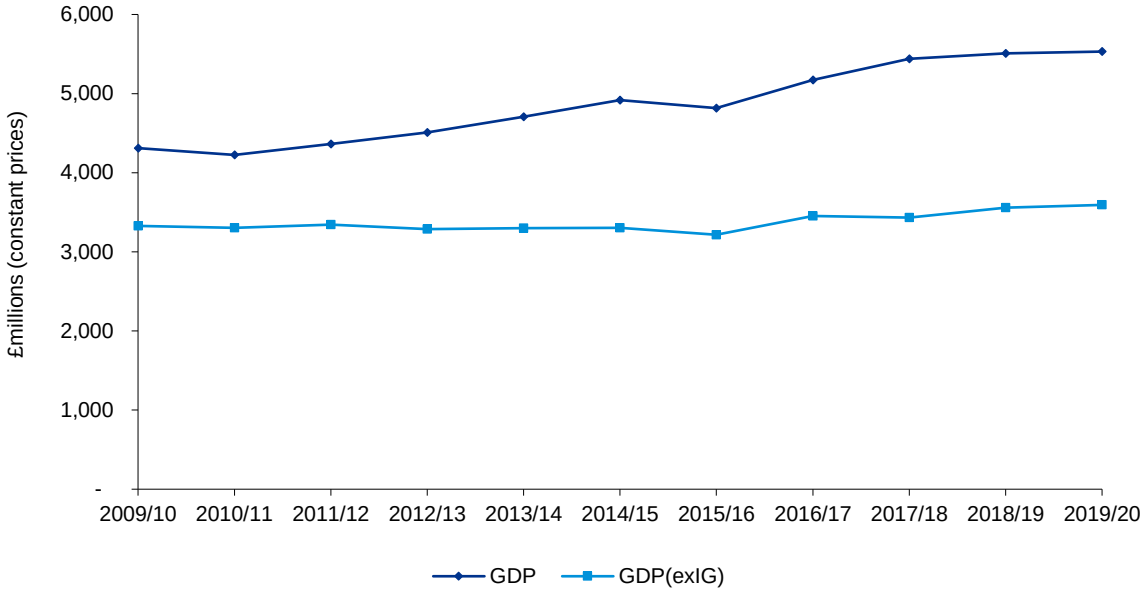
As assessed in further detail in Section 3.2.2 below, the recent growth in the Isle of Man's economy has largely been driven by expansion in the output of the eGaming sector (GDP increase of 14% between 2015/16 and 2019/20); Other Finance and Business Services (+14%); and the Insurance sector (+27%). This demonstrates that in recent years the overall economic output of the Island and its growth has been driven by the contribution of a number of sectors, rather than output being reliant on a single sector; an important characteristic for economic resilience.

However, although economic growth is not dependent upon one individual sector, and significant positive growth has been seen across multiple sectors, without the contributions of the Insurance and eGaming industries on net the other sectors have provided little to no growth over the past decade (see Figure 3.2). A measure of GDP, excluding Insurance and eGaming

[21] GDP fell by approximately 2.0% from £4.92bn to £4.82bn (constant prices).
[22] Isle of Man Government. (2017). 'National Income 2015/16'.

[GDP(exIG)] is shown in Figure 3.2 below. This helps to provide a fuller understanding of economic developments across the wider economy.

Figure 3.2 Manx GDP and GDP excluding Insurance and eGaming: 2009/10-2019/20 (constant prices)



Source: Isle of Man National Accounts, KPMG analysis

This analysis highlights that the growth of the economy has been very limited in constant price terms over the period 2009/10 to 2019/20 when the contributions of the Insurance and eGaming sectors are excluded. The underlying annual growth rate of GDP over this period was 2.5% while it was 0.8% for the GDP(exIG) measure. Further analysis of the contributions made by individual sectors of the economy and how this has changed over time is set out further below.

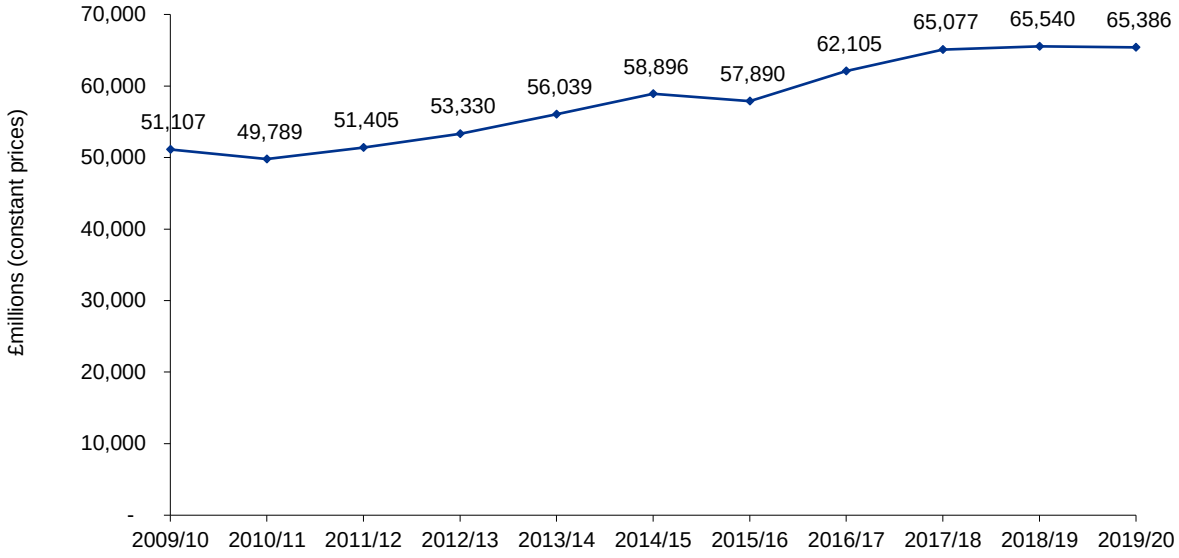
It should be noted that the latest GDP data available for the Isle of Man is for 2019/20, i.e., it covers a period prior to the outbreak of the COVID-19 pandemic. Although, at the time of writing, GDP data covering most of the period after the outbreak of the COVID-19 pandemic is not available, other indicators allow for a view of the health of the economy throughout 2020 and beyond. Although the unemployment rate reached heights not seen for several years in 2020, this had returned to below 2016 levels by May 2021 (see Section 3.3). Further economic insight over the period after the COVID-19 outbreak can be gathered from an assessment of government finances. Government income and revenue figures for 2020/21 and the government budget for 2021/22 are assessed in Section 3.6, where a drop in government revenues – due in large part to reduced VAT income – is identified.

On a per capita basis, the Isle of Man's GDP has grown over the last decade to reach £65,386 in 2019/20.

As shown in Figure 3.3 GDP per Capita has grown, from £51,107 in 2009/10 to £65,386 in 2019/20. Due to the relatively stable population count on the Isle of Man, GDP per Capita

follows a very similar pattern to overall GDP growth. With GDP and GDP per Capita both growing by approximately 28% from 2009/10 to 2019/20.

Figure 3.3 GDP per Capita, Isle of Man: 2009/10-2019/20



Source: Isle of Man National Accounts, World Bank, KPMG analysis

While GDP per Capita is often used to compare the levels of prosperity between jurisdictions, in the case of the Isle of Man this is not entirely appropriate. As previously mentioned, GDP on the Isle of Man is measured via the income approach, and as such will reflect the productive activity of the residents of the Island as well as incomes due to off-island activity. Since off-island activity makes up a significant portion of overall GDP, the per Capita measure does not track prosperity as closely as it does in other jurisdictions or provide as good an indication of living standards.

This is further supported by the fact that over the period 2009/10 to 2019/20 more than 83% of GDP growth on the Isle of Man has been driven by the Insurance and eGaming industries; sectors that accounted for only 5% and 2% of employment respectively in Q1 2020. With corporate profits driving output rather than personal income, the patterns in GDP per Capita do not directly translate into on-island wealth due to the fact that in many cases the ultimate owners of these companies are not Manx residents.

Measures such as average and total wages, and employment provide an alternative lens through which on-island wealth and prosperity can be assessed. These measures are explored in Section 3.3.

3.2.2 Components of the Isle of Man's GDP

As mentioned in Section 3.2.1 above, the Isle of Man's GDP is calculated based on the income approach, which sums the total of income earned by companies (corporations/ businesses), employees and the self-employed. Therefore, the analysis of the composition of the Island's GDP is conducted based on the income components used in this estimation approach.

Data is not available for the Isle of Man to analyse the GDP of the economy based on the expenditure approach, which captures consumption, investment, government spending, and net exports. While the estimation approach should, generally, not affect the scale of GDP estimated, analysing the components of GDP using these breakdowns can provide additional insights into the drivers of output and overall economic performance as well as produce more accurate estimates of GDP. The UK, for example, draws on information from three approaches to measuring GDP (the production, income and expenditure approaches) and compiles and balances them together to arrive at a single estimate of GDP that uses all available data.

The Isle of Man does collect some information relating to household consumption and Government expenditure. These data are assessed in Section 3.7.2 and Section 3.6.3.

There is limited information concerning business investment on the Isle of Man.

The general sense reflected in stakeholder feedback workshops was that many Island businesses have limited growth ambition and risk appetites which has led to underinvestment. A commonly referenced example of underinvestment was in relation to the Island's hotel stock, but this observation was not confined to tourist accommodation or to businesses operating in the domestic economy more broadly. A number of potential reasons were shared for this, including the lack of an ambitious vision at a jurisdictional level (setting the tone), for a number of large international businesses the decision makers (headquarters) are elsewhere, and the Island is not seen as a centre that welcomes and encourages innovation. Further, it was felt that the Island's approach to economic development was tactically set at 'once they come, we will build it', rather than being on the front foot and adopting a 'build it and they will come' approach.

Naturally there are exceptions to this; visible examples in recent years include the development or redevelopment of several sites in the commercial district of Douglas and the construction of new private housing in the Island, which has been continuing at a steady pace for the last 5 years. Stakeholder feedback suggested that the Island had been relatively poor at encouraging existing resident High Net Worth Individuals ("HNWIs") to invest in the growth of Island businesses and it was noted that the Island had not received any applications via its investor immigration route despite around 160 enquiries to date; high minimum levels of investment required, lack of investment incentives and the lack of suitable opportunities were cited as deterrents.

As concerns net exports, the Isle of Man imports a substantial proportion of the goods consumed on-island (as reflected in analysis of data collected through the Household Income and Expenditure Survey), as on-island manufacturing is limited. Given the close ties with the UK, it is likely that imports of services are commonplace as well. In terms of exports, there are some exports of Manx agricultural production, and likely sizeable exports of services stemming from the use of the Island as a platform for business services.

3.2.3 The Isle of Man's GDP: sectoral breakdown

The Manx economy can be broken up into seven large sector groupings, with each grouping containing several individual sectors. The largest of these groupings is 'Insurance, Banking and Financial Services', contributing 48% of the Island's output in 2019/20.

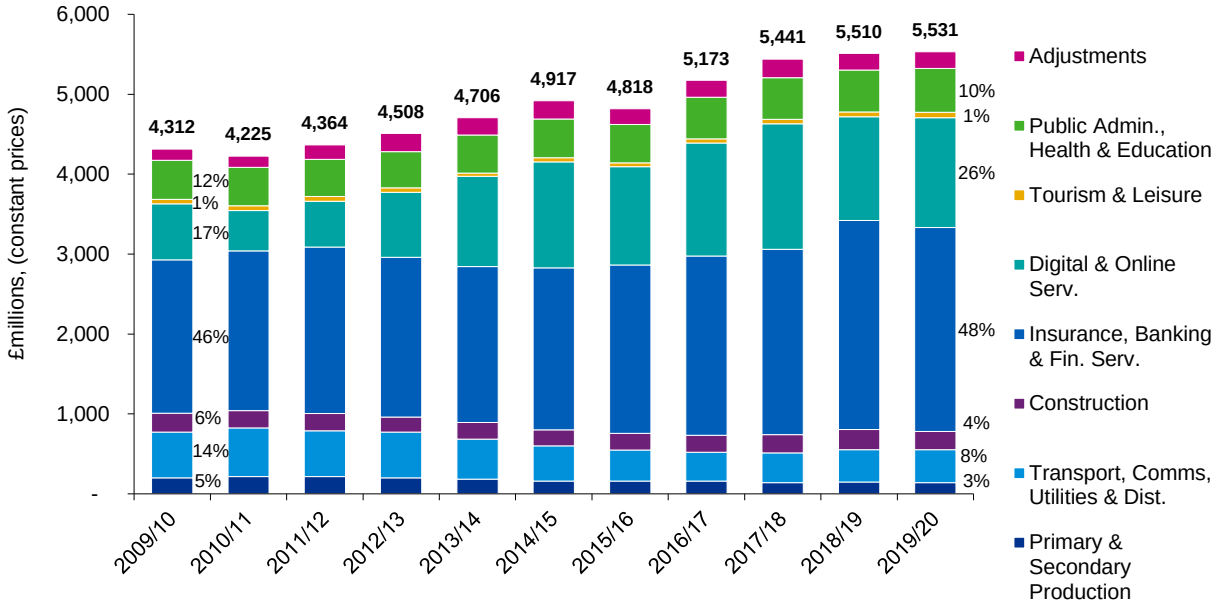
Table 3.1 Sector Groupings, Isle of Man: 2019/20

Sector Grouping	Sector	Sector share 2019/20
Primary & Secondary Production	Agriculture, Forestry & Fishing	0.3%
	Manufacturing: Food & Drink	0.6%
	Manufacturing: General	1.0%
	Engineering	0.7%
	Total Primary & Secondary Production	**2.6%**
Transport, Communication, Utilities and Distribution	Utilities	1.6%
	Transport and Communication	3.1%
	Wholesale Distribution	0.8%
	Retail Distribution	2.3%
	Total Transport, Communication, Utilities and Distribution	**7.7%**
Construction	Construction	4.2%
	Mining & Quarrying	0.1%
	Total Construction	**4.3%**
Insurance, Banking and Financial Services	Banking	6.9%
	Insurance	19.3%
	Other Finance and Business Services	8.9%
	Legal and Accountancy Services	1.7%
	Corporate Service Providers	2.7%
	Other Professional Services	5.7%
	Miscellaneous Services	2.8%
	Total Insurance, Banking and Financial Services	**48.0%**
Digital & Online Services	ICT	8.7%
	eGaming	17.1%
	Total Digital & Online Services	**25.8%**
Tourism, and Leisure	Tourist Accommodation	0.6%
	Catering and Entertainment	0.7%
	Total Tourism, and Leisure	**1.2%**
Public Administration, Healthcare and Education	Public Administration	3.6%
	Medical & Health Services	4.7%
	Education	1.9%
	Total Public Administration, Healthcare and Education	**10.3%**

Source: Isle of Man National Account, KPMG Analysis.

The two largest sector groupings, 'Insurance, Banking & Financial Services' and 'Digital and Online Services' have increased their share of GDP since 2009, while the GDP of the remainder of the economy has stayed largely stable.

Figure 3.4 Manx GDP by Sector Grouping: 2009/10-2019/20



Source: Isle of Man National Accounts. KPMG Analysis

Taking a closer look at the individual sectors, several component sectors within the 'Insurance, Banking & Financial Services' and 'Digital & Online Services' sector groupings make an outsized contribution the Island's GDP.

In particular, the Isle of Man's economy is specialised in a small number of financial and digital sectors, with the five largest sectors accounting for 61% of GDP in 2019/20. Since at least 2009/10, these sectors have consistently accounted for the largest share of the Island's economy (in terms of GDP) as shown in the data presented below in Table 3.2.

Table 3.2 Five largest sectors by GDP: 2009/10-2019/20

	Sectoral GDP				Sectoral GDP Growth	
	2009/10		2019/20		2009/10 - 2019/20	
	£m	%of IoM GDP	£m	%of IoM GDP	£m	Annual growth rate
Insurance	542	13.0%	1,029	19.3%	487	6.6%
eGaming	441	10.6%	909	17.1%	467	7.5%
Other Finance and Business Services	358	8.6%	471	8.9%	113	2.8%
ICT	257	6.2%	463	8.7%	207	6.1%
Banking	436	10.4%	366	6.9%	-70	-1.7%

Source: Isle of Man National Accounts, KPMG Analysis.

In GDP terms, the Island's economy consists almost entirely of service sectors. Construction, the largest non-service sector, contributed approximately 4% to GDP in

2019/20 (see Figure 3.5). Beyond the largest five sectors, the next five largest direct contributors to GDP are presented in Table 3.3 (below).

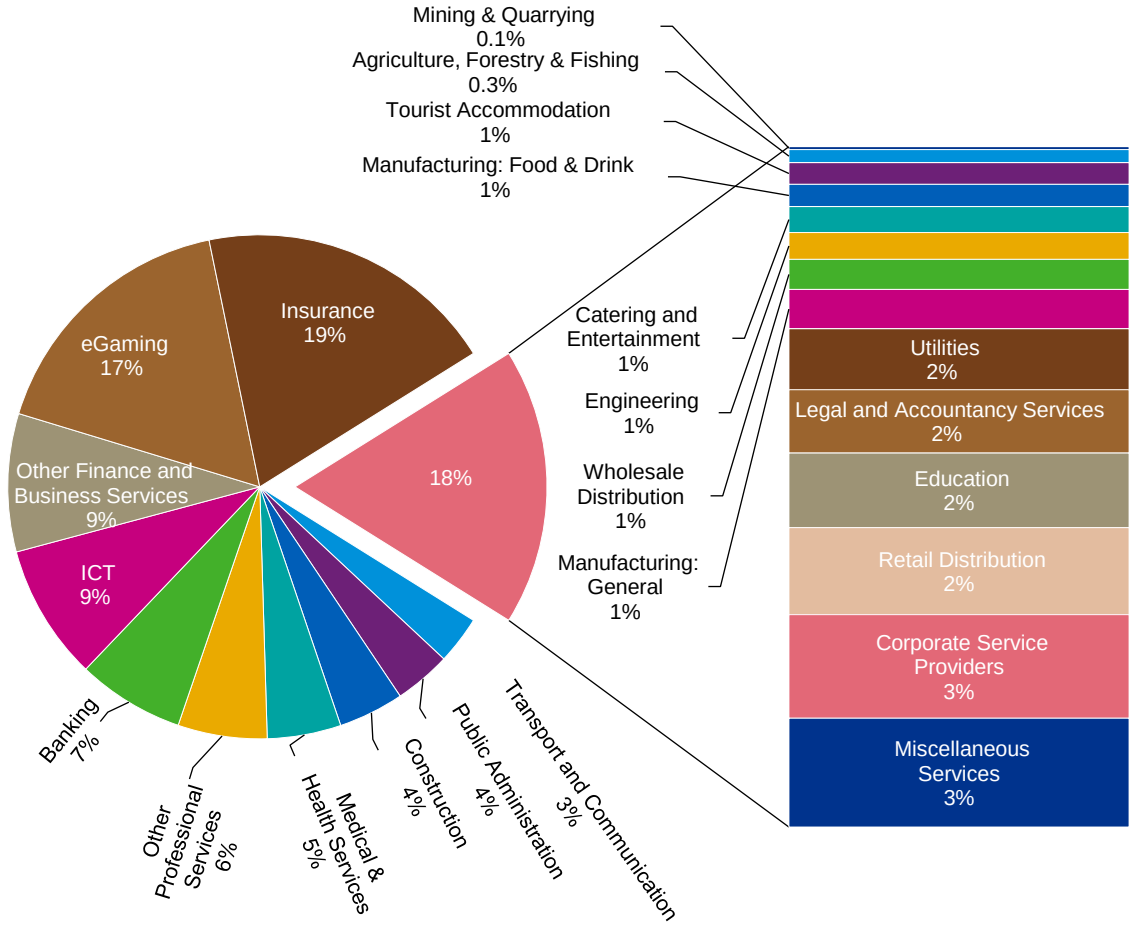
Table 3.3 Further important sectoral contributors to GDP: 2009/10-2019/20

	Sectoral GDP				Sectoral GDP Growth	
	2009/10		2019/20		2009/10 - 2019/20	
	£m	%of IoM GDP	£m	%of IoM GDP	£m	Annual growth rate
Other Professional Services	126	3.0%	305	5.7%	178	9.2%
Medical & Health Services	209	5.0%	252	4.7%	43	1.9%
Construction	218	5.2%	223	4.2%	6	0.3%
Public Administration	171	4.1%	193	3.6%	22	1.2%
Transport and Communication	285	6.8%	164	3.1%	-122	-5.4%

Source: Isle of Man National Accounts, KPMG Analysis.

There are 14 further sectors that contribute to the Manx economy. They range in size from 'Miscellaneous Services' (contributing approximately 3% of GDP in 2019/20), with a number of sectors, such as 'Tourist Accommodation' (around 1%), to 'Mining and Quarrying' (contributing less than 0.1%). The combined share of GDP from these 14 sectors stood at 18% in 2019/20, a level comparable to that of the eGaming or Insurance sectors (see Figure 3.5 below).

Figure 3.5 Isle of Man GDP by Sector: 2019/20

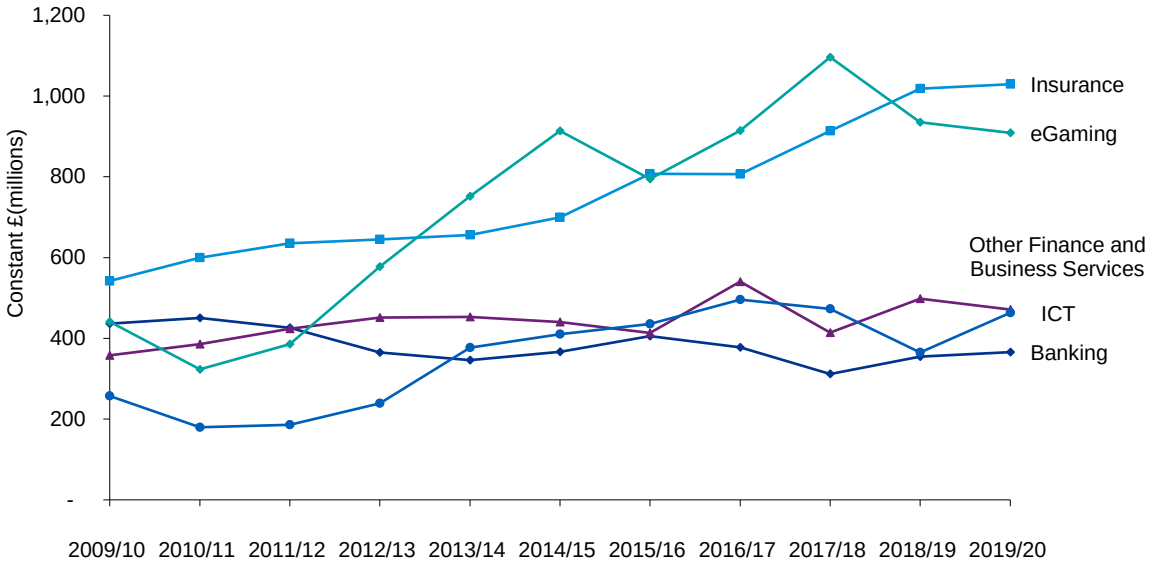


Source: Isle of Man National Accounts, KPMG Analysis.

The overall Manx economy was 28% larger in 2019/20 than in 2009/10 and four of the five largest sectors in the economy have increased their share of GDP over this period, with the exception being Banking. In 2009/10 the five largest sectors accounted for 49% of the Island's GDP, but by 2019/20 this share had risen to 61%.

Even within the top sectors, the data shows that growth has been more concentrated in the largest of these sectors. As shown in Figure 3.6, the largest two sectors of the economy (Insurance and eGaming) have increased their contribution to the Island's GDP over the last decade. The Isle of Man economy grew by £1.1bn over the period 2009/10 – 2019/20. Over this time £1.2bn of GDP growth was provided by these five largest sectors, £0.96bn of which was due to growth in the two largest sectors.

Figure 3.6 GDP contribution of the five largest sectors, Isle of Man: 2009/10-2019/20 (constant prices)



Source: Isle of Man National Accounts, KPMG analysis

As well as contributing the majority of GDP growth over the last decade, the eGaming and Insurance sectors also experienced the fastest growth of the five largest sectors:

— Over the ten-year period 2009/10 to 2019/20 the economic output of the eGaming sector more than doubled with a ten-year growth rate of 106%, equivalent to an average annual growth rate of 7.5%.

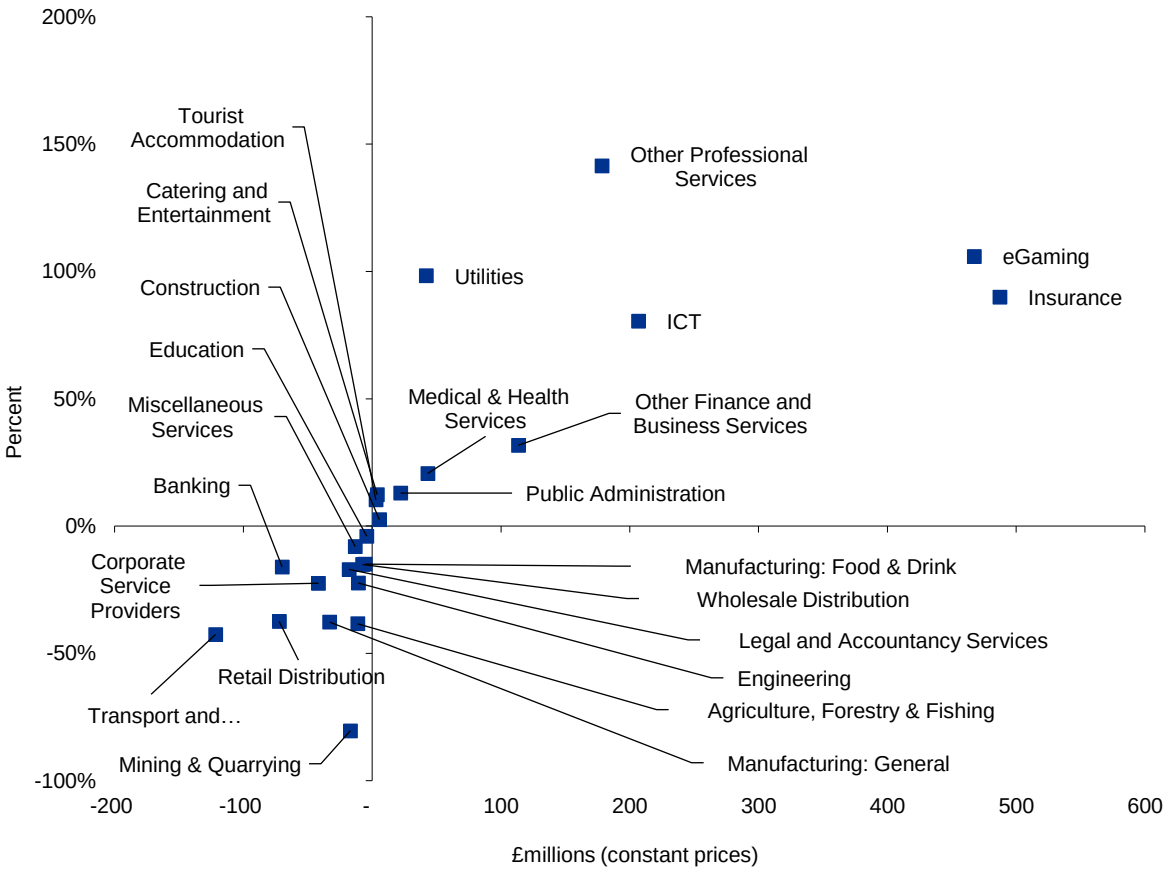
— The next fastest growing industry was Insurance, growing by 90% over the ten-year period, with an annual growth rate of 6.6%. The total GDP contribution of the Insurance sector was relatively stable until 2013/14 after which GDP increased by 55.2% from £635m in 2013/14 to over £1bn in 2019/20.

— Insurance was the leading sector in terms of its GDP contribution to the Isle of Man's economy until 2013/14 when the e-Gaming sector's GDP contribution rose above it. Since then, eGaming and Insurance have frequently traded places as the largest sector by share of GDP. The two sectors collectively account for approximately 36.4% of Manx GDP in 2019/20.

— Both sectors are highly concentrated in regard to the number of companies and both are heavily influenced by a few, following private equity investment-driven consolidation in Insurance particularly. Two groups in the next 18 months, following regulatory approvals of M&A activity, are expected to account for circa two-thirds of Funds Under Management of the sector (totalling £78.43bn at 31 December 2019 as per the Financial Services Authority ("FSA")) and a significant proportion of those employed in the sector. Further, there is one large eGaming company that is sufficiently significant to influence GDP and was linked to the 2015/16 decrease following the relocation of an element of its business to another jurisdiction despite no particular fall in numbers employed.

Figure 3.6, above, shows that the Banking and 'Other Finance and Business Services' sectors have experienced broadly stable levels of GDP over the period 2009/10 to 2019/20 and have followed a similar trajectory to each other.

Figure 3.7 Sectoral GDP Growth, Isle of Man: 2009/10-2019/20



Source: Isle of Man National Accounts, KPMG analysis

Figure 3.7 shows the change in GDP at a sector level over the period 2009/10 to 2019/20. This shows that the only large growths/declines in GDP in absolute value outside of the five largest sectors were in the 'Other Professional Services' sector (where the sector grew by £178 million) and the 'Transport and Communication' sector (where the sector shrank by £122 million). Other large changes in GDP contributions, relative to sector size, were for the Utilities sector (where GDP almost doubled from £43 million to £85 million), the 'Mining and Quarrying' sector (with an 80% decrease in contribution to GDP from £21 million to £4 million) and the 'Agriculture Forestry and Fishing' sector (which shrank by 38% from £29 million to £18 million).

With the Island's GDP being largely driven by the eGaming and Insurance sectors, plus to a lesser extent Banking, ICT and 'Other Finance and Business Services', it is currently reliant on the sustained economic activity of these sectors, and a small number of companies within those sectors, to support the overall growth of the economy. Analysis of the Isle of Man's GDP data indicates that 83% of economic growth over the period 2009/10 to 2019/20 was driven by the Insurance and eGaming sectors, highlighting the importance of these key sectors in driving recent prosperity. While this demonstrates the Island's success in attracting and retaining businesses in these sectors and enabling their growth, it is not without consequence. For instance, the fall in the output of the eGaming sector in 2015 was responsible for the overall

fall in the Island's GDP in this year. If it was not for the £119m fall in the eGaming sector in 2015/16, rather than contracting by 1.4% the overall Manx economy would have grown by a modest 1.1%.

While the sectoral diversification of the Island's economy is greater than other small island comparator jurisdictions such as Jersey and Guernsey (see Section 3.2.4 for comparative analysis), the economy remains exposed to external shocks and threats that may disproportionately impact key sectors, for example regulatory pressures and tax rate pressures that could impact multi-national entities (MNEs).

As noted previously, GDP data covering the impact of COVID-19 is not yet available, therefore it is not clear to what degree the Isle of Man's economy has been impacted by the pandemic on a sectoral basis. Sectors such as 'Catering and Entertainment' and those linked to tourism (e.g. the 'Tourist Accommodation' sector) are likely to have been hardest hit and continue to be under stress due to slow demand levels or staffing shortages which the sector believes are due to Brexit and the difficultly to attract young unskilled workers.

However, evidence related to some of the largest sectors of the economy in terms of GDP suggest a level of resilience. For example, some stakeholders interviewed noted that the eGaming sector saw an increase in diversity of gaming and sport offerings following the closure of many sports leagues and events during the pandemic.[23] Equally, interviews and stakeholder feedback in the Insurance sector have described significant inflows of funds due to increased liquidity in mass affluent and HNWI households combined with a strong rebound in stock markets. Businesses in most other large sectors were able to adapt quickly to limitations induced by the pandemic – such as requirements to work from home and restrictions on business travel. Per the KPMG Pulse Survey performed in May 2021, half of respondents expected increases in their turnover in the forthcoming year, including 42% of Retail and Hospitality respondents.

3.2.4 Comparative assessment of the Isle of Man's GDP

To set the GDP statistics for the Isle of Man in context and to assess the relative GDP performance of the Island, they have been compared to a range of other jurisdictions.

Figure 3.8 provides an overview of GDP for the Isle of Man and comparator jurisdictions, together with relevant averages for select groups of countries as a point of reference. In some instances, disaggregated GDP data is unavailable for comparator jurisdictions, in which case Gross Value Added (GVA)[24] is used as a proxy.[25] All measures are reported in constant (real) prices, unless otherwise stated.

In summary, this analysis shows that:

- **The Isle of Man has a higher per capita GDP than comparator jurisdictions and G7 and EU averages. Although GDP figures are not entirely comparable due to the Island's role as a services platform.**

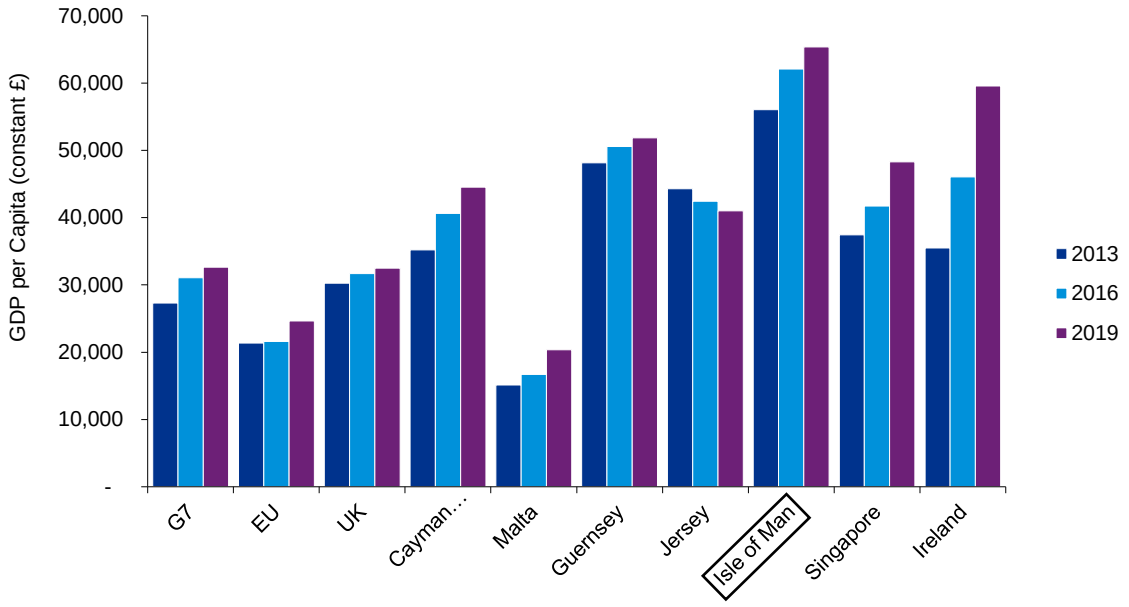
[23] Digital Isle of Man. (2021). 'The impact of Covid-19 on the e-Gaming sector'.
[24] GVA at basic process plus taxes on products less subsides on products equals GDP at market prices (or headline GDP) – ONS. (2018). 'A guide to interpreting monthly gross domestic product'.

- **The digital sectors of ICT and eGaming play a much larger role in Manx GDP's sectoral composition than in comparator jurisdictions.**
- **Unlike most comparators, the Island has seen continued strong growth in the Finance and Insurance sectors since the Global Financial Crisis.**

Details to support these key findings are set out below.

As shown in Figure 3.8, on a per capita basis, the Isle of Man has a higher level of GDP per capita at £65,386 (in 2019/20) than the selected comparator jurisdictions (Singapore, Ireland, Cayman Islands, Malta, Guernsey and Jersey as well as the UK, EU and G7). However, as noted previously, the estimate should be used with caution given the composition of GDP on the Isle of Man with respect to on-island and off-island GDP. The difference in GDP per capita for the Isle of Man may be reflecting a large proportion of off-island activity, particularly given the Island's relatively the stable population and employment over this time period, and the decreasing business count.[26] It does not provide a clear indication of relative living standards/prosperity and wealth across the economies compared.

Figure 3.8 GDP per Capita, Isle of Man and comparator jurisdictions: 2013-2019 (constant prices)



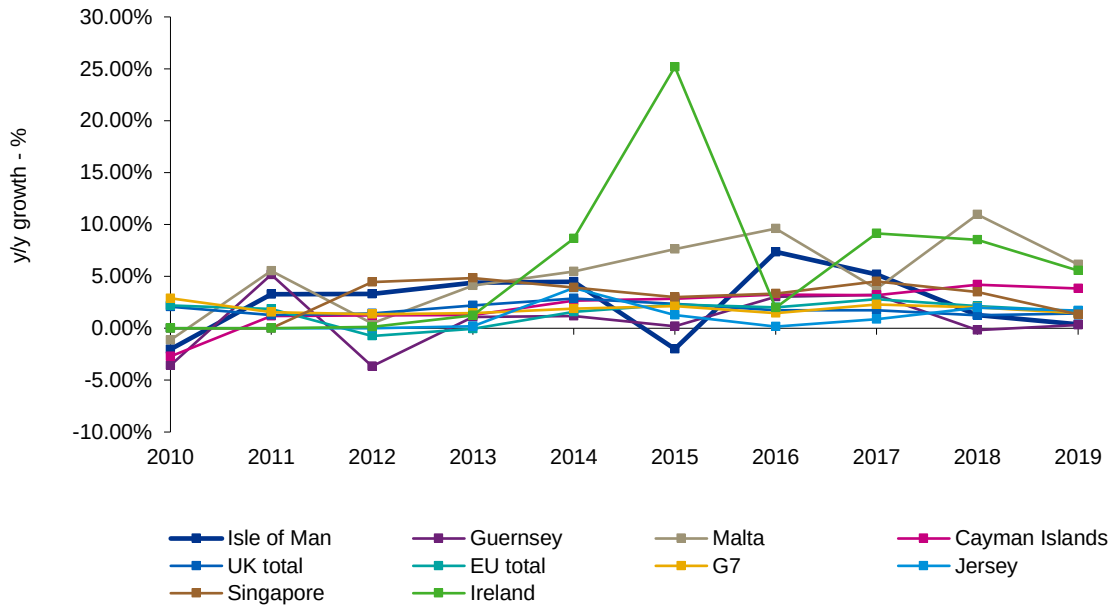
Source: IOMG data, KPMG analysis, World Bank, National Accounts: Government of Jersey Open Data, States of Guernsey, ESTAT, ONS

As well as having a high level of economic activity per person, the Island has realised healthy rates of growth over the past decade.

[26] The extent of off-Island (or jurisdiction) activity in terms of GDP impact and contribution is unclear for the Isle of Man and also for selected comparators as data is unavailable to analyse it. It is unclear the extent to which other jurisdictions' GDP estimates would be affected by this issue. It will depend, at least in part, on the scale of such activity as well as their approach to estimating GDP and whether such income generated outside of the jurisdictions is captured within the estimates.

Figure 3.9 sets out the year-on-year rates of GDP growth for the Isle of Man and relevant comparator jurisdictions for the period 2010 to 2019 and Figure 3.10 sets out the index of overall change in GDP over this period.

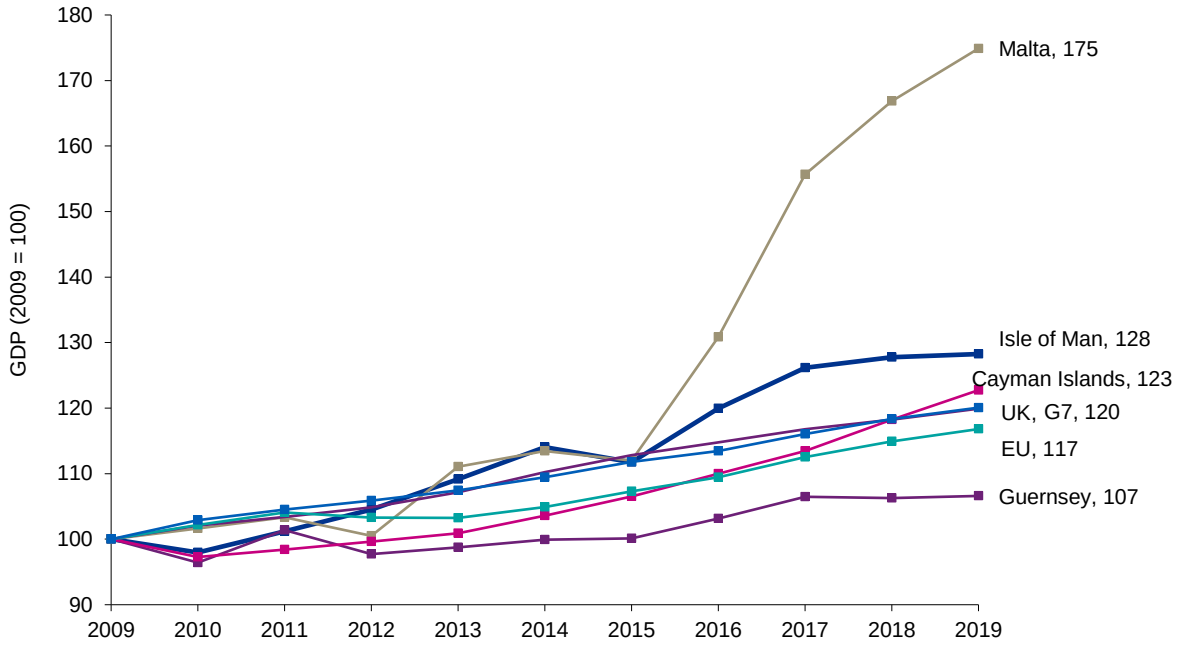
Figure 3.9 Isle of Man and comparators y/y GDP growth: 2010-2019[27]



Source: IOMG data, KPMG analysis, World Bank, National Accounts: Government of Jersey Open Data, States of Guernsey, ESTAT, ONS

[27] The markedly high rise in Ireland's GDP is owing to the number of large multinational corporations that relocated their economic activities and underlying intellectual property to Ireland in 2015. The OECD (2016) notes that 'as a result, sales generated from the use of intellectual property now contribute to Irish GDP rather than to other countries' GDP. Given the size of the companies, the boost to GDP was correspondingly large.'

Figure 3.10 GDP, Isle of Man and Comparators: 2009-2019 (2009=100).



Source: IOMG data, KPMG analysis, World Bank, National Accounts: Government of Jersey Open Data, States of Guernsey, ESTAT, ONS

Over the period 2009 to 2019, the GDP of the Isle of Man grew by 28%. Only Malta experienced higher growth in this time period amongst comparator jurisdictions. The GDP growth year-on-year has fluctuated significantly across the time period, however, and followed a different pattern to other economies (as shown in

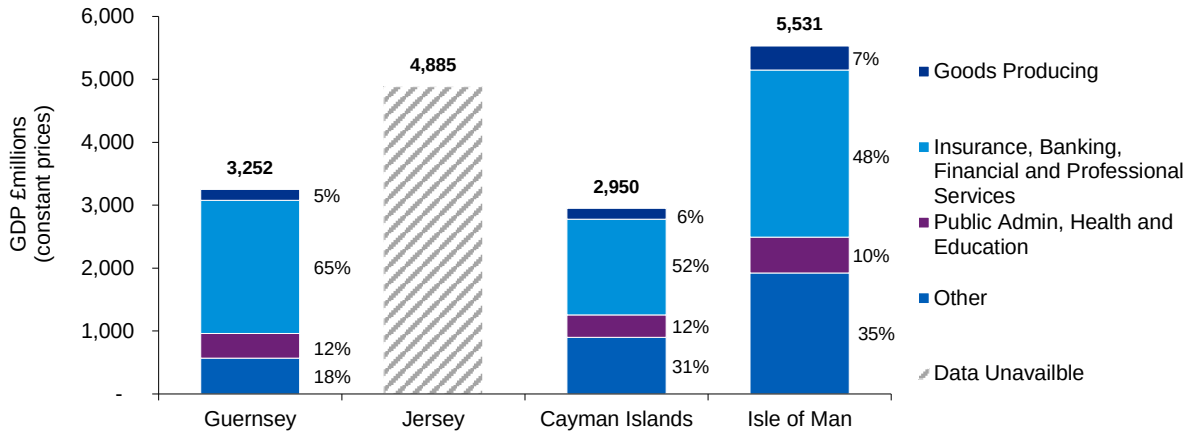
Figure 3.9), at least in part driven by the Island's different sectoral make-up. For example, the large fluctuation in growth between 2014 and 2017 was driven by a significant decline in the eGaming sector and subsequent bounce-back. While overall the Isle of Man economy has grown at a higher rate than other comparator jurisdictions, as can be seen in

Figure 3.9, the year-on-year growth rates over more recent years have fallen at a greater rate than other economies.

In terms of the sector composition of the Isle of Man's GDP compared to other jurisdictions, owing to the lack of standardised sectoral classifications, it is not straightforward to determine a like-for-like comparison of the respective largest sectors. For example, the eGaming sector was classified as a constituent of the ICT sector until 2009 in Manx statistics and the Isle of Man reports insurance and banking separately, whilst the Channel Islands and Cayman Islands have more aggregated categories for financial services.

In view of this, sector level GDP data has been aggregated to create larger sectors groupings for the Isle of Man and comparator jurisdictions that better allow comparisons to be made. The sector compositions and their contributions to GDP are shown in Figure 3.11 below.

Figure 3.11 Sectoral concentrations of GDP, Isle of Man and Comparators: 2019[28]



Source: IOMG data, KPMG analysis, National Accounts: Government of Jersey Open Data, States of Guernsey, ONS

When combining the industries on the Isle of Man into larger, and more comparable sectors to those reported for comparator jurisdictions, the Finance sector (including Insurance and 'Finance and Business Services') arises as the largest sector, followed by the ICT sector (including eGaming), with 'Other Professional Services' (including legal, accounting and corporate services) as the third largest sector.

When comparing the sectoral composition of the Isle of Man and the small-island comparators key similarities and differences can be identified as follows:

Similarities:

— Large insurance and finance-related sectors accounting for between 48% and 65% of GDP.

— Service sectors are dominant, with goods producing sectors[29] accounting for between 5% and 7% of output.

— The combined public administration and health sectors contributed approximately one tenth of GDP across the Isle of Man and comparators.

Differences:

— The Finance sector on the Isle of Man was among the few growing in share of output since 2009, in the wake of the Global Financial Crisis. With the Cayman Islands being the only comparator in which the financial sector increased its share of GDP. The Isle of

[28] Data for the Isle of Man is from the year 2019/20. Sectoral detail is provided where comparable sectors are identifiable in the data: eGaming is only shown for the Isle of Man and the health and social care sector was not identifiable in the Jersey data.
[29] The goods producing sectors are formed of the construction, manufacturing, engineering, mining and agricultural sectors.

Man's finance sector[30] was 1.4x the size in 2019/20 that it was in 2009/10, increasing in share of GDP from 32% to 35% over the same period.

— The digital sectors of ICT and eGaming are much more important on the Isle of Man than the selected comparators. The ICT sector contributed 9% of GDP in 2019/20 while the eGaming sector was responsible for 17%. These proportions are substantially larger than the similar sectors in comparator jurisdictions. Additionally, the large contribution to GDP of these digital sectors rebalances the Island's economy away from the other sectors.

3.3 Labour market

Economic growth and employment are generally closely linked, wherein growth is driven by the combined effects of increases in employment and productivity – with Forbes (2015) noting that productivity is the most important determinant of a nation's standard of living.[31] It is not only the number of jobs available within an economy that is important but also the quality of those job opportunities in terms of the level of output produced per unit of labour input. The ONS (2017) states that a higher level of productivity means that a higher level of output is being produced per unit of labour input.[32] In general, higher labour productivity jobs are associated with higher earnings[33,34], which also support higher levels of consumption and so further economic activity.

Given that the Isle of Man's economic output includes corporate income linked to some off-island activities, assessing the labour market is particularly important to provide a more accurate view of the activities taking place on the Island and how this translates into jobs and income for residents.

In summary, data for the Isle of Man shows that employment on the Island is characterised by a few key themes:

— Very low unemployment rates, sustained for over a decade, alongside growing numbers of individuals in employment and some challenges in terms of unfilled vacancies.

— A relatively high proportion of the population that is not "economically active"[35] (c. 50% in 2019), driven largely by the age profile of its residents.[36] At the time of the last census (2016), 17% of the population was under 16 years of age (below working age), 22% was retirement age or above, which indicates around 18% of the population that was of working age but not economically active, whether by choice or due to disability or other reasons.

[30] Sum of: Banking, Insurance, 'Other Financial and Business Services'.
[31] Forbes. (2015). 'Productivity and Economic Growth'.
[32] ONS. (2017). 'Regional and sub-regional productivity in the UK: Jan 2017'.
[33] ONS. (2017). 'Regional and sub-regional productivity in the UK: Jan 2017'.
[34] Strain, M. R. (2019). 'The Link Between Wages and Productivity Is Strong'.
[35] The OECD (2001) defines the economically active population as: 'all persons who furnish the supply of labour for the production of economic goods and services as defined by the United Nations System of National Accounts during a specified time period'.
[36] It is noted that residents on the Isle of Man might not be classified among the 'economically active' population (as defined above) but may still contribute to economic activity through their sources of income and as a result of spending money on the Island, for example in the retail and hospitality sectors.

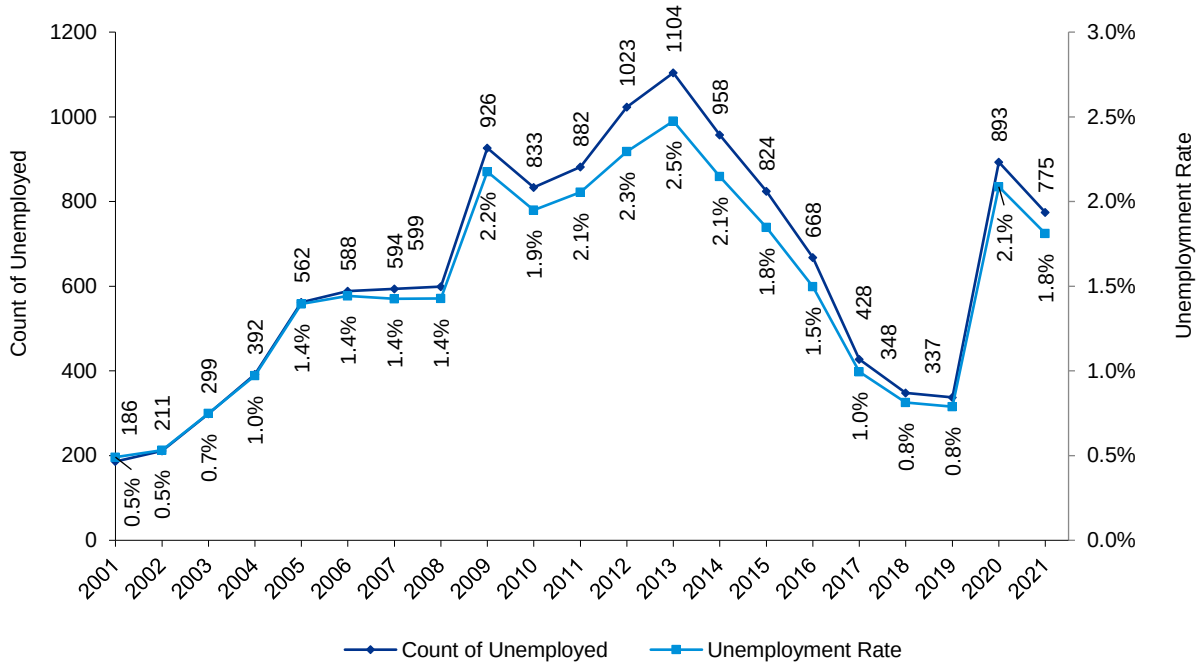
— Differences between the sectors that drive the economic output (GDP) and those that drive employment, with the largest employment sector (retail) accounting for a relatively small share of GDP.
— Relatively high wages compared to other jurisdictions with average wages in the Isle of Man 12% higher than those in the UK in 2020. Comparable Channel Islands data is not available.

3.3.1 Isle of Man employment and unemployment rates

Data on levels of employment and unemployment on the Isle of Man are available up to June 2021.[37]

As shown in Figure 3.12 below, both total levels of unemployment and the average number of unemployed individuals on the Isle of Man had been declining from 2013 until 2019, with unemployment dropping from an average of 2.5% in 2013 to 0.8% in 2019. Due largely to restrictions imposed due to the coronavirus pandemic, unemployment was at an average of 2.1% in 2020.

Figure 3.12 Average Unemployment, Isle of Man: 2001-2021[38]



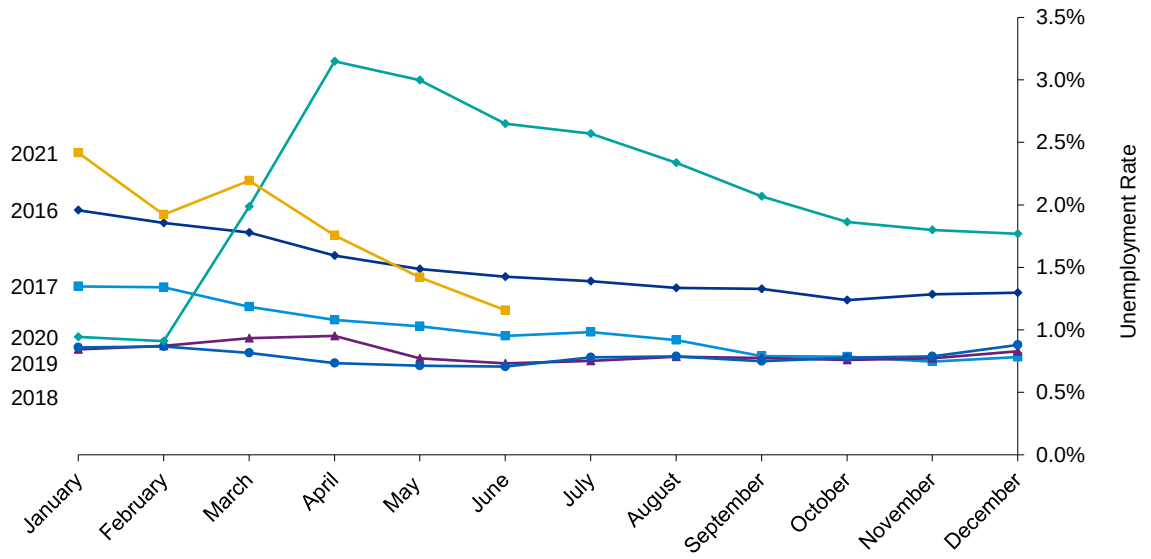
Source: IOMG data, KPMG analysis

[37] It should be noted that unemployment data used here represents the number of individuals in receipt of Jobseeker's Allowance, rather than total unemployed. This is the case throughout the report except when relating to Census data, which represents total unemployment.

[38] 2021 data refers only to data from January to June 2021.

As is shown in Figure 3.13 the unemployment rate on the on the Isle of Man has not shown large seasonal variations in recent years, and as of June 2021 the rate of unemployment is below the levels seen in some of the years preceding the COVID-19 pandemic.

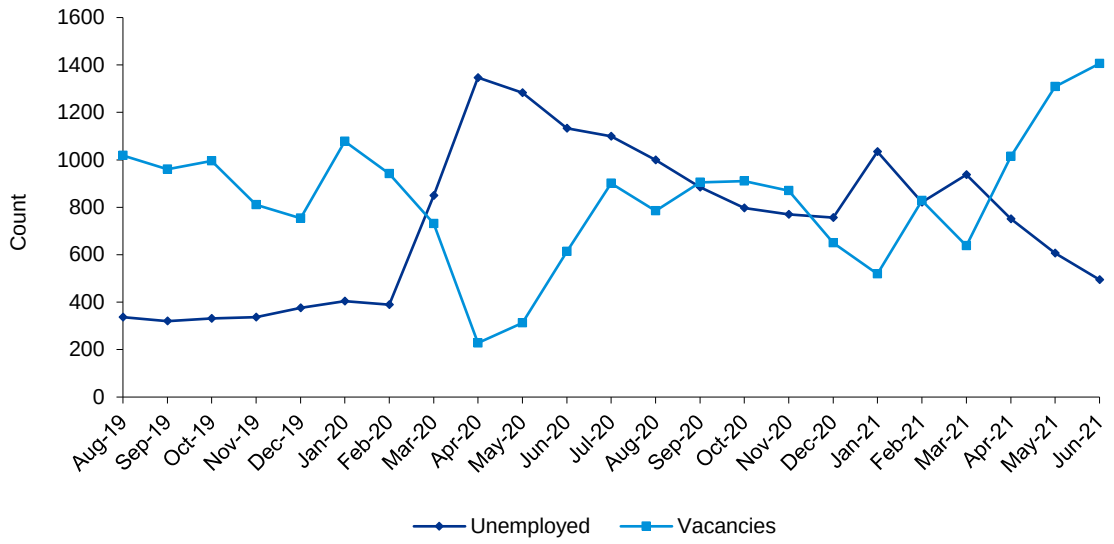
Figure 3.13 Unemployment Rate, Isle of Man: January 2016 – June 2021



Source: IOMG data, KPMG analysis

As shown in Figure 3.14, below, the level of unemployment on the Isle of Man is often below the level of vacancies, suggesting unfilled labour shortages on the Island. Due to a large initial decrease in vacancies and increase in employment after the initial outbreak of the COVID-19 pandemic, the level of unemployment was above vacancies for a year from March 2020 (with the exception of the months September to November and February 2021), Vacancies have since increased above the levels seen pre-COVID-19, and unemployment has steadily fallen. As such, unemployment levels have been recorded below the levels of vacancies since April 2021. Vacancies can often arise as a result of skills mismatches. Skills levels on the Island are assessed in Section 4.4.

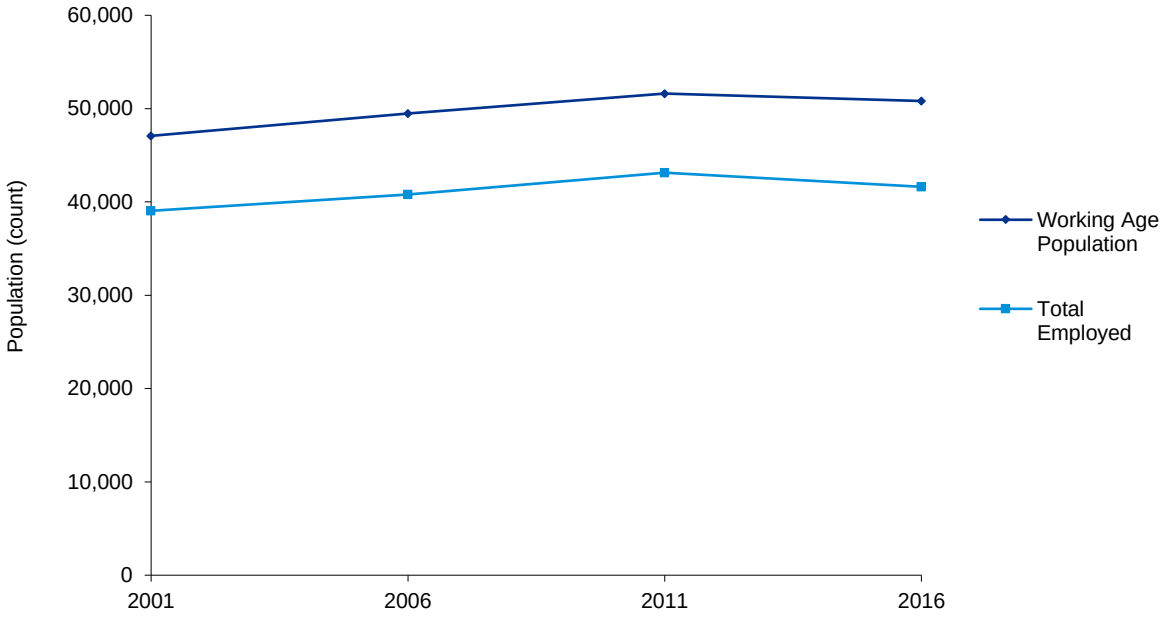
Figure 3.14 Count of Unemployed and Vacancies, Isle of Man: August 2019 – June 2021



Source: IOMG Data, KPMG Analysis.

The unemployment population in December 2019 was 376, equivalent to 0.4% of the Island's total population.

Figure 3.15 Working Age and Employed Population, Isle of Man: 2001-2016[39]



Source: IOMG data, KPMG analysis

[39] Employment data includes employees and self-employed.

Maintaining a substantial economically active population is important for the long-term viability of the Island's economy and public finances, as economically active individuals are necessary to help pay for and deliver public services for the entire population. As Figure 3.15 above shows, the workforce on the Isle of Man has plateaued since 2011, although it did grow during the first decade of the millennium. The difference between the working age population and the total number of people employed is around 10,000 individuals across the time period considered, and this difference will be driven by several factors including:

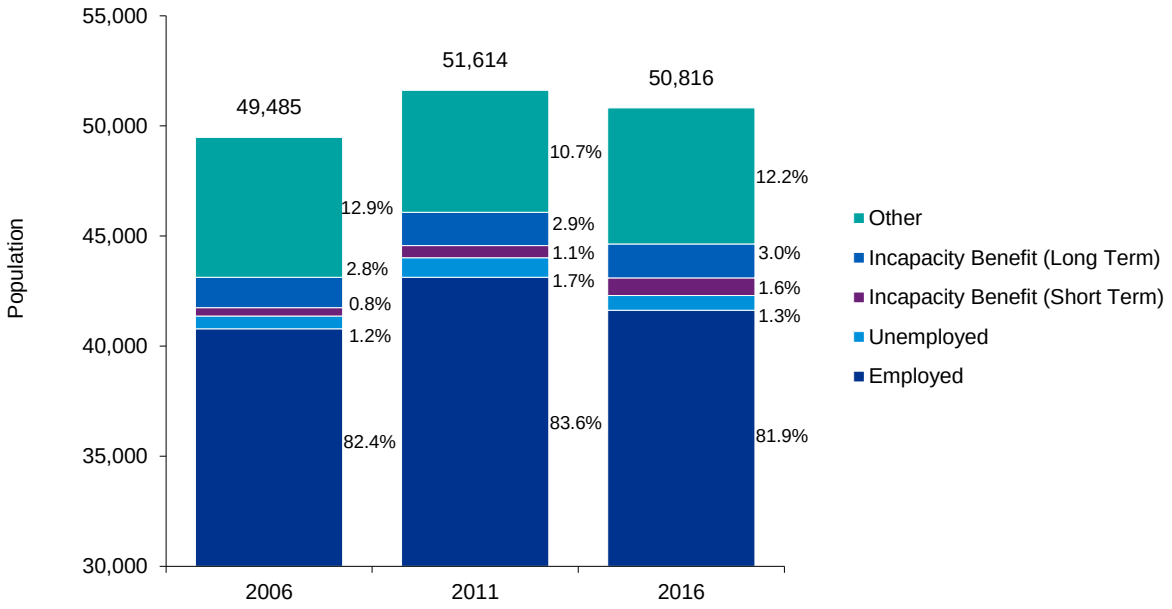
- some working age individuals being unemployed (and seeking employment), though as noted above, for the Isle of Man this is a small proportion;
- some working age individuals choosing not to undertake paid employment, for example because of unpaid caring commitments (e.g. children, elderly relatives); and
- some working age individuals being disabled, ill or otherwise not well enough to work, and this likely explains a sizeable proportion of the working age population that is not employed. Isle of Man Government data indicates that around 3,000 individuals receive incapacity benefit or income support due to sickness, accounting for around 30% of the difference in Figure 3.15.[40]

Figure 3.16, below, sets out a breakdown of the Island's working age population, by their activity status, between 2006 and 2016. It can be seen that the unemployed population accounted for only 1.3% of the overall working age population in the most recent census year (2016)[41]. A further 4.6% of the working age population were out of the workforce due to incapacity (two thirds of whom were receiving long term incapacity benefits). Although the proportion and number of working age individuals on the Island receiving incapacity benefits increased substantially since 2006, the overall proportion of the working age population in employment remains largely unaffected at approximately 82%, due to the small size of this group.

[40] Government data indicates 3,076 individuals receiving incapacity benefit or income support for sickness as at January 2020, 3,154 as at January 2021 and 3,102 as at June 2021. Noting that the data in Figure 3.15 is from an earlier time period, the persistence of a wedge of around 10,000 individuals who are working age but not employed from 2001 to 2016 suggests that a similar difference may have persisted in the following years as well.

[41] The 'Other' category noted in Figure 3.16 includes individuals who are not part of the employed or unemployed population but are of working age and are not claiming benefits, e.g., individuals who are in full time education.

Figure 3.16 Working Age Population, Isle of Man: 2006-2016



Source: IOMG data, KPMG analysis

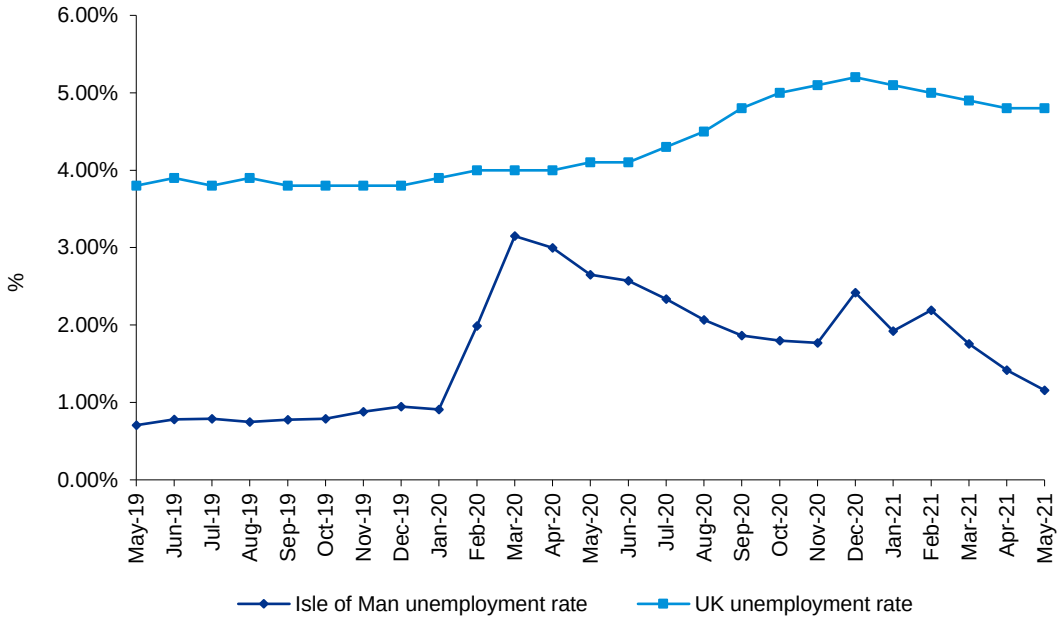
Although there are economic issues associated with a limited workforce given that this affects the total productive capacity of the economy, the high demand for a limited pool of labour has helped contribute to a low unemployment rate on the Island. Unemployment has more than halved over the period 2014 to 2019, standing at approximately 0.9% in December 2019. This data, however, covers the pre-pandemic period. More recent unemployment data covering this period is shown in Box 3.1 below.

Box 3.1 The COVID pandemic and unemployment

More recent unemployment data for the Isle of Man covering the COVID-19 period is shown in the figure below. It can be seen that prior to the pandemic, the unemployment rate was almost flat at approximately 0.8%, but rose substantially in March 2020 to 2% and continued to increase to over 3% at its peak in April 2020. The rate fell gradually until January 2021 when it rose again temporarily, likely reflecting the impact of the Island's second lockdown which was imposed on 7 January, requiring all non-essential shops, hospitality, and schools to close.

Since then, the rate of unemployment has almost returned to pre-COVID-19 levels, standing at 1.2% in June 2021. However, it is important to note that some COVID-19 support measures continue to be in place on the Island – for businesses and individuals – and therefore the true impact of the pandemic is unlikely to have fully materialised and so not captured in the data up to this point.

Isle of Man and UK unemployment: Covid-19 impact: May 2019 – May 2021



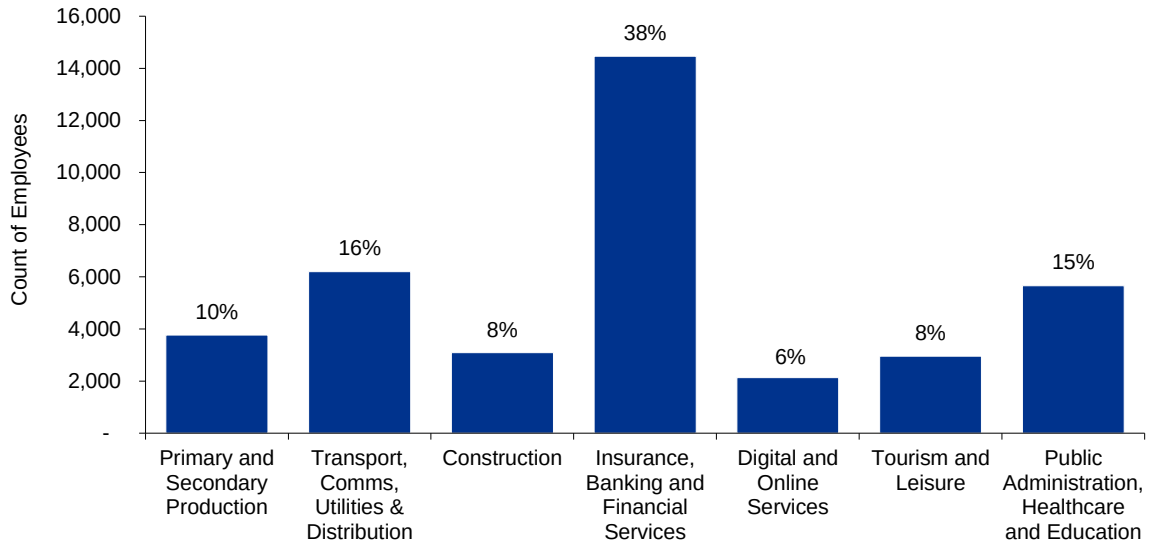
Source: IOMG data, KPMG analysis

By contrast, the UK rate did not spike in the same way as the Isle of Man rate, rather it gradually increased from around 4% in March 2020 to its peak of approximately 5.2% in December 2020 as Covid-19 support measures were reduced in the UK. While the rate has fallen marginally from its peak, it remains above pre-Covid-19 levels, despite support measures continuing to be in place across the UK during the period depicted. The relatively constant rate in the UK is likely owing to support schemes, such as the furlough scheme, that were in place across the time period.

3.3.2 Isle of Man employment by sector and output per job

In the first quarter of 2020 approximately 38,000 people were employed in the Isle of Man.[42,43] The sector with the largest share of employment was the retail sector, although at a sector grouping level, the highest employment in total was across the combined Insurance, Banking and Financial Services sectors.

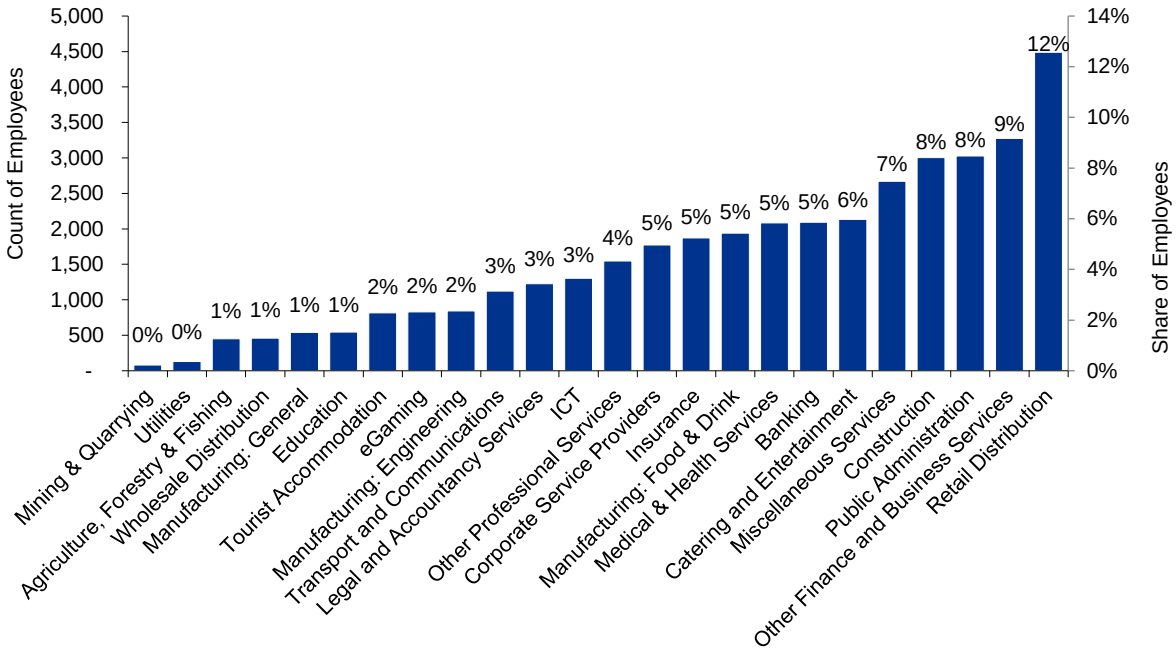
Figure 3.17 Employees by Sector Group: Q1 2020 [44]



Source: Isle of Man in Numbers 2021, Isle of Man Census 2016

[42] This estimate includes an approximated figure of 3,000 for individuals employed in the Public Administration sector, derived using the 2016 Isle of Man Census data in the absence of more recent data for the sector.
[43] This number includes only individuals who are employed; it does not include individuals who are self-employed.
[44] As noted above, this includes an estimate for employees in the Public Administration sector, taken from the 2016 Isle of Man Census.

Figure 3.18 Employees by Sector, Isle of Man: Q1 2020 [45]



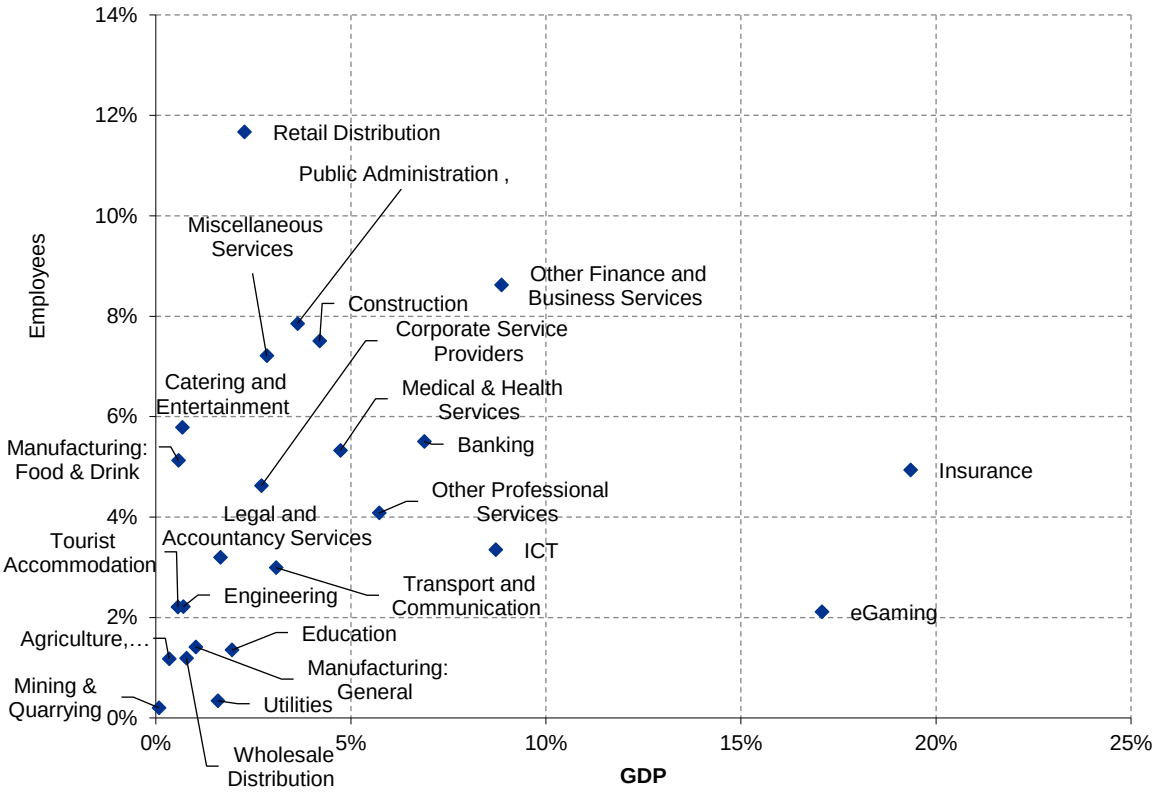
Source: Source: Isle of Man in Numbers 2021, Isle of Man Census 2016

The share of employees by detailed sector follows a similar pattern to that of the ranking of sectors by the count of companies employing greater than 25 employees (see Section 3.5). However, there is disconnect between the largest sectors in terms of GDP contribution and in terms of employment. For example, although in the period 2019/20 eGaming was responsible for 17% of national GDP, it was responsible for only 2% of employment in Q1 2020, as shown above in Figure 3.18. Conversely 'Retail Distribution', which employed 12% of the Island's workforce in Q1 2020, was responsible for only 2% of Manx GDP in 2019/20. Banking and 'Other Finance and Business Services maintain' employment levels that are close to that of their GDP share.

This disconnect between output and employment is shown when sectoral employment and GDP shares are plotted on a scatter graph – see Figure 3.19.

[45] As noted above, this includes an estimate for employees in the Public Administration sector, taken from the 2016 Isle of Man Census.

Figure 3.19 Employees and GDP by Sector, Isle of Man: 2019/20[46]



Source: IOMG Data

Despite the different sectoral contributions to GDP and employment, it should be noted that due to linkages between sectors of the economy the activity taking place in some sectors may have a larger overall effect than others. For example, while their direct contributions to GDP are limited, the economic impact of sectors such as 'Retail Distribution' and 'Catering & Entertainment' extend as the greater share of individuals who work in those sectors spend their wages in the wider economy and they support the provision of services that enable to everyday functioning of an advanced economy and society. The scale of the wider impacts of these sectors, however, are constrained by the relatively lower level of wages of employees (see Section 3.3.3 for wage data analysis).

In terms of the trend in employment levels over time, as shown by Figure 3.20, there is a close relationship between employment and GDP on the Isle of Man, with GDP and employment closely tracking each other over recent years. Although employment was flat from 2017/18 to 2019/20, GDP continued to grow albeit at a slower pace, resulting in a higher level of output per employee.

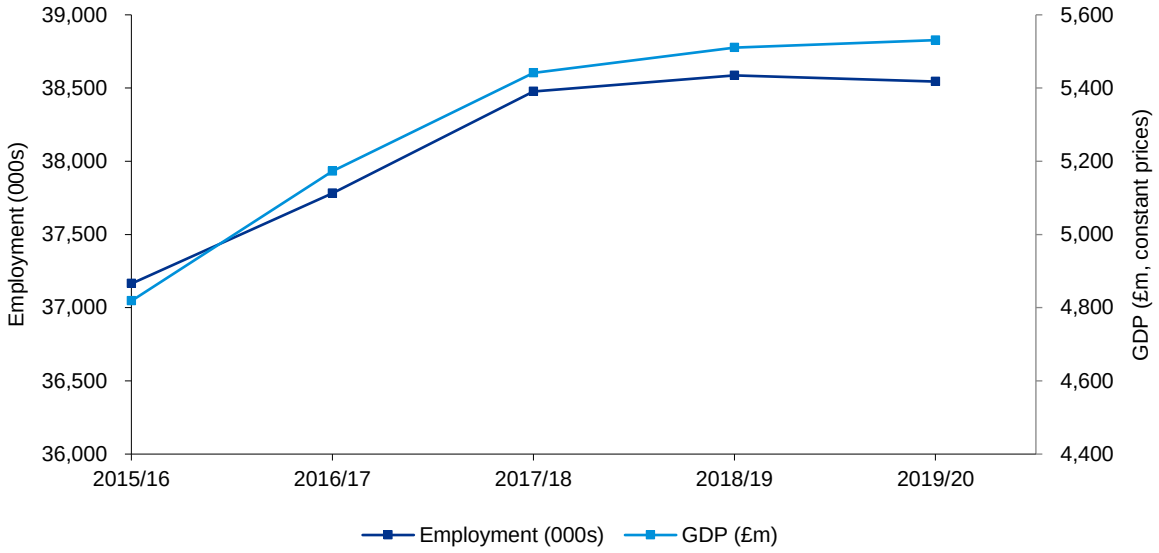
In general, GDP per employee is a measure of labour productivity, capturing the economic output produced per unit of labour input (in this case per employee). In constant terms, GDP per employee in the Isle of Man increased from £129,650 in 2015/16 to £143,496 in 2019/20.

[46] As noted above, this includes an estimate for employees in the Public Administration sector, taken from the 2016 Isle of Man Census.

This represents an 11% increase in output per worker. There were steady increases in GDP per employee every year over the period 2015/16 to 2019/20.

It should be noted, however, that these figures are likely to be inflated as a result of the composition of the Isle of Man's GDP and the extent to which it is generated by activity taking place on-island or off-island. As income generated by firms located in the Isle of Man but with activities in other jurisdictions is included in the GDP figures, assigning the full level of GDP in a sector to the employees on-island does not accurately capture the output they produce and so their labour productivity. However, in the absence of other measures of productivity, it is included in the evidence base for comparative purposes across sectors and other relevant jurisdictions. It should be noted though that different sectors and jurisdictions will be affected by this issue to varying extents and in the case of the Isle of Man, the measure will overestimate the true labour productivity of Isle of Man's workforce.

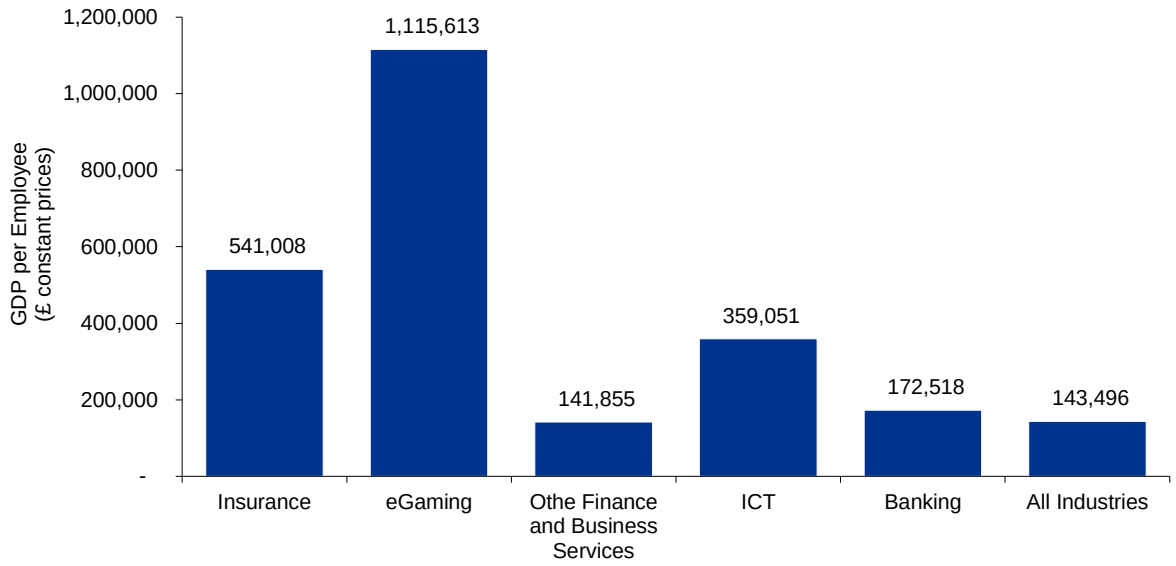
Figure 3.20 Employees and GDP, Isle of Man: 2015/16-2019/20



Source: IOMG data, KPMG analysis

Notwithstanding the point above, many industries in the Isle of Man show a very high GDP per employee. The output (GDP) per employee, by sector, for the Isle of Man in 2019/20 is set out in Figure 3.21 below.

Figure 3.21 Output per Employee, Isle of Man: 2019/20[47]



Source: IOMG data, KPMG analysis

There is broad agreement across academic literature[48] that there is a close link between productivity and skill levels, with both economic growth and productivity being dependent on knowledge and human capital. The skill levels of individuals determine, at least in part, the employment roles they are able to fulfil, as well as the value of the output they are able to produce. The skill levels of individuals in the Isle of Man is discussed further in Section 4.4 below.

In general, evidence suggests that higher skilled jobs are more productive, meaning that each job makes a larger contribution to the economy. For example, studies by the OECD show that, on average, a 1% increase in training days leads to a 3% increase in productivity,[49] while growth accounting methodologies have estimated that the skill level of the labour force has accounted for between 15-20% of the growth in average labour productivity in the UK over recent decades.[50]

3.3.3 Isle of Man employment earnings

The overall income level of employees on the Isle of Man directly contributes toward the level of GDP. In the year 2019/20 total employee remuneration was approximately £1,291m, a figure that represents 23% of Manx-sourced GDP.

Economic evidence indicates that there are a range of factors that influence the earnings of employees. According to ONS (2018), factors include: **age** – as a proxy for experience and the build-up of skills overtime; **gender**, **occupation (skill) group** – wherein earnings are likely to increase as the skill level of the job increases; job-related characteristics such as **industry**

[47] As noted above, this includes an estimate for employees in the Public Administration sector, taken from the 2016 Isle of Man Census.
[48] BIS, 2015. UK skills and productivity in an international context
[49] OECD, 2010. G20-Skills-Strategy.pdf (oecd.org)
[50] BIS, 2015. UK productivity and skills in an international context

composition; **location** – wherein local labour market conditions and costs of living can be among geographic factors that impact wage; and **organisational size** – in which empirical studies have revealed a strong and positive correlation between employer size and earnings.[51]

As noted earlier in this section, the literature also reports a link between productivity and earnings, wherein an increase in productivity is associated with an increase in wages, although there may be some variation in this theme across worker and industry types.[52]

There are two distinct ways of calculating average wages, they each provide a different lens with which to assess both the average level of wages and the distribution of wages:

— Mean Wages

- Mean Wages are calculated the sum of all the wages divided by the total number of people earning wages in the same period. They provided an overview of all wages reflecting information from all ends of the distribution, being impacted by both the extreme highest and smallest wages as well as the intermediate. There are disadvantages associated with this, for example the mean wage in a company may rise by a substantial amount due to a large bonus or pay rise given to one highly paid individual; all other employees may see no change to their individual pay, but by this measure the average wage has risen. Therefore, changes to mean pay do not typically reflect the pay of an average worker.

— Median Wages

- Median Wages are a measure of the wages of an average worker, rather than an average of all wages. This is calculated by sorting wages from highest to lowest and taking the wage value at the midpoint of this list. The advantage of this method is that it is not impacted by extremes of the distribution. It provides a view of the wages seen by average workers. Changes to wages that do not impact workers in the middle of the distribution will not be captured in this measure. The median wage is typically lower than the mean wage.

For the Isle of Man, as shown in Figure 3.22, mean weekly earnings in 2020/21 were £788. This is an increase of 16% in real terms since 2010/11. The median wage did not rise as fast, being only 8% higher in 2019/20 than those in 2010/11. As show in Figure 3.22, the highest paid sector was eGaming, with an average weekly wage of £1,376 in June 2020, while the lowest paid sector was 'Food and Drink Manufacturing' sector, with an average weekly wage of £406.[53]

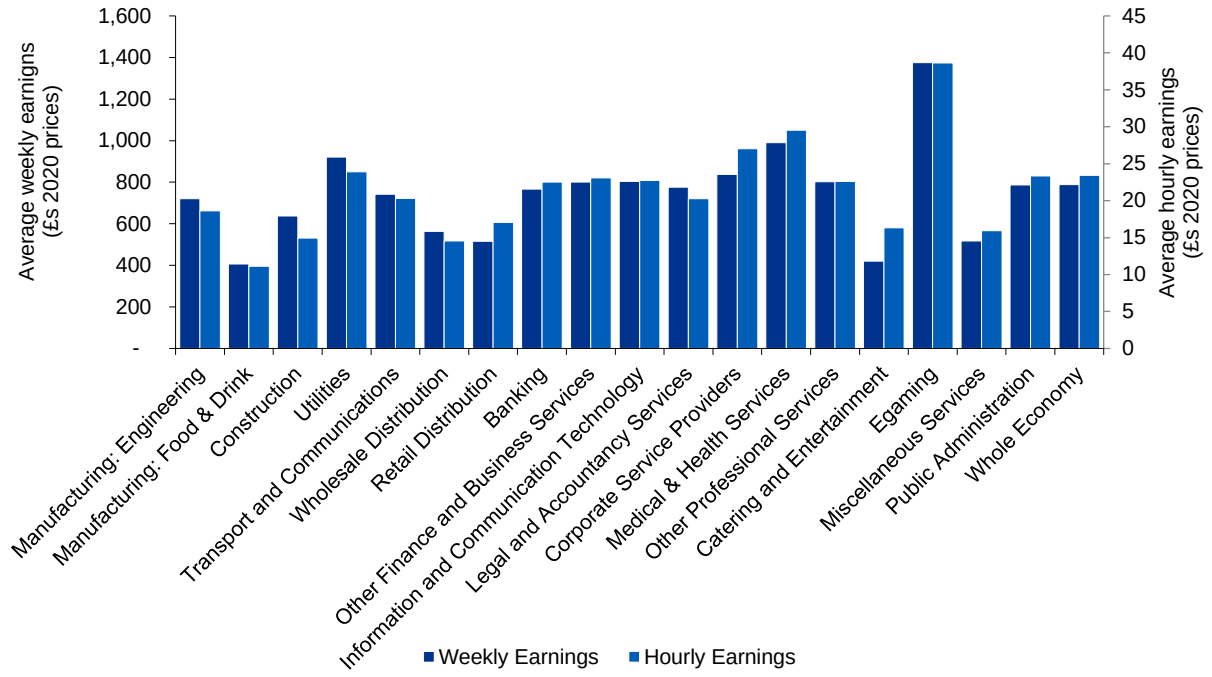
2020 average earnings data was available for 18 of 24 sectors.[54] Unsurprisingly the highest wages (both weekly and hourly) were found in the eGaming sector. 'Retail Distribution', the most important sector for employment, had a relatively low weekly wage of £515 per week, or 35% lower than the average weekly wage across all sectors. It can also be seen that there is

[51] ONS. (2018). 'Public and private sector earnings in the UK: 2017, Factors affecting earnings – descriptive analysis'.
[52] Strain, M. R. (2019). 'The Link Between Wages and Productivity Is Strong'.
[53] 2020 data was unavailable for the Agriculture, Forestry and Fishing, Manufacturing: General, Mining & Quarrying, Insurance, Education and Tourist Accommodation sectors.

[54] 2020 data was unavailable for the Agriculture, Forestry and Fishing, Manufacturing: General, Mining & Quarrying, Insurance, Education and Tourist Accommodation sectors.

a strong relationship between weekly and hourly wages across the sectors (see Figure 3.22), suggesting that typical hours are similar across most industries.

Figure 3.22 Average earnings by sector: June 2020

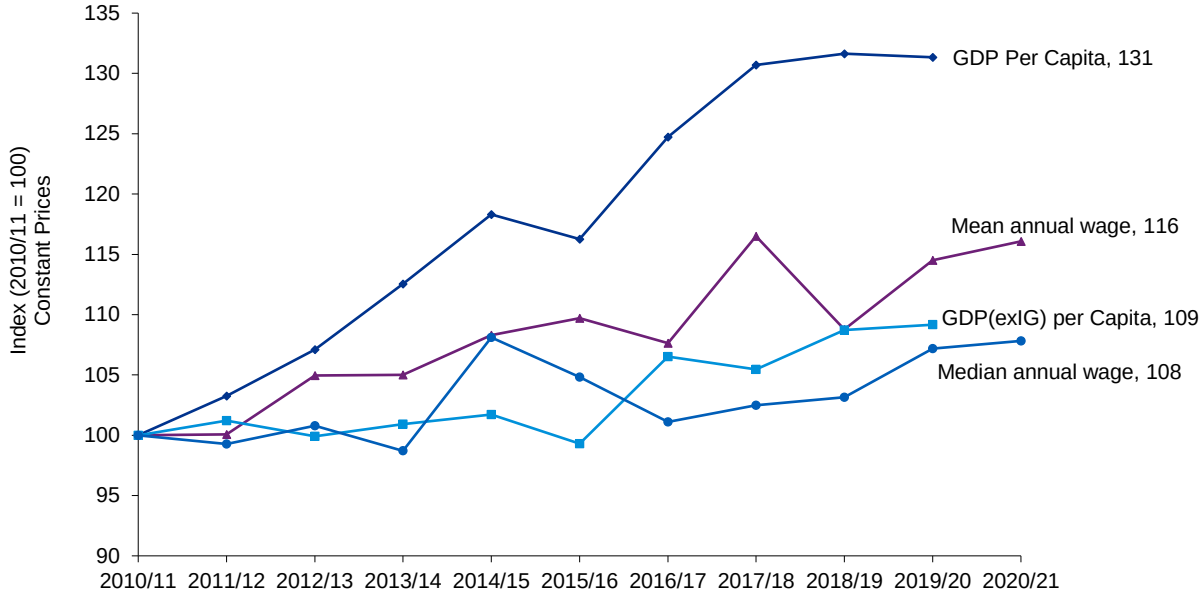


Source: IOMG Data

Average wages, as measured by either the mean or median, have not kept up with GDP growth since 2010/11 (see Figure 3.23). Both mean and median average wages track GDP growth excluding Insurance and eGaming more closely. This is unsurprising given the low number of employees in the Insurance and eGaming sector and high levels of off-island activity understood to be captured within the GDP of these sectors.

Mean annual wages rose from approximately £35,000 in 2010/11 to approximately £41,000 in 2020/21 and median wages grew from approximately £29,000 to £32,000. In the most recent period, median wages on the Isle of Man were 10% higher than those in the United Kingdom.

Figure 3.23 GDP and Wages, Isle of Man: 2010/11-2020/21



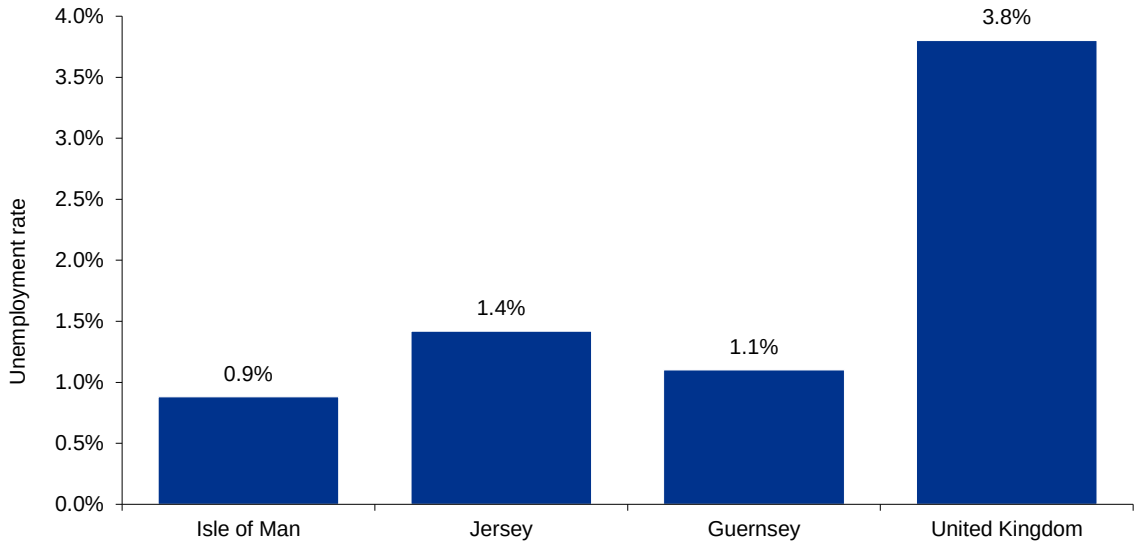
Source: IOMG data, KPMG analysis

3.3.4 Comparative assessment of the Isle of Man's labour market statistics

The key indicators for the labour market in the Isle of Man, presented above, have been compared to a range of other jurisdictions to assess the relative performance of the Island.

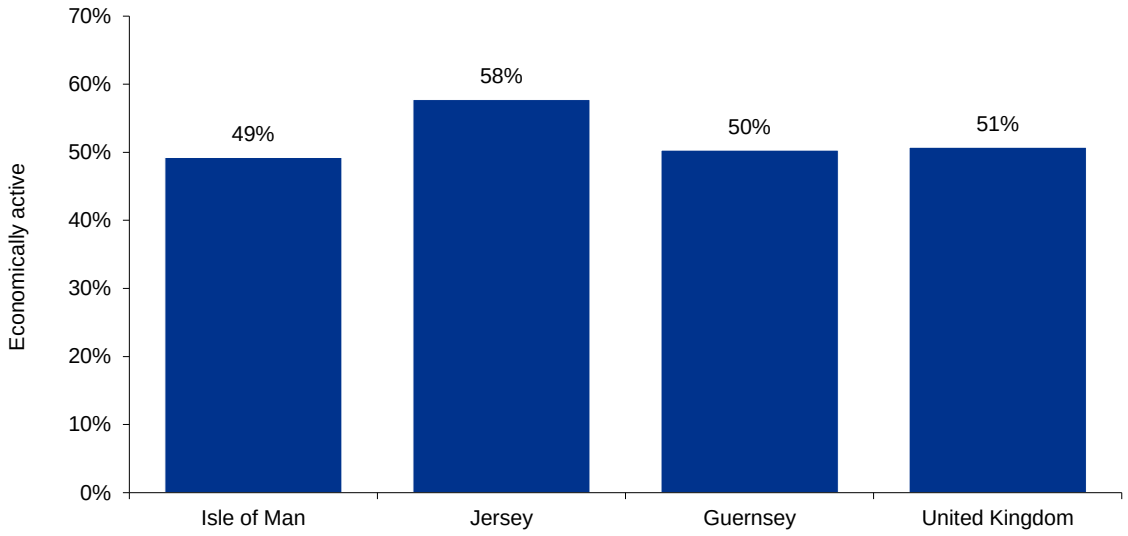
Figure 3.24 and Figure 3.25 below, show key labour market statistics (unemployment rate and economically active population) for the Isle of Man and a number of comparator jurisdictions for 2019 in which it can be seen that the Isle of Man has the lowest rate of unemployment at less than 1%. However, the data also shows that the Isle of Man has the smallest economically active population at 49.5%, particularly when compared to Jersey where the economically active population is 58%.

Figure 3.24 Unemployment rate on Isle of Man and comparators: 2019



Source: IOMG data, KPMG analysis. Statistics Jersey, Guernsey Government Data and Analysis, ONS Annual Population Survey, World Bank

Figure 3.25 Economically active population on Isle of Man and comparators, 2019



Source: IOMG data, KPMG analysis. Statistics Jersey, Guernsey Government Data and Analysis, ONS Annual Population Survey, World Bank

Table 3.4 presents the more detailed information relating to the economically active population as a proportion of total population for the Isle of Man and comparator jurisdictions over the period 2014 - 2019.

This shows that, compared to both Jersey and Guernsey, the Isle of Man has consistently had a lower proportion of economically active individuals in its population over the period 2014 to 2019. In 2019, for example, approximately 49.2% of the Isle of Man's population was economically active, compared to 57.7% for Jersey and 50.3% for Guernsey. This gap has remained over recent years despite the Island falling unemployment rates and increasing workforce population size.

The Isle of Man has seen a modest 1% increase in workforce population since 2014, its overall workforce population is considerably lower than that of Jersey (41,300 compared to 61,380 in 2019) and grew at a lower rate than Jersey's over the same period (8.6% growth in Jersey).

Comparatively, Guernsey's workforce population size is significantly below the Isle of Man's and has remained relatively stable over the period 2014 to 2019.

Table 3.4 Economically active population on Isle of Man and comparators: 2014-2019

		In work	Unemployed	Total population	Economically active
Isle of Man	2014	40,900	880	83,500	50%
	2015	41,000	860	83,200	50%
	2016	41,600	580	83,300	51%
	2017	40,300	340	83,600	49%
	2018	40,700	350	84,100	49%
	2019	41,300	380	84,600	49%
Jersey	2014	56,500	1,450	100,900	57%
	2015	57,800	1,390	102,700	58%
	2016	58,600	1,270	104,200	57%
	2017	59,800	930	105,600	58%
	2018	60,900	880	106,800	58%
	2019	61,400	870	107,800	58%
Guernsey	2014	29,600	340	62,400	48%
	2015	30,600	400	62,300	50%
	2016	30,900	370	62,300	50%
	2017	31,200	310	62,300	51%
	2018	31,300	290	62,600	51%
	2019	31,400	340	63,000	50%
United Kingdom	2014	31,162,700	1,727,400	64,602,300	51%
	2015	31,500,400	1,606,300	65,116,200	51%
	2016	31,937,900	1,461,000	65,611,600	51%
	2017	32,168,600	1,393,500	66,058,900	51%
	2018	32,551,900	1,310,400	66,460,300	51%
	2019	32,361,100	1,562,100	66,836,300	51%

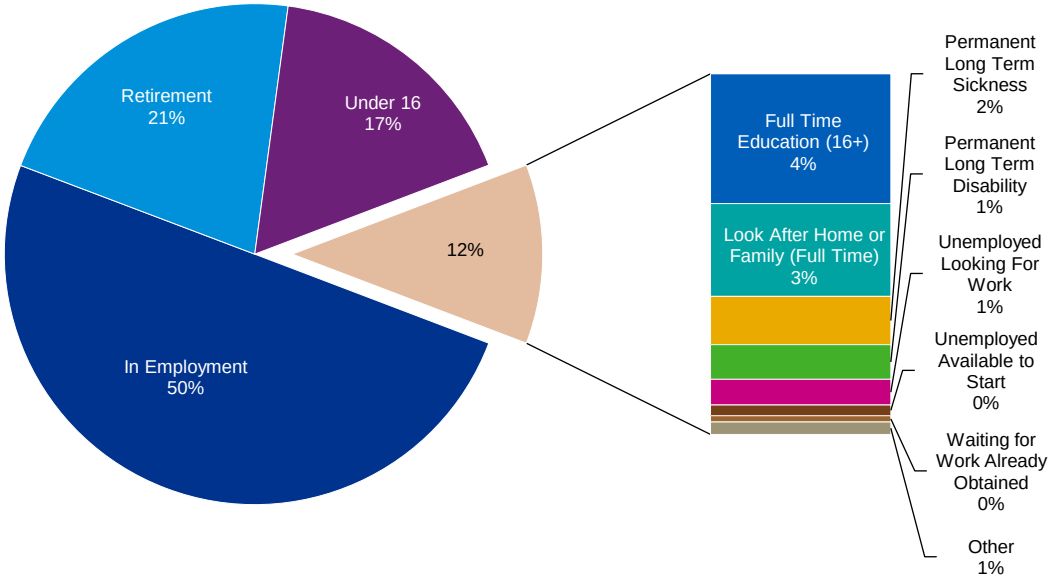
Source: IOMG data, KPMG analysis. Statistics Jersey, Guernsey Government Data and Analysis, ONS Annual Population Survey, World Bank

The difference in rates of economic activity across the three jurisdictions is largely due to different age profiles of their populations. As discussed in Section 3.4, the Isle of Man has a higher dependency ratio than either Jersey of Guernsey. Therefore, we would expect the Isle of Man to have a smaller economically active proportion of the population. The limited workforce on the Isle of Man can be seen as a contributor to both the high wages and low levels of unemployment seen on the Island when compared to other jurisdictions.

Taking a closer look at the economic activity and reasons for inactivity on the Island by considering 2016 Census data, we note the importance of demography on the share of working age population. The two most common reasons for economic inactivity in 2016 were retirement

and being under-16 (accounting for 21% and 17% of the total resident population respectively), as shown in Figure 3.26 below

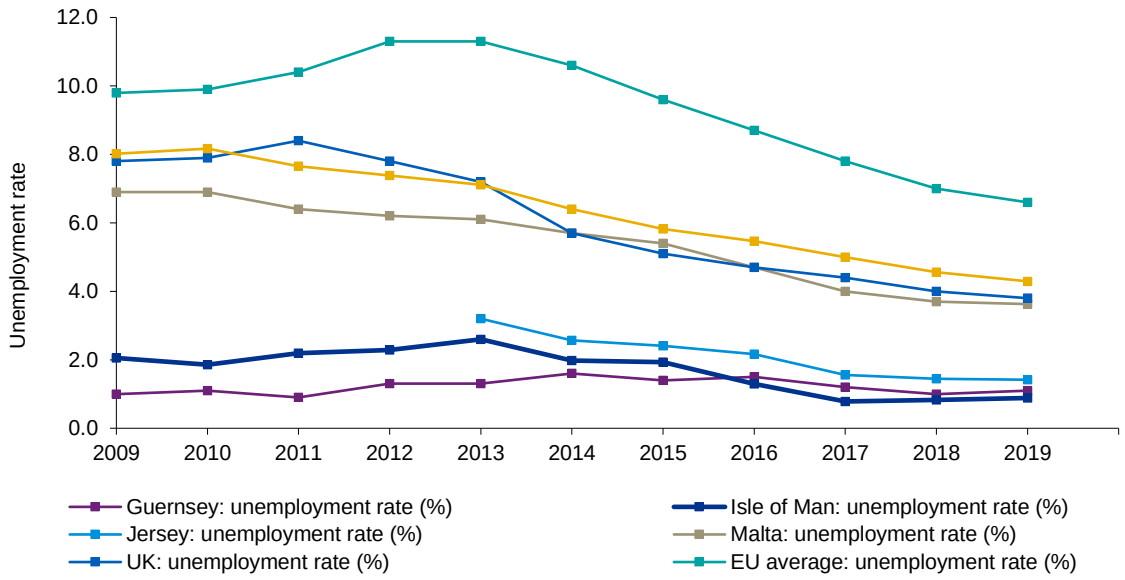
Figure 3.26 Economic Status of Residents, Isle of Man: 2016



Source: Isle of Man Census 2016

Although the decade after the Global Financial Crisis saw sustained high levels of unemployment across many developed economies, particularly across the EU, the Isle of Man maintained a tight labour market throughout the 2010s, with rates of unemployment frequently below 2%, while the UK saw unemployment levels as high as 8.4%. As unemployment fell throughout the second half of the decade, the Isle of Man saw unemployment continue to fall, with several years of sub 1% unemployment, as shown in Figure 3.27.

Figure 3.27 Rate of unemployment on the Isle of Man and comparators: 2009-2019



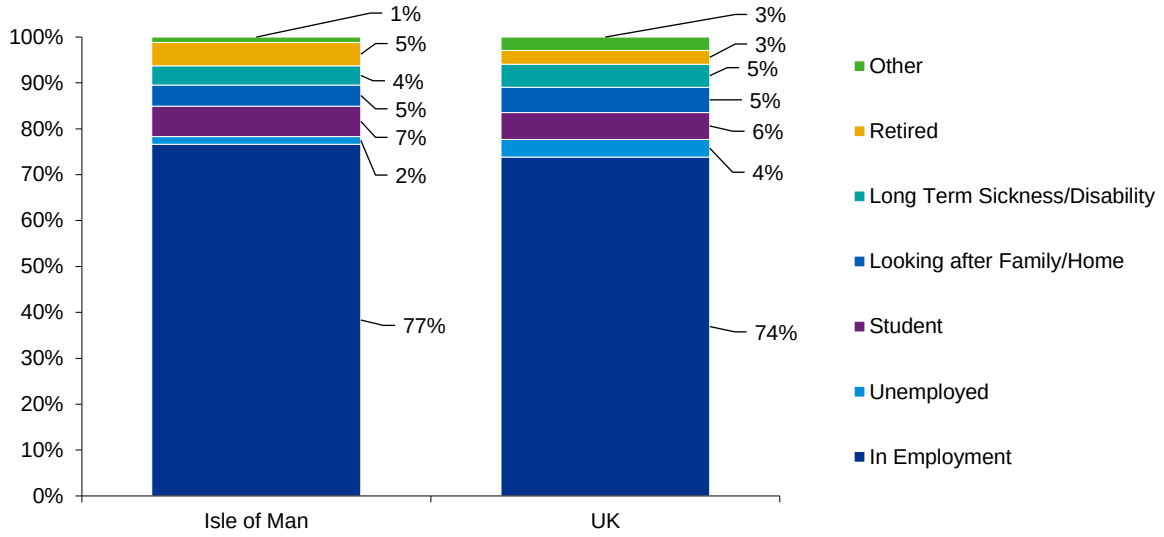
Source: IOMG data, KPMG analysis, World Bank, National Accounts: Government of Jersey Open Data, States of Guernsey, ESTAT, ONS

Levels of employment and economic activity are impacted by differing demography, as such comparisons of the working age population (thereby excluding retirement age and under 16s) provide a useful lens to assessing the economic activity of populations with differing demographic profiles. Due to differing retirement ages in the UK and Isle of Man, working age populations are defined differently between these jurisdictions. An analysis of the population age 16-64 is used for a comparison.

As shown in Figure 3.28, the rate of employment in the 16-64 age group was higher in the Isle of Man (77%) than in the UK (74%) in 2016 (when the most recent Manx census data is available). The higher rate of employment on the Isle of Man is despite the fact that the rate of economic activity[55] is similar across the two jurisdictions (IoM 79%, UK 78%). The narrower difference is due to lower unemployment on the Isle of Man than in the UK (IoM 2%, UK 4%).

55 *Economic Activity* is defined as either being in work (employed) or seeking/awaiting work (unemployed).

Figure 3.28 Economic Activity, Resident Population age 16 – 64, Isle of Man and UK: 2016

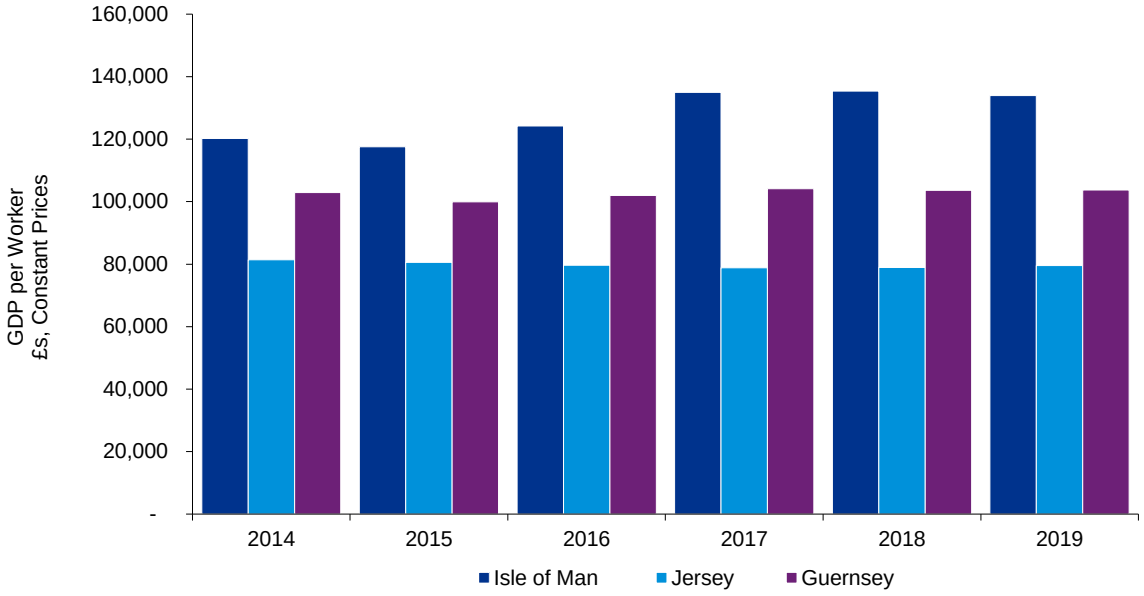


Source: Isle of Man Census, ONS Annual Population Survey, KPMG Analysis.

Turning to the level of economic output (GDP) per worker, as noted previously, due to the nature of the Isle of Man's GDP it is not a true measure of the labour productivity of the Island's workforce. However, for completeness, a comparative assessment of this to both Jersey and Guernsey is set out in Figure 3.29.

This shows that the level of GDP per worker in the Isle of Man is consistently higher over the period 2014 to 2019 than in Jersey and Guernsey. The data also shows that while the level has increased in both the Isle of Man (by 11%) and in Guernsey (1%) over the period 2014 to 2019, it has fallen in Jersey by approximately 2%. This demonstrates that while the GDP has risen at a faster rate than employment in the Isle of Man and Guernsey over the period, this was not the case in Jersey.

Figure 3.29 GDP per Worker, Crown Dependencies: 2014-2019



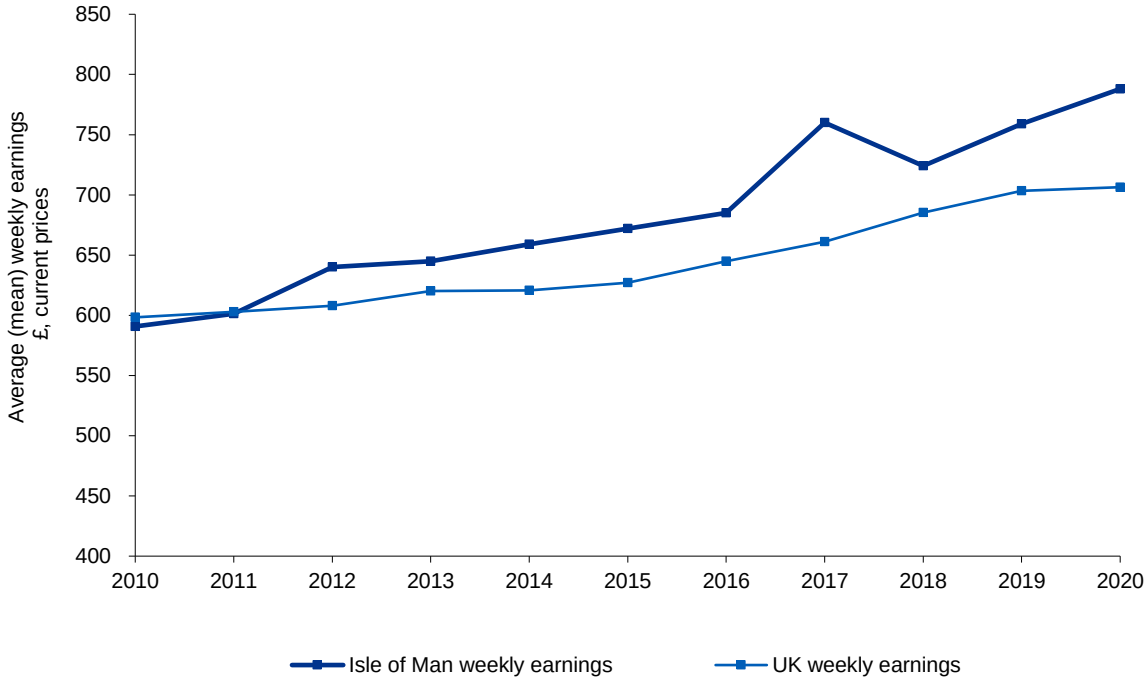
Source: IOMG data, KPMG analysis

At the industry level, an analysis of GDP per employees is taken (as opposed to GDP per worker) detailed in Section 3.3.2 above. The GDP per employee job for the leading sector in Isle of Man (eGaming) was £1.1m in 2019/20, albeit this is in large part likely to be driven by income (and so GDP) generated by firms in the sector in other jurisdictions. In comparison, the GDP per employee job the leading sector in Jersey (Finance) is approximately £137,500 and Guernsey's leading sector (also Finance) is £203,621 – both of which are substantially lower than the two leading sectors on the Isle of Man, though both estimates are broadly in line with the levels for the Isle of Man's own Finance and Business services sector[56].

The data in Figure 3.30 shows that employees on the Isle of Man, on average, are able to command higher wages than those seen in the United Kingdom. The Isle of Man has experienced both higher average weekly wages and higher rates of average weekly wage growth over the last decade. This should be considered in the context of the cost of living on the Island, discussed in more detail in Section 5.3.

[56] Cross-country sectoral comparisons of this nature should be made with due caution owing to the probable lack of comparability in sector composition.

Figure 3.30 Average (mean) weekly earnings, full-time employees, Isle of Man and UK: 2010-2020



Source: IOMG data, ONS Annual Survey of Hours and Earnings, KPMG analysis

3.4 Population and demographics

As noted in the literature, economic growth alone does not necessarily mean an increase in the number of jobs and associated pay[57], and hence it is important to assess the labour market conditions of an economy to determine how it is performing and where there are gaps that need to be addressed.

The available labour force and their associated characteristics, for example in terms of skills (as discussed further in Section 4.4), is also an important determinant of the extent to which firms have the resources available to deliver economic output and growth. Furthermore, the size and characteristics of the full population of a jurisdiction is important to understand given the link between this and the requirements for public sector spending, for example in terms of education, health and social care and welfare support provision.

In support of this, the section below presents population and demographic metrics which decompose the Island's population into various cohorts, including those of working age, to determine the possible supply of labour. Using this data, it is also possible to estimate dependency ratios which reveal the extent of reliance by the youth and aged population, on the working population.

The total population of the Isle of Man has remained broadly stable between 2011 and 2016, according to census data for this period. The population of the Island in 2016 was

[57] International Labour Organization. (2021). 'Employment-rich Economic Growth'.

83,314. The latest census was conducted in 2021, although the data from this is not yet available.

3.4.1 Age Profile of the Isle of Man's Population

There have been some changes in the demographic composition of the Island's population over time. While census data suggests little change in composition of the population by gender over the period 1976 to 2016, there is evidence of a decline in the population of residents under the age of 30.

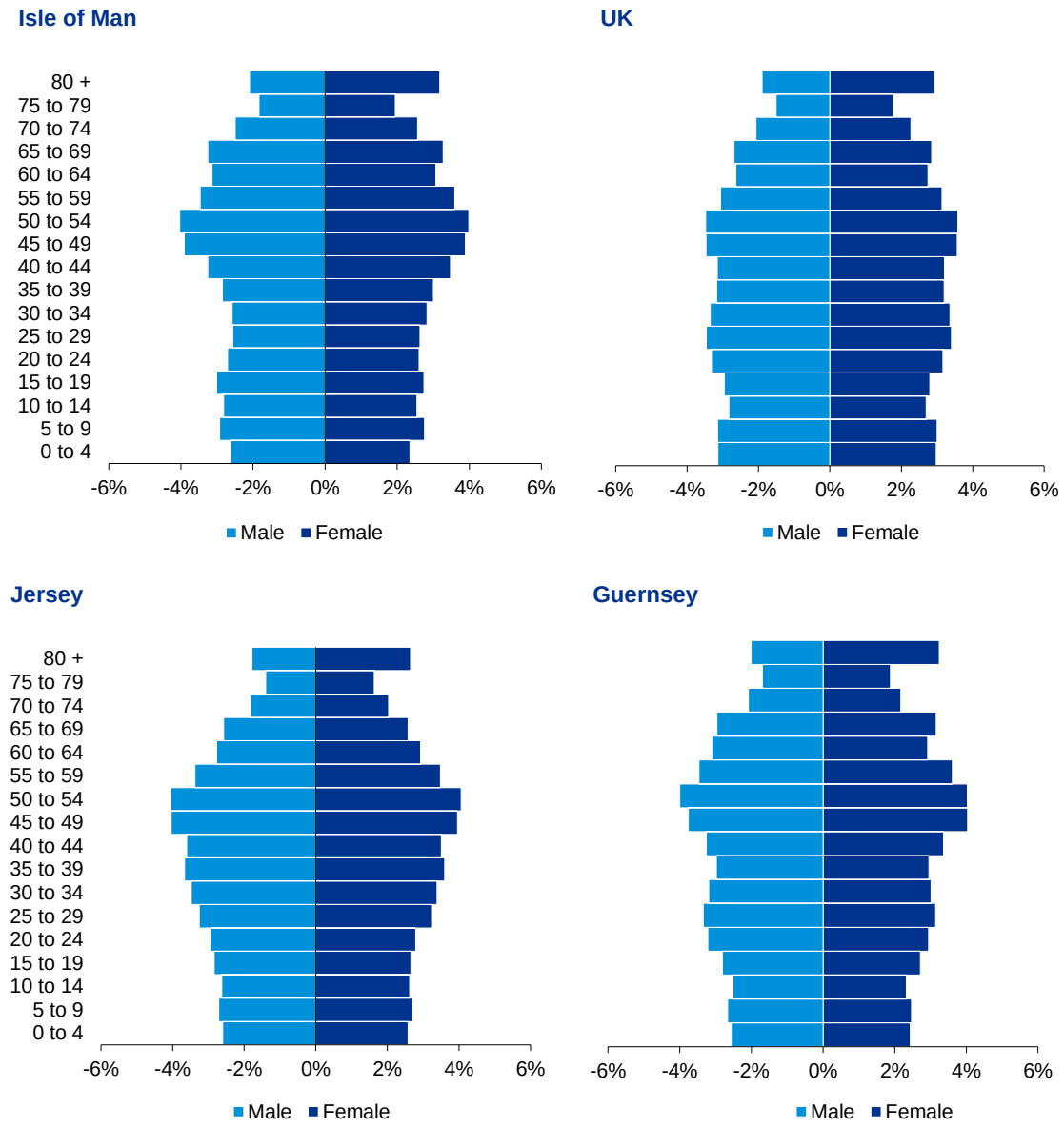
In the last census year of 2016, the Isle of Man has a very similar average age (42) to that of the populations of the UK (40), Jersey (41) and Guernsey (42). This similarity in average ages is contrasted with notable differences in the age distribution of the populations.

One of these notable differences between the Isle of Man and comparators is a higher proportion of the population aged 65 and older. In 2016 individuals aged over 64 made up 20.7% of the Manx population, 18.0% of the UK population and 16.5% of the population in both Jersey and Guernsey.

An initial comparison with the population pyramids of Jersey and Guernsey (see Figure 3.31) shows a relatively small population on the Isle of Man of those aged 20-39. In 2016, only 21.8% of the Manx population was in this bracket, while this age group accounted for 24.8% of the population in Guernsey and 26.4% of the population in both Jersey and the UK. This difference is clearer when the age bracket 25-34 is examined.

The lower proportion of the population under the age of 30 on the Isle of Man can be seen when compared to the UK in Figure 3.31. However, despite the relative lack of individuals in the 20-29 age bracket, the Isle of Man maintained a population under 30 (32.3%) proportionate to that of Jersey (33.6%) and Guernsey (33.1%).

Figure 3.31 Population Pyramid, Isle of Man, Comparators: 2016



Source: Isle of Man Census, ONS, Statistics Jersey, Guernsey Data and Analysis, KPMG Analysis.

Table 3.5 sets out the breakdowns of the Island's population by broad age groups that are designed to enable analysis of the dependency of children and young people under 16 years of age and those individuals of retirement age and above on individuals of working age. The dependency ratios presented capture this.

The analysis shows that of the Island's population in 2016:

— approximately 17% was under 16 years of age, i.e. below working age

— approximately 61% was of working age (16 to retirement age)[58]

— approximately 22% was of retirement age or above

— the dependency ratio (all non-working population age groups on working population age groups) was 64% and had been falling over time between 1976 and 2006 to a low of 62%, largely driven by the increase in the size of the working population of the Island, before rebounding in 2011 and 2016.

Table 3.5 Isle of Man population, by dependent ages to working population: 1976-2016

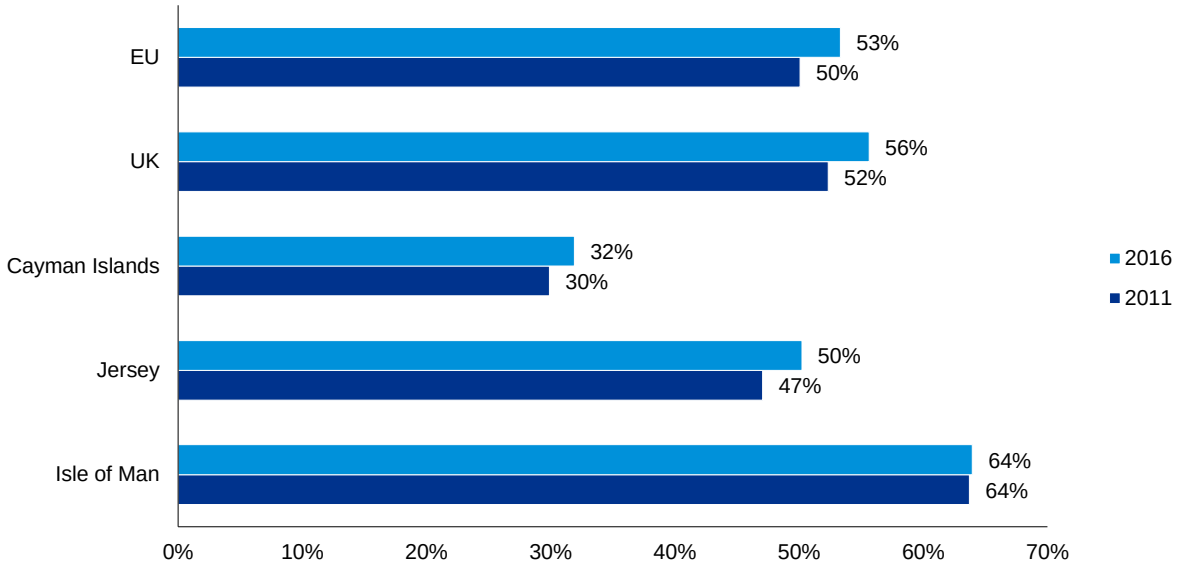
	1976	1981	1986	1991	1996	2001	2006	2011	2016
Under 16 Years	13,207	13,389	12,318	12,904	13,483	14,509	14,571	15,036	14,233
Retirement Age & Over	14,747	15,378	15,304	15,425	14,953	14,725	16,002	17,847	18,265
Working Age	32,542	35,902	36,244	41,459	43,278	47,081	49,485	51,614	50,816
Total Resident Population	60,496	64,679	64,282	69,788	71,714	76,315	80,058	84,497	83,314
Dependency Ratio	85.9%	80.1%	76.2%	68.3%	65.7%	62.1%	61.8%	63.7%	64.0%
Youth Dependency Ratio	40.6%	37.3%	34.0%	31.1%	31.2%	30.8%	29.4%	29.1%	28.0%
Aged Dependency Ratio	45.3%	42.8%	42.2%	37.2%	34.6%	31.3%	32.3%	34.6%	35.9%

Source: IOMG data, KPMG analysis

Although the dependency ratio of the Isle of Man fell significantly between 1976 and 2006 it has since started to climb again between 2006 and 2016 (the most recently available data). This is in line with comparator geographies which have also seen an increase in dependency ratios between 2011 and 2016 as shown in Figure 3.32. More recent data which is available for Jersey shows that the dependency ratio has continued to increase to 52% in 2019.

[58] The retirement age is assumed to be the State Pension Age. In 2016 the State Pension Age was 65 for Men and 63 for women.

Figure 3.32 Dependency ratios, Isle of Man and Comparators: 2011, 2016



Source: IOMG data, World Bank, KPMG analysis

The dependency ratio on the Isle of Man is brought about in part by an increasing retired resident population (see Table 3.5).

While the dependency ratio has not increased at the same rate as comparator geographies, it is still the highest in absolute terms. The high dependency ratio in the Isle of Man could put pressure on the residents of working age to support the broader economy. This is particularly concerning given that the dependency ratio is driven to a significant extent by the retirement age population, and the declining proportion of residents aged under 30 – suggesting that the dependency ratio (and therefore pressure on the working age population) may get more severe over time. In order to remain attractive to business, and indeed to future residents and visitors, it will be important for the Isle of Man to be able to attract and retain a younger population. This concern was noted by stakeholders as one of the current key challenges for the Island.

3.4.2 Nationality and Immigration

In terms of nationality of the Island's population, the absolute and proportionate number of British nationals has remained largely constant at over 90%, as shown in the data presented in Table 3.6.

Table 3.6 Composition of Isle of Man population, by Nationality: 2006-2016

	2006		2011		2016	
British	75,104	93.8%	78,750	93.2%	77,148	92.6%
European (EU)	3,043	3.8%	3,609	4.3%	4,184	5.0%
Other	1,911	2.39%	2,138	2.53%	1,982	2.38%
TOTAL	80,058		84,497		83,314	

Source: IOMG data, KPMG analysis

As advanced economies typically have lower birth rates, often below the replacement level, they are often dependent on a level of working-age immigration to maintain a sustainable dependency ratio. Small jurisdictions, such as the Isle of Man, often also face substantial outflows of young adults, with many leaving the Island to pursue education, economic and/or social opportunities elsewhere. For example, data on post-high school placements for Isle of Man students reveals that the proportion of Year 13/14 students taking up placements off-island was approximately 75% in 2020, as discussed further in Section 5.4 below.

The overall proportion of residents in the current population that were born on the Isle of Man has remained largely stable since the 1980's at approximately 50%.

This proportion is in line with comparator jurisdictions such as the Cayman Islands where the resident Cayman-born population was 53% in 2019. However, data for the Cayman Islands shows a decline in the proportion of residents born in the Cayman Islands since the 1990's. In contrast, data for Guernsey shows a marginal *increase* in the proportion of residents born in Guernsey since 2014, with the 2020 proportion estimated to be approximately 53%, up from 49.7% in 2014.

Immigration data by sector was not available to analyse.

3.5 Business demographics

As economic activity on the Isle of Man is driven in large part by the income generated by businesses domiciled on the Island and the wages these firms pay to their workers, analysis of business demography data is helpful for understanding both the current economic performance of the Island as well as its future potential. This section of the report, therefore, analyses data on the number of firms on the Island, overall and on a sectoral basis.

3.5.1 Company count

The number of firms and employers registered and/or operating on the Isle of Man provides an indication of the level of economic activity and how it has changed over time. When decomposed by sector, it can be used to reveal areas of growth in the economy, which will be captured in GDP.

Data for the Isle of Man includes two measures of the number of businesses:

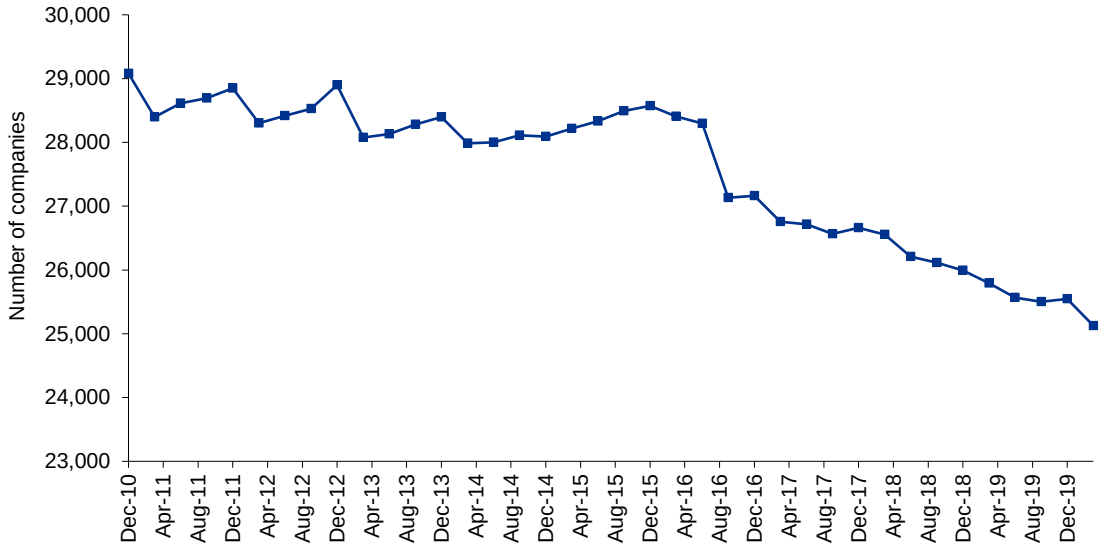
- Companies: all businesses registered on the Isle of Man; and
- Employers: only those businesses that employ people on the Island.

While both are useful metrics, the second provides a better indication of employment opportunities on the Island and the wider economic activity, for example household consumption, that will be supported through these businesses' employment. This is also especially the case given the use of the island for corporate structuring purposes by the CSP industry.

Figure 3.33 presents the total number of companies registered on the Isle of Man between 2010 and 2020. This data indicates that the total number of companies has decreased by approximately 13.6% from 29,080 to 25,127, in line with the change in rules regarding company registrations and the application of EU Substance rules with the objective of reducing the

number of “shell companies”. In part this is due to forces external to the Island and is not within the Island’s direct control. This trend is expected to continue as enforcement of the rules continues to develop over coming years.

Figure 3.33 Total number of companies on the Isle of Man: 2010-2020



Source: Quarterly Economic and Statistical Update, KPMG analysis

Employer data for the Isle of Man reveals a different account of employer activity on the Island (see Figure 3.34). This shows that a relatively small proportion of the total number of companies registered on the Isle of Man employ people on-island – 4,275 of the total 25,127 companies registered on the Island in the first quarter of 2020.

In contrast to the downward trend in the total number of companies, the number of employer firms has grown over recent years – increasing by 11% between Q1 2015 and Q1 2021, from 3,783 to 4,275. This in part is expected given the economic substance requirements and a general tightening of rules and regulation surrounding international ‘offshore’ structures and echoes sentiment from the stakeholder feedback from CSP and Professional Services contributors.

Although the number of firms is important, the vast majority of companies have fewer than 5 employees. Based on the EU staff headcount definition of small and medium-sized enterprises, enterprises with less than 10 employees are classified as micro enterprises.[59]

According to data from the first quarter of 2021:

— 73% of employer firms had between 1 and 5 employees

— 21% of employers had between 6 and 25 employees

[59] See: https://ec.europa.eu/growth/smes/sme-definition_en

— 5% employers had greater than 25 employees

By way of comparison, the closest equivalent data for Jersey reveals for the following, which is broadly in line with the composition of firm sizes on the Isle Man:[60]

— 82% of employer firms had between 1 and 5 employees;

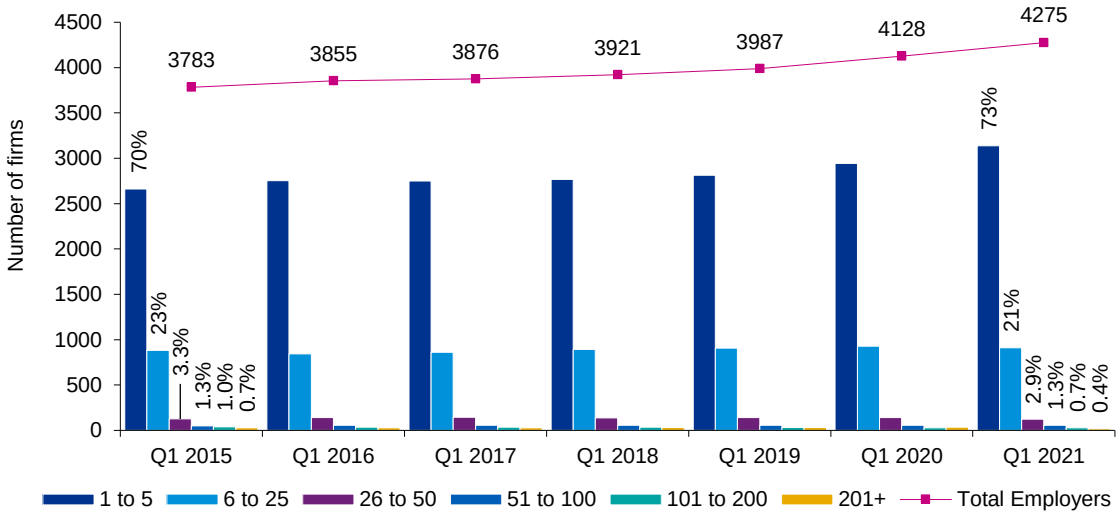
— 12% of employers had between 6 and 19 employees; and

— 6% employers had greater than 20 employees.

The number of employer firms in the Isle of Man has risen in each year since at least 2015 (see Figure 3.34). Comparable data for other jurisdictions was not directly available.

Over the last six years the proportion of firms with five or fewer employees has risen slightly, from 70% in the first quarter of 2015, to 73% in the same quarter of 2021. The number of firms with over 200 employees – a small proportion of employers on the Island - rose from 27 to 35 from Q1 2015 to Q1 2020 before falling to a low of 18 in Q1 2021. The next largest employer bracket, 101-200 employees, has been slowly declining in count from 38 in Q1 2015 to 29 in Q1 2021. Employer firms with 100 or fewer employees had an overall increase in count over the period Q1 2015 to Q1 2020, and all groups but the smallest size firms (1-5 employees) seeing a decline in number in Q1 2021 from the preceding year.

Figure 3.34 Number of Employing Firms on the Isle of Man, by employee count: 2015-2021



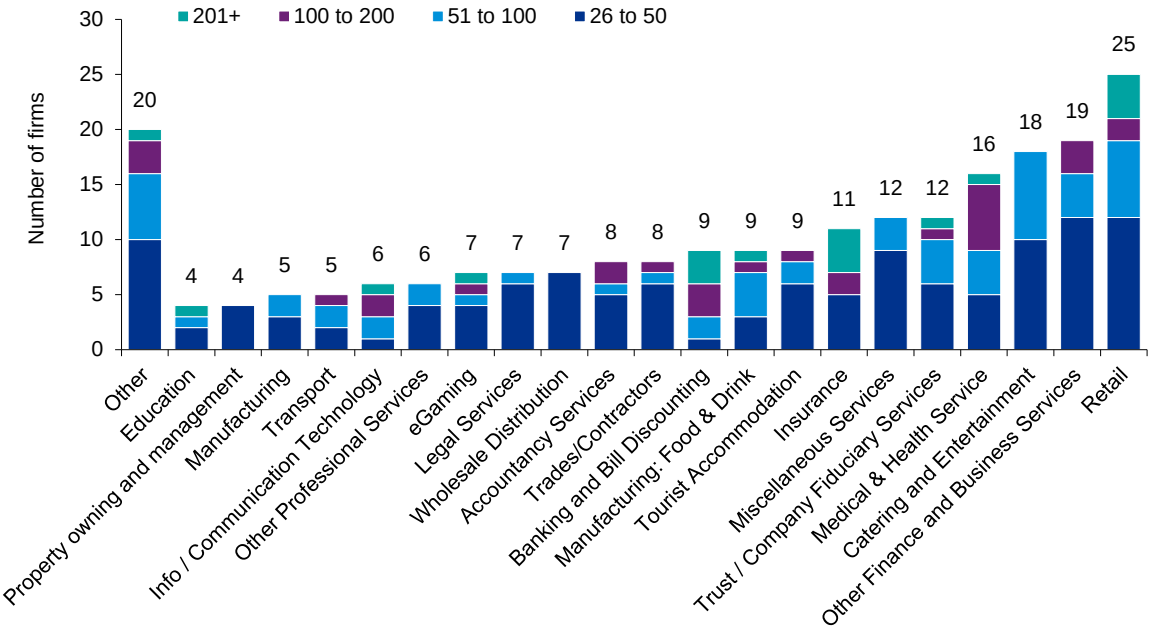
Source: IOMG data, KPMG analysis

Figure 3.35 sets out the sector breakdown of employers on the Isle of Man. This shows that the sector with the largest number of firms with more than 25 employees was retail, with 25 retail businesses employing more than 25 people. All of the five largest sectors by GDP had six or more firms with this number of employees. Although the Insurance and Banking sectors

[60] Opendata.gov.je. (2021). '[Number of private undertakings by size and sector]'.

had 11 and 9 firms with more than 25 employees on the Island respectively, they both had a very large proportion of firms with at least 100 employees. Insurance had the joint largest number of firms with over 200 employees,[61] and the Banking sector had a total of 10 employer firms, only one of which had 25 or fewer employees. As the Insurance sector was the largest contributor to GDP in 2019/20, this suggests that a few sizeable insurance firms are responsible for a significant portion of GDP on the Island.

Figure 3.35 Count of Firms with over 25 Employees, Isle of Man: Q1 2021



Source: IOMG Data, KPMG analysis

In the eGaming sector there were a total of 31 firms employing individuals on the Isle of Man, accounting collectively for approximately 2% of total on Island employment. Only 7 eGaming firms employed more than 25 people on Island and one of these firms employed more than 200. Whilst the sector contributed 17% of GDP in 2019/20, it represented 4% of firms with at least 100 employees and less than 1% of all employers on the Island in Q1 2021. The number of employing firms in the eGaming sector has increased by 72% since 2016, albeit from a low base of 18 firms.

Similarly, the number of ICT employer firms has increased by 15% since 2016 to reach 117, although its GDP contribution is significantly higher than its share of number of firms (9% of GDP in 2019/20 compared to 3% of employer firms in Q1 2021). The proportion of firms with over 25 employees represented by the IT sector is also approximately 3%.

3.6 Government finances

The ability for a government to raise revenue, fund public services and pay debts is important to create a stable environment for investment and economic activity. In smaller jurisdictions,

[61] In the first quarter of 2021, both the Banking sector and Retail sector contained 4 firms employing over 200 employees on the Isle of Man.

such as the Isle of Man and other Crown Dependencies, there is an increased importance of maintaining a strong financial position. While large nations can maintain substantial government deficits through long-term borrowing, smaller jurisdictions often maintain balanced budgets and hold large investments to maintain their ability to weather the financial pressure of economic downturns.

The relatively small size of the Isle of Man's economy also increases the risk to the overall economy and Government finances of an economic shock that may affect only a few sectors, as small economies are typically less diversified than larger ones. Therefore, it is important for Government revenues to not be too dependent on a small number of sectors and for there to be access to a variety of different revenue raising measures.

Analysis relating to the Isle of Man's reserve position, revenues and expenditure is assessed in this section of the report, with comparisons made to other jurisdictions where appropriate and where data permits.

3.6.1 Government reserves and overall financial position

Analysing first the Isle of Man's Government Reserve Funds, data (as presented in Table 3.7) shows that reserves stood at £1,529m in 2019/20, equivalent to just over £18,000 per individual in the population. This indicates a prudent approach to managing public finances and should support the position of the Island going forward.

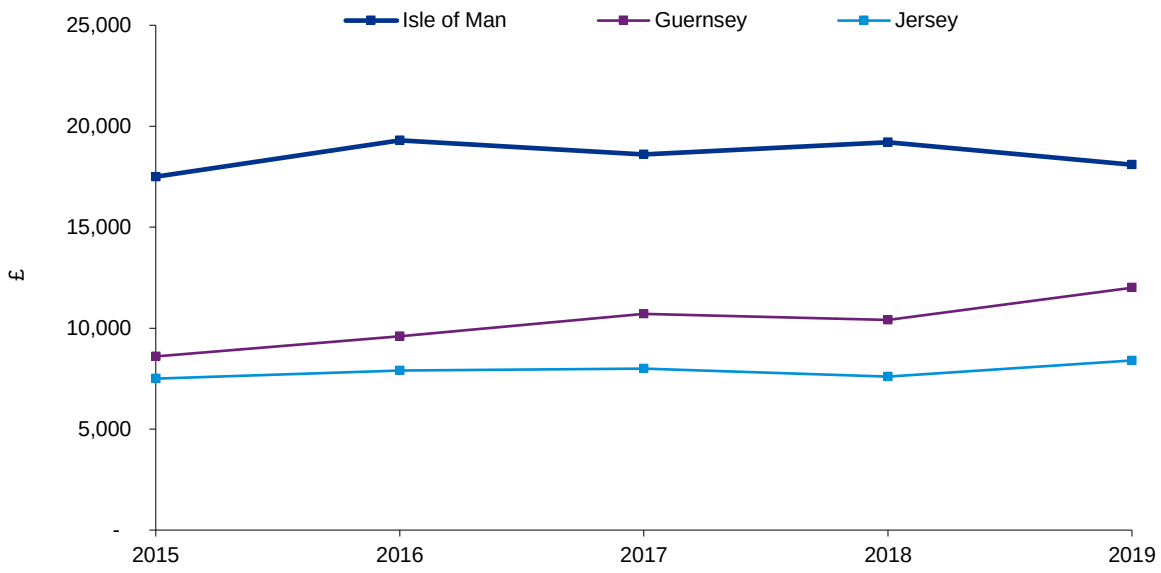
Table 3.7 Government Reserve Funds: 2015-2020

	2015	2016	2017	2018	2019	2020
£ millions						
Isle of Man External Reserve (a)	1,459	1,608	1,522	1,617	1,529	1,717
Guernsey Total Usable Reserves	535	600	668	651	757	
Jersey Strategic Reserve	771	820	840	807	906	968

Note: (a) Dates: FY 2015/16 – FY 2020/21.
Source: Isle of Man Audited Government Accounts, The States of Guernsey Accounts, States of Jersey Annual Report and Accounts.

Compared to other similar jurisdictions, data shows that the Isle of Man's reserves in 2019 were substantially higher than the levels of the Crown Dependencies of Guernsey and Jersey (see Figure 3.36). While the reserves of the Isle of Man have grown by approximately £70m over the period 2015-2019, Guernsey and Jersey saw higher levels of increase, with growth in their reserves of 41% and 25% respectively (see Table 3.7). On a per capita basis, the levels of reserves held by Guernsey have increased the most, although remain considerably below those of the Isle of Man.

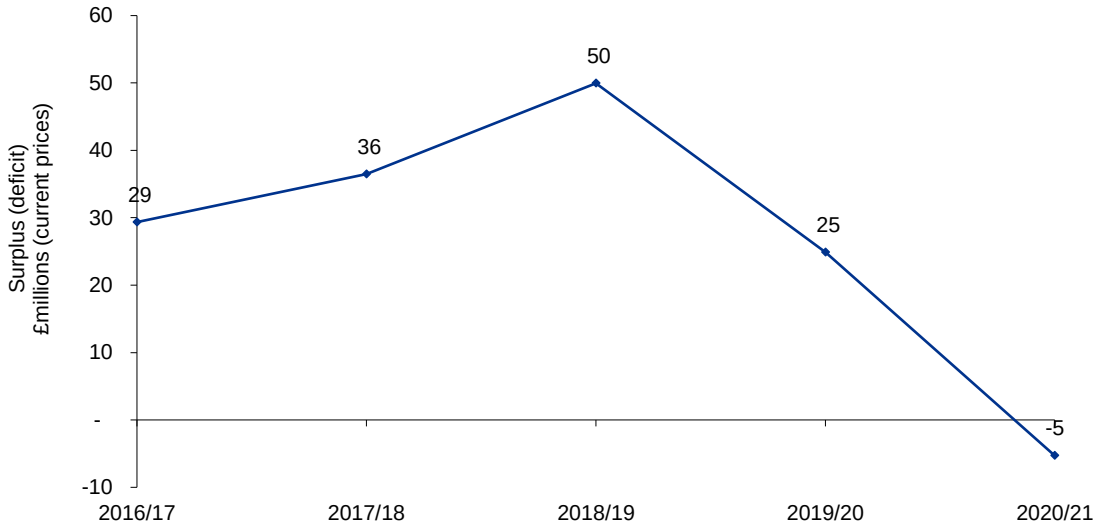
Figure 3.36 Government Reserve Funds per Capita: 2015-2019



Source: IOMG data, KPMG analysis

The Isle of Man Government's strong finances are also evidenced by the fact that budgets over the last decade have typically run at a surplus. In the financial year 2019/20 a £25m surplus was run, equivalent to approximately 0.5% of GDP (see Figure 3.37). Due in large part to the pandemic-related support measures, however, in FY 2020/21 the Isle of Man Government ran a small budget deficit of £5m (see Figure 3.37).

Figure 3.37 Isle of Man Central Government Surplus (Deficit): 2010/11-2020/21



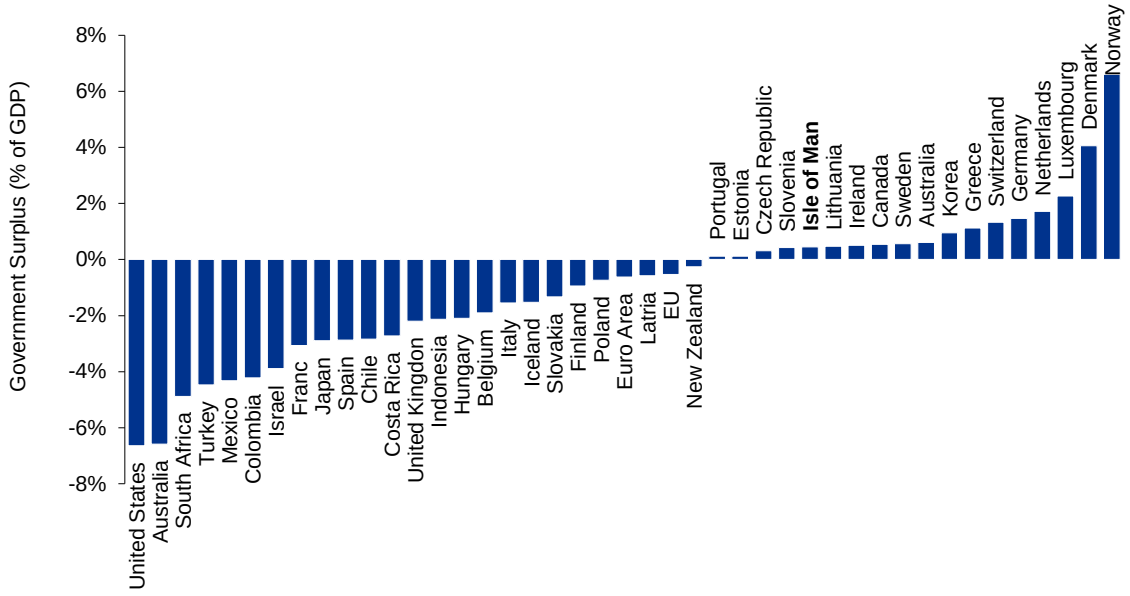
Source: Isle of Man Detailed Accounts, Isle of Man Budget

Overall, despite the Government's one-off budget deficit in 2020/21, the data in Figure 3.37 suggests that this will not significantly reduce the reserves built up, given surpluses run

consistently over previous years and expected surpluses from next year. Consequently, last year's deficit should not be too much of a concern regarding overall reserves available to the Isle of Man.

As previously noted, small countries such as the Isle of Man are typically less able to depend on long term debt to finance government deficits and therefore are likely to run a small surplus in typical years. As can be seen in Figure 3.38 most advanced economies ran a government deficit in 2019, with the average annual deficit across the EU standing at 0.5% of GDP.

Figure 3.38 Government Surplus (Deficit) as a Percent of GDP: 2019



Source: Isle of Man Detailed Accounts, OECD

3.6.2 Government Revenues

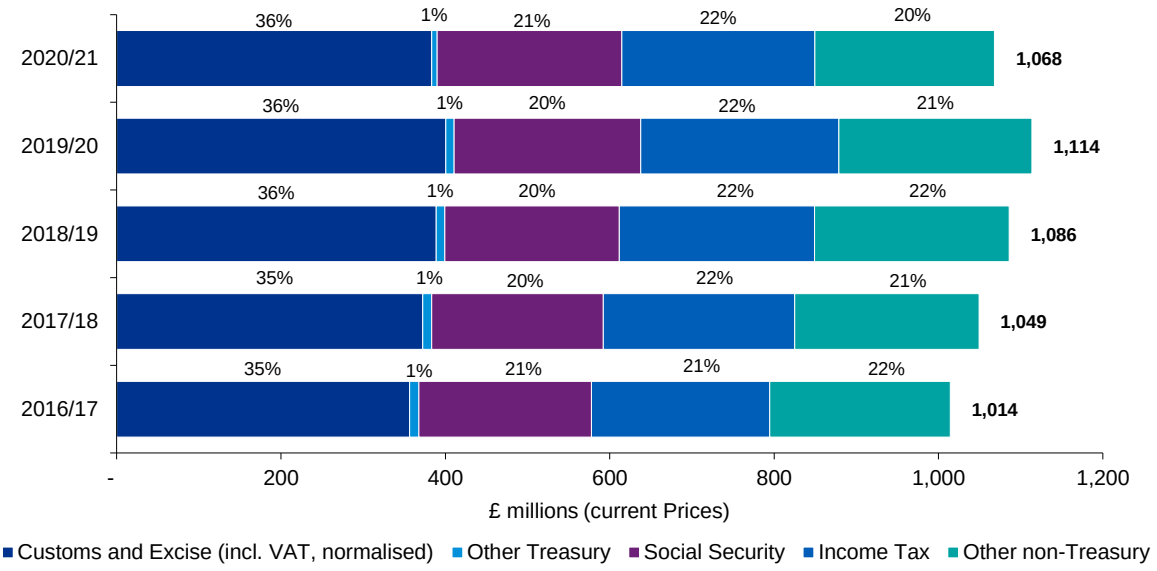
The resilience of Government finances can also be assessed by analysing the scale and scope of sources of Government revenue.

As detailed in the Isle of Man Government Detailed Accounts, government revenues fell by £145m in 2020-21 against the previous year, and by £111m against the level expected in the budget. The shortfall against the budgeted amount can be interpreted as the 2020-21 cost of COVID-19 in terms of government revenue.

The Isle of Man Government raises revenue from a combination of sources including customs and excise (including VAT), income tax and National Insurance. In 2020/21, the Government raised £1.07bn in revenue, £46m less than the amount raised over the previous year. Of this reduction in revenue, the majority was due to a fall in Customs and Excise duties, the most important single source of government revenue.

Figure 3.39 shows the Isle of Man's normalised Government revenues by source between 2016/17 and 2020/21.

Figure 3.39 Isle of Man Normalised Government Revenues by Source: 2016/17-2020/21



Source: Isle of Man Detailed Accounts

Although Customs and Excise revenues are the largest contributor to Government finances (accounting for 36% in 2020/21), there is no single dominant source of funding. Income tax accounted for 22% of revenues in 2020/21, social security contributions for 21% and other Treasury and non-Treasury revenues accounted for 1% and 20% respectively.

While differences in structure make reliable like-for-like comparisons to the other Crown Dependencies challenging, the Isle of Man appears more diversified than comparator jurisdictions in terms of sources of government revenue:

- Both Jersey and Guernsey are significantly more dependent on income taxes than the Isle of Man, accounting for in the order of 50% of revenue compared to approximately 20% on the Island.
- Both Jersey and Guernsey derive a much smaller proportion of their income from Customs and Excise (including VAT): in Jersey, income from sales tax and duties account for approximately 15% of its revenue; in Guernsey – which has no sales tax – excise duties account for around 5% of income.
- Social security contributions as a proportion of revenue are at a similar level between the islands, at approximately 20% in the Isle of Man and Jersey and approximately 25% in Guernsey.

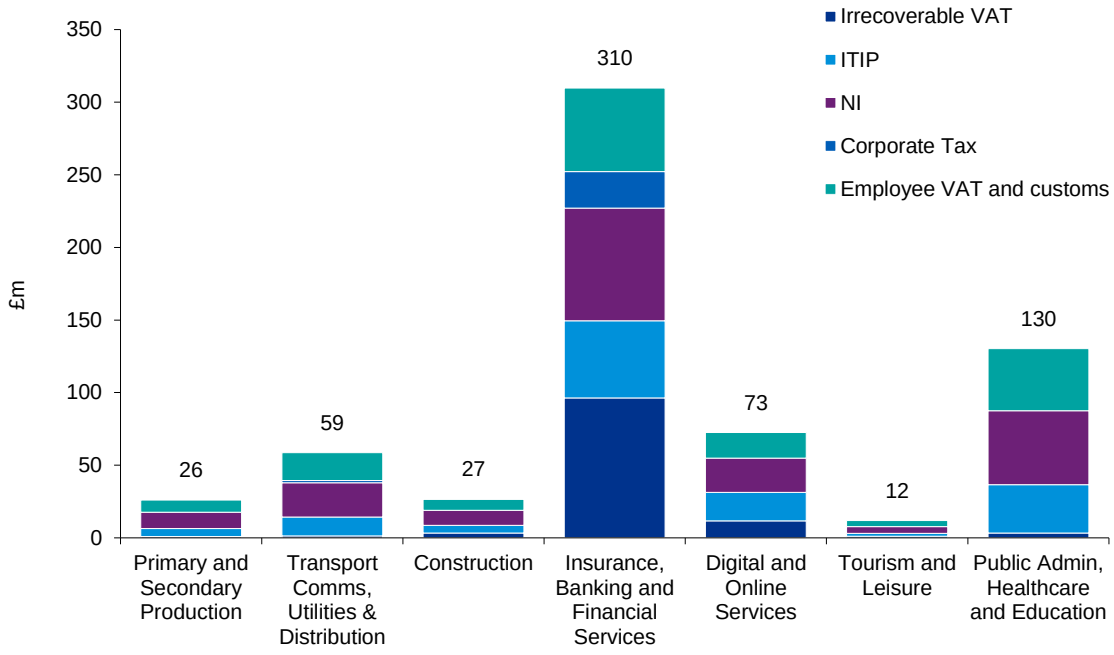
Analysis has been undertaken to determine the sectors of the economy (businesses and their employees) and other segments of the population (e.g. the employed and retired individuals) that drive contributions to Government revenues. Not all of the Government income can be attributed to one of these groupings due to a lack of data availability. However, our analysis focuses on the distribution by sector of the economy (using the detailed sectors and sector groupings used throughout the remainder of the report) of employee income tax (ITIP), National Insurance contributions, business irrecoverable VAT and corporate tax payable to

Government where applicable[62] as shown in Figure 3.40. It has also been possible to include an estimate for Government VAT and Customs revenue derived from the wage and salary spending of individuals in employment, by using the distribution of their respective remuneration by sector. It should be noted that this VAT is attributed in the analysis to the sector in which the worker is employed rather than the sector in which their wages and salaries are spent. This analysis is shown in Figure 3.40 for 2018/19 using the broader sector groupings developed for and used in the earlier GDP analysis. A more granular breakdown of individual sectors is given in Figure 3.41 thereafter.

It can be seen that the Insurance, Banking and Financial Services grouping contributes approximately 50% of total tax revenue in 2018/19 at approximately £310m, of which £25m is corporate income tax levied on the Banking sector. A further £1.6m of corporate income tax was levied on the Retail sector (which is included in the Transport Communication, Utilities and Distribution group).

Figure 3.40

Tax contributions from businesses and their employees, by sector grouping: 2018/19

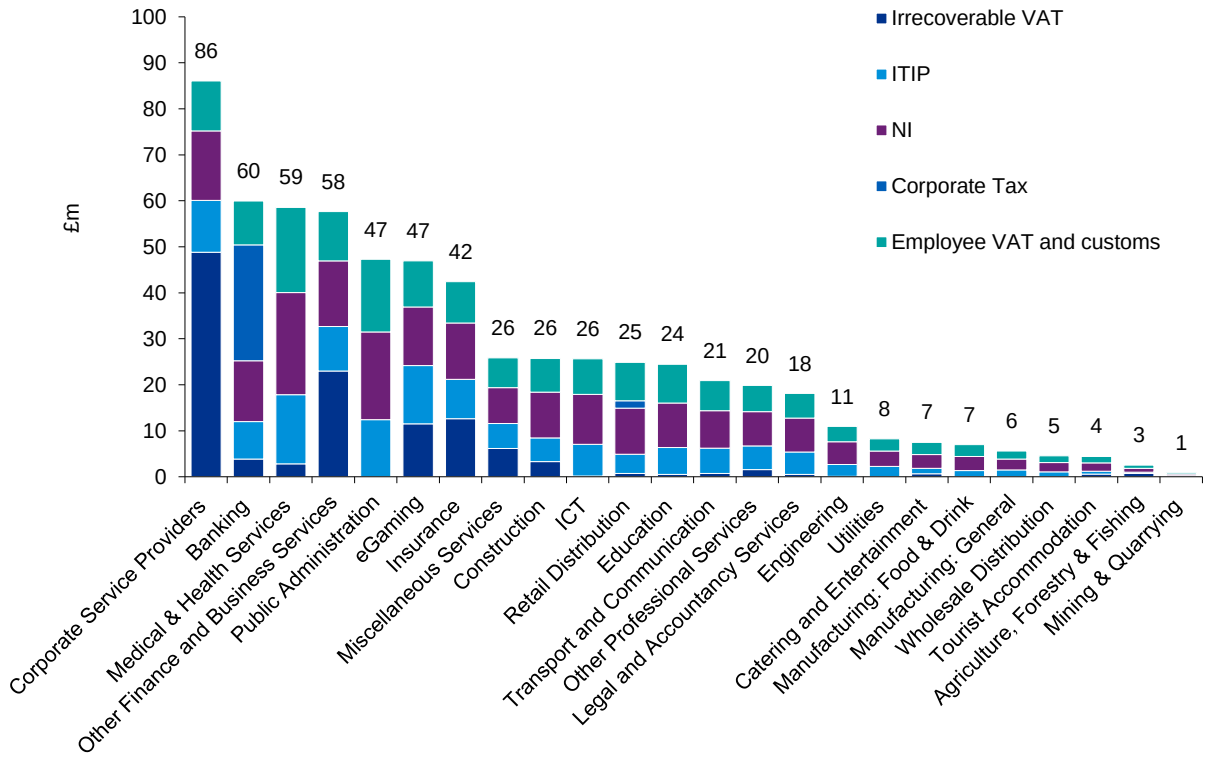


Source: IOMG Data, KPMG analysis

[62] As explained in more detail in Section 4.8, the Island currently operates a 0/10/20 regime whereby the standard rate of corporate income tax is 0%, with a 10% rate applicable to income from banking business and for retail businesses with annual taxable profits in excess of £500,000, and a 20% rate is applicable to income from land and property on the Island.

Figure 3.41 shows a more granular breakdown of Government income contributions by sector (businesses and their employees) in 2018/19. It can be seen that Corporate Service Providers (CSPs) provide the largest proportion of tax contributions in 2018/19 at approximately £86m. In terms of distinct sectoral contribution, the Banking sector is the most dominant, providing £60m in taxation, of which corporate tax accounts for over 40% at £25m.

Figure 3.41 Tax contributions from businesses and their employees, by sector: 2018/19

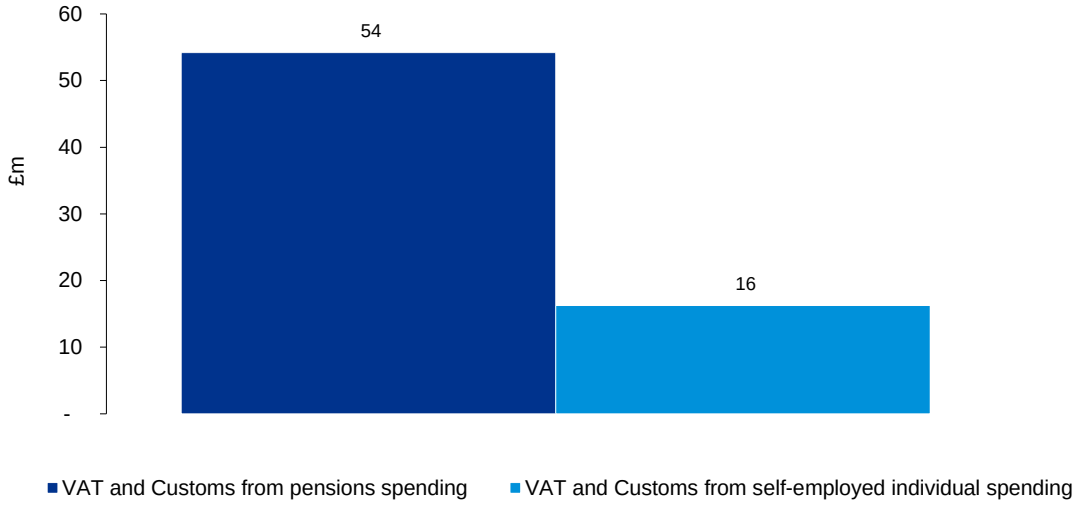


Source: IOMG Data, KPMG analysis

It can be seen from Figure 3.39 (total Government revenue by source) and Figure 3.40 and Figure 3.41 (sectoral distribution of Government revenue) that there exists a portion of revenue that is not allocated to businesses and their employees by sector.

Some of this is attributable to the Customs and excise related taxes (including VAT) generated through wider individuals in the economy, specifically, the self-employed and retired. Collectively this accounts for c. £70m in Government income in 2018/19 as shown in Figure 3.42.

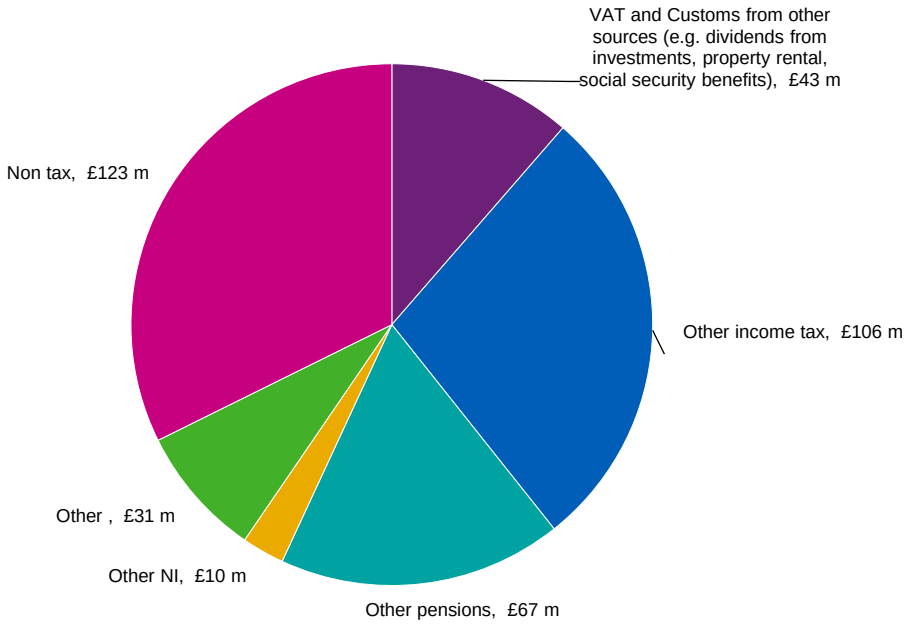
Figure 3.42 Tax contributions from pension and self-employed spending: 2018/19



Source: IOMG Data, KPMG analysis

However, there remains a proportion of Government income that cannot at this stage be allocated to a sector or population group due to a lack of data availability. The composition of this unallocated portion of government revenue is given in Figure 3.43.

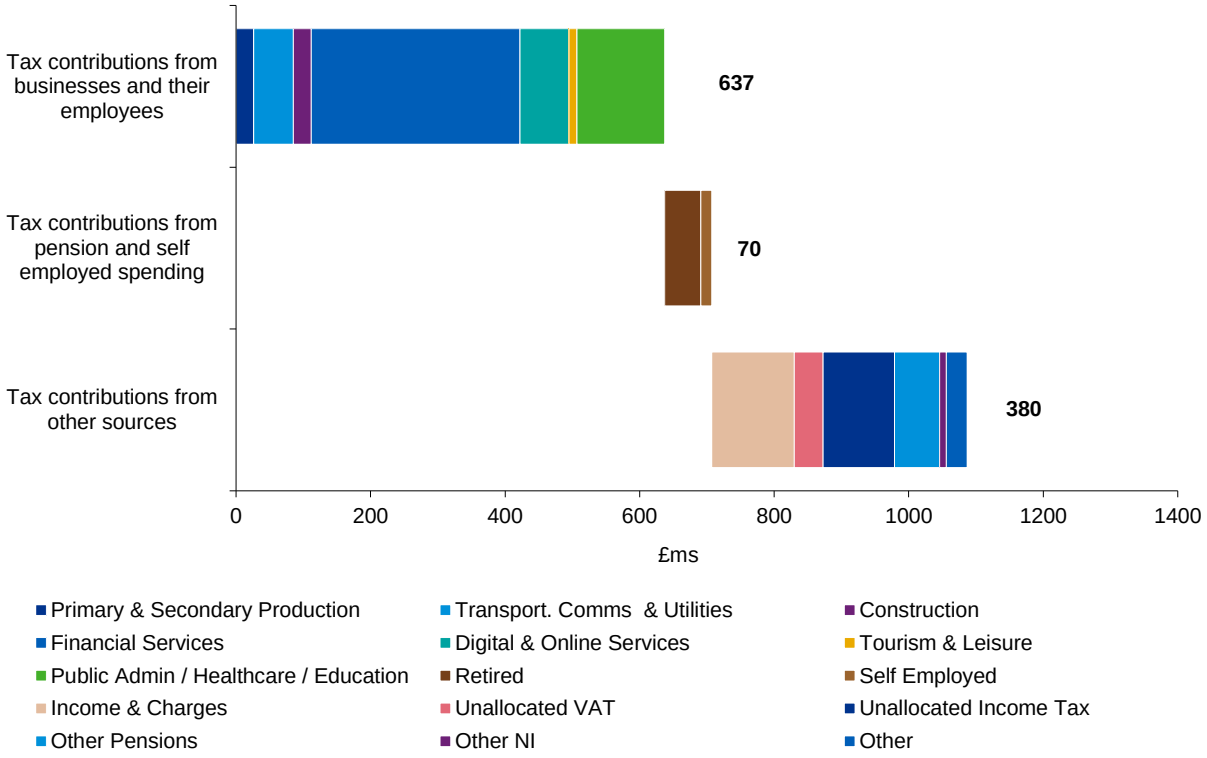
Figure 3.43: Tax contributions from unallocated sources: 2018/19 *(£m)*



Source: IOMG Data, KPMG analysis

The aggregate view of the analysis detailed above, combining the split of Government income for 2018/19 by businesses and their employees (by sector grouping), the VAT from the spending of pension income and self-employment income, and the contributions from unallocated sources is shown in Figure 3.44 below.

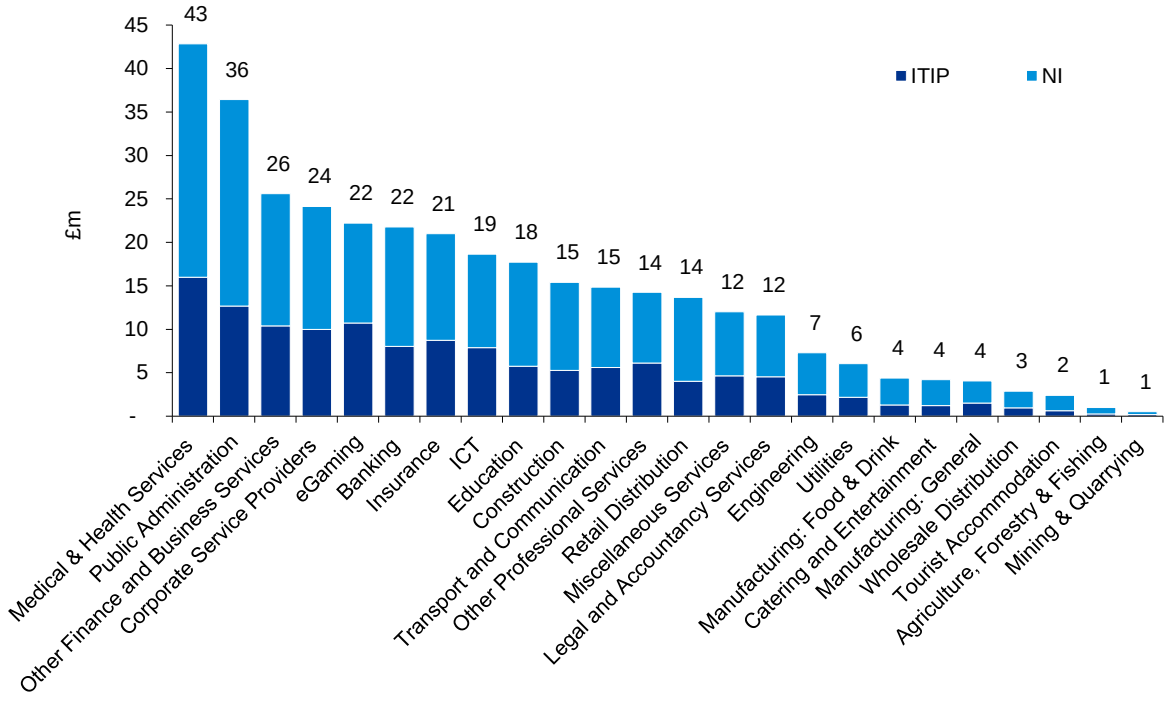
Figure 3.44 Isle of Man Tax contributions, 2018/19



Source: IOMG Data, KPMG analysis

The analysis presented above related to the sources of Government income for 2018/19. A full data set was not available to undertake this analysis for more recent years. However, there is some more recent data for certain sources of Government income, specifically for the Employee Income Tax and National Insurance components of the above tax contribution analysis. These are shown by sector for 2019/20 in Figure 3.45 below.

Figure 3.45 Income Tax and National Insurance Contributions by Sector, Isle of Man: 2019/20



Source: IOMG Data, KPMG analysis

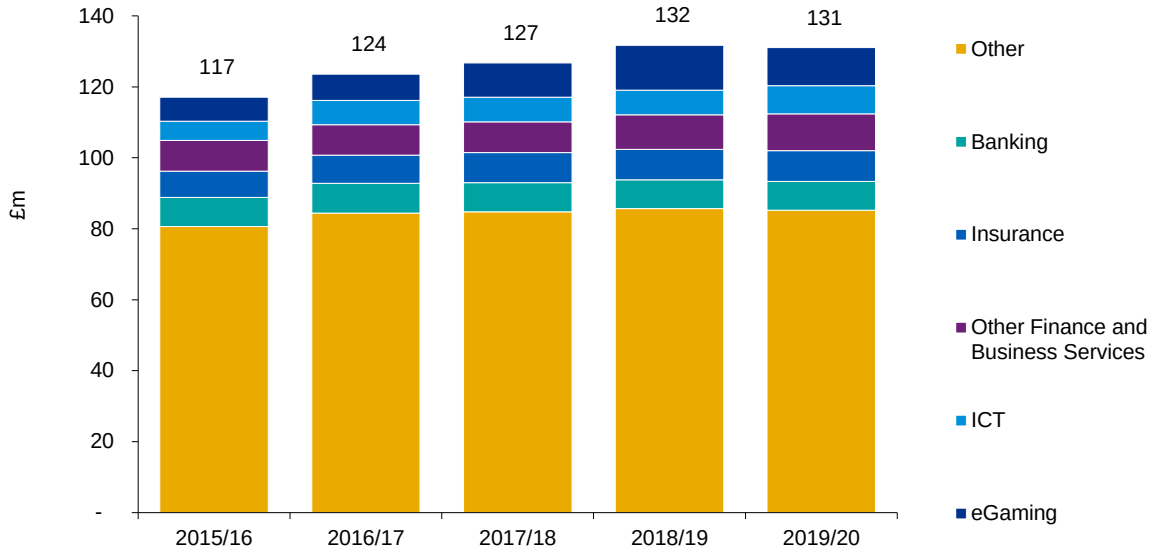
While the Island's GDP is driven by a relatively small number of sectors, analysis suggests this is not the case, at least to the same extent, for the fiscal contributions[63]. As income tax and NI contributions are a product of employment and wages, the top five sectors in terms of contribution to GDP (accounting for 61% of GDP in 2019/20) contributed 30% of National Insurance and 35% of employee income tax in 2019/20. The retail distribution sector, while the largest employer, contributed 4.5% of the National Insurance and 3.1% of income tax in 2019/20.

Furthermore, sectors such as Construction and Corporate Service Providers contribute substantially more to the tax take than their share of GDP would suggest.[64]

Figure 3.46 provides an overview of the employee income tax contribution of the top five GDP contributing sectors of the economy, over the period 2015/16 to 2019/20.

[63] We note, however, that the sector groupings used to report GDP performance are not fully aligned to those used in the tax analysis.
[64] The Tax Revenue Associated with Construction and Corporate Service Providers may be due in part to the mapping of sectors used for the classification of tax data with the more widely used sectoral classification.

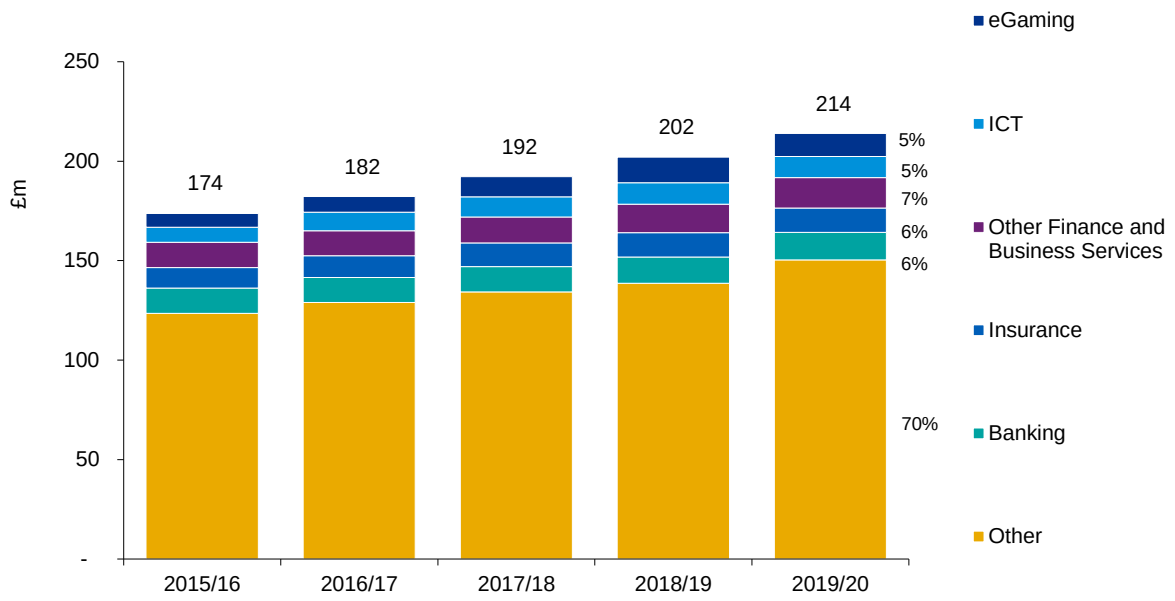
Figure 3.46 Employee Income Tax Contributions by Sector, Isle of Man: 2015/16-2019/20



Source: IOMG data, KPMG analysis

The disconnect between the largest GDP contributing sectors and their employee income tax contribution is also the case for the National Insurance contributions (as shown in Figure 3.47 below). Although Banking has the smallest GDP of the five large sectors, it was consistently the largest source of NI contributions, together with Other Finance and Business Services, over the period 2015/16 to 2019/20, driven by both levels of employment and wages. The Banking sector accounts for approximately 5% of employment and is driven by the high number of administrative and customer service roles.

Figure 3.47 National Insurance Contributions by Sector, Isle of Man: 2015/16-2019/20



Source: IOMG data, KPMG analysis

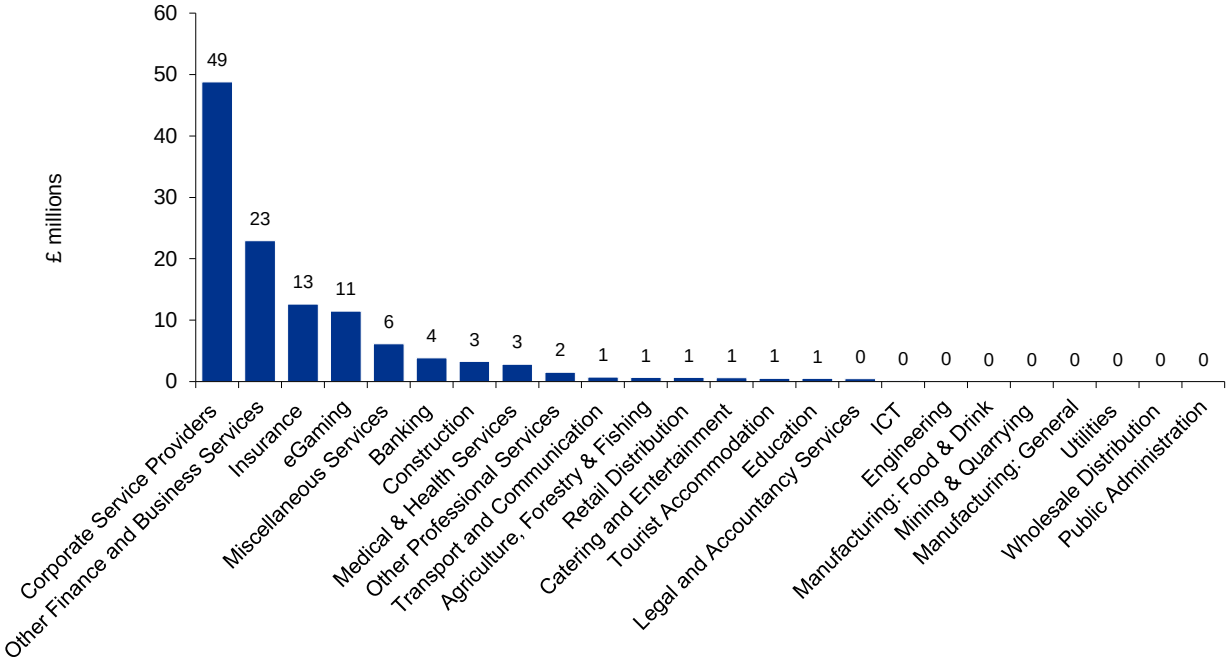
When considering VAT, however, there is some link between sectors that provide a sizeable proportion of VAT and those which account for a sizeable proportion of GDP. VAT is collected from spending by households, as well as a range of organisations, as seen in Table 3.8 below. Considering VAT paid by businesses, sole traders and partnerships, a sizeable proportion of the total business VAT collected is from sectors with high GDP such as insurance, other financial institutions and eGaming, as seen in Figure 3.48 below.

Table 3.8 VAT collected by source, 2018/19

Source	2018/19 VAT (£m)
Household and tourism	182.3
Business, sole traders & partnerships	68.1
Managed structures	48.4
Charities	1.4
Clubs and associations	0.3
Total	300.5

Source: IOMG data, KPMG analysis

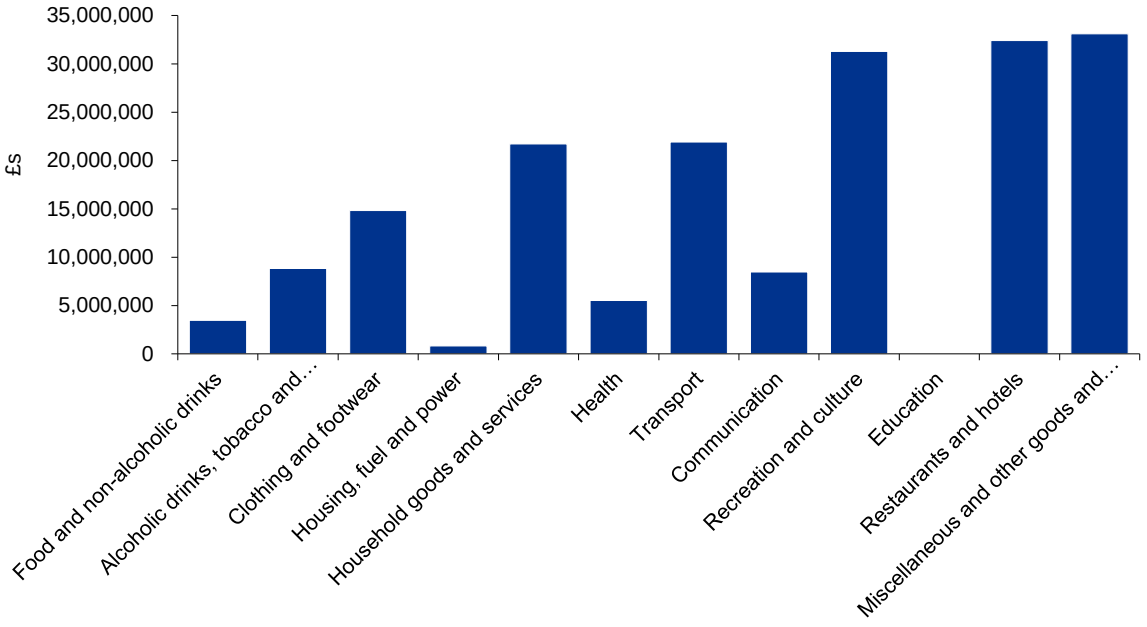
Figure 3.48 Irrecoverable VAT contribution by sector: 2018/19



Note that VAT breakdown by sector is not available for managed structures, charities or clubs and associations.
Source: IOMG data, KPMG analysis

However, when considering the largest source of VAT– household and tourist spending – the sectors where most of this is collected (rather than the sector within which salaries are generated) differ from those that provide large GDP contributions, as seen in Figure 3.49 below. As can be seen in this figure, sizeable proportions of VAT come from recreation and culture as well as from restaurants and hotels. We note, however, that this data relates to the pre-COVD-19 period so will not reflect temporary VAT changes for certain sectors/businesses, such as restaurants.

Figure 3.49 Household and tourist VAT contribution by sector: 2018/19

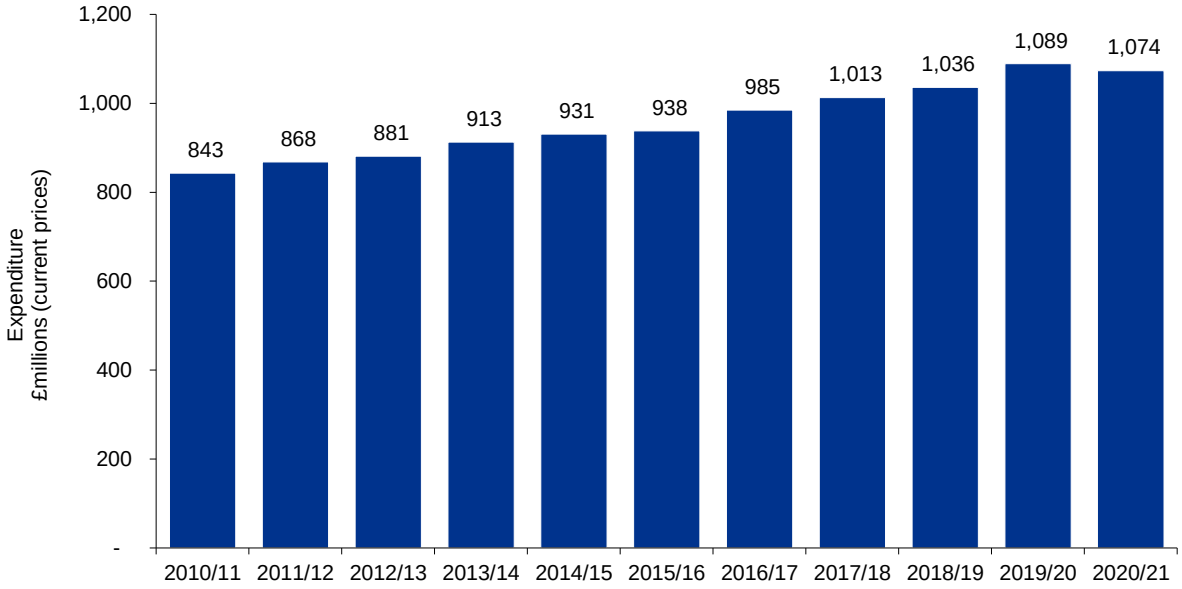


Source: IOMG data, KPMG analysis

3.6.3 Government Expenditure

In the last year, 2020/21, the level of government expenditure was £1,074m, or £15m less than the previous year. This represented the first decrease government expenditure in nominal prices since at least 2010/11.

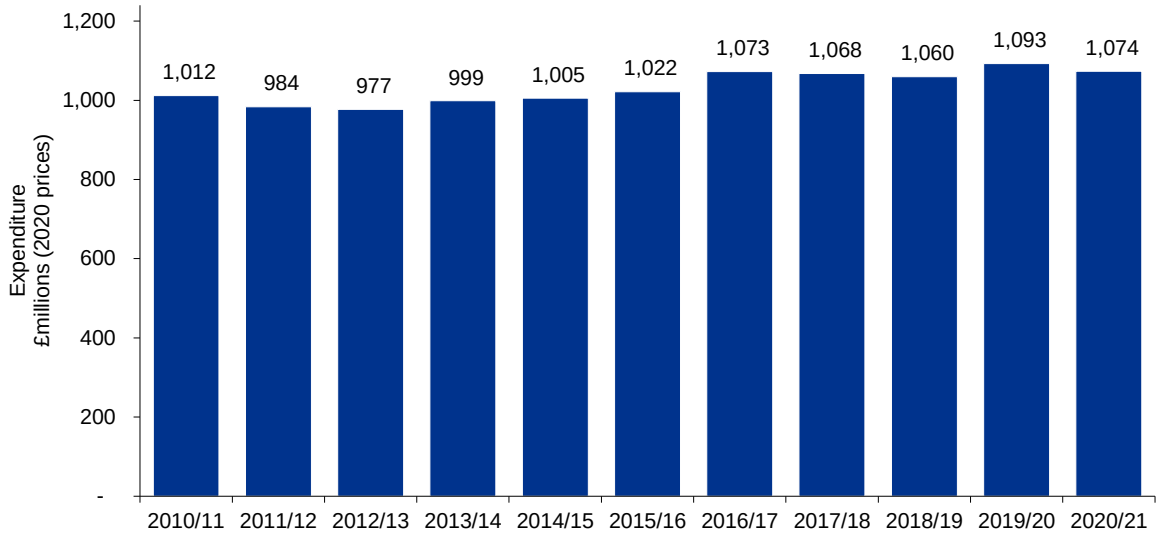
Figure 3.50 Isle of Man Central Government Expenditure: 2010/11-2020/21



Source: Isle of Man Detailed Accounts, Isle of Man Budget

By controlling for inflation, we can see that the level of government expenditure has been largely consistent over the period 2010/11 to 2020/21 (Figure 3.51). The level of government expenditure did rise in the middle of the decade, with the average level of expenditure from 2016/17 to 2020/21 at £1,073m (2020 prices) being £73m (7.3%) higher than the average over the period 2010/11 to 2014/15. This coincides with a period of improving overall government finances over the second half of the 2010s, with large surpluses recorded over the period 2015/16 to 2019/20 after two budget deficits were realised in 2012/13 and 2013/14 (see Figure 3.37).[65]

Figure 3.51 Isle of Man Central Government Expenditure, Constant Prices: 2010/11-2020/21



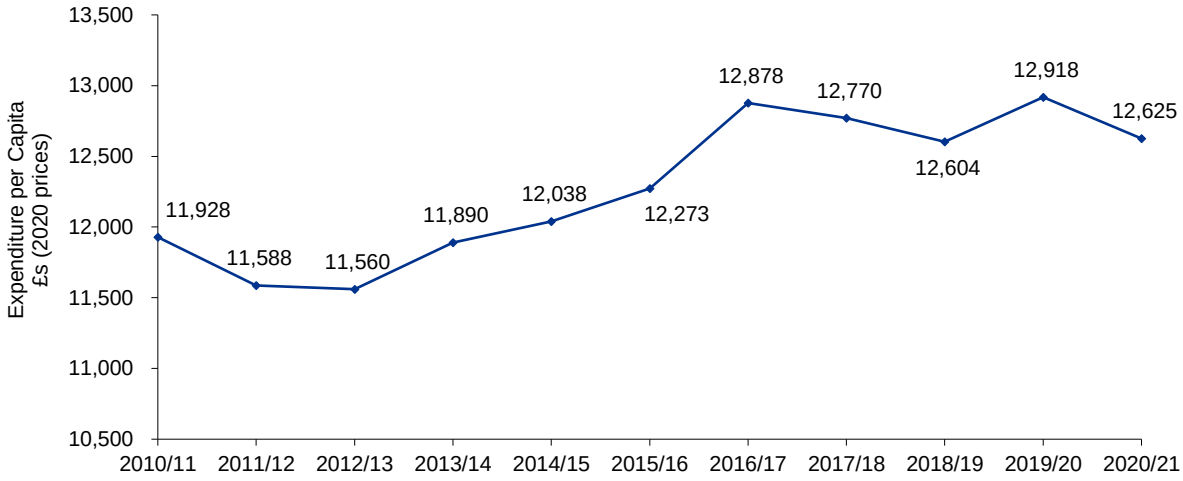
Source: IOMG data.

The slight increases in government budget each year since 2016/17 are also reflected in government expenditure per capita, given the limited population increase on the Island (as further discussed in Section 5.2.2). As seen in Figure 3.52, government expenditures have risen by approximately £1,000 per person (in 2020 prices) over the last ten years.

The level of government spending per person has been largely stable since 2016/17, averaging £12,759 per person per year from 2016/17 to 2020/21. This represents a 7.4% – or £879 – increase in yearly expenditures over the earlier period, 2010/11-2015/16, when the average expenditure per person stood at £11,880.

[65] The government experienced a £60m budget deficit in 2020/21, largely due to the coronavirus pandemic.

Figure 3.52 Government Expenditure per Capita: 2010/11 – 2020/21

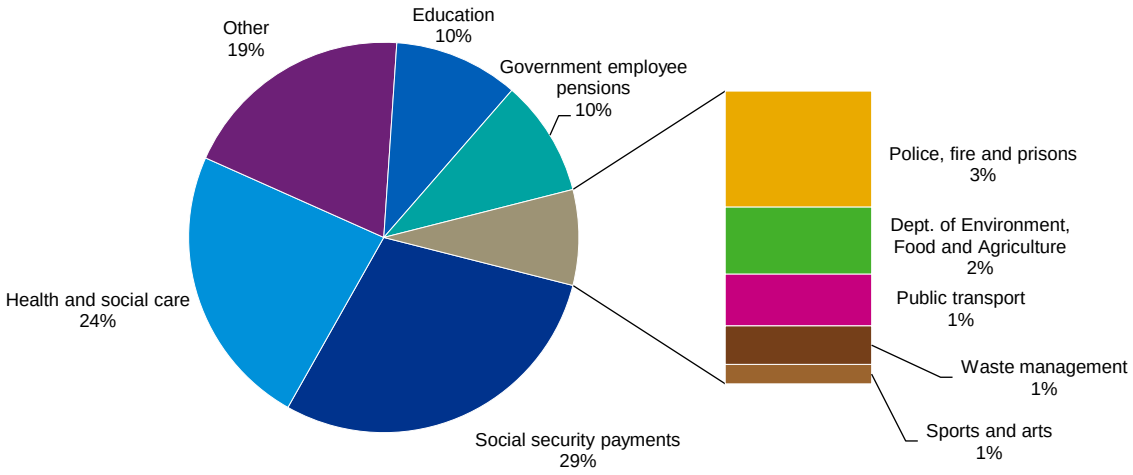


Source: IOMG data, World Bank, KPMG analysis

Figure 3.53, below, shows the projected breakdown of Government expenditure by service area for 2021/22. This shows that in 2021/22 the Government has forecast that its largest areas of expenditure will be health and social security payments, accounting for approximately 53% of the government's expected expenditure. This is similar to the portion of government expenditure assigned to these areas in the UK, where 55% of government spending goes to health, welfare and state pensions.[66]

[66] HM Treasury, 2020, *How public spending was calculated in your tax summary*. Available at [https://www.gov.uk/government/publications/how-public-spending-was-calculated-in-your-tax-summary/how-public-spending-was-calculated-in-your-tax-summary]

Figure 3.53 Projected Government Expenditure by Service: 2021/22



Source: IOMG data, KPMG analysis

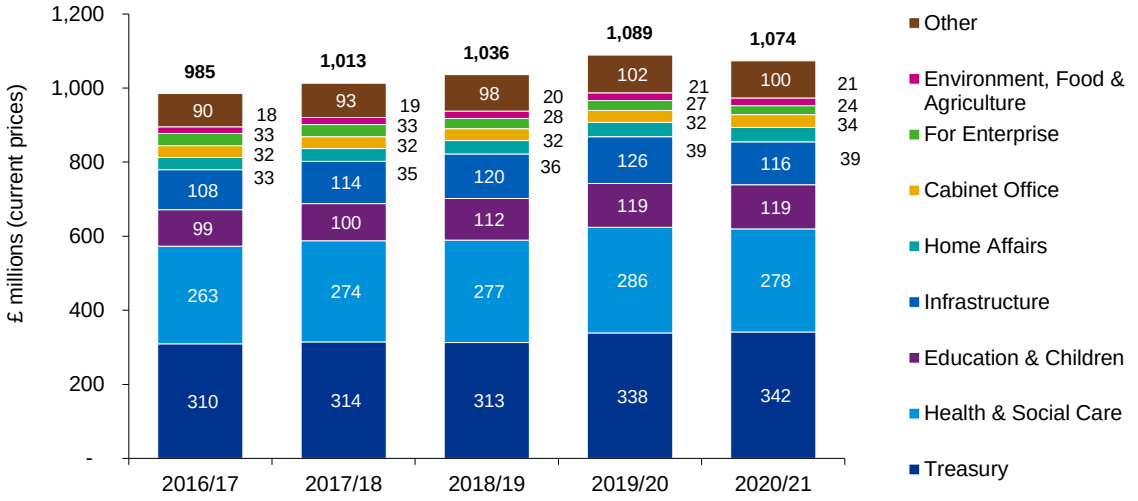
Using the 2020/21 projections of government expenditure by service, it is possible to estimate the value of social security payments and health and social care payments on a per capita basis, resulting in the following:

- Social security payments per capita: £3,650; and
- Health and social care spending per capita: £3,267.

These are broadly consistent with the per capita values for the prior year, 2019/20, with a minor decline in health and social care expenditure per capita of approximately 3%.

Central government expenditure is spread across nine main Government departments. As shown in Figure 3.54 (which uses aggregated department classifications in line with Isle of Man Government Detailed Accounts), the Treasury and Heath & Social Care departments together accounted for over half of the Government's budget in 2020/21. Throughout the period 2014/15 to 2020/21 the departmental shares of Government expenditure have remained relatively stable.

Figure 3.54 Central Government Expenditure by Department: 2016/17-2020/21



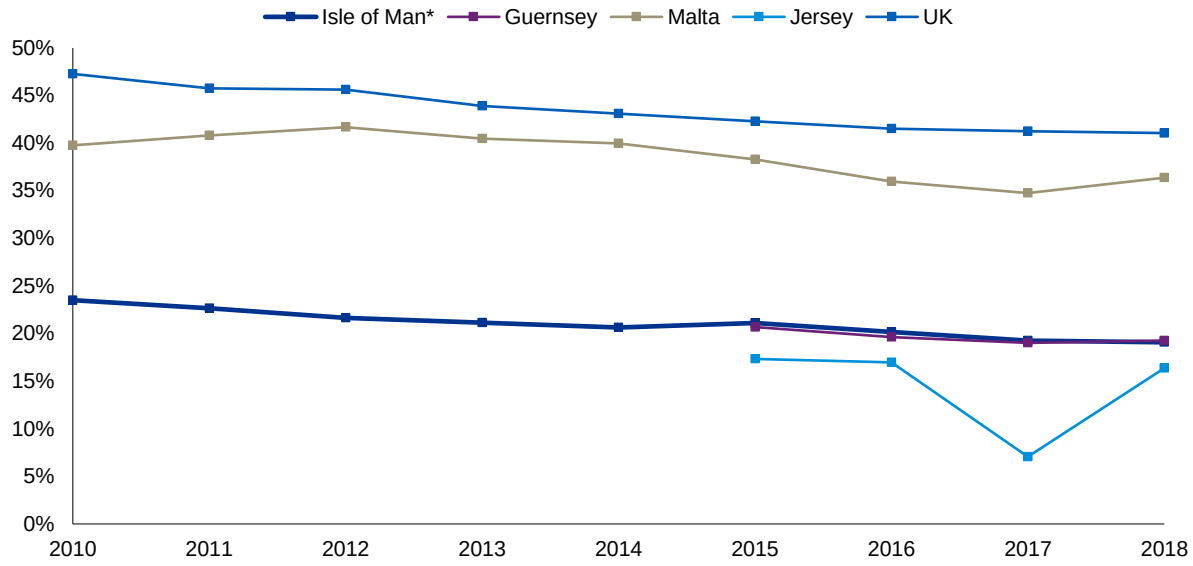
Source: IOMG data, KPMG analysis

Government revenues and expenditure have been declining as a proportion of GDP on the Isle of Man over the last decade.

Government revenues were equivalent to approximately 24% of GDP on the Island in 2010/11, falling to 20% of GDP in 2018/19. Over this same time period Government expenditure as a proportion of GDP fell from 24% in 2010/11 to 19% in 2018/19.

Similar patterns of modest decline in expenditure as a proportion of GDP have also been experienced in other comparable jurisdictions (see Figure 3.55). However, at around one fifth of GDP, the overall level of Isle of Man Government expenditure is substantially below that of economies such as the UK, although is similar to the rates of other Crown Dependencies. It is noted that an element of the underspending may be due to conscious policy decisions.

Figure 3.55 Government Expenditure as a Percent of GDP: 2010 - 2018



*2010/11 - 2018/19

Source: IOMG data, KPMG analysis

3.7 Household income and expenditure

Household finances are important to assess from a welfare perspective as income data from households can reveal how GDP and wage growth are spread throughout society, for instance revealing if an average increase in output or productivity has led to an increase in incomes overall as well as across segments of the population – for example, whether they benefit the least well off in society, or if economic gains are concentrated in the wealthier segments. Household finances are also important to assess in relation to economic output given that household consumption is a contributor to aggregate demand in an economy. In the Isle of Man personal income accounted for 29% of the Island's economy in 2018/19.[67]

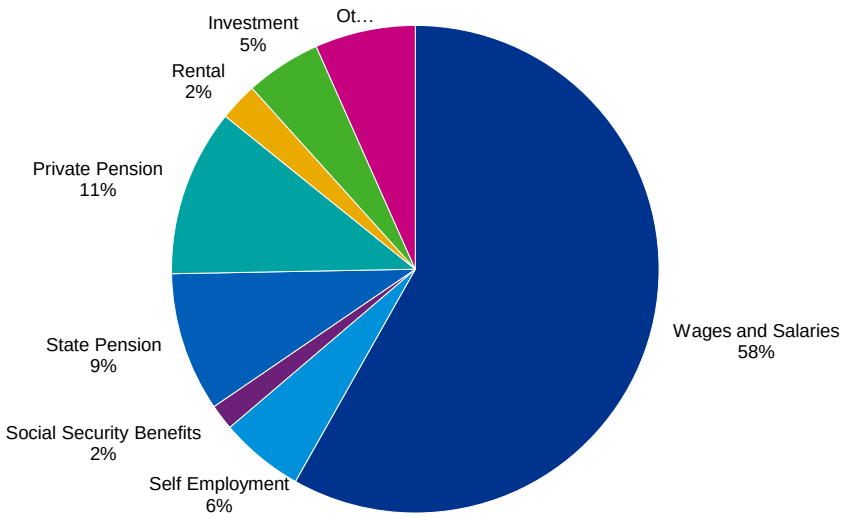
3.7.1 Household income

The latest data on household incomes comes from the 2018 Household Income and Expenditure Survey. In 2018/19 the average weekly household income on the Isle of Man was £1,125.

As shown in Figure 3.56 wages and salaries were the most important source of household income in 2018/19 accounting for an average of £654 (58%) per household per week. Private pensions made up the next largest share of income, accounting for an average of £125 (11%) per week. Social Security payments (state benefits and pensions), contributed a similar amount of income at £123 (11%).

[67] Isle of Man Government (2019) National Income. Available at Isle of Man Government - National Income

Figure 3.56 Sources of Household Income, Isle of Man: 2018/19



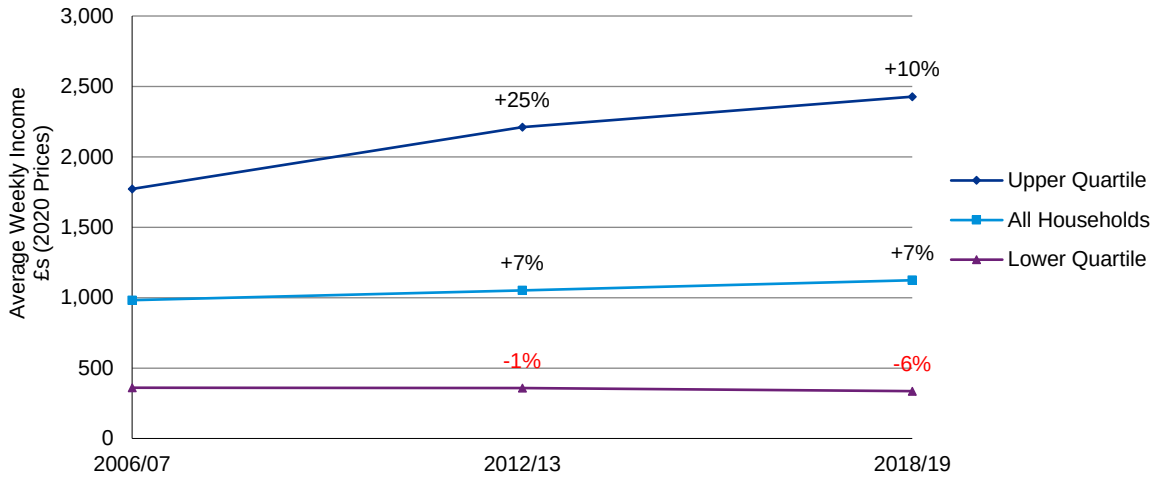
Source: IOMG data, KPMG analysis – Household Income and Expenditure Survey

Data on household incomes from the Isle of Man Government's Household Income and Expenditure Survey provides breakdowns by quartile of households. With the *upper quartile* referring to the 25% households with the highest income, and the *lower quartile* referring to the 25% of households with the lowest income.[68]

As shown in Figure 3.57, there has been a small decrease in the total weekly income of the poorest quarter of households, while households with the highest quarter of incomes were 37% better off in 2018/19 than their counterparts in 2012/13.

[68] These quartiles are recalculated for each period.

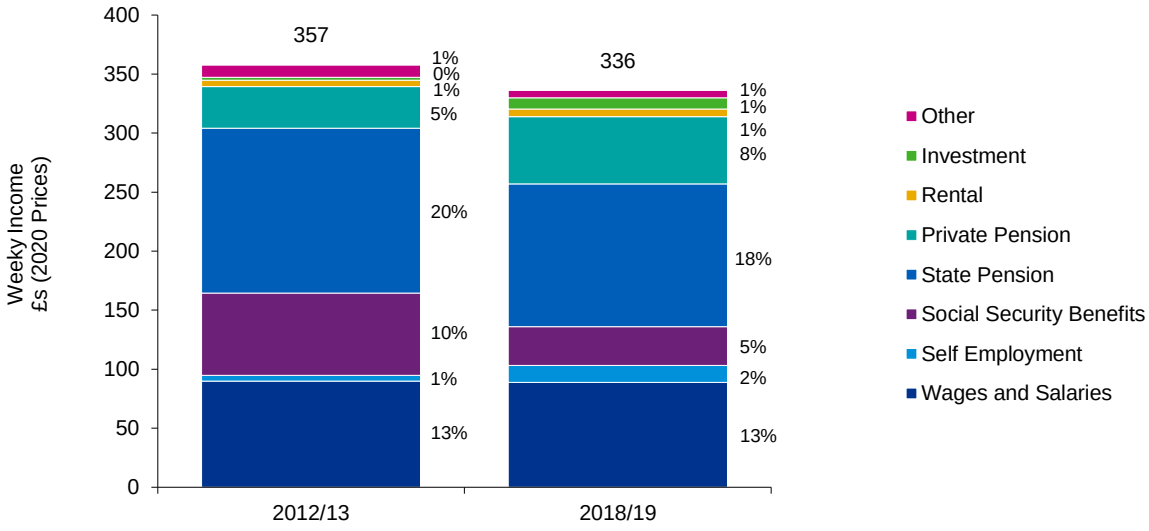
Figure 3.57 Average Weekly Income (inflation-adjusted), Isle of Man: 2006/07-2018/19 (2020 Prices)



Source: IOMG data, KPMG analysis – Household Income and Expenditure Survey

The 6% drop in incomes for the lower quartile from 2012/13 is driven by a reduction in income associated with Social Security payments, including an average weekly drop of £36.99 in Benefits and £18.57 in state pensions. Average increases in private pensions (+£21.42), self-employment income (+£9.62) and investment dividends (+£7.09) among these households helped compensate for the £55.56 weekly drop in Social Security payments. As such, lower quartile incomes reduced by an average of £21.26 per week between 2012/13 and 2018/19 (see Figure 3.58).

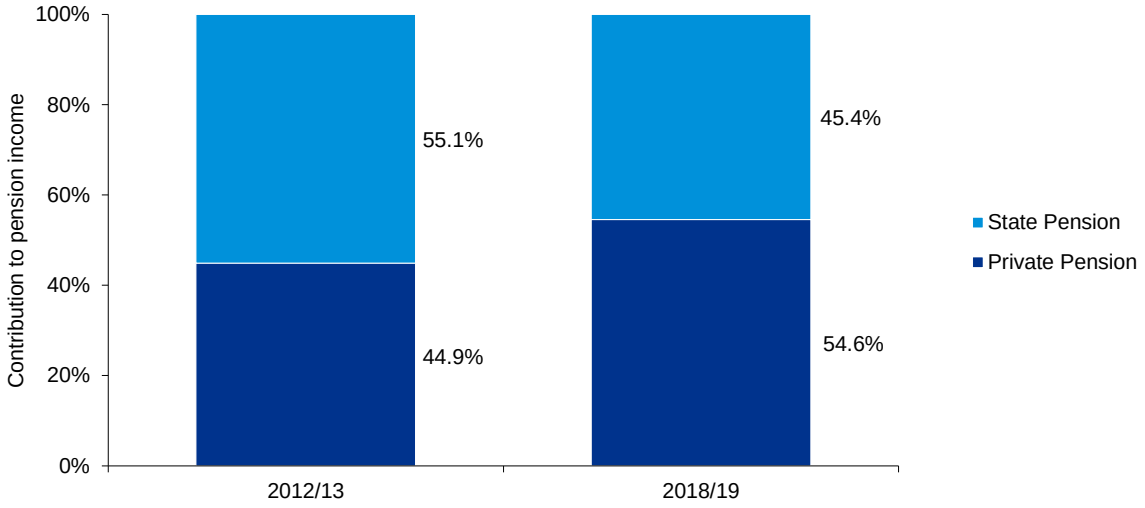
Figure 3.58 Lowest Quartile Income by Source, Isle of Man: 2012/13, 2018/19 (2020 Prices)



Source: IOMG Data, Household Income and Expenditure Survey, KPMG Analysis.

Data across all households, shows some wider changes in the pension mix (see Figure 3.59). In 2012/13 state pensions accounted for 55% of pension income while in 2018/19 private pensions accounted for 55%. Pensions have also grown in importance as sources of income for the households on the Island, contributing 15% in 2012/13, rising to 20% in 2018/19 – consistent with the ageing of the Island's population, as discussed in Section 3.4.1 above.

Figure 3.59 Pension mix, Isle of Man: 2012/13, 2018/19

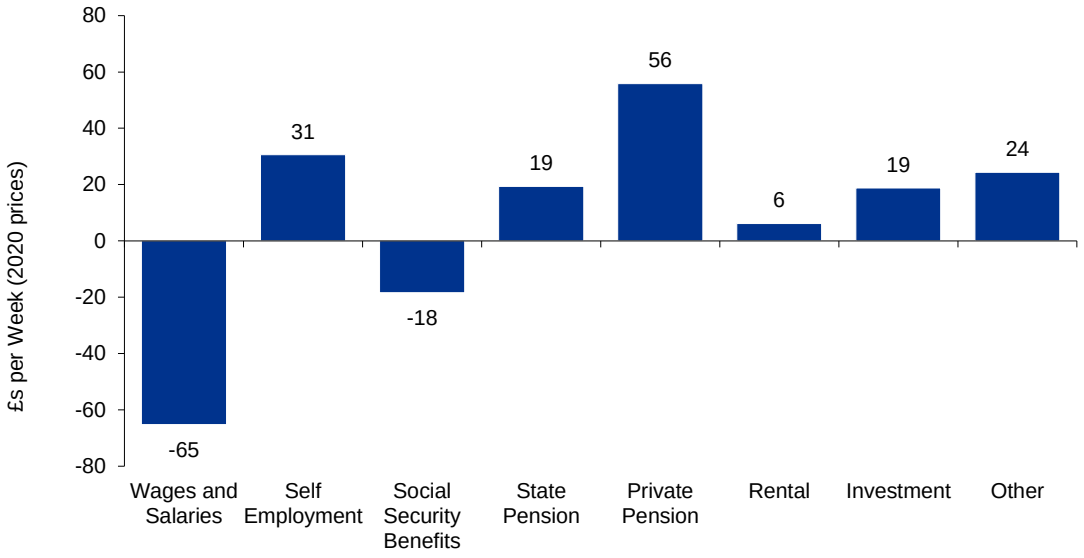


Source: IOMG Data, Household Income and Expenditure Survey, KPMG Analysis.

The rise in importance of pensions to income (on average across households), has occurred alongside a reduction in the importance of wages and salaries both as a share and average amount over the period 2012/13-2018/19 (Figure 3.60).

These changes can be seen as a consequence of an ageing society, where the ratio of economically active individuals to retirees is shrinking rather than as a consequence of declining average wages.

Figure 3.60 Change in Average Weekly Household Income by Source, Isle of Man: 2012/13-2018/19



Source: IOMG Data, Household Income and Expenditure Survey, KPMG Analysis.

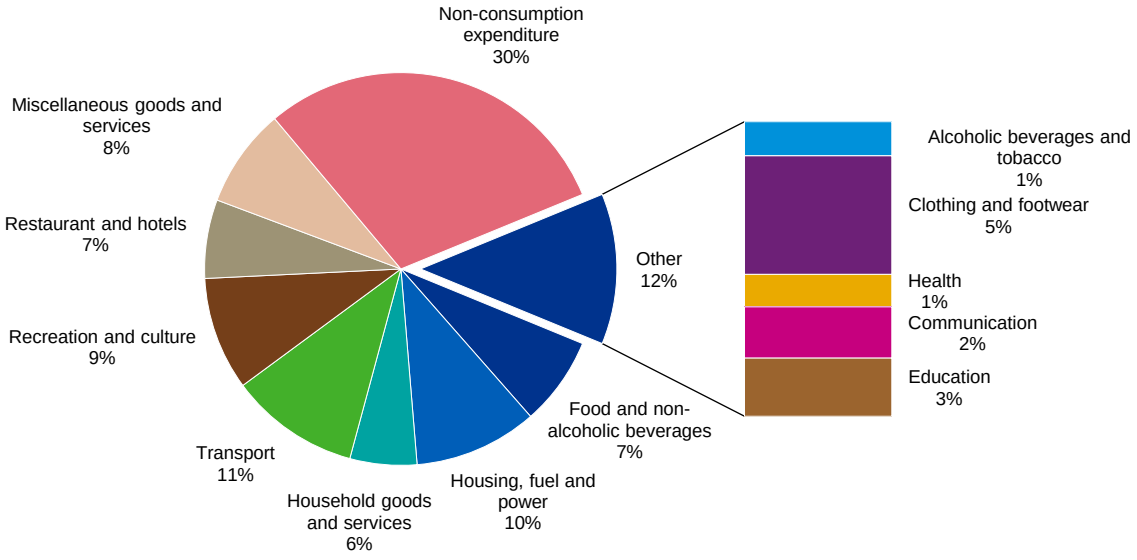
3.7.2 Household expenditure

Average weekly household expenditure on the Isle of Man in 2018/19 stood at £1,072.94.[69] Household costs are divided between four categories: housing, fuel and power; household goods and services; miscellaneous goods and services; and non-consumption expenditure.

Of total average weekly household expenditure in 2018/19, the largest share (£321.03) was non-consumption expenditure - a category that includes activities related to investment and debt such as mortgage interest repayment, pensions contributions and home improvements.

[69] 2020 prices

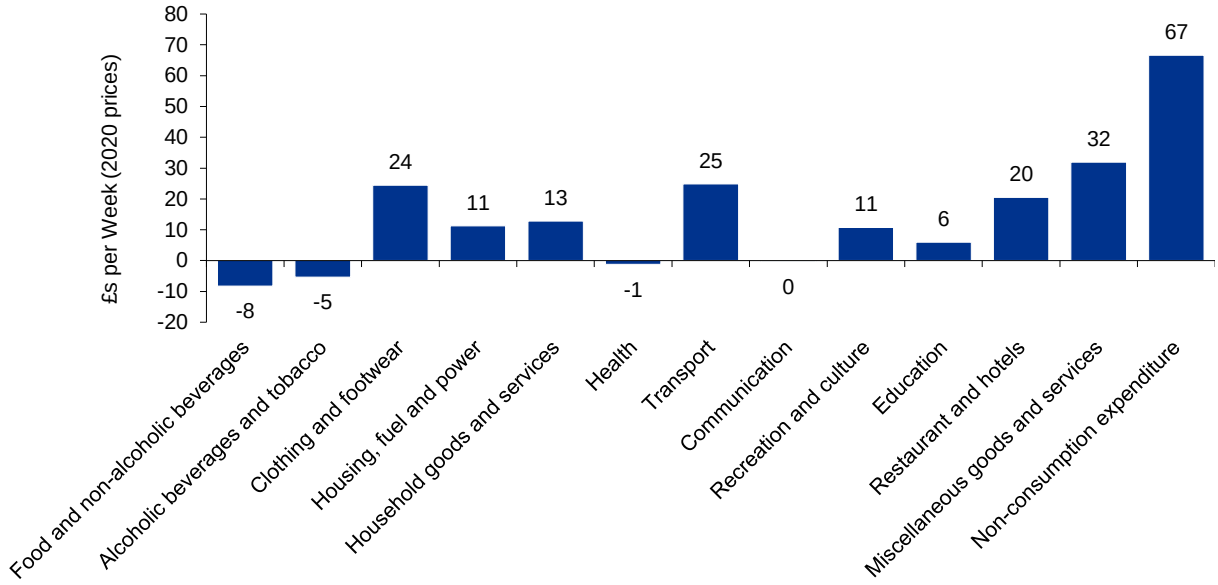
Figure 3.61 Household Expenditure by Category, Isle of Man: 2018/19



Source: IOMG Data, Household Income and Expenditure Survey, KPMG Analysis.

Figure 3.62 shows how the composition of average weekly household expenditure has changed between 2012/13 and 2018/19. Overall weekly expenditure rose from £792.33 in 2012/13 to £1,049.17 in 2018/19 in nominal prices, which translates to £878.90 and £1,072.94 in 2020 prices. Most categories saw increased expenditure in 2018/19 than 2012/13, with only food and non-alcoholic beverages, alcoholic beverages and tobacco, and health seeing decreases in expenditure. Increases in spending were largely due to changes in overall consumption rather than above inflation price rises in a specific consumption category. There are, however, some categories where price changes deviated noticeably from average inflation for the period. Whilst overall inflation for 2012/13-2018/19 was 9%, clothing and footwear saw a 9% decrease in prices; communication, education, and restaurants and hotels categories saw price increases of 22-31%.

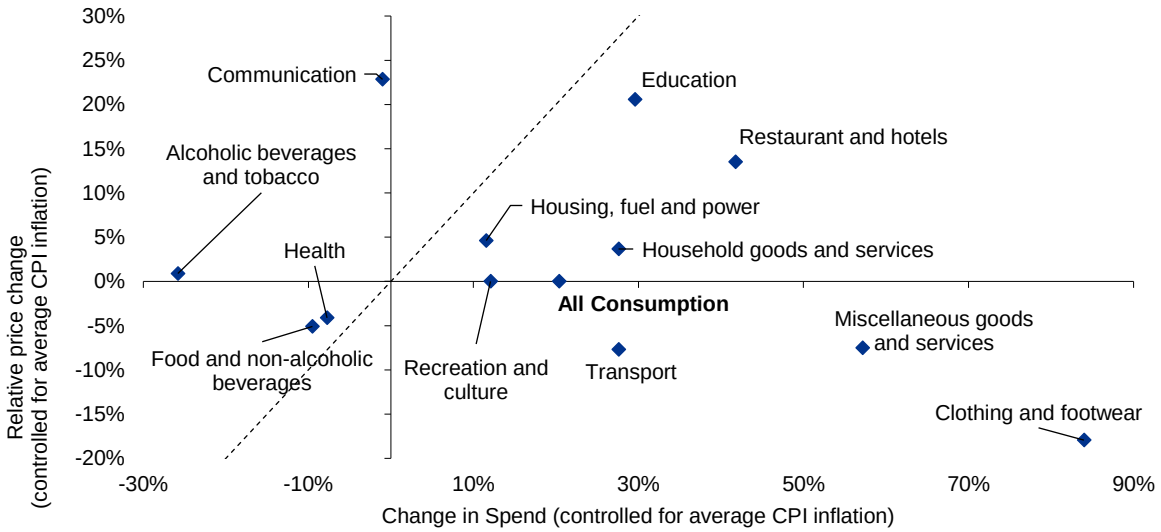
Figure 3.62 Change in Average Weekly Household Expenditure by Category, Isle of Man: 2012/3-2018/19



Source: IOMG Data, Household Income and Expenditure Survey, KPMG Analysis.

Figure 3.63 plots changes in prices against changes in spend from 2012/13 to 2018/19. Both changes in prices and spend are controlled for overall average inflation over the period, highlighting the relative price changes between categories of goods. Consumption within categories such as restaurants and hotels and communication rose faster than average inflation, while transport and food and non-alcoholic beverages experienced lower than average price rises.

Figure 3.63 Change in prices and change in expenditure, Isle of Man: 2012/13-2018/19



Source: IOMG Data, Household Income and Expenditure Survey, KPMG Analysis

For those categories of expenditure plotted to the right of the dotted 45 degree line, consumption was higher in quantity in 2018/19 than in 2012/13, that is the rise in spend was higher than the rise in price. Categories plotted to the left of the 45 degree line were consumed in lower quantities in 2018/19 than in 2012/13.

Interestingly we see opposing patterns in restaurants and hotels and food and non-alcoholic beverages. The increase of consumption in the restaurant category alongside the decrease in consumption in the food category can be seen as behavioural a shift from eating at home to eating out. Restaurants and hotels have become relatively more expensive compared to overall consumption, while food and drink have become relatively less expensive. This demonstrates the difference between the categories of expenditure linked to goods/services manufactured and imported from off-island (such as food and clothing) and the goods/services produced on-island, particularly services such as hospitality with high labour inputs.

Additionally, all categories to the right of the *All Consumption* category in Figure 3.63 increased in their share of overall consumption budget, as well as their overall level. Therefore, while there was increased average consumption of goods/services in the recreation and culture category, the category made up a smaller portion of overall household expenditure.

3.8 Inflation

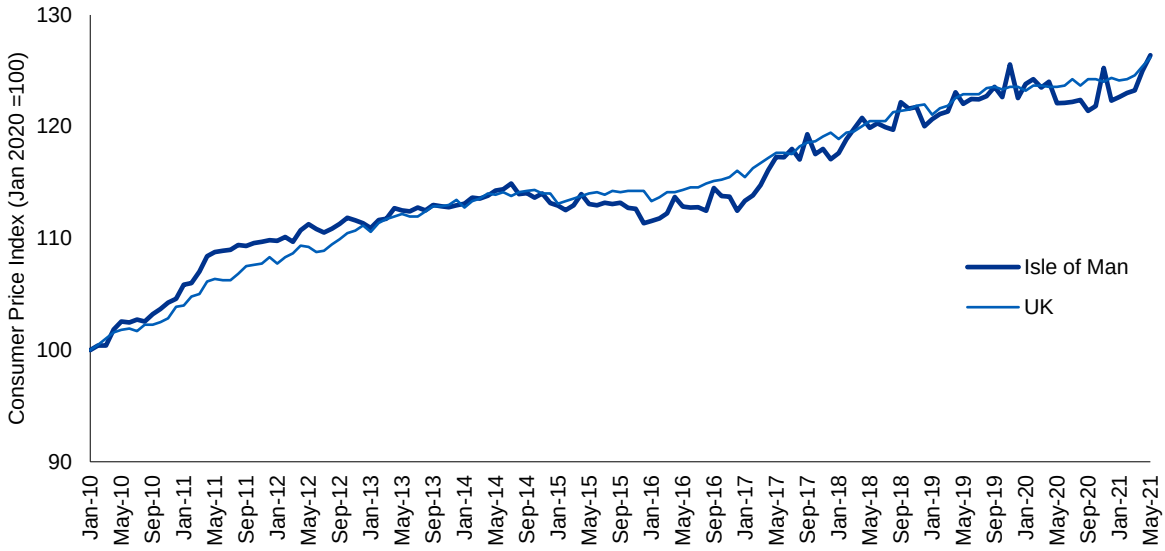
Stable and predictable levels of inflation are important for continued prosperity and growth in modern economies. Prolonged periods of high and above target inflation can reduce the credibility of currencies and their central banks. This may lead to extremely damaging periods of hyperinflation or very high interest rates which can lead to bankruptcies (with defaults by government and the private sector) and substantial harm to society. Conversely, low and below target inflation can put a dampener on economic growth and risks negative inflation (deflation) where more serious harm to the economy can be felt.

The Bank of England targets a 2% annual inflation rate, as measured by an index of prices of a representative basket of goods. This basket of goods is continually updated to reflect changing purchasing habits. This approach is used to create a *consumer price index*.

The Isle of Man maintains an effective currency union with the UK, with the Island's government maintaining parity between the Manx pound and pound sterling. Therefore, the monetary policies of the Bank of England have a direct impact on inflation and economic performance on the Isle of Man.

This currency union limits the ability for the Island to manage inflation, and given strong structural links with the UK economy, inflation on the Isle of Man closely tracks that seen in the UK (as show in Figure 3.64).

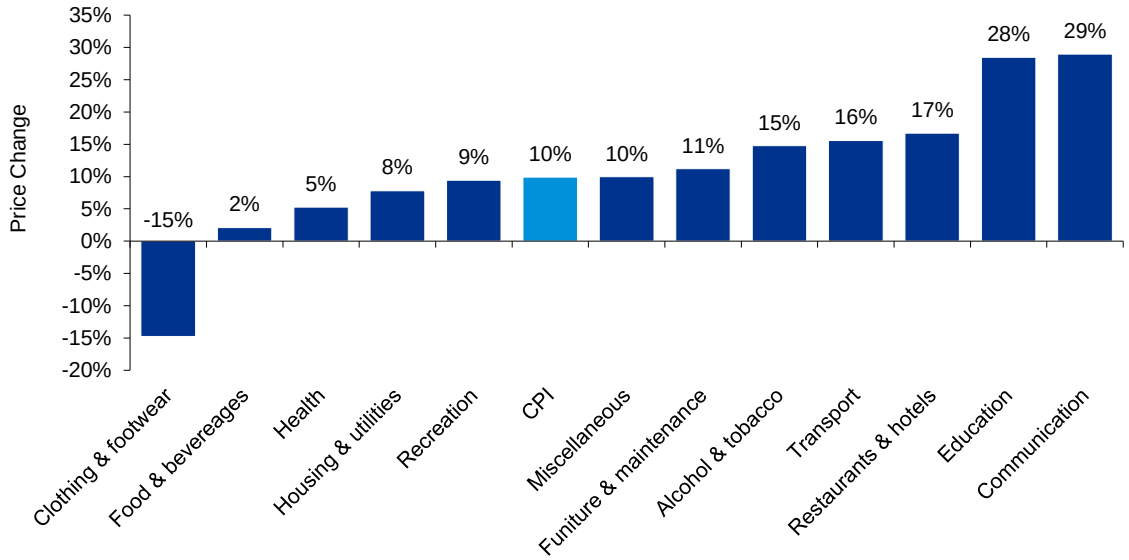
Figure 3.64 Consumer Price Index: Jan 2010 – May 2021



Source: IOMG Data, ONS, KPMG Analysis

Since 2015, the consumer price index on the Isle of Man has risen by 10% (See Figure 3.65). Recent inflation on the Island has been driven by labour intensive domestic industries, such as education and hospitality, where prices have risen since 2015 by 28% and 17% respectively. Less labour-intensive products such as housing and food & beverages have experienced lower than average price rises.

Figure 3.65 Consumer Price Index Components: Jan 2015 – May 2021

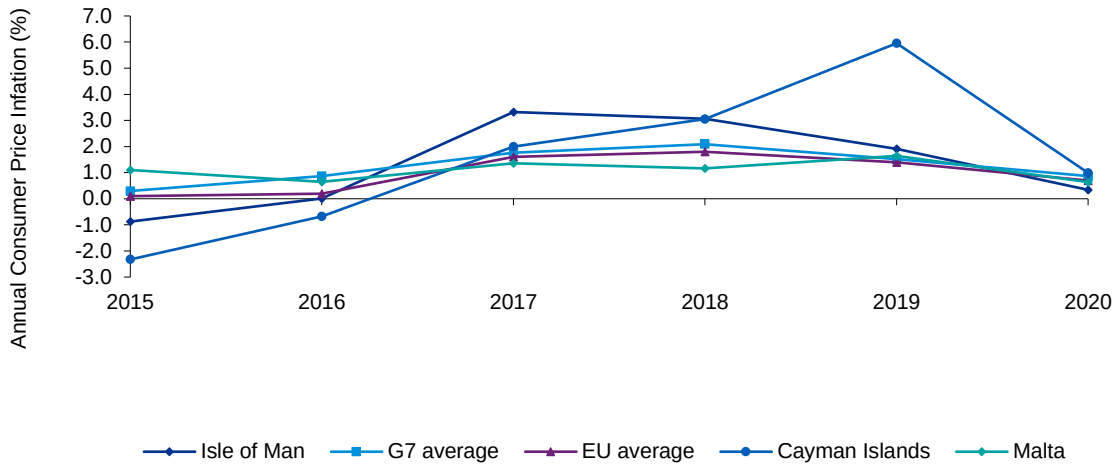


Source: IOMG Data, KPMG Analysis

Over the period 2015-2020, average annual inflation in the Isle of Man stood at 1.3%, slightly above the EU average of 1.2% per year. Inflation figures for the Island have followed the wider

trend of decreasing rates over the last few years, with inflation decreasing year on year since a peak in 2017.

Figure 3.66 Consumer Price Inflation: 2015-2020



Source: IOMG Data, World Bank, ONS, OECD, Malta National Statistics Office, Economics and Statistics Office Government of the Cayman Islands, KPMG Analysis

The headline inflation measure used in the Isle of Man is CPI, this is distinct from the Crown Dependencies of Jersey and Guernsey who use retail prices to calculate inflation.[70] As such RPI has been presented in Figure 3.67 to allow for comparison with the Crown Dependencies.

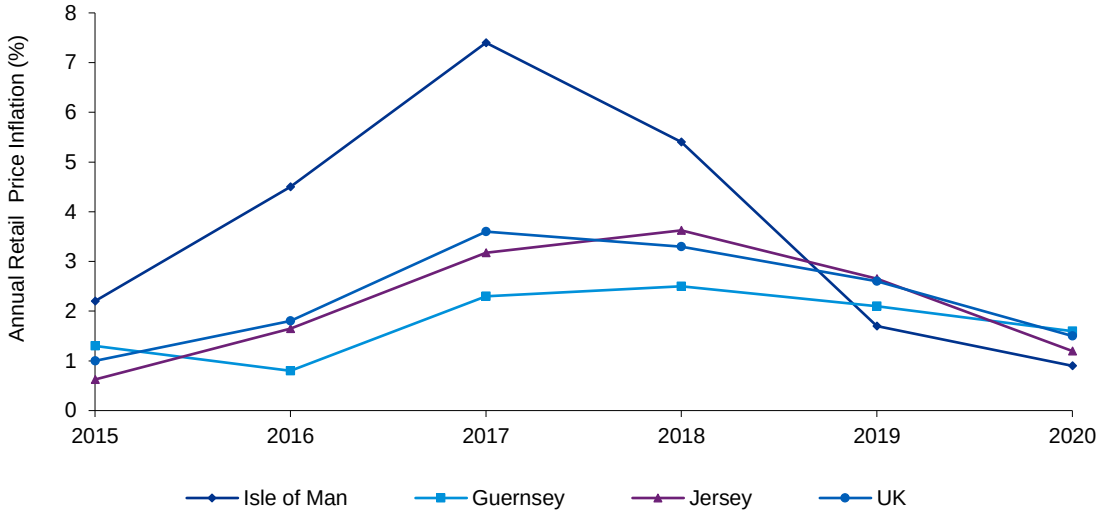
In comparison to other Crown Dependencies, RPI inflation had been relatively high on the Isle of Man until 2019 when the rate of retail price inflation on the Island fell to levels more typical of other Crown Dependencies and the UK. Particularly high levels of RPI in 2017 on the Island were due in large part to increases in travel costs and leisure goods. This was exacerbated by the impact of the RPI formula, known as the *Carli* formula, which was used in on the Isle of Man until the end of 2017.[71] Despite this, the relationship between inflation on the Isle of Man and the UK over the period 2015-2020 is similar for both RPI and CPI, with higher inflation on the Isle of Man until 2018 and similar rates of inflation from 2019 onwards. Therefore, it is safe to conclude that the rate of inflation, on the Isle of Man was higher than those seen in the Crown Dependencies of Jersey and Guernsey over the period 2015-2018. Since 2019 the Isle

[70] Retail price inflation (RPI) is an alternative measure of inflation to CPI. RPI uses a different basket of goods to CPI, and notably includes mortgage interest payments. RPI is typically higher than CPI in any given year. CPI has largely replaced RPI, with the Bank of England using targeting inflation with consumer price indexes since 2003.

[71] The Carli formula does not account for consumers switching away from items if the prices change, for example switching to rice if the price of pasta increases substantially. CPI uses an alternative formula, known as the *Jevons* formula that takes this into account. The Jevons formula has been applied to the RPI in order to create an updated version, often known as RPIJ. RPIJ has been used by the Isle of Man to estimate RPI since 2018, and is the measure of RPI in used by the government of Jersey.

of Man has experienced rates of inflation similar or slightly lower than those seen in the other Crown Dependencies.

Figure 3.67 Retail Price Inflation: 2015-2020



Source: IOMG data,[72] States of Guernsey Data and Analysis,[73] Statistics Jersey,[74] ONS,[75] KPMG analysis

3.9 Summary of strengths and weaknesses

Based on the macroeconomic data and wider evidence collated, and the comparisons drawn to other jurisdictions to help to set the Island's economic performance in context, a number of key strengths of the Isle of Man economy are evident as well as factors that will need to be taken into account when determining the future economic strategy for the Island.

— The analysis shows that output on the Isle of Man, as measured in terms of GDP, has been rising steadily between 2010/11 and 2019/20, albeit with a minor decline in output in 2015/16 (driven by a fall in output of the eGaming sector in that year).[76]

— Total GDP reached £5.53bn in 2019/20 and over the period 2015/16 to 2019/20 average annual GDP growth was 3.6%. Over the same period, most comparator economies failed to reach 2% average annual growth. Average annual growth across the G7 and EU was 1.8% and 2.1% respectively. The Cayman Islands matched the Isle of Man's growth rate while the Crown Dependencies of Jersey and Guernsey realised growth rates averaging 1.2% and 1.6% over the period.

— On a per capita basis, the Isle of Man has a considerably higher level of GDP per capita at £65,386 (in 2019/20) than a range of comparable jurisdictions, such as Jersey, Guernsey and Cayman Islands and compared to the UK and averages for the EU and

[72] https://www.gov.im/media/1371823/2021-07-historic-datasets-july-2021.pdf
[73] Retail Price Index Inflation (RPI and RPIX) - States of Guernsey (gov.gg)
[74] https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/R%20Latest%20
[75] https://www.ons.gov.uk/economy/inflationandpriceindices/timeseries/czbh/mm23
[76] GDP fell by approximately 2.0% from £4.92bn to £4.82bn (constant prices).

G8. However, as the GDP of the Isle of Man, as measured by the income approach, captures income associated with off-island activities of individuals and companies resident on the Isle of Man, it is not directly comparable with jurisdictions where offshore activity makes up a smaller portion of measured economic activity and GDP per capita for the Island does not fully reflect prosperity of the population.

— The Isle of Man's economy is specialised in a small number of financial and digital sectors, with the five largest sectors accounting for 61% of GDP in 2019/20. These sectors have also increased their share of GDP over the last decade. While this demonstrates particular specialisms in these service sectors, in particular insurance and eGaming, which has been sustained over time, it does present some risks to ongoing economic performance if one or more of this sectors are exposed to external shocks and threats, for example linked to regulation and/or taxation.

— However, in relative terms, compared to the Island economies of Guernsey, Jersey and the Cayman Islands, the Isle of Man has a more diversified economy. While each of these economies has large insurance and finance related sectors accounting for between 48% and 65% of GDP, the finance sector of the Isle of Man was among the few growing in share of output since 2009, in the wake of the Global Financial Crisis[77]. The digital sectors of ICT and eGaming are also much more important on the Isle of Man than the selected comparators and the large contribution to GDP of these digital sectors rebalances the Island's economy away from the other sectors.

— From a labour market perspective, the Island has sustained very low unemployment rates for over a decade, alongside growing numbers of individuals in employment. While this is positive in that those economically active individuals are largely all in employment, there is evidence of unfilled vacancies and difficulties in terms of availability of suitable employees for businesses to grow (see Section 4.4 for further analysis). A limited workforce affects the total productive capacity of an economy.

— The Island has a relatively high proportion of its population that is not economically active (c. 50% in 2019), driven largely by the age profile of its residents. Maintaining a substantial economically active population is important for the long-term viability of the Island's economy and public finances. In 2016, the year for which the latest census data is currently available, approximately 17% of the population was under 16 years of age, i.e. below working age, and 22% of retirement age or above. This is a weakness for the Island given that it drives a high dependency ratio between those in employment, contributing taxes, and those that are not. While the dependency ratio (all non-working population age groups on working population age groups) has been falling over time, largely driven by the increase in the size of the working population of the Island, in 2016 it was approximately 64%, having grown slightly from a low of 62% in 2006.

— The sectors that drive the economic output (GDP) of the Island are generally not those that sustain employment, meaning the growth in output of key sectors does not proportionally translate in to increased employment opportunities for the population.

[77] The Cayman Islands was the only other comparator jurisdiction in which the financial sector increased its share of GDP since 2009.

— The largest employment sector of the economy is retail distribution, employing approximately 12% of the Island's workforce in Q1 2020. However, this sector was responsible for only 2% of Manx GDP in 2019/20. Conversely, the eGaming sector generated c.17% of national GDP, but accounted for only 2.4% of employment.

— Equally, the sectors contributing the largest share of GDP are not those contributing the most to Government revenues, at least in terms of employment related taxes. As personal income tax and NI contributions are a product of employment and wages, the top five sectors[78] in terms of contribution to GDP (accounting for 61% of GDP in 2019/20) contributed 40% of National Insurance and 42% of employee income tax in 2019/20. The retail distribution sector, while the largest employer, contributed 6% of the National Insurance and 4% of employee income tax in 2019/20.

— These differences between which sectors of the economy are the largest contributors in terms of GDP, employment and government revenues means that strong performance against one of these does not necessarily translate into strong performance across all. Different interventions are likely to be needed dependent on whether the primary objective is enhancing growth, employment, or fiscal contributions.

— Average weekly earnings in the Isle of Man were £611, or approximately £31,000 per year in 2020/21. This is 10% higher than those seen in the UK. Despite wages on average growing over the last decade (2010/11-2020/21), this 16% increase in mean wages over the period hides a pattern of modest wage growth for most workers. Median wages rose by 8% over the same period.

— Average household income on the Isle of Man was £1,124 per week in 2018. While this has risen by 7% since 2012, much of this has been concentrated in the higher income households. The top quartile of households were 10% better off in 2018 than their counterparts in 2012 (£2,212 per week to £2,427 per week). However, the lowest quartile of household incomes fell by 6% over this period, from £357 per week to £336 per week. This shows a growing disparity between the most and least wealthy on the Island.

— The Isle of Man Government's finances remain relatively strong, despite the need to run a small budget deficit in FY 2020/21 to fund COVID-19 support measures. Budgets over the last decade have typically run at a surplus. In the financial year 2019/20 a £25m surplus was run, equivalent to approximately 0.5% of GDP.

— While the Island's GDP is driven by a relatively small number of sectors, analysis suggests this is not the case, at least to the same extent, for the fiscal contributions. While GDP contributions are driven by corporate incomes, as corporate income is generally not taxed across sectors (or at a low rates for those sectors where it is – See Section 4.8), fiscal contributions from income tax and national insurance (jointly around 44% of fiscal revenues) come from a broad range of sectors, and proportionately less comes from sectors which make up a high proportion of GDP.

[78] Insurance, eGaming, Banking, 'Other Business and Financial Services', ICT.

4 Strategic theme 1: Attractive to business

4.1 Introduction

In its Invitation to Tender for this engagement, IOMG described this theme as "*Understanding our inward investment proposition and using this to attract businesses to the Island*".

We explored this theme further with business leaders as part of Phase 0 of the engagement and one-to-one interviews of some of the largest businesses. Participants identified multiple aspects of a desirable future state of the Island that were relevant to its attractiveness to business. We summarised their views as follows, expressing them as part of a vision for a future state of the Island and its economy:

- The Island is recognised as a great place for businesses to flourish, innovate, evolve and grow here and internationally.
- The Island has a joined-up government which is nimble, delivery-focused and responsive with:
    - Policy & support that creates a thriving business environment.
    - Grants & schemes that are simple, competitive and effective.
- The Island has first-class infrastructure and transport links.
- The Island has commercial facilities meeting all modern needs – be it carbon neutral, fit for all ways of working, high quality connectivity and town centre infrastructure.
- The evolving needs of businesses are met, and they are coached, enabled and encouraged to prosper.
- The Island is competitive and attracts people and businesses.
- The Island effectively promotes itself to attract new and established businesses to locate on the Island whether virtually, physically, or both.
- Through 'Attractive to People' initiatives the Island has created an appropriate and relevant skills mix which supports the needs of existing and prospective Island businesses.

4.2 Background and context

As detailed in Section 3.5 for the Isle of Man there are two main measures of the number of businesses: Companies (all businesses registered on the Isle of Man); and Employers (only those businesses that employ people on the Island). Only a relatively small proportion of the total number of companies registered on the Isle of Man employ people on Island: approximately 17% of the total 25,127 companies registered on the Island in Q1 2020.

While there has been an upward trend in the number of employer companies over recent years – increasing from 3,783 in Q1 2015 to 4,275 in Q1 2021, the vast majority of these employer

companies are small, with fewer than 5 employees. Only 5% of Employer companies had greater than 25 employees in Q1 2021.

A full analysis of the business demography of the Isle of Man is detailed in Section 3.5. This also includes sector breakdowns of the number of companies on the Island overall and by size.

In order to analyse the extent to which the Isle of Man is, at present, "Attractive to Business", and to provide an evidence base against which policies can be developed under this theme as part of the Strategic Economic Framework for the Island over the next 5-10 years, this Chapter of the report examines a number of key factors that contribute towards making the Island a place that is attractive for businesses to locate in and provides an environment that encourages and supports entrepreneurial activity and business innovation, investment and growth.

KPMG (2020) [79] highlights that a **fertile business environment is key to raising entrepreneurial momentum**. This is achieved through helping local companies grow and attract new businesses to the region – the subsequent benefits of which are shared by local residents through improved employment opportunities and increased funding for local amenities. In order to prosper, **businesses need a stable but stimulating environment**, with **supportive infrastructure**, **innovation**, and **access to capital**.

Therefore, subsequent sections of this Chapter of the report analyse data against each of the key elements recognised in KPMG's Framework for Growth[80], specifically:

- **Business infrastructure**: including transport links, telecommunication services, use of floorspace and business visitor data.
- **People and skills**: including identification of skills shortages and profiles of job vacancies.
- **Innovation and business dynamism**: including support for emerging technologies and adoption of online services during COVID-19.
- **Access to finance**: including the extent to which businesses seek finance to support their growth and wider operational activities and any constraints associated with being able to access it – including during the COVID-19 pandemic.
- **Government and regulation**: ease of doing business and the Isle of Man's corporate tax regime.

These factors relating to the business environment also need to be assessed in the context of the overall business climate, including in relation to particular external pressures that may impact the businesses on the Island, specifically regulatory and taxation pressures.

One source of data for analysis in this section is the Isle of Man Business Confidence Survey. It should be noted that sampling differences are likely to exist across the different survey waves between 2017 and 2019. This should be kept in mind when considering this part of the analysis and the results from the Business Confidence Survey should be taken as indicative only.

[79] KPMG. (2020). 'UK regions: a framework for growth'.
[80] Ibid.

4.3 Infrastructure and services to support business performance

When assessing the business infrastructure of the Isle of Man, a range of different types of infrastructure have been considered – each of which is important to support business activity. These include: transport infrastructure; digital infrastructure; and business premises. Each of these is assessed in the sub-sections below. Evidence in relation to business-related services is analysed.

4.3.1 Transport infrastructure and travel

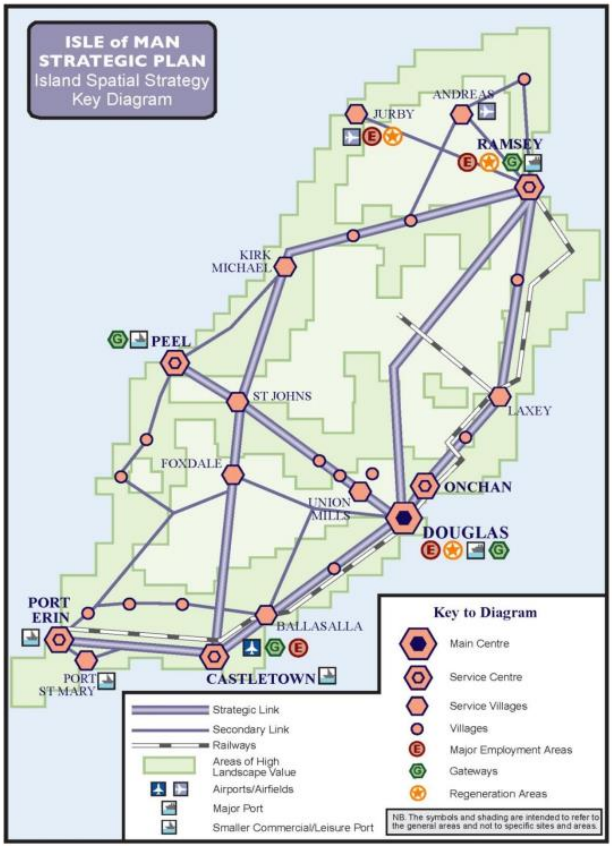
It is widely recognised that **transport connectivity is vital for economic growth and job creation**, as well as for building houses and creating social cohesion.[81] As noted in KPMG's Framework for Growth (2020), the **quality of transport infrastructure affects the level of productivity** of an economy and there is evidence that an **increase in transport capacity is associated with an increase in average wages** and of **GDP** levels for metropolitan areas.[82]

It is therefore important to review the current 'stock' of transport links, ports and hubs on the Isle of Man, together with data on user satisfaction levels regarding quality and cost. This will help to identify particular strengths and challenges in relation to the Island's transport infrastructure that can be used to develop policies, where needed, to improve this infrastructure, which will in turn help to promote the Island as a location for business activity.

Figure 4.1 shows the current stock of transport links, hubs, and ports on the Isle of Man.

[81] Department for Transport. (2021). 'Union Connectivity Review. Interim Report – March 2021'.
[82] KPMG. (2020). 'UK regions: a framework for growth'.

Figure 4.1 Isle of Man spatial strategy



Source: Isle of Man Government. (2016). '[The Island Development Plan]'.

As illustrated above, the Island's transport infrastructure includes:

— An extensive road network, with primary routes linking the Island's larger towns and villages. Further details regarding the bus network and commute times between the commercial centre of Douglas and other key towns and villages are set out in Section 5.6.3 of this report.

— A publicly-owned airport near Castletown from which scheduled, charter and private flights can operate. Regular scheduled services currently operate to several UK airports. Further details of service levels are set out in Section 5.6.3 of this report.

— A main port in Douglas, from which the Island's principal sea transport links are operated by The Isle of Man Steam Packet Company. The company is solely owned by IOMG and runs a timetabled ferry service for both passengers and freight to Heysham, Liverpool, Dublin and Belfast. Services to Heysham run daily year-round, with seasonal services to other ports. Most freight is transported via Heysham, which has good links to the UK motorway network.

— A port in Ramsey from which a private company operates additional freight services.

— Rail links shown on the diagram are heritage transport networks operated on a seasonal basis as a visitor and leisure amenity; they are not widely used by commuters and are not used in the transportation of commercial goods.

According to a 2018 audit of the National Instructure Strategy, both the airport and ports were deemed to be well-positioned to meet both current and increased demand.[83] However, routes/ main junctions into Douglas have been identified as needing improvement in order to ease congestion, which is at risk of worsening as new residential development projects (as set out by the Area Plan for the East) take place.[84]

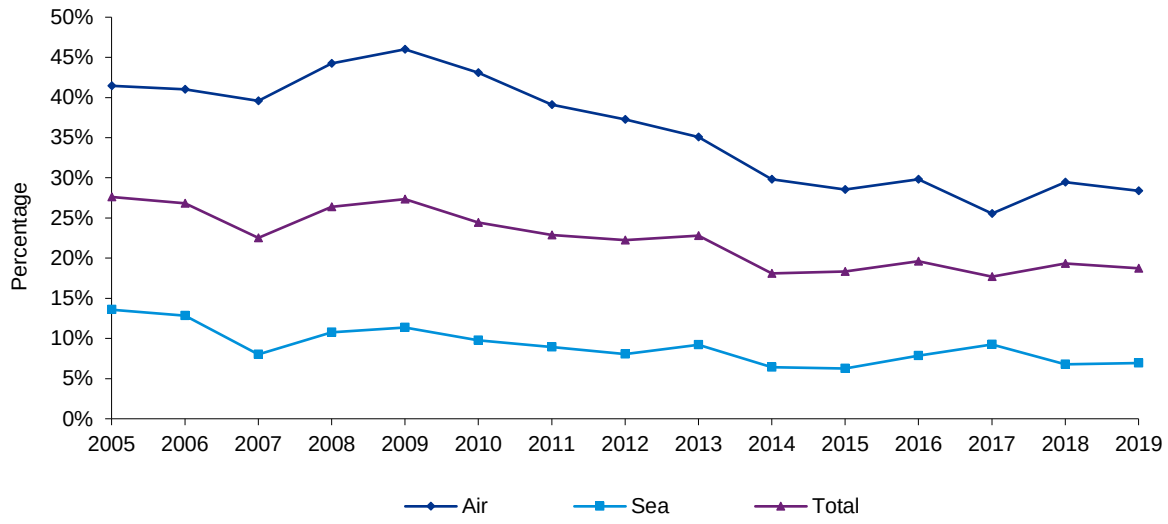
In workshops and interviews with stakeholders, a number of observations relevant transport infrastructure emerged. Whilst it was acknowledged that the COVID-19 pandemic had significantly impacted air links in the short term, there was no clear consensus on whether the pre-pandemic service was sufficient for business needs:

- Many contributors commented that regular, reliable air links into international hubs would be valuable for outward-facing businesses on the Island (Heathrow and Amsterdam were noted by stakeholders). For the financial services sector, connections to London were cited as particularly critical.
- Consistency of connections to Dublin were also mentioned as important to maintain and develop business ties and support inward investment from Ireland and onward travel to the US with ease.
- When discussed with stakeholders familiar with the Island's visitor economy, it was noted that whilst there could always be improvements, should the variety of airlinks return to pre-COVID availability the industry would be broadly satisfied. An increase of direct flights to non-UK destinations was seen as desirable.
- Furthermore, for businesses requiring inbound or outbound transportation of goods it was noted that sea freight costs were a significant additional cost, particularly for low value or bulky goods, and could act to dissuade some businesses considering locating on the Island. This is supported by comments previously received by DfE from industry in a 2018 analysis of freight services in connection with a review of the Sea Services Agreement.
- Notably, freight costs are a key factor, and often barrier, when discussing relocation or start up with non-service-based businesses. This has resulted in a concentration of high-value low-volume product types being manufactured on the Island, for example. However, it is acknowledged that the Island does not position itself as a location for the manufacture of low-value high-volume goods and that the economy is predominantly driven by the service sectors.

Figure 4.2 sets out the share of business passenger arrivals to the Isle of Man between 2005 and 2019. The share of business passengers arriving on the Island has decreased by approximately 33%. This is owing to an increase in the proportion of leisure visitors which has increased by almost the same amount (32%). In absolute terms, the number of business visitors has fallen from 88,651 in 2005 to 59,200 in 2019.

[83] Department of Infrastructure. (2018). 'The National Infrastructure Strategy First Monitoring Audit'
[84] The Housing Yields Report of October 2019 revises actual housing needs in the East between 2011-2026 to be 1,357 new residential units, as compared to the initial 2,440 new homes projected in the IoM Strategic Plan 2016 – they disclose that this 'actual housing needs' figure should not be treated as a target, however.

Figure 4.2 Share of business passengers in arrivals, 2005-2019



Source: IOM Passenger Survey, KPMG analysis

Business travel contributes to the economy in terms of the business activity that it helps to facilitate and is a particularly important factor for multi-national firms locating on the Island. The expenditure of business travellers while on the Island also provides additional income to the Island, in particular for sectors such as tourist accommodation, hospitality and retail.

Table 4.1 below shows the average inflation-adjusted expenditure of business visitors to the Island over the period 2009 to 2019. This shows that the average expenditure by business travellers has largely been increasing between 2009 to 2018 but has since started to decline. The growth of average expenditure per business traveller in the 2009-2019 period was 41.5% in nominal prices, and 13.4% in inflation-adjusted prices.

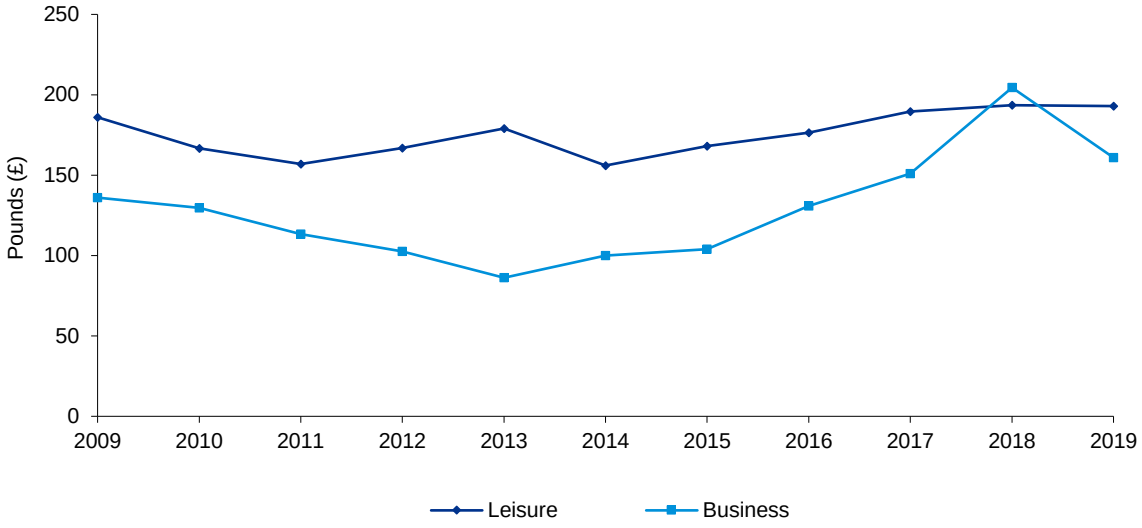
Table 4.1 Total average expenditure by trip category (£): 2009-2019

Trip Category	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Leisure	554	471	449	496	573	511	534	518	603	642	568
VFR	285	264	275	298	277	292	264	250	275	256	270
Business	412	427	433	395	327	373	384	370	489	578	467
Other	181	174	155	146	165	122	163	145	157	179	135

Source: Isle of Man Passenger Survey, KPMG analysis

Average accommodation expenditure by business visitors to the Island (shown in Figure 4.3) has risen over the time period (as is also the case for leisure visitors), however, appears to have sharply fallen (by 21% in inflation-adjusted prices) between 2018 and 2019 – in line with total expenditure. The number of business arrivals over the same time period also declined, but less substantially, suggesting that trips to the Island for the purpose of business continued between 2018 and 2019, but the propensity – or need – to stay overnight might have decreased.

Figure 4.3 Inflation Adjusted Average Accommodation Expenditure, 2009-2019



Source: Isle of Man Passenger Survey, KPMG analysis

All other areas of expenditure on average, have also decreased (by approximately 9% in inflation-adjusted prices) for business travellers since 2017.

As business travel has been significantly affected through the COVID-19 pandemic, particularly given the Isle of Man's border closures, new dynamics in terms of ways of working and conducting more business meetings virtually may reduce the need for business travel in future. If this is the case, it is likely that business visitors' expenditure on the Island will reduce in absolute terms if there are overall fewer business arrivals and the expenditure of each continues the downward trajectory seen in the data over recent years.

4.3.2 Digital Infrastructure

Digital connectivity is a crucial aspect of creating a fertile business environment. **Access to a fast and reliable internet network is critical for businesses** seeking to connect with customers and clients, as well as improve their productivity.[85] It also helps to facilitate access to workers and enables new business opportunities to be created.

From a business perspective, having high quality, reliable digital connectivity is likely to have become increasingly important over recent years as more economic activity has moved online. This trend has also been accelerated through the COVID-19 pandemic making it crucial for the Isle of Man to perform well in this area to be able to attract and retain business and to enhance their productivity.

Chapter 7 of this report examines these issues in detail under the strategic theme of a tech-enabled economy. The assessment is not repeated in this Chapter, although it is directly relevant to the attractive to business theme.

[85] KPMG. (2020). 'UK regions: a framework for growth'.

In summary, that Chapter reports that the Isle of Man has sizeable technology-related economic activity relative to the Island's economy, with the eGaming and ICT sectors together accounting for c. 25% of GDP and c. 6% of on-Island employment. Further, the small size of Island makes rollout of wireless networks relatively simple, with good coverage of the population/land area achieved; for example, the current 4G network provides coverage to over 99% of the population. However, the rollout of Fibre to the Premises (FTTP) on the Island has been of some concern, with stakeholders indicating that many areas do not yet have high-speed connectivity. Additionally, stakeholders observed that digital skills of young people are lacking from the perspective of business needs, and relatedly, the Island has difficulty attracting from off-island young professionals with digital skills.

4.3.3 Business premises

Provision of office space and other business premises is another important indicator of business-readiness. While planning regulations perform important cultural and national heritage protection functions, **shortages of office space could represent a constraint** in some areas and subsequently prevent opportunities for growth.[86] This section therefore considers the use of floorspace on the Isle of Man and draws comparisons with the UK. Comparable data for Jersey and Guernsey was not available.

Figure 4.4 shows a breakdown of floorspace usage on the Isle of Man and the UK using the latest available data.[87]

From this it can be seen that office space accounts for over a third of total floorspace per capita on the Isle of Man (approximately 2.7sqm): almost twice as much as in the UK (1.5sqm). However, it was noted in workshops and interviews with stakeholders that there are limited high-quality commercial facilities readily available on the Island, which could act to dissuade businesses considering relocating to the Island. Most recently the successful letting of quality renovation projects in Douglas demonstrates the demand for high-quality office stock, as noted in stakeholder feedback. More positively, however, it was highlighted that the Island has a reasonable amount of space for development, so this lack of commercial facilities may be less of an issue for those businesses looking to build their own facilities.

The largest differential in terms of the floorspace make-up of business premises between the Isle of Man and the UK is the respective floorspace usage for retail. The proportion for retail in the UK in 2012 is approximately six times greater than on the Isle of Man in 2016. On the Isle of Man, retail floorspace accounts for approximately 4.4% of total floorspace. This is likely to reflect the relatively low proportion of overall economic activity in the retail sector in terms of its GDP contribution (2% of total GDP in 2019/20), although we note that the retail sector accounts for a much higher proportion of the Island's employment (13% in 2019/20). We also note that the different time periods for the UK and Isle of Man data affect this comparison, particularly given trends affecting the retail sector over recent years.

In terms of 'Other' floorspace on the Isle of Man, the breakdown is as follows:

— Food and drink: 0.16 sqm per capita;

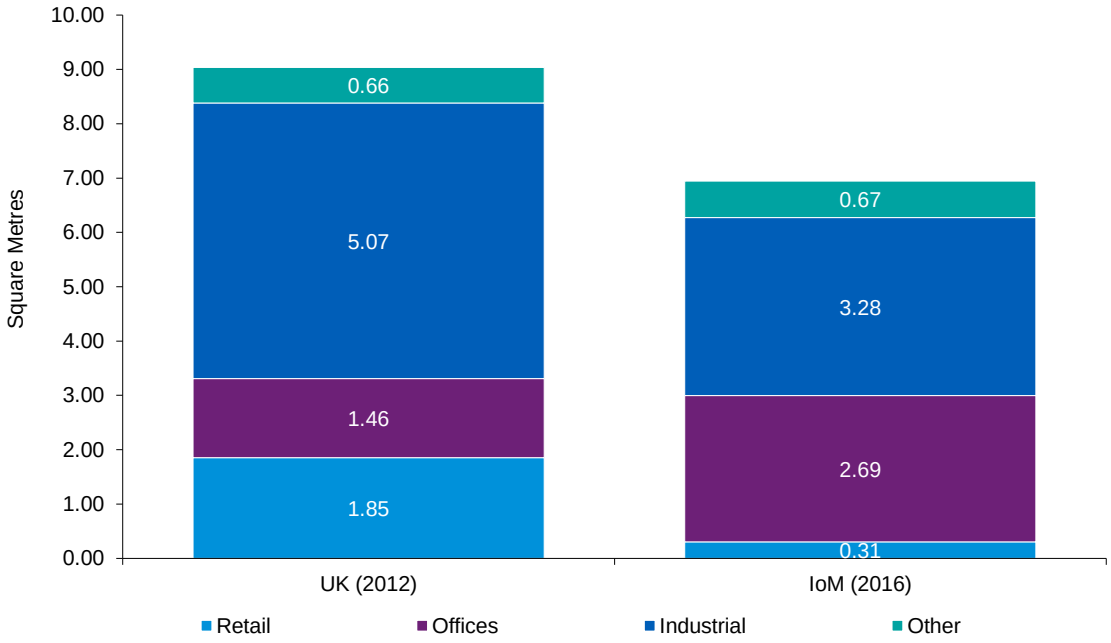
[86] KPMG. (2020). 'UK regions: a framework for growth'.
[87] The differing and historic nature of the time points is acknowledged; however, it has been deemed suitable for use as a proxy in this case given that rapid changes in use of floorspace over time are not expected in either jurisdiction.

— Leisure: 0.07sqm per capita;

— Non-residential institutions: 0.23sqm per capita; and

— Vacant: 0.21sqm per capita.

Figure 4.4 Floorspace per capita by Use Type: IoM 2016 and UK 2012



Source: IOM Employment Land Review 2016, KPMG analysis

It will be important to consider the potential changing use of floorspace post-COVID and the rise of remote working which could present an opportunity for alternative use of former office space on the Isle of Man, subject to return-to-work policies. It will be similarly important to consider alternative uses of former retail spaces following COVID-19, with respect to possible retail closures and the evolution in visitors to the Island and how this may impact overall demand for retail services.

Section 4.5 (Innovation and Business Dynamism) presents an overview of the business measures that were taken in response to COVID-19. This data reveals that 43.7% of businesses asked staff to work from home during the height of the pandemic[88] (the most widely used measure to cope with the impact of COVID-19), suggesting that it is possible for many employees to work from home, which could become a more permanent way of working on the Island.

Further conclusions regarding the Isle of Man's use of floorspace can be drawn once a post-COVID normalised steady state is reached.

[88] May 2020 – July 2020.

4.3.4 Business related services

Data from the Isle of Man Business Confidence survey (2017-2019)[89] captures **absolute levels of user satisfaction** in terms of **quality** and **cost** of on-island **business-related services**, including:

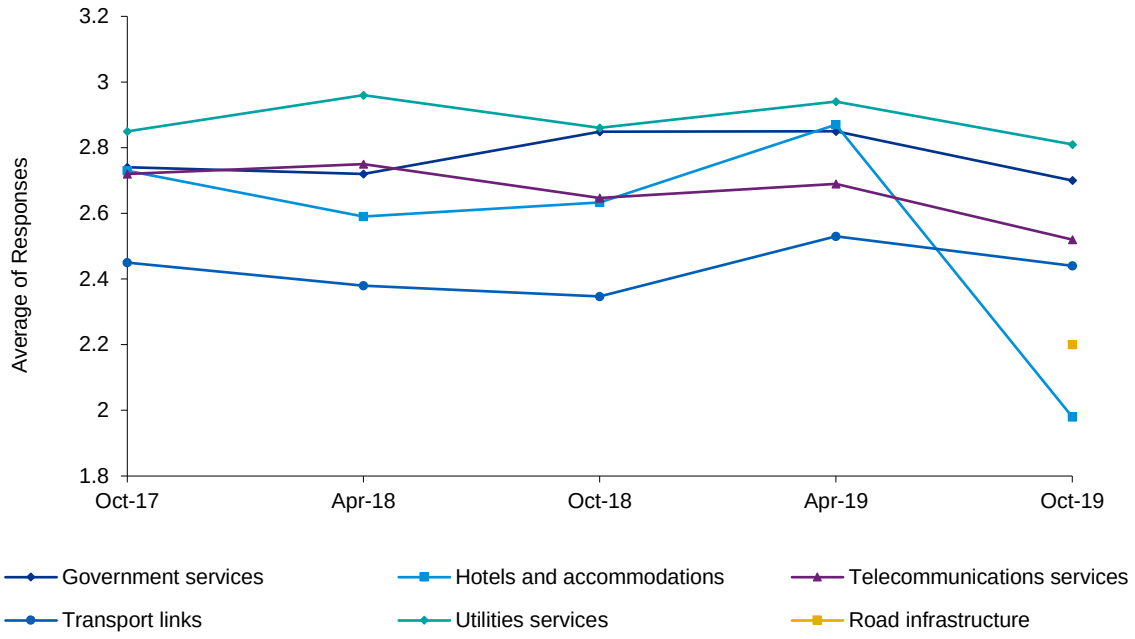
- Hotels and accommodation;
- Telecommunication services;
- Transport links;
- Road infrastructure;
- Government services; and
- Utilities services.

These satisfaction levels are shown in Figure 4.5 (relating to quality of services) and Figure 4.6 (relating to the cost of services). It can be seen that the average level of absolute user satisfaction in terms of quality is decreasing across *all* types of services, though absolute levels of satisfaction regarding cost of services is more varied.

[89] Isle of Man Business Confidence Surveys, 2017-2019. It should be noted that sampling differences are likely to exist across the different survey waves between 2017 and 2019. This should be kept in mind when considering this part of the analysis and results should be taken as indicative only. The Isle of Man Business Confidence Survey is a survey of local employers, designed to gauge business activity, optimism, planning, staffing and investments for all sectors of the economy (IOMG, 2017). The response rates for the years covered were: 2017B: 39.2%; 2018A: 36.7%; 2018B: 39.7%%; and 2019A: 39%; 2019B: 42%.

Figure 4.5 Quality of business-related services: 2017 – 2019

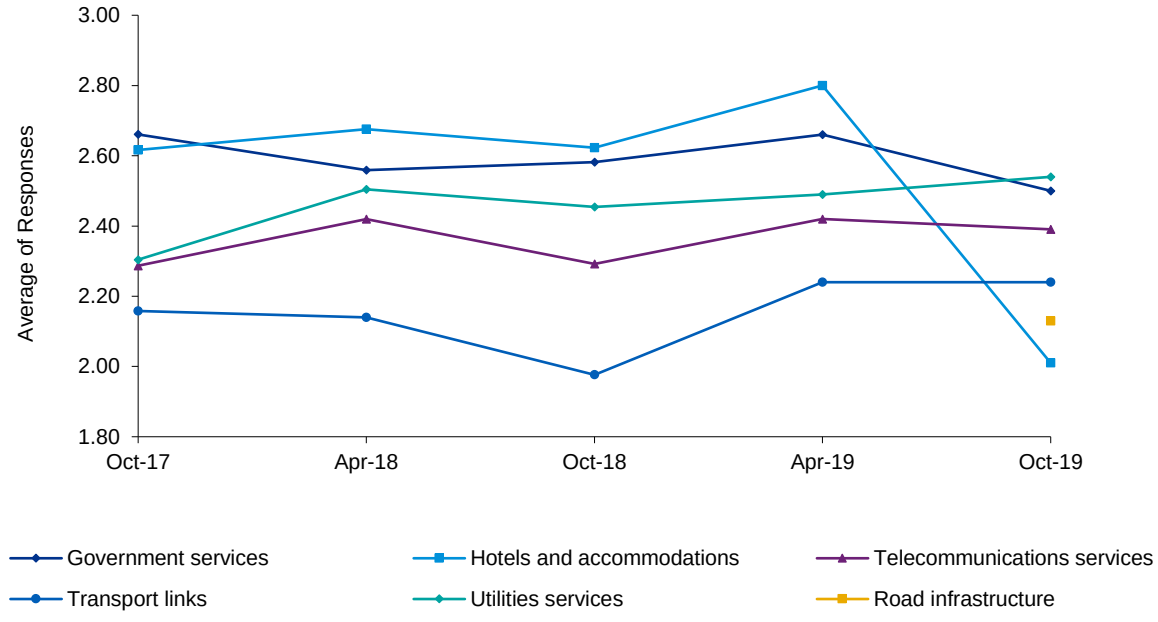
Average of responses (1 = least satisfied, 4 = most satisfied)



Source: Isle of Man Business Confidence Surveys, KPMG analysis

Figure 4.6 Cost of business-related Services: Oct 2017 – Oct 2019

Average of responses (1 = least satisfied, 4 = most satisfied)



Source: Isle of Man Business Confidence Surveys, KPMG analysis

The most noticeable decline in satisfaction levels between 2017 and 2019 (both in terms of quality and cost) is in relation to hotels and accommodation services. This is a particularly important consideration for businesses where clients/customers and off-island employees need to travel to the Isle of Man. Declining levels of satisfaction regarding hotel and accommodation quality are likely to indicate that the Isle of Man is an increasingly less attractive destination for business visitors. This could lead to further negative implications across the wider Manx economy, for example in the hospitality sector, if guests choose not to stay on the Island for business activity or wish to visit on business due to the poor facilities available.

Satisfaction regarding the quality of telecommunication services has also decreased between October 2017 and October 2019. This is particularly concerning as it covers the period shortly before COVID-19 forced an increase, for example, in remote working and the use of online providers for both goods and services – both of which require robust telecommunication systems. Satisfaction with the cost of services, however, has marginally improved. Adoption of online service use, and online delivery and collection services is considered in Section 4.5 (Innovation and Business Dynamism).

User satisfaction regarding the quality of transport links appears to have remained broadly constant across the time series, and in October 2019 was marginally higher than the level of satisfaction with road infrastructure. Satisfaction regarding the cost of transport links has increased which is positive, however, in absolute terms, there is room for improvement in both the level of satisfaction for quality and cost of transport links, with only approximately 3% of respondents in October 2019 reporting 'high' levels of satisfaction (4 – 'very satisfied') in term of quality and 2% in terms of cost.

Feedback during stakeholder sessions noted that costs of electricity were high on the Island compared to the UK and could prove prohibitively expensive for businesses with high electricity usage. It was also noted that the lack of significant green power options was an issue for businesses looking to their ESG performance.

4.4 People and skills

As noted in KPMG (2020) [90] and discussed in Chapter 5 workers and business owners will be inclined to live in places that provide high-quality amenities and services – including education and upskilling opportunities. From a business perspective it is particularly important that they have access to the appropriate stock of employees and that these employees have the relevant skills and experience to enable them to perform the required business roles effectively. When choosing a new business location, companies are likely to take these factors in to account, and, when established in a place, businesses will need an effective workforce in order to operate productively and to maintain or grow output.

An assessment of the current stock of business-related skills among young workers and employees on the Island is important for determining where gaps may exist, as well as for identifying opportunities for development. The Work Bank (2021) explains that global mega trends – such as the increasing role of technology, climate change, demographic evolution,

[90] KPMG. (2020). 'UK regions: a framework for growth'.

and globalisation of value chains – are changing the nature of work and skills demand.[91] It states that the skills required by today's labour market include:[92]

- **Cognitive skills**: the ability to understand complex ideas, adapt to the environment and learn from experience;
- **Socio-emotional skills**: including interpersonal, leadership and teamwork;
- **Technical skills**: knowledge, expertise, and interactions necessary to perform a specific task; and
- **Digital skills**: including (among others) the ability to access, manage, understand, communicate, and evaluate information safely.

Some data for the Isle of Man is available at present to assess the availability of relevant skills to support the Island's businesses, as presented in this section of the report. However, this does not provide a complete, detailed view of the current and future skills requirements of the Island's businesses or of the solutions needed to address any skills gaps. Further detailed work would be required to provide this.

One of the sources of evidence that is currently available is the Isle of Man Business Confidence survey (2017-2019). This considers a number of the above factors when asking respondents about the extent to which they believe young people on the Island have necessary skills.

As shown in Table 4.2, evidence from this survey reveals that an increasing proportion of respondents **do not** think that young people on the Isle of Man have the necessary skills – rising from 18% of business respondents stating this in October 2017 to 31% in October 2019. In line with this, the proportion of respondents that *do* believe young people have the necessary skills is decreasing; so too is the proportion who think that young people 'somewhat' have necessary skills.

Table 4.2 Respondents think young people on-island have necessary skills: Oct 2017 – Oct 2019

Response	Oct-17	Apr-18	Oct-18	Apr-19	Oct-19
No	18%	25%	35%	25%	31%
Somewhat	65%	55%	47%	60%	55%
Yes	17%	19%	18%	14%	15%

Source: Isle of Man Business Confidence Surveys, KPMG analysis

In 2019, the proportion of respondents who do not think that young people have necessary skills is more than twice as large as the proportion of respondents who do think young people have necessary skills.

This trend is a cause for concern – especially with an ageing population on the Isle of Man (see Section 3.4.1) as more experienced older workers leave the workforce there will be a

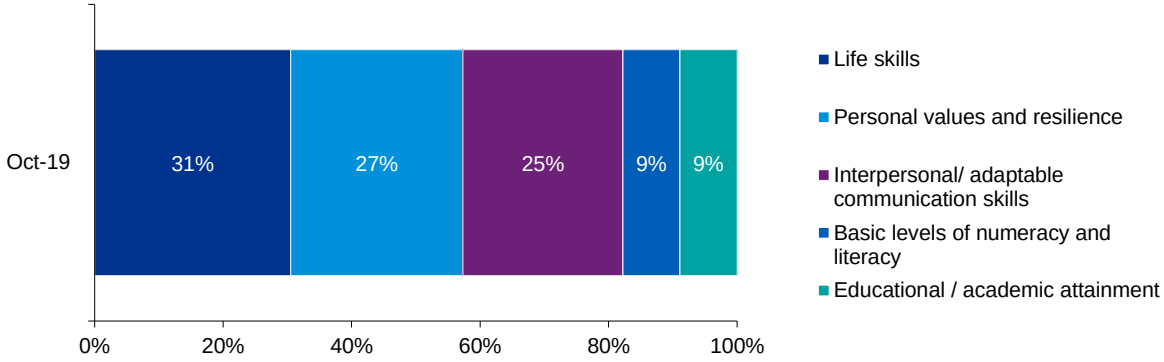
[91] Work Bank. (2021). 'Skills Development'.
[92] Ibid.

need for the younger population to fill this gap if business output and productivity of businesses on the Island is to be maintained.

Figure 4.7 presents a breakdown of the specific skills that business respondents to the October 2019 Business Confidence Survey reported as missing among young people on the Island. Life skills accounted for the largest proportion of responses at approximately 31%, followed by personal values and resilience (27%) and interpersonal/adaptable communication skills (25%).

The categories pertaining to skills that are traditionally gained through academic and educational course, such as numeracy and literacy, accounted for the smallest proportion of responses which is encouraging with respect to the education system on the Island, and consistent with the high proportion of post-secondary university placements, as discussed in Section 5.4.2. Nevertheless, there is still opportunity for improvement, with around 20% of respondents identifying young people as missing these skills.

Figure 4.7 If respondents do not think that young people on the Island have necessary skills: Skills young people are missing: Oct 2019



Source: Isle of Man Business Confidence Surveys, KPMG analysis

In accordance with the above, Table 4.3 sets out the results from the Business Confidence Survey relating to whether businesses perceive the education system to be responsive to the needs of the labour market.

Table 4.3 Respondents think the education system is responsive: Oct 2017 – Oct 2019

Response	Oct-17	Apr-18	Oct-18	Apr-19	Oct-19
No	34%	33%	46%	32%	29%
Somewhat	50%	49%	30%	48%	53%
Yes	16%	18%	24%	20%	18%

Source: Isle of Man Business Confidence Surveys, KPMG analysis

The results have fluctuated over the period 2017 to 2019 but indicate a slight reduction in the proportion of respondents considering the system not to be responsive. This remains high, however, at 29% in October 2019. While the large majority have reported that it is responsive, or is somewhat responsive, the results suggest that more can be done in this area to provide young people with the skills needed by business on the Island. While wider data shows that there is a high number of post-secondary placements at universities outside the Isle of Man

(as discussed in Section 5.4.1), being able to retain these individuals on the Island post-education will be important to benefit from the skills that these placements will help to deliver.

While the development of life skills, personal values and certain interpersonal skills may be less readily gained through the traditional education system, there could be opportunities to integrate work placements, internships and/or apprenticeships into existing academic courses with a view to developing those skills in industry settings alongside core qualifications. This is especially important to consider if the evidence suggests those skills are in decline among young people. Both apprenticeships (particularly those at a higher level) and on-the-job training have been associated with improved wage potential for participants, with the former also providing evidence of improved skills levels.[93]

According to the World Economic Forum (2020), there is a "misconception" that society will need to develop technological or scientific skills to succeed. It considers that there is also a growing need for people to develop interaction skills, including creativity, collaboration, and impersonal dynamics.[94] In view of this, taken together with the evidence from the Business Confidence Survey, a clear opportunity exists to develop schemes in support of these skills among young people on the Island.

Encouragingly, data from the survey presented in Table 4.4 reveals that the majority of business respondents consider there are no skills gaps among their employees.[95] In October 2019, 63% of respondents reported no skills gaps, a marginal improvement from 61% in October 2017. The area with the largest gap is reported to be in the technical skills category (20% in October 2019), followed by leadership/management skills (14%) and interpersonal/customer services skills (13%).

Table 4.4 Skill Gaps amongst employees: Oct 2017 – Oct 2019

Skills	Oct-17	Apr-18	Oct-18	Apr-19	Oct-19
None	61%	58%	52%	57%	63%
Technical skills	23%	26%	22%	18%	20%
Interpersonal/ customer services skills	18%	17%	15%	16%	13%
Leadership/ management skills	15%	12%	13%	18%	14%
Other skills	9%	13%	9%	12%	9%

Source: Isle of Man Business Confidence Surveys, KPMG analysis

The challenges faced by business in recruiting people with the right skills were among the most consistent messages received throughout our engagement with the business community and across most sectors. In particular, the following points were raised:

— There were reports of shortages of entry-level staff, with young people leaving school or college often considered not equipped with the required technical or soft skills to excel in their roles.

[93] What Works Centre (2015, 2016) in KPMG (2018). UK regions: a framework for growth'.
[94] World Economic Forum (2020). 'We need a global reskilling revolution – here's why'.
[95] It should be noted that this is in references to **employees** specifically, rather than '**young people**' who were the subject of survey questions reviewed earlier in this section.

— There were reported difficulties in attracting and retaining young professionals in many sectors. This included both encouraging those who had grown up on the Island to return after graduation and attracting new individuals to relocate to the Island.

— While the Island was often seen as an attractive location for those who are seeking a safe environment or who love the outdoors – such as older adults and those with young families – it was recognised that the lifestyle on the Island was not so attractive to many younger adults. For example, issues around the extent and quality of nightlife and indoor leisure options were raised.

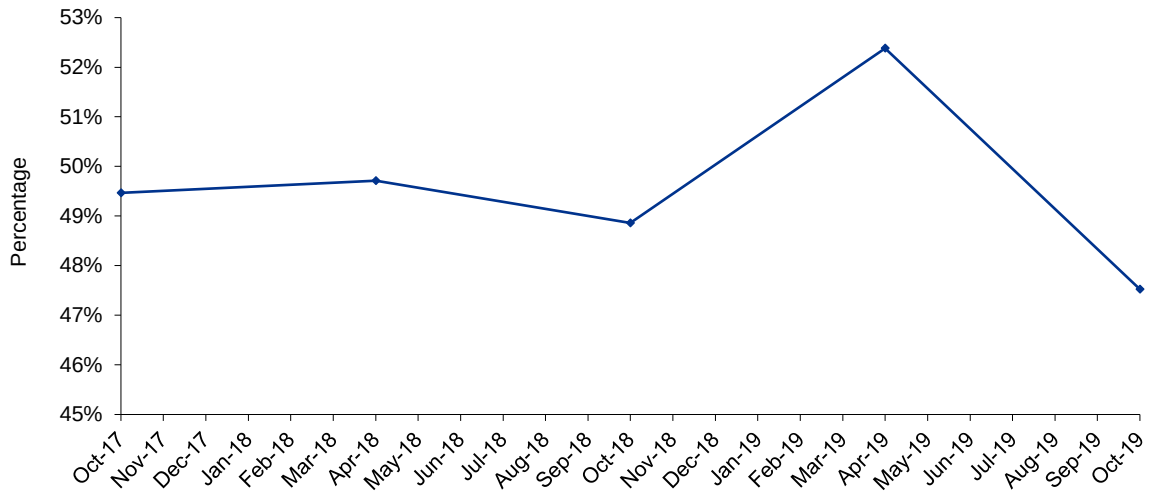
— For those considering making the Island their home, the cost of travel to/from the Island is often viewed negatively. Given few direct flights from the Island to typical holiday locations the costs of connecting flights via a major UK hub could represent a significant additional cost for those wishing to travel beyond the UK. Similarly, those wishing to visit family in the UK would usually face additional costs travelling from the Island compared to internal travel costs if they lived in another part of the UK mainland.[96]

— It was also noted that for those households on lower and middle incomes (up to around £50-60k household income) – which would include those at an early stage in their career – there was little tax advantage to living on the Island; a sharp contrast to the tax advantages enjoyed by workers on higher incomes. This is explored further in Section 5.3. Combined with the housing issues referred to in Sections 5.6.5 and 5.6.6 – whereby housing on the Island is generally more expensive than in the UK, and in short supply with limited new building occurring - the Island's businesses were seen as facing significant challenges in being able to attract and retain workers.

Data from the Isle of Man Business Confidence Survey show the level of skills shortage experienced among businesses in the October 2017 to October 2019 period. In this period, the level of skill shortage was consistently at approximately 50%, with a slight increase to 52% in April 2019, and a slight decrease to 48% in October 2019.

[96] While the Island has previously had regular air services to Dublin, current lack of regular air or sea links to Ireland has also been raised as a potential issue for Irish individuals and businesses considering the Island as a home.

Figure 4.8 Is your business experiencing skills shortages? 2017- 2019



Source: Isle of Man Business Confidence Surveys, KPMG analysis

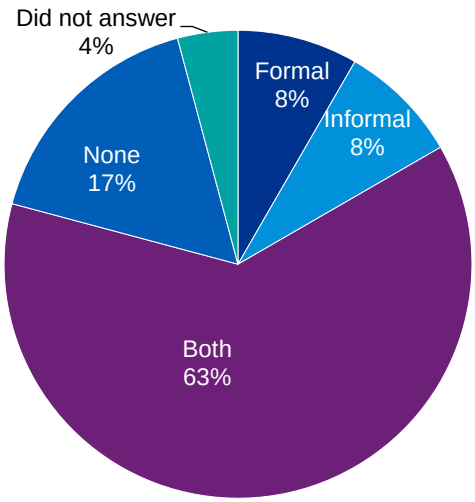
Taken together with data reported in Table 4.4 regarding specific skills gaps amongst employees – and in view of the opportunity to further improve the responsiveness of the current on-island education system – there appears to be a case for further development of courses and training programmes in support of the areas identified in order to reduce the on-island skills shortage and maintain the Island's attractiveness as a destination for business.

In addition to the above, further evidence has been gathered from the Isle of Man Government Business Surveys conducted to gather additional evidence for this report.[97] The results are presented below and, in general, support the inferences drawn from the secondary data assessed in this section. It should be noted however, that the limited response rate of the survey means that the results should not be considered representative of all businesses on the Island.

Figure 4.9 shows the breakdown of training types provided by businesses on the Isle of Man in FY 2020/21. It can be seen that approximately 79% of respondents offered some form of training – either formal, informal or both, with an equal split offering only formal, or only informal training (8%).

[97] The Isle of Man Government 'Our Big Picture' Business Surveys were in the field between August and October 2021. Two surveys were issued to gather data from two perspectives and across two broad topics: Operations; and Finance. The Operations survey had a response sample size of 72 and the Finance survey had a response sample size of 75.

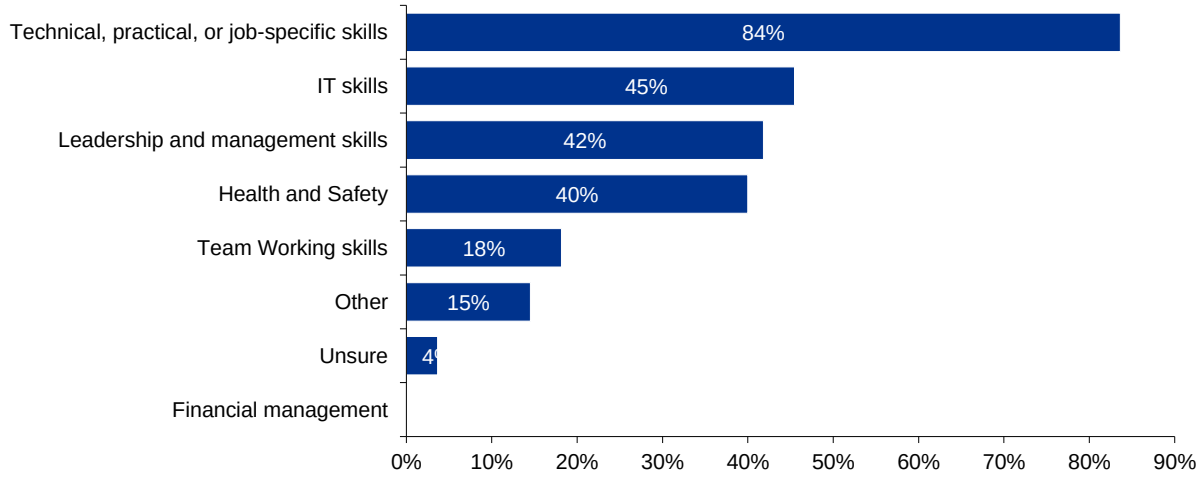
Figure 4.9 In FY 2020/21 did you arrange or fund training?



Source: Isle of Man Government Our Big Picture Survey 2021

Of those who responded and who arranged employee training, the most commonly offered type of training was **technical, practical or job-specific** training, reported by 84% of survey respondents as shown in Figure 4.10. This is encouraging in light of the evidence of technical skills shortage among employees, as noted in Table 4.4, and could support the continued reduction in size of the shortage, which data suggests has been declining since 2017.

Figure 4.10 What subjects/disciplines did the training that you arranged or funded in FY 2020/21 cover?

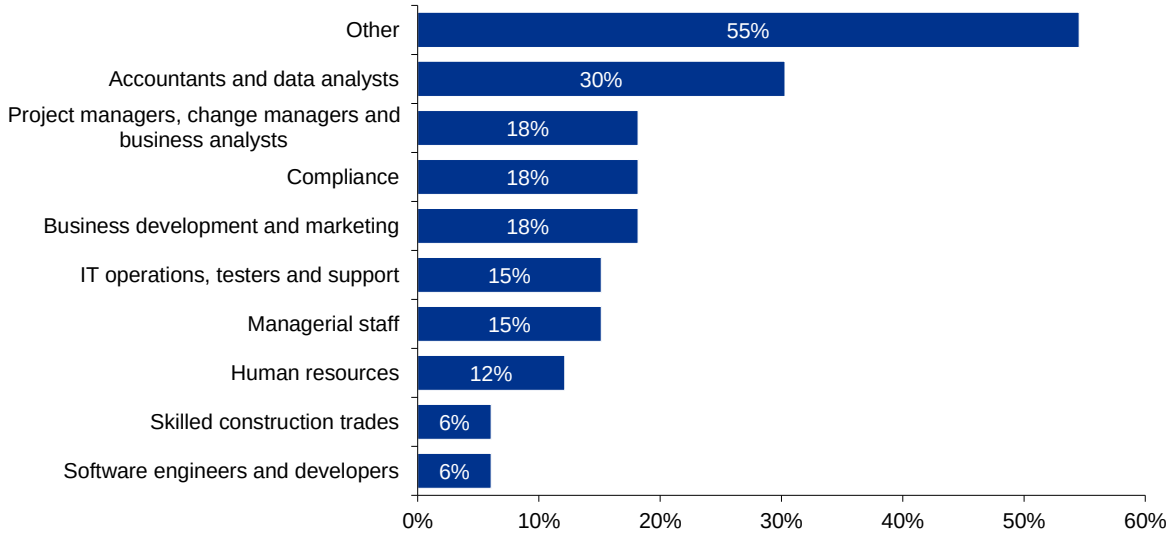


Source: Isle of Man Government Our Big Picture Survey 2021

Of those businesses who responded, approximately 46% indicated a skills shortage in FY 2020/21, with the biggest gaps reported in **accountants and data analysts** (30% of respondents), together with **project managers, change managers and business analysts**, **compliance**, and **business development and marketing** (18% of respondents for each category), as shown in Figure 4.11.

In the absence of on-island skills availability in these areas, it is possible that businesses on the Isle of Man have been recruiting off-island, and the reports of skills gaps suggests that an opportunity exists to develop upskilling and training on-island. This might also incentivise and encourage individuals to remain on the Isle of Man, where they might otherwise have pursued off-island opportunities as some of the migration data has suggested.

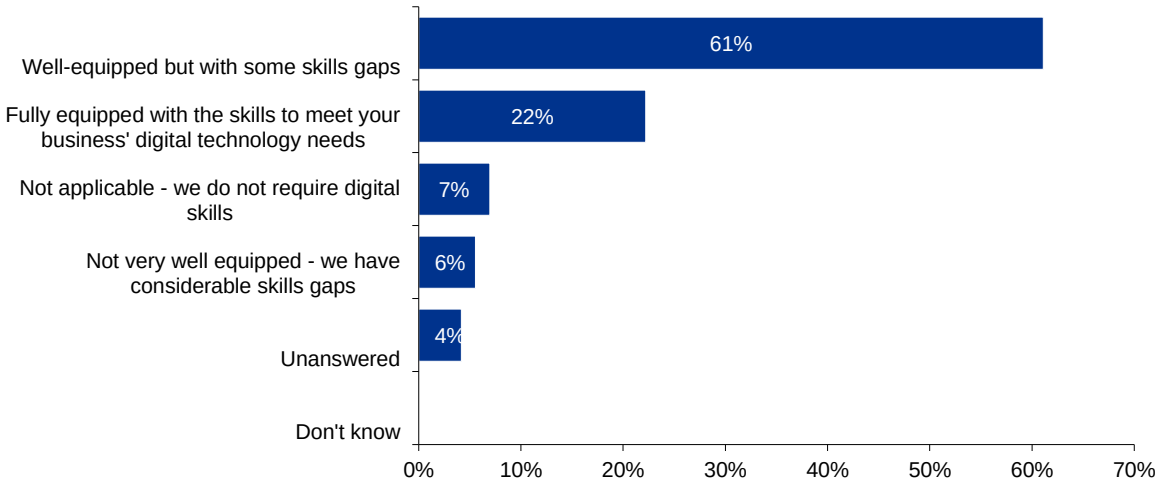
Figure 4.11 In what areas did your business experience the greatest skills shortages in FY 2020/21?



Source: Isle of Man Government Our Big Picture Survey 2021

Figure 4.12 sets out survey responses pertaining to digital skills among employees. It can be seen that the majority (61%) of businesses reported that their employees are well-equipped to meet their businesses digital technology needs, but with some skills gaps. Approximately 22% of businesses reported their employees are fully equipped with the skills required to meet their business' respective technology needs.

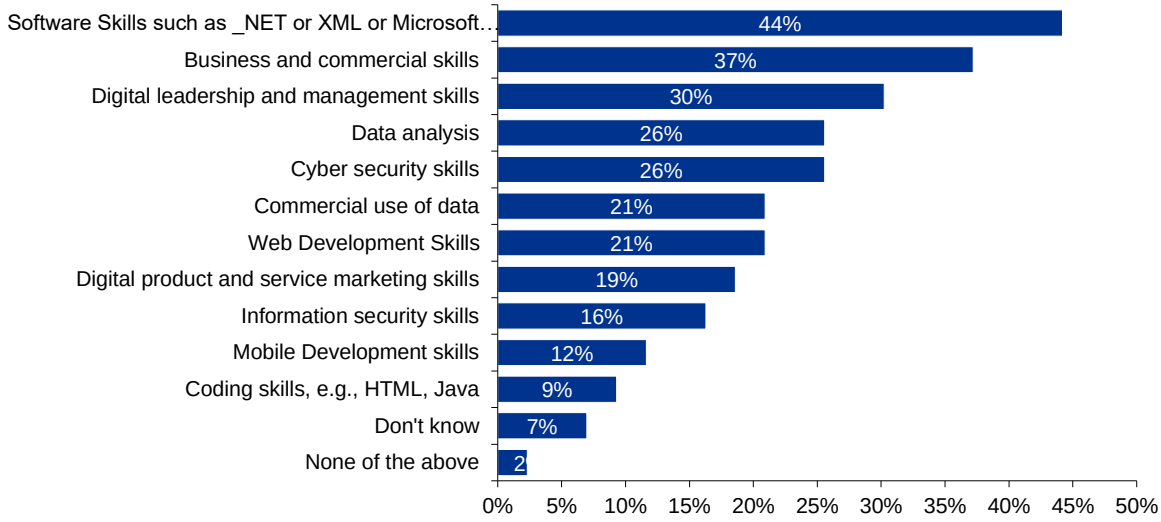
Figure 4.12 In terms of digital skills, in general how well equipped are your employees to meet your businesses digital tech needs in FY 2020/21?



Source: Isle of Man Government Our Big Picture Survey 2021

Of those respondents who reported some or considerable digital skills gaps, the most commonly selected specific digital skills were **software skills** – such as **NET**, **XML** or **Microsoft SharePoint** (44%) and **business** and **commercial skills** (37%).

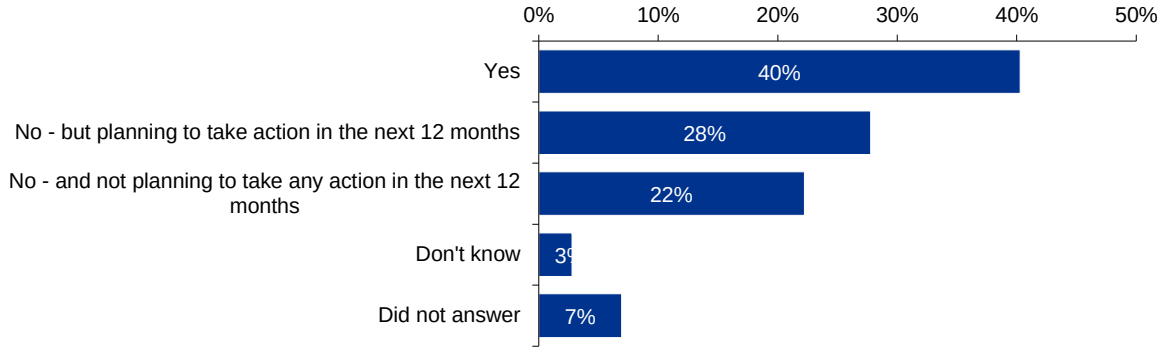
Figure 4.13 What type of digital skills are needed to enable your employees to be fully equipped to utilise digital technologies to meet your business' needs in FY 2020/21?



Source: Isle of Man Government Our Big Picture Survey 2021

In terms of action that is being taken to develop current employees' digital skills, approximately 40% of business respondents said that action was being taken, and a further 28% said that they were planning to take action in the next 12-months (Figure 4.14).

Figure 4.14 In FY 2020/21 is your business taking any action to develop your current employee's digital technology skills, for example providing training?



Source: Isle of Man Government Our Big Picture Survey 2021

4.5 Innovation and business dynamism

The ONS (2020) notes that a steady rate of business creation and closure is necessary for an economy to grow in the long run because it allows new ideas to flourish. A lack of business dynamism could lead to halted productivity and wage growth and therefore the survival of unprofitable firms.[98]

In Section 3.5 we present data relating to the stock of businesses in the Isle of Man over time, overall as well as at a sector level. The size of firms by number of employees is also assessed.

While data relating to business survival is not available, data on the stock of businesses suggests that business formation has been increasing at a faster rate than business closures for companies employing individuals (Employer firms) over the period Q1 2015 to Q1 2021. Over this timeframe, the number of employer firms increased by 11%, from 3,783 to 4,275.

The reverse trend is observed in terms of the total number of companies registered on the Island, which declined between 2010 and 2020 by approximately 13.6% from 29,080 to 25,127. However, as only a relatively small proportion of the total number of companies registered employ people on Island – 4,275 of the total 25,127 – and for those employer businesses there was a growth in their number (at least in more recent year), this does not suggest an underlying issue with business performance and dynamism on the Island and is more likely to be linked to changes in company registration locations.

Innovation is a vital component of future growth, productivity, and future standards of living.[99] When new technologies are developed and applied, it is possible to generate greater output with the same input, and thus more goods and services are produced, stimulating wages and business profitability.[100]

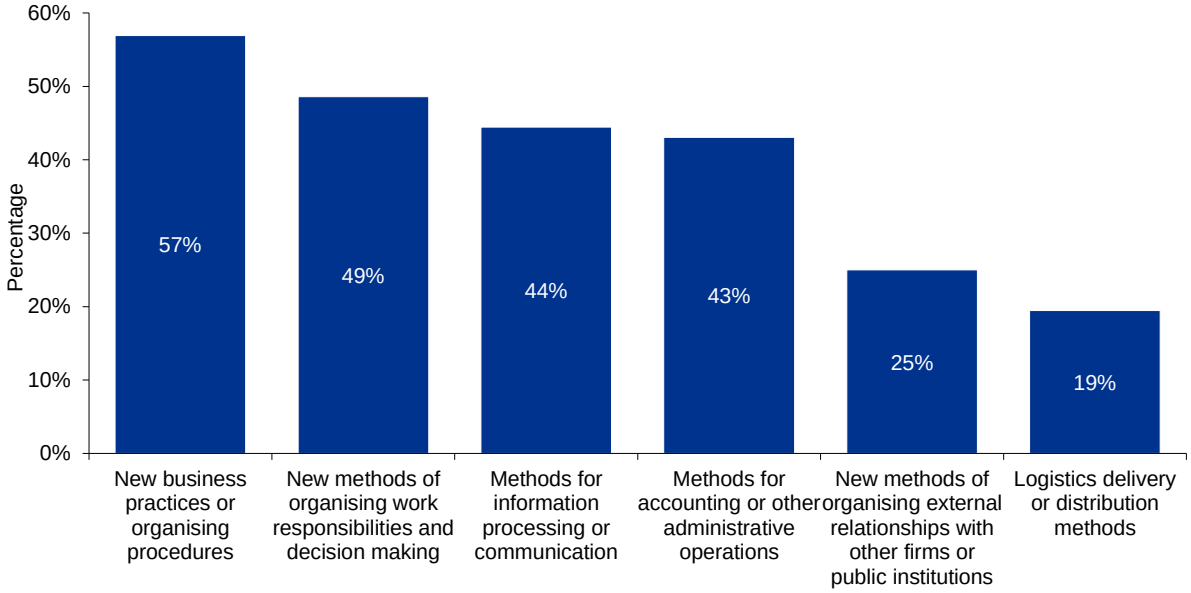
Evidence regarding innovation and process improvements has been gathered through the Isle of Man Government Business Surveys, which were carried out for the purpose of this report.

[98] ONS (2020). 'Business dynamism in the UK economy'.
[99] KPMG (2020). UK regions: a framework for growth'.
[100] European Central Bank. (2017). 'How does innovation lead to growth?'.

While responses to the survey were limited, it provides some indication of the extent of innovation activity that may be taking place amongst the Island's businesses.

Figure 4.15 sets out the proportion of business respondents that made major changes for the purpose of innovation. It can be seen that over half the respondents reported making changes over the last three years regarding new business practices or organising procedures, and just under half reported new methods of organising work responsibilities and decision making. The least commonly selected changes were regarding logistics delivery or distribution methods (19%) and changes in support of new methods of organising external relationships with other firms or public institutions (25%).

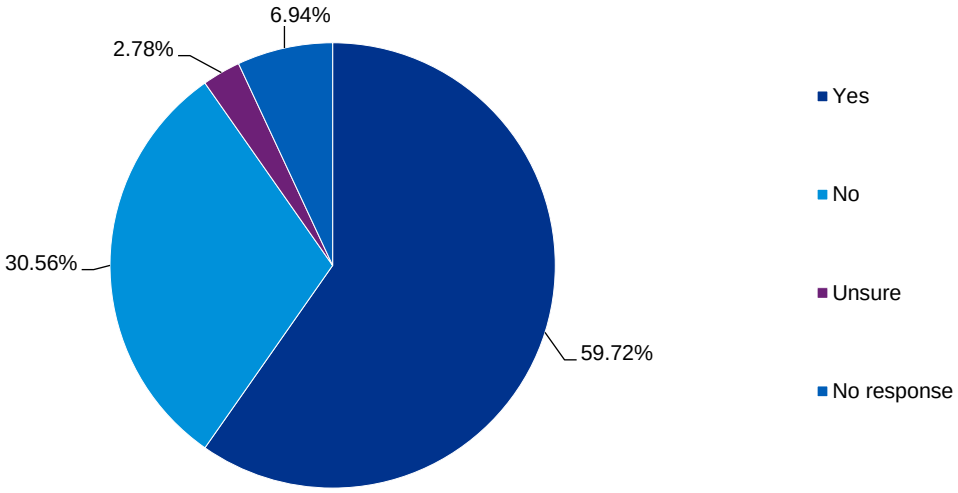
Figure 4.15 In the last three years, did your business make major changes in the following areas for the purposes of current or future innovation?



Source: Isle of Man Government Our Big Picture Survey 2021

When asked about the introduction of new or significantly improved goods or services in the last three years, approximately 60% of respondents stated that they **had** made such introductions, and 31% stated that they **had not** as shown in Figure 4.16.The most commonly selected reasons for ***not*** doing so were: a lack of need due to previous innovations (41% of respondents), and/or no need due to market conditions (41%).

Figure 4.16 Has your business introduced any new or significantly improved goods or services in the last three years?

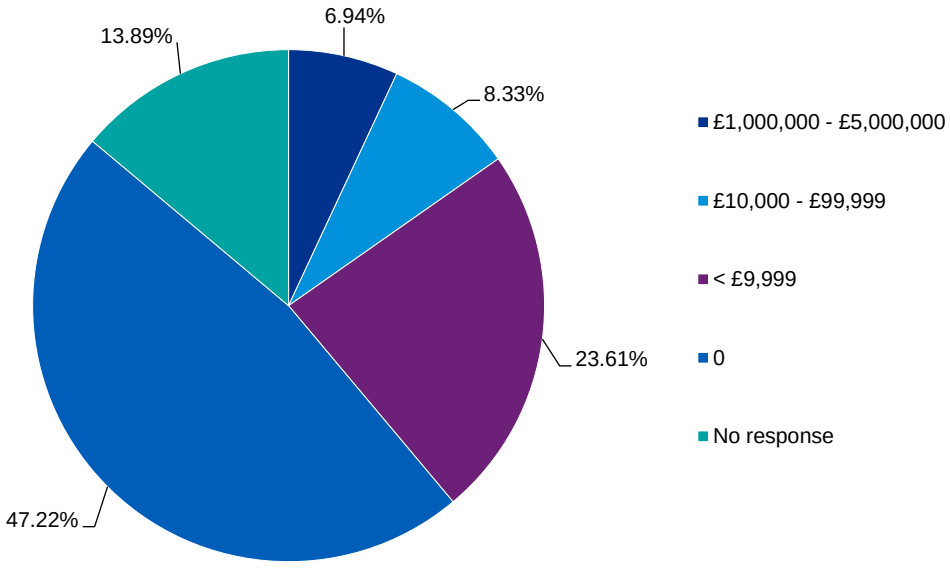


Source: Isle of Man Government Our Big Picture Survey 2021

In line with the above, when asked about the introduction of new or significantly improved processes for producing or supplying goods and services in the last three years, approximately 54% of respondents said they **had** made such introductions, and 33% said they **had not**. The two most commonly selected explanations were the same as those pertaining to new goods and services: the lack of need owing to previous innovations (33%), and with respect to market conditions (33%).

Figure 4.17 sets out business spending on research and development (R&D) in FY 2020/21. It shows that almost 50% of respondents spent nothing on R&D and approximately 24% spend less than £10,000. Approximately 7% of respondents spent between £1,000,000 and £5,000,000 on R&D in FY 2020/21.

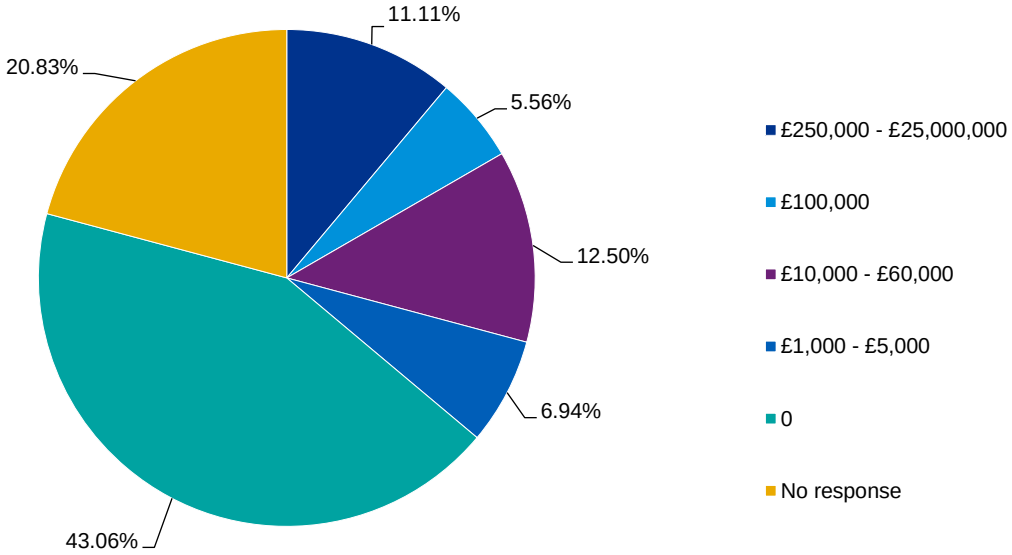
Figure 4.17 In FY 2020/21, how much did you spend on research and development?



Source: Isle of Man Government Our Big Picture Survey 2021

In terms of forward-looking R&D spend over FY 2021/22 and 2022/23, the proportion of respondents who intend to spend nothing is approximately 43%, slightly lower than the proportion who reported an actual spend of zero in FY 2020/21, as shown in Figure 4.18.

Figure 4.18 Over FY 2021/22 and 2022/23, how much do you intend to spend on research and development?

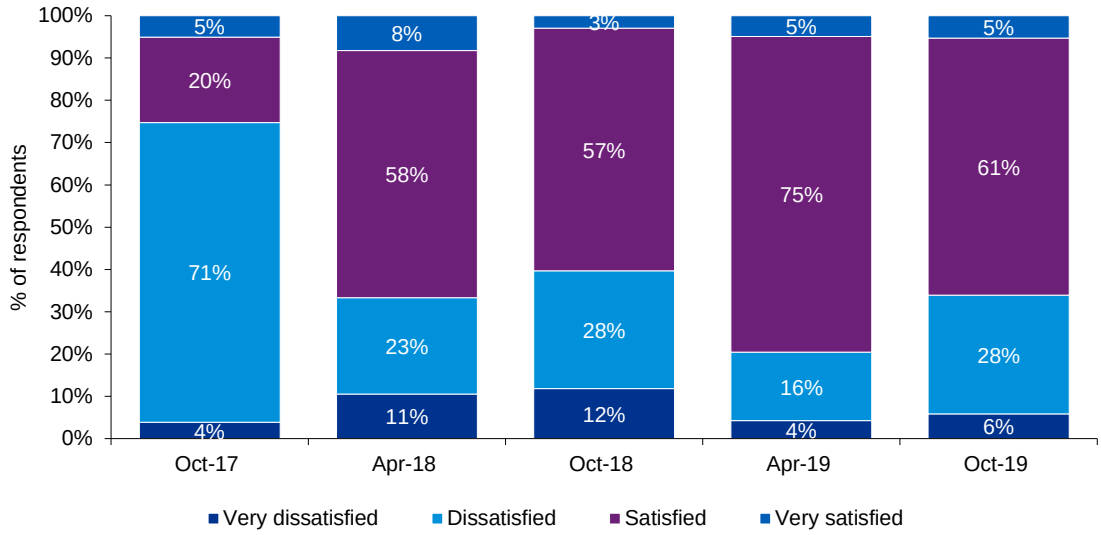


Source: Isle of Man Government Our Big Picture Survey 2021

It is also important to understand the extent to which businesses on the Isle of Man feel they are well supported with respect to the development of innovation and emerging technologies.

Data presented in Figure 4.19 indicates that the level of satisfaction with support for innovation and emerging technologies has marginally increased over recent years. In October 2017 only 20% of respondents to the Isle of Man Business Confidence Survey stated that they were satisfied with the level of support, compared to over 70% who stated that they were dissatisfied. In contrast in October 2019, over 60% of respondents reported being satisfied or very satisfied.

Figure 4.19 Support for Innovation and Emerging Technologies, 2017 - 2019

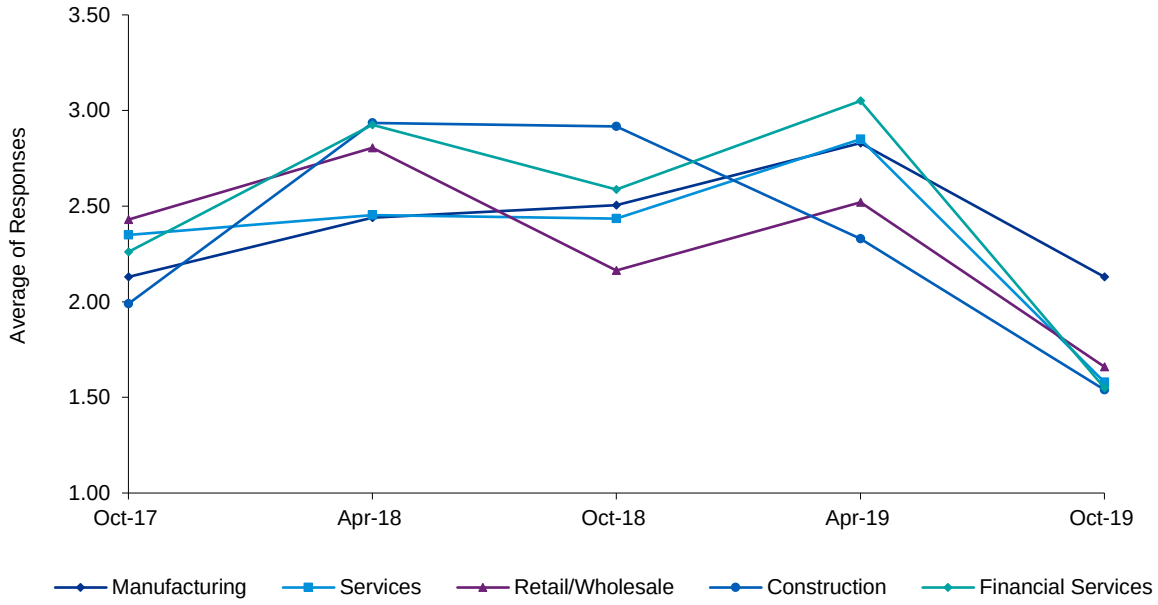


Source: Isle of Man Business Confidence Surveys, KPMG analysis

However, the survey evidence relating to support for innovation and emerging technologies for businesses within certain sectors presents a different picture. As the data reported in Figure 4.20 shows for the five sectors covered (manufacturing, services, retail/wholesale, construction, and financial services) there have been declining levels of satisfaction in all cases with respect to support for innovation and emerging technologies.

Figure 4.20 Support for Innovation and Emerging Technologies by Sectors, 2017 -– 2019

Average of responses (1 = least satisfied, 4 = most satisfied)



Source: Isle of Man Business Confidence Surveys, KPMG analysis

The following observations were raised by stakeholders with respect to innovation and business dynamism:

- Many existing Island businesses were seen to have limited growth ambition and risk appetite which consequently led to under-investment. Connected to this, insufficient turnover in the Island's senior talent pool was considered to lead to a lack of fresh thinking.
- During business community engagement, it was noted that due to the number of Island-based headquarters being limited and the number of product design functions being off-island (especially in the financial services sector) there has been a lack of 'new thinking' and this has in turn impacted the Island's ability to innovate.
- A key barrier to business growth was seen as the Island's ability to attract workers to relocate to the Island. This applied across many sectors and at all levels but was seen as particularly acute at the more junior levels in organisations. This is in line with the observations discussed in Section 4.4 (People and Skills).
- Additionally, it was recognised by the business community leaders we engaged with that dynamic and fresh thinking was not in the 'fabric' of the local business community. Further contributing to this issue are the lack of innovation hubs, think tanks, government-led initiatives and, especially but not exclusively for financial services, a lack of regulatory acceptance of innovation and new products.

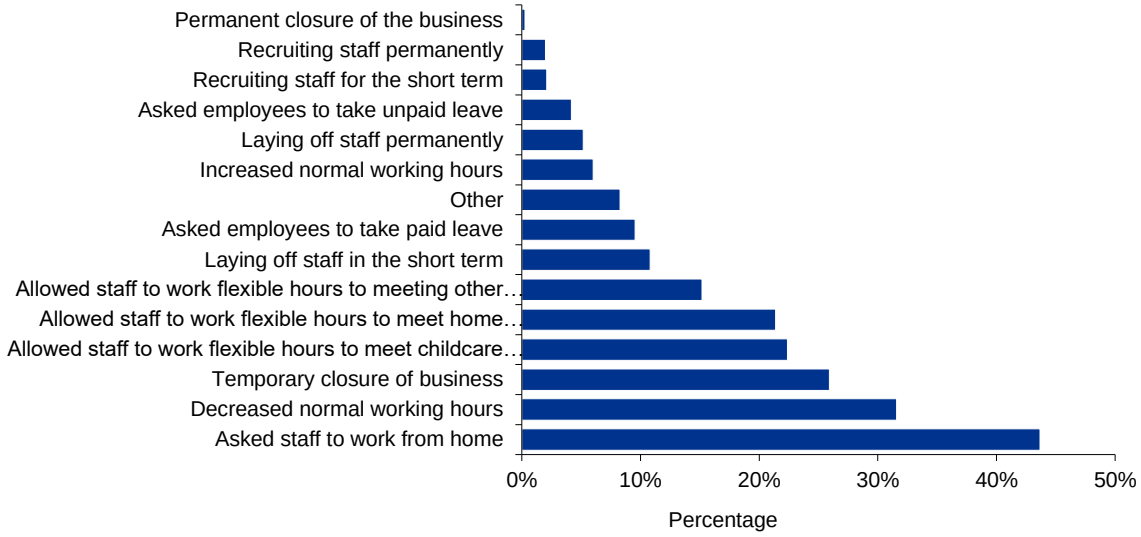
Luo and Galasso (2020) from Harvard Business School explore the relationship between COVID-19 and innovation, noting that many businesses have shut down or changed to

accommodate social distancing, while others have introduced risk-mitigating technologies including those relating to business practices and strategies to improve customer and employee safety.[101]

We assess below the extent to which changes in business practices have been observed in the Isle of Man since the start of the COVID-19 pandemic. This provides an indication of the pivoting of business models to address challenges and the extent to which they have responded dynamically.

Figure 4.21 sets out evidence relating to the measures that companies on the Isle of Man took to cope with the impact of COVID-19. It can be seen that almost 44% of respondents asked staff to work from home, and hence there was increased adoption of online services among businesses on the Isle of Man, as shown in Figure 4.22 below.

Figure 4.21 Measures Taken to Cope with the Impact of Covid-19: May 2020 and July 2020



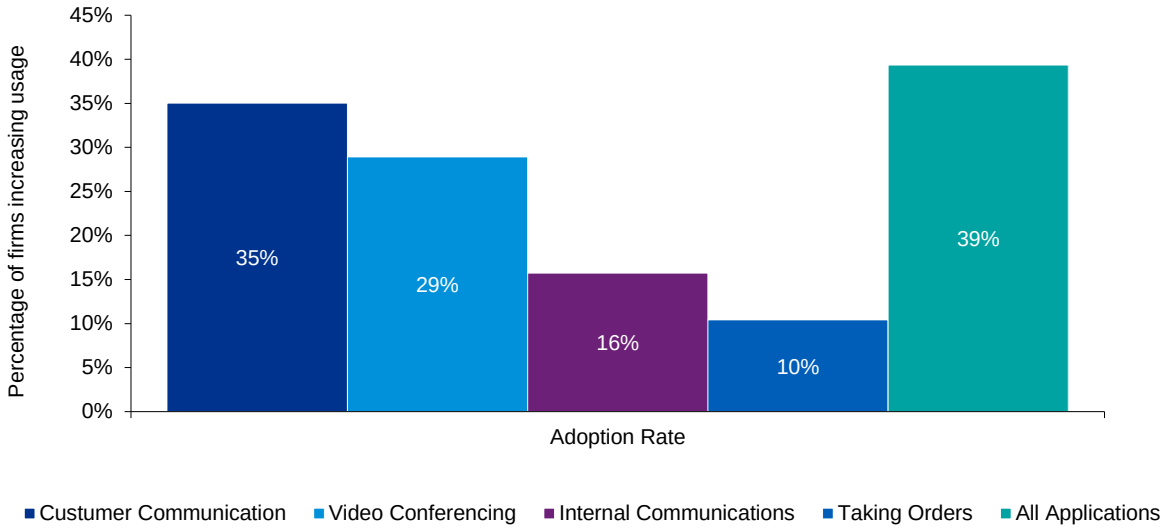
Source: Isle of Man Business Confidence Surveys, KPMG Pulse, KPMG analysis

According to data from the Isle of Man Business Confidence Survey (May 2020 and July 2020), 39% of firms on the Island increased usage of all online service applications. Use of online services for customer communication increased among 35% of firms. This is broadly in line with UK data from the ONS (2020) which shows that 31% of firms reported an increase in the use of online services to help communication with customers.[102]

Approximately 29% of firms in the Isle of Man reported increased usage of video conferencing. This is markedly lower than the increased or new usage of video conferencing[103] reported in the UK at 66%, but from stakeholder feedback may have increased further since the summer of 2020.

[101] Luo and Galasso. (2020). 'The One Good Thing Caused by COVID-19: Innovation'.
[102] ONS (2020). 'Coronavirus and the economic impacts on the UK'.
[103] Video conferencing for internal communications.

Figure 4.22 Adoption of online services: May 2020 and July 2020



Source: Isle of Man Business Confidence Surveys, KPMG analysis

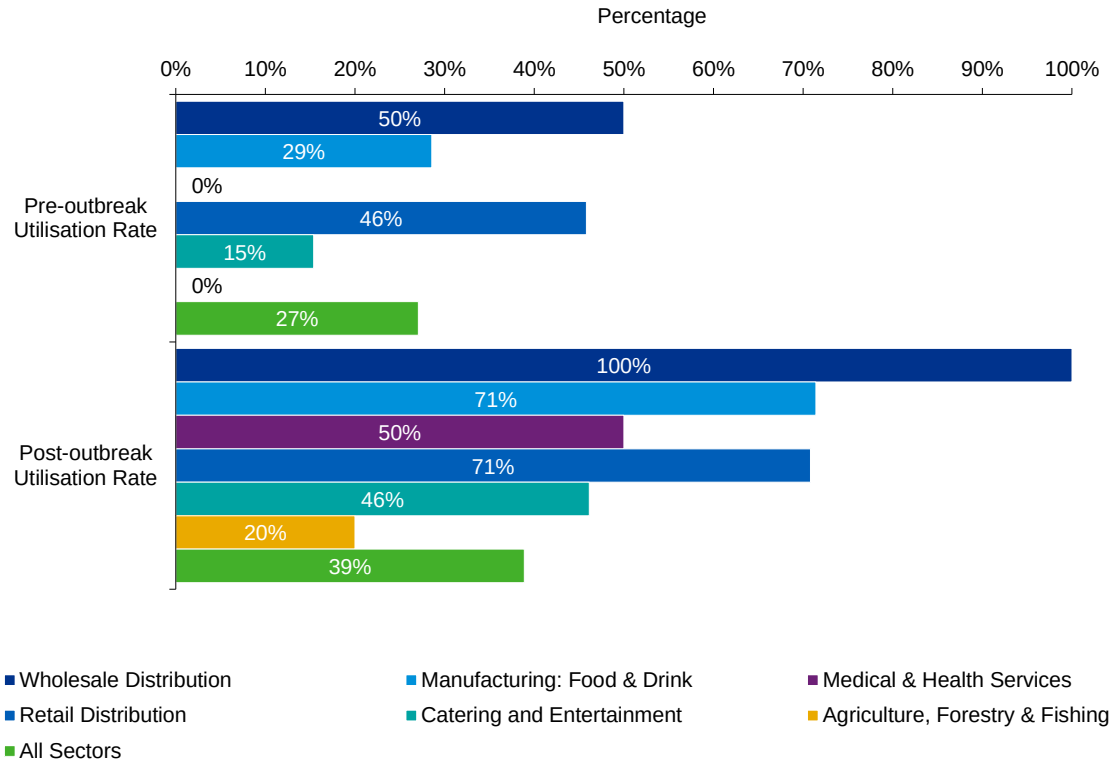
With respect to adoption of online delivery and collection services, data reveals that 84% of responding firms were ***not*** using online services prior to COVID-19[104]. Despite this appearing to be a substantial proportion, it is broadly in line with expectation given the profile of dominant sectors on the Isle of Man and the limited requirement for delivery and/or collection offerings.

However, further analysis reveals that of those firms ***not*** previously using online delivery/collection services, there has been an uptake in utilisation of online delivery/collection services among some business, particularly in the wholesale distribution and manufacturing sectors.

Figure 4.23 shows the pre-outbreak (COVID-19) utilisation rates of online delivery/collection services among firms, together with the post-outbreak utilisation rates. It can be seen that post-outbreak, all industries are reporting utilisation of online delivery/collection services to varying extents, whereas pre-outbreak, it can be seen that some industries (Medical & Health Services and Agriculture, Forestry & Fishing) were not utilising online delivery/collection services at all. Peer comparison data is not available.

[104] Isle of Man Business Confidence Survey.

Figure 4.23 Utilisation of online delivery/collection services, 2020



Source: Isle of Man Business Confidence Surveys, KPMG analysis

Equivalent data for other jurisdictions is not readily available to allow a detailed comparison to be made in terms of adoption of online services. However, ONS data for the UK, for 2019 indicates that 11.6% of all UK businesses made e-commerce sales. The proportion of businesses making e-commerce sales, however, varies significantly by size of business and industry. For example, 28.6% of all businesses with 10 or more employees made e-commerce sales in 2019, rising to 59.2% of businesses with 1000 or more employees. By sector, 36.1% of all UK businesses in the retail sector made e-commerce sales, 19.1% of businesses in the wholesale sector and 20% of businesses in the manufacturing sector compared to the average of 11.6% of businesses across all sectors[105]. [106]

This same ONS data also indicates that in 2019 8.4% of all UK businesses received orders for goods and services using their own website or ‘app’ and 3.8% of all UK businesses received orders via an e-commerce marketplace website or 'app'.

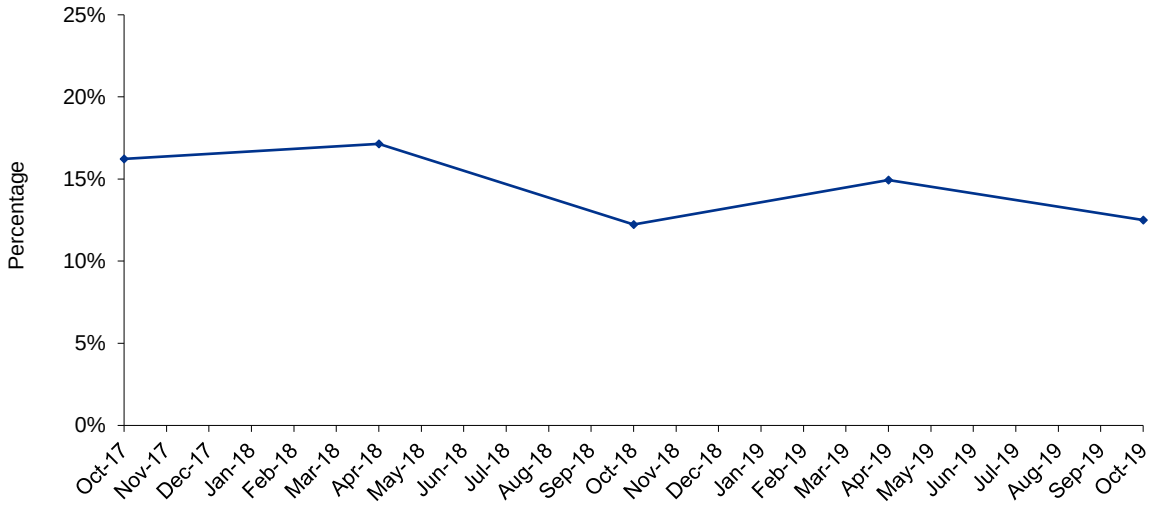
[105] Note that the ONS sector classifications do not align to the sector groupings used in the Isle of Man so are not directly comparable.
[106] ONS, E-commerce and ICT activity, 2019: Published 5 February 2021

4.6 Access to capital and finance

Access to finance is essential for firms' growth and evidence suggests that it should come from more than one source in order to minimise risks associated with heavy single-source dependency.[107]

Data from the Isle of Man Business Confidence Survey reveals the extent to which businesses believe they are constrained owing to insufficient access to finance. Prior to COVID-19, between 12% and 16% of businesses reported that they were constrained by insufficient access to finance, as shown in Figure 4.24.

Figure 4.24 Is your business constrained by insufficient access to finance? Oct 2017 – Oct 2019

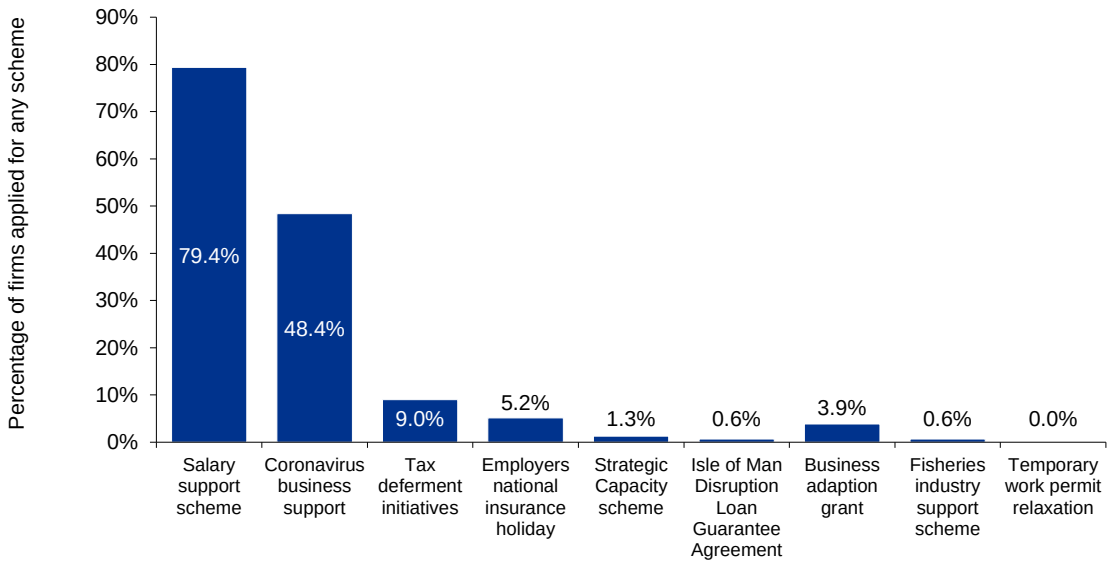


Source: Isle of Man Business Confidence Surveys, KPMG Pulse, KPMG analysis

Business' access to finance is likely to have been affected by the COVID-19 pandemic. Figure 4.25 provides evidence relating to the COVID-19 support schemes that were applied for by businesses on the Island. Almost 80% of firms that responded reported applying for Salary Support schemes, and 48% applied for Coronavirus Business Support.[108] As at September 2021, 88% of businesses surveyed in the KPMG/Institute of Directors Pulse Survey stated that they had sufficient capital resources to achieve their budgeted business plan, with companies of less than 10 employees predominant within the 12% stating that they did not have sufficient capital resources.

[107] KPMG (2020). UK regions: a framework for growth'.
[108] We note that not all businesses would be eligible for all listed schemes, potentially affecting uptake levels.

Figure 4.25 Covid-19 Support Schemes, 2020



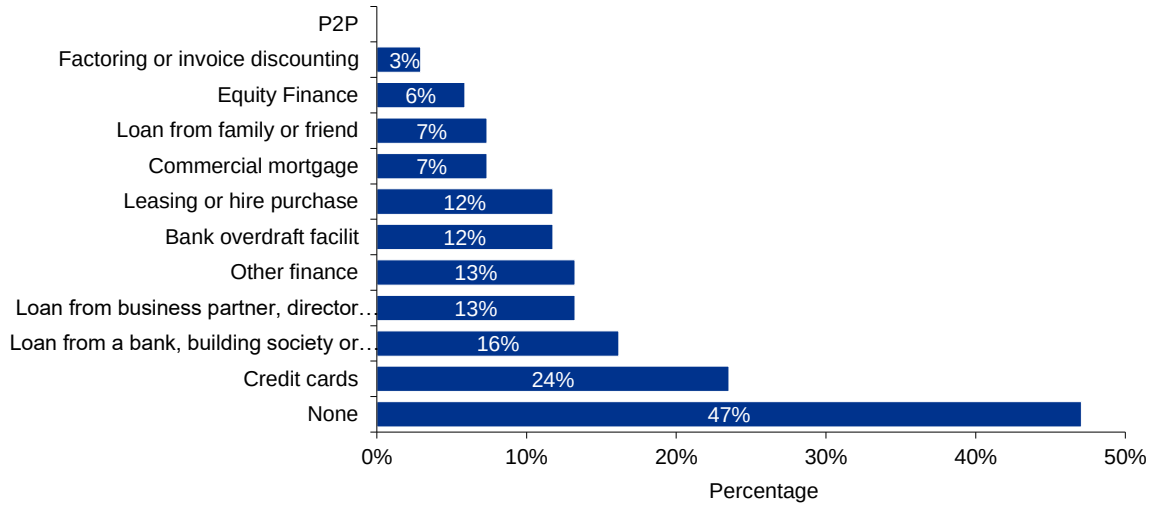
Source: Isle of Man Business Confidence Surveys, KPMG analysis

In addition to the above, further evidence relating to the extent to which firms have accessed finance in FY2020/21 has been gathered through the Isle of Man Government Business Surveys conducted for this report.[109]

Figure 4.26 shows the types of external finance that was ***used*** by responding firms in FY 2020/21. It can be seen that the most commonly used forms of external finance include credit cards (24%) and loans from banks and/or building societies (16%). Almost half of respondents, however, reported using no forms of external finance.

[109] It should be noted that the sample size of this survey was extremely small (less than 200 and non-random). Therefore, the amount of bias within the results is potentially large and/or there may exist a large margin of error. This should be kept in mind when considering this part of the analysis and results should be taken as indicative only.

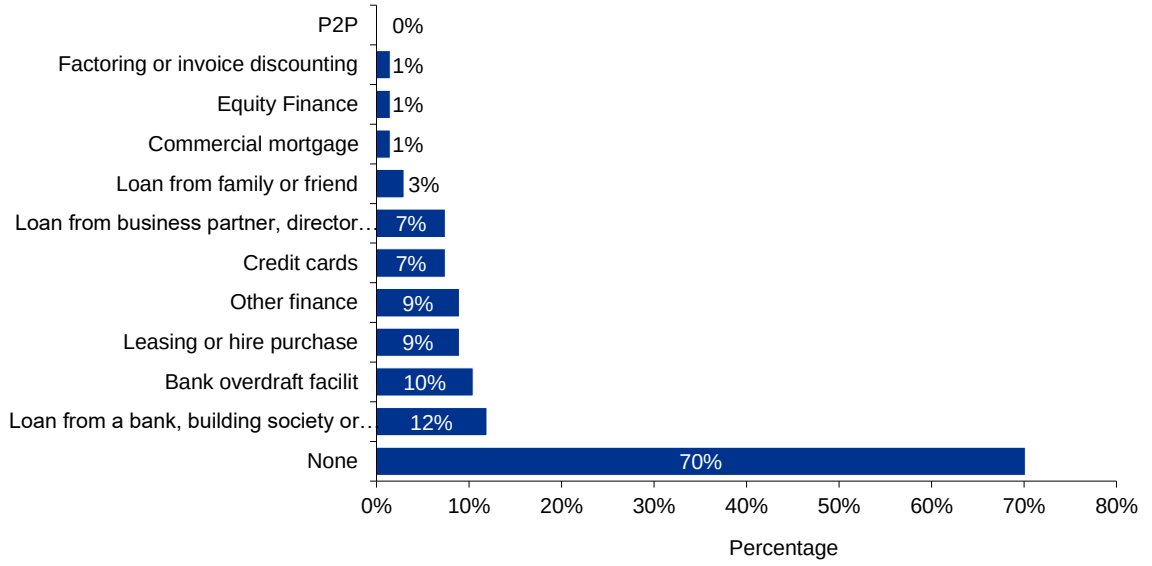
Figure 4.26 External finance *used* in FY 2020/21



Source: Isle of Man Government Our Big Picture Survey 2021

In terms of finance that was *sought,* Figure 4.27 shows that loans from banks and/or building societies were most commonly sought by business respondents to the survey (12%), followed by bank overdraft facilities (10%).

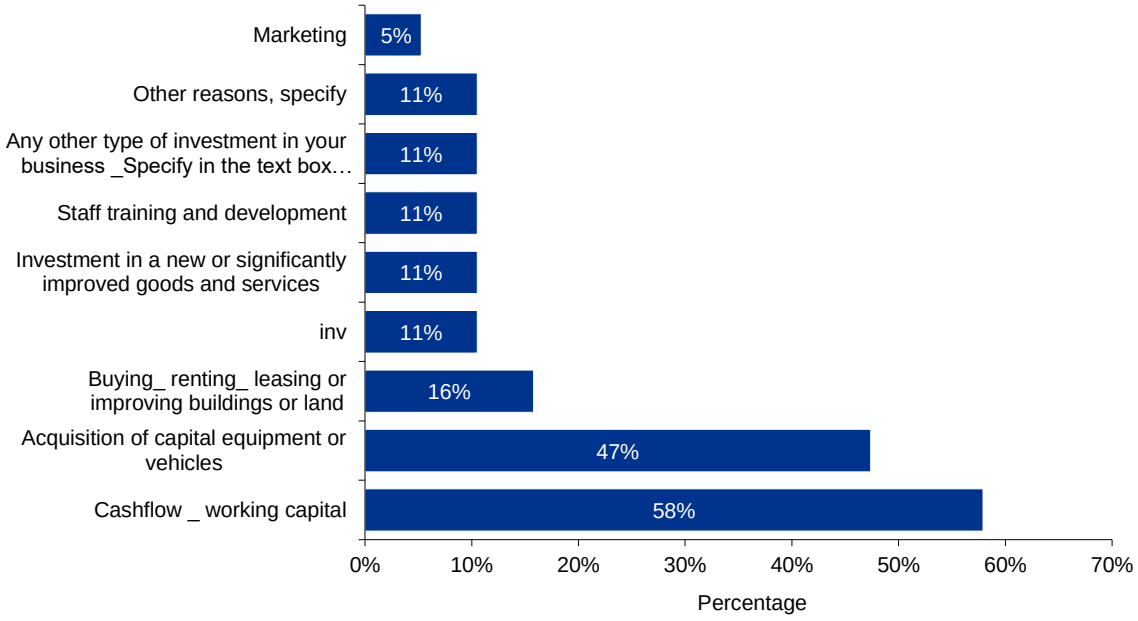
Figure 4.27 External finance *sought* in FY 2020/21



Source: Isle of Man Government Our Big Picture Survey 2021

As shown in Figure 4.28, the most commonly selected reason for seeking external finance in FY2020/21 was in support of cashflow and working capital (58% of responses), together with acquisition of capital equipment or vehicles. Where external finance applications were not successful, the only noted impact of not receiving this finance given by respondents was scaled back investment activity.

Figure 4.28 Reasons for seeking external finance in FY 2020/21



Source: Isle of Man Government Our Big Picture Survey 2021

In workshops and interviews with stakeholders a number of observations were raised that are pertinent to the topic of finance and funding on the Island.

- It was highlighted that the external funding available to start-up and scale-up business on the Island was limited. A common issue referenced was of the attractiveness for UK investors of investing in UK start-ups and scale-ups that the Enterprise Investment Scheme and Seed Enterprise Investment Scheme provide there.
- Banks on-island were viewed as being relatively conservative in their lending to support growing businesses, many forms of domestic business or in providing banking services at all to start-ups or larger businesses in certain sectors deemed 'high risk', such as eGaming, other digital businesses and many CSP clients.
- Stakeholder feedback reflected on the opportunities and innovation that could be developed with appropriate availability of funding, something other jurisdictions have managed through the formation of state-owned development banks, including Gibraltar.

This observation regarding banking is particularly noteworthy given the contribution of the eGaming sector to the Manx economy and the associated GDP per employee in the sector. It is also interesting given the leading position that the Isle of Man currently has in the eGaming sector relative to comparator jurisdictions, which, intuitively, might be considered grounds for access to funding, notwithstanding the regulatory challenges and risks associated with the sector.

Following the introduction of the Alternative Banking Regime by the FSA, a new banking license has been issued to Capital International Group – a bank with an objective of providing services to CSPs and eGaming.

4.7 Governance and regulation

The OECD (2011) notes that regulations are essential for the proper functioning of economies and societies by underpinning markets, protecting the rights and safety of citizens, and ensuring the delivery of public goods and services.[110] Effective regulatory policy, together with market openness, can inspire increased innovation and entrepreneurship and subsequently encourage investment from new businesses.[111]

The Isle of Man has several statutory boards responsible for the regulation of various aspects of Island business life, including:

- The Communications and Utilities Regulatory Authority ("CURA") (formerly known as the Communications Commission), which regulates telecommunication and broadcasting on the Island. Within the utilities space its remit has recently been expanded to introduce regulation of the gas sector.
- The Financial Intelligence Unit ("FIU"), which was established to protect the integrity of the Island's financial system and contribute to the administration of justice through its expertise in detecting financial crime, countering money laundering and the financing of terrorism. It is a member of the Egmont Group of FIUs.
- The Financial Services Authority, which regulates financial services businesses on the Island and non-financial services businesses required to register for AML/CFT purposes as Designated Businesses. It is committed to compliance with international best practice and is a member organisation of relevant international bodies including the International Association of Insurance Supervisors and International Organisation of Securities Commissions. It is committed to compliance with the Financial Action Task Force's recommendations on the prevention of money laundering and the countering of the financing of terrorism. Comparing one regulator to another is difficult and often misleading by using the publicly available statistics – for example some regulators, like the Isle of Man actively encourage early engagement which in our experience leads to applications not even being submitted, whereas others will not engage prior to the submission of an application. We note that both the Guernsey and Jersey equivalent regulators are considered to be more progressive from stakeholder feedback for those businesses than have a footprint in each island. We note specifically that innovation and sustainability are areas where the Isle of Man financial services industry would be deemed to be behind its Crown Dependency peers.
- The Gambling Supervision Commission ("GSC") licenses and regulates land-based and eGaming activities. The Island was one of the first jurisdictions to develop an effective framework for the regulation of eGaming, which led to the significant growth of the sector here. The GSC has also recently been given responsibility for regulation of the nascent medical cannabis sector.
- The Office for Fair Trading ("OFT") provides protection for consumers and businesses from unfair trading practices.

[110] OECD. (2011). 'Regulatory Policy and Governance: Supporting Economic Growth and Serving Public Interest'.
[111] OECD. (2010). 'Regulatory Policy and the Road to Sustainable Growth'.

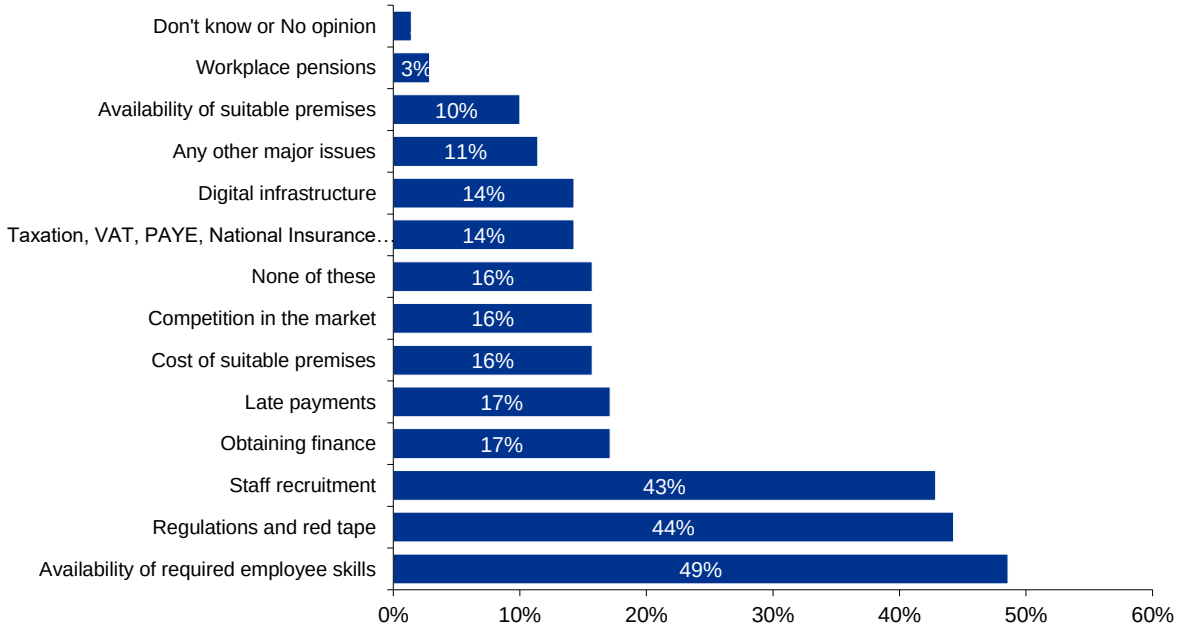
Feedback from stakeholders indicates that the Island's regulatory frameworks for financial services and eGaming are well-respected internationally and help attract high-quality business to the Island. Concerns were expressed by some participants that the FSA was moving away from a proportionate risk-based approach towards more prescriptive measures that created additional compliance challenges and costs for regulated businesses on the Island. Furthermore, it was widely expressed that the Island was not living up to its promise as a smaller jurisdiction of regulatory agility: quickly flexing and extending its regulatory regimes to attract and nurture innovative new businesses.

In addition to the above, further evidence with respect to business barriers and the impact of regulation. has been gathered through the Isle of Man Government Business Surveys.

Figure 4.29 sets out the survey respondents' reported obstacles to business success in FY2020/21. It can be seen that the most commonly reported obstacles pertain to 'Availability of required employee skills', selected by almost half of respondents (49%). This is in line with the themes reported elsewhere in this document and supports the need for further development of training and upskilling initiatives on the Island.

'Regulation and red tape' was the second most commonly cited obstacle, reported by respondents (44%), followed by staff recruitment issues (43%), the latter of which might be, in part, a function of the skills shortage.

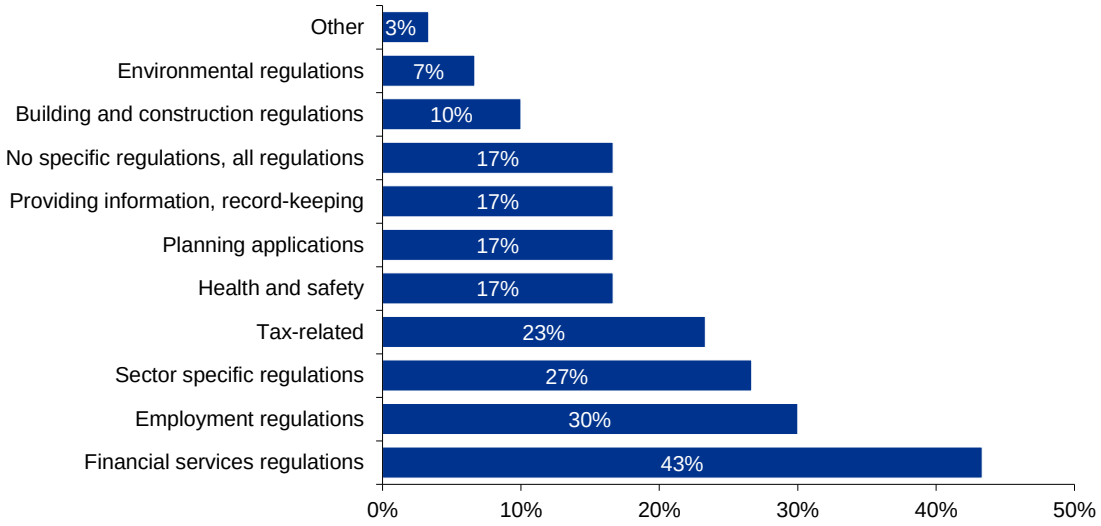
Figure 4.29 Obstacles to success of your business in FY 2020/21



Source: Isle of Man Government Our Big Picture Survey 2021

Figure 4.30 sets out the regulations that respondents consider to be major obstacles to the success of their business in FY 2020/21. The most commonly selected regulations were those concerning financial services (43%) and employment (30%).

Figure 4.30 Which regulations do you consider to be major obstacles to the success of your business in FY 2020/21?



Source: Isle of Man Government Our Big Picture Survey 2021

There is also broader evidence relating to business environment in the Isle of Man that links to the framework of regulation and governance. In particular, data from the Isle of Man Business Confidence Survey[112] is available in relation to the extent to which businesses consider the Isle of Man a "safe" place to operate.

As shown in the October 2019 survey results presented in Table 4.5, 96% of respondents agree or strongly agree that the Isle of Man is safe for business (latest available data).

Table 4.5 Respondents find Isle of Man safe for business: Oct 2019

Average of responses (1 = least confident, 4 = most confident)

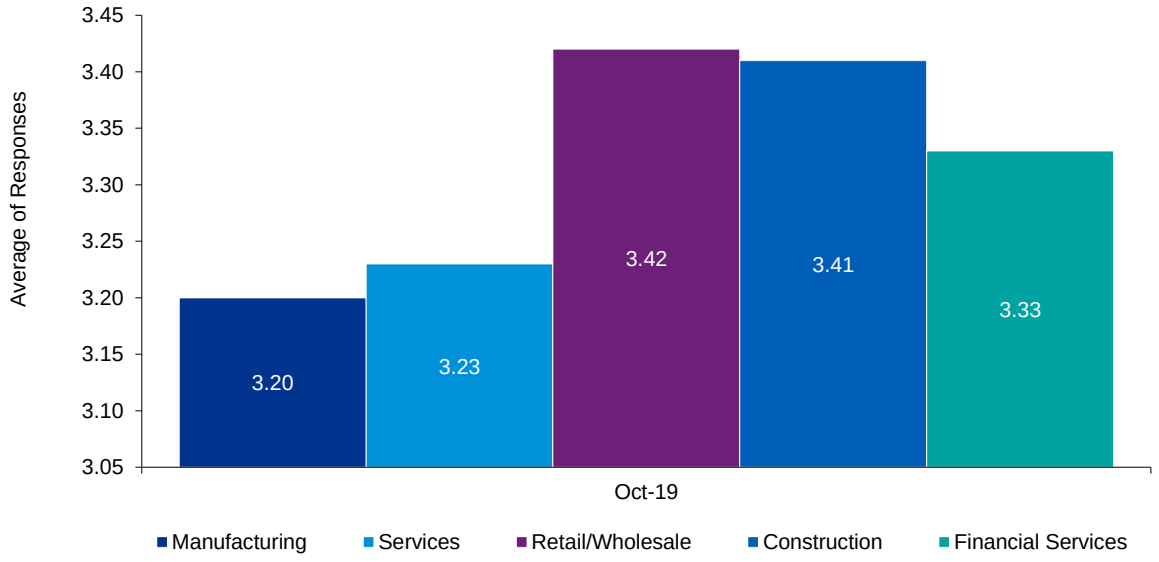
Response	Oct-19
Strongly disagree	0%
Disagree	5%
Agree	61%
Strongly agree	35%

Source: Isle of Man Business Confidence Surveys, KPMG analysis

[112] Isle of Man Business Confidence Surveys, 2017-2019. It should be noted that sampling differences are likely to exist across the different survey waves between 2017 and 2019. This should be kept in mind when considering this part of the analysis and results should be taken as indicative only.

By sector, respondents in retail/wholesale and construction reported to be the most confident in terms of the Island being safe for business, followed by financial services, as shown in Figure 4.31. However, all respondents report higher levels of confidence in particular relative to the levels of satisfaction reported in Section 4.3 pertaining to quality and cost of business-related services.

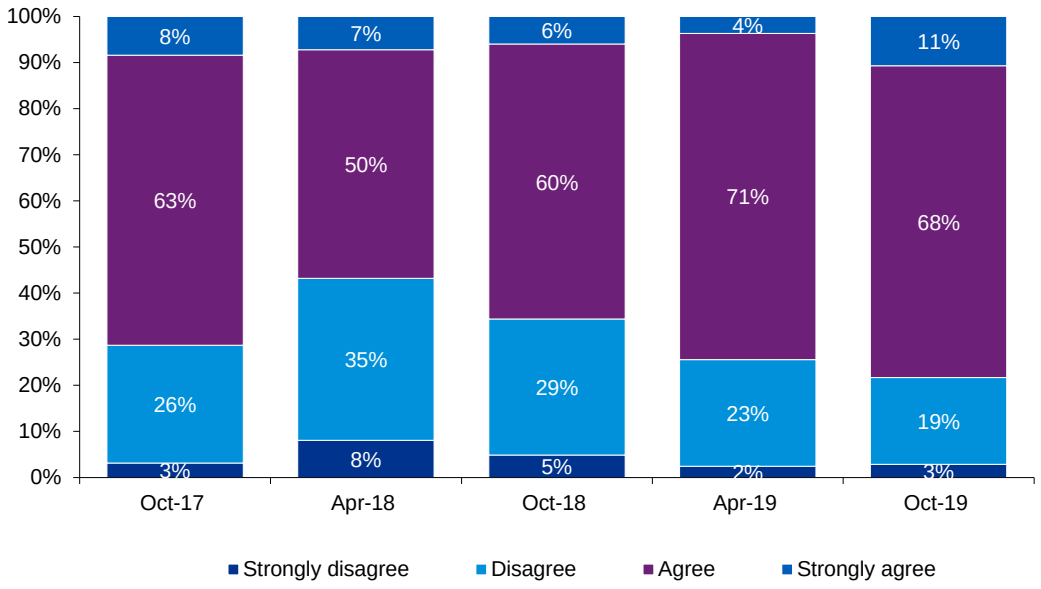
Figure 4.31 Respondents find Isle of Man safe for business, by sector, October 2019



Source: Isle of Man Business Confidence Surveys, KPMG analysis

In line with the above, almost 80% of respondents would recommend the Isle of Man for business as of October 2019, an increase from 71% in October 2017, and substantially more than the 57% of business respondents in April 2018.

Figure 4.32 Would recommend Isle of Man for Business, 2017-2019



Source: Isle of Man Business Confidence Surveys, KPMG analysis

Observations from industry obtained through the stakeholder workshops and interviews in relation to the business and regulatory environment and governance of the Island are summarised below:

- It was recognised that, compared to most jurisdictions, access to government was relatively good. It was also noted that improvements in partnership between government and industry had accelerated during the pandemic.
- The Island had relatively well-respected regulators in both Financial Services and eGaming, which has helped it to attract and retain high-quality businesses in both domains. The one exception noted by business leaders was in relation to investment funds, which whilst a smaller element of the financial services industry on the Island, was an area where the Island had lost business due to its reputation.
- However, the Island was seen as lagging competitor jurisdictions in its adoption of digital government, with many interactions with IOMG still requiring hard copy form-filling.
- Similarly, while it was recognised that the Island could theoretically act with greater agility than larger jurisdictions in responding to market needs – for example, by flexing or extending regulation – in practice it was frequently not doing this, nor was the Island see as progressive.
- It was also suggested by many workshop participants that in terms of Government's role, it appeared to be lacking the ambition and joined-up approach required to successfully identify, pursue, and realise larger, game-changing opportunities for business growth and innovation.

4.8 Business taxation

The Island, in common with many International Financial Centres, has very competitive rates of taxation.

- The Island currently operates a 0/10/20 regime whereby the standard rate of corporate income tax is 0%, with a 10% rate applicable to income from banking business and 20% to income from land and property on the Island. In 2013 the 10% rate was introduced on retail businesses with annual taxable profits in excess of £500,000.
- The Island does not require the deduction of withholding tax from most dividend and interest payments.
- The Isle of Man has a VAT regime which largely matches the UK, with most supplies charged at 20%, some at a reduced rate of 5%, some at 0% and some being exempt.

While a detailed cross-jurisdictional comparison of tax policy is beyond the scope of this document, the table below provides as an illustration the headline corporate income tax and indirect tax rates for the Crown Dependencies and the UK and Ireland as examples of large developed economies.

Table 4.6 Jurisdictional comparison of headline tax rates for selected jurisdictions

Jurisdiction	Corporate Tax	Indirect Tax
Isle of Man	0.00%	20.00%
Jersey	0.00%	5.00%
Guernsey	0.00%	0.00%
UK	19.00%	20.00%
Ireland	12.50%	23.00%

Source: KPMG Tax Rates Online, KPMG analysis

The Island seeks to meet international tax compliance standards introduced by relevant bodies such as the OECD and EU. In connection with this:

— The Island has entered into double tax agreements and information sharing agreements with many other jurisdictions.

— The Island has introduced requirements for businesses receiving income from number of relevant activities to have substance on the Island in line with EU requirements or face penalties.

4.8.1 The OECD "Two Pillar Solution"

On 1 July 2021, the OECD published a statement on a "Two Pillar Solution" (i.e., Pillar One and Pillar Two) to address the tax challenges arising from the digitalisation of the economy. This followed on from OECD work that had been in development for some time, together with proposals coming from the US Biden Administration earlier this year.

As of 4 November 2021, the Isle of Man was one of the 137 Inclusive Framework members that had approved the statement. Competitor jurisdictions including the Channel Islands, Cayman Islands, Gibraltar, Hong Kong and Singapore are amongst those that have also approved the statement.

The final political agreement on some of the outstanding matters, including the minimum rate of tax applicable under Pillar 2 were considered during the G20 meeting in October. Despite the political will supporting these proposals, there are still a number of matters that need to be resolved, in particular the Biden Administration may struggle to secure a majority in the Senate. Therefore, it is entirely possible for the implementation to be delayed.

The "Two Pillar Solution" is likely to lead to a significant change in the international tax landscape in respect of many large multinational enterprises. For in-scope MNE groups, the propose "Pillar Two" rules are likely to reduce or eradicate the corporate tax benefits of locating activities in low tax jurisdictions such as the Isle of Man, regardless of any decisions that such jurisdictions now take. Therefore, over time, it has to be expected that for in-scope MNEs that seek to use low tax jurisdictions to reduce their overall tax exposure, the Pillar Two rules are likely to result in a gradual shift of their business onshore. There are however a number of non-tax related reasons for using jurisdictions such as the Isle of Man to structure the corporate affairs of MNEs and it is believed that where tax mitigation is not the driving reason for using an Isle of Man company, MNEs may continue to use the Isle of Man subject to its remaining a business-friendly environment that encourages inward investment.

Notwithstanding these changes, much of the Island's economy is built around businesses that are not part of in-scope MNE groups – as such they will not *prima facie* be impacted by the

current proposals. Views from stakeholders indicate that for the Trust and Corporate Service Provider sector in particular, the preservation of the 0% corporate tax rate for client structures is regarded as fundamental. However, should the size and nature of entities within the scope of such measures be expanded in future this might be expected to have a broader impact on the Island's economy.

4.9 Summary of strengths and weaknesses

Based on the data and wider evidence collated in this section, together with the comparisons drawn to other jurisdictions to help to set the Island's economic performance in context, a number of key strengths of the Isle of Man with respect to its attractiveness to business are evident as well as factors that will need to be taken in to account when determining the future economic strategy for the Island. These are as follows:

- The Isle of Man is internationally well-respected in terms of regulation for Financial Services and eGaming sectors with high levels of political, legal, and regulatory stability.
- Business users on the Island have report declining levels of satisfaction regarding quality and cost of hotels and accommodation services on the Island, which – when coupled with calls for more regular, reliable air linked into international hubs (such as London and Dublin) – could dissuade potential business guests from visiting the Island.
- According to evidence from a 2018 Monitoring Audit of the National Instructure Strategy, both the airport and ports were deemed to be well-positioned to meet both current and increased demand.
- Analysis suggest that the overall quality of internet connectivity of the Island is not keeping pace with competitor jurisdictions, such as Jersey and there has been a decline in satisfaction regarding the quality of telecommunication services.
- In terms of office space, the analysis revealed that office space accounts for over a third of total floorspace per capita on the Isle of Man (approximately 2.7sqm), almost twice as much as in the UK (1.5sqm).
- However, it was noted in workshops and interviews with stakeholders that there are limited high-quality commercial facilities readily available on the Island, which could act to dissuade businesses considering relocating to the Island.
- More positively, however, it was highlighted that the Island has a reasonable amount of space for development, so a lack of commercial facilities may be less of an issue for those businesses looking to build their own facilities.
- Regarding supply of people and skills, the evidence showed that there is an increasing proportion of young people on the Island without necessary skills for the labour market, with particular gaps in life skills, personal value and resilience, and interpersonal skills. This is bringing about a shortage of entry-level staff.
- Further to this, there are challenges in attracting young professionals in many sectors to live and work on the Island, including returning graduates and those new to the Island.
- It was found that many existing Island businesses are seen as having limited growth ambition and risk appetite, consequently leading to under-investment.
- There appear to be limited funding options for start-ups and scale ups or for larger established businesses in certain sectors deemed 'high risk' such as eGaming, despite

their substantial contribution to Manx GDP and the Islands comparative advantage in supporting such sectors, including from a regulation and infrastructure standpoint.

— Evidence from stakeholder interviews suggested that the Island is lagging relative to competitor jurisdictions in adoption of digital government, with many interactions with IOMG still requiring hard copy form-filling.

— However, in terms of governance and regulation, data from the Isle of Man Business Confidence Survey reveals that 96% of respondents believe the Island is safe for business.

5 Strategic theme 2: Attractive to people

5.1 Introduction

In order to support a healthy economy, the Isle of Man needs to attract and retain a sufficient economically active population to drive economic growth, including to provide the skills and human capital to attract businesses, as discussed in Chapter 0 above. In recognition of this, one of the four strategic themes for the Economic Framework for the Island for the next 5 to 10 years relates to the Island being "Attractive to People".

In its Invitation to Tender for this engagement, IOMG described this theme as "*Using our high quality of life messaging to encourage people to live and work on the island and increase our active working population.*"

We explored this theme further with business leaders as part of Phase 0 of the engagement. Participants identified multiple aspects of a desirable future state of the Island that were relevant to its attractiveness to people. We summarised their views as follows, expressing them as part of a vision for a future state of the Island and its economy:

- The Island is a vibrant place for people to live and work.
- The Island has a growing and thriving economically active population.
- The amenities meet the population's needs and are enjoyed by all members of society, leaving everyone content and fulfilled on the Island.
- The Island meets the expectations of existing and prospective residents and visitors:
    - Good public services and transport links.
    - Attractive range of housing stock.
    - Attractive mix of hospitality and leisure options.
- The Island is competitive and attracts people and businesses.
- We enable people to obtain the right skills to build rewarding careers on-island; we encourage lifelong learning, providing opportunities to re-skill to support the needs of existing business or strategic growth sectors which may be identified.
- The Island is competitive and actively promotes itself to encourage the inward migration of economically active people that are a good fit for the needs of existing businesses and strategic growth sectors.

A successful Manx economy requires a robust economically active population to drive output and productivity to allow the Island to flourish. In particular, attracting and developing a workforce with the necessary skills can enable the growth and development of highly productive firms that can make use of these skills.

There are several factors which evidence suggests can influence and incentivise either increased inbound migration or decreased outbound migration for a location[113] and that are important for drawing people to an area/region and helping to fuel economic growth.

In particular, workers and business owners may only want to live in places that provide:

- **earnings commensurate with the cost of living**: high costs of living and meagre earnings may encourage outward migration – especially among groups that may more readily move or that have lower earnings, such as young people. Similarly, it may be difficult to attract economically active people to an area where earnings are low and the cost of living is high.
- **education and upskilling opportunities:** these are important for fostering the human capital of a region, which has been cited as being more important to regional growth than physical capital.[114] Educational institutions are important as access points to the labour market, however primary and early years education is also important as it can impact educational attainment later in life. Workers and business owners who establish families will also seek to live where they are able to send their children to quality schools. Additionally, as the pace of new technology adoption accelerates, post-school up-skilling will become ever more important, with workers increasingly expected to embrace a lifelong approach to learning – as discussed further in Section 4.4.
- **conditions that support health and wellbeing:** this includes access to timely and high-quality healthcare services and interventions. Additionally, amenities and activities available in a location could be linked to better mental and/or physical wellbeing, which in turn is a reflection of how attractive a particular location is to the people already there or considering moving there.
- **a rich environment of leisure and wider cultural activities**: the cultural and creative sectors have a unique role in local economies due to their close links with the wider creative and knowledge economies, as well as their importance in making the area attractive to newcomers and visitors. Critically, cultural amenities increase the attractiveness of a region to workers with higher levels of education and skills and can therefore improve economic performance. Additionally, nature and living in proximity to a green or blue area is generally associated with better health outcomes for all age groups.[115]
- **good housing stock:** an adequate supply of affordable and attractive housing is an important component in an area's attractiveness to workers. Poor access to housing can create a number of problems for a region looking to grow and develop, as it hinders ability to attract new workers and causes hardship for residents on fixed incomes who face rising rent costs. It is important to consider where housing is located as part of local planning, ensuring it is close to existing and new transport networks. In the context of rapid economic growth, the pressure generated by rising costs of housing have severe adverse impacts for local residents, whose incomes do not keep pace. This means that areas of deprivation can co-exist even within highly dynamic economies.

[113] In the long term, natural population growth should also be considered, however, given the scope of this report is to consider a 5-10 year period, this is only considered insofar as factors which support natural population growth are relevant to people's decisions to live or work in a certain location.
[114] KPMG (2020), 'UK regions: a framework for growth', p. 19.
[115] KPMG (2020), 'UK regions: a framework for growth', p. 23.

This Chapter provides a synthesis of the data and wider evidence collated in relation to the 'Attractive to People' strategic theme, including – where possible – comparisons to relevant benchmark jurisdictions. Specifically:

- Section 5.2 provides background and context on the Manx population and changes over time, in particular as regards migration to/from the Island;
- Section 5.3 discusses income and cost of living on the Island, including a consideration of payroll taxes against those in place in other jurisdictions;
- Section 5.4 discusses education on the Isle of Man, focussing on schooling and educational attainment as a factor for families with children as well as secondary and tertiary schooling as a driver for young people to move;
- Section 5.5 discusses health and wellbeing, considering self-reported health and wellbeing as an indicator of overall quality of life, and then considering healthcare services and their performance;
- Section 5.6 discusses the living environment and homes on the Island, including natural, cultural and leisure amenities, local transportation links, housing cost and availability and safety on the Island;
- Section 5.7 considers tourism and travel to/from the Island; and
- Section 5.8 summarises the strengths and weaknesses arising from the analysis presented in the preceding sections.

5.2 Background and context

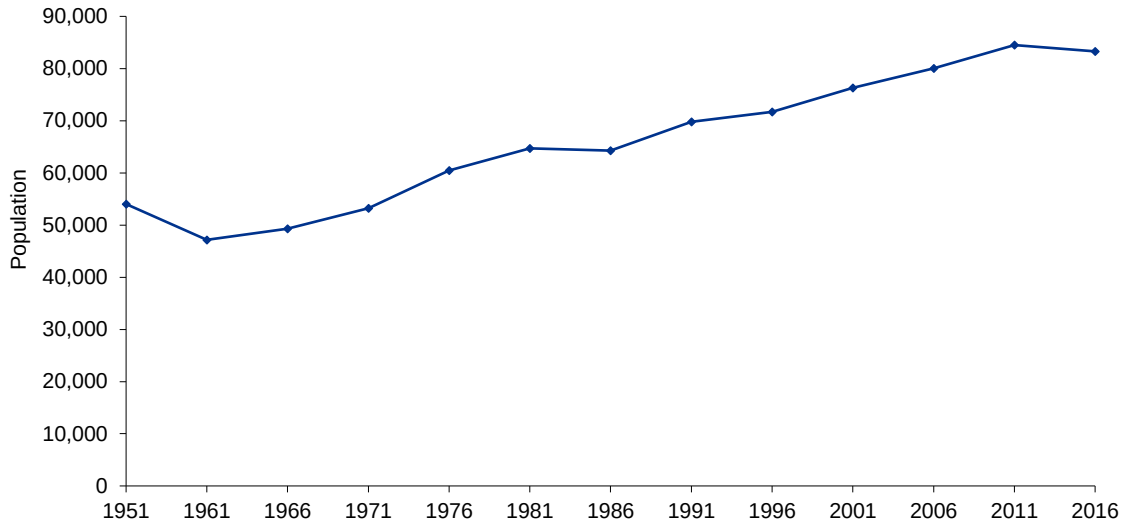
Before assessing the range of factors that are relevant to a place being attractive to people, both to live and to visit, it is important to understand the current position of the Island in terms of its population. Therefore, an overview of the Isle of Man's population over time, migration to/from the Island and a comparison to other jurisdictions is provided in Sections 5.2.1 to 5.2.3 below. This should be read in conjunction with Section 3.4 which provides a more complete assessment of the demographic composition of the Isle of Man's population. The Island is a unique place, and the context of the Island is important to understanding the strengths and weaknesses of the Island in attracting people.

5.2.1 The population of the Isle of Man

The Isle of Man has a population of around 85,000 residents, which has grown steadily from when the first census data is available (1951) until 2011 as per Figure 5.1. In more recent years, however, the population has decreased with the 2016 census data showing over 1,100 fewer residents on the Island than at the time of the 2011 census.

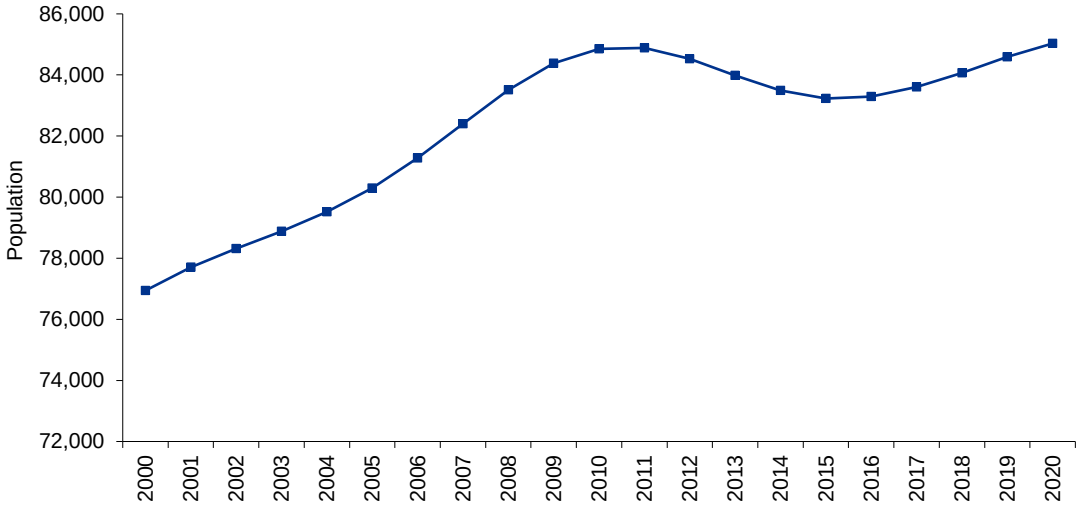
Estimates from the World Bank suggest that since the drop in 2016, the population may have returned roughly to what it was a decade ago, as per Figure 5.2. This will need to be confirmed, however, when the 2021 census data for the Island becomes available.

Figure 5.1 Isle of Man Resident population as recorded by census: 1951-2016



Notes: The dots show the years the census was conducted.
Source: Isle of Man in Numbers

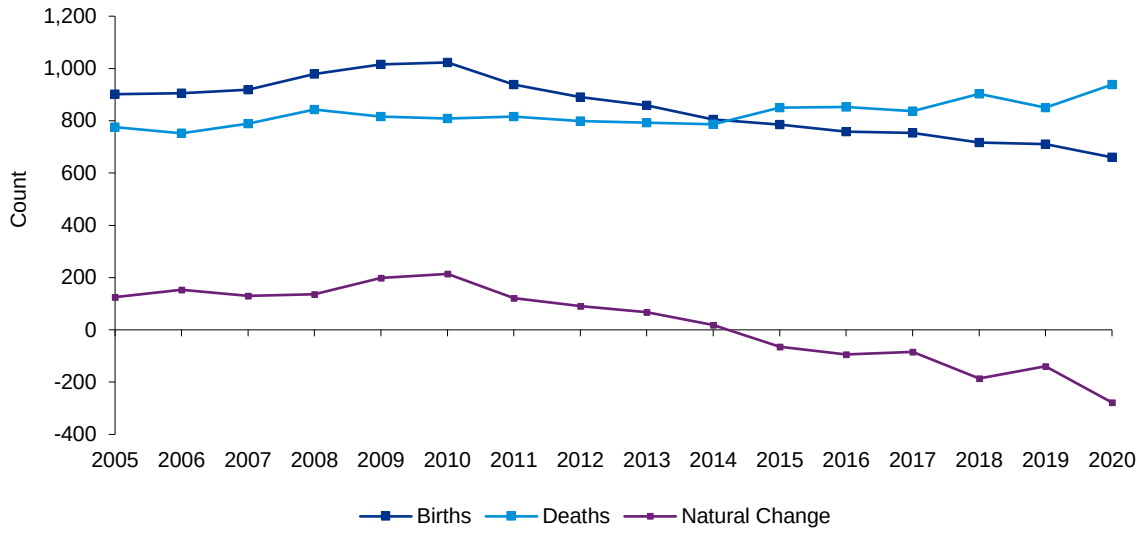
Figure 5.2 Isle of Man population (World Bank estimates, 2008-2020)



Source: World Bank, World Development Indicators

As detailed in Section 3.4.1, the population of the Isle of Man has generally fewer people under 30, and a sizeable proportion of people in their 50s, when compared to the UK, suggesting a population that is ageing overall. An ageing population is also consistent with data on natural growth which has been negative since 2015, as per Figure 5.3.

Figure 5.3 Isle of Man natural population growth: births – deaths, 2005-2020



Source: Isle of Man in Numbers 2021

5.2.2 Migration

Net migration has been positive in recent years, with around double the number of people migrating to the Island as are leaving the Island from 2019 onwards, as per Table 5.1 below.

Table 5.1 Migration to/from the Isle of Man: 2019 – H1 2021

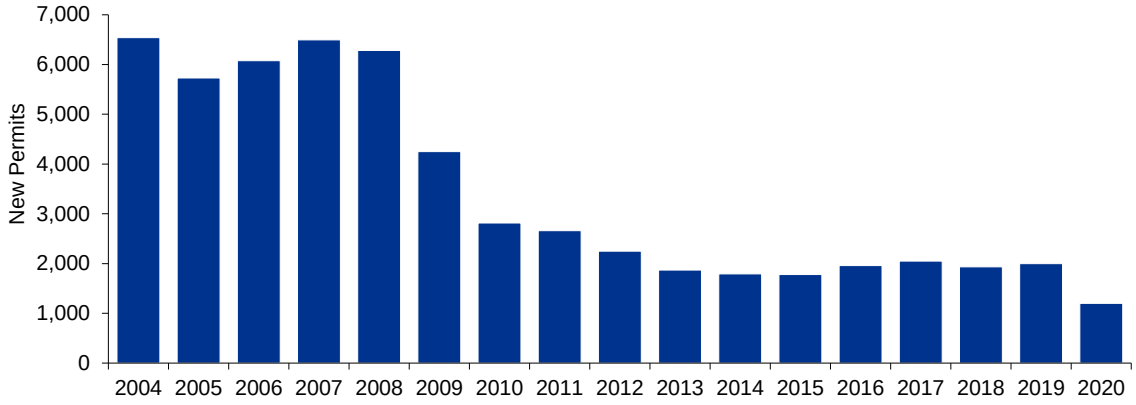
	Inbound	Outbound	Net
2019	1,818	1,085	733
2020	1,471	679	792
H1 2021	374	141	233
Total 2019 – H1 2021	3,663	1,905	1,758

Source: Isle of Man Government data

However, as shown in Figure 5.4, the number of work permits has declined dramatically, with the 2,000 new work permits issued in 2019 being less than half the number issued a decade earlier, and less than a third of the number issued 15 years earlier. We note, however, that inferences cannot be drawn from this work permit data about the scale of individuals moving to the Isle of Man for employment, as the figures are affected by a number of changes made by the Isle of Man Government to the work permit system in recent years. Notably, in November 2017, changes to the work permit system included: reduced fees for multi-year applications; provisions for automatic work permits for cohabiting partners; and the removal of a requirement for an additional work permit for some workers entering the Island with clearance from Immigration to work.[116]

[116] Gov.im. (2021). 'Work permits'.

Figure 5.4 New Isle of Man work permits issued: 2004-2020

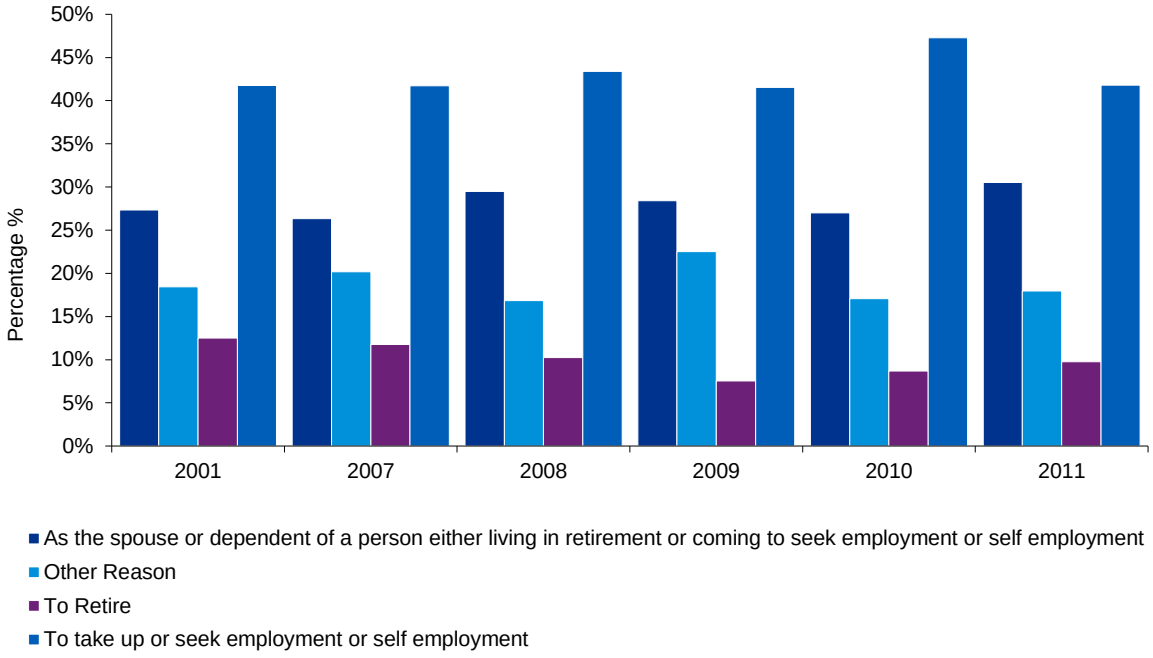


Source: Isle of Man in Numbers 2021

As the data in Figure 5.5 below shows, for inbound migrants who started their residency more than approximately 10 years ago, the largest proportion of individuals did so to seek employment or self-employment, and only around 10% did so to retire. No data on reason to migrate is available after 2011. However, Figure 5.6 shows that approximately 53% of inbound migration in years 2006-2016 consisted of people in the 25-54 age bracket. The OECD considers individuals between 25 and 54 to be in their prime working years[117].

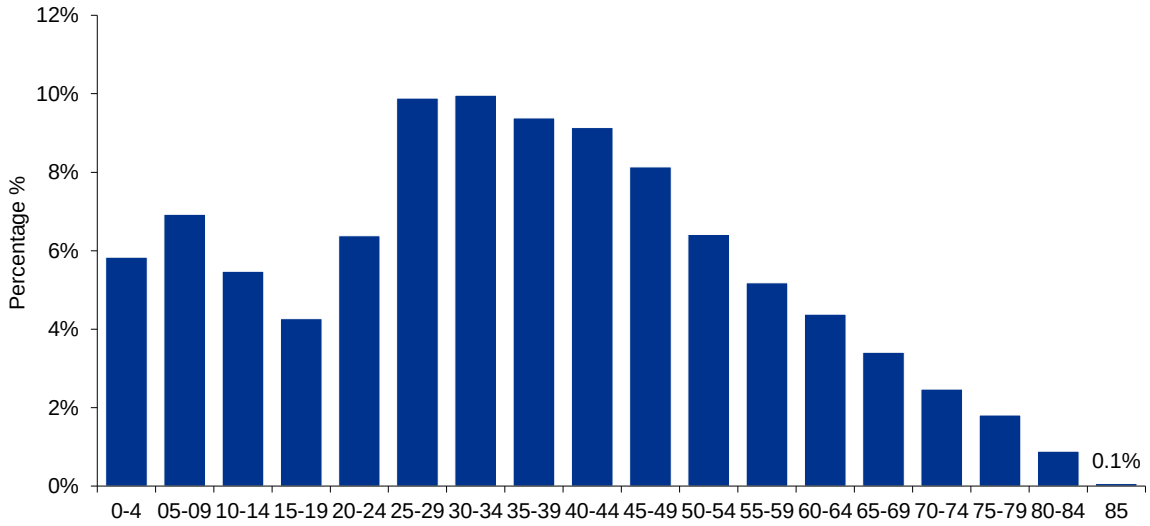
[117] The OECD's definition of the 25-54 age bracket is "Those in their prime working lives". (Employment - Employment rate by age group - OECD Data)

Figure 5.5 Reasons for migrating to the Isle of Man, by year IOM residency began: 2001-2011



Note: Migration reason was not included in more recent Isle of Man census questionnaire, and consequently data is used from the 2011 questionnaire.
Source: Isle of Man census (2011), KPMG analysis

Figure 5.6 Age at time of migration to the Isle of Man: 2006-2016

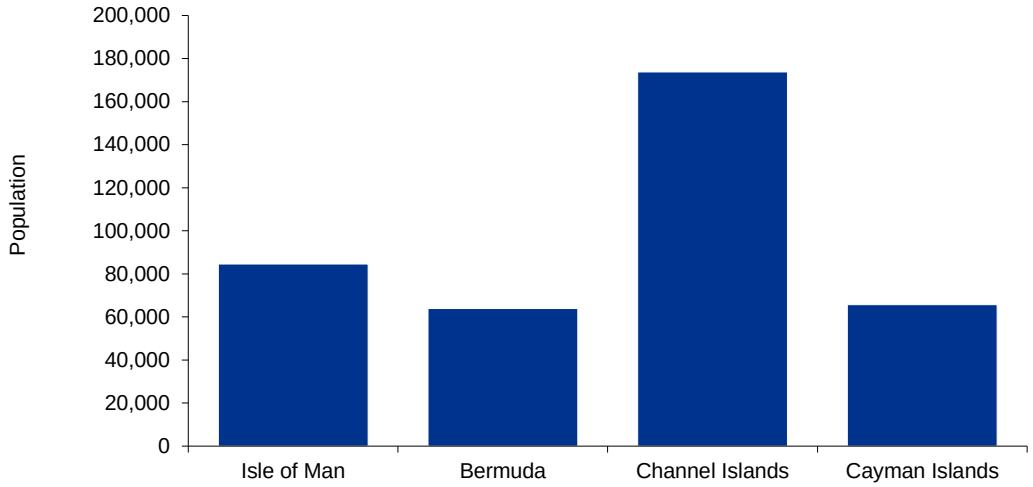


Notes: Migration age for inbound migration in 2006 to 2016 is reported. Migration age is calculated as age at the time of census, less time since migrated to the Isle of Man.
Source: Isle of Man census (2016), KPMG analysis

5.2.3 Comparative assessment of the Isle of Man's population changes

The Isle of Man's population is relatively similar to the populations of Bermuda and the Cayman Islands. Figure 5.7 shows that its World Bank 2020 estimate of 84,599 people lies above Bermuda's 63,903 and Cayman Islands' 65,720. The Manx population is also just under half of the combined population of the Channel Islands; World Bank data reports population jointly across the Channel Islands, however the Manx population is below the Jersey population (estimated at 107,800 as at 2019)[118] but above the Guernsey population (63,276 people as at the end of Q3 2019)[119].

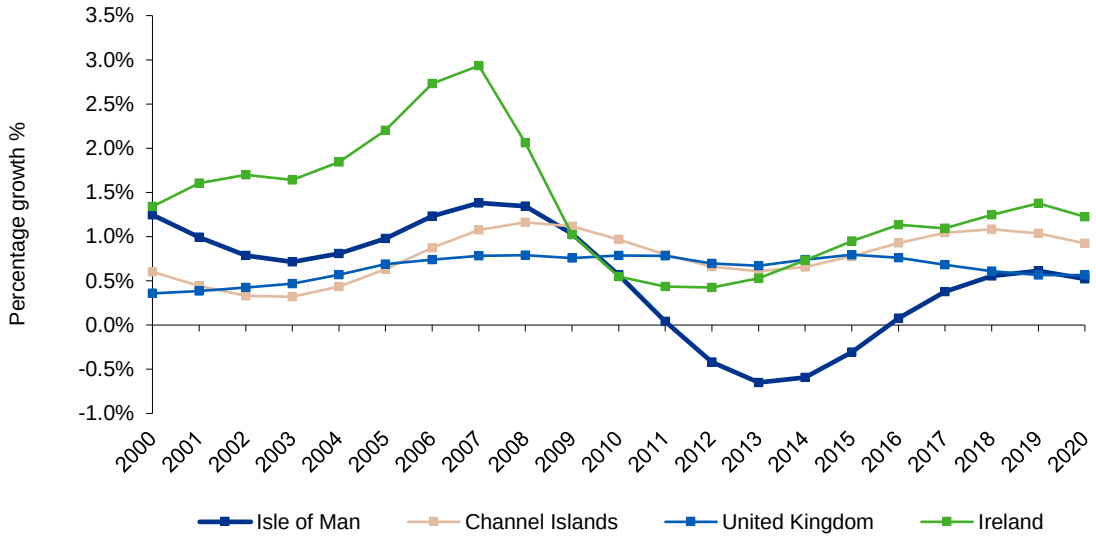
Figure 5.7 2020 Population comparison: World Bank, 2020



Note: The World Bank only provides population estimates for the Channel Islands combined. World Bank estimates used for all countries for consistency.
Source: World Bank, World Development Indicators

[118] https://www.gov.je/Government/JerseyInFigures/Population/Pages/Population.aspx
[119] States of Guernsey (2020), Guernsey Quarterly Population, Employment and Earnings Bulletin, 14 August, p. 4

Figure 5.8 Population growth comparison over time: World Bank, 2000 – 2020



Note: The World Bank only provides population estimates for the Channel Islands combined. World Bank estimates used for all countries for consistency.
Source: World Bank, World Development Indicators

As for population growth, Figure 5.8 shows that the Manx population was growing by 1.2% in 2000. It had the second fastest growing population until 2008 when compared with the Channel Islands, Ireland and the UK. Since 2008, the Manx population has grown at a slower rate than its comparators and contracted between 2012 and 2015. While the Manx population has started growing again from 2016, in 2020 it was still the slowest growing population (0.5%) with respect to the chosen comparators.

5.3 Income and costs of living

Locations where people can earn higher incomes may attract economically active individuals in particular. Net incomes (post-tax) are important to consider, especially given differences between jurisdictions in terms of tax treatment, as discussed further below. Incomes need to be also considered in light of cost of living, which can also be a factor that attracts or deters people from living and working in an area.

As discussed in Section 3.3.4, across the working population, mean weekly Manx earnings have consistently been higher than weekly UK earnings since 2012, and on average were around 10% higher than mean weekly UK earnings from 2016 onward. Both gross and net earnings from employment are important to analyse when assessing the attractiveness of the Island for workers. Therefore, the personal tax rates on the Island are assessed in the following sub-section.

In terms of the incomes of the Isle of Man population more broadly, as detailed in Section 3.7.1, the latest data from the 2018 Household Incomes and Expenditure Survey, shows that in 2018 the average weekly household income on the Isle of Man was £1,125. In nominal terms, this is slight increase from £1,052 average weekly household income in 2012/13 (in 2020 prices).

This average across all households, however, hides a number of disparities in the incomes of individuals across the population. As shown in Figure 3.57 on page 96, there has been a small decrease in the total weekly income of the poorest quarter of households, while households with the highest quarter of incomes were 37% better off in 2018 than their counterparts in 2012.

The composition of household income has also changed over time, with wages and salaries accounting for a decreasing share of household income, on average, in line with evidence of an ageing population for whom pensions account for a larger share of their household income. Data for the UK indicates that between FYE 2011 and FYE 2020, median household income increased by 7%, an average of 0.8% per year after accounting for inflation. Growth in income of the poorest fifth of people did not move at the same pace as inflation, leading to a fall in median income of the poorest fifth by an average of 3.8% per year between FYE 2017 and FYE 2020. By contrast, median income of the richest fifth continued to increase steadily between FYE 2017 and FYE 2020, suggesting an increase in income inequality over this time period.[120]

The most recently available data for Guernsey indicates that mean household incomes in 2018 increased by 5.5% from 2014, and median household incomes increased by 7.3% from 2014. In terms of composition, private income accounted for over 88% of mean average household incomes in 2018 (derived from employment, business, personal pensions and other private sources of income), followed by old age pension accounting for 7.5%, and benefits (excluding old age pensions) and rent rebates collectively account for 3.9%.[121]

Further data and analysis relating to household incomes is included in Section 3.7.1

5.3.1 Taxation

Like most jurisdictions, the Isle of Man has various rates of tax applied to income dependent on an individual's income band, with the highest marginal tax rate set at 20%. National insurance is also collected in the Isle of Man at a rate of 11% - 12.8% depending on weekly income.

The income tax thresholds and rates in place on the Isle of Man are set out in Table 5.2 below.

Table 5.2 Isle of Man income tax rates and thresholds, 2021

Income band	Marginal tax rate
£0 - £14,250 ('Personal Allowance')	**0%**
£14,251 – £20,750	**10%**
£20,751 +	**20%**

Source: Locate Isle of Man

As discussed further in Section 5.3.3, the income tax rates in the Isle of Man are substantially lower than in neighbouring jurisdictions. Additionally, the Isle of Man allows joint-and-severally-liable ("JSL") taxation whereby individuals who are married or in a civil partnership

[120] ONS. (2021). 'Average household income, UK: financial year 2020'.
[121] Gov.gg. (2020). 'Guernsey Household Income Report'.

may choose to be taxed on their joint income, with the allowances and bandings for marginal tax rates effectively doubled.[122]

There are also income tax caps available on the Isle of Man which individuals may request to have applied. These limit the income tax due to £200,000 per annum for an individual and £400,000 for a JSL couple. For particularly high earners, this can lead to substantial income tax savings – especially as this type of arrangement is not present in other jurisdictions, such as the UK.

5.3.2 Cost of living

Data suggests that the cost of living on the Isle of Man has increased over time. This is reflected in the Isle of Man living wage, which is reported in Table 5.3 below; the living wage represents the minimum earnings necessary to allow people the basic opportunities and choices necessary for them to participate in society – the methodology for calculating this for the Isle of Man is the same as that of the Living Wage Foundation in the UK.[123]

Table 5.3 Isle of Man household budgets to meet living wage standards: 2017-2021, £ per week, nominal

	2017	2019	2020	2021
Single	297	368	408	373
Couple	412	492	503	487
Single parent with 1 child	646	679	684	794
Couple with 1 child	723	754	762	865
Couple with 2 children	889	923	925	1,223
Couple with 3 children	1,042	1,081	1,086	1,448

Note: Living wage for single person taken as the mean of single male and single female living wages. Note that for 2021 the basket of goods used was updated to be more comparable to the UK basket of goods, which included adding a number of additional goods and services. However, this year also saw a substantial increase in prices of goods and services included in the basket.
Source: Isle of Man Living Wage 2021

As can be seen from the data, the living wage has increased for all household types, by around 20-40% over the period from 2017 to 2021. This implies a CAGR in the living wage of around 4-9% for this period which is between three- and six-times average CPI[124] for the Island. Average household expenditure, as discussed in Section 3.7.2 above, has seen an increase in line with that of the living wage: for the period FY 2012/13 to FY 2018/19 real average household expenditure had a CAGR of 4% and nominal household expenditure had a CAGR of c. 6%.

[122] This is typically beneficial where the individuals concerned earn income that would normally be taxed at different rates. For example, if individual A earns £10,000 per annum and Individual B earns £50,000 per annum, if each were taxed individually, this would mean a tax liability of £0 for A and £6,500 for B. However if A and B file elect to pay tax on a JSL basis, this would mean a total £28,500 tax-free allowance across the JSL return, income in the band £28,501 – 41,500 taxed at 10%, and income of £41,501+ taxed at 20%. A and B's tax liability on a JSL basis would be £5,000, or £1,500 less than where each of A and B would be liable for taxes on a non-JSL basis. For more details see: Isle of Man Government - Rates and allowances

[123] https://www.gov.im/about-the-government/departments/cabinet-office/economic-affairs-division/isle-of-man-living-wage/

[124] As reported in Section 3.8, average inflation on the Isle of Man was around 1.3% in 2015-2020.

Similarly, the increase in the living wage is substantially greater than the increase in mean (4%) and median (9%) Manx weekly earnings.

Overall, this means that the costs of items considered for the living wage have increased at a faster rate than prices overall in the economy and faster than wages have increased, suggesting that the Isle of Man may be becoming less affordable over time. In particular, families with children may be impacted, as growth in the living wage has been the highest for couples with multiple children (c. 40% increase from 2017 – 2021).

5.3.3 Comparative assessment of the Isle of Man's household income and cost of living

Income tax in the Isle of Man is low compared to most larger developed economies, with the standard (10%) and higher (20%) rates around half of those charged in the UK (20% standard; 40% higher; 45% additional) and in Ireland (20% standard; 48% higher[125]).

Table 5.4 below compares net earnings for households under several illustrative scenarios, which shows the variation in tax treatment between the Isle of Man and UK[126]. For simplicity, none of these scenarios reflect the impact of benefits, nor the impact of the 'Health Levy' proposed by the UK Government. The UK is used as a comparator in this analysis given that it is a key location from which overseas recruits are attracted. This shows that – at equivalent gross income levels – the comparative advantage in net income for individuals or working couples at around median earnings is marginal, whereas the advantage at higher income levels is much clearer.

[125] Treating Ireland's Universal Social Charge as part of income tax.
[126] Further assumptions underpinning the scenarios are set out in Appendix 1.

Table 5.4 Summary of illustrative scenarios: IoM vs UK net income, 2021

Short Description	Gross Income	Net Income IoM	Net Income UK	Net Income Diff (IoM - UK)	Net Income Diff (% UK Net)
A single recent graduate with employment income of £35k	35,000	27,650	27,462	188	1%
A young couple with joint income from employment of £70k and a £130k mortgage on a £180k flat	70,000	57,269	54,923	2,346	4%
A mid-level professional with employment income of £50k and a dependent spouse	50,000	43,009	37,662	5,347	14%
An experienced doctor and her high school teacher spouse with combined income of £105k and a £300k mortgage on a £500k house	105,000	84,248	76,751	7,497	10%
High-level professionals earning combined employment income of £148k plus addition interest, dividend and rental income totalling £128.4k	276,400	219,658	171,502	48,156	28%
A HNWI with multiple business interests; self-employed with no employment income	1,060,000	852,298	539,534	312,764	58%

Source: KPMG analysis

The Isle of Man living wage is generally higher than that in the UK – which is also consistent with the higher average earnings in the Isle of Man compared to the UK, as discussed in Section 3.3.4.

The data presented in Table 5.5 below shows that this difference in the living wage between the UK and Isle of Man has increased over time. While for a couple with no children, the difference in living wage is more limited at 7% in 2021, for couples with multiple children the Isle of Man living wage is more than double that of the UK[127].

[127] On enquiry, the large discrepancy between the IoM and UK living wages that arose between 2020 and 2021 was explained as arising from a combination of revisions and extension to the basket of goods included to improve comparability to the UK and large jumps in the prices of certain items.

Table 5.5 Isle of Man and UK living wage and comparison to Isle of Man weekly earnings: 2017 and 2021, £ per week and % difference

Gross Income	2017			2021		
	IoM	**UK**	**Difference (%)**	**IoM**	**UK**	**Difference (%)**
Single	297	279	6%	373	305	22%
Couple	412	413	< 1%	487	453	7%
Single parent with 1 child	646	594	9%	794	658	21%
Couple with 1 child	723	679	7%	865	758	14%
Couple with 2 children	889	776	15%	1,223	784	56%
Couple with 3 children	1,042	894	16%	1,448	946	53%

Note: Living wage for single person taken as the mean of single male and single female living wages.
Source: IOMG Data, KPMG Analysis

When taking into account marginal tax advantages at lower-to-middle incomes and the higher costs of living on-island, and assuming similar roles attract similar gross rates of pay between the two jurisdictions[128], the financial advantage for those on lower-to-middle incomes moving to the Island is not clear.

5.4 Education

There are several mechanisms by which education is important to attracting people to the Isle of Man, and consequently driving economic growth. People may choose to locate in a certain place due to post-secondary/further/ongoing education opportunities. What is more as the pace of new technology adoption accelerates, post-school upskilling and lifelong learning may become increasingly important for the workforce. Additionally, economically active individuals may factor in the educational quality available to their children when choosing where to live and work. Evidence suggests that even early learning influences student attainment in later life,[129] and so is likely important in people's decisions on where to locate.

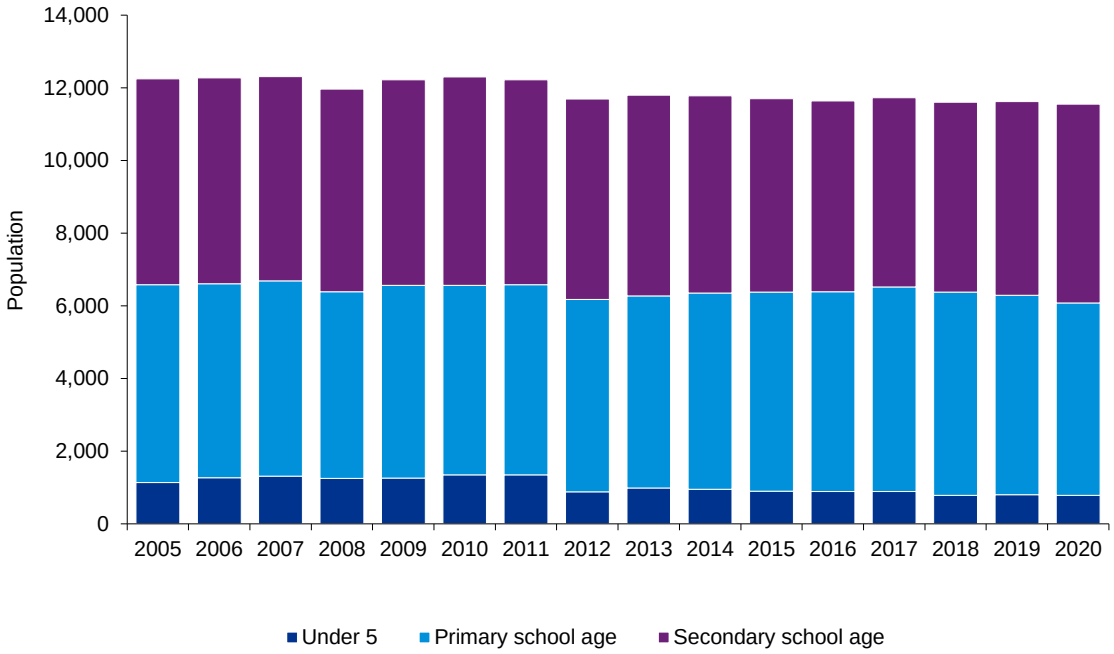
The Manx school system generally reflects that of the UK. Children aged 5-16 are required to attend school on the Island[130], with pupils in Reception to Year 6 attending primary schools and in Year 7 onwards attending secondary schools.

The number of children resident in the Isle of Man is reported in Figure 5.9 below: in 2020 there were around 5,500 primary school aged children on the Island and around the same number of secondary school aged children. These numbers have remained broadly stable since 2005. However, the number of under 5s has dramatically fallen from 2012 onwards: the

[128] We do not have reliable comparative data at role level. Anecdotal evidence suggests that gross rates of pay here are often somewhat higher that the UK average, but generally below London rates.
[129] KPMG (2020), 'UK regions: a framework for growth', January, p. 21.
[130] Younger children may attend one of the Island's approx. 50 privately-operated day care centres (https://www.gov.im/categories/caring-and-support/care-services/child-day-care-centres/) or approx. 60 childminders (https://www.gov.im/categories/caring-and-support/care-services/registered-childminders/). IOMG currently offers a universal credit towards pre-school costs for children in their last year before starting compulsory education.

average number of children in this age range each year in 2006-2011 was around 1,200-1,300 whilst from 2012 onwards this has decreased by around a third to c. 800 in 2018-2020.

Figure 5.9 Children resident on the Isle of Man: 2005 – 2020



Source: Department of Education and Children

There are a number of schools on the Isle of Man, including:[131]

- 32 state-funded primary schools and one private primary school;
- 5 state-funded secondary schools and one private secondary school; and
- University College Isle of Man (UCM), which offers further education opportunities as well as select higher education degrees in conjunction with the University of Chester. Details about UCM are included further below.

The distribution of state-funded schools are shown in Figure 5.10 below.

[131] https://www.gov.im/categories/education-training-and-careers/schools-and-colleges/

Figure 5.10 Location of public primary, secondary and further education facilities

Key: Blue: Public Primary Schools; Orange: Public Secondary Schools; Green: Public Further Education College Main Location
Source: IOMG, KPMG analysis

The Isle of Man has a pupil-to-teacher ratio of around 1:20 across primary and secondary schools.

The Island's primary and secondary schools are not currently subject to full independent assessment process, but they do participate in ongoing school self-review and evaluation, which is subject to limited external validation. An analysis of external validation reports for evaluations conducted on 21 Island schools between 2017 and 2020[132] focusing on three aspects at each school validated:

[132] https://www.gov.im/about-the-government/departments/education-sport-and-culture/education-improvement-service/school-self-review-and-evaluation-reports/

— 0 ‘Inspirational’ ratings

— 36 ‘Very Effective’ ratings

— 24 ‘Effective’ ratings

— 3 ‘Not Yet Effective’ ratings

5.4.1 Educational attainment and post-secondary placement

Similar to the UK, the Isle of Man has GCSEs and A level exams, held at the same point in a pupil’s journey through school. Table 5.6 below sets out exam results for Level 3 qualifications (including A levels but also level 3 BTEC qualifications) and Level 2 qualifications (which include GCSEs). As can be seen from this table, the proportions of entries receiving top grades have varied in recent years, with improved Level 3 grades in 2017-2018 compared to other years, but lower Level 2 grades in those years.

Table 5.6 Isle of Man exam results: % entries receiving top grades, 2015-2019

	A levels (A*-B grades)	GCSE (A*-A grades)
2015	42%	19%
2016	42%	20%
2017	46%	18%
2018	51%	16%
2019	42%	20%

Source: KS4 Attainment in Level 1 & 2 Qualifications 2019; KS5 Attainment in Level 3 Qualifications 2019

Following school, the majority of students go on to university study off-island – around 60% of students (at the end of Year 13/14). Around 10% seek an on-island university place (only available at UCM) and the remainder of students leaving secondary school whose destination is known (around 25%) seek employment.

Table 5.7 Post secondary school placement: 2016-2020

Year	University Place off Island	University Place UCM	Employed / Looking for Employment	Other & unknown
2016	64%	8%	19%	9%
2017	67%	6%	21%	6%
2018	65%	6%	24%	5%
2019	59%	10%	26%	5%
2020	61%	10%	23%	5%

Source: IOMG Data

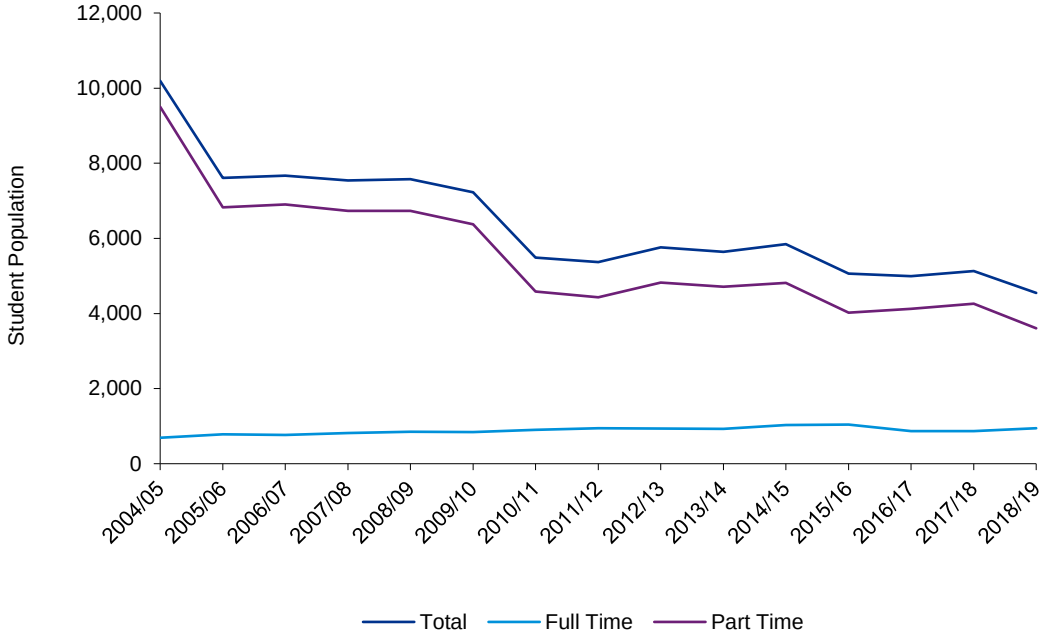
Box 5.1: University College Isle of Man

UCM is the sole institution of further and higher learning on the Island.

Over time the number of students has decreased substantially – predominantly driven by a decrease in part-time students. From 2004/05 to 2018/19, the number of these part-time students decreased by over 60% from around 9,500 to around 3,600. In this same time period, there has been some increase in full-time enrolment from around 700 to around 900 students; nevertheless full-time students remain a minor proportion of enrolment.[133]

UCM was previously known as Isle of Man College and primarily offered vocational training to school leavers in addition to 'night school' classes for adult learners. In conjunction with the University of Chester it also now offers degree-level education in a number of topics. Courses on offer are largely aligned with vocations: students wishing to pursue campus-based study at degree level in many academic disciplines have no choice but to go off-island.

Enrolled Students at the University College Isle of Man: 2004/05 - 2018/19



Source: Isle of Man Government Data, KPMG Analysis

In general, IOMG funding towards participation in higher education follows a similar structure whether a student attends UCM or a UK-based institution: (i) tuition fees are grant funded subject to an annual contribution, which can be covered by a student loan[134], and (ii) grants towards living expenses are means tested, with the basic amount differing depending on the location of study. Tuition fees at UCM for students meeting residency requirements are lower than for students from off-island.

[133] A preliminary response from UCM suggests that the decline in part-time enrolment may be explained by a reduction in finance sector-related training delivered at UCM e.g. bookkeeping and accountancy.

[134] The main level of contribution is £2,500 per year of study, although means tested contributions are sought where the student's contributors have combined gross income in excess of £112,000 per year.

5.4.2 Ongoing and further education

In addition to UCM there are a number of private training providers on the Island, primarily offering training towards professional qualifications (e.g. accountancy), shorter form corporate training and training courses required by organisations to meet statutory requirements (e.g. first aid, health and safety at work, data protection etc).

Island residents also have access to educational resources from many educational institutions, professional bodies and training providers that are available online, including formal qualifications offered via distance learning. We do not have data at present, however, to understand the level of take up of such qualifications. Understanding this will be important as part of the design of any policy solutions associated with upskilling and reskilling the Island's population.

5.4.3 Comparative assessment of the Isle of Man's education provision and performance

Comparing education provision on the Isle of Man to the UK and the Channel Islands, one immediate difference is in relation to the pupil to teacher ratios. As seen in Table 5.8, this ratio is higher in the Isle of Man than in the UK, and substantially higher than in the Channel Islands. This is important, as lower pupil-teacher ratios are often linked to better educational outcomes.

Table 5.8 Pupil teacher ratio: secondary schools, 2019-2021

Country	Ratio
Isle of Man (primary and secondary average)	01:20
UK (secondary schools)	01:17
Guernsey	01:13
Jersey	01:13

Notes: The IoM value refers to 2019-2021 and considers teachers for both primary and secondary schools while the others refer to 2020 and to secondary schools only.
Source: Guernsey government data, Jersey Government data https://www.gov.je/Working/Careers/16To19YearOlds/EnteringHigherEducation/Pages/StudyLocally.aspx),England Education statistics (https://explore-education-statistics.service.gov.uk/find-statistics/school-workforce-in-england) and IoM Teachers TP Ratio.

A lower proportion of Isle of Man students receive top grades for Level 3/Level 2 qualifications than in England or Jersey, as per Table 5.9 below. This is consistent with a higher teacher to pupil ratio in the Isle of Man, as reported above.

Table 5.9 Exam results: % receiving top grades, 2015-2019

	A levels (A*-B grades)			GCSE (A*-A grades)		
	IoM	England	Jersey	IoM	England	Jersey
2015	42%	53%	58%	19%	21%	28%
2016	42%	53%	55%	20%	20%	30%
2017	46%	53%	46%	18%	20%	24%
2018	51%	53%	61%	16%	20%	25%
2019	42%	51%	60%	20%	21%	25%

Note: Data for England and Jersey is reported to A levels and GCSEs only, and does not include potential other Level 3/Level 2 qualifications, respectively.
Source: KS4 Attainment in Level 1 & 2 Qualifications 2019; KS5 Attainment in Level 3 Qualifications 2019; https://analytics.ofqual.gov.uk/; https://www.gov.je/Education/Schools/ChildLearning/Pages/ExamResults.aspx#:~:text=%E2%80%8B%E2%80%8BA-levels%20%20%20%20Grade%20%20%20,%20%20%E2%80%8B2.5%25%20%2010%20more%20rows%20

Despite lower top grades than England or Jersey, university placement for Manx secondary school graduates is high. In 2020 it was 71% in the Isle of Man, which was in line with preceding years where this hovered around 70% in 2016 - 2019; by comparison university placement

was only 61-62% of secondary school graduates for the UK as a whole[135]. Nevertheless, the Island is less successful in retaining university students on-island than some comparators: for example, in the Cayman Islands there are around two off-island university placements for every three on-island placements, whereas for IoM post-secondary placements there are six students that go to study off-Island for every one student at UCM. This may partly reflect the relative easy access for students from the Island to institutions in the UK.

5.5 Health and wellbeing

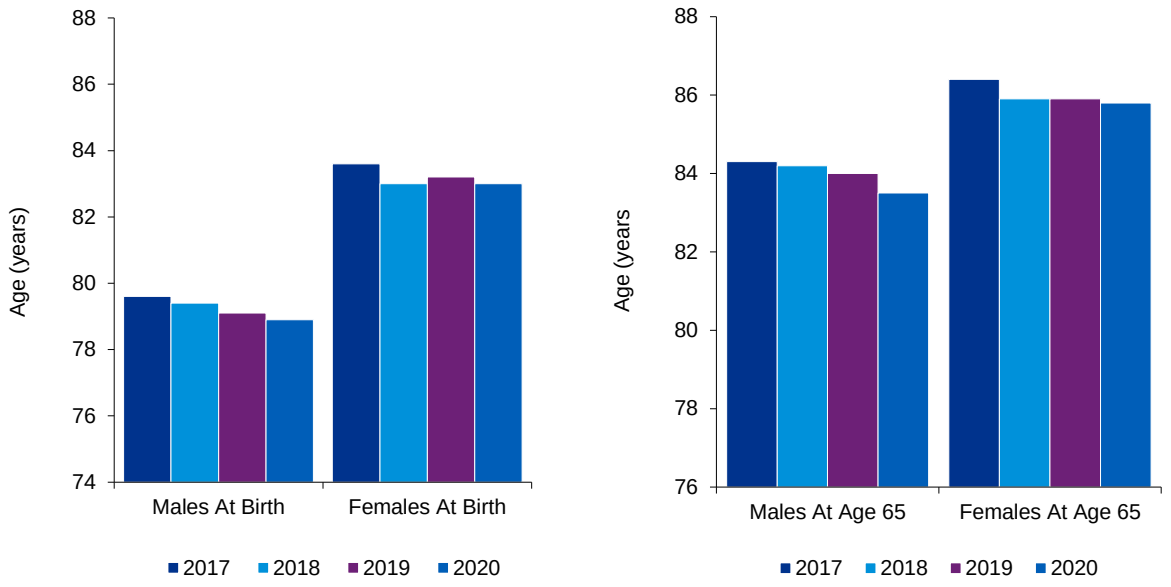
Health, wellbeing and life satisfaction can be important factors in people's decisions to remain in a location or to move. Additionally, access to quality healthcare is important to attracting people to live in a location, as this may influence and support health and wellbeing.

Figure 5.11 below reports data on life expectancy on the Isle of Man. The data shows that life expectancy is lower at birth than at age 65: for males, life expectancy at birth is around 5 years lower than at age 65, and for females this difference is around 3 years.

Life expectancy appears to have decreased over the period 2017 to 2020, and even noting that there may be an impact in 2020 due to the COVID-19 pandemic, life expectancy decreased for all three groups in Figure 5.11 in the two years prior to this. For a location with an ageing population – as discussed further in Section 3.4 – a declining life expectancy may be of particular concern.

[135] UK data for cohorts finishing secondary education in FY 2015/16 and 2016/17 that pursue a sustained degree, level 4 or level 5 course. https://explore-education-statistics.service.gov.uk/find-statistics/progression-to-higher-education-or-training/2018-19#dataDownloads-1

Figure 5.11 Isle of Man life expectancy: 2017-2020



Source: Isle of Man in numbers, 2021

A common measure relevant to considering a place being attractive to people is the life satisfaction of residents: low life satisfaction may lead to outbound migration, but also make it difficult to attract new residents or even visitors. The Isle of Man Social Attitudes Survey includes a question regarding life satisfaction, and over time, this has fluctuated, as seen in Table 5.10 below. Life satisfaction data for other countries is calculated based on a different methodology, and therefore is not immediately comparable.[136] That said, assuming that the question asked in the Island's Social Attitudes Survey is a proxy for the more complex calculation of life satisfaction done elsewhere, the Isle of Man is consistently in the top quartile of countries for life satisfaction.[137]

Table 5.10 Isle of Man life satisfaction score: 2017 – 2019

Year of survey	Life satisfaction score
2017	6.43
2018	6.20
2019	6.27

Note: Life satisfaction score calculated as the average response to a question where respondents are asked to place themselves on a scale of zero to ten, where zero represents the works possible life and ten represents the best possible life.
Source: Isle of Man Social Attitudes Surveys, 2017, 2019

5.5.1 Self-reported health and well-being

Data on self-reported perceptions of physical health, mental wellbeing and stress indicate a broadly positive picture with most residents reporting good health and moderate-to-good

[136] For example, see World Happiness Report, 2021, pp. 17 – 23.
[137] In 2019, the Island would place 34th highest life expectation (out of 156 countries), while in 2018 this would be 38th, and in 2017 34th. Isle of Man Social Attitudes Survey, 2019, p. 69; Isle of Man Social Attitudes Survey, 2018, p. 71; Isle of Man Social Attitudes Survey, 2017, p. 58; World Happiness Report, 2019, pp. 27 – 29.

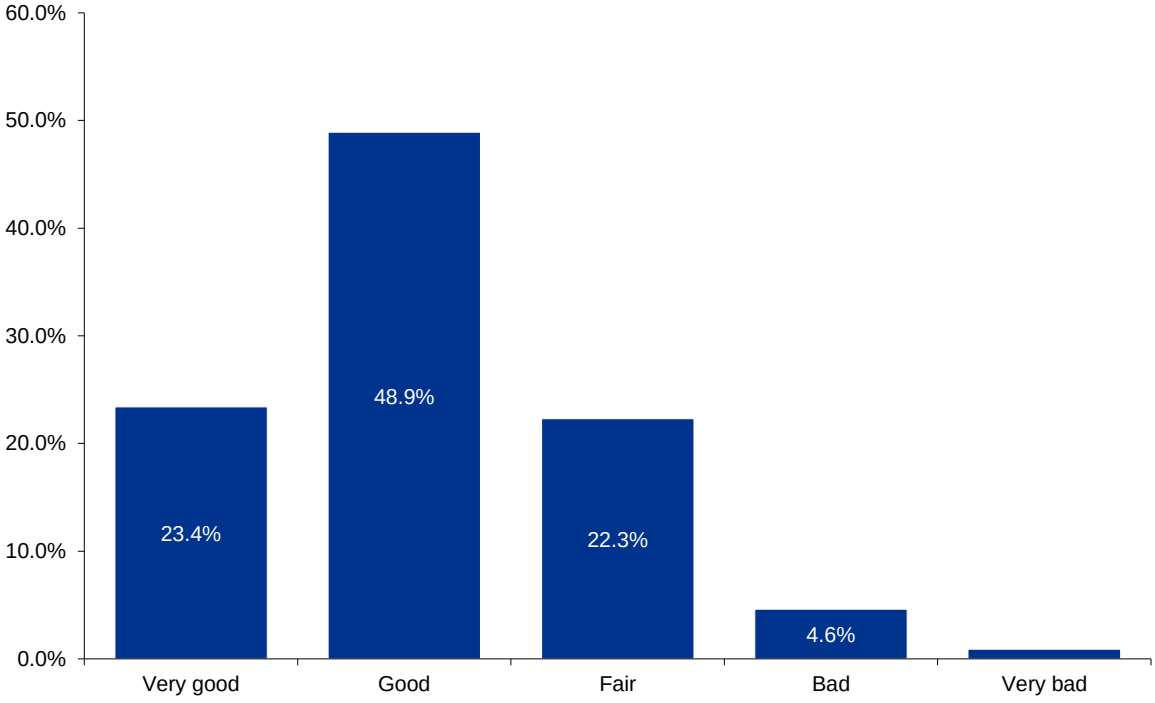
mental wellbeing and moderate to low stress levels. As can be seen in Figure 5.12, Figure 5.13 and Figure 5.14, in 2019:

- 94.6% of survey respondents reported their health as being ‘fair’, ‘good’, or ‘very good’;
- 88.9% of survey respondents reported their mental wellbeing as ‘high’ or ‘moderate’; and
- 88.4% of survey respondents reporting having moderate, small, or no stress.

This may be linked to the excellent access to nature on the Island, as living in proximity to green (or blue) areas is generally associated with better health outcomes for all age groups. Empirical studies show a correlation between proximity to green and blue areas and a decrease in symptoms of depression, psychological distress and behavioural disorders.[138]

Figure 5.12, Figure 5.13 and Figure 5.14 show the proportion of all respondents to the Health and Lifestyle survey who gave each response to three wellbeing questions.

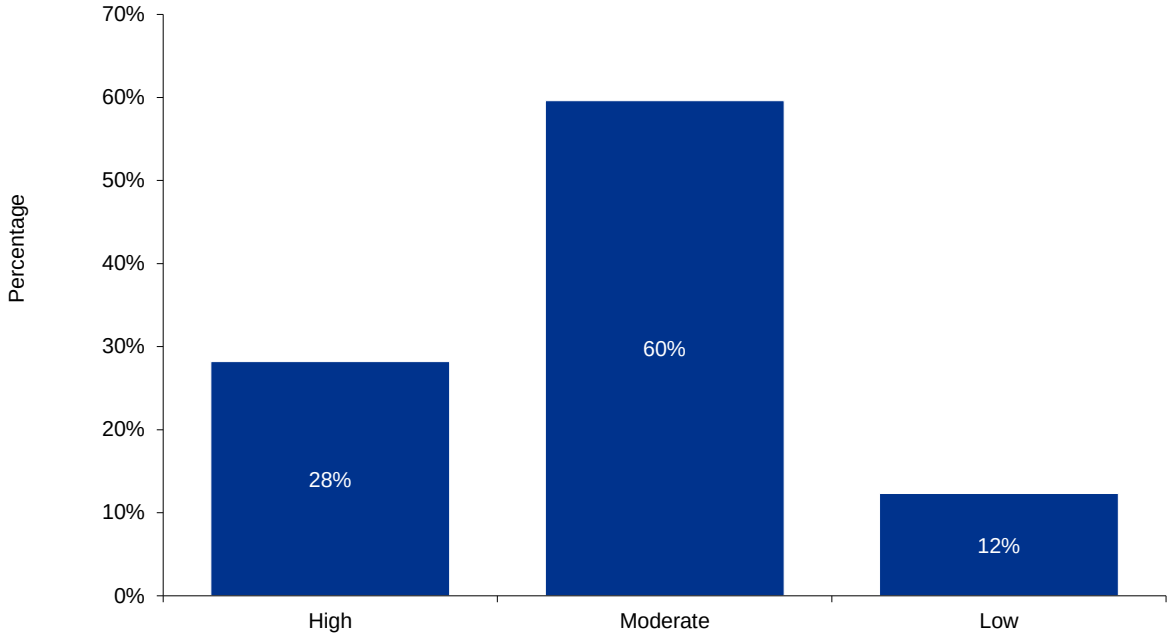
Figure 5.12 Self-perceived health: 2019



Source: Health and Lifestyle Survey (2019)

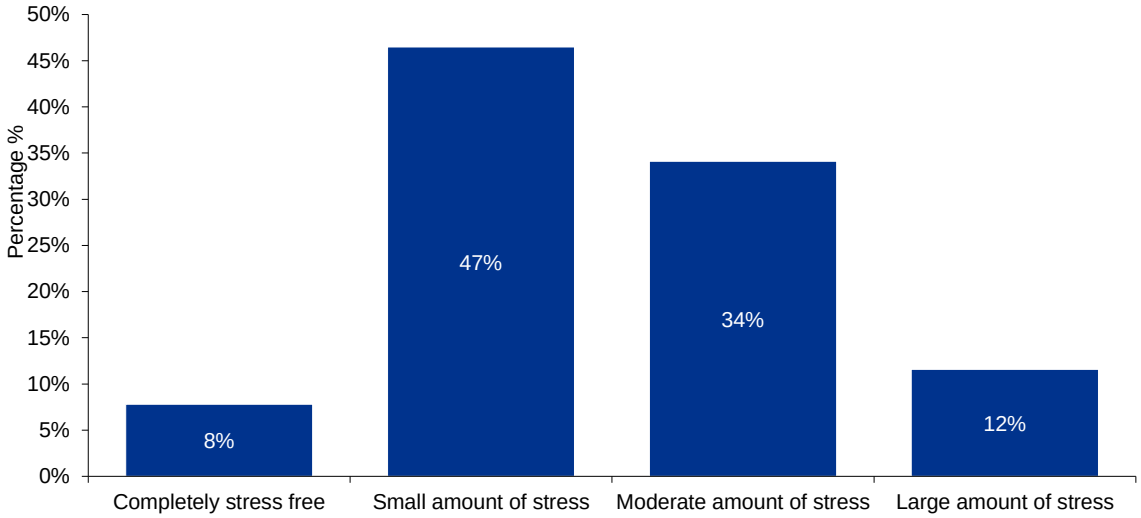
[138] KPMG (2020), ‘UK regions: a framework for growth’, January, p. 23.

Figure 5.13 Self-perceived mental wellbeing: 2019



Source: Health and Lifestyle Survey (2019)

Figure 5.14 Self-perceived stress-levels: 2019



Source: Health and Lifestyle Survey (2019)

Analysing the data in more detail indicates that there were select segments of the Manx population who in 2019 reported noticeably different health, wellbeing and stress levels from the average across all respondents:

— high earners (£80,000+ income p.a.) reported better than average self-perceived health (37.7% ‘very good’ health; 49.1% ‘good’ health) and mental wellbeing (20.4% ‘high’ well wellbeing; 72.6% ‘moderate’ wellbeing).

— low earners (up to £20,000 income p.a.) reported worse than average self-perceived health (around 10% report ‘bad’ health), mental wellbeing (around 20% report ‘low’ wellbeing), and very mixed results in terms of stress levels, with proportionally greater numbers of people reporting being completely stress free (12.6%) and who have a large amount of stress (16.7%);

— a higher than average proportion of 18-24 year olds reported ‘very bad’ health (4.1%) and ‘very good’ health (30%), and a higher proportion report high mental wellbeing (34.1%);

— a greater than average proportion of 65+ year olds reported having ‘high’ mental wellbeing (35.9%) and having only a small amount of stress (58.3%) or being stress free (14.5%);

— individuals who identify as being of ‘other sexualities’ reported differences from the average as concerns self-perceived health (with only 13.9% reporting ‘very good’ health but 56% reporting ‘good’ health), worse mental wellbeing (28.9% ‘low’) and higher levels of stress (19.5% ‘large amount of stress’); and

— individuals with no formal qualifications had worse self-perceived health (16.4% ‘very good’ health; 40.8% ‘good’ health; 8.9% ‘bad’ health), however also had a higher proportion of individuals who are stress free (15.1%).

5.5.2 Healthcare services and performance

Since April 2021, publicly-funded healthcare services on the Isle of Man have been provided by Manx Care, an integrated care provider that operates at arm’s length from the Department for Health and Social Care.

Manx Care was established following an independent report by Sir Jonathan Michael which identified a number of issues with healthcare provision on the Isle of Man and made a number of recommendations, including that a single organisation should be responsible for delivering and/or commissioning all health and care services on the Island.[139]

Among other services, Manx Care operates:

— 13 GP practices across the Island;

— Noble’s Hospital, which includes the Island’s emergency department and a range of other services[140]; and

— Ramsey and District Cottage Hospital, which includes a minor injury and illness unit, and provides select other services[141].

The location of these is shown in Figure 5.15 below.

[139] Independent Review of the Isle of Man Health and Social Care System (gov.im), p. 9.
[140] Isle of Man Government - Noble's Hospital
[141] Isle of Man Government - Services at Ramsey and District Cottage Hospital

Figure 5.15 Location of GP surgeries and hospitals

Key: Blue: GP surgeries; Red: Hospitals
Source: IOMG, KPMG analysis

For certain specialist healthcare services, patients are transferred to the UK, and are often treated at Liverpool University Hospitals NHS Foundation Trust.

There is limited access to private healthcare on-island. The Private Patient Unit at Nobles Hospital has recently been refurbished and a service provider is due to be appointed. Some consultants working in the public sector also undertake private work.

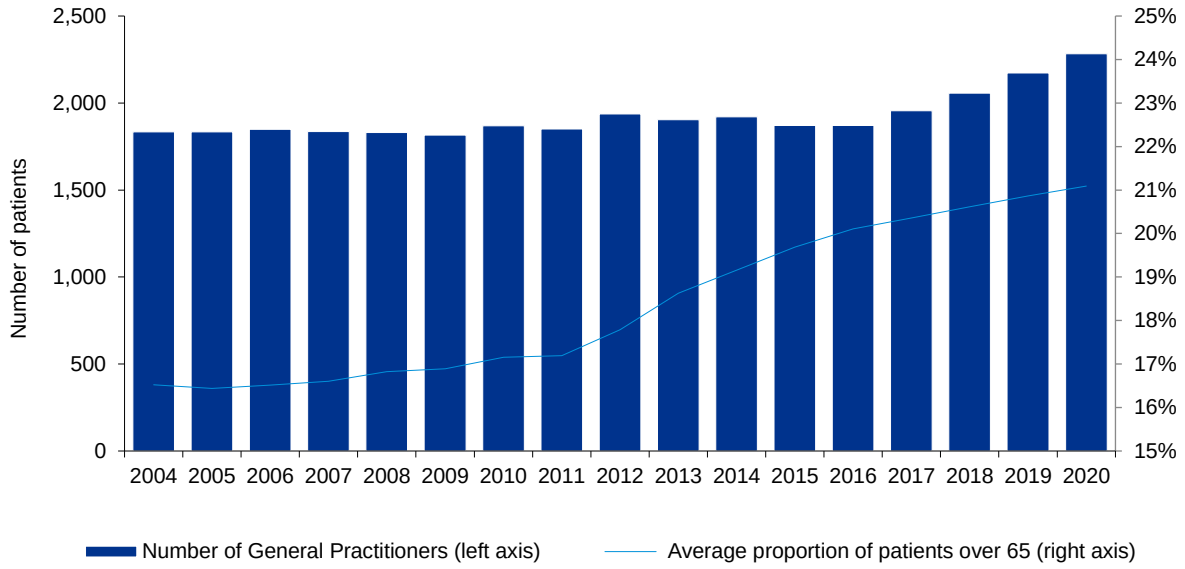
In terms of primary care, there is a relatively stable number of general practitioners (GPs) on the Island, with the number fluctuating between 52 and 57 over the period 2014-2020.

However, in Full Time Equivalent (FTE) terms the number has recently decreased to below 37 FTEs in 2020 (compared to 44+ FTEs prior to 2019).[142]

Figure 5.16 below shows that with decreasing GP FTEs, and a growing population in the recent years (as per Section 5.2.1), the average number of registered patients per GP has increased around 15% between 2017 and 2020. This follows a period where the number of patients per GP had been broadly stable, fluctuating between 1,800 and 2,000 between 2004 and 2017.

Additionally, the Island's ageing population is also reflected in the proportion of GPs' registered patients who are over 65, which has been slowly climbing throughout the 2004-2020 period, particularly from 2012 onwards.

Figure 5.16 Registered patients per GP and proportion over 65: 2004-2020



Source: Isle of Man in Number 2021

In terms of acute care performance, there are several performance metrics that can be used to indicate how timely and effective care is. Data covering a limited time period only (January to May 2021) is available. We understand that data for previous periods was measured using different approaches so a continuous timeseries of data is not available. While the data covers the COVID-19 period and so is likely to be affected by this, we also note that data from previous pre-COVID time periods may be less relevant, given Manx Care only launched in April 2021 with a 'shadow period' of several months ahead of launch.[143]

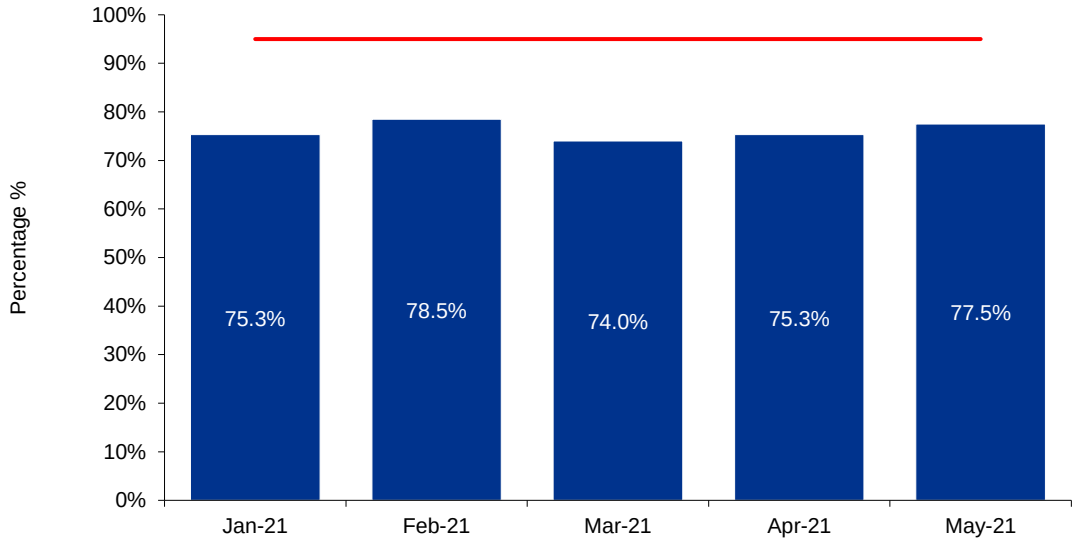
As can be seen below, time targets for performance of Accident and Emergency ("A&E"), ambulance responses and cancer referrals have not been met. However, any underperformance against targets in this time period should also be considered against the relevant context. The data available covers the winter months where pressures on healthcare

[142] Isle of Man in Numbers, 2021, pp. 43, 45.
[143] Manx Care Required Outcomes Framework (gov.im), pp. 2, 4.

systems are generally greater; additionally, the COVID-19 pandemic was ongoing at this time, and this has impacted healthcare providers' ability to see and treat patients.

For emergency patients, there is a target for 95% of patients to be admitted to hospital, transferred to another facility, or discharged within 4 hours of arrival at A&E ('the four hour target'). As can be seen in Figure 5.17 below, performance is consistently below the 95% target and the target was only met for around 75% of patients who attended A&E between January and May 2021.

Figure 5.17 Proportion of patients meeting A&E 4-hour target: Jan 2021 – May 2021

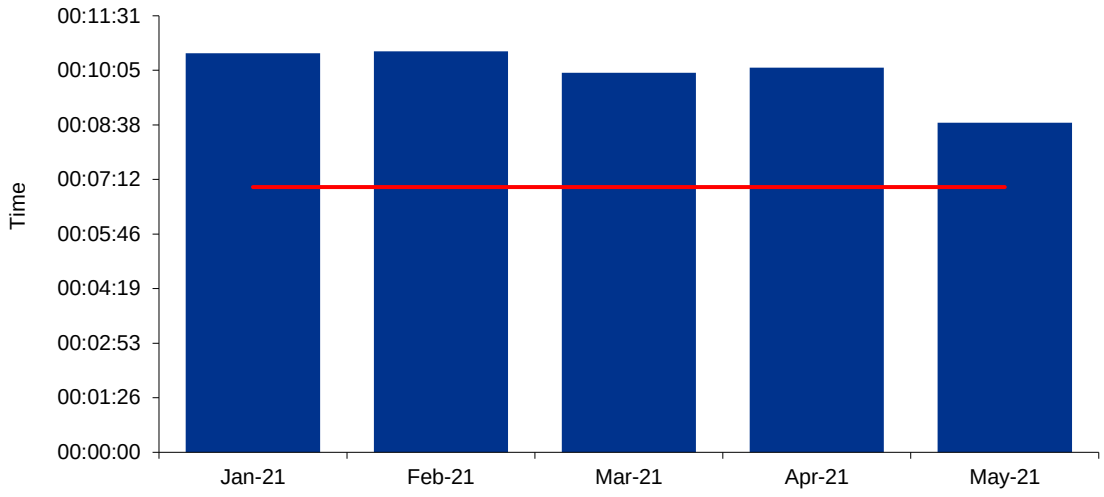


Source: Manx Care Integrated Performance Dashboard (March & May 2021)

Another measure of emergency care performance is Category 1 ambulance response time[144]. For certain conditions in particular, such as cardiac arrest, prompt ambulance arrival and transfer is critical to preserving a patient's life and/or future quality of life. Two targets are set for Category 1 ambulance response: one for mean response time (7 minutes or less), and one for the 90th percentile of ambulance responses (15 minutes or less). As can be seen in Figure 5.18 below, mean response times were around 10 minutes, though did drop in May 2021 to around 9 minutes; 90th percentile of response time vary month to month, with the target only being slightly exceeded in January and May 2021, whilst the 90th percentile response time was longer between February and April 2021 (not shown on graph).

[144] Where an ambulance is responding to a life-threatening condition.

Figure 5.18 Category 1 mean ambulance response times: Jan 2021 – May 2021

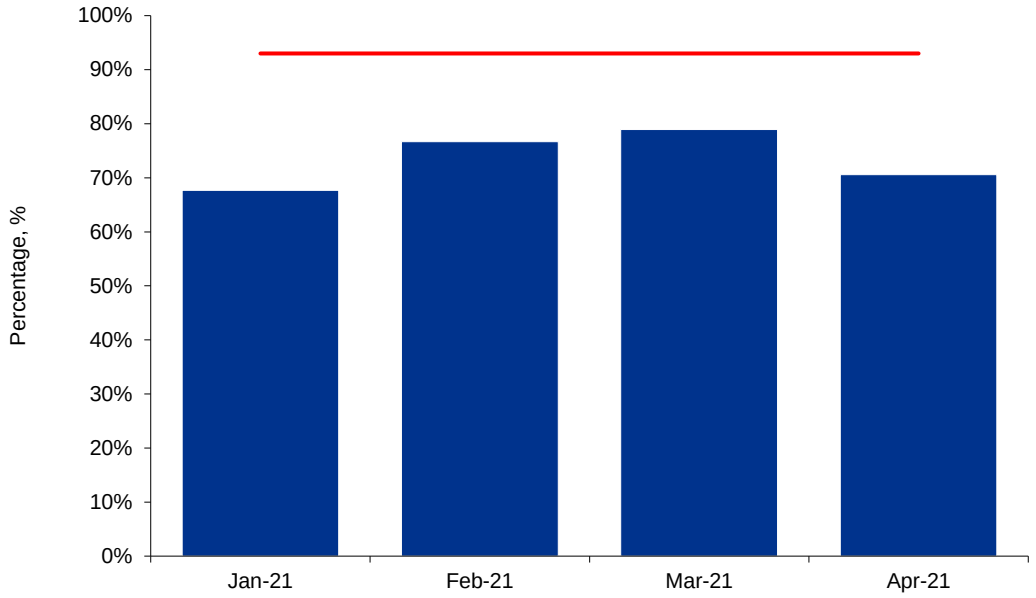


Source: Manx Care Integrated Performance Dashboard (March & May 2021)

An indicator for care provided to non-emergency patients is the proportion of patients with urgent cancer referrals who were seen by a specialist for their first outpatient appointment within two weeks of their referral being received. There is a 93% target for this. As can be seen from Figure 5.19 below, only around 65-75% of patients each month[145] were seen within the two-week target.

[145] Data is not available for May 2021 at the time of writing.

Figure 5.19 Proportion of urgent cancer referral patients seen within two week target: Jan 2021 – Apr 2021



Source: Manx Care Integrated Performance Dashboard (March & May 2021)

The COVID-19 pandemic on the Isle of Man

As of the Public Health Directorate's surveillance report of 16 Sep 2021[146], the Island had suffered 49 deaths related to COVID-19 since the start of the pandemic. This represents a rate of approximately 59 per 100,000 population based on the 2016 census resident population.

The Island imposed lockdown-type restrictions from 26 March 2020, with local restrictions gradually being relaxed through until June 2020. The Island was placed back into lockdown in January 2021 and again between March and April 2021 following spikes in cases.

The Island's border remained closed to most non-residents between March 2020 and June 2021, with varying levels of restrictions placed on residents travelling off-island during that period. An 'air bridge' arrangement between the Isle of Man and Guernsey allowed quarantine-free travel between the two Islands during the summer of 2020.

On 28 June 2021, the borders opened to people in the United Kingdom and Republic of Ireland who had two vaccine doses, provided two weeks had elapsed since their second dose. Further relaxations to these requirements have been made during summer 2021, although some restrictions remain.

While there was a large spike in July 2021 and cases continue to be identified, the proportion of those cases resulting in hospitalisations and deaths are much lower than observed earlier in the pandemic, mirroring the UK experience.

As of 20 September 2021[147] 65,430 residents of the Isle of Man had received a first vaccine dose and 63,489 had also received a second vaccine dose, representing 90% and 88% respectively of the eligible populations.

[146] https://www.gov.im/media/1374419/weekly-surveillance-report-160921-v2.pdf
[147] Per dashboard at https://covid19.gov.im/general-information/covid-19-vaccination-statistics/

Comparative assessment of the Isle of Man

So far, the Isle of Man has experienced a number of Covid-19 cases per 100,000 people (8,376) that is lower than the UK (11,076) and in Jersey (9,061), as shown in Figure 5.20. Deaths per 100,000 people are also more contained than in the UK and Jersey while vaccine doses administered per 100,000 people are higher, at 151,608 compared with 137,874 and 139,498 respectively.

Guernsey – an outlier in the chosen comparator set - has so far recorded considerably lower cases (2,370) and deaths (33) and higher vaccine doses (160,254) than the Isle of Man.

Figure 5.20 Covid-19 cases, deaths and vaccinations, Sep 2021

Country	Cases per 100,000	Deaths per 100,000	Vaccine doses administered per 100,000
Isle of Man	8,376	58	151,608
UK	11,076	202	137,874
Jersey	9,061	72	139,498
Guernsey	2,370	33	160,254

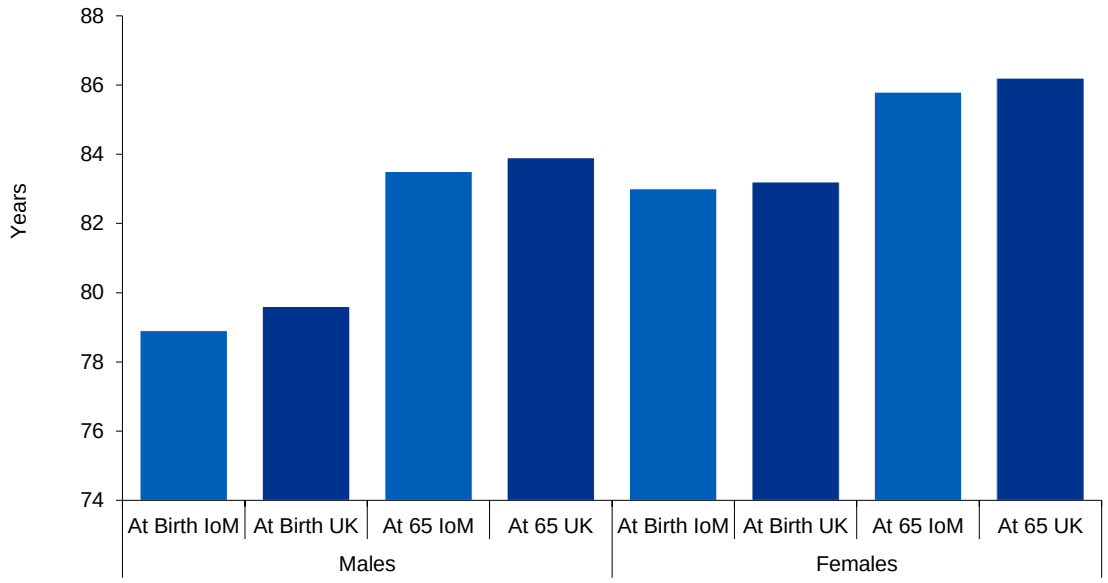
Source: World Health Organisation Covid-19 data.

5.5.3 Comparative assessment of the Isle of Man's health and wellbeing metrics

Using the indicators detailed in the sections above in relation to health and wellbeing on the Isle of Man, it can be seen that the performance varies on the basis of the specific indicator and the comparator.

For example, Figure 5.21 shows that life expectancy is broadly similar for the Isle of Man and the UK with no like-for-like group of the population having life expectancy differences of a year or more.

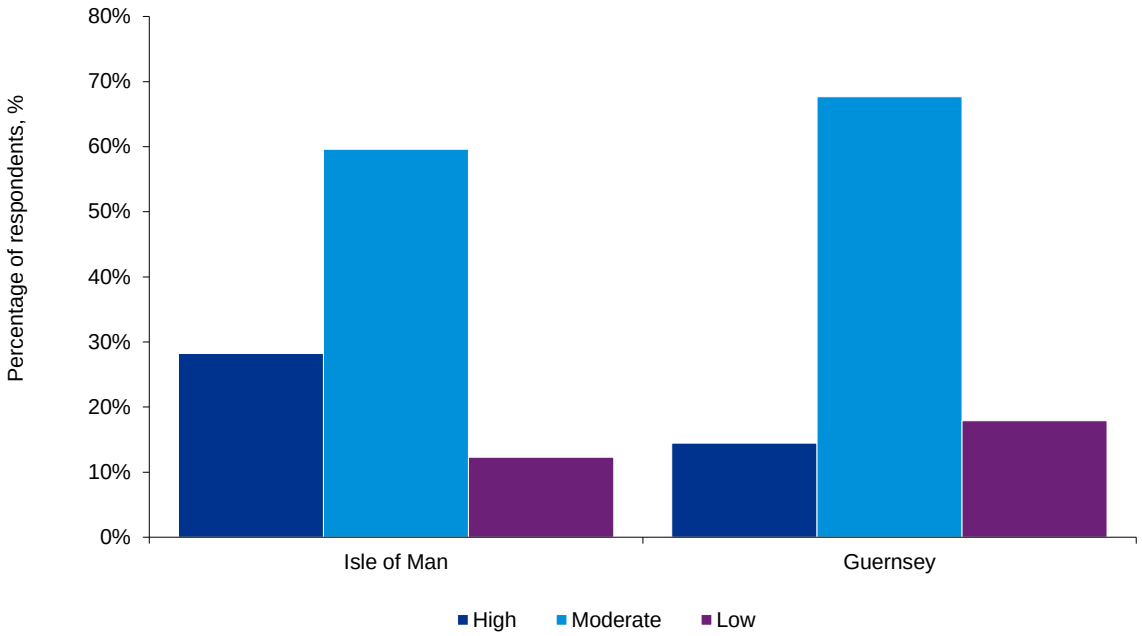
Figure 5.21 Life expectancy: 2020



Source: Isle of Man in Numbers, 2021

In terms of self-reported mental wellbeing, the Isle of Man appears to perform better than Guernsey. Figure 5.22 shows that a relatively higher proportion of the Manx population self-report to have “High” mental wellbeing than is the case in Guernsey, at similar levels of “Moderate” wellbeing across the two populations.

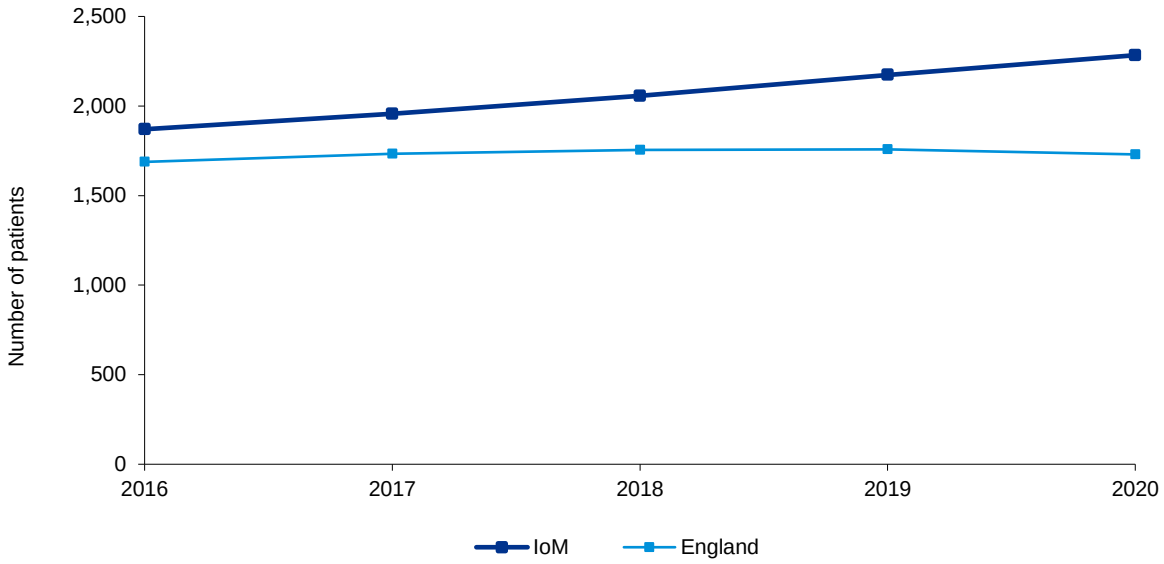
Figure 5.22 Mental wellbeing (2018 – Guernsey; 2019 – Isle of Man)



Notes: Other comparators such as the UK and Jersey are not included due to the different categorisation of mental wellbeing. Data for different years is included as the Isle of Man and Guernsey's most recent reporting of these statistics is for different years.
Source: Health and Lifestyle Survey, 2019, and Facts & Figures - States of Guernsey (gov.gg)

However, the Isle of Man records more patients per GP than England. Figure 5.23 shows that there were on average 2,284 patients per GP on the Isle of Man compared to 1,730 in England. Also, while patients per GP have increased on the Isle of Man since 2016, they have been relatively stable in England. However, it should be noted that the ratio will be more sensitive in a small population such as the Isle of Man's than in a larger one such as England's. The increase of the Isle of Man value can mainly be attributed to the loss of 8 GPs (and a slight increase in overall patients) since 2016. It would only take 12 additional GPs on the Isle of Man to match England's value.

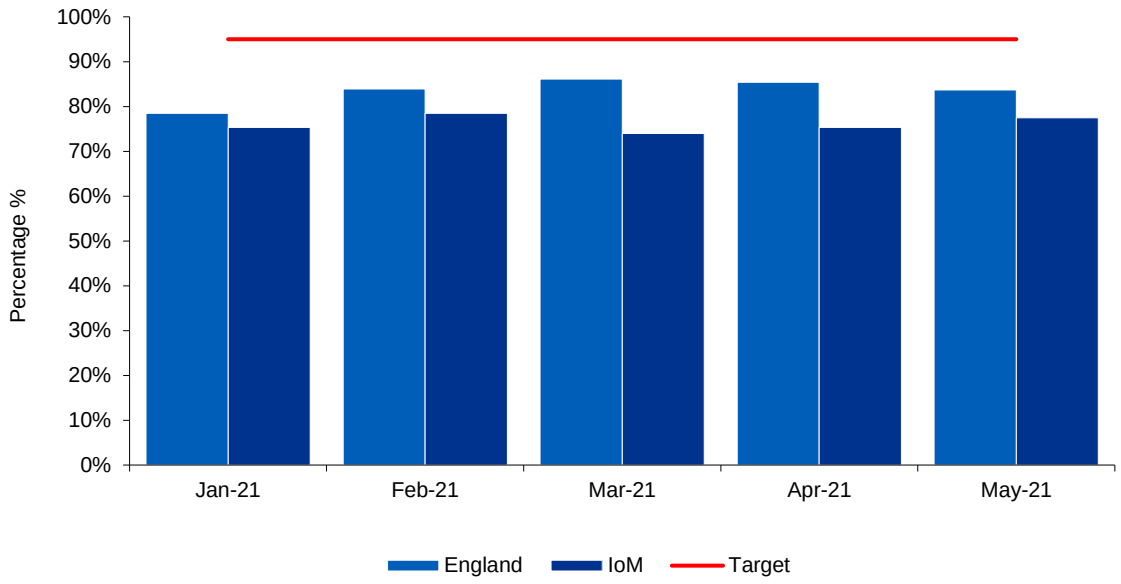
Figure 5.23 Patients per GP: 2016 – 2020



Source: Isle of Man in Numbers, 2021 and https://digital.nhs.uk/data-and-information/publications/statistical/general-and-personal-medical-services/30-june-2021

The A&E 4 hour target is the same for England as for the Isle of Man: 95% of all patients attending A&E should be admitted, transferred, or discharged within 4 hours of arrival. As can be seen in Figure 5.24 below, in January-May 2021, this target was missed at a nationwide level for England as well as the Isle of Man. However, there was consistently higher A&E performance in England than on the Isle of Man during this time period, with a higher proportion of patients in England meeting the A&E 4 hour target than on the Isle of Man. In January-May 2021, this difference was greatest in March 2021, where 12 pp more A&E patients meet the target in England than on the Isle of Man.

Figure 5.24 A&E 4 hours target: % of Patients, Admitted, Transferred or Discharged within 4 hours of arrival at the Emergency room, Jan 2021 – May 2021



Source: Manx Care Integrated Performance Dashboard (March & May 2021) and https://www.england.nhs.uk/statistics/statistical-work-areas/ae-waiting-times-and-activity/

Average Category 1 ambulance response times in England are also consistently faster than on the Isle of Man, as seen in Table 5.11 below. During the period considered, most months saw ambulance services in England meeting the 7-minute average target, and in the months where this was not met, the difference was less than 1 minute. By contrast, Category 1 ambulance response times were 3 minutes or more in excess of the target in the Isle of Man in all but one month over the period January to May 2021.

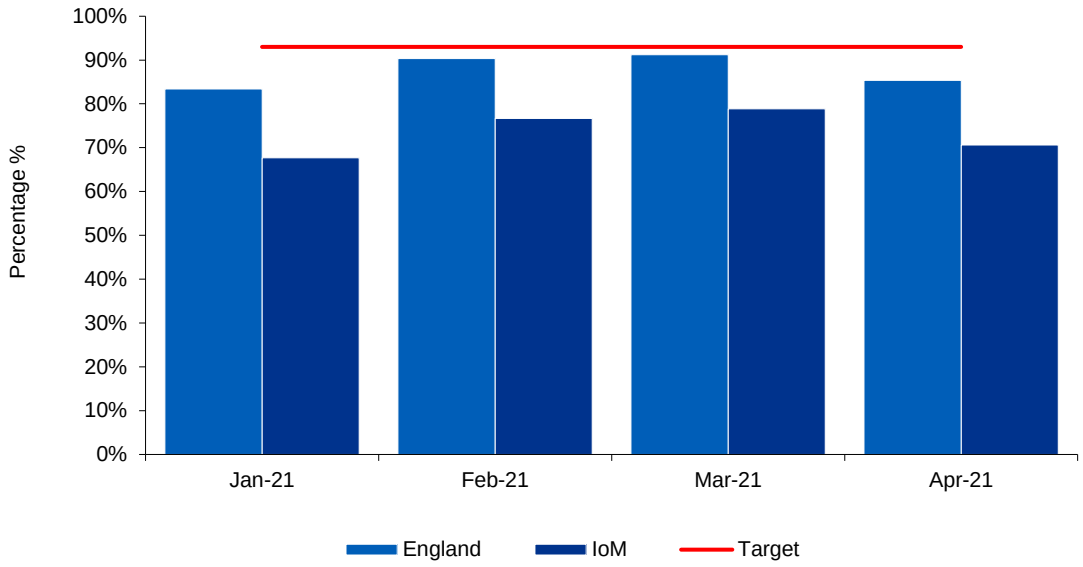
Table 5.11 Category 1 mean ambulance response times: Jan 2021 – May 2021

Time Period	Mean Response Time	
	England	IoM
Jan-21	00:07:38	00:10:32
Feb-21	00:06:51	00:10:35
Mar-21	00:06:47	00:10:01
Apr-21	00:07:00	00:10:09
May-21	00:07:25	00:08:42

Source: Manx Care Integrated Performance Dashboard (March & May 2021) [Add England source]

As concerns the two week target for cancer referral first appointments, as shown in Figure 5.25, a much higher proportion of patients in England were seen within this target time than on the Isle of Man - consistently around 15 percentage points more patients.

Figure 5.25 Proportion of patients seen within two-week cancer waiting time target: Jan 2021 – Apr 2021



Source: Manx Care Integrated Performance Dashboard (March & May 2021); https://www.england.nhs.uk/statistics/statistical-work-areas/cancer-waiting-times/monthly-prov-cwt/

5.6 Living environment and homes

The living environment is important to attracting and retaining people to a location. Workers and business owners want to live in places that provide a good environment for them and their families. For example, cultural as well as other leisure amenities can impart a unique identity on a local economy, bringing long-lasting benefits to local residents as well as attracting and retaining talent by raising the overall quality of living in the area. There are a number of factors which can impact the living environment in an area, and specifically, the following are assessed in this section of the report:

- The natural environment
- The range of leisure and cultural amenities
- Transport connectivity
- Housing stock, cost and quality
- Safety and crime

5.6.1 Natural environment and amenities

Overall, the Isle of Man provides excellent access to nature, including a number of green and blue spaces – as reflected for example in the Island's UNESCO biosphere status[148].

The Island boasts an attractive natural environment, including many parks, gardens, plantations, beaches and reservoirs (a selection of which are shown on the map in Figure 5.26

[148] UNESCO Biosphere - Visit Isle of Man

below). While great places to visit for a simple walk in beautiful surroundings, the Island's outdoor spaces are also an important resource for other leisure pursuits. For example:

- Several sites include dedicated mountain bike trails for riders of different abilities.
- The Island's reservoirs are stocked for fishing.
- Sailing and other watersports are possible around the Island's coast, with paddleboarding and kayaking gaining in popularity. There are several providers offering equipment rental and guided tours.
- For more intrepid walkers, longer routes include the Raad ny Foillan ('Way of the Gull'), which runs over 100 miles round the Island's coast and the Millennium Way, which runs just under 30 miles from Ramsey in the north up down via the Island's high central moorlands to Castletown in the south.
- Part of South Barrule plantation hosts a privately-run adventure centre offering a 'Go Ape'-style rope course, a laser field game and a quad bike track. The Venture Centre near Ramsey also offers a range of outdoor pursuits, including kayaking, abseiling, gorge walking and coasteering.
- The Island has one of the highest concentrations of 'dark skies' sites in the British Isles, with 26 designated locations around the Island which are ideal for stargazing.

Figure 5.26 Locations of selected parkland, beaches and reservoirs

Key: Blue: Reservoirs; Yellow: Beaches; Green: Parks, Gardens and Plantations
Source: IOMG, KPMG analysis

On-island stakeholders interviewed highlighted the beautiful natural environment and rich heritage of the Island and noted that while still relatively small geographically, the Island has considerably more – and more varied – public open space than the other Crown Dependencies. This was identified as a key strength, drawing residents and visitors alike. Notably, too, there are differences in climate between the Isle of Man and the other Crown Dependencies and other International Financial Centres. Where mentioned by stakeholders, it was generally considered that the Island fared less well on this measure, particularly when

compared to the other Crown Dependencies. In respect of the Caribbean islands, one advantage noted was that the Island was relatively less exposed to extreme weather events.

5.6.2 Cultural and leisure amenities

In terms of attractions, the Island has a mix of:

— Theatres and cinemas:
  - Principal among these is the Villa Gaiety complex in Douglas, which is operated by IOMG. It includes a large concert hall, a restored Victorian-era theatre, a smaller modern performance space, a small cinema and a children's soft play centre. In addition to hosting touring professional and local amateur shows throughout the year, all venues can be booked for conferences and events.
  - The privately-operated Palace Cinema in Douglas has one larger and one smaller screening room, largely showing the latest blockbuster releases.
  - There are several smaller arts venues around the Island, including the Centenary Centre in Peel, the Erin Arts Centre in Port Erin and school-based performance spaces in Douglas, Ramsey and Castletown. Most of these venues also host cinema screenings, including live and recorded events from the National Theatre, Royal Opera House and Royal Shakespeare Company.

— Heritage attractions:
  - Manx National Heritage is responsible for numerous heritage sites throughout the Island, including the Manx Museum, the House of Mannanan, Castle Rushen, Peel Castle, The Great Laxey Wheel and Cregneash Village.
  - There is a large privately-operated motor museum in Jurby and other smaller exhibitions elsewhere.
  - The Island's heritage transport network operated by the Department of Infrastructure runs seasonally and includes a steam railway with services running from Douglas to Port Erin, a Horse Tram running along Douglas Promenade[149], and an electric railway running from Douglas to Ramsey with a branch line running from Laxey to the summit of Snaefell, the Island's tallest peak.
  - Groudle Glen Railway, a short scenic narrow-gauge railway maintained and run by volunteers operates seasonally in the summer months.

— Sporting venues including:
  - The National Sports Centre in Douglas:
    - Outdoor facilities include a floodlit athletics stadium, two floodlit synthetic sports pitches, and an 800m tarmac raceway for cycling, race walkers and road runners.
    - Indoor facilities include two large sports halls, squash courts, an indoor bowls hall, a gym and spa, training and leisure swimming pools[150] and a café.

[149] At the time of writing this is out of commission due to a major capital project to refurbish Douglas Promenade.
[150] At the time of writing the leisure pool is closed for refurbishment.

- Community swimming pools in the North, West, South and East of the Island
- 9 golf courses (include 8 18-hole courses) throughout the Island
- Club and community sports halls, fields, tennis courts, bowling greens and other sports facilities throughout the Island.

— Other outdoor attractions including:

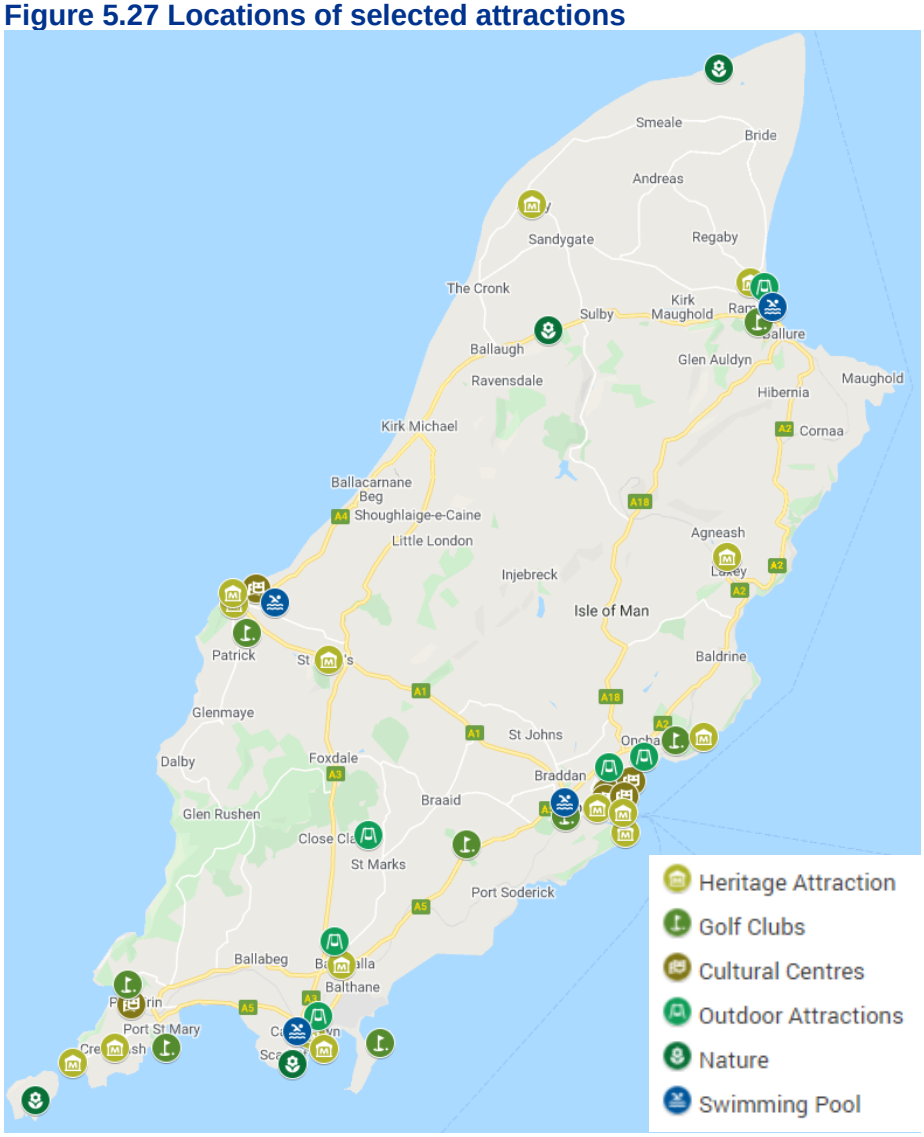
- The Curraghs Wildlife Park, which includes a café and indoor and outdoor children's play areas and attractions, boardwalk nature trails and a seasonally operating miniature railway.
- Large public parks, most notably Nobles Park in Douglas, Onchan Pleasure Park in Onchan and Mooragh Park in Ramsey. All include large children's outdoor play spaces (including water play 'splash zones' in Douglas and Ramsey which operate during the summer months), outdoor sports facilities and cafes/restaurants.
- Silverdale Glen, which includes children's play areas, a café and a boating lake.
- Numerous smaller parks and play areas throughout the Island.
- A large go-karting track in Jurby

— Other indoor attractions include:

- A 10-lane bowling alley in Ramsey
- An indoor activity centre near Onchan offering a soft play centre, bowling, a roller skating rink and laserblast game.
- A soft play centre in Onchan Park.
- Various niche activities (e.g. axe throwing, escape rooms, an interactive golf simulator, an indoor climbing wall etc)

A selection of attractions are shown on the map in Figure 5.27 below. We would note that there is a concentration of amenities – including the larger cultural and sporting facilities – in and around Douglas.

Figure 5.27 Locations of selected attractions



Source: IOMG, KPMG analysis

Engagement with on-island stakeholders suggests that amenities on the Island – particularly indoor amenities – are lacking compared to those available in larger population centres, including those from which Island businesses might seek to recruit. Overall, hospitality and leisure amenities on offer on the Island were also perceived by the stakeholders interviewed/attending workshops to be poor relative to that of the other Crown Dependencies, primarily in terms of quality.

The availability of appealing retail options on the Isle of Man is another important aspect in being attractive to people.

— The Island's main retail centre is Douglas, which hosts branches of many UK stores, including B&Q, Boots, Clarks, Currys PC World, Dealz, The Entertainer, Flannels, Marks and Spencer, Millets, Mountain Warehouse, Next, New Look, Pets at Home, Screwfix, Sports Direct, Tesco, TK Maxx, Waterstones, and WH Smith. Certain significant changes

in clothing brand ownership during the pandemic have had a significant impact on the utilisation of high street properties.

— In terms of essential retail, in addition to large Marks and Spencer and Tesco stores, the Island has a locally-owned supermarket chain – Shoprite – with 8 stores throughout the Island. Co-op also operates around 10 stores throughout the Island. There is a local franchise of small Spar stores and there are often small stores co-located with filling stations, often serving as 'corner shops' for the communities in which they sit in addition to serving forecourt business.

— The retail offer on high streets in other towns (Ramsey, Peel, Castletown, Port Erin) largely comprise branches of essential retailers – such as Shoprite or Co-op – together with smaller independent retailers and charity shops.

— The Island has one larger department store/shopping centre – Tynwald Mills – offering access to many fashion brands under one roof together with several other units, generally tending towards higher-end products and services.

While measures have been taken to regenerate the high streets in most of the Island's towns, the general feedback from stakeholders is that they still represent a relatively unappealing prospect compared to the large covered shopping centres commonly found in and around larger population centres, particularly in poor weather. Up-to-date statistics are not available, but a walk through the Island's shopping areas reveals numerous vacant units and lower-quality offerings. It was recognised that the challenges retailers face here are not unique: many brick-and-mortar retailers and wider shopping districts elsewhere are struggling to compete with the variety, convenience and price-competitiveness of online retailers, adoption of which has been accelerated by restrictions imposed during the pandemic.

Stakeholders familiar with the sector indicated that while branches of UK stores on the Island were often good performers in their respective networks despite lower footfall here than in larger population centres, it needed to be recognised that the Island still offered a relatively small catchment for some retailers and some would be dissuaded by the logistics of operating in an additional remote location. The additional logistics costs were also identified as a particular challenge for smaller independent retailers, who lack the economies of scale and bargaining power of larger businesses with UK-wide networks.

5.6.3 Transportation on Island

The Island's principal day-to-day public transport is delivered via a fleet of buses[151]. Bus routes operate throughout the Island, mainly 7-days a week and commute times on the Island are short.

Bus routes on the Island are shown in the map in Figure 5.28 below.

[151] Heritage rail networks operate seasonally, but are not widely used by commuters.

Figure 5.28 Isle of Man bus routes

Source: https://www.iombusandrail.im/timetables-routes-and-fares/routes-and-maps/

Many people commute by car to work locations in and around Douglas. Current estimated ranges of commute times from other larger settlements to arrive in central Douglas at 09:00 on a weekday morning and leave from central Douglas at 17:00 based on data from Google Maps are as follows:

Castletown (10mi):	20-35 mins
Laxey (8mi):	20-30 mins
Onchan (3mi):	10-20 mins
Peel (11mi):	20-35 mins
Port Erin (14mi):	25-45 mins
Ramsey (16mi):	25-40 mins

Stakeholder feedback has indicated low commute times as a significant advantage over larger population centres, particularly London and the South-East.

Table 5.12 shows the commute times for residents on the Isle of Man as disclosed in the Isle of Man Social Attitudes Survey. It can be seen that over half of the respondents report a commute time of less 20 minutes, and only 4% report a commute time of 45-60 minutes. Given this data, the implied average commute time is approximately 15 minutes, which is lower than the equivalent estimates for Jersey (approximately 21 minutes); Malta (25 minutes) and EU28 (22 minutes) – although modes of transport are relevant in this context and are detailed in Table 5.13.

In light of data presented elsewhere (Section 6.4) regarding the relatively large number of vehicles per 100 residents/km^2 on the Island, more positively the short commute times suggest that vehicles are not being used for extensive periods of time – at least for the purpose of commuting.

Table 5.12 Survey responses to daily commute time: Isle of Man, 2018

Commute time	Percentage
Less than 10 minutes	22%
10 to 20 minutes	31%
21 to 30 minutes	21%
31 to 45 minutes	16%
46 to 60 minutes	4%
I work on multiple job sites, my commute time varies	5%

Source: Isle of Man Social Attitudes Survey 2018 KPMG analysis[152]

Data from the census pertaining to modes of transport used by residents on the Isle of Man are given in Table 5.13. The delta between the two available data points (2001 and 2011) suggests very little change in composition of mode types over time. The majority of respondents reported to be the driver of a private vehicle (67% in 2011, up from 63% in 2001) and it is likely that this proportion may have increased further since 2011, in line with the increase in total number of vehicles on the Island (see Figure 6.15).

[152] https://www.gov.im/media/1363577/2018-10-09-social-attitudes-2018-report.pdf

Table 5.13 Mode of Commuting: Isle of Man: 2001 and 2011

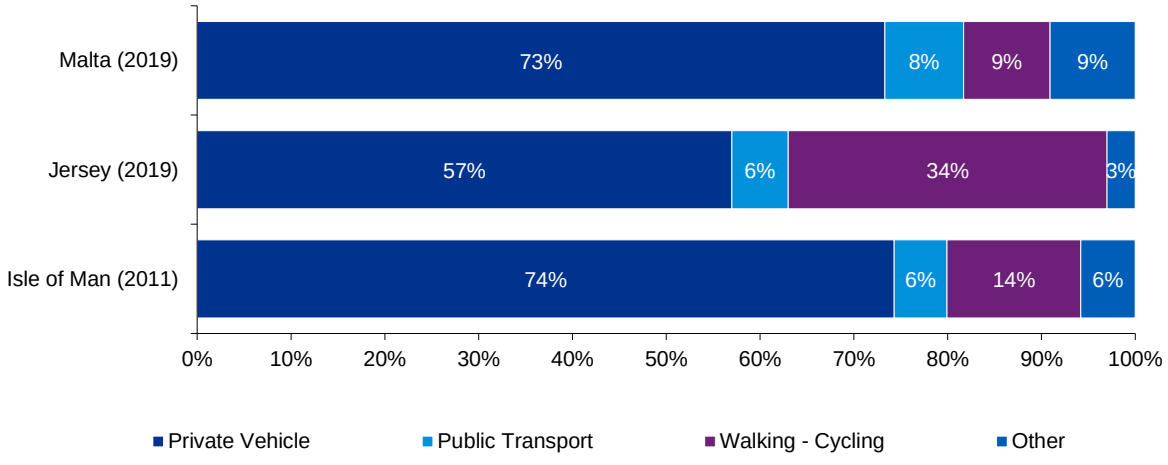
Mode of Commute	2001	2011
Driver in private vehicle	63%	67%
On foot	12%	13%
Other	2%	1%
Passenger in private vehicle	9%	7%
Pedal cycle	1%	1%
Public Transport	6%	6%
Transportation provided by employer	1%	1%
Works mainly from home	5%	5%

Source: IoM Census, KPMG analysis

Figure 5.29 shows the modes of transport used for commuting on the Isle of Man (data from 2011) as well as for Malta and Jersey (data from 2019 in both cases).

For the purpose of commuting, 74% of residents on the Isle of Man report to be using private vehicles in 2011, and 14% either walk or cycle. This is broadly in line with commuting modes used in Malta, however there are some interesting differences reported by residents in Jersey. This data reveals that a much larger proportion of residents either cycle or walk (34% in 2019), and only 57% use a private vehicle. Notwithstanding the substantial difference in area, topology and climate between the Isle of Man and Jersey, this could present opportunities for the Isle of Man to consider ways in which it might promote walking or cycling to work schemes where infrastructure allows in order to better position the economy for decarbonisation. We note that IOMG is already pursuing policies designed to promote active travel.

Figure 5.29 Mode of transport for commuting: Isle of Man and comparators, 2011 and 2019



Source: IoM Census, Gov.mt, Gov. je, KPMG analysis

5.6.4 Safety and crime

Safety and security can be a factor in individuals considering where to live, work or what economic activity to pursue. A key aspect of this is considering crime, with low crime areas being more attractive to individuals and likely being more encouraging of economic activity than areas with higher crime, all else being equal.

On-island stakeholders generally perceive the Island to be a relatively safe place to live and work. This is consistent with analysis reported by the Isle of Man constabulary which shows that crime per 1,000 population is substantially lower on the Island than in England and Wales overall, and in some recent years has been lower on the Island than in Jersey or Guernsey, though is overall similar, as seen in Table 5.14 below.

Table 5.14 Crimes per 1,000 population per year: 2018/19-2020/21

Year	Isle of Man	England and Wales	Guernsey	Jersey
2018/19	29.8	88	37	30.9
2019/20	30.9	89	35.3	32.5
2020/21	36.1	78.8	32.8	26

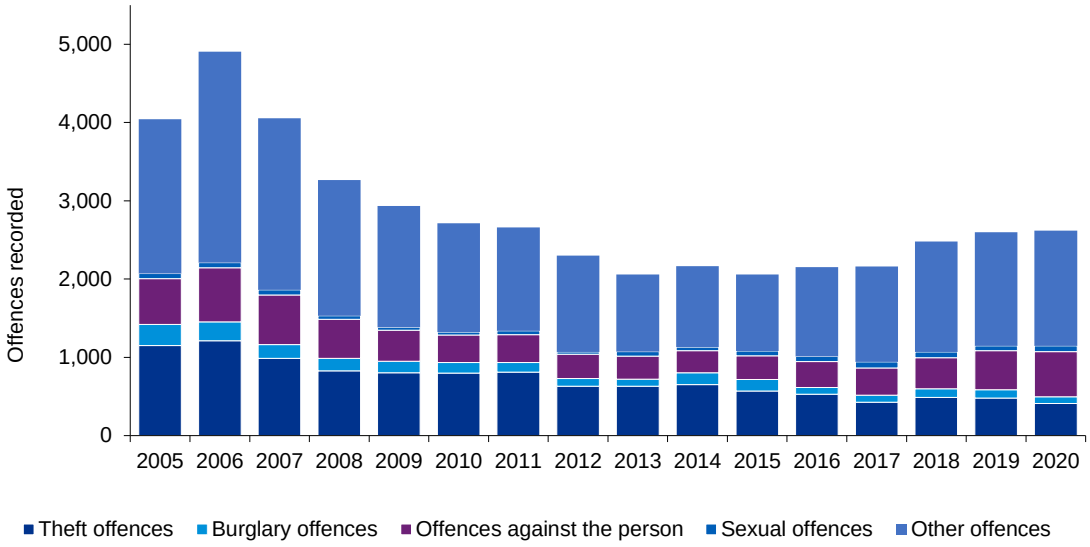
Source: https://iompolice.im/media/1403/all-charts-and-tables-2020-2021.pdf, p. 24.

The Island has also recently seen a period of decreased crime: from 2009 – 2020, there were consistently fewer than 3,000 offences recorded each year on the Isle of Man, as shown in Figure 5.30. By comparison, earlier years saw higher numbers of offences, for example 4,000-5,000 offences recorded each year in 2005-2007.

This drop in offences recorded from around 2009 to around 2015 is predominantly due to a decrease in the number of thefts, though the number of other offences has also decreased for at least parts of this period, as can be seen in Figure 5.30. However, crimes recorded have been increasing over the period 2015-2020, and in 2019-2020 overall levels of offences recorded reached those last seen a decade prior. Even more so, around 3,000 crimes were recorded in FY 2020/21[153], which would indicate a sizeable increase (around 20%) from 2020 which saw around 2,600 crimes recorded.

[153] This total is reported for April 2020 – March 2021, and so largely overlaps with the information for calendar year 2020 in Figure 5.30.

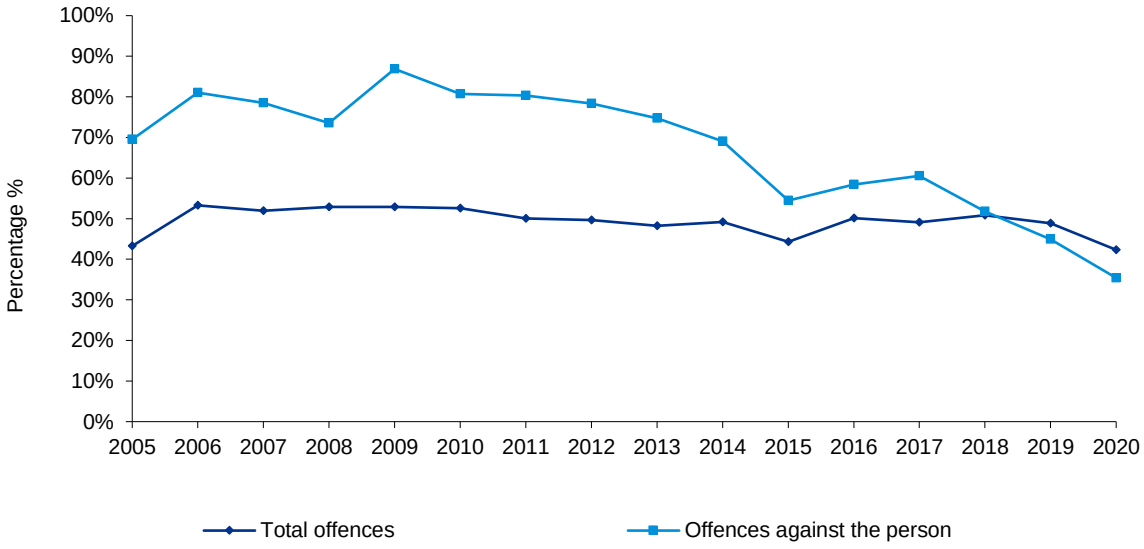
Figure 5.30 Number and type of offences recorded on the Isle of Man: 2005 – 2020



Note: Sexual offences has its own category as it is usually not categorised as a crime against a person.
Source: Isle of Man in Numbers, 2021

Figure 5.31 shows that around half of crimes committed on the Isle of Man are detected; this rate has remained broadly consistent since 2005, though dipped to its lowest rate (42%) in 2020. This is driven by detection rates for thefts and burglaries remaining relatively stable, while the detection rate for offences against the person has substantially declined from 75%+ in the period up to 2013 to 44% in 2019 and 35% in 2020.

Figure 5.31 Detection rates by type of offence: 2005 – 2020



Source: Isle of Man in Numbers, 2021

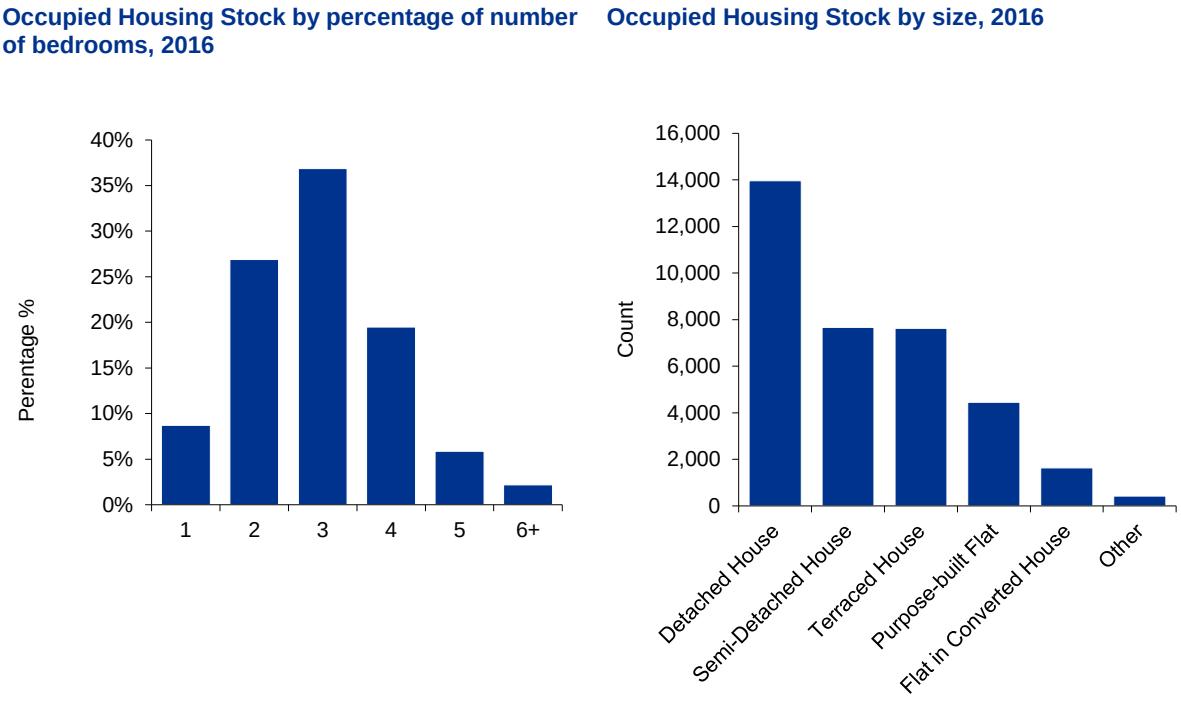
5.6.5 Homes

There were around 36,000 occupied homes on the Isle of Man in 2016 and an estimated 40,000 dwellings on the Island in 2020[154].

As shown in Figure 5.32 in 2016, over 70% of homes had 3 bedrooms or fewer, around 20% had four bedrooms, and only around 8% had more than four bedrooms.

Most homes on the Island are houses, with only around one sixth of occupied homes being a form of flat.

Figure 5.32 Number of bedrooms and type of dwelling: 2016

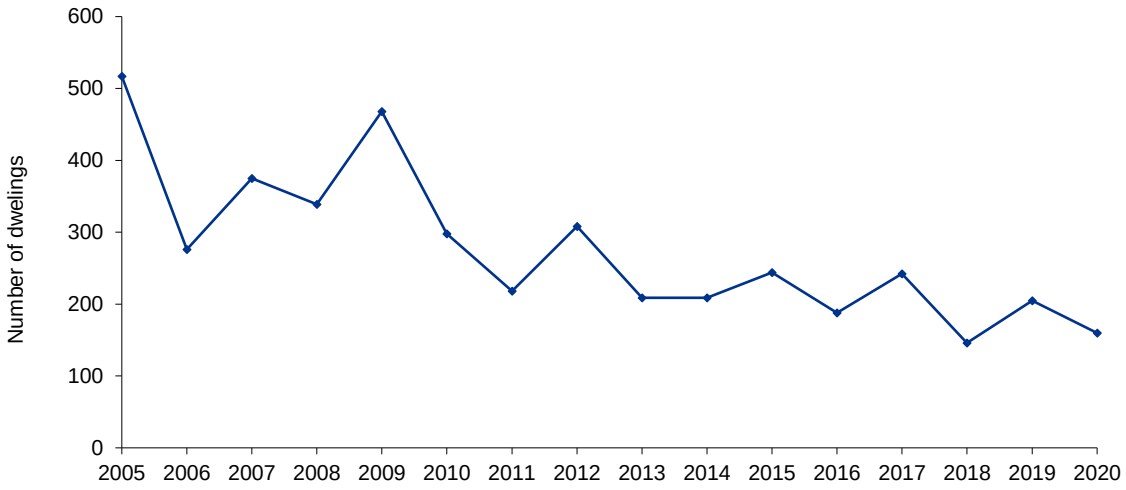


Source: Isle of Man in Numbers, 2021

There has been limited housebuilding on the Island, with fewer than 250 dwellings built per annum in 2013-2020. In percentage terms, annual housing stock growth is on average around 0.5% since 2016.

[154] Specifically, 35,151 private sector dwellings were estimated on the Island for 2018/20 (p. 2, https://www.gov.im/media/1369804/private-sector-housing-stock-condition-survey-2018-20-executive-summary.pdf) plus a further 5,281 local authority properties as reported in Isle of Man in Numbers, 2021, p. 65. Note that a number of dwellings may be unoccupied, as given the 35,763 occupied homes in 2016, and adding the 941 homes built in 2017 – 2020 gives an estimate of 36,704, assuming all new dwellings are inhabited and no dwellings inhabited in 2016 have since become uninhabited. (Isle of Man in Numbers, 2021, p. 36, 63) This is around 10% less than the estimate of total dwellings for 2020.

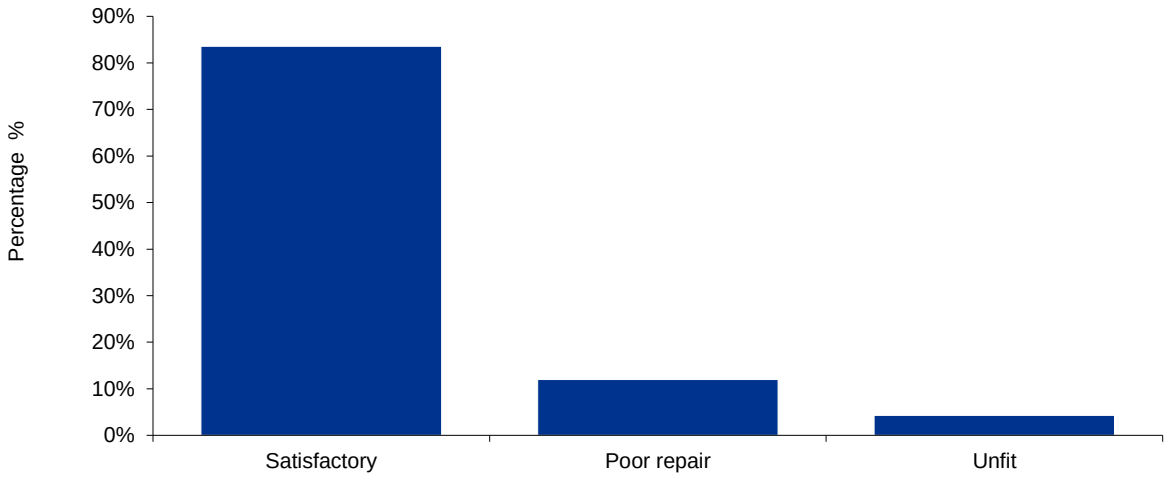
Figure 5.33 Number of new dwellings built per annum: 2005-2020



Source: Isle of Man in Numbers, 2021

Data on the condition of homes on the Island indicates that the housing stock on the Island is largely satisfactory. In 2018/20 only 16% of homes were assessed as being in poor repair or unfit, as shown in Figure 5.34 below.

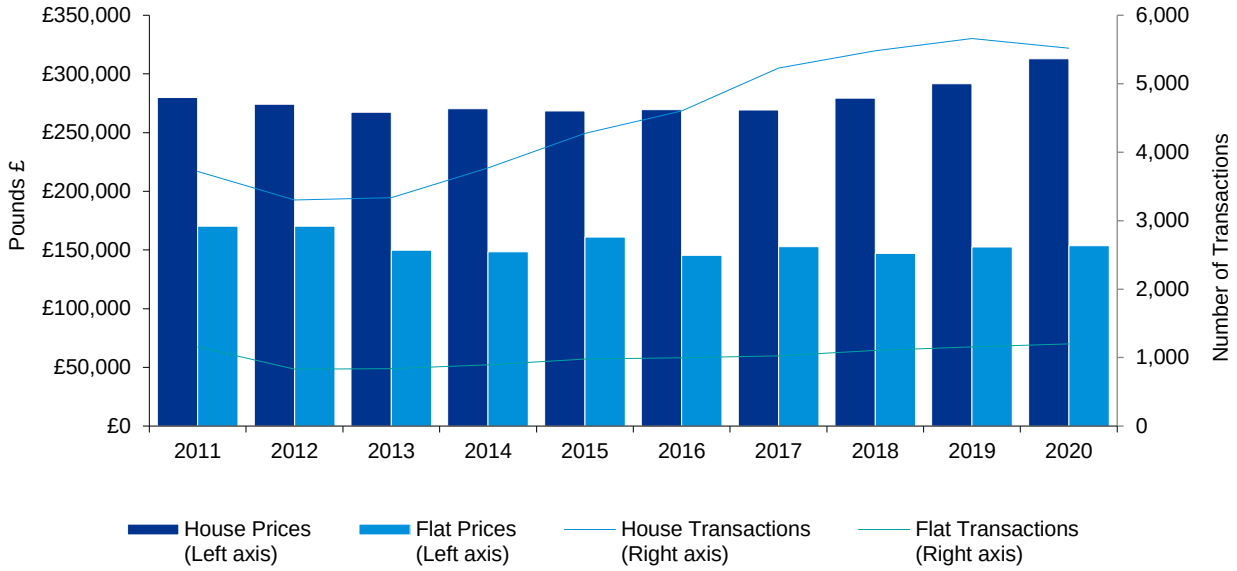
Figure 5.34 Condition of homes: 2018 – 2020



Note: Only private sector homes assessed. The assessment was conducted over a two-year period.
Source: Private Sector Housing Conditions Survey, p. 6. private-sector-housing-stock-condition-survey-2018-20-executive-summary.pdf (gov.im)

In terms of the cost of housing, there has been an increase in the prices of houses of around £35,000 (12%) between 2010 and 2021. However, in this same time period the average prices of flats decreased by around £10,000 (6%). This change in prices is consistent with a substantial increase in sales of houses – from around 3,700 in 2011 to around 5,500 in 2020 (an increase of nearly 50%) – and the drop and slower rebound of flat sales – at around 1,200 in both 2011 and 2020.

Figure 5.35 Average housing prices and number of transactions: 2011-2020



Source: Isle of Man in Numbers, 2021[155]

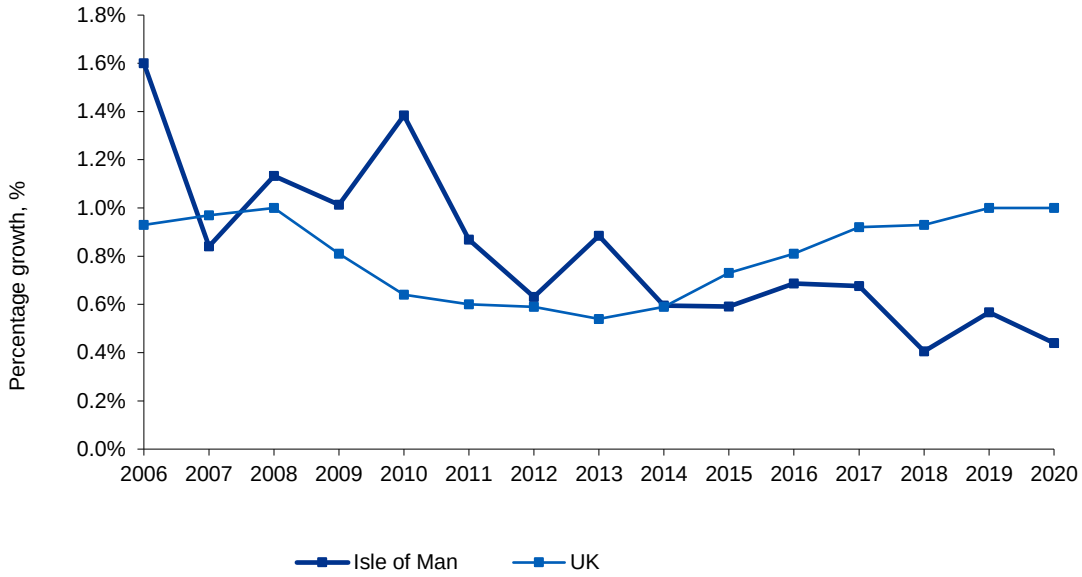
Engagement with on-island stakeholders suggests that they consider the overall quality of the Island's housing stock to be relatively poor and that this, and the mix and affordability of available housing, is a significant barrier to attracting economically active people to the Island.

5.6.6 Comparative assessment of the Isle of Man's homes and housing

House building in England is proceeding substantially faster than in the Isle of Man: the UK saw an increase of 0.8%-1.0% in the housing stock each year since 2015, and by contrast, the Isle of Man has had only 0.4%-0.7% increase in housing stock each year in this period, as per Figure 5.36. In particular in 2018-2020, the growth rate of housing stock was (proportionally) less than half of that in the UK. This has reversed the previous trend (pre-2015) where the Isle of Man generally had similar or higher (yet more volatile) growth in house building than the UK.

[155] https://www.gov.im/media/1369293/quarterly-economic-and-statistical-report-january-march-2020v2.pdf

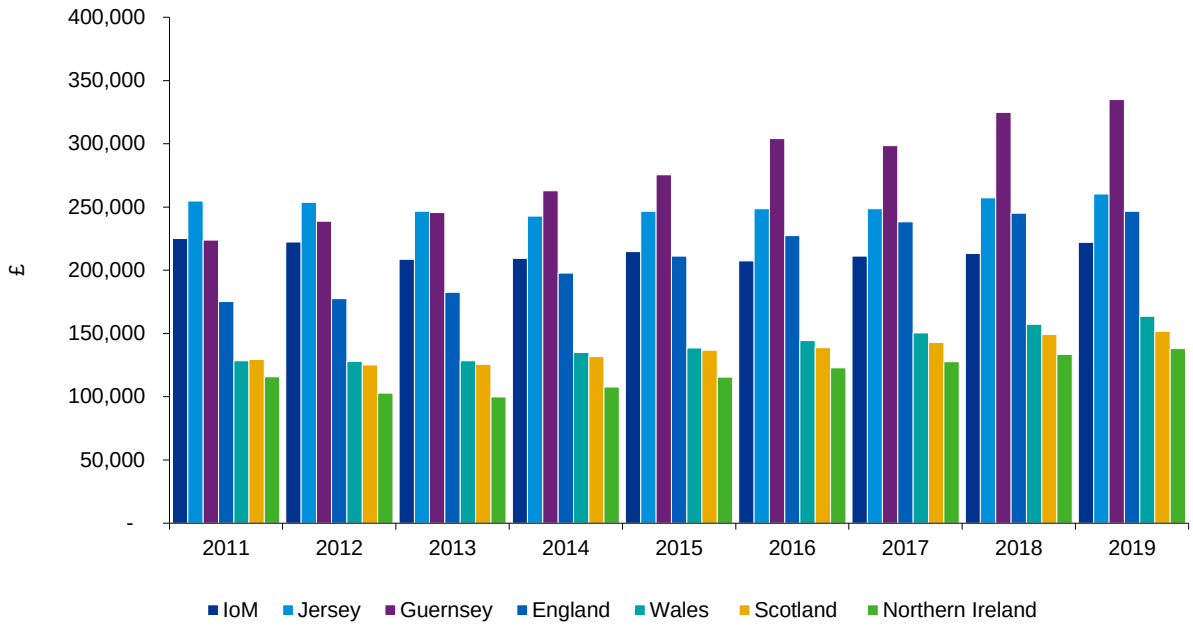
Figure 5.36 Proportion housing stock increase: 2006 – 2020



Note: Based used to calculate growth for the Isle of Man is total occupied dwellings. UK yearly data reported as of 31 March of each year.
Source: Isle of Man in Numbers, 2021 and Dwelling_Stock_Estimates_31_March_2020_Release.pdf (publishing.service.gov.uk)

As can be seen in Figure 5.37, average house prices on the Isle of Man are very similar to those in Jersey, substantially lower than in Guernsey, and higher than those of the UK nations. Additionally, Isle of Man house prices have seen less growth than prices in England in particular, suggesting that the demand-pressure seen in the UK (and England in particular) may not have been present in the Isle of Man in this period. This is consistent with the slower rate of house building in the Isle of Man.

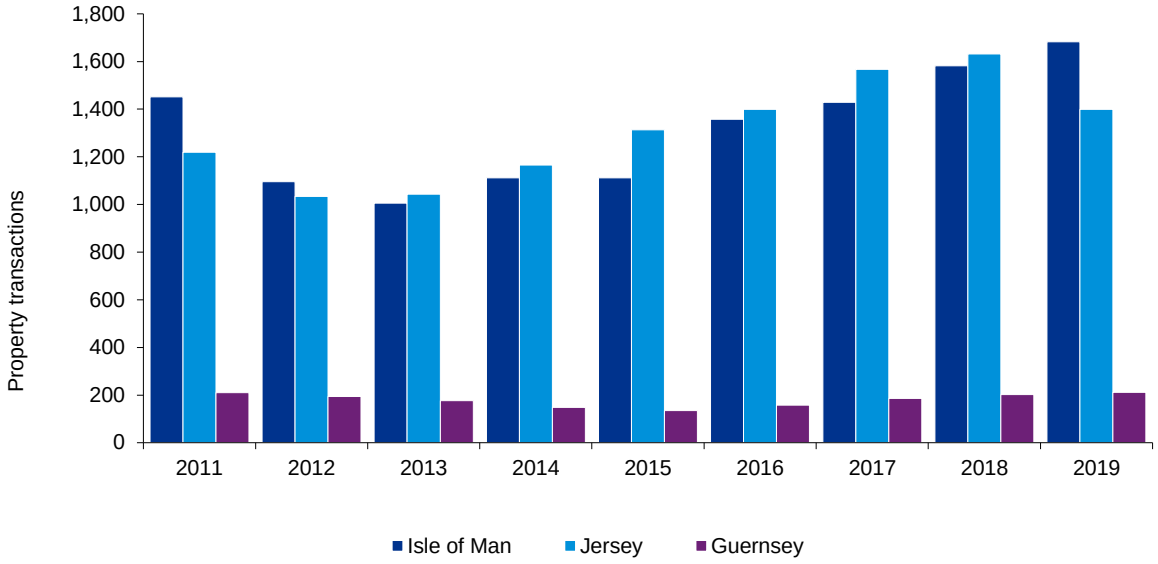
Figure 5.37 Average property prices: £ nominal, 2011-2019



Source: Quarterly Economic and Statistical Update, The Jersey Government, ONS and The Guernsey Government

For those moving to the Island, a lack of restrictions on property ownership is a distinct advantage over other Crown Dependencies. Despite house prices growing at lower rates than comparators, there appears to be an active property market on the Isle of Man. Figure 5.38 below shows that the number of property transactions in the Isle of Man has been very similar to Jersey, despite having a smaller population. Property transactions have also been considerably higher than in Guernsey, where only 211 transactions were recorded in 2019 compared to the Isle of Man's 1,643.

Figure 5.38 Property transactions: 2011-2019



Source: Isle of Man in Numbers, 2021; Guernsey government (https://www.gov.gg/property#:~:text=The%20raw%20median%20price%20%28realty%20only%29%20of%20the,local%20and%20open%20market%20house%20transactions%20in%20Guernsey.), Jersey Government Website (https://www.gov.je/Government/JerseyInFigures/HousingLiving/pages/houseprice.aspx) and IoM

In terms of a comparison of housing quality and size, limited information is publicly available from other jurisdictions to allow a comparison to be drawn with the Isle of Man. However, some households and dwellings statistics for Jersey are available from the 2011 census.[156] These show that in terms of the types of occupied property in Jersey in 2011 over half (57%) were houses (of which 29% were detached, 19% semi-detached, and 11% terraced) and 44% were flats. In terms of size (by number of bedrooms), 27% of private dwellings in Jersey in 2011 had one bedroom, 26% had two bedrooms, 30% had three bedrooms, 13% had four bedrooms and 5% had five or more bedrooms.

This suggests that, in 2011, compared to the Isle of Man's occupied housing in 2016, Jersey's properties were generally smaller (in terms of number of bedrooms) than those on the Isle of Man, and Jersey had a considerably higher proportion of flats (44% compared to 17% in the Isle of Man). Comparative data on the quality of housing was unavailable publicly.

5.7 Tourism and travel

Not only is it important to attract individuals to the Island to live and work but attracting tourists to the Isle of Man can also help to generate economic activity through tourists' expenditure for example in retail and hospitability sectors. It will also impact future viability of transport links, including air routes. Stakeholders also observed that positive experiences of the Island as visitors were likely to increase the Island's attraction as a place to live. As explained in Sections 3.2.3 and 3.3.2, however, sectors of the Isle of Man economy linked to tourism, such as the Tourist Accommodation sector, generate a small proportion of the Island's GDP (1% in 2019/20) and employment (2.3% in Q1 2020).

[156] Gov.je. (2011). '2011 Census Chapter 3 Households and housing'.

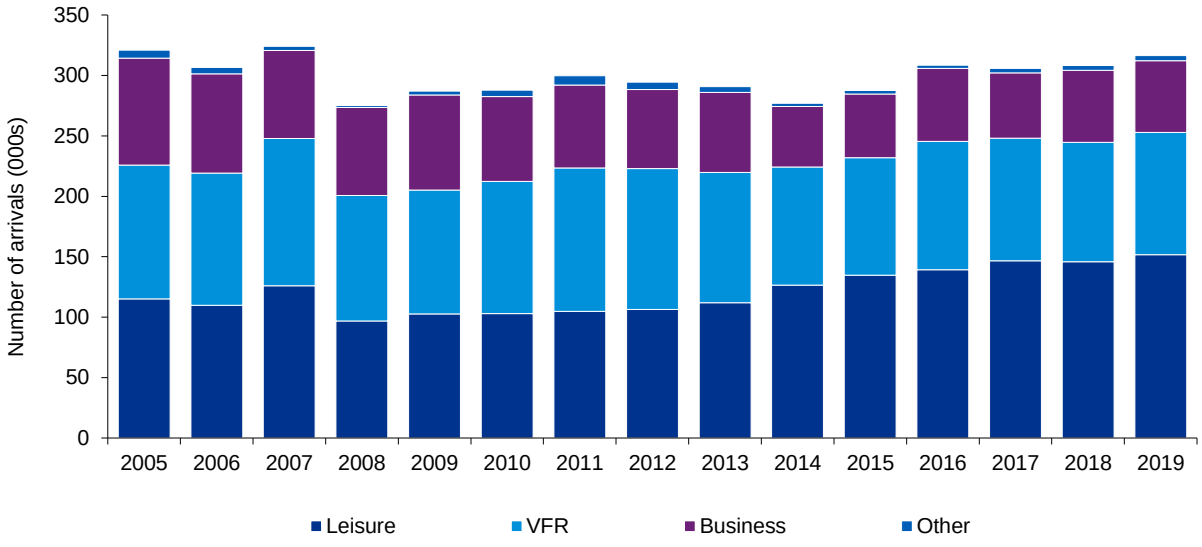
A number of indicators linked to tourism in the Isle of Man have been assessed, the results of which are detailed below. These indicators include measures of the number of visitors to and from the Island as well as wider details of the travel routes and connections. Travel connecting the Isle of Man to other countries is an important component of attracting people to the Island to enable them to travel easily for leisure purposes as well as to visit family and friends off-island. Equally, connections and wider amenities to support tourism and inbound visitors to the Island can support the on-island economy.

Considering first travel to and from the Isle of Man data shows that in 2019 – the latest time period for which data is available – the Isle of Man saw around 300,000 visitors each year, as can be seen in Figure 5.39 below.

The purposes of travel for visitors have, however, changed over time. Between 2005 and 2019 business travel decreased by around one-third from around 89,000 business visitors to around 59,000 business. Over this same period the number of individuals visiting friends and relations (VFR) and for leisure increased by around one-third as well, from around 115,000 leisure visitors to 152,000 leisure visitors.

The Island's visitor economy has been heavily reliant on the TT Races and to a lesser extent on the Festival of Motorcycling. While both events were cancelled due to the pandemic in 2020 and 2021 they are due to return in 2022. The last TT Races in 2019 is estimated to have attracted 46,174 visitors staying for an average of 6.8 nights and spending an average of £801[157]. The last Festival of Motorcycling in 2019 is estimated to have attracted 16,019 visitors staying for an average of 7.4 nights and spending an average of £717[158].

Figure 5.39 Visitor arrivals to the Isle of Man by purpose of travel: 2005 – 2019



Source: IoM Passenger Survey - Passenger Survey Report data

[157] https://www.gov.im/media/1367047/tt-visitor-survey-2019.pdf
[158] https://www.gov.im/media/1368395/2019-festival-of-motorcycling-final-report-130220.pdf

Data on travel to/from the Isle of Man is currently only available through to 2019, and consequently the extent of the impact of the COVID-19 pandemic on travel is not reported in the data.[159] However given that for extended periods in 2020 and 2021 travel was severely curtailed, it is expected that visitor numbers and expenditure were drastically reduced, and as noted in Section 3.2.2, the impact on the Catering and Entertainment and Tourist Accommodation sectors of the Manx economy is expected to be substantial. However, data on travel connecting the Island from before the pandemic can be a helpful indicator of broader trends which may suggest strengths and weaknesses for the Manx visitor economy as pandemic-linked travel restrictions are removed and demand for travel picks up pace.

The limited growth in visitor numbers to the Island has been reflected in stakeholder discussions. One concern is that the Isle of Man is often not considered by holidaymakers as a destination, which perhaps suggests that promotion of the Island is not sufficiently prominent.[160] This may in part be driven by perceived high costs of travel to the Island and the lack of package or travel agent deals to travel to the Island (pre-COVID).[161]

In terms of the modes by which visitors reached the Isle of Man, there are two methods of travel available: by air and by sea. Generally, more passengers travel by air than by sea, with travel by air becoming relatively more popular over time.

As shown in Figure 4.1 above, the Island's airport is located near Castletown, and the port in Douglas is the Island's only ferry port. Ferries are operated connecting Douglas with Heysham (in Lancashire), Liverpool, Dublin and Belfast.

Current scheduled air services from the Island – operated by Loganair and EasyJet – are shown in Table 5.15 below:

Table 5.15 Scheduled airline services from the Isle of Man, October 2021

Destination	Carrier(s)	Frequency
Belfast	EasyJet	2x weekly returns [Mon, Fri]
Birmingham	Loganair	1x daily return
Bristol	EasyJet	2x weekly returns [Mon, Fri]
Edinburgh	Loganair	3x weekly returns [Mon, Wed, Fri]
Liverpool	Loganair/EasyJet	2-3x daily returns
Manchester	Loganair	2x daily returns
London Gatwick	EasyJet	1x daily return

Source: flightconnections.com

Flights can operate from the Island to short-haul international destinations, although beyond more regular seasonal services to Switzerland to coincide with ski season these have largely been charter flights. It has recently been announced that weekly direct flights will operate to

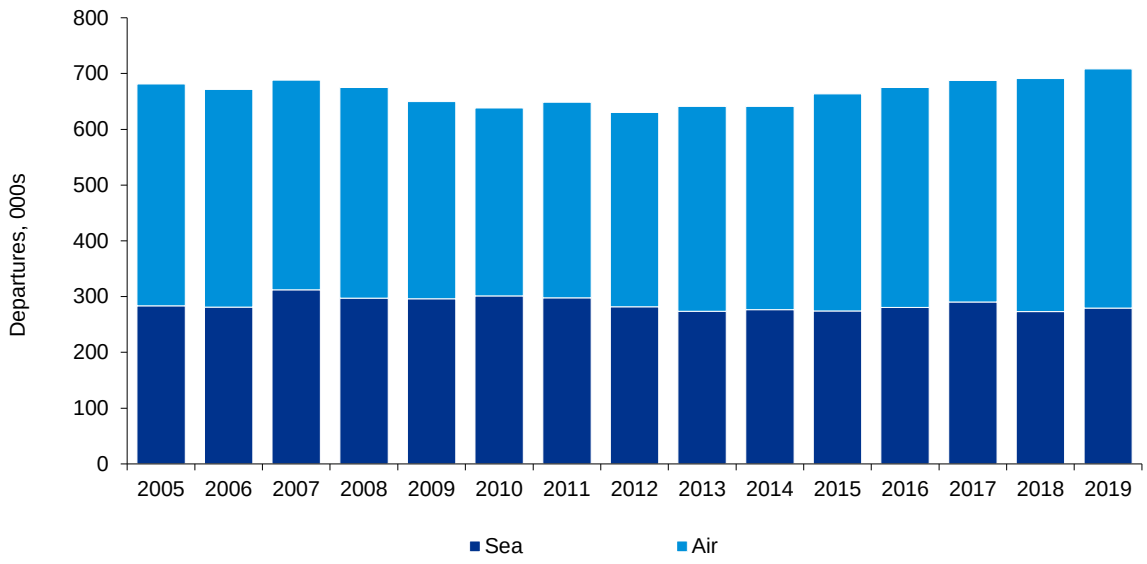
[159] Note that information regarding visitor numbers for the period since March 2020 is not available due to the Island's borders being closed to most non-residents between March 2020 and June 2021, as discussed further in Section 5.5.2 above.
[160] 2020 Visitor Insights Research commissioned by Visit Isle of Man
[161] 2020 Visitor Insights Research commissioned by Visit Isle of Man

Majorca between June and September next year.[162] The Island's airport also caters to private aircraft.

As noted in Section 4.3.1, feedback from stakeholders has indicated that there is room for improvement in the range and reliability of air services, even based on the routes, timings and frequencies that were available prior to disruption caused by the pandemic . For individuals it was noted that the price of travel to/from the Island is also a key consideration: for UK and Irish visitors it represents an additional cost over visiting 'mainland' locations and for Island residents (or prospective residents) getting to the UK or Ireland represents an additional cost when visiting friends or relatives or travelling further afield.

Figure 5.40 presents data recording departures from the Isle of Man by travel mode, which includes both visitors (including leisure and business visitors) leaving the Island as well as departures by Isle of Man residents for trips abroad. The data shows that overall passenger departures have been between 630,000 (2012) and 710,000 (2019) per annum. Air travel saw a decrease of passengers from around 400,000 in 2005 to around 340,000 in 2010; thereafter, air passenger numbers increased nearly every year, reaching 430,000 in 2019. Sea travel has only seen minor fluctuations following a peak year in 2007 with around 312,000 departures, and other years seeing departures between 270,000 and 300,000.

Figure 5.40 Scheduled passenger departures from the Isle of Man: 2005 – 2019



Source: IoM Passenger Survey - Passenger Survey Report data

5.7.1 Visitor spending

Visitor spending on the Isle of Man drives economic activity and employment in related sectors, in particular the tourist accommodation sector and related sectors such as broader hospitality.

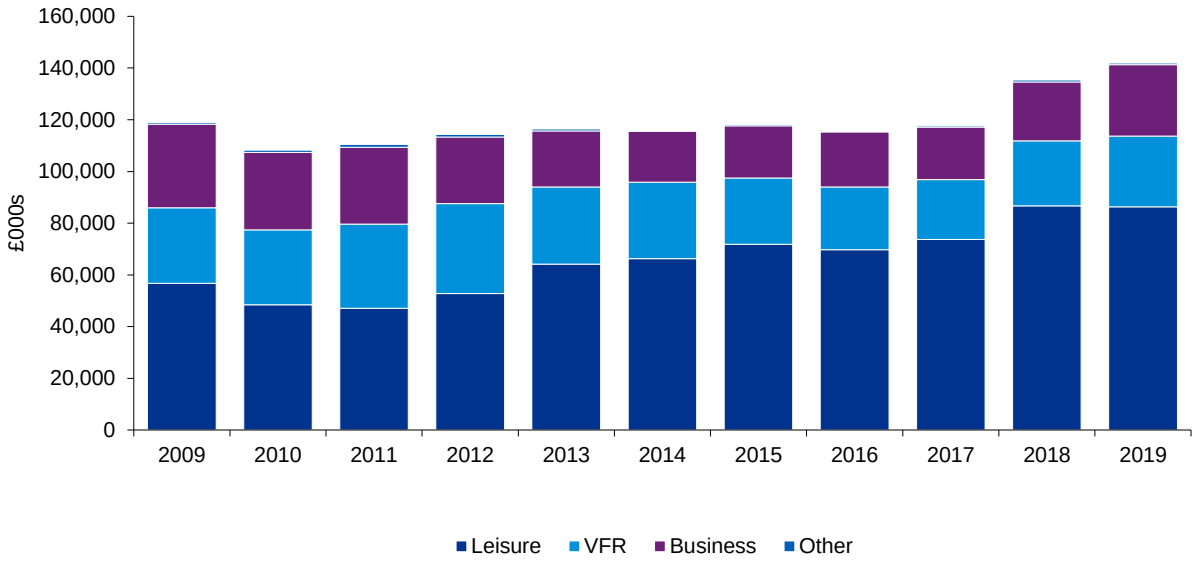
[162] https://www.manxradio.com/news/isle-of-man-news/flydirect-to-offer-direct-flights-to-majorca-from-iom/

As can be seen in Figure 5.41 below, total visitor spending has been increasing in the Isle of Man between 2009 and 2019, reaching £142m in 2019.

In particular, spending by leisure visitors to the Island has been driving this increase in total visitor spending. This is a result of both the increase in the number of leisure visitors (as per Figure 5.39 above) and also due to the increase in average spending per leisure visitor, on categories other than accommodation (Figure 5.41). Figure 5.42 and Figure 5.43 show that business visitors have also increased their spending on accommodation and other expenditure categories.

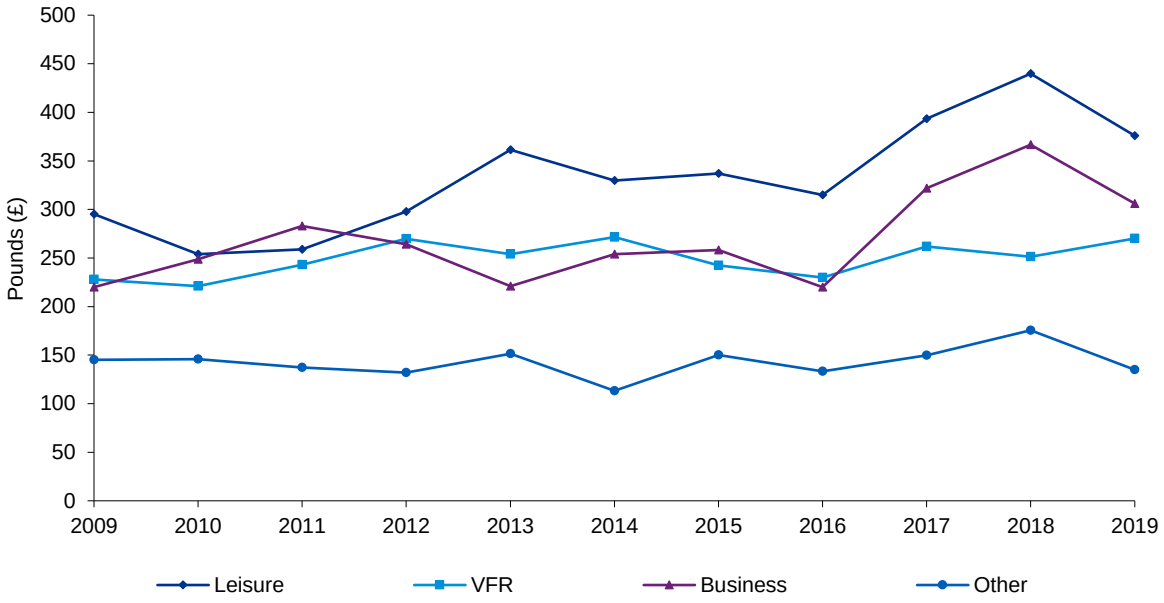
As can also be seen in Figure 5.42 and Figure 5.43 in nearly every year between 2009 and 2019, leisure visitors spent more than other visitors on average. The growth in leisure passenger numbers and comparatively higher than average spending by leisure visitors to the Island has meant that in the period from 2015 to 2019, leisure passenger spending made up 60% or more of visitor expenditure, in contrast to the period from 2009 to 2012 where leisure passenger spending was less than 50% of visitor expenditure.

Figure 5.41 Total visitor expenditure: £000s, real, base-2019, 2009 – 2019



Notes: Inflation data supplied by IOMG.
Source: Isle of Man Passenger Survey

Figure 5.42 Average visitor expenditure excluding accommodation: £, 2009-2019



Source: IoM Passenger Survey

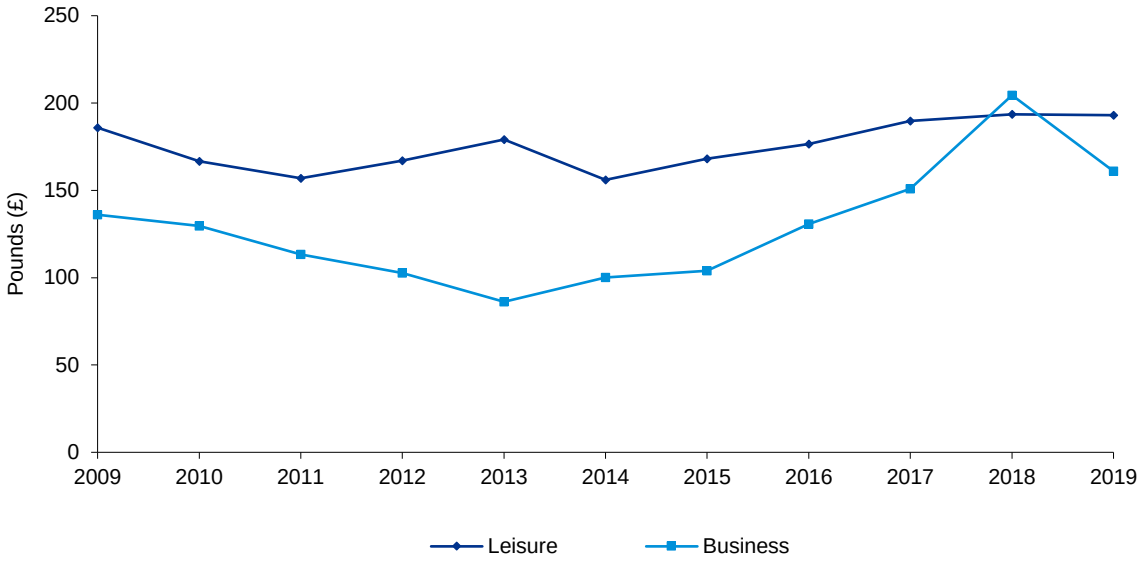
As noted in Section 3.2.3 and previously in this section of the report, the COVID-19 pandemic has doubtless had a substantial negative impact on tourism to the Island and the performance of sectors related to this. However, visitor-related data covering this time period is not available to enable the effects to be analysed.

5.7.2 Accommodation

A key area of expenditure for visitors to the Isle of Man is accommodation, and concerns about accommodation quality and cost were raised by stakeholders. More broadly, when considering visiting the Isle of Man versus other locations, leisure visitors in particular will take into account the costs of accommodation on the Island when planning their holiday.

As can be seen in Figure 5.43 below, spending on accommodation per visitor has been relatively stable with some growth in recent years for leisure visitors, and has been growing for business visitors from 2013 - 2018.

Figure 5.43 Average accommodation expenditure: £, 2009-2019 (inflation-adjusted)



Note: Only leisure and business passengers are recorded having accommodation expenditure.
Source: IoM Passenger Survey

As at September 2020, periodic occupancy surveys commissioned by Visit Isle of Man provide evidence in relation to the Island's serviced and self-catering accommodation stock. This is presented in Table 5.16 and Table 5.17 below.

Table 5.16 Serviced tourist accommodation: Sep 2020

Region	Establishments	Rooms	Bed Spaces
Douglas and the East	73	1604	3309
Peel and the West	17	54	115
Port Erin and the South	39	247	554
Ramsey and the North	24	165	442
Total	153	2070	4420

Source: Isle of Man Occupancy Survey, September 2020

Table 5.17 Self-catering tourist accommodation: Sep 2020

Region	Establishments	Rooms	Bed Spaces
Douglas and the East	174	334	661
Peel and the West	85	173	335
Port Erin and the South	149	312	596
Ramsey and the North	59	121	234
Total	467	940	1826

Source: Isle of Man Occupancy Survey, September 2020

Most of the Island's larger serviced accommodation is concentrated in and around Douglas, where in September 2020 there were 1,604 serviced rooms and 3,309 bed spaces. There were also 174 self-catering establishments in the Douglas and East area. Other tourist accommodation is spread throughout the Island; the higher volume in the south of the Island is driven by proximity to the airport and a concentration of hotels, guest houses and self-catering accommodation in and around Port Erin.

Looking at the period prior to the imposition of border restrictions due to the pandemic, occupancy surveys show services accommodation occupancy peaking between June and September each year at around 70-80%, dropping to around 30% in the winter months; for self-catering accommodation the peak season is even narrower, with occupancy levels around 70-80% between June and August, dropping to around 30% in winter.

In workshops and interviews with stakeholder on the Isle of Man it was noted that the overall quality of the Island's visitor accommodation is relatively poor. It was suggested that this presents a poor impression to business and leisure visitors, including those business owners or employees who may be potential future residents of the Island. This is consistent with findings from market research conducted on behalf of Visit Isle of Man that identified cost and quality of accommodation as an issue for visitors/potential visitors to the Island.[163]

Stakeholders also suggested that the state of repair of the built environment more broadly does not give a positive impression to business and leisure visitors.

5.8 Summary of strengths and weaknesses

Based on the evidence set out in the preceding sections, and the comparisons drawn with other jurisdictions to help to set the data for the Isle of Man in context, a number of key strengths of the Isle of Man are evident as well as challenges that will need to be taken in to account when considering the attractiveness of the Island to people.

Key strengths for the Isle of Man as concerns attractiveness to people include:

- A sizeable proportion of migrants (c. 40%) coming to the Isle of Man are doing so to seek employment, indicating that the Island can be an attractive destination for economically active people.
- Higher average incomes than the UK, with Isle of Man average (pre-tax) earnings recently around 10% higher than in the UK.
- There are significant personal tax advantages compared to the UK (and other larger developed countries) for households with higher incomes.
- Good self-reported health, mental wellbeing or manageable stress for around 90% of survey respondents for each measure.[164]
- The Island has substantial green space, and the natural environment is a particular strength, as recognised by the Island's UNESCO biosphere status.
- The Island offers a beautiful and varied natural environment, with a good range of outdoor, sporting and cultural opportunities.
- Most people enjoy short commute times compared to counterparts working in UK cities.
- The Isle of Man has enjoyed a number of years with low numbers and rates per capita of recorded offenses; while recent years – and 2020/21 in particular – have seen an uptick in recorded crime, this is still substantially below offences per capita in the UK, and similar to rates seen in the Channel Islands.

[163] 2020 Visitor Insights Research commissioned by Visit Isle of Man
[164] Note that the percentage of survey respondents who gave positive responses for all three questions is likely lower.

— Homes which are more affordable than in Jersey, Guernsey and in recent years in England. Additionally, the Isle of Man has not seen a consistent increase in housing prices in recent years to the extent that has been the case in England or Guernsey in particular, but also to a lesser degree in the other nations of the UK. The Isle of Man also appears to have an active housing market, likely aided by housing purchases on the Island not being restricted the same way as in the Channel Islands.

— Tourism: The Isle of Man has seen an increase in leisure visitors in the years preceding the COVID-19 pandemic. Additionally, average spending by visitors to the Island has been increasing up to 2019.

Challenges the Isle of Man faces which may affect its ability to attract people include:

— A rapidly rising cost of living, in particular for families with children: In 2021 the Isle of Man weekly living wage for a couple with two children stands at £1,223 versus £784 in the UK.

— Educational arrangements: Data suggests that education provision could be improved, with the Isle of Man having a higher pupil-teacher ratio (proportionally fewer teachers per student) than either the UK overall or the Channel Islands. Only 10% or less of secondary students remain on-Island for post-secondary education. The Island also sees proportionally fewer students receiving top marks on Level 3 and Level 2 qualifications than England or Jersey.

— Life expectancy on the Island has decreased for both males and females from 2017 onwards, and in 2020 was slightly lower than for the UK overall. While the drivers of life expectancy are complex and manifold, the change over time and the relative difference with the UK across all four groups considered (males at birth; females at birth; males at age 65; females at age 65) suggests it may be an area of challenge, in particular for individuals looking to settle on the Island longer term.

— Healthcare provision: Performance of healthcare services on the Island is a concern, as identified in Sir Jonathan Michael's review in 2019.[165] Whilst the transition to Manx Care and any implementation of further recommendations identified by the review may help to improve services and care, performance targets for A&E, ambulance responses and cancer care have been consistently missed over the period January-May 2021 and are below average performance levels in England.

— A relatively poorer offer of hospitality and leisure amenities compared to larger population centres in the UK, particularly indoor leisure options, and particularly options that would be appealing to younger economically active people.

— Housing stock: Housebuilding has been slow, with only around 0.5% annual growth in housing stock each year since 2016. By contrast, the growth in the number of homes in the UK has been up to 1% each year in the same time period.

— An overall sense that the quality, mix and price of the Island's housing stock is not a good fit for current needs, particularly those of younger economically active people.

— An overall sense that the quality of visitor accommodation is lacking, leaving visitors with a relatively limited choice of high-quality venues.

[165] https://www.gov.im/media/1365879/independent-health-and-social-care-review-final-report.pdf

— An overall sense that the built environment in the Island more broadly is in need of regeneration to bring it up to the level of comparator jurisdictions such as Jersey and Guernsey.

6 Strategic theme 3: Sustainable

6.1 Introduction

The United Nations Brundtland Commission defined '**sustainability'** as '*meeting the needs of the present without compromising the ability of future generations to meet their own needs'*.[166] The UN also notes that **sustainable development requires an integrated approach** that **takes into account environmental concerns** along with **economic development**.[167]

In the context of this report, it is therefore important to consider the performance of the Isle of Man with respect Net Zero targets and associated sustainability agendas from a socio-economic and environmental perspective, including considering the extent to which the Island's businesses have business models centred around sustainability and the Island is equipped to deliver objectives around decarbonising the economy.

In its Invitation to Tender for this engagement, IOMG described the theme 'Green' as "*Centring business models around sustainability, decarbonising the economy and capitalising on our Unesco Biosphere status to align us with our 2050 targets as outlined in our Action Plan for Achieving Net Zero*".

We explored this theme further with business leaders as part of Phase 0 of the engagement. Recommending that 'Green' be more broadly framed as 'Sustainable', participants also identified multiple aspects of a desirable future state of the Island that were relevant to sustainability. We summarised their views as follows, expressing them as part of a vision for a future state of the Island and its economy:

- Sustainability goes beyond climate change – encompassing environmental, social and governance considerations – and is embedded in everyday life.
- The Island is a global ambassador for sustainable ways of living and working.
- We cherish our UNESCO Biosphere status; the population understands the benefits that the status carries, and recognises that we all act as stewards for the next generation.
- Our sustainability strategy not only meets the needs of local stakeholders, but exceeds the standards upheld by international corporate businesses that seek to lead in terms of ESG.
- Our infrastructure and policies attract academics and aspiring sustainable businesses looking for a nurturing and welcoming environment with testbed abilities.
- As a proud island, policies and focus encompasses and champions the blue economy as well as green.
- The Island is accelerating the de-carbonisation of its economy to far surpass its 2050 target for Net Zero.

[166] United Nations. (1987). 'Report of the World Commission on Environment and Development: Our Common Future'.
[167] United Nations. (2021). 'Sustainability'.

— The Island's renewable energy transition partners with industry and has a clear well-communicated ambition.

The section is structured as follows:

— **Section 6.2** provides background and context to the importance of sustainability, with further detail on the Net Zero targets and other important trends and regulatory factors.
— **Section 6.3** presents data and analysis regarding the Island's energy usage and energy efficiency/productivity, broken down by economic activity and how this has changed over time.
— **Section 6.4** looks at behaviours and trends of households and firms including survey evidence regarding ESG considerations.
— **Section 6.5** considers environmental outcomes, such as the exposure to pollution and the associated health risks and costs.
— **Section 6.6** presents evidence on the island's biodiversity and natural ecosystems, as relevant for the economic performance of the Isle of Man linked to the visitor economy, and how this has changed over time. This will include evidence on environmental protection expenditure.
— The section concludes by considering the Island's key strengths and weaknesses in light of the above evidence.

6.2 Background and context

As detailed by the ONS (2019), the relationship between economic growth and the environment is being increasingly scrutinised[168] and according to the Intergovernmental Panel on Climate Change (2021) human influence has had varying degrees of impact on a range of climate variables, including weather and climate extremes, noting specifically that 'human influence has warmed the climate at a rate that is unprecedented in at least the last 2,000 years'.[169].[170]

According to the World Economic Forum (2015), there could be 'global-scale' macroeconomic impacts as a result of climate change, with evidence to suggest that 'business as usual' emissions throughout the 21st century could decrease per capita GDP by 23% below what it might otherwise have been.[171] Further, more recent evidence from the World Economic Forum (2021) states that the global economy could lose 10% of its total economic value by 2050 due to climate change, stating that climate change is the most impactful risk facing the planet. This is particularly concerning in the context of an already challenged global community that is struggling to mitigate the impact of COVID-19.[172] Evidence from SwissRe (2020) echoes these

[168] ONS (2019). 'The decoupling of economic growth from carbon emissions: UK evidence'.
[169] Intergovernmental Panel on Climate Change. (2021). 'Climate Change 2021 The Physical Science Basis Summary for Policymakers'.
[171] World Economic Forum. (2015). 'What are the economic consequences of climate change?'
[171] World Economic Forum. (2015). 'What are the economic consequences of climate change?'
[172] World Economic Forum. (2021). 'This is how climate change could impact the global economy'.

concerns, stating that climate risk impacts every society, company and individual, and hence immediate action is needed to mitigate the risks and to reach net-zero targets.[173]

In line with this, evidence from the University of Oxford finds that an increase in firms' environmental, social and governance (ESG) practices is positively associated with living standards in the firms' respective country, in terms of GDP per capita.[174]

From an investment perspective, Morgan Stanley (2018) states that ESG issues can reveal a lot about which countries are likely to sustain solid growth, and which companies are well-managed and capable of expanding earning from an extended period.[175]

In view of the above, it is clear that poor environmental and sustainability-related practices are associated with poor economic performance and could result in missed investment opportunities. Due consideration must therefore be given to how the Isle of Man is performing in this regard, in absolute terms, and in relation to relevant benchmark jurisdictions.

In May 2019 the Island's Chief Minister made a commitment for the Island to reach net zero carbon emissions by 2050. IOMG commissioned an independent report into options for climate action from Professor James Curran, which was delivered later in 2019[176] and led to IOMG producing an action plan to achieve net zero emissions by 2050[177]. This was unanimously endorsed by the Island's parliament in January 2020. A Climate Change Bill was also brought forward to put commitments on a clear statutory footing[178].

In 2021 IOMG's Climate Change Transformation Team has put out to public consultation the outline of a five-year Climate Action Plan to cover the period 2022-2027[179], which proposes actions across a number of areas, including energy generation, transportation, energy use in buildings, agriculture, business and waste management. The results of this consultation are awaited.

In September 2021 IOMG raised £400m by issuing bonds under a sustainable financing framework[180], committing it to spending an amount matching the proceeds of the sale on activities consistent with sustainability principles and to subject its compliance with those requirements to external scrutiny.

Where data permits, the following jurisdictions are considered, in line with previous sections of this report:

- Jersey;

[173] SwissRe. (2021). 'World Economy set to lose up to 18% GDP from climate change if no action is taken, reveals Swiss Re Institute's stress-test analysis'
[174] University of Oxford. (2020). 'Better company environmental, social, and governance (ESG) performance improves economic growth'.
[175] Morgan Stanley. (2018). 'An Emerging Markets Approach to ESG'.
[176] https://www.gov.im/about-the-government/departments/cabinet-office/climate-change-isle-of-man/impact-report/
[177] https://www.gov.im/media/1368096/gd20190101-iomg-action-plan.pdf
[178] https://www.gov.im/media/1370372/climate-change-bill-2020-draft-for-consultation-gd-2020-0041.pdf
[179] The consultation document and supporting information can be found here: https://consult.gov.im/cabinet-office/climate-change-plan-2022-2027/
[180] https://www.gov.im/media/1374138/iomtreasury-sustainable-financing-framework.pdf

— Guernsey;
— Malta;
— Cayman Islands;
— Bermuda;
— The United Kingdom; and
— The EU.

For selected indicators – and where data permits – further comparisons are made with 'best in class' benchmark jurisdictions, including:

— **France**: owing to its performance with respect to sustainable products and services eco-labelling;
— **Sweden**: owing to its ambitious green economy policies;
— **Luxemburg**: owing to its ranking among the Top 4 in Yale's Environment Performance Index, and it positioning as a sustainable finance hub for Europe;
— **Denmark**: owing to its ranking among the Top 4 in Yale's Environment Performance Index, and in light of its clean-tech offerings; and
— **Canada**: owing to its initiatives regarding clean innovation.

KPMG has recently released an assessed of net zero readiness[181] which notes countries on the world stage that are the best prepared and will provide useful examples of decarbonisation for the Island may wish to consider.

6.3 Economic and resource productivity: carbon and energy

The Environmental Kuznets Curve ("EKC") has been used to explore the relationship between economic growth and the environment. It shows that an initial increase in GDP per head results in increased greenhouse gas ("GHG") emissions, however as an economy transitions from industrial production to service-based industries, the environmental damage gradually declines. [182] This is because higher economic development leads to improvements in technology, greater environmental awareness, and implementation of environmental regulations, resulting in the decline of environmental deterioration.[183]

It is therefore important to consider the breakdown and volume of GHG emissions on the Isle of Man, with a view to encouraging innovation and development of policy in support of continued reduction of GHG emissions.

Table 6.1 shows the breakdown of GHG emissions by economic activity on the Isle of Man between 2010 and 2019. We understand from the Isle of Man government that the GHG inventory and emissions categories were developed to be indicative only and should be considered in the context of the activity that they are supporting. It can be seen that the level of GHG emissions has gradually decreased since 2010, though there was a slight increase between 2018 and 2019 (more recent data is not available), owing to exports of electricity to

[181] See https://assets.kpmg/content/dam/kpmg/xx/pdf/2021/10/net-zero-readiness-index.pdf
[182] ONS (2019). 'The decoupling of economic growth from carbon emissions: UK evidence'.
[183] ONS (2019). 'The decoupling of economic growth from carbon emissions: UK evidence'.

the UK. We understand that Manx utilities import-export agreement is based on exporting energy when it is economical to do so, but when it is not, the Isle of Man imports energy from the UK. This agreement will affect overall emission produced on the Island.

Table 6.1 Greenhouse Gas Emissions by Economic Activity - All GHGs: 2010-2019

Million Metric Ton GWP CO2

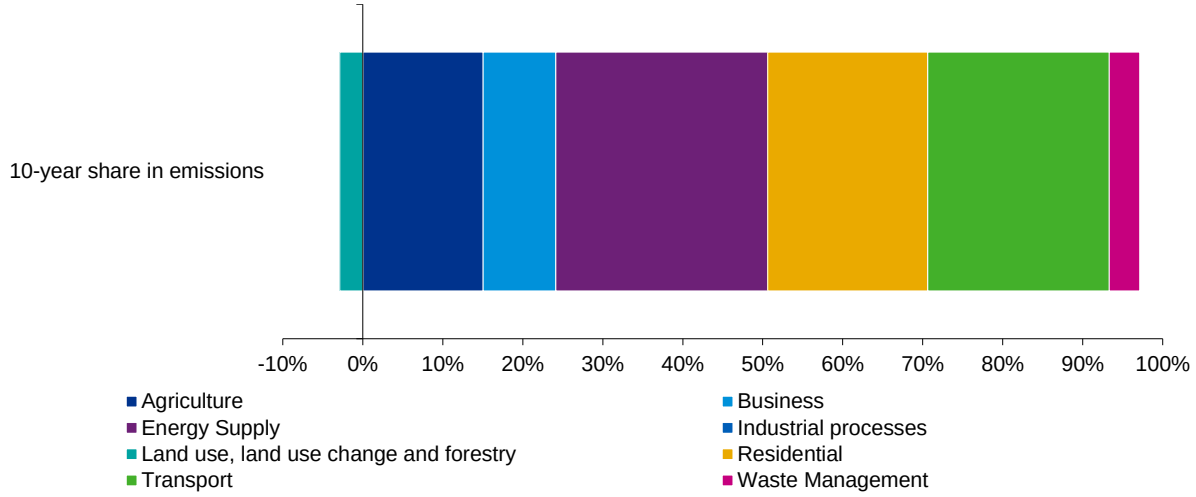
Activity	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Agriculture	0.12	0.11	0.10	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Business	0.08	0.07	0.07	0.08	0.07	0.07	0.06	0.05	0.05	0.05
Energy Supply	0.21	0.21	0.13	0.18	0.20	0.18	0.20	0.20	0.19	0.24
Industrial processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land use, land use change and forestry	-0.02	-0.02	-0.02	-0.02	-0.02	-0.01	-0.02	-0.03	-0.03	-0.03
Residential	0.15	0.14	0.15	0.15	0.13	0.14	0.14	0.15	0.16	0.15
Transport	0.17	0.17	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.16
Waste Management	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02
Grand Total	**0.73**	**0.72**	**0.64**	**0.69**	**0.68**	**0.68**	**0.68**	**0.67**	**0.66**	**0.70**

Source: GHG Inventory 2019, KPMG analysis

The 10-year average share of emissions – shown in Figure 6.1 – indicates that the largest contributing economic activity to GHGs is Energy Supply (28% share), followed by Transport (24%). The 'Land use, land use change and forestry' ("LULUCF") category reports negative emission values. This is because a greater amount of carbon dioxide is removed from the air than the amount of GHGs that are released from that activity – classifying the category as a 'net sink.[184] According to Aether (2019), the size of the net sink increased by 23% between 1990 and 2017.

[184] Aether. (2019). 'Guide to the Isle of Man Greenhouse Gas Inventory'.

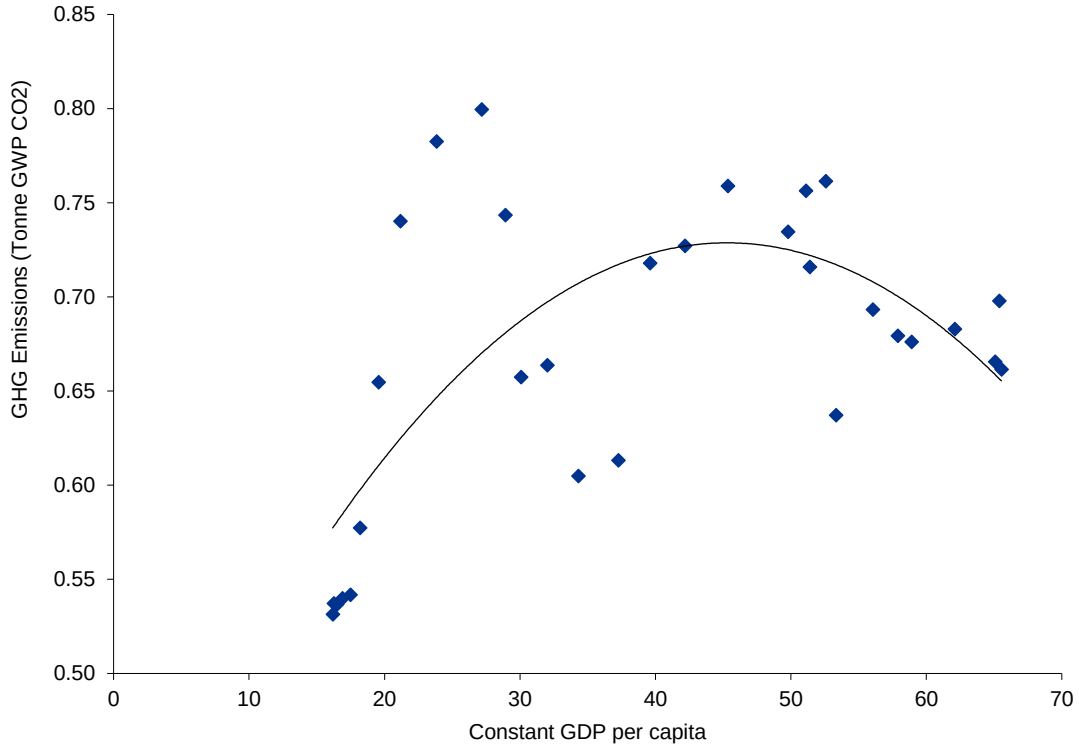
Figure 6.1 Share of Economic Activities in GHG Emissions



Source: GHG Inventory 2019, KPMG analysis

Figure 6.2 shows the Environmental Kuznets Curve for the Isle of Man. It can be seen that, in line with economic theory, levels of GHG emissions were increasing until the early 2000's in line with a rise in GDP per capita, after which GDP per capita continues to rise, but levels of GHG emissions start to decline. Despite the marginal uptick in the most recent two years of emissions data (detailed above), the longer-term trajectory is likely to present a continued decrease in GHG emission levels, especially in light of policies to support their reduction, and the curve will continue downwards.

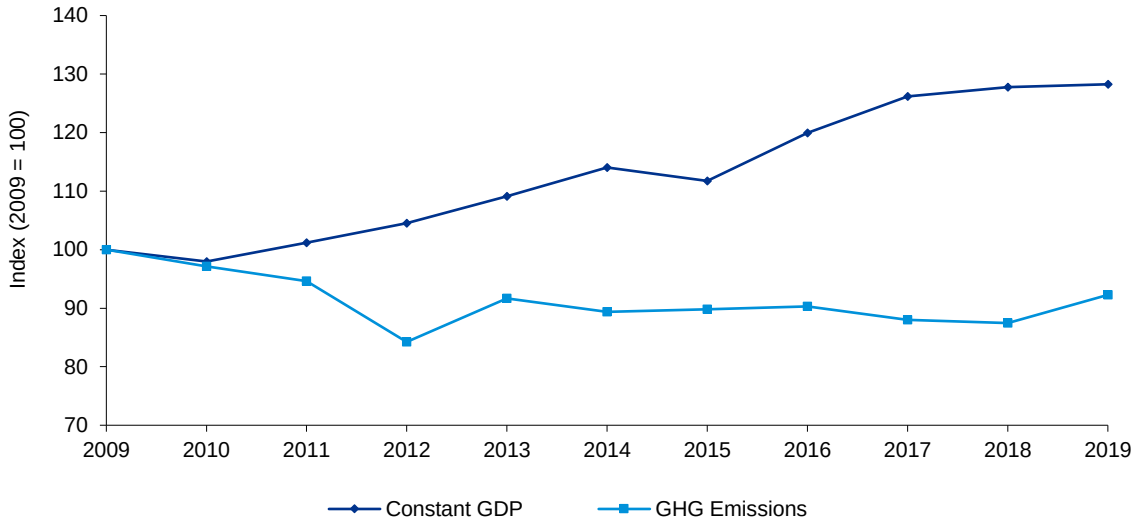
Figure 6.2 Environmental Kuznets Curve: Isle of Man: 1990-2019



Source: GHG Inventory 2019, KPMG analysis

In line with the EKC analysis above, Figure 6.3 considers the rate of GHG emissions growth together with the rate of GDP growth for the Isle of Man. The divergence between the curves shows that the rate of GDP growth far outstrips the rate of GHG emission growth, which may indicate that the Island has been successful in finding ways to increase economic output without growing GHG emissions at the same rate. As noted in Chapter 3 however, the GDP of the Island is driven, at least in part, by corporate income related to activities taking place off-island. This means that the theorised relationship between GDP and emissions is likely to be affected by this, with the off-island activity supporting the Island's GDP not generating emissions on-island.

Figure 6.3 Greenhouse Gas Productivity – GHG emissions and GDP Index: Isle of Man, 2009-2019

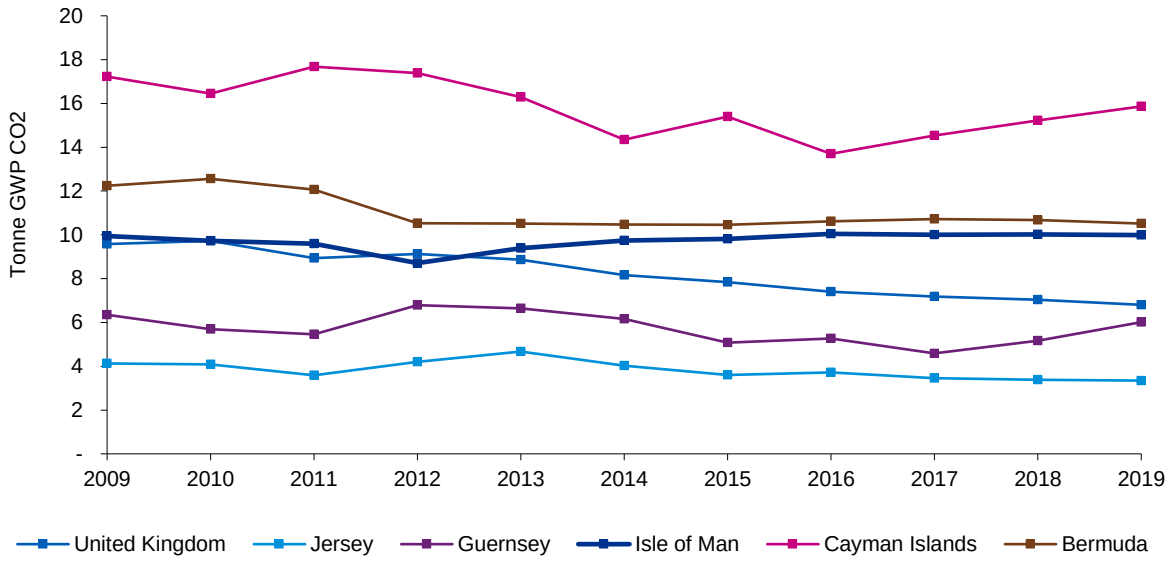


Source: GHG Inventory 2019, KPMG analysis

While reporting low levels of emissions growth is preferable over increasing levels, it is important for the Isle of Man to pursue methods to *reduce* emission levels in order to remain attractive to businesses and people and be a responsible jurisdiction in the global economy.

Data for comparator jurisdictions suggests that, on a per capita basis, the Isle of Man is not reducing GHG emissions at an analogous level, which with companies increased focus on the ESG agenda, could possibly dissuade otherwise potential investment opportunities for the Island. This data is presented in Figure 6.4 and shows a very slight increase in GHG emissions per capita for the Isle of Man between 2009 and 2019, while the UK has reduced emissions on a per capita basis by 29%, Jersey by 19% and Bermuda by 14%.

Figure 6.4 Greenhouse Gas Emissions per capita: Isle of Man and comparators: 2009-2019



Source: Department for Business, Energy and Industrial Strategy, KPMG analysis

Consistent with the evidence presented above, Table 6.2 sets out energy use by source on the Isle of Man. From this it can be seen that the majority of energy usage is derived from oil and gas, with less than 3% coming from renewable sources. This means that businesses, particularly energy-intensive ones, will face greater challenges in reducing their own emissions and meeting any ESG related goals they may set.

Table 6.2 Energy use by source (%): Isle of Man: 2011-2020

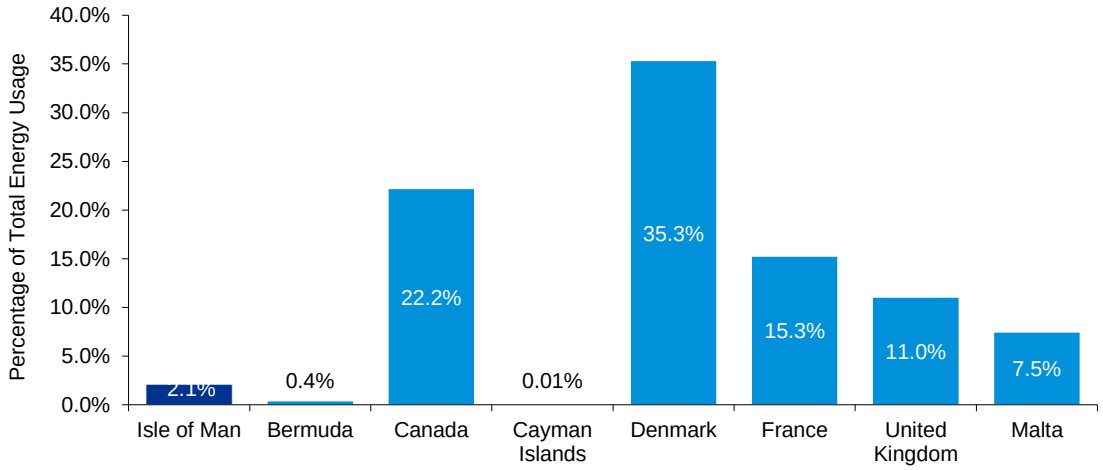
Year	Oil	Gas	Hydro/Waste	Cable Import (UK)
2011	48%	49%	1%	2%
2012	51%	38%	1%	9%
2013	48%	48%	1%	3%
2014	47%	50%	1%	2%
2015	48%	48%	1%	3%
2016	47%	51%	1%	1%
2017	46%	52%	1%	2%
2018	46%	50%	1%	2%
2019	45%	52%	1%	1%
2020	44%	53%	1%	1%

Source: Manx Utilities Authority, KPMG analysis

It should be noted that there are some complexities around the energy profile presented in Table 6.2. Namely, at present energy (including from renewables) is imported via the interconnector with the UK when it is cost effective to do so. Conversely, when it is profitable to do so, the Island exports energy generated using fossil fuels, predominately gas. Therefore, from a resident's perspective, a larger proportion than 2% (see Figure 6.5 below) may come from 'green' energy (imported).

Figure 6.5 expands on this and presents the proportion of renewable energy usage by the Isle of Man and comparator jurisdictions in 2018 (the most recently available data). Other than the Cayman Islands and Bermuda, the Isle of Man utilises the smallest proportion of renewable energy among the comparators at 2.1%. Denmark and Canada have the highest utilisation levels (35% and 22%) and have had since 2010 and 2000, respectively (see Figure 6.6).

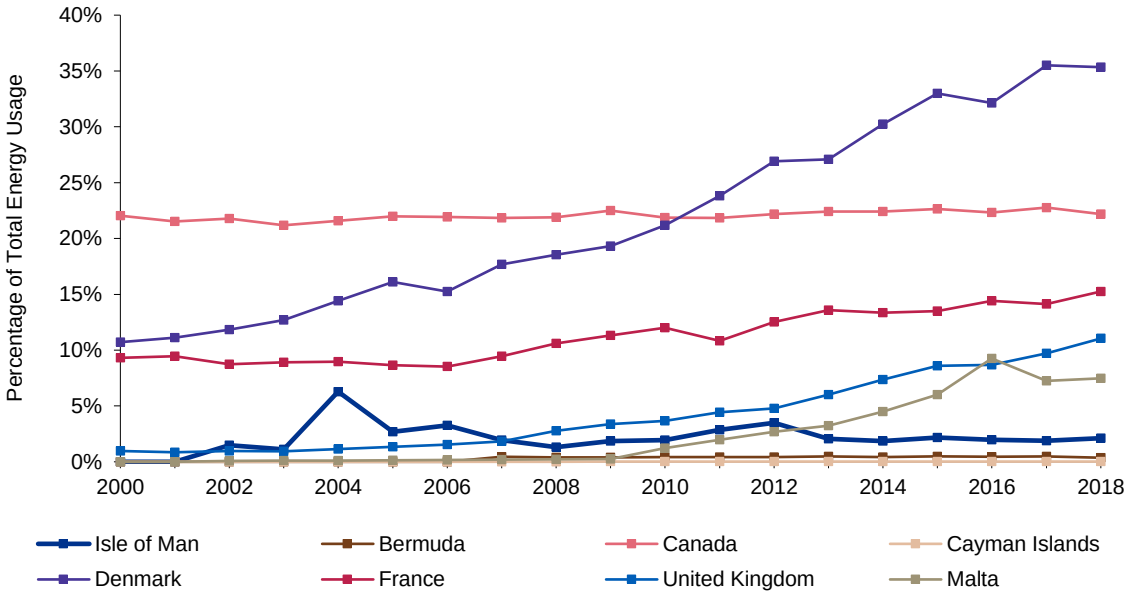
Figure 6.5 Renewable Energy Usage: Isle of Man and comparators: 2018



Source: World Bank 2018, KPMG analysis

With the exception of a slight uptick in 2004, the Isle of Man has consistently utilised approximately 1%-2% of renewable energy, while other jurisdictions have seen gradual – and in some cases significant – increases in the proportion of renewable energy usage (Figure 6.6).

Figure 6.6 Renewable Energy Usage: Isle of Man and comparators: 2000 -– 2018

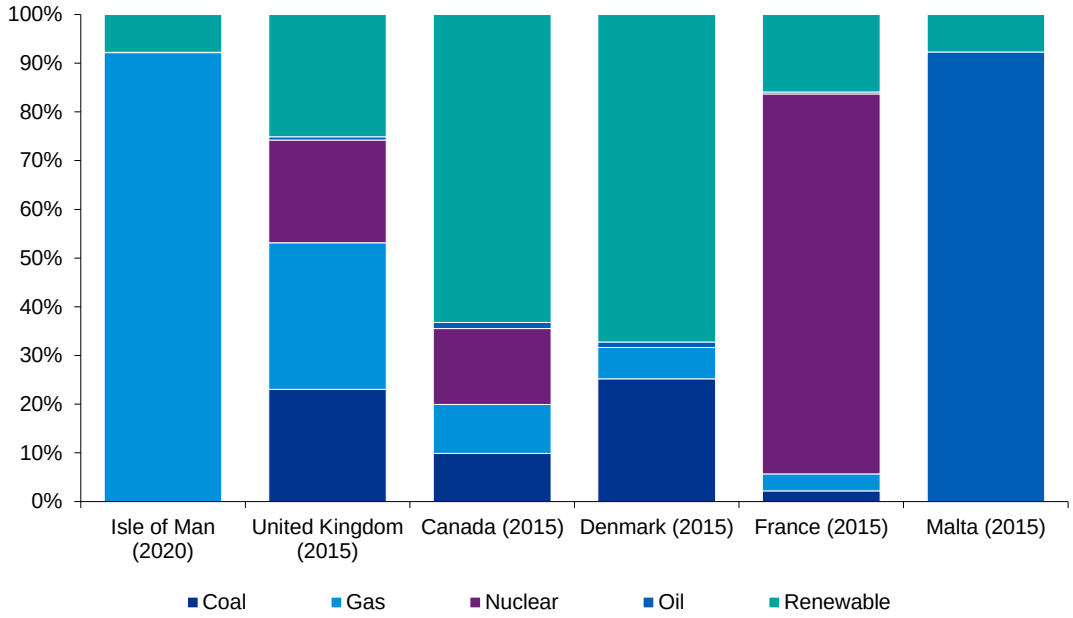


Source: World Bank, KPMG analysis

Figure 6.7 sets out the composition of electricity production by source for the Isle of Man and comparators in which it can be seen that approximately 8% of electricity is produced via renewable sources, the smallest proportion together with Malta (also 8% in 2015, although it is feasible that this proportion would have increased over the last 6-years). In line with the data presented in Figure 6.5 and Figure 6.6, Denmark and Canada produced more than 60% of electricity from renewable sources in 2015, which is likely an underestimate of 2020/21 renewable electricity production estimates.

Although data for Jersey is not presented in the figure below, we understand that almost all of Jersey's energy supply is imported (approximately 3% is produced on-island). Of this imported energy it is estimated that around two thirds is from nuclear sources.[185]

Figure 6.7 Electricity production by source: Isle of Man (2020) and comparators (2015)



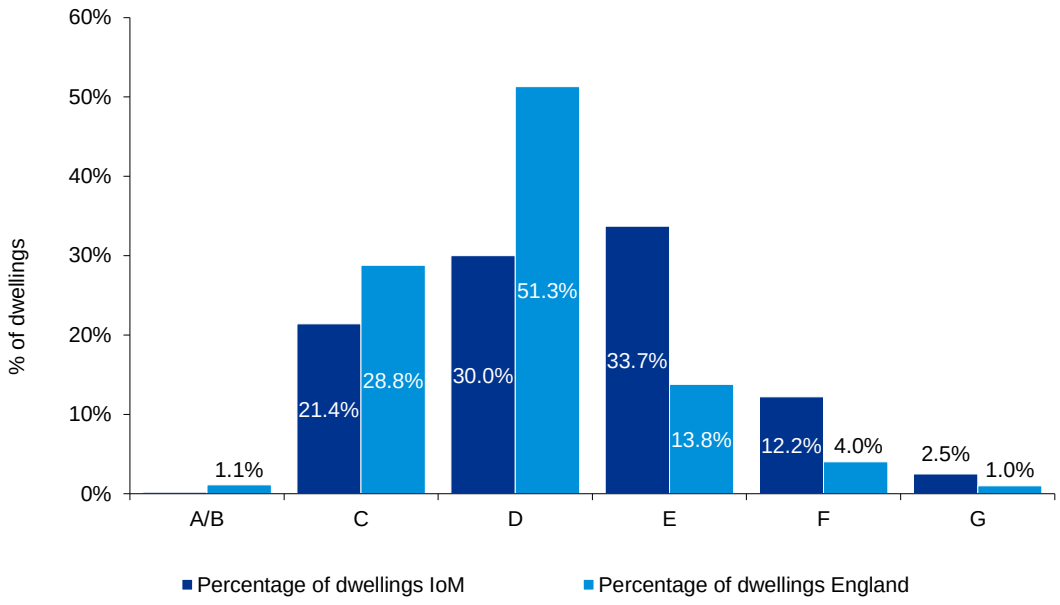
Source: World Bank; KPMG analysis

Figure 6.8 sets out the energy performance certificate (EPC) ratings of premises on the Isle of Man and the UK. A premises' EPC sets out information regarding energy use and typical energy costs and provides an efficiency rate from A (most efficient) to G (least efficient).[186] The ratings of these are relevant from a sustainability perspective as they affect energy usage levels and the extent to which the Island is equipped to deliver objectives around decarbonising the economy and businesses can meet their own goals around reducing emissions. The chart shows that approximately 0.2% premises on the Isle of Man have EPC ratings of A/B and the majority of premises have a rating of either D (30%) or E (34%).

In England, by contrast, approximately 1.1% of premises have a rating of A/B, and the majority of premises have a rating of either C (29%) or D (51%). This is consistent with the data presented throughout the section so far, in which the evidence suggests there are opportunities to improve energy and efficiency metrics on the Isle of Man, in absolute and relative terms.

[185] Gov.je. (2020). 'Statistics Jersey Energy Trends'.
[186] Gov.uk. (2021). 'Energy Performance Certificates'.

Figure 6.8 Premises by EPC Rating Isle of Man and England: 2018



Source: Isle of Man Government 2020, KPMG analysis

The following section looks at business and household behaviours and trends with respect to sustainability. Specifically, it draws on survey evidence regarding environmental, social and governance practices and it considers household vehicle usage and recycling trends on the Isle of Man and for selected comparator jurisdictions.

6.4 Business and household behaviour and trends

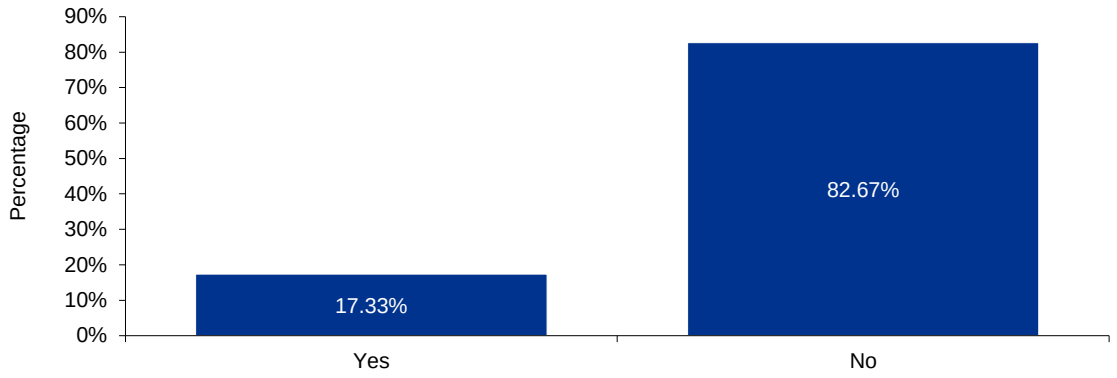
Evidence from the Smith School of Enterprise and the Environment, University of Oxford, has found that **environmental, social and governance (ESG) practices' positively affect macroeconomic performance**, including GDP, and empirical studies have identified st**atistically significant relationships between an increase in firms' ESG performance**, and the **impact on living standards**, as measured by GDP per capita. [187]

Survey evidence collected for this report provides some information in relation to Isle of Man businesses' consideration of ESG, for example in their investment/purchasing decisions, and the extent of environmental related goods/ services they provide.

As shown in Figure 6.9, approximately 17% of business survey respondents provided environmental goods and/or services to customers in FY 20/21. As shown in Figure 6.10, of businesses that *do* offer environmental goods and/or services, the majority are environmental consulting services and/or sustainable finance services, together accounting for almost half of all responses (45%).

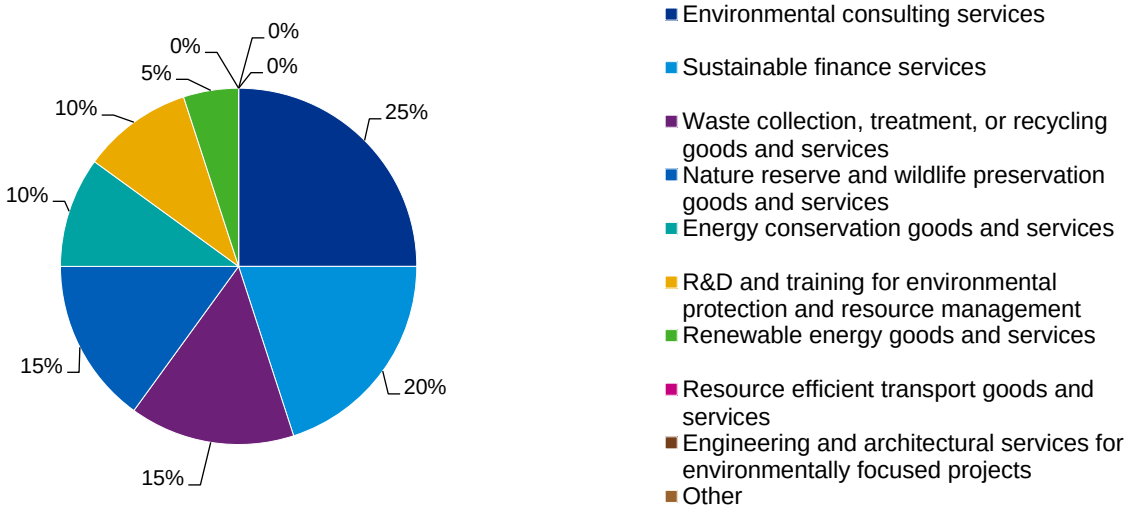
[187] University of Oxford. (2020). 'Better company environmental, social, and governance (ESG) performance improves economic growth'.

Figure 6.9 In FY 2020/21 did you provide any environmental goods or services to your customers?



Source: Isle of Man Government Our Big Picture Survey 2021

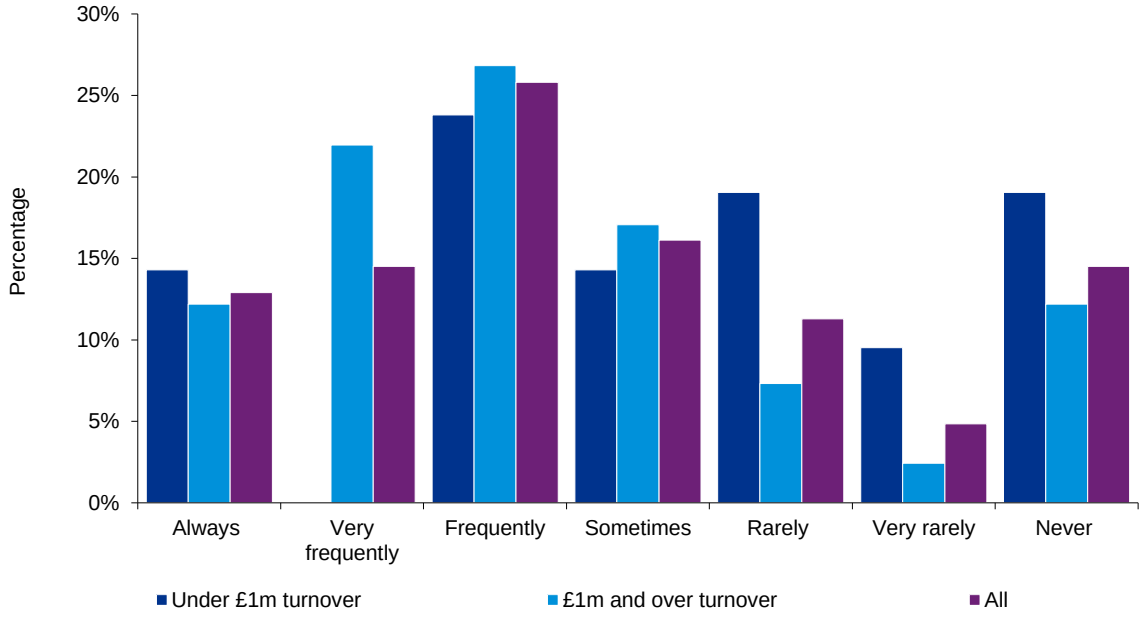
Figure 6.10 In FY 2020/21 which of the following environmental goods and services did you provide?



Source: Isle of Man Government Our Big Picture Survey 2021

In terms of taking ESG considerations into account when making investment and/or purchasing decisions, as shown in Figure 6.11, the majority of responding firms 'frequently' consider ESG factors, with over 50% of firms stating that they **always**, **very frequently** or **frequently** consider ESG factors. Approximately 15% of responding firms 'never' take ESG considerations into account.

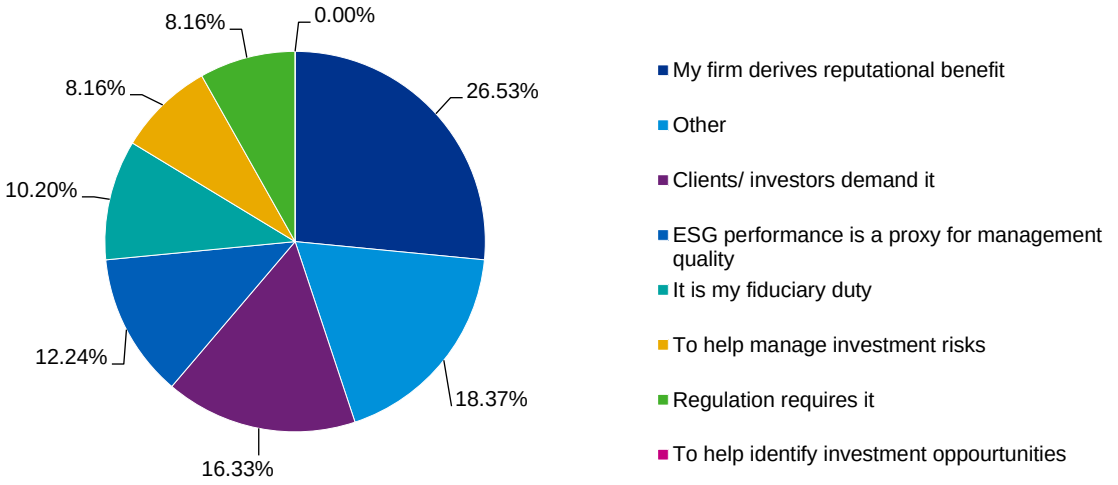
Figure 6.11 To what extent does your business take economic social and governance (ESG) considerations into account when making investment and/ or purchasing decisions, in FY2020/21?



Source: Isle of Man Government Our Big Picture Survey 2021

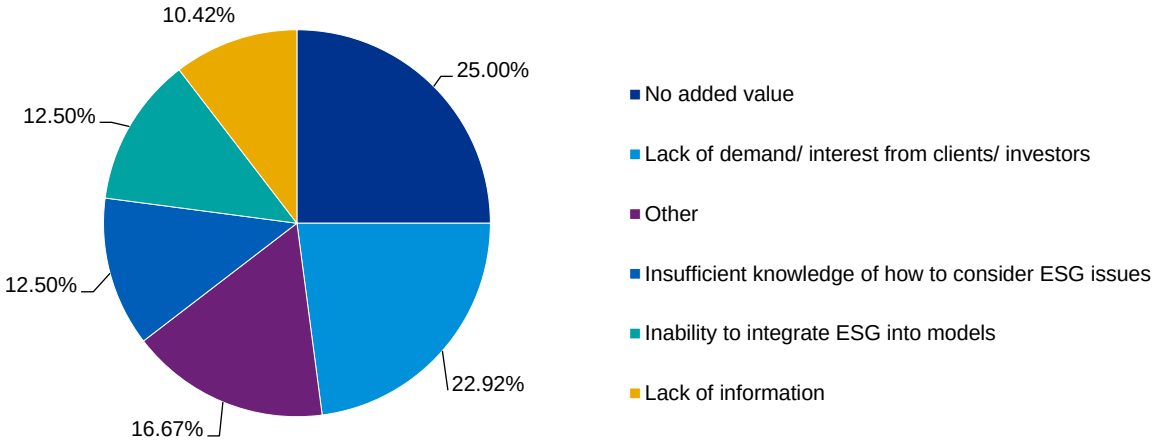
Figure 6.12 presents the survey data relating to the reasons why businesses consider ESG factors when making their investment decisions. Of firms that ***do*** take ESG factors into consideration, the majority of respondents reported doing so in order to derive reputational benefit (26.5%). Of firms that ***do not*** take ESG factors into consideration, the most commonly cited explanation for this was a lack of added value (25%), followed by lack of demand/ interest from clients/ investors (23%), shown in Figure 6.13

Figure 6.12 Why *do* you take ESG factors into consideration in your investment purchasing decisions?



Source: Isle of Man Government Our Big Picture Survey 2021

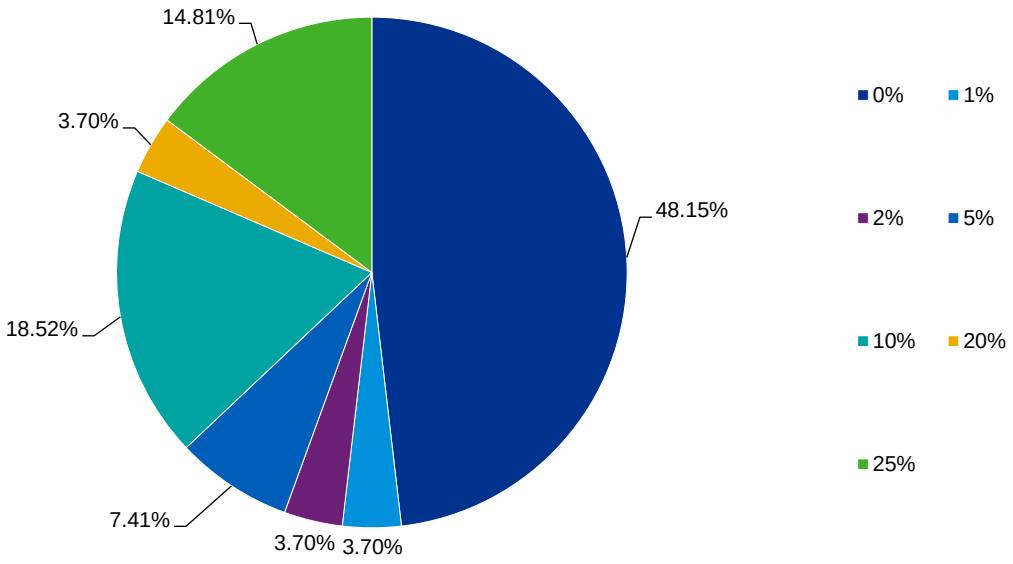
Figure 6.13 When you *do not* take ESG factors into consideration in your investment purchasing decisions why is this?



Source: Isle of Man Government Our Big Picture Survey 2021

Despite almost a quarter of respondents (23%) reporting insufficient knowledge of how to consider ESG issues, or having a lack of information, almost 50% of respondents stated that 0% of their R&D expenditure in FY 2020/21 related to the development of goods and services that are produced for the purpose of environmental protection and/or resource management. Approximately 15% of respondents reported that 25% of their R&D expenditure related to such development, which was the largest proportion category selected by respondents.

Figure 6.14 Of your R&D expenditure in 2020/21, what proportion related to the development of goods and services you provide which are produced for the purpose of environmental protection and resource management?



Source: Isle of Man Government Our Big Picture Survey 2021

In addition to business behaviours in relation to ESG, it is also important to consider the behaviours and trends of individuals and households with respect to the environment and how they are evolving over time. This evidence also provides an indicator of the Island's potential to deliver objectives around decarbonising the economy.

The OECD (2008) notes the importance of gaining insights into household environmental behaviour and consumption patterns, with a view to determining how households respond to policies that are implemented by governments to promote sustainable consumption patterns, and to observe how environmental behaviours vary across households.[188] In this regard, a number of areas were determined to be important for analysis:[189]

- Transport choices;
- Recycling;
- Waste generation;
- Food consumption; and
- Energy and water use.

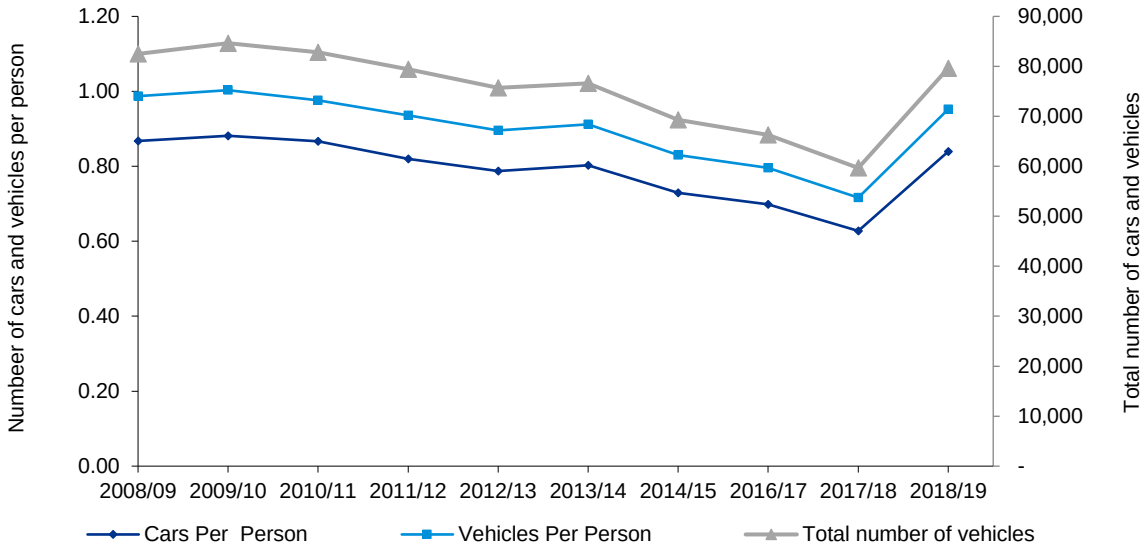
Figure 6.15 sets out the ratios of cars and vehicles per person on the Isle of Man, together with the total number cars and vehicles, between 2008/09 and 2018/19.

It can be seen that until 2017/18, the absolute number as well as the number of cars and vehicles per person had been declining. However there appears to have been an uptick in the

[188] OECD. (2008). 'Household Behaviour and the Environment'.
[189] OECD. (2008). 'Household Behaviour and the Environment'.

number of cars and vehicles[190] in 20018/19 to 0.85 cars and 0.95 vehicles per person – almost in line with the numbers seen at the start of the time series 10-years prior. In absolute terms, this represents an increase from 59,675 cars in 2017/18 to 79,615 cars in 2018/19 (+33.4%), a decline of only 3.5% from 83,470 in 2008/09.

Figure 6.15 Vehicles and car (per person and total number): Isle of Man: 2008/09-2018/19



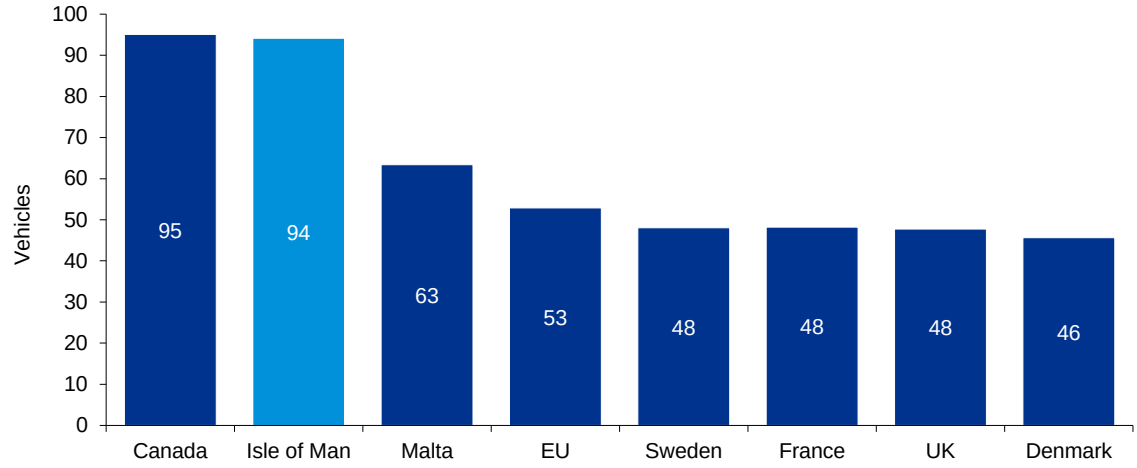
Source: Isle of Man in Numbers 2020, World Bank 2020, KPMG analysis

Figure 6.16 sets out a comparison with selected jurisdictions in which the number of vehicles per 100 people is shown.

After Canada, the Isle of Man has the highest number of vehicles per 100 people at 94, more than double the number in Denmark (46), and almost twice as many as the UK, France, and Sweden (48 in all cases).

[190] Following discussion with IOMG the uptick in vehicles in 2018/19 does not seem likely to reflect a significant year-to-year increase in the number of vehicles on the Island's roads. Furthermore, it was noted that statistics on motor fuel consumed on-island did not reflect this uptick.

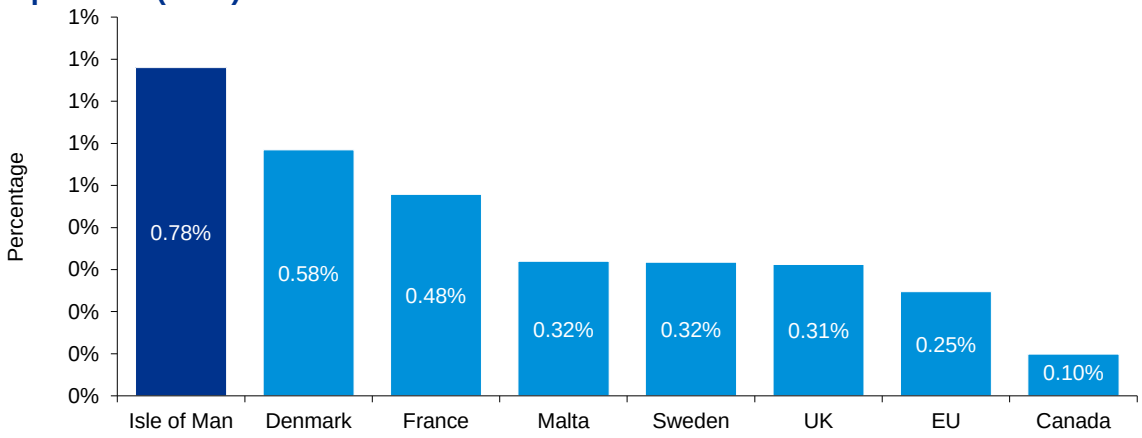
Figure 6.16 Vehicles per 100 people: Isle of Man (2021) and comparators (2019)



Source: World Bank 2020, KPMG analysis[191]

However, it is important to note the 2021 proportion of electric vehicles on the Island, which is higher than in comparator jurisdictions at 0.78% (621 out of a total 79,615 vehicles), - albeit data for most comparator jurisdictions was only available up to 2019 as shown in Figure 6.17. Given the data constraints we are unable to compare identical time periods across the comparator jurisdictions presented here and inferences from this analysis should therefore be made with caution given the evolution that is expected to have taken place in more recent time periods. For instance, more recent data is available for the UK and reveals a 50% increase in the proportion of electric vehicles from 0.31% in 2019 to 0.64% in 2020. In view of this, it will be interesting to determine if the same magnitude of change has taken place on the Isle of Man (and elsewhere), given the phasing out of petrol and diesel car production in the UK by 2030.[192]

Figure 6.17 Proportion of electric vehicles in all vehicles: Isle of Man (2021) and comparators (2019)



Source: World Bank 2020, KPMG analysis[193]

[191] https://data.worldbank.org/indicator/AG.LND.TOTL.K2?locations=CA-IM-FR-GB-MT-SE-DK
[192] ONS. (2020). 'Government takes historic step towards net-zero with end of sale of new petrol and diesel cars by 2030'.
[193] https://data.worldbank.org/indicator/AG.LND.TOTL.K2?locations=CA-IM-FR-GB-MT-SE-DK

There may be a relationship between the relatively low user satisfaction scores concerning transport links on the Island (discussed in Section 4 – Attractive to Business) and the propensity for vehicle ownership among residents with resultant emissions impacts. Landmass is also relevant in this context and therefore analysis regarding the number of vehicles per km^2 has also been conducted, the results of which are shown in Table 6.3, below.

The data shows that the Isle of Man has the second largest number of vehicles per km^2 after Malta, followed by the UK. This confirms the preference for private vehicle usage on the Island. However, as noted above, it is encouraging that a portion of these appear to be electric cars, in support of which additional charging points are becoming available on the Island.[194]

Table 6.3 Number of vehicles per Km^2: Isle of Man and comparators, 2020

Country	Landmass (km^2)	Population	Population Density	Vehicles per km^2
Canada	8,965,590	35,702,908	4	4
Isle of Man	570	83,232	146	137
Malta	320	434,558	1,358	861
EU	3,999,623	444,543,761	111	59
Sweden	407,310	9,696,110	24	11
France	547,557	66,548,272	122	59
UK	241,930	65,116,219	269	127
Denmark	40,000	5,683,483	142	65

Source: World Bank 2020, KPMG analysis[195]

In addition to analysing data regarding vehicle use on the Isle of Man, household attitudes towards recycling and waste generation have been analysed – these are two further indicators of environmental performance as identified by the OECD (2008). Through understanding this, it is considered that policymakers are able to take better informed decisions regarding where and when to implement particular policies.[196]

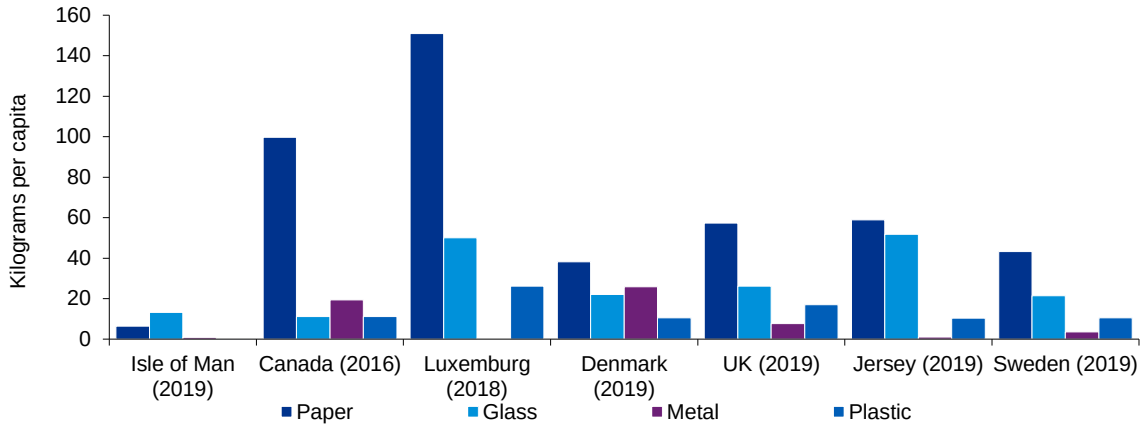
Figure 6.18 presents the volume of recycling per capita on the Isle and Man and across selected comparator jurisdictions. It can be seen that the Isle of Man recycles the lowest volume of materials from this range of comparators, particularly with respect to metal and plastic. It is not possible to determine the underlying causality from this data alone, for example because it may be that the materials listed are disproportionality used in other jurisdictions, and therefore present a greater opportunity for recycling than they do on the Isle of Man. However, on first inspection, it appears that there may be opportunities for the Isle of Man to consider additional recycling options, particularly if there is high usage of materials shown in the analysis. While reliable per capita levels of recyclable products used on the Island are not available, it would be reasonable to assume that levels are unlikely to be significantly lower than the UK or Jersey.

There are various facilities enabling the collection of many types of recyclable waste, including a free kerbside collection scheme in and near Douglas[197], communal recycling bins in public

[194] IOM Today. (2021). 'What provisions are there for EVs?'.
[195] https://data.worldbank.org/indicator/AG.LND.TOTL.K2?locations=CA-IM-FR-GB-MT-SE-DK
[196] OECD. (2008). 'Household Behaviour and the Environment'.
[197] We note that a private paid-for collection service has recently been launched covering those areas not covered by the public kerbside collection scheme.

spaces around the Island and civic amenity sites. There is no volume-based charging for general waste and no legally enforced requirement to separate recyclable waste, so there is no direct financial incentive for households to maximise recycling. Furthermore, the range of materials collected for recycling is somewhat narrower than in larger jurisdictions, potentially driven by the lack of economies of scale and in particular the need to ship recyclable waste off-island for processing.

Figure 6.18 Recycling by materials: Isle of Man and comparators, 2016-2019



Source: IoM Gov, Canada Gov, Luxembourg Gov, Denmark Gov, UK Gov, Sweden Gov, KPMG analysis

6.5 Impacts on quality of life

This sub-section considers evidence in relation to how green growth may generate benefits for people in terms of quality of life, hence linking to the Attractive to People strategic theme. It will provide evidence on environmental outcomes, such as the population's exposure to environmental pollution and the associated health risks.

Table 6.4 sets out responses from the Isle of Man Social Values survey, in which respondents were asked about their perception of climate change. It can be seen that the majority of respondents (54%) believe that climate change will impact upon quality of life.

Table 6.4 Climate change perception: Isle of Man: 2016

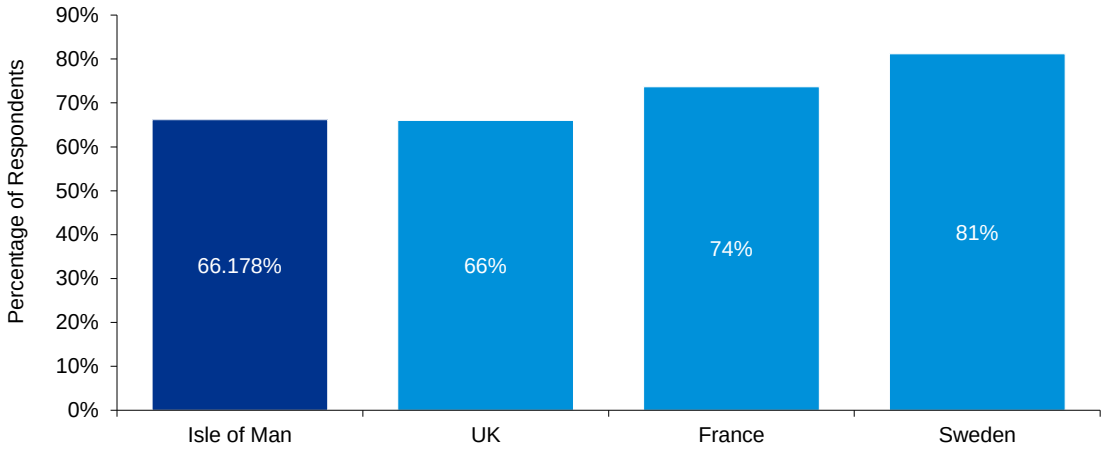
"Do you believe that climate change will impact upon your quality of life?"	Percent
Yes	54.20%
No	27.70%
Don't Know	18.10%

Source: Social Attitudes Survey 2016

Despite this being a majority response, further evidence in Figure 6.19 reveals that residents on the Isle of Man are less concerned about the impact of climate change in terms of quality of life than comparator jurisdictions. Notably, 81% of respondents from Sweden believe climate change will have an impact on life as do 74% of respondents from France. These perceptions are likely to impact individual's propensity to engage with policies, for example, those relating to recycling, and to making changes in support of improving the environmental position of the Island. In addition to the negative impacts already noted with respect to macroeconomic indicators, such perceptions and associated actions (or inactions) could have spillover impacts

on health and well-being metrics which may, in turn, further impact macroeconomic performance of the Island.

Figure 6.19 Climate change perception: Will climate change have an impact upon life? 2016-2017



Source: European Social Survey[198]

The Environmental Protection Unit ("EPU") within IOMG's Department of Environment, Food and Agriculture monitors the health of the Island's coastal waters and rivers. One key indicator of environmental health is the quality of bathing water. Following long-term improvements in sewage treatment facilities the EPU has registered consistent improvement in the quality of bathing waters around the Island over the period 2010-2019[199].

Regular monitoring of the Island's rivers also shows that the health of rivers is excellent and has been steady or improving on a number of measures in recent years[200]:

- Chemical quality;
- Phosphate quality; and
- Nitrate quality.

Measures have also recently been introduced to monitor certain river systems for the levels of dissolved metals. The main cause for concern is a high level of dissolved zinc, which arises due to historic mining activity on the Island[201].

Regular monitoring of air pollution was conducted between 1997 and 2009 at selected rural and urban locations revealed consistently good air quality in line with objectives and monitoring was therefore discontinued[202]. We note that as part of an 'Internet of Things' ("IoT") initiative,

[198] https://www.europeansocialsurvey.org/
[199] https://www.gov.im/media/1372745/annual-bathing-water-quality-classifications-against-2006-directive-2010-201.pdf
[200] https://www.gov.im/media/1372121/interim-river-quality-report-2020.pdf
[201] Ibid.
[202] https://www.gov.im/about-the-government/departments/environment-food-and-agriculture/environment-directorate/environmental-protection-unit/air-quality/

monitors for indoor air quality are being rolled out as part of a pilot to Tynwald and to schools throughout the Island, detecting the concentration of carbon dioxide and volatile organic compounds[203].

6.6 Natural asset base: biodiversity and ecosystems

According to evidence from Elmqvist et al. (2015), investing in ecological infrastructure in cities, and ecological restoration of ecosystems such as rivers, lakes and woodlands in urban areas may be more than ecologically and socially desirable, but also economically beneficial.[204]

As noted in the Attractive to People strategic theme, the Island is widely regarded by stakeholders as having a beautiful natural environment, which is a valued amenity to residents and visitors.

The entire Island was admitted to UNESCO's World Network of Biosphere Reserves in 2016[205]. As of October 2018, the Isle of Man had[206]:

- 21 Areas of Special Scientific Interest;
- 1 National nature Reserve;
- 10 Marine Nature Reserves;
- 1 Area of Special Protection for Birds;
- 1 RAMSAR Wetland of International Importance; and
- 5 Bird Sanctuaries.

These areas are afforded special protection in law. DEFA, Manx National Heritage and Manx Wildlife Trust own and/or manage further sites beyond those covered in the list above and the Island's nomination papers for consideration as a Biosphere also note that the Islands planning rules limit the permitted development of the Manx countryside and that owners of farmland are incentivised to manage their land in accordance with good environmental practices[207].

The Island's UNESCO Biosphere status was recognised by business stakeholders as an important differentiator of the Island, signalling a positive commitment to sustainable development.

6.7 Summary of strengths and weaknesses

Based on the data and wider evidence collated in this section, together with the comparisons drawn to other jurisdictions to help to set the Island's economic performance in context, a number of key strengths of the Isle of Man with respect to sustainability are evident as well as

[203] https://www.digitalisleofman.com/news/how-the-internet-of-things-is-enabling-better-indoor-air-quality-for-the-isle-of-man/
[204] Elmqvist, T. *et al.* (2015). 'Benefits of resorting ecosystem services in urban areas'.
[205] https://www.biosphere.im/
[206] https://www.gov.im/about-the-government/departments/environment-food-and-agriculture/environment-directorate/ecosystem-policy-and-energy/wildlife-biodiversity-and-protected-sites/protected-sites/
[207] https://www.biosphere.im/uploads/biosphere-isle-of-man-nomination-papers-part-i-and-ii_web.pdf

factors that will need to be taken in to account when determining the future economic strategy for the Island.

- Greenhouse Gas emission levels have decreased gradually since 2010, though there is evidence of a slight uptick in more recent years. According to the literature, this could lead to adverse macroeconomic consequences, including missed investment opportunities if the Island is not perceived to be prioritising ESG initiatives.
- However, in line with the Environmental Kuznets Curve theory, GHG emissions have been declining on the Island in conjunction with rising levels of GDP per capita. Similarly, the rate of GDP growth on the Isle of Man can be seen as far outstripping the rate of GHG emissions growth, suggesting the Island has been successful in finding ways to increase economic output without growing emissions at the same rate.
- This should, however, be taken in the context of off-island GDP contribution, wherein the GDP of the Island is driven, at least in part by corporate income related to activities taking place off-island. This means that the theorised relationship between GDP and emissions is likely to be affected by this, with the off-island activity supporting the Island's GDP not generating emissions on-island.
- Encouragingly, disaggregated GHG emissions data shows that the Isle of Man has a 'net sink' business activity category in the form of 'Land use, land use change and forestry' in which a greater amount of carbon dioxide is removed from the air than is released by that activity.
- Despite this, data for comparator jurisdictions suggests that on a per capita basis, the Isle of Man is not reducing GHG emissions at an equivalent rate which could deter opportunities for new businesses or residents to the Island.
- Further to this, the proportion of renewable energy used on the Island is relatively (and in absolute terms) very low at 2.1%, as compared with 35% in Denmark, 22% in Canada, 15% in France and 11% in the neighbouring UK. Usage does not appear to have increased at all over the last two decades.
- Production of electricity from renewable sources is also low relative to comparators at approximately 8%, as compared with more than 60% in both Denmark and Canada.
- Owing to a stock of older housing on the Island – and the associated energy inefficiencies – the proportion of dwellings with high rated energy performance certificates (EPC) is low at 0.2%, as compared with 1.1% in England.
- From a business and household behavioural trend perspective, the number of vehicles on the Island (and on a per person basis) fell between 2008/09 and 2017/18, but has more recently increased to 2008/09 levels, with the second highest number of vehicles per 100 people (94) from the selected comparator jurisdictions. However, it does not appear likely that the size of the rebound reflected in the 2018/19 figures is credible. We note that volumes of motor fuel consumed have not risen significantly.
- However, the proportion of electric vehicles is higher than any of the selected comparators at 0.78% and can be expected to increase with a growing number of charging points and supporting infrastructure on the Island.
- Owing to the size of the Island – relative to certain comparators, such as Jersey – there is a high proportion of private vehicle use for the purpose of commuting (74% vs. 57% in Jersey) and a lower proportion of walking/cycling as a mode of commuting (14% vs. 34%

in Jersey. This could also be attributed to the topology and meteorology of the Island, although the Isle of Man government has been pursuing an active travel strategy which includes making improvements to the number and quality of cycle paths.

— Finally, with respect to recycling on the Island, data suggests that the Isle of Man recycles the lowest volume of materials relative to the comparator jurisdictions. This could be owing to the lack of financial incentive for residents, given the household annual rates bill. This data is in line with relatively low perceived impact of climate change on quality of life, as reported by residents on the Island.

7 Strategic theme 4: Tech Enabled

7.1 Introduction

In its Invitation to Tender for this engagement, IOMG described the theme 'Digital' as "*Accelerating the digital transformation of the Island, upskilling our workforce and businesses to harness the potential of the fourth industrial revolution.*"

We explored this theme further with business leaders as part of Phase 0 of the engagement. Recommending that 'Digital' be more broadly framed as 'Tech Enabled', participants also identified multiple aspects of a desirable future state of the Island that were relevant to the theme. We summarised their views as follows, expressing them as part of a vision for a future state of the Island and its economy:

- The Island is an attractive and progressive location in which existing business can innovate and businesses can establish and grow whether New Tech or otherwise.
- Our digital infrastructure is world-leading, and we are an early adopter of new technology.
- Legislation and regulation are responsive to new business models.
- Policies and legislation recognise data is an asset with opportunities.
- Digital is a way of life on the Isle of Man - whether dealing with Government or industry.
- Integrated technology and systems support and empower the Island's economy.
- The workforce is highly technically skilled, fit for purpose and its abilities pre-empt market demand.

7.2 Background and context

The Isle of Man is home to large service sectors, exporting services globally and accounting for a large proportion of Manx GDP. These sectors include the eGaming, Insurance, and Banking sectors. As detailed in Chapter 3, although a few sectors account for a large majority of the Island's GDP, employment is less dependent on the contribution of these sectors: the eGaming and Insurance sectors account for modest proportions of employment despite their significant GDP contributions.

Technology related sectors have grown in importance in terms of their contribution to the overall economy of the Isle of Man in recent years, with the eGaming and ICT sectors collectively contributing 25% of GDP in 2020/21 and 6% of employment in 2019/20. While the eGaming sector grew from 10% of GDP from 2009/20 to 16% in 2020/21 the ICT sector grew in share of GDP from 6% to 8%.

In knowledge economies the importance of clustering of nearby similar firms, known as agglomeration, has been key to the success of many of the most productive firms of the 21st century and the outsized impacts of areas such as Silicon Valley, or New York and London's financial centres. Although cities with large populations have reaped much of the reward of agglomeration throughout history, advancement in digital communications and the recent rise of remote working may allow for the unlocking of these benefits across different geographies,

with internet communication arising as a substitute for geographic agglomeration of cities.[208] Noted 19th Century economist Alfred Marshal noted three key advantages of agglomeration:[209]

- Local pool of specialised labour;
- Supply chain and provision of ancillary services; and
- Local knowledge spillovers.

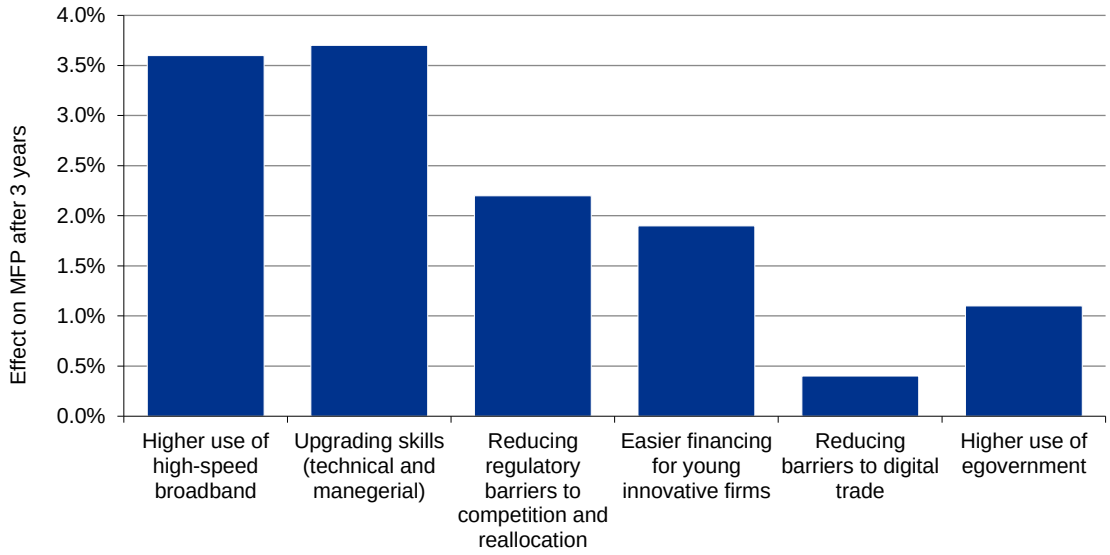
All three of these advantages can potentially be delivered, at least in part, digitally and largely agnostic with respect to location. Digital agglomeration has the potential to compound with the regulatory and tax advantages of the Island in making it a more attractive place to do business and increase the productivity of the businesses and people of the Island.

Evidence suggests that the Isle of Man has already taken advantage of the ability for digital technologies to enable the clustering of digital sectors. The recent rise of the eGaming sector, has been enabled in large part by agglomeration effects, with specialised labour from the insurance and finance sectors and the supply of ancillary services (such as data centres) enabling the success of the sector, while the digital nature of the industry allows for the connection to firms and customers across the globe.

Beyond the agglomeration-like effects of digital communication, digital technologies have a wider ability to increase economic growth and productivity. The impact of the adoption of specific technologies on the productivity of firms across OECD countries is estimated by Sorbe, et al in their 2019 paper on policies to enhance and encourage digital adoption and technology[210] (results of which are shown in Figure 7.1). Sorbe et al (2019) evidence a productivity impact across the adoption of a wide range of digital technologies, from high speed broadband and a more technically skilled workforce, to e-government and reducing the regulatory burden. Although the authors note the real possibility for technology to boost productivity, they also warn of the challenges for policy makers, such as potential job losses due to automation and gaps widening between the most technologically advanced and productive firms and the rest of the economy. As such they suggest that both the opportunities and challenges of technological adoption would be complemented by the encouragement of the development of skills, to upskill the economy, reduce the skills gap between firms, and support workers to continue to contribute productively in face of increasing automation.

208 Sinai, T., & Waldfogel, J. (2004), "*Geography and the Internet: Is the Internet a Substitute or a Complement for Cities?*", Journal of Urban Economics, https://www.nber.org/papers/w10028
209 Marshall (1890), as in Potter, A., and Doug Watts, H. (2012), "*Revisiting Marshall's Agglomeration Economies: Technological Relatedness and the Evoluttion of the Sheffied Metals Cluster*", Regional Studies, http://dx.doi.org/10.1080/00343404.2012.667560
210 Sorbe, S., et al. (2019), *"Digital Dividend: Policies to Harness the Productivity Potential of Digital Technologies*", OECD Economic Policy Papers, No. 26, OECD Publishing, Paris, https://doi.org/10.1787/273176bc-en.

Figure 7.1 Effect on firm productivity of closing half the gap with the best performing firms through digital adoption. Average OECD country: 2019



Source: World Bank, Sorbe, S. et al. (2019)

7.3 Connectivity and usage

7.3.1 Consumer Connectivity

Both the ubiquity of connectivity across the Island as well as the speed and quality of the connection are an important factor for enabling economic growth. High quality internet connections allow residents to take advantage of the opportunities of a digital economy. Furthermore, high levels of broadband penetration in both domestic and corporate settings allow business to adapt their offerings and work practices as a they can depend upon employees and customers being able to engage digitally. Citing increased firm competitiveness, larger ICT sectors and services such as telemedicine, a World Bank research paper found that a 10-percentage-point increase in broadband penetration increased economic growth by an estimated 1.21 percentage points in high-income economies.[211] The effect of connecting previously unconnected households is clear, what is more surprising is that there is strong evidence for sizable gains to be made by upgrading from standard broadband to high-speed technologies such as FTTP (also known as 'full fibre'). A 2015 case study in Canada, found an almost 3% increase in employment for communities who upgrade their broadband to high-speed FTTP connections.[212]

211 Qiang, Christine Zhen-Wei, Carlo Rossotto, and Kaoru Kimura, (2009), "Economic Impacts of Broadband." In *Information and Communication for Development*, Washington D.C.: World Bank.
212 Singer, H., Caves, K., & Koyfman, A., (2015), "*The Empirical Link Between Fibre-to-the-Premises Deployment and Employment: A Case Study in Canada.*"

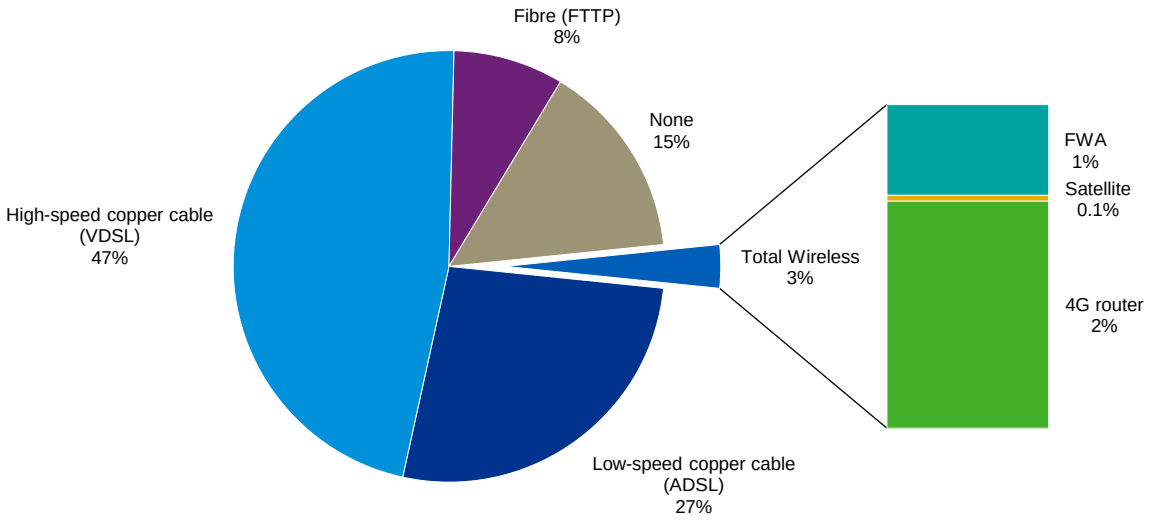
We note that telecommunications services were highlighted as requiring improvement in a 2018 Monitoring Audit of the National Infrastructure Strategy, although the four-year National Broadband Plan is on track, with 50.8% of premises already passed by August 2021.[213]

7.3.1.1 Broadband coverage and types

In terms of fixed line broadband, there are three fixed line broadband technologies on the Isle of Man:

- ADSL: Also known as 'low speed copper cable', which delivers broadband through the existing copper wires of phone lines. The maximum speeds typically delivered are around 8Mbps. 11,398 houses were connected via ADSL in the first quarter of 2021, down from 12,642 a year prior.
- VDSL: Also known as 'high-speed copper cable' or 'fibre to the cabinet' (FTTC), VDSL only relies on copper cables for the final stretch to the household with fibre optic cables transmitting data to the local cabinet. The maximum download speeds of VDSL are around 52Mbps.
- FTTP: An abbreviation of 'fibre to the premises' and also known as 'full fibre', brings the fibre optic network to the household/ business premises. This allows for much faster upload and download speeds than available through copper wire networks, with download speeds often exceeding 100Mbps.

Figure 7.2 Broadband subscriptions by technology type, Isle of Man: Q1 2021



Source: IOMG Data

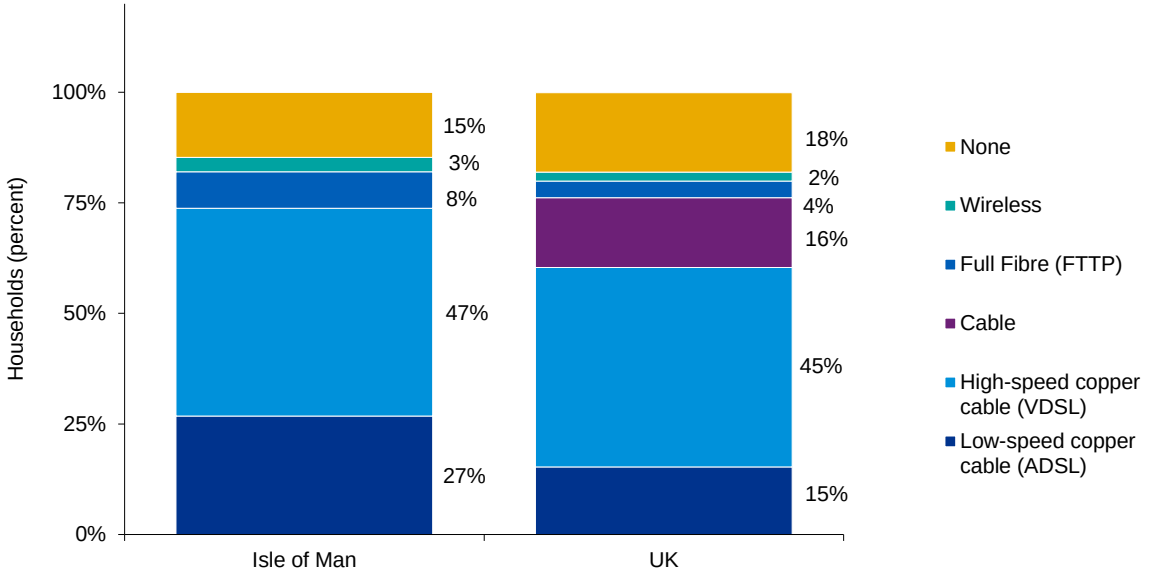
The majority of premises on the Island receive their internet via fixed line internet (copper wire or fibre optic cable). While fixed line internet is generally considered to be the best way of delivering fast and stable internet service, wireless internet can provide a cost-effective method

[213] Article, 'National Broadband Plan,' *Department for Enterprise website,* https://www.iomdfenterprise.im/island-wide-initiatives/national-broadband-plan/

of delivering broadband to remote areas. Improvements in 4G and 4G+ speeds now mean that wireless broadband can provide a viable alternative to VDSL or ADSL subscriptions. The number of 4G router subscribers increased by almost 30 times over the course of 2020, with the 34 4G router subscribers in Q1 2020 increasing to 968 a year later. Wireless internet still represents a small minority of the overall broadband market, with 82% of premises subscribing to fixed line internet and only 3% relying on wireless internet for home broadband.

In comparison to the UK, the Isle of Man has both a greater proportion of full fibre broadband as well as a lower proportion of households with no broadband. Data presented in Figure 7.3 shows that in 2020/21 8% of households on the Isle of Man had full fibre while the proportion was 4% in the UK. Most of the difference in full fibre connectivity was due to improvements made to the Manx network in 2020.

Figure 7.3 Household broadband by technology: Isle of Man (Q1 2021) and UK (2020)



Source: IOMG Data, Ofcom, KPMG analysis

Manx Telecom was selected by the Isle of Man Government as the preferred supplier as part of the National Broadband Plan (NBP) which commenced in July 2020. This plan sets out to deliver ultrafast fibre broadband (FTTP) past more than 99% of the Island's premises. Achievement of the Plan was accelerated from an initial target of five years to four years, with Government funding committed to accelerate the rollout and Manx Telecom contracted to deliver ultrafast fibre broadband in nine intervention zones across the Island. These zones are areas identified where providing high speed broadband services is likely to be commercially unviable. Fibre is also continuing to be rolled out to areas outside of the intervention zones, alongside the NBP.[214]

The UK has a much lower proportion of households with low-speed ADSL broadband. This difference is made up in large part by the 16% of households with cable internet (a technology not available on the Isle of Man and provided in the UK by Virgin Media). Cable internet

[214] National Broadband Plan (iomdfenterprise.im)

replaces the last stretch of copper cable with a coaxial cable and is an intermediate stage between FTTC and FTTP.

Despite this, the Isle of Man has made fast improvements in reducing the proportion of households with low-speed internet, with the total proportion of houses with ADSL falling by three percentage points over 2020, from 30% to 27%. If improvements to the network on the Island are continued, the jurisdiction could be set to experience substantially superior wired internet infrastructure than its UK neighbour.

The total number of broadband subscriptions on the Isle of Man has risen from 12,867 in 2001 to 36,242 in 2021. This represents an increase from 41% of premises to 85%. In comparison, 92% of households in Estonia had broadband in 2021[215] and 82% of household in Great Britain had broadband in 2020. [216] The most recently available data for Jersey is for 2019, when 89% of households reported having broadband.[217]

A lower proportion of households with broadband in the Isle of Man than Jersey could be due in part to a higher percentage of pensioners in the Island: Jersey found that the majority (55%) of households without broadband were pensioner households.[218] In the last census (2016) the population of pensionable age on the Isle of Man was 22%, compared to 16% aged 65 or older in Jersey in 2015[219] and 18% in the UK.[220] Additionally, although 90% of Estonian households had broadband in 2020, 83% had a fixed line connection, similar to the 82% on the Isle of Man.

Feedback from stakeholders noted and welcomed that the pace of fibre broadband rollout was now accelerating, but that this was cold comfort for those still living in areas without the option of high-speed connectivity. It was also noted that the overall quality of connectivity on the Island was not keeping pace with competitor jurisdictions. Stakeholders frequently referred to the timing and speed of rollout in Jersey as having significantly raised their profile as a location for digital businesses. When testing the vision for the Island's economy, business stakeholders expressed a strong desire for the Island to become early adopters in digital infrastructure.

In terms of 'best in class' comparators, Singapore is considered one of the most wired and technologically advanced ICT markets in the world. It is also an early adopter of new technologies, applications and solutions and might therefore offer learnings for the Isle of Man in this regard. In December 2020, the wireless broadband penetration rate was 173.2% and mobile penetration stood at 148.2%.[221] It is also rapidly advancing plans for 5G service provision (see Section 7.3.3).

215 Source: Statistics Estonia.
216 Source: Ofcom Technology Tracker, 2021.
217 Source: Statistics Jersey, *Opinions and lifestyles survey*, 2019. https://www.gov.je/SiteCollectionDocuments/Government%20and%20administration/R%20Opinions%20and%20Lifestyle%20Survey%202019%20Report%2020191129%20SJ.pdf
218 Source: Statistics Jersey, Ibid.
219 Source: States of Jersey Statistics Unit, *Jersey population projections 2016 release*, October 2016. Available at: R Population Projections 2016 20161013 SU.pdf (gov.je)
220 Source: ONS, *Overview of the UK population: July 2017*, July 2017. Available at: Overview of the UK population - Office for National Statistics (ons.gov.uk)
221 International Trade Administration. (2021). 'Singapore – Country Commercial Guide. Information and Telecommunications Technology'.

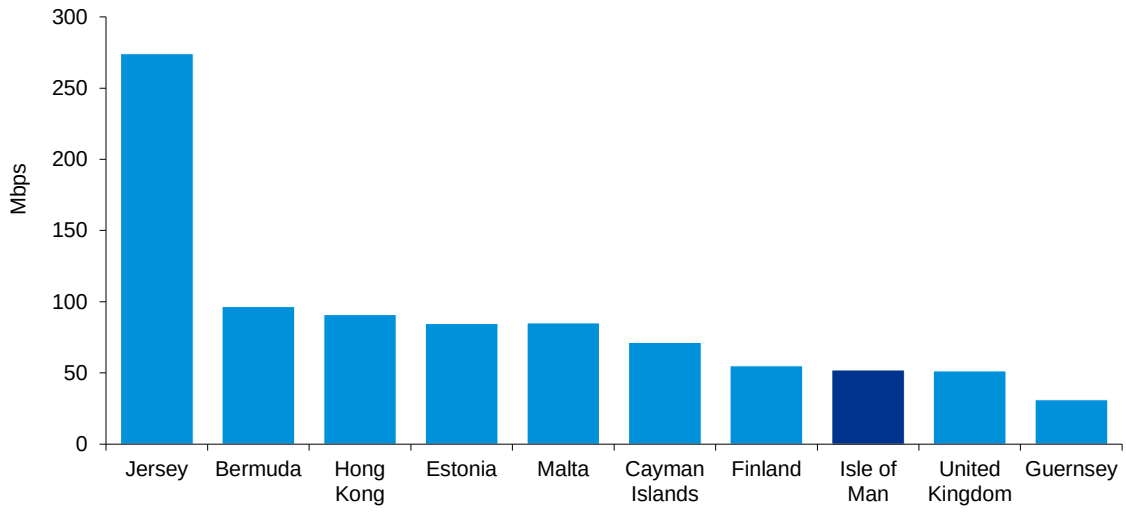
7.3.1.2 **Broadband speeds**

While looking at the delivery technologies, such as FTTP and VDSL, provides a lens with which to assess the speed and quality of broadband available, direct measurement of broadband speed allows for a simple measure with which to compare between many jurisdictions.

Broadband comparison website cable.co.uk has provided an international comparison of internet speeds since 2017, with the Isle of Man placing 42nd of 224 jurisdictions ranked in 2021.[222]

Internet speeds on the Isle of Man are broadly similar to those seen in the two closest jurisdictions by proximity: the UK and Ireland.[223] At an average download speed of 52Mbps a 5GB movie could be downloaded in 13 minutes. The fastest average internet of all 224 jurisdictions included in the international comparison was measured in Jersey at 274Mbps (where the same movie could be downloaded in 2 minutes).

Figure 7.4 Average download speed, Isle of Man and Comparators: 2021



Source: cable.co.uk, KPMG analysis

The five countries with the fastest internet were (in order from fastest to slowest): Jersey, Liechtenstein, Iceland, Andorra and Gibraltar. It was noted in the findings of the international comparison that these five are geographically small nations, both in terms of population and geography, and is it easier to quickly rollout full fibre broadband or 5G mobile internet in these conditions. [224] The Isle of Man shares these qualities, and therefore the potential to host one of the fastest internet networks in the world.

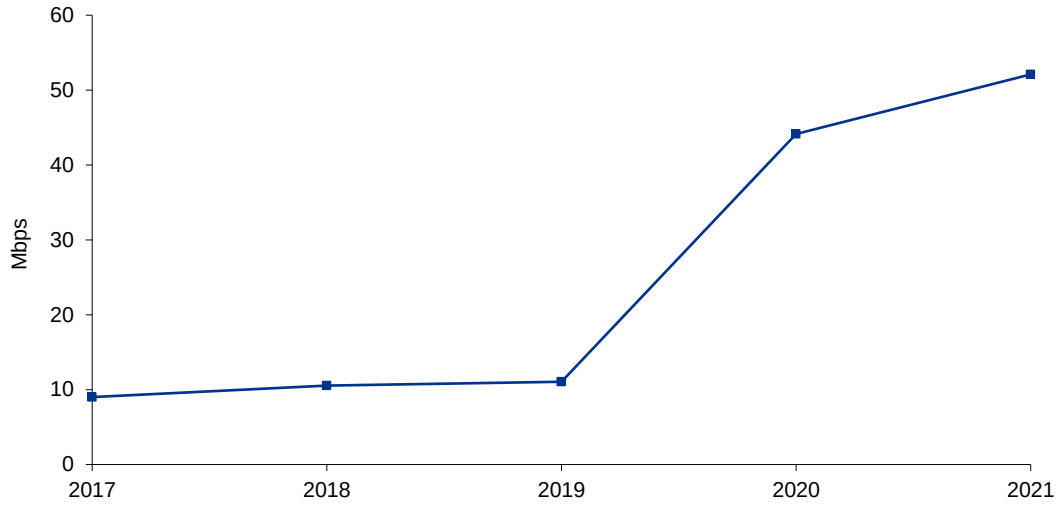
222 Source: cable.co.uk, *Worldwide broadband speed league 2021*. Available at : https://www.cable.co.uk/broadband/speed/worldwide-speed-league/

223 Average download speeds in the Isle of Man, United Kingdom and Ireland were measured at 52.10Mbps, 51.48Mbps and 51.41Mbps respectively.

224 'It will be immediately striking to most that all of these countries share similarities. All five are within Western Europe and all are either very small or they are island nations. It is much easier to roll out

Recent rapid increases in internet speeds following improvements to the fibre optic network on the Island evidence this potential. Average download speeds have increased from 9Mbps to 52Mbps since 2017 (see Figure 7.5). This change reduced the time it takes to download a 5GB video from 1 hour 16 minutes to 13 minutes, and the overall ranking of the Isle of Man's internet speeds improved from 50th to 42nd. The vast majority of this increase has been realised since 2019, after which internet speeds quadrupled in one year.

Figure 7.5 Average download speed, Isle of Man: 2017 - 2021



Source: cable.co.uk, KPMG analysis

Recent increases in speed follow the 2018 National Telecommunications Strategy where a target was set of connecting FTTP to >99% of households who want it.[225] The total number of premises with FTTP internet has increased from 1,969 in the first quarter of 2020 to 3,518 in the first quarter of 2021, representing an increase from 5% to 8% of premises.

7.3.2 Business Connectivity

Feedback from stakeholders did not suggest significantly divergent views with respect to connectivity for business as compared to connectivity for homes, with the experience being driven by location and whether premises had been reached by communications upgrades. It should be noted that businesses are less likely to be operating from more remote locations that are less likely to have been covered in the early stages of fibre rollout.

In terms of overall capacity, it was recognised that the Island had highly resilient power and communications networks and sufficient available bandwidth. The recent addition of further undersea links was also recognised as a positive.

FTTP full fibre broadband and 5G mobile internet to a smaller population and/or across a smaller area.' cable.co.uk, *Worldwide broadband speed league 2021*

225 Department for Enterprise, *National Telecommunications Strategy*, October 2018. Available at: https://www.tynwald.org.im//business/opqp/sittings/20182021/2018-GD-0062.pdf

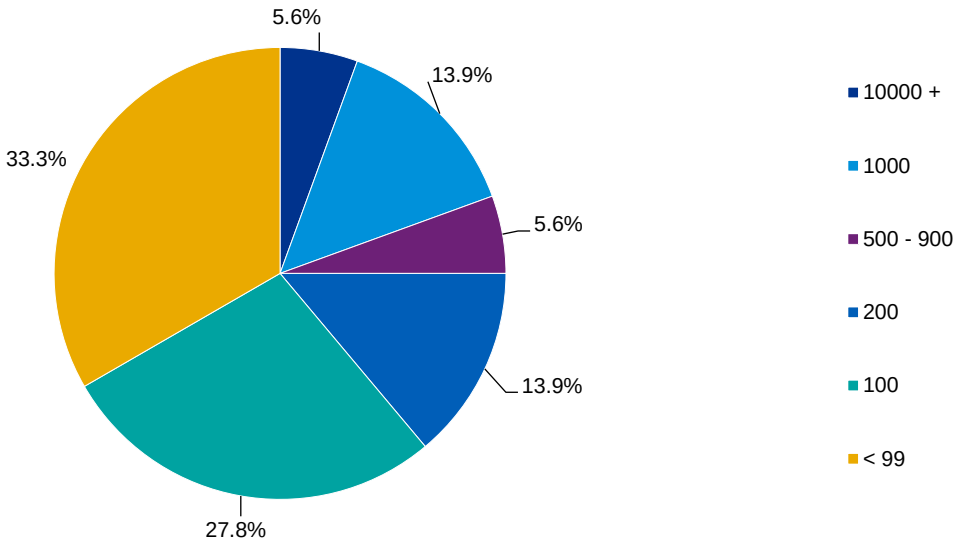
As noted below in ‘Mobile Connectivity’: the lagging behind of the Island in the rollout of 5G networks was seen as sending a negative signal to technology businesses, which typically prefer to operate in jurisdictions at the vanguard in terms of digital infrastructure.

In addition to the above, data from the survey of Isle of Man Businesses conducted for the purposes of this report reveals the extent of digital usage in the workplace in FY 2020/21.

Of the businesses that responded, 96% stated that their business premises had internet access, and 83% said their business uses a fixed broadband connection for the internet for business purposes. In terms of broadband speed, approximately 70% of respondents stated that the speed of the fixed line connection was usually sufficient for the needs of the business, and around 11% said it was not[226].

The most commonly selected maximum contracted download speed of the fastest fixed internet connection used by businesses was 100 mbps per second, selected by almost 30% of respondents. Approximately 14% of respondents selected 1,000 mbps per second, and almost 6% indicated speeds of over 1,000 mbps per second, as shown in Figure 7.6 below. When taken as a weighted average, this yields an average download speed of approximately 932 mbps, significantly higher than the average reported in Figure 7.4 above.

Figure 7.6 What is the maximum contracted download speed of the fastest fixed internet connection used by the business in FY 2020/21?

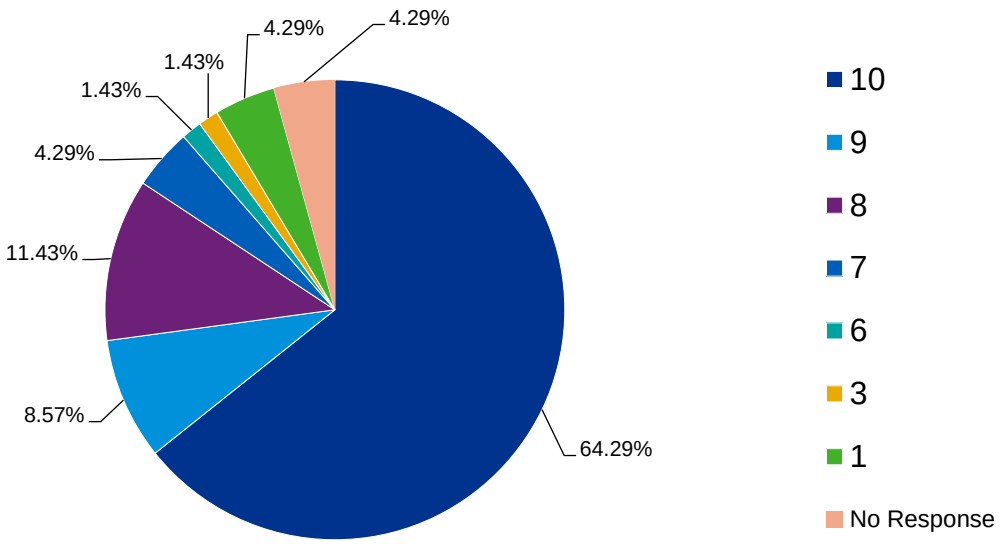


Source: Isle of Man Government Our Big Picture Survey 2021

When asked on a scale of 1 to 10 how integral the use of technology is to their respective businesses, approximately 64% stated ‘10 out of 10’, as shown in Figure 7.7 below.

[226] Note the responses do not sum to 100% of businesses as a proportion of business survey respondents did not respond to this question.

Figure 7.7 How integral is the use of technology to your business in FY 2020/21?



Source: Isle of Man Government Our Big Picture Survey 2021

7.3.3 Mobile Connectivity

Mobile connectivity on the Isle of Man is provided by two mobile networks, operated by Manx Telecom and Sure, with networks including both 4G and 4G+ technologies.

The Sure 4G+ network covers 75% of the Island, while the combined 4G coverage of both networks is over 99% of the population.[227]

The developed nature of 4G coverage on the Isle of Man has allowed many households to take advantage of data speeds that can compete with ADSL and VDSL wired broadband by taking up 4G wireless broadband subscriptions (see Section 7.3.1). The forefront of new mobile connectivity solutions worldwide has been the development and deployment of 5G. Although the potential 1Gbps+ (1,000Mbps+) speeds of 5G is a clear advantage of the technology over 4G, the lower latency of the network would allow for new technological solutions. Additionally, 5G broadband may be a cost-effective alternative to fibre where the installation of new lines to each household is prohibitive.

While Singapore[228], the UK, Hong Kong, Finland, Estonia and Malta have, or are currently, rolling out 5G networks, Guernsey, Jersey and the Isle of Man are yet to rollout the faster mobile communications technology. There have been announced plans that include the rollout

227 Manx Telecom 4G speed and coverage ahead of UK | Isle of Man News :: isleofman.com

228 In June 2020, the Singapore government awarded two 5G licenses to Singtel and to Joint-Venture Consortium, a JW between Starhub and M1. The two licenses are expected to start deploying 5G services by 2021 and complete nationwide deployment by 2025.

of 5G networks in the Guernsey[229] and network operators on both Jersey and the Isle of Man have had announcements of upcoming mobile network trials, but currently the three Crown Dependencies have been lagging relative to their peers on the newest generation of mobile technology.

Due to the small sizes of the Crown Dependencies, they have the potential to leapfrog larger jurisdictions by being able to more rapidly deploy the technologies. The very high level of 4G coverage currently on the Isle of Man demonstrates the potential for a highly successful and near ubiquitous rollout of further mobile technologies.

There are a range of potential economic benefits associated with 5G technologies that have been identified in studies. A 2018 report for the Australian Government on the potential impact of 5G on productivity compiled a list of benefits across a variety of industries:[230]

- ICT and Digital media
    - Supporting IoT networks
    - 40x network speed relative to 4G
    - Low latency fully wireless internet
- Education
    - Real-time virtual interactions with augmented reality and virtual classrooms
    - Improvements for students with additional needs
    - Virtual and remote delivery of education
- Retail and Wholesale
    - Faster mobile payments
    - Improved real time stock tracking
- Finance and Insurance
    - Handling larger volumes of data, leading to better analytics and fraud detection
    - Smart vehicles leading to lower insurance premiums
- Health and Social Care
    - Internet of medical things
    - Tactile interaction between humans and machines (e.g. remote-controlled surgery)
    - Connected medicine helping patients getting better quality of care

Source: Bureau of Communications and Arts Research, Department of Communication, and the Arts, (2018)

Participants in stakeholder sessions observed that the Island had been at the forefront in the rollout of 3G technologies and regretted that the Island was seemingly now lagging behind in the rollout of 5G. In sessions with digital sector participants it was observed that tech-minded businesses and individuals gravitated towards locations perceived to be at the cutting edge in terms of digital infrastructure and services.

229 5G and 100MBps coming to Guernsey | Bailiwick Express
230 Bureau of Communications and Arts Research, Department of Communication, and the Arts, (2018), “Impacts of 5G on productivity and economic growth”, Australian Government

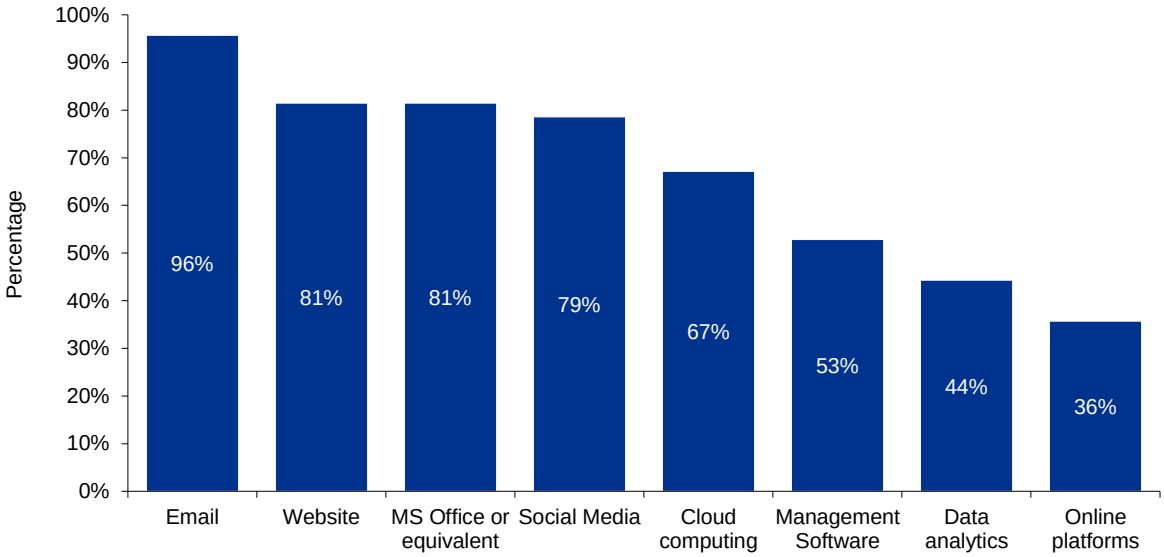
7.4 Digital business

Digital sectors provide an important contribution to the Manx Economy, but the contribution of technology to the economy goes beyond these sectors. The adoption of digital business models and use of digital technology in the workplace will help contribute to economic activity and innovation in all sectors.

Data from the Isle of Man Business Survey conducted for the purpose of this report reveals the extent of digital usage in the workplace in FY 2020/21.

In terms of technology types, Figure 7.8 shows the profile of usage among survey respondents. It can be seen that over 95% of respondents use email and over 80% report using/having a website. Similarly, over 80% use Microsoft Office or equivalent and almost 80% use social media.

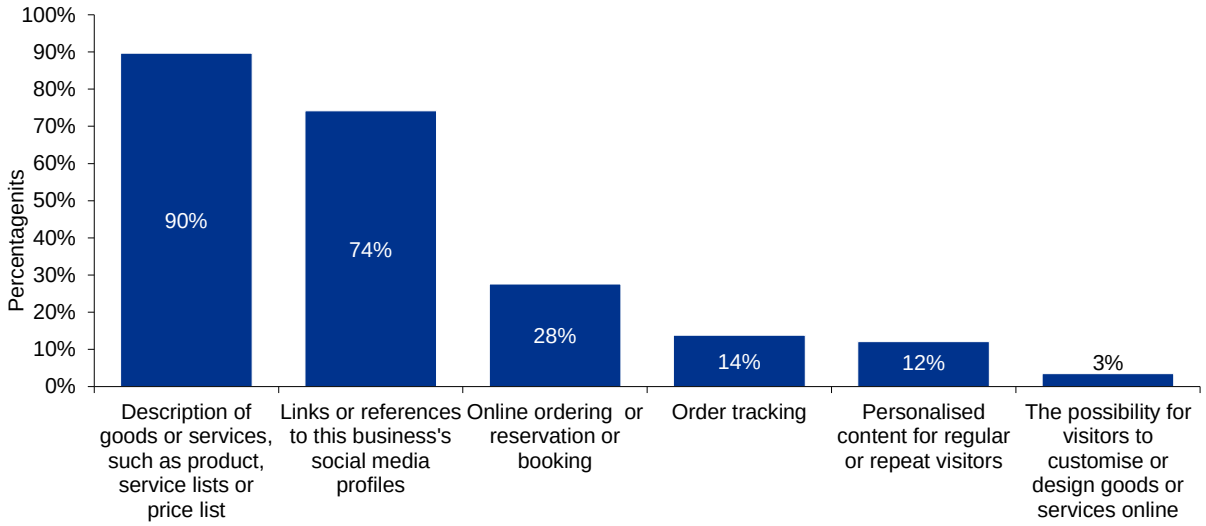
Figure 7.8 Does your business use any of the following technologies in FY 2020/21?



Source: Isle of Man Government Our Big Picture Survey 2021

Of the respondents that reported having a website, the majority stated that it contains a description of goods/services such as a price list, and 74% reported that their websites have links or references to their social media profiles. Fewer than 30% stated that their websites featured online ordering, reservations or bookings, however, it is recognised that this will in part be a function of the respondents' business sectors.

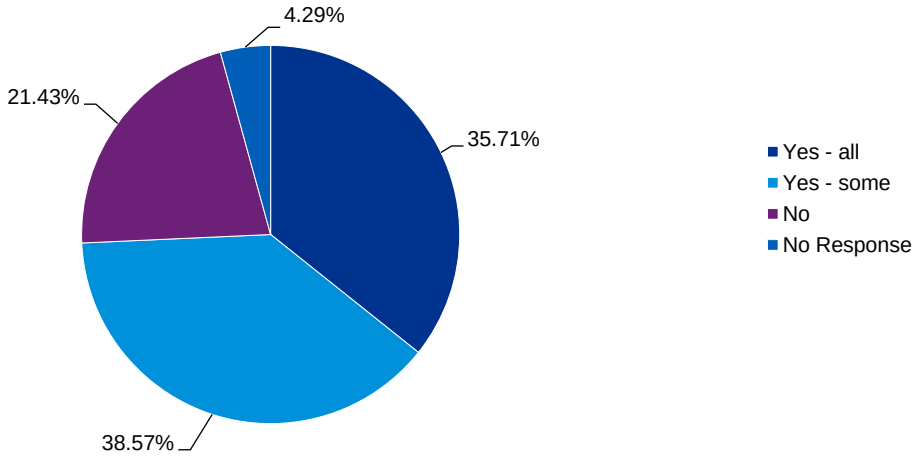
Figure 7.9 Which of the following features does your website have in FY 2020/21?



Source: Isle of Man Government Our Big Picture Survey 2021

When asked about management of IT infrastructure and systems, almost 75% of respondents stated that they manage at least some of their infrastructure and systems, with half of that proportion reporting to manage it all. Just over a fifth stated that they do not manage their own infrastructure and systems, as shown in Figure 7.10.

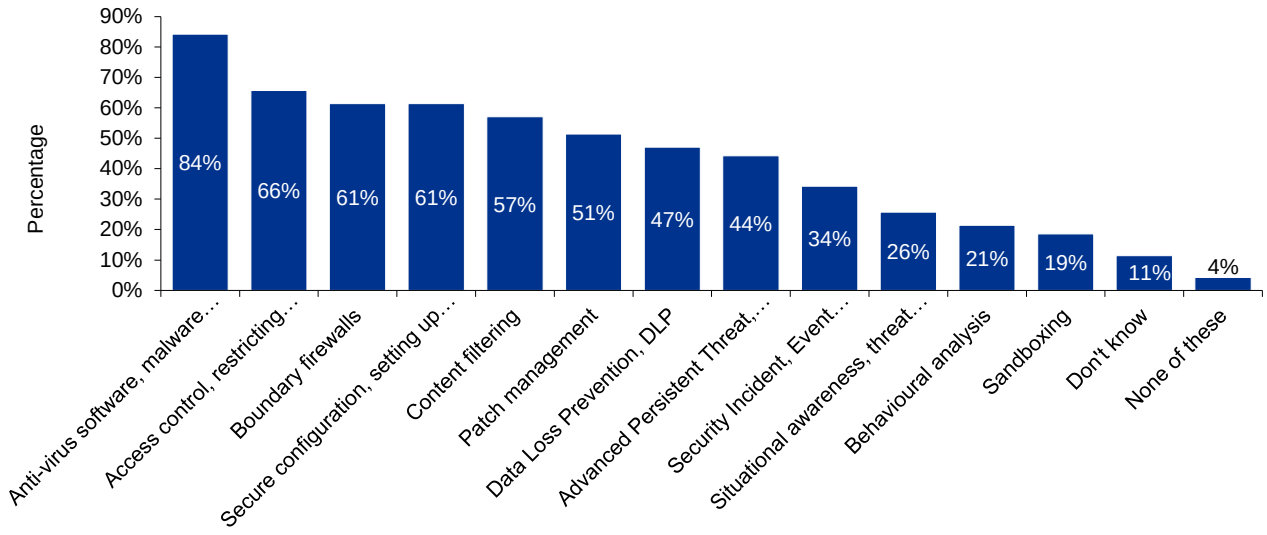
Figure 7.10 Does your organisation manage its own IT infrastructure and systems in FY 2020/21?



Source: Isle of Man Government Our Big Picture Survey 2021

Figure 7.11 sets out the profile of cyber security technology usage, in which it can be seen that over 85% use anti-virus software and malware protection. Approximately 66% have forms of access control (restricting access to those who need it), and 61% use firewalls. The least commonly selected forms of cyber security included behavioural analysis technologies (selected by 21% of respondents) and sandboxing (19%).

Figure 7.11 Does your business use any of the following cyber security technologies in FY 2020/21?



Source: Isle of Man Government Our Big Picture Survey 2021

7.5 Digital skills

The need for digital skills, both technical and managerial, are highlighted in section 4.4.[231]

Stakeholders interviewed noted that the growth of the eGaming sector and ancillary business supporting it had been major drivers in creating a sufficient level of technical capability on the Island. Despite this, it was widely recognised that the Island still has a relatively small local talent pool, with employees generally moving around between the larger local firms.

The following were frequent observations:

— Young people are not coming out of school and college with the basic digital skills needed at an entry level by existing and prospective businesses. This applied to digital skills at the broadest level and desirable for employees in most sectors.

— It is difficult for the Island to attract young professionals – both returning graduates and those with no prior connection to the Island. While this issue was recognised as affecting multiple disciplines, it was noted that the global market for digital skills was among the most competitive.

[231]Sorbe, S., et al. (2019), *"Digital Dividend: Policies to Harness the Productivity Potential of Digital Technologies*", OECD Economic Policy Papers, No. 26, OECD Publishing, Paris, https://doi.org/10.1787/273176bc-en.

— No specific skills or roles in the sector were singled out.

— The Island is relatively more attractive to more experienced people in the sector, particularly those in more highly paid positions and those with young families.

— The implications of the observations above are that businesses find it challenging to build complete technology teams on-island, with some maintaining sites elsewhere or engaging remote workers.

Furthermore, it was noted that, while being a significant trend globally, automation could have a particularly significant impact on the Island given the relatively high concentration of back and middle-office administrative roles, which were felt to be among those particularly vulnerable to automation. This was recognised as suggesting the need for reskilling of employees to equip them for new emerging roles and potentially as part of the solution to the digital skills gap.

7.6 Digital government and the role of Government in supporting the digital economy

The Digital Isle of Man executive agency of the Department for Enterprise seeks to support and develop the tech sector on the Island. Its areas of interest cover a diverse range of businesses and technologies, including:

— Blockchain

— Digital Media

— eGaming

— esports

— Fintech

— Internet of Things

The agency also has a focus on the infrastructure required to support a thriving digital economy, including resilient communications and electricity networks and data centres.

This role of Digital Isle of Man signals IOMG's ambition to foster digital innovation across a broad range of sectors. The creation of Digital Isle of Man and the support it provides to develop the broader digital ecosystem on the Island further highlights the role government has to play in helping to create an attractive environment in which tech enabled businesses can flourish. This includes providing the regulatory conditions for a stable and competitive environment, and the funding and support needed for the market to deliver digital infrastructure. These factors were recognised in the stakeholder discussions held.

While IOMG is playing a role in supporting the growth of the Island's digital economy, in terms of Government's own adoption of digital technologies to provide its services, workshop participants did not perceive the Island to be a leader among its peers. Digital government was seen to be particularly important to the attraction and retention of digital and tech-enabled businesses and younger people.

It was noted that, while there had been progress in digitising some government services (e.g. tax filing), much more could be done in terms of integration and automation. An example given

was of routine interaction by companies and their service providers with the Companies Registry and with regulators.

Issuing people and entities with official digital identities was mentioned as an important step in the move to digital government. Denmark was given as a leading example in this regard, with Estonia also frequently cited as a role model with respect to digital government more broadly. Participants also perceived that IOMG was relatively poor at gathering and effectively utilising data to generate high-quality actionable insight and acting on it on a timely basis.

Examples given included:

— Regular tracking of indicators required to understand the performance of the economy more fully.

— Assessing IOMG's performance in attracting new businesses and supporting the growth of existing businesses.

— Monitoring the delivery of public services.

7.7 Summary of strengths and weaknesses

Based on the evidence set out in preceding sections, and the comparisons drawn with other jurisdictions to help to set the data for the Isle of Man in context, a number of key strengths of the Isle of Man are evident as well as factors that will need to be taken into account when determining the future economic strategy considering the Island with respect to tech-enablement.

— The Isle of Many has sizeable technology-related economic activity relative to the Island's economy, with eGaming and ICT sectors together accounting for c. 25% of GDP and c. 6% of on-Island employment.

— The small size of Island makes the rollout of wireless networks with good coverage of the population/land area relatively simple; for example, current 4G network coverage includes over 99% of the population.

— However, at the time of writing, 5G rollout is not actively being planned on the Island.

— A greater proportion of households on the Island have full fibre broadband and a lower proportion have no broadband than in the UK. Overall a greater proportion of the Manx population has access to faster fixed-line infrastructure at their home than the UK.

— However, the rollout of FTTP on the Island has been of some concern, with stakeholders indicating that many areas do not yet have high-speed connectivity.

— Further, average download speeds – while increasing dramatically from 2019 to 2021 – are low compared to comparator jurisdictions.

— Although survey evidence suggests that approximately 70% of business respondents find the speed of the fixed line connection was usually sufficient for the needs of the business, and around 11% said it was not.

— In terms of skills, stakeholders have observed that digital skills of young people are lacking from the perspective of business needs, and relatedly, the Island has difficulty attracting young professionals from off-Island with digital skills.

— With respect to forward-looking technology enablement, the Island already has an executive agency in place (‘Digital Isle of Man’) to support and develop the tech sector on the Island.

Appendix 1

Assumptions underpinning net earnings scenarios in Table 5.4

In all of the described scenarios it is assumed no benefits are available.

Scenario 1: A single recent graduate with employment income of £35k

- Gross income of £35k
- Single person allowance
- Paying Class 1 NICs
- Assumed individual is paid monthly for NIC purposes

Scenario 2: A young couple with joint income from employment of £70k and a £130k mortgage on a £180k flat

- Each has gross income of £35k
- Jointly assessed for IoM purposes
- Each paying Class 1 NICs
- Mortgage interest relief of £390 for IoM purposes; not available in UK
- UK married persons allowance not relevant in the described scenario

Scenario 3: A mid-level professional with employment income of £50k and a dependent spouse

- Spouse 1 has gross income of £50k; Spouse 2 has no income
- Jointly assessed for IoM purposes
- Spouse 1 paying Class 1 NICs
- UK married persons allowance not relevant in the described scenario

Scenario 4: An experienced doctor and her high school teacher spouse with combined income of £105k and a £300k mortgage on a £500k house

- Spouse 1 has gross income of £70k; Spouse 2 has gross income of £35k
- Jointly assessed for IoM purposes
- Each paying Class 1 NICs
- Mortgage interest relief of £500 for IoM purposes; not available in UK
- UK married persons allowance not relevant in the described scenario

Scenario 5: High-level professionals earning combined employment income of £148k plus additional interest, dividend and rental income totalling £128.4k

- Spouse 1 has gross income of £148.4k comprising £80k salary, £2.4k interest income, £6k dividends and £60k rental income
- Spouse 2 has gross income of £128k comprising £68k salary and £60k rental income
- Jointly assessed for IoM purposes
- Each paying Class 1 NICs on employment income
- Assumed rental property is mortgage free and jointly owned
- UK married persons allowance is not relevant in the described scenario

Scenario 6: High net worth individual with multiple business interests, self-employed with no employment income

- Gross income of £1,060,000 comprising £500k consultancy fees, £500k dividend income, £60k rental income
- Single person allowance
- £200k tax cap applied for IoM purposes
- Assumed rental property is mortgage free
- Paying Class 2 and Class 4 NICs

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