



ABERDEEN ECONOMIC POLICY PANEL REPORT

2 NOVEMBER 2018

Foreword

This is the first annual report of the Aberdeen Economic Policy Panel.

In producing this report, and in making its recommendations, the Panel has monitored and considered all developments in the Aberdeen City Region as data has become available. The Panel has undertaken its own analysis and considered any other detailed research that is relevant to its work.

The Panel has provided a forum for discussion of emerging issues in relation to the wellbeing of the Aberdeen and regional economies. Panel members have met with city and regional stakeholders including the two local governments, the universities, Scottish Enterprise, local industry leadership and a sample of businesses from key sectors of the city economy. These consultations informed the data analysis by discussing current thinking on the state of the Aberdeen economy, the outlook for the sectors they represent and views on future opportunities and challenges.

Although the views and analysis in the report are that of the Panel, the assistance of Aberdeen City Council officers, external stakeholders and local industry in the preparation of this report has been greatly appreciated.

Background

In November 2016, Aberdeen City Council became the first Scottish local authority to issue index-linked bonds through the debt capital markets, raising £370m to drive forward an ambitious capital programme supporting vital infrastructure throughout the city. The Council pays interest of 0.1% on the outstanding sum twice-yearly, which is also subject to RPI indexation.

In October 2016, Aberdeen City Council was awarded an **Aa2** rating by Moody's, with a negative outlook.

- This rating was one notch below the UK Government, and is the third highest level out of 21 categories, which placed the Council in a high-grade investment bracket.
- It should be noted that the negative outlook comment is not a comment on the state of the local economy, Aberdeen, or the Council. It reflects the rating of the UK Government, and the wider uncertainty around Brexit.

In terms of investor confidence in Aberdeen City Council, it is important that the Council maintains its credit rating level. The rating is reviewed by Moody's on an annual basis. In September 2017, Moody's downgraded the UK's long-term issuer rating to **Aa2** from **Aa1** and upgraded the outlook from negative to stable. Following this, and in-line with the UK sovereign rating, Moody's also downgraded the rating for Aberdeen City Council to **Aa3** and

upgraded the outlook from negative to stable. In November 2017, following the annual review, Moody's affirmed the **Aa3** rating with a stable outlook.

The annual credit rating assessment involves an analysis of the Council's financial and institutional framework, as well as a detailed assessment of the current and future economic performance of Aberdeen and the North East of Scotland. In terms of the economic analysis, independent economic commentary in this report will be used to support the Moody's annual review, but also provide the city with assurance on the medium-to-long-term economic outlook of Aberdeen and the region to existing and future investors.

With this in mind, in March 2017¹, the Council approved the appointment of an independent Economic Policy Panel to provide independent commentary on the state of the Aberdeen economy in the form of an annual report each year from 2018 to 2020. In August that year, Dr Hanan Morsy, Dougie Peedle and Stephen Boyle were appointed as Panel members, following a national recruitment exercise. During the review period, Stephen Boyle indicated that he would not be able to continue in the role for personal reasons. A new member will be recruited.

The final report was prepared by Dr Hanan Morsy and Dougie Peedle.

Dr Hanan Morsy: A global strategist, macro-economic and public policy expert, Dr Morsy has extensive experience leading top-quality economic research, policy work for international financial institutions, including the International Monetary Fund, the European Bank for Reconstruction and Development, the African Development Bank, and the private sector. She has provided strategic advice and quantitative policy analysis to national governments on macroeconomic, fiscal and financial issues, as well as on private sector development and structural reforms.

Dougie Peedle: As well as being a member of the Aberdeen Economic Policy Panel, Dougie is an Economic Associate for Pro Bono Economics and Head of Policy for Scottish Wildlife Trust. From 2004 to 2018 he was Chief Economic Adviser to the Government of Jersey and prior to that worked for 10 years in London as Deputy Chief Economist at EEF, International Economist at Rio Tinto and Senior Economist at the CBI. He is a graduate of the University of Aberdeen and the Scottish Masters Programme in Economics.

¹ <http://councilcommittees.acc.gov.uk/documents/s67581/Bond%20Financing%20Strategy%20-%20Economic%20Policy%20Panel.pdf>

Notes

Area of Analysis

For the purposes of the analysis, the 'North East of Scotland' and 'Aberdeen City Region' refers to the region of Scotland that includes the Aberdeen City and Aberdeenshire local authority areas.

- Where the individual local authorities are referenced, Aberdeen City local authority is termed 'Aberdeen' or 'Aberdeen City'. Aberdeenshire local authority is termed 'Aberdeenshire'.

Figures and tables

- Figures and tables are numbered in order throughout the report. Figures and tables in the appendix have the letter A following the numerical reference – for example, Figure 1A will be found in the appendix while Figure 1 is in the main report document.
- The Executive Summary figures are referenced with ES in the Executive Summary.

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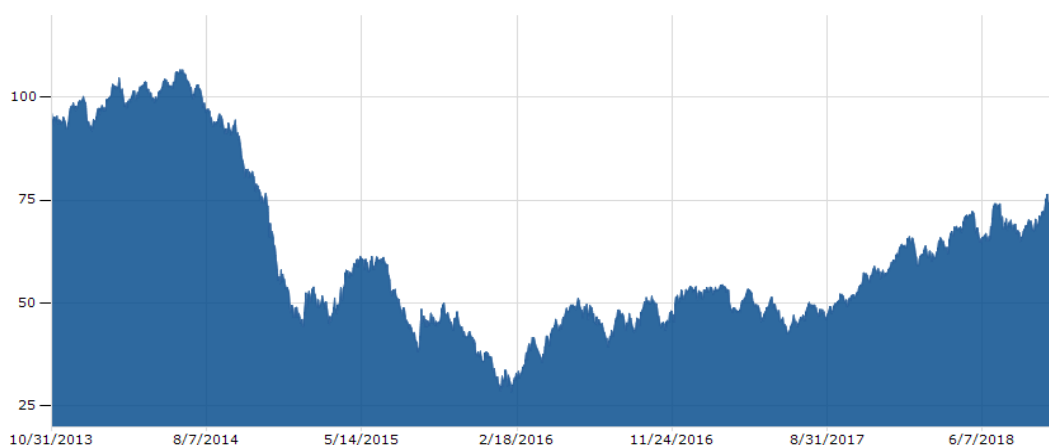
Executive Summary

1. The aim of the report is to provide an independent analysis of the Aberdeen City Region economy to support the Council's annual credit rating assessment by Moody's. This is a requirement of the Council's £370m bond issue to support its capital plan.

The outlook for the Aberdeen City Region Economy is becoming more positive

2. Although the IMF revised its global growth forecasts down slightly in October 2018, growth is now expected at 3.7% in 2018 and 2019, and the steady expansion under way since mid-2016 is set to continue. However, the IMF states that downside risks to global growth have risen in the past six months, with particular concerns about rising trade tensions. For the United Kingdom, the IMF projects growth to slow to 1.4% in 2018 and 1.5% in 2019 (from 1.7% in 2017).
3. Despite the increased risks clouding the global economic outlook, the overall picture for the North East economy is one where it is emerging from a difficult economic period, precipitated by the fall in, and fluctuating, global oil prices, with the potential to a return to moderate growth in the coming years.
4. The Panel heard a consistent account during its fact-finding visits from representatives from across the North East economy of cautious optimism and signs that economic conditions were gradually improving. This assessment is supported by the latest data on the performance of the North East economy. In particular, the oil price has averaged \$71 in 2018 so far, compared with \$54 in 2017.

Figure ES1: The Fluctuating Price of a Barrel of Oil Equivalent in US \$ 2013-2018



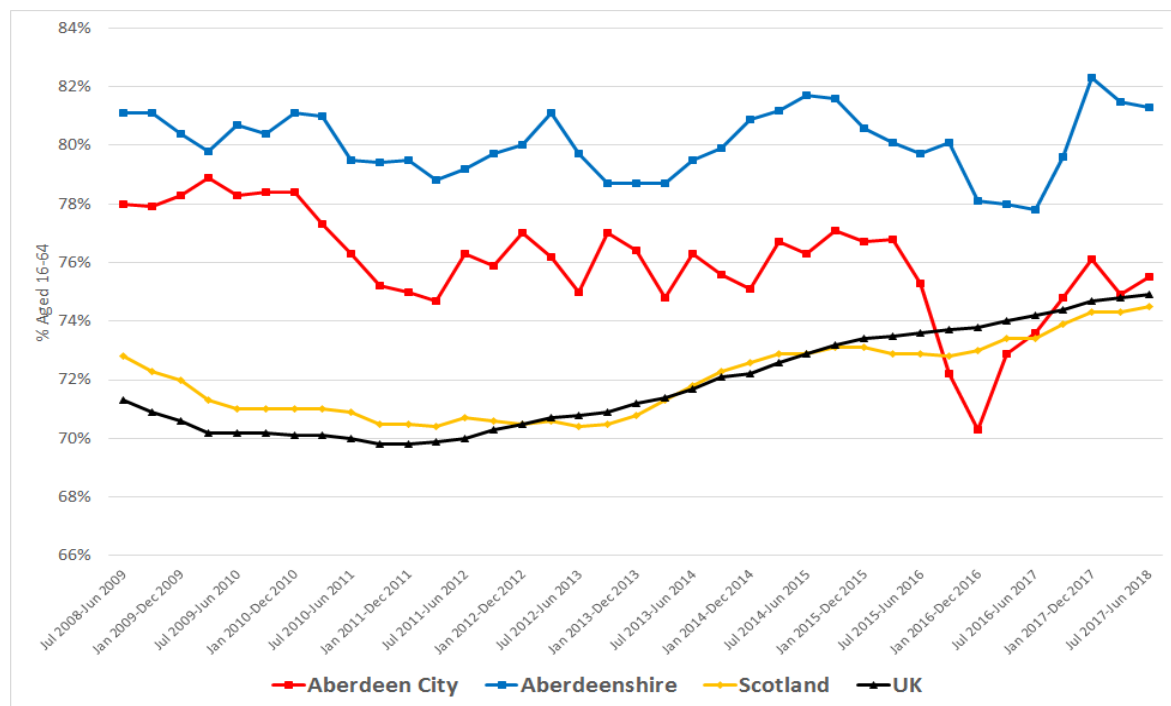
Source: Markets Insider <https://markets.businessinsider.com/commodities/oil-price?type=wti>

5. Oil and Gas UK forecasts predict that capital investment in the UK oil and gas sector will be relatively stable for the rest of the decade, after sharp falls during the downturn. Latest survey data (May 2018) from contractors in the sector also shows increasing

levels of business confidence and activity into 2018, with the highest confidence reported since May 2013. More contractors also expect to increase investment (51%) than reduce (8%), while slightly more than a quarter of contractors are forecasting no change to their investment spend.

6. There are also emerging signs of improvement in the labour market with employment rates in Aberdeen City and Aberdeenshire recovering between 2016 to 2018 from 70% to 76%, and 78% to 80% respectively.
7. Unemployment rates have also fallen recently from 5.4% to 4.3%, and 3.8% to 2.9% respectively over the same period.

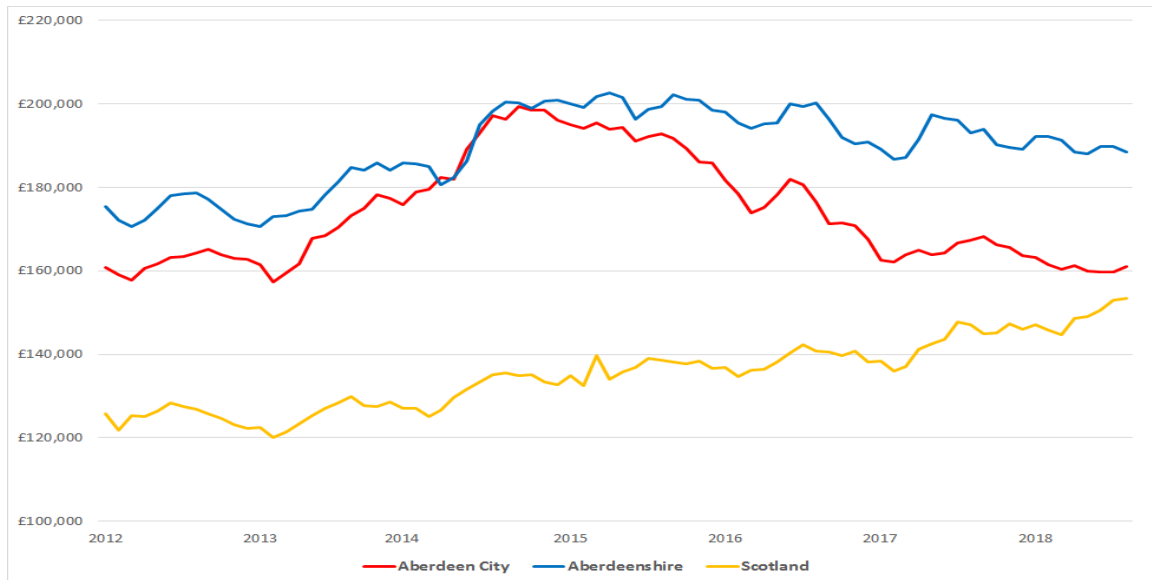
Figure ES2: Aberdeen City, Aberdeenshire, Scotland and UK Employment Rate (2008-2018)



Source: Office for National Statistics. Annual Population Survey.

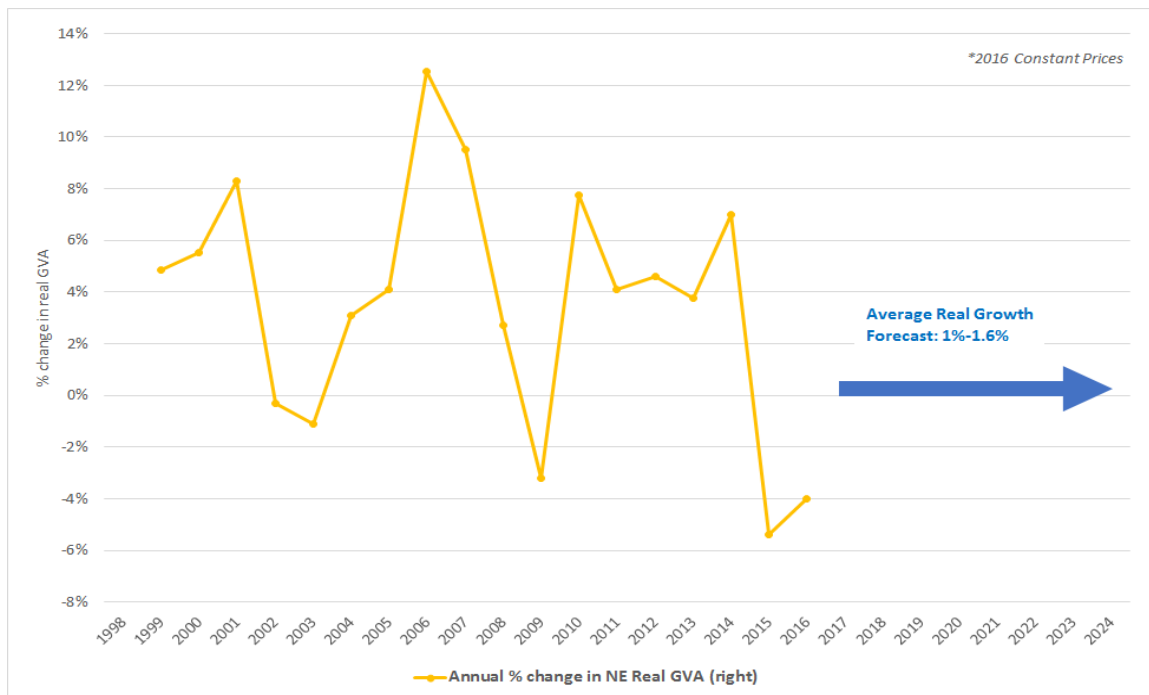
8. The UK offshore oil and gas industry supports more than 282,700 jobs in 2018, up slightly from 280,000 in 2017². It is the first rise in the sector’s overall employment since the downturn in 2014.
9. Some stability appears to be returning to the local property market. Average monthly house prices in Aberdeen and Aberdeenshire had declined since 2014, but in 2018 the house prices in both local authority areas have been broadly flat, suggesting the decline in house prices may have bottomed out.

² Oil and Gas UK 2018

Figure ES3: Average monthly house price in the region

Source: Registers of Scotland. Monthly House Price Index

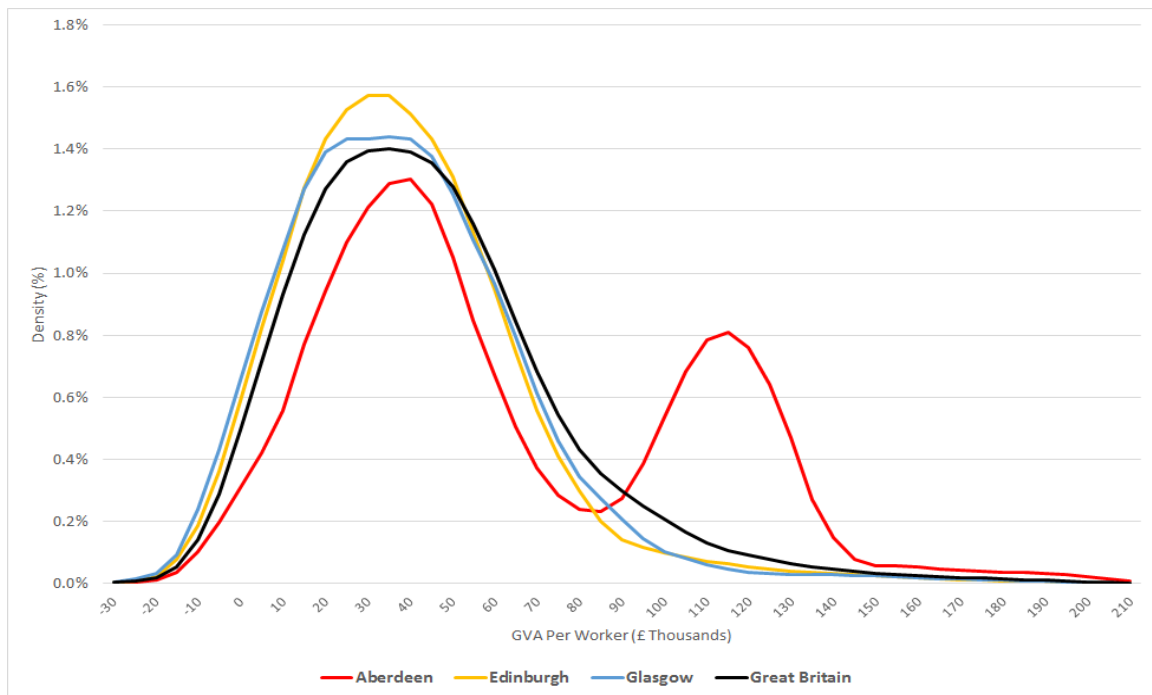
10. The commercial office space vacancy rate in Aberdeen reached a historic high with 14.6% of available office space unoccupied in Q4 2017, but has since fallen to 12.0% in Q2 2018, indicating more recent take-up.
11. Business birth rates started to increase in the region in 2016 after two successive years of decline. In 2016, the business birth rate in Aberdeen and Aberdeenshire was 59 and 56 new enterprises per 10,000 adult population respectively, compared to the Scottish national average of 50. Despite some increase in the number of business closures, five-year business survival rates remain significantly higher in the North East than Scotland and the UK.
12. Average hotel room rates have stabilised after a difficult period, falling to about £63 per room in 2017 from about £85 in 2015. Occupancy rates have remained relatively stable at about 63%-66%
13. The latest independent growth forecasts (Oxford Economics, EY Item Club, Mackay Consultants) show that the North East economy is expected to have returned to growth in 2017 and average growth is forecast to be around 1% to 1.5% per annum until 2020. Growth in Scotland is forecast to be between 0.85% and 1.7% until 2020 and in the UK the range is 1.4% to 2.0%.

Figure ES4: Real North East GVA annual change 2017+ (data is combined forecasts*)

Source: Office for National Statistics; *Forecasts - Oxford Economics, EY Item Club, Mackay Consultants

This indicates that the fundamentals of the Aberdeen economy remain strong

14. GVA per head in Aberdeen remains the highest in Scotland and GVA per head in Aberdeenshire is fifth highest out of 32 Scottish local authorities.
15. 2016 nominal GVA per hour worked for Aberdeen and Aberdeenshire was £36.30, compared to £32.38 for Scotland and £32.58 for the UK. This high productivity is driven by the oil and gas sector and means Aberdeen has a different productivity distribution than other regions of Scotland and the UK.
16. Aberdeen has a far higher proportion of workers with a GVA contribution of between £110,000 and £120,000. Regions such as Glasgow and Edinburgh have a higher proportion of workers with a GVA contribution of approximately £20,000 to £50,000 than Aberdeen, although they have a far lower proportion of workers with a higher GVA contribution, indicating the productivity of the North East region.
17. The Aberdeen City Region had a larger proportion of workers with a GVA contribution above £100,000 than all other UK regions, demonstrating the high value-adding contribution from the energy sector.

Figure ES5: Distribution of firm level productivity in the Aberdeen City Region

Source: Office for National Statistics. *Regions and City Region Firm-level Productivity Distribution Analysis for the Non-Financial Business economy. 2017.*

18. In 2017, workplace-based median gross hourly pay for full-time employees in Aberdeen was £15.33 (second highest in any local authority in Scotland) and in Aberdeenshire was £12.27, compared to the Scottish average of £13.98 and the UK average of £14.00.
19. The region consistently continues to perform strongly in export markets, with about 21% of the value of Scottish exports coming from the North East and an established trend of attracting inward investment into the region.
20. The region hosts a significant number of the Scottish Government's growth sectors, including food and drink, tourism, life sciences and renewable energy.

Although recent trends in the local economy have been more positive and the fundamentals outlined above remain strong, there are a number of challenges facing the Aberdeen economy, as is the case for Scotland, the UK and many other advanced economies.

Brexit

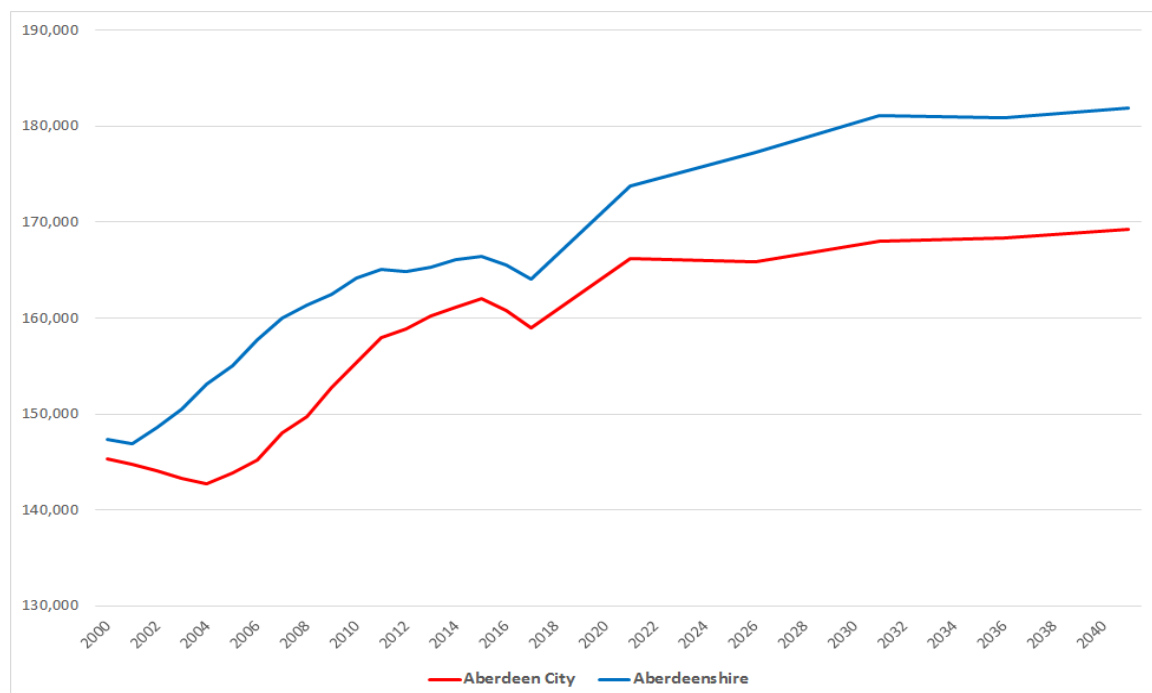
21. Brexit poses a number of challenges which may impact on business confidence and investment. These challenges are across sectors and include uncertainty around the ability to recruit EU nationals and future access to EU markets for imports and exports.
22. This uncertainty could see increased volatility in economic data as firms bring forward activity, such as stock purchases, to hedge against disruptions in supply chains, or invest to consolidate their supplies. With respect to employment, this may see increased automation or upward pressure on wages.

An Ageing Population

23. Like the rest of the UK and Scotland, the North East is projected to have an increasingly ageing population in future decades. The number of people living in Scotland of pension age and over is projected to rise by 25.1% by 2041. In Aberdeen this rise is projected to be 12.5%, while in Aberdeenshire it is projected to be 28.7%. The rise is particularly pronounced among the over 75s. There are two key challenges that this demographic profile brings:

- The demand for health and social care in later life could rise significantly, which has future implications for both the supply of health and social care and the need for social carers in the North East;
- The growth in the working age population will slow in future years. This will have the potential to act as a drag on future growth prospects unless it can be compensated for by increased participation of those in the older age groups and/or by increased productivity.

Figure ES6: Working Age Population Increases Will Slow in Future Years



Source: National Records of Scotland. Mid-Year Population Estimates. 2017; Sub-National Population Projections.

Technological Change

24. The Centre for Cities has estimated the employment implications for UK cities from technological change reducing demand for some occupations and increasing it for others. Generally those jobs that are made up of routine tasks are at a greater risk of decline, whereas those occupations requiring interpersonal and cognitive skills are well placed to grow. Overall, one in five jobs in cities across the UK is in an occupation that is very likely to shrink by 2030.

25. This means that the labour market will continue to evolve; new occupations will arise and some occupations that already exist will become increasingly important. The Centre for Cities report finds that half of the jobs very likely to experience an increase in demand are in the public sector.

26. The Centre for Cities suggests the policy response to the changing nature of work in recent decades has not prepared those people and places most affected by these changes to adapt to them. Policy needs to focus on giving people the skills required to fill the non-routine occupations that have become, and will continue to be, increasingly common. An important part of this will be to provide them with the skills they need to be successful in a labour market that is likely to be ever more dominated by non-routine work.

Productivity

27. Since the 2008 financial crisis, productivity growth across the G7 countries has been much lower than previously. However, the UK's productivity fall was steeper and its rebound weaker than in comparator countries.

28. It has been difficult to assess the factors that have contributed to the UK's weak productivity performance since the financial crisis. Possible contributing factors have been low capital investment, low skill levels, the high employment rate (and firms hoarding labour as a result), low interest rates (which may have kept some of the least efficient companies afloat) and weaker diffusion of knowledge and practice between firms and problems with measuring productivity, particularly in service companies.

29. Brexit could further hinder Britain's economy. The Office for Budget Responsibility (OBR) noted that while there isn't any meaningful basis on which to predict the outcome of the negotiations over the relationship between the UK and the EU after Brexit for economic forecasting, the economy appears to have weakened since the EU referendum vote. The fall in the pound has squeezed real household incomes and consumption, while providing only a modest boost to net trade. The average quarterly growth rate has slowed from 0.6% between 2013 and 2015 to 0.4% since the beginning of 2016³.

30. In the North East of Scotland, productivity has consistently been above the UK average and among the highest of all Scottish regions. The productivity distribution in Aberdeen, outlined in Figure ES5 above, and the future challenges to the oil and gas sector mean that the North East also faces a challenge to raise productivity to the extent required to generate

³ <https://cdn.obr.uk/ExecutiveSummary.pdf>

the inclusive and sustainable economic growth at the heart of the Regional Economic Strategy (RES)⁴.

The Future of Oil and Gas/Diversification

31. The cornerstone of the North East economy in recent decades has been the oil and gas sector. The sector is diverse and covers a wide range of activities. However, the region cannot rely on the oil and gas industry to deliver the same scale of benefits into the future, as UK oil production is expected to enter a period of decline in the 2020s. The ambition of the RES is to ultimately diversify the North East economy away from oil and gas in particular and towards the North East growth sectors.

32. If the Aberdeen economy is to diversify successfully in the long-term, in a way that supports productivity improvements and economic growth, then it will be critical that new activity in the growth sectors and/or other sectors is focused on high value-added activity. This is particularly vital to diversify away from a sector like oil and gas, which is very high value added and underpins the high productivity of the economy. The analysis in this report shows that productivity in some of the growth sectors in Aberdeen is below the average for the region, emphasising the need for the focus on high value-added activity within these sectors.

Inclusive Economic Growth

33. Enabling as many people as possible to contribute to and benefit from growth brings additional challenges across the UK and in the North East. Despite the relative economic success there are considerable levels of deprivation in the North East. The Inclusive Growth Commission highlights that the required policy response includes: the creation of new institutions to connect business and industry, schools, training providers and universities; that cities become places of life-long learning; and mainstreaming inclusive growth in all public investments including physical infrastructure projects.

Inward Investment

34. Ensuring the city and region retain existing and attract new inward investment is paramount to ensuring a vibrant, inclusive, sustainable, productive and diversified economy that develops and retains its skilled labour. This is core to the RES and City Region Deal and requires continued resources and development of the strategic approach to ensure Aberdeen can attract its share of this mobile and institutional investment.

⁴ https://www.aberdeencity.gov.uk/sites/default/files/Regional_Economic_Strategy_0.pdf

Responding to the Challenges

35. The significant economic challenges going forward mean the region must focus on raising productivity across all sectors, including outside the oil and gas sector, to maximise the opportunities for future economic growth that can be both sustainable and inclusive.

36. This challenge has already been recognised in the Regional Economic Strategy agreed by Aberdeen City Council, Aberdeenshire Council and Opportunity North East (ONE). The RES demonstrates the commitment between the two local authorities and ONE to working with all partners across industry, local and national government and the third sector to ensure that the North East continues to build on its economic success. The strength of this commitment and joined-up nature across local government, industry sectors and other stakeholders was notable during the Panel's factfinding visits. The 20-year vision is supported by a range of programmes to regenerate the North East economy, including the City Region Deal, City Centre Masterplan and major infrastructure projects.

37. The Panel welcomes both the ambition and direction of the Regional Economic Strategy, the recently refreshed and accompanying 2018-23 Action Plan and the range of programmes covering investment in infrastructure, innovation, inclusive economic growth and internationalisation. Building on this framework, the Panel recommends that the approach to productivity and regional economic growth is developed further as outlined in the recommendations overleaf.

Table ES1 – Responding to the Challenges

The position	The challenge	The recommendation
Regional Economic Strategy		
<p>The Regional Economic Strategy provides the framework for a collaborative approach and diversification plan for the city and region.</p>	<p>Although there are significant oil and gas reserves, in the longer-term production will decline. There is a dependency on the sector in the short/medium terms.</p>	<p>The Panel endorses the overall approach and recommends the close monitoring of actual progress and implementation, and in particular a focus on raising productivity outside the oil and gas sector to maximise the opportunities for future inclusive growth.</p>
<p>The Panel welcomes the ambition and direction of the Regional Economic Strategy and the accompanying 2018-23 Action Plan Programme areas.</p>	<p>Success will depend on the successful implementation and delivery of the key initiatives.</p>	<p>The Panel will monitor progress and make additional recommendations in future reports depending on how implementation progresses.</p> <p>To make it easier for the Panel to do so, it would be beneficial if the Regional Economic Strategy Action Plan could go further and set out the timeline and key measurable objectives for each action. The Panel recommends setting out an economic performance framework – The North East Economy Performs (similar to the Scottish Government’s National Performance Framework) which should include key economic indicators against which progress can be assessed covering economic, productivity, inclusive and sustainable growth. It should also include further analysis of the type of diversification that will be most conducive to achieving the RES objectives and how it will be monitored going forward.</p> <p>The Council should engage with the Centre for Regional Inclusive Growth to define inclusive growth metrics that can be monitored and reported on at the regional level as part of The North East Economy Performs Framework.</p>

The position	The challenge	The recommendation
Infrastructure		
<p>The RES is being supported by a number of significant investments by the Councils and industry. These include current transport investments, The Event Complex Aberdeen, the City Region Deal, and the City Centre Masterplan.</p>	<p>Infrastructure – delivery of major investments is, not unusually, lagging the local economic cycle. The coordination of major infrastructure decisions at the local and national level is not aligned.</p>	<p>The discussion around forming a strategic utilities or infrastructure group is welcome. This should be prioritised. That group, comprised of national and local infrastructure partners, must oversee a clear process for assessing the economic, social and environmental impacts of proposed projects and prioritising them accordingly.</p> <p>The Group should also be tasked with regional coordination, assessment and planning for the future infrastructure needs of the city and region, as well as identifying and working with stakeholders who will be critical to the delivery of the investment and leverage required.</p> <p>All infrastructure investments should be monitored through the Local Development Plan and the proposed The North East Economy Performs Framework.</p> <p>Progress on the digital programme within the Aberdeen City Region Deal is critical to the success of the Regional Economic Strategy and the Panel recommends continued close monitoring of progress through the proposed The North East Economy Performs Framework.</p> <p>The RES recognises that the region’s natural assets and clean environment must be safeguarded to support key sectors such as tourism, food, drink, agriculture and fisheries. This is consistent with the approach to maintain and enhance our natural capital in the Scottish Government’s Economic Strategy, but there is an opportunity for Aberdeen to take a lead by developing key actions for applying these principles at the regional level and monitoring them through the proposed The North East Economy Performs Framework.</p>

The position	The challenge	The recommendation
<p>Housing, a key strand of economic growth policy, is not as embedded into the economic planning of the city as it should be.</p>	<p>A region-wide housing strategy and action plan is another aspect which is fundamental to laying strong foundations for sustainable and inclusive growth.</p>	<p>The commitment to develop a housing strategy and action plan should be actioned for 2019 annual reporting overseen by a strategic governance group.</p>
Innovation		
<p>R&D spend levels are among the highest in Scotland, and innovation is a major strand of the City Region Deal.</p>	<p>Successful places are ensuring that barriers to innovation are identified and addressed for businesses across all sectors. The benefits of the investments made by the city region and the two universities need to transfer to other sectors.</p>	<p>The Panel suggests that the delivery of Scottish Government Economic Action Plan proposals for piloting Productivity Clubs are implemented in the city region. Any further barriers to innovation in the regional economy should be identified and addressed for businesses across all sectors, considering such issues as availability of key skills and finance, the spread of knowledge and technology within the local economy, how businesses learn from global best practice in leading international businesses and maximising the opportunities for knowledge transfer.</p>
Inclusive Economic Growth		
<p>There is a focus on inclusive economic growth in the RES, which is welcome. However, it is not as embedded in wider plans.</p>	<p>Skills Development Scotland (SDS) needs to ensure that key actions in the Regional Skills Strategy are accounted for across partners.</p>	<p>The skills challenges identified in this report around Brexit, future technology/automation, the ageing society, and diversification should be addressed as part of the local skills action plan, which should have clear SMART objectives. This should include actions to raise management and leadership skills within the regional economy.</p> <p>The focus on a strategic and coordinated Developing the Young Workforce with reference to future employment opportunities in the Skills Strategy is endorsed, which is particularly important given the potential implications of Brexit for access to key skills and resources in the region.</p>

The position	The challenge	The recommendation
		<p>Overall, if inclusive growth outcomes are to be achieved, interventions need to be future-proofed against the changing nature of the labour market, notwithstanding any Brexit effects, as set out in the Centre for Cities report on the employment implications of technological changes, globalisation and demographic change. This must include building on the need for life-long learning and ensuring that education provision can adapt to changing trends and that opportunities are provided at the right time for people to train or retrain in the skills of the future.</p>
<p>The region continues to perform well in terms of business start-up and survival rates.</p>	<p>Part of the city region's inward investment strategy will be to attract and grow new businesses. Part of this includes business births and ensuring their access to venture capital and support.</p>	<p>The Panel recommends that steps are taken to ensure that the combination of existing services from Scottish Enterprise, Business Gateway (Elevator) and ONE combine to support young businesses with high growth potential and facilitate productivity improvements across all business sectors.</p>
<p>Internationalisation</p>		
<p>The city region makes a disproportionate positive contribution to UK and Scottish international trade.</p>	<p>Given the challenges posed by Brexit we believe that the export sector needs to be protected and enhanced in terms of its importance in the Regional Economic Strategy.</p> <p>Dialogue is ongoing between AGCC, as the lead partner, and the Scottish Government for funding to establish an export partnership in the North East of Scotland between AGCC, Aberdeen City Council, the universities and other partners.</p>	<p>The city region should have a stronger export-oriented collaboration which capitalises on its existing advantages and the investment in new transport infrastructure. A bid for a formal export partnership should be considered.</p> <p>This is an example of the type of coordination between national and local stakeholders that must be achieved to enhance the future growth potential of the region. This requires that the ambition and commitment shown at the regional level will be matched at the national level.</p>

The position	The challenge	The recommendation
<p>The report also highlights the important role played by people who come to the North East from within the EU.</p>	<p>The approach to internationalisation must also extend to ensure that the regional economy can continue post-Brexit to access the key skills it requires for future growth from outside the UK. It is vital that the case is clearly made at the local, national and UK level so that whatever Brexit deal is agreed there is minimum impact on the flow of key skills to the North East economy.</p>	<p>A programme of engagement by the city region leadership should be extended to the UK Government, in addition to any with the Scottish Government to ensure that the impact of Brexit on the flow of key skills to the North East is minimised.</p>
<p>Invest Aberdeen has been implemented during the review period.</p>	<p>The city region has, historically, not had to be as active as other city regions in attracting inward investment. That has now changed, as the need to attract a wider range of inward projects, from new sectors, and the institutional investment for the next phase of the City Centre Masterplan grows.</p>	<p>The Panel welcomes the Invest Aberdeen approach and recommends development of a monitoring framework against which to assess inward investment performance. There are existing measures including annual FDI statistics from Ernst & Young and Scottish Development International. However, local metrics, such as enquiry caseloads, conversion of enquiries at various stages, investments secured (£), value added, and jobs created, should be developed.</p>
General		
<p>The region has consistently delivered a higher level of economic growth than other parts of the UK and Scotland, and is a globally competitive location. Achieving the level of investment to deliver its</p>	<p>This report confirms that some challenges the North East region faces are specific to the local economy (such as the trends in future oil production/price). Under such circumstances a one-size-fits-all approach to economic policy is not going to be optimum and could risk</p>	<p>It is the Panel's view that greater flexibility to allow local authorities and other stakeholders to adjust policy at the local level to meet different economic trends, priorities and challenges would be beneficial at the local and national level.</p> <p>The Panel recommends that Aberdeen City Council encourages the Scottish Government to take the lead in generating a national discussion as to how greater autonomy in economic policy could be created in a way that will improve economic outcomes at the</p>

The position	The challenge	The recommendation
<p>priorities could be enhanced by further devolution of powers locally.</p>	<p>undermining economic performance at the local and national level. The Aberdeen City Region Deal is the starting point of a long-term improvement programme to build further growth into the regional economy. However, the focus of this programme is on delivery of transformational economic projects and not specific powers or fiscal levers. Additional mechanisms are needed, beyond capital investment, to deliver the regional economic objectives. The Panel notes the ongoing discussion around the introduction of a tourism levy in Scotland. This is just one way in which greater flexibility could be created in economic policy at the local level. Others that could also be considered are Non- Domestic Rates, Air Passenger Duty and powers to vary Council Tax.</p>	<p>local and national level. The significant economic challenges facing the regional and national economies in the years ahead, outlined in this report, emphasise the need for a more innovative, flexible and bottom-up approach to developing economic policy in Scotland.</p>



Section 1: North East Region Economy

Section Summary

Aberdeen City and Aberdeenshire has a long-established record as one of the most productive regions in the UK. A mixed urban and rural economy, the region has consistently outperformed in economic terms.

- The population of the North East of Scotland in 2017 was 490,600 – 9% of the Scottish population. Aberdeen had the third largest working age population of any Scottish local authority area in 2017, with 69.5% of the population aged 16-64 in 2017.⁵
- There are high levels of energy industry employment in the region, with approximately double the amount of employment within these combined industries than the Scottish average.
- The region is home to 13% of total Scottish GVA.
- Real GVA grew by an average 5.9% per annum in the region between 2000 and 2014, compared with 2.3% in Scotland.
- A key measure of productivity is GVA per hour worked, which was £36.30 per hour in the region, compared with £32.38 in Scotland and £32.58 in the UK in 2016.
- GVA per hour worked grew by 29% in the region between 2006 and 2014, compared with 26% in Scotland and 18% in the UK.
- The Aberdeen City Region had a larger proportion of workers with a GVA contribution above £100,000 than all other UK regions for the non-financial business economy, demonstrating the high value-adding contribution from the energy sector.
- Employment rates in the region were consistently about 77-79% in the decade up to 2014. This compares with 70-73% in Scotland and the UK.
- Business birth rates were considerably higher than the UK and Scottish averages until 2014, when they began to decline.
- 21% of the monetary value of total Scottish exports is produced by the region. This export share is considerably higher than its GVA share and demonstrates the international reach of the city region. This is an export-led economy and important for Scottish and UK trade.
- In 2016, Gross Disposable Household Income per head in Aberdeen City and Aberdeenshire was £22,508, which was the highest level of any region in Scotland (national average: £18,231).
- The region accounted for 18.1% of Scottish business R&D expenditure in 2016. Between 2012 and 2016, business expenditure on research and development in Aberdeen City and Aberdeenshire increased from £85.8 million in 2012 to £193,780 million in 2016.
- While concentrated deprivation is not a major issue within Aberdeen City and Aberdeenshire there is a large number of deprived people in the area, particularly in Aberdeen.

⁵ NRS. *Mid-Year Population Estimates*.

Since 2015 the region has experienced an economic downturn. This has been driven by a deterioration in the fortunes of the oil and gas sector with the oil price falling from more than \$100 per barrel in 2014 to less than \$30 in 2016. Economic activity in the oil and gas sector impacts on other sectors within the local economy, which means there have been negative implications for the wider economy of the North East.

- Real GVA in the region fell by over 9% between 2014 and 2016, while it rose by 2% in Scotland and 4% in the UK over the same period.
- Employment rates fell to 74% in 2016 in the region from 79% in 2014 while they rose to 74% from 72% in Scotland and the UK over the same period.
- Average earnings fell by 9% between 2015 and 2017 in Aberdeen and 3% in Aberdeenshire, while rising by 2% in Scotland and 4% in the UK over the same period.
- The business birth rate, as measured by the number of new enterprises per 10,000 adult population, was 75 in Aberdeen and 67 in Aberdeenshire, compared to the Scottish national average of 49 in 2013. In 2016, the business birth rate in Aberdeen and Aberdeenshire declined to 59 and 56 new enterprises per 10,000 adult population respectively, compared to the Scottish national average of 50.
- House prices in the region are higher than the Scottish average, but have fallen since the downturn in the oil and gas sector. Between December 2014 and December 2017, the average house price in Aberdeen declined by 16.6%, with the average house price in Aberdeenshire declining by 5.9%, whilst the average house price in Scotland increased by 10.1%.
- Average hotel room rates fell from around £90 to £60 levels in Aberdeen from 2015 to 2017.
- Commercial office vacancy rates rose significantly from 4% to around 14% in Aberdeen City from 2014 to 2016.

However, the region still performs well above the Scottish average and there are signs that the economy is beginning to recover, as performance against these measures is showing improvement.

- The oil price has risen to around \$70-\$80 a barrel currently. The number of people supported by the sector is around 282,700 in the UK in 2018, compared to 460,000 in 2014. However, the number employed has risen in the last year from 280,000 in 2017 to 282,700 in 2018.
- Employment rates in the region returned to trend at about 79% in 2017, compared with 74-75% in Scotland and the UK.
- Despite the fall in earnings in the North East in recent years, they are still considerably higher than the Scottish average. Workplace-based median gross weekly pay for full time employees in Aberdeen is £618.30 and Aberdeenshire is £574.90 in 2018, compared to the Scottish national average of £563.20.

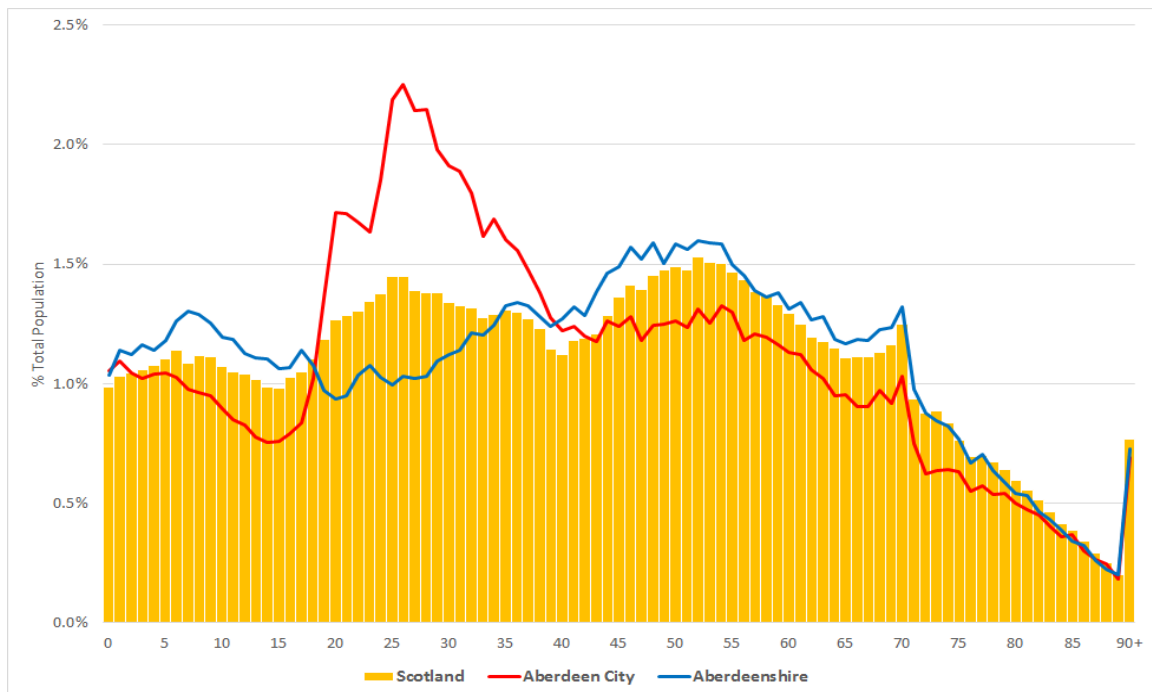
- Average house prices have stopped falling and remain relatively flat in the region since 2017, at around £163,000 in Aberdeen and £191,000 in Aberdeenshire. This remains considerably higher than the £145,000 average house price in Scotland as a whole.
- The business base in the region remains strong despite the downturn. There were 24,040 registered enterprises in the region in 2017, 14% of the Scottish total. Business birth rates rose again in 2016 after a decline in the region from 2014 to 2015.
- Evidence on foreign direct investment suggests that the North East has remained resilient during the economic downturn in the oil and gas sector. Aberdeen has consistently attracted high levels of inward investment and was in ninth place in the league of UK cities of foreign direct investment projects, with 14 projects in 2017.
- Average hotel room rates have stabilised to around £60 a room and occupancy rates have remained stable over the period. There is anecdotal evidence of an increase in the leisure market occupying hotel rooms.
- Commercial office vacancy rates have stopped increasing in the last 12 months and have stabilised at about 12% from a historic high of 14.6% in Q4 2017.

However, economic challenges remain, not least regarding skills. In 2016, 34.5% of the Aberdeen City and Aberdeenshire workforce were educated to degree level, compared to 32.6% of the Scottish workforce and 33.8% of the UK workforce. Employers in the region were more likely to report current vacancies than the Scotland average (24%, compared to 15%), more hard-to-fill vacancies (12% compared to 6% nationally) and skills shortage vacancies (9% compared to 4%). Almost a quarter of Aberdeen City and Aberdeenshire employers (24%) reported skills gaps in their staff, above the average for Scotland of 19%, with skills gaps most likely in care, leisure and other services, and in customer service occupations.

1.1 Demographics

Figure 1 shows the population distribution of Aberdeen City in 2017 was markedly different than for Scotland as a whole. In 2017, 23.9% of the Aberdeen City population was aged 18 to 30, compared to 17.3% of the Scottish population. Aberdeen has historically benefitted from large numbers of students living in the city bolstering this population, but also as a place for young professionals as is the case in many large cities⁶. The population of Aberdeenshire has a different composition than the City, with more people aged between 40 and normal pension age living there than both the Scottish national average and Aberdeen City. In 2017, 35.8% of the Aberdeenshire population was aged between 40 and 64, compared to 33.6% for Scotland.

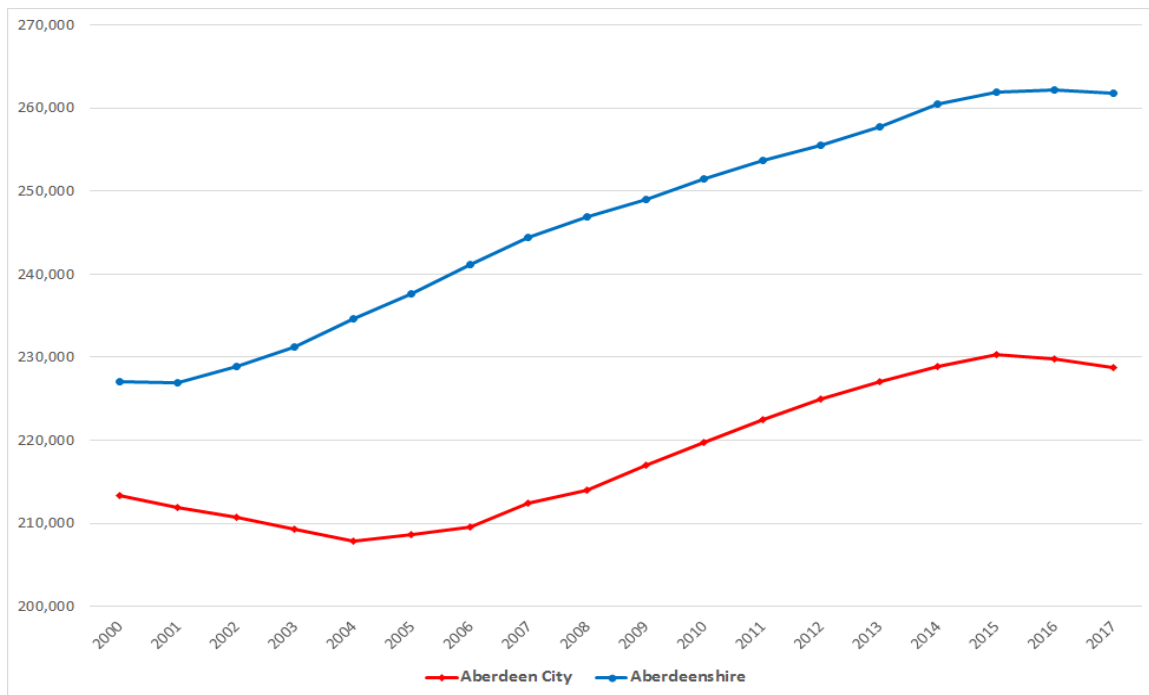
Figure 1: Aberdeen City and Aberdeenshire Population Distribution by Single Year of Age (2017)



Source: Registers of Scotland. Mid-year Population Estimates by Scottish Local Authority 2017

Figure 2 shows the total population in Aberdeen and Aberdeenshire between 2000 and 2017. The population in Aberdeen City and Aberdeenshire in 2017 was 490,600, which was a slight decrease from the 2016 figure of 492,030. Due to lower economic migration, largely brought about by the downturn in the oil and gas industry, Aberdeen City and Aberdeenshire were the only two local authority areas in Scotland to experience negative population growth in 2017. Between 2016 and 2017, there was -0.5% population growth in Aberdeen and -0.1% population growth in Aberdeenshire, with 0.4% population growth in Scotland overall.

⁶ <http://www.centreforcities.org/press/young-people-leading-21st-century-resurgence-in-city-centre-living/>

Figure 2: Aberdeen City and Aberdeenshire Population Trends

Source: Registers of Scotland. Mid-year Population Estimates by Scottish Local Authority. 2017.

The working age populations of both Aberdeen and Aberdeenshire have declined from a historic high in 2015 of 328,466 (figure A1). Between 2015 and 2017, the working age population of Aberdeen City and Aberdeenshire declined by 5,347 (1.6%). Between 2005 and 2015, the working age population of Aberdeen City and Aberdeenshire increased by 9.9%, from 298,946 in 2005 to 328,466 in 2015. This compares to an increase of 3.9% in the Scottish working age population between 2005 and 2015.

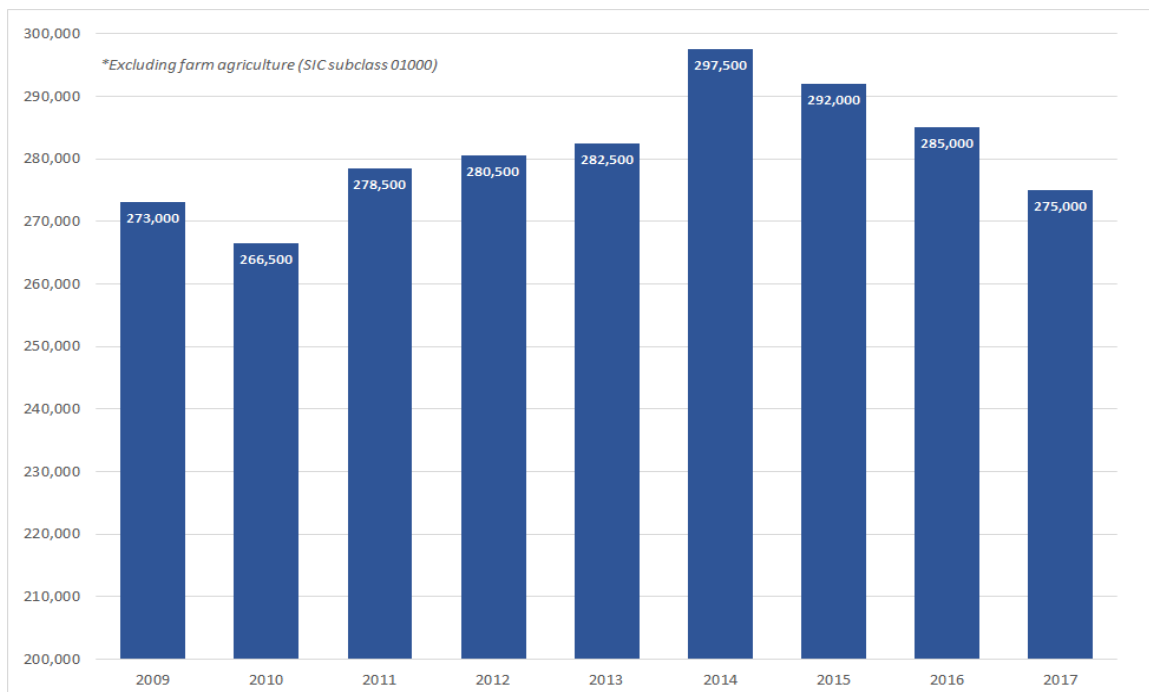
Net inward migration to Aberdeen City and Aberdeenshire was 22,951 people in 2010, with 13,971 inward migration to Aberdeen and 8,980 inward migration to Aberdeenshire (figure A2). By 2014, this had increased to 24,584 total net inward migration to the area. By 2017, net inward migration had declined substantially, to total inward migration of 18,556, with net inward migration to Aberdeen at 11,334 and for Aberdeenshire at 7,222. This coincides with the economic downturn in the energy sector, with strong migration growth in the years preceding 2014 and a sharp decline from 2015 onwards.

1.2 Labour Market & Economic Activity

1.2.1 Employment

Figure 3 shows total employment in Aberdeen City and Aberdeenshire from 2009-2017. As shown in the graph between 2014 and 2017 employment located in Aberdeen City and Aberdeenshire declined for three consecutive years. Between 2016 and 2017, Aberdeen City and Aberdeenshire experienced a 3.5% decrease in employment. This is directly related to a decline in the region's largest industry (energy), with other industry sectors experiencing further indirect and induced effects.

Figure 3: Aberdeen City and Aberdeenshire Total Employment (2009-2017)



Source: Office for National Statistics. Business Register and Employment Survey.

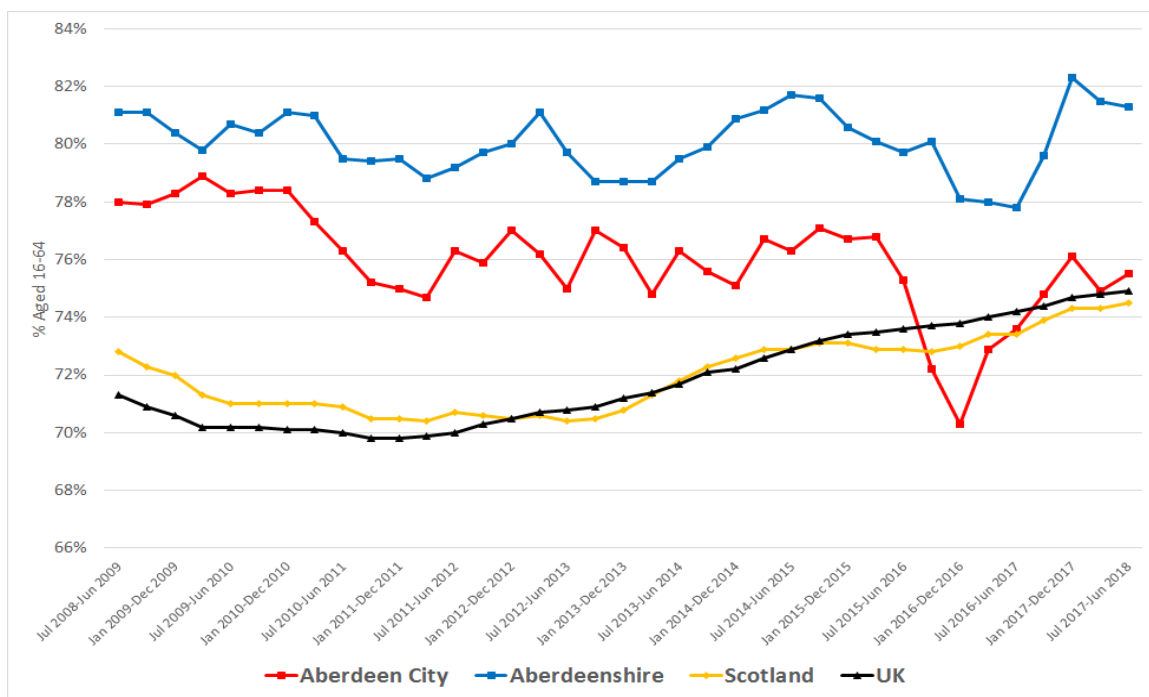
Figure 4 shows the total employment rate in Aberdeen and Aberdeenshire between 2008 and 2018. The figure shows that:

- Between July 2017 and June 2018, the employment rate for those aged 16-64 living in Aberdeen was 75.5%, with the employment rate for those living in Aberdeenshire at 81.3%;
- The employment rate for Scotland during the same period was 74.5%, with the employment rate for the UK at 74.9%;
- Between January 2015 and December 2016, and January 2016 and December 2016, the employment rate in Aberdeen declined by 6.4%, from 76.7% to 70.3%;
- The employment rate in Aberdeenshire fell by 2.5% over the same period from 80.6% to 78.1%;

- Employment rates in Aberdeen City and Aberdeenshire have recovered from the historically low 2016 levels;
- The 10-year average employment rates for Aberdeen and Aberdeenshire between 2008 and 2018 was 76.1% and 80.0% respectively, substantially higher than Scotland at 72.0% and the UK at 71.8%.

Aberdeen has the highest job density rate and private sector employment ratios of any Scottish Local Authority in 2016 (see figures A3 and A6).

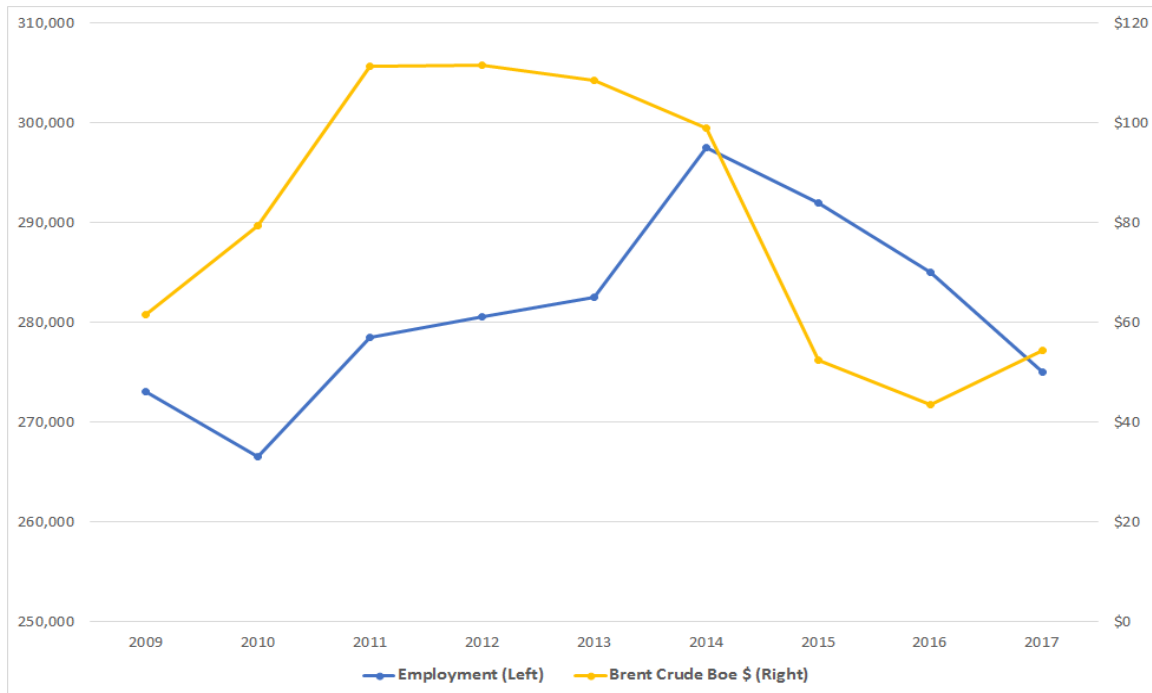
Figure 4: Aberdeen City and Aberdeenshire Employment Rate (2008-2018)



Source: Office for National Statistics. Annual Population Survey.

The relationship between the oil price and the employment rate in the North East is, in general, positive (see figure A4). As the oil price rises this generates growth in the oil and gas sector which induces further growth across the economy creating more jobs. The relationship is clearer between the oil price and the total number of people employed as shown in figure 5.

Figure 5: Aberdeen City and Aberdeenshire Total Employment and Brent Crude Barrel of Oil Equivalent (BOE) Price (2009-2017)



Source: Business Register and Employment Survey

Figure A5 shows the total employment rate by occupation in Aberdeen, Aberdeenshire and Scotland in 2017/18. In terms of workforce occupations, of those working in Aberdeen, there was a higher concentration of people employed within Professional Occupations and Associate Professional and Technical Occupations than the rest of Scotland. In 2017, 24.4% of the Aberdeen workforce was employed within Professional Occupations, compared to 20.8% for Scotland and 15.6% for Aberdeenshire. 15.1% of the Aberdeen workforce was employed within Associate Professional & Technical Occupations in 2017, compared to 13.6% for Scotland and 12.7% for Aberdeenshire.

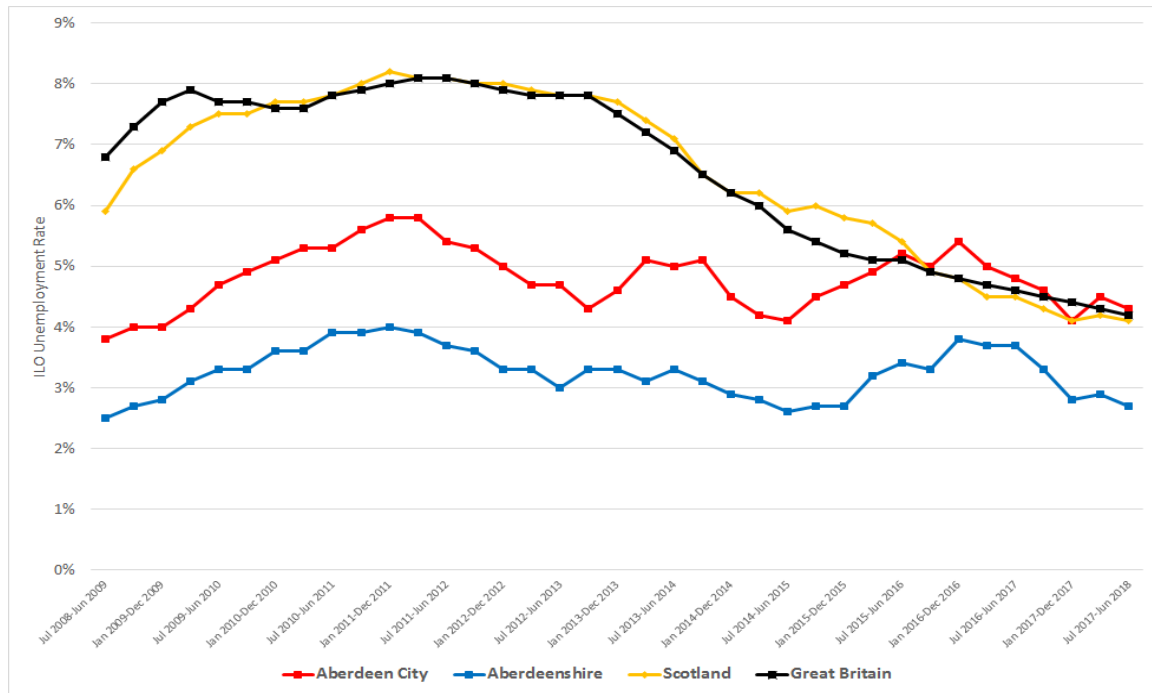
Aberdeenshire has more people employed within Professional Occupations and Associate Professional and Technical Occupations than the Scottish national average. Between July 2017 and June 2018, 10.4% of those employed in Aberdeenshire were employed within Managerial, Directors and Senior Officials occupations, compared to 8.3% for Aberdeen City and 8.5% in Scotland. 20.3% of the Aberdeenshire workforce was employed within Skilled Trade Occupations in 2016, compared to 11.2% for Scotland and 10.9% in Aberdeen City.

1.2.2 Unemployment

Figure 6 shows the International Labour Organisation (ILO) Unemployment Rate in Aberdeen, Aberdeenshire, Scotland and UK between 2008 and 2018. The ILO unemployment rate is the percentage of unemployed people out of the economically active population (aged 16 plus, employed and unemployed). Under the ILO international definition of unemployment, all

people aged 16 plus without a job who are searching for work, available to commence employment in two weeks and have been looking for work for a month prior, or waiting to commence employment, are classed as unemployed. The unemployment rate is a wider measure than the claimant count, which aims to measure the proportion of working age people in receipt of benefits principally for the reason of being unemployed.

Figure 6: Aberdeen, Aberdeenshire, Scotland and GB ILO Unemployment Rate (2008-2018)



Source: Office for National Statistics. Model-based Estimates of Unemployment

Between July 2017 and June 2018, there were approximately 9,500 people who were unemployed in Aberdeen City and Aberdeenshire. This had declined substantially from the same period in 2016, when there were 11,900 unemployed in the region. Since the height of the economic impact from the downturn in the oil and gas sector to the latest data, unemployment in Aberdeen City and Aberdeenshire has fallen by approximately 21%. Between July 2017 and June 2018, the unemployment rate for Aberdeen was 4.3% and 2.7% for Aberdeenshire, compared to the Scottish national average of 4.1%. The Scottish unemployment rate has been consistently falling since 2012 and the local rate has fluctuated, rising between 2015 and 2016, and subsequently falling and stabilising.

The claimant count rate is discussed in figure A7.

1.3 Economy, Enterprise and Industry

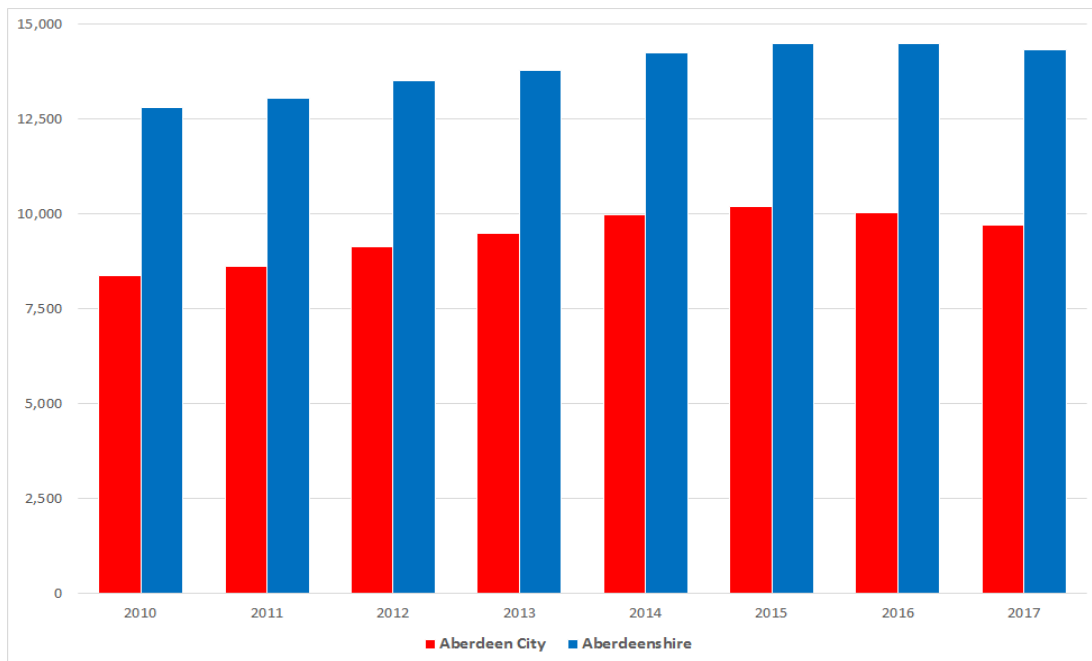
1.3.1 Industry Sectors

Employment in Aberdeen differs quite significantly to that in the rest of Scotland.

- In 2017, 18.4% of enterprise employment in Aberdeen City was with Primary Industries, with 16.1% of Aberdeenshire employment within these industries, compared to the Scottish national average of 6.3%;
- 14.0% of Aberdeen City and 11.7% of Aberdeenshire enterprise employment was located within Professional, Scientific and Technical Activities industries in 2017, compared to 7.7% of Scottish enterprise employment;
- 4.4% of Scottish enterprise employment in 2017 was within Financial and Insurance activities, compared to 1.1% of Aberdeen City and 0.8% of Aberdeenshire enterprise employment;
- 14.9% of enterprise employment in Aberdeenshire was within manufacturing industry sectors in 2017, compared to 9.6% of Scottish and 8.9% of Aberdeen City enterprise employment;
- 9.2% of Scottish enterprise employment was within Administrative and Support Services activities in 2017, compared to 7.5% of Aberdeen City and 5.7% of Aberdeenshire enterprise employment.

Figure 7 shows the number of enterprises⁷ operating in Aberdeen and Aberdeenshire in 2017. There were 24,040 enterprises operating in Aberdeen City and Aberdeenshire, which was 13.6% of the Scottish total. The number of enterprises operating in Aberdeen City and Aberdeenshire increased by 16.5%, from 21,715 enterprises in 2010 to 24,679 in 2015. Between 2015 and 2016, the number of enterprises operating in Aberdeen City and Aberdeenshire declined by 0.6%. A further decline was experienced between 2016 and 2017, when the number of enterprises decreased by 1.9%.

⁷ An enterprise is a business or a company

Figure 7: Enterprises Operating in Aberdeen and Aberdeenshire (2010-2017)

Source: The Scottish Government. *Businesses in Scotland 2017*

Figure 8 shows total enterprise employment in Aberdeen City and Aberdeenshire by sector in 2017. The figure shows that

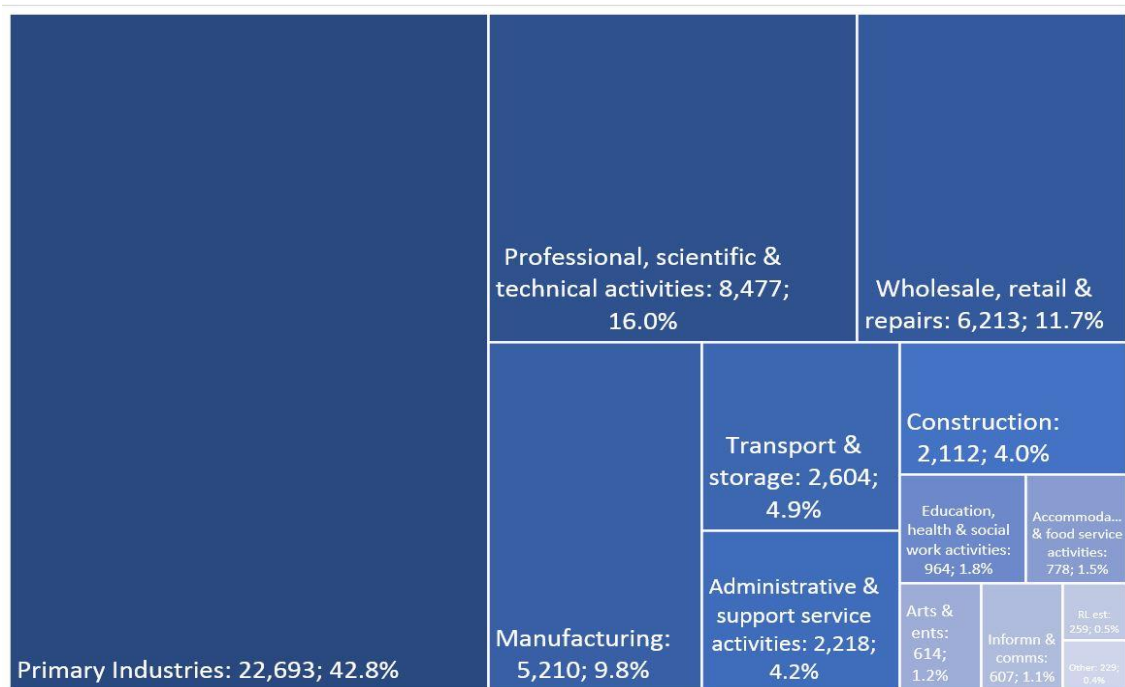
- in 2017, the largest sector in terms of enterprise employment in Aberdeen City and Aberdeenshire was Primary Industries, employing 40,960 people. More than 70% of employment within these industries in the region is direct Oil and Gas employment;
- Wholesale, Retail and Repairs industries accounted for employment of 34,910 in the region, accounting for 14.9% of total enterprise employment. Industries in this group include vehicle repair and both the wholesale and retail sale of food drink, tobacco, goods, vehicles, and information and communication equipment.
- There were 30,630 people employed within Professional, Scientific and Technical Activities industries in Aberdeen City and Aberdeenshire in 2017, accounting for 13.1% of enterprise employment. Industries in this group include accounting, architectural activities, research and development, advertising and market research.

Figure 8: Enterprise Employment by Sector in Aberdeen City and Aberdeenshire (2017)

Primary Industries: 40,960; 17.5%	Professional, scientific & technical activities: 30,630; 13.1%	Education, health & social work activities: 21,120; 9.0%	Accommodation & food service activities: 20,450; 8.7%		
		Administrative & support service activities: 15,970; 6.8%	Transport & storage: 11,850; 5.1%		
Wholesale, retail & repairs: 34,910; 14.9%	Manufacturing: 26,340; 11.3%	Construction: 13,830; 5.9%	Arts & ents: 4,690; 2.0%	Information & communication: 4,210; 1.8%	
			Other service activities: 3,890; 1.7%	Real estate: 2,770; 1.2%	Financial: 2,210; 0.9%

Source: The Scottish Government. *Businesses in Scotland 2017*

Figure 9 shows total turnover in Aberdeen City and Aberdeenshire by sector in 2017. Turnover from enterprises operating in Aberdeen City and Aberdeenshire (excluding financial and insurance activities) was £52.9 million in 2017. Primary Industries accounted for turnover of £22.7 million, accounting for 42.8% of operating enterprise turnover. Professional, Scientific and Technical Activities industries in the region accounted for turnover of £8.5 million, representing 16.0% of operating enterprise turnover. Wholesale, Retail and Repairs industries accounted for enterprise turnover of £6.2 million, representing 11.7% of operating enterprise turnover in the region in 2017.

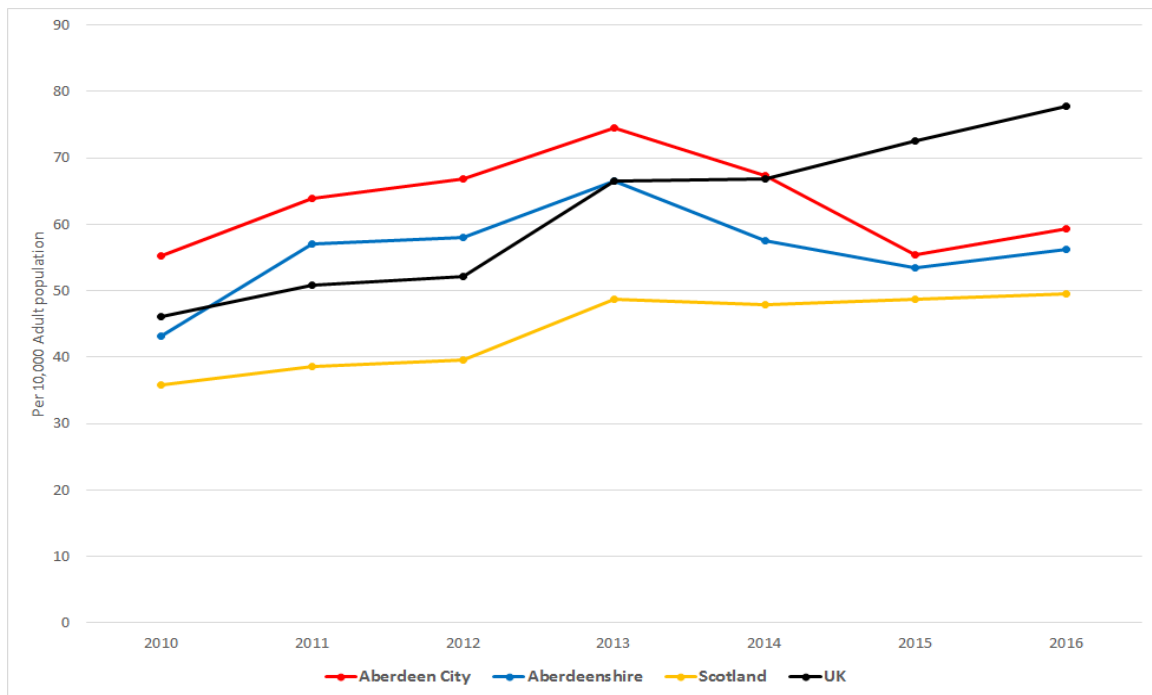
Figure 9: Enterprise Turnover by Sector in Aberdeen City and Aberdeenshire (2017).

Source: The Scottish Government. *Businesses in Scotland. 2017.* *Excluding financial and insurance activities.

In 2017, there were 6,775 Professional, Scientific and Technical activities micro-enterprises with employment of 0 to 9 employees operating in Aberdeen City and Aberdeenshire. There were 25 large enterprises with 250+ employees operating in Mining, Quarrying and Utilities industries in Aberdeen City and Aberdeenshire, with all of these being directly related to the oil and gas industry. There were 2,935 micro-enterprises operating within Agriculture, Forestry and Fishing industries.

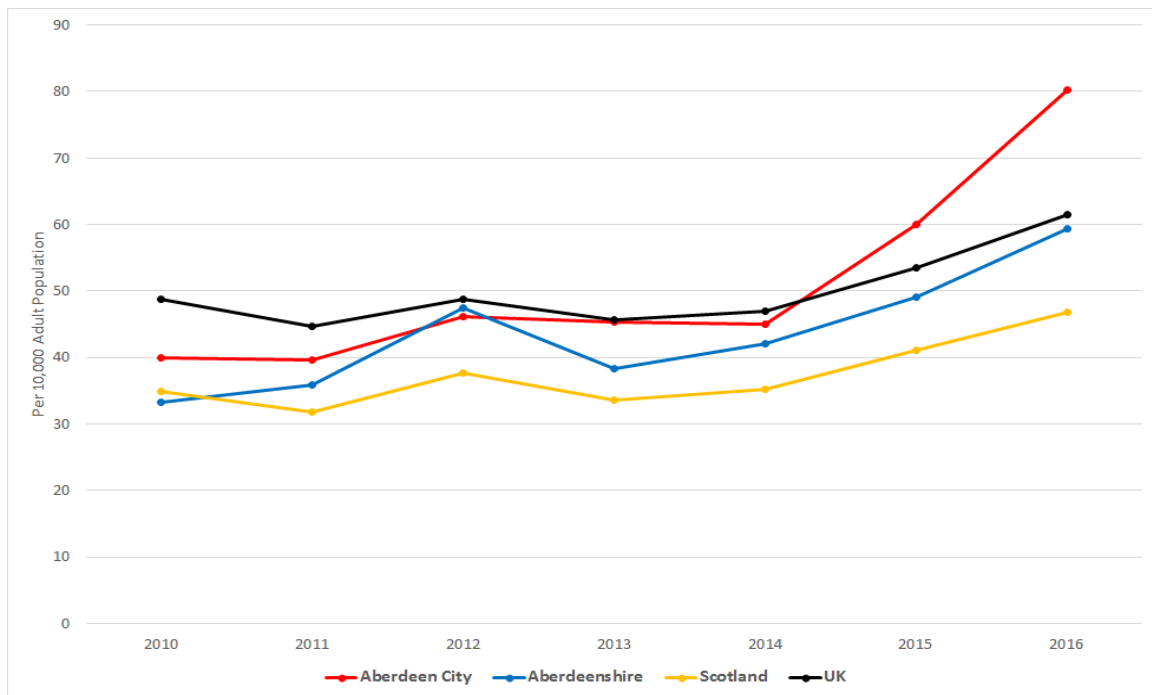
1.3.2 Business Births and Deaths

Figure 10 shows the business birth rates in Aberdeen, Aberdeenshire, Scotland and the UK between 2010 and 2016. The Business Birth Rate in Aberdeen City and Aberdeenshire peaked in 2013 but has since declined. In 2013, there were 1,445 business births in Aberdeen and 1,395 business births in Aberdeenshire. In 2016 there were 1,160 business births in Aberdeen and 1,200 in Aberdeenshire, reflecting the economic downturn in the oil and gas sector since 2015. The business birth rate, as measured by the number of new enterprises per 10,000 adult population in 2013 was 75 in Aberdeen and 67 in Aberdeenshire, compared to the Scottish national average of 49. In 2016, the business birth rate in Aberdeen City and Aberdeenshire had declined to 59 and 56 new enterprises per 10,000 adult population respectively, compared to the Scottish national average of 50.

Figure 10: Business Birth Rates Aberdeen, Aberdeenshire, Scotland and UK (2010-16)

Source: Office for National Statistics. Business Demography 2016

Figure 11 shows the business death rates in Aberdeen, Aberdeenshire, Scotland and UK between 2010 and 2016. In 2016, the number of business deaths in Aberdeen City and Aberdeenshire was more than the number of business births. The business death rate for Aberdeen in 2013 was 45 business deaths per 10,000 adult population with the corresponding Aberdeenshire rate at 38 and Scotland at 35. The business death rate for Aberdeen in 2016 was 80 enterprise deaths per 10,000 adult population, with the rate for Aberdeenshire at 59 compared to 47 for Scotland. Aberdeen had the highest business death rate in Scotland in 2016 of all local authority areas.

Figure 11: Business Death Rates Aberdeen, Aberdeenshire, Scotland and UK (2010-2016)

Source: Office for National Statistics. *Business Demography 2016*

Further analysis of business stocks and industry rental absorption has revealed that almost all of Aberdeen business deaths during the time can be attributed to Professional, Scientific and Technical Activities industry, which is by far the largest industry sector in the city in terms of the number of enterprises.

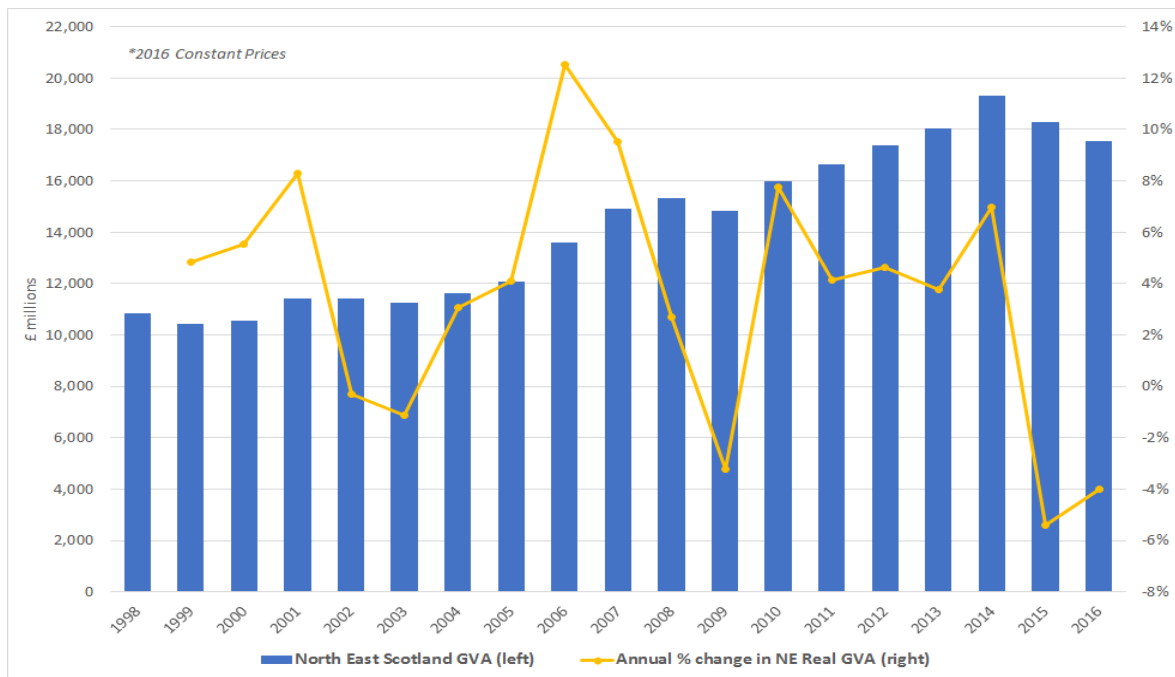
However, business survival rates over five years remain significantly higher in the North East than Scotland and the UK. In 2016, the five-year business survival rate for Aberdeen City was 53.5% and for Aberdeenshire was 55.7%, compared to the Scottish and UK averages of 45.6% and 44.1%.

1.3.3 Gross Value Added

Gross Value Added (GVA) is the regional measure for the increase in value in the economy due to the production of goods and services⁸. GVA is defined as outputs at basic prices minus intermediate consumption.

Figure 12 shows real GVA in the North East of Scotland in absolute terms and annual % increases on the previous year between 1998 and 2016 in constant 2016 prices. Real GVA has fallen more dramatically since 2014 from £19.3bn to £17.5bn in 2016 (2016 prices).

⁸ Office for National Statistics. *Regional Gross Value Added (income approach)*

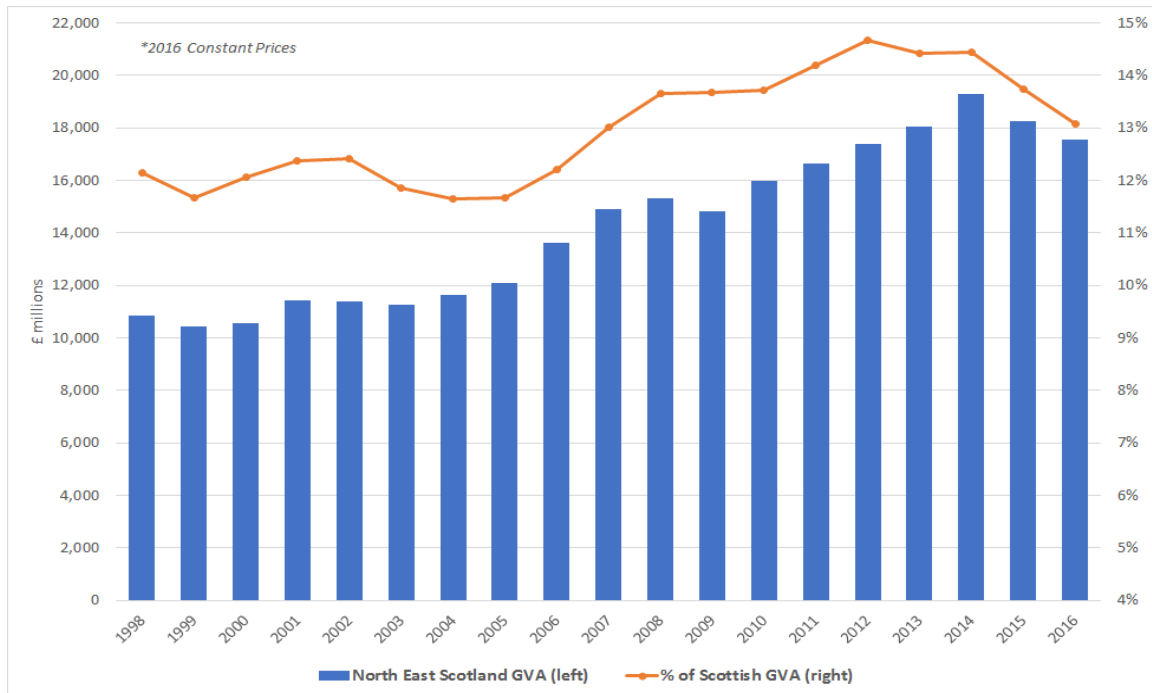
Figure 12: North East Scotland Real GVA in 2016 Prices (1998-2016)

Source: Office for National Statistics. Regional Gross Value added (Income Approach); ACC Analysis

Since 2014, real GVA has been in decline in Aberdeen City and Aberdeenshire, whilst at the same time increasing in Scotland and the UK. Real GVA from Aberdeen City and Aberdeenshire declined by 5.4% between 2014 and 2015, with a further 4.0% decrease between 2015 and 2016.

Figure 13 shows real GVA in the North East of Scotland in absolute terms and as a percentage of total Scottish GVA between 1998 and 2016 in constant 2016 prices. The North East's share of total Scottish GVA has fallen to 13% in 2016 from 14.4% in 2014.

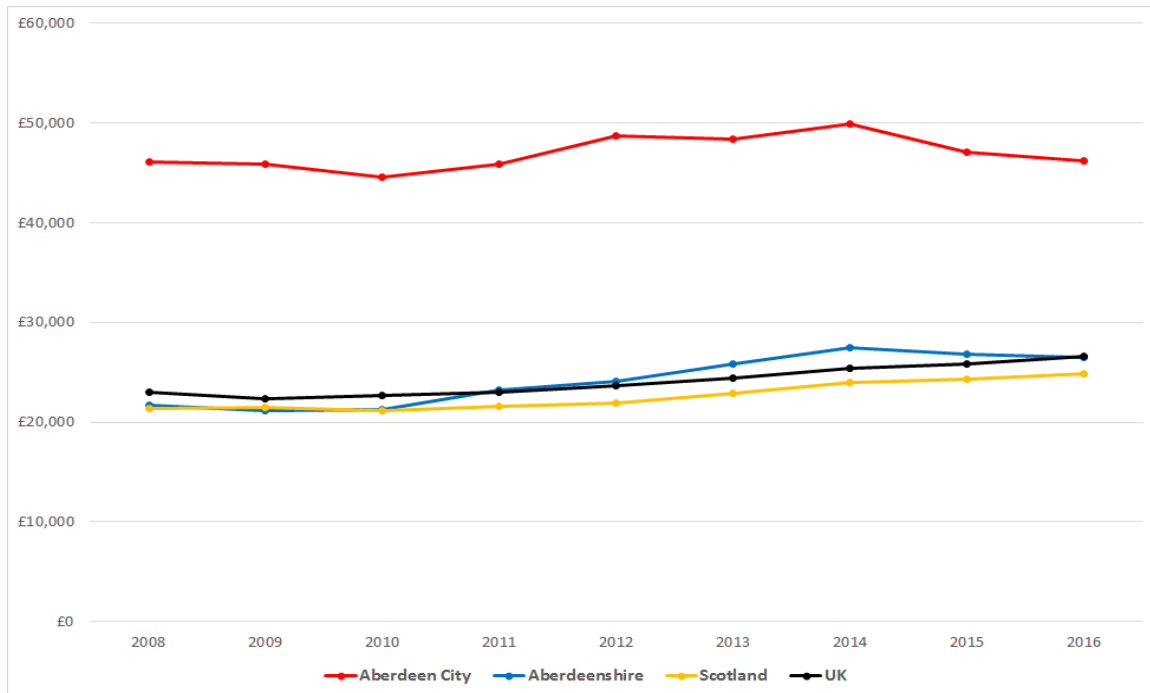
Figure 13: North East Scotland Real GVA in 2016 Prices and as a % of Scottish GVA (1998-2016)



Source: Office for National Statistics. Regional Gross Value Added (balanced approach) 2016

Figure 14 shows GVA per head in Aberdeen, Aberdeenshire, Scotland and UK between 2008 and 2016. In 2016, GVA per head for Aberdeen was £46,151, the highest of all local authorities. GVA per head for Aberdeenshire in 2016 was £26,433. Both figures were higher than the Scottish average of £24,876. GVA per head in Aberdeen City and Aberdeenshire has been in decline since 2014 (£49,924 and £27,409 respectively). Scottish national GVA per head increased over the same period. Despite this, GVA per head in Aberdeen remains the highest of all local authority areas in Scotland and GVA per head in Aberdeenshire is 5th highest out of 32 Scottish local authority areas.

Figure 14: Gross Value Added per Head in Aberdeen, Aberdeenshire, Scotland and UK (2008-16)



Source: Office for National Statistics. Regional Gross Value Added (income approach) 2016

The largest sector category in Aberdeen City and Aberdeenshire GVA in 2016 was Distribution, Transport, Accommodation and Food (GHI) which contributed £3,393 million GVA in 2016. Professional and Administrative Services (MN) accounted for £3,086 million GVA and Agriculture, Mining, Electricity, Gas, Water and Waste (ABDE) accounting for £2,823 million GVA (see figure A8).

In 2016, Aberdeen City and Aberdeenshire accounted for 27.4% of Scottish GVA within (ABDE) Agricultural, Mining, Electricity, Gas, Water and Waste industries, of which Aberdeen City's Primary Sectors (including Direct Oil and Gas) are a very large category. Aberdeen City and Aberdeenshire accounted for 22.1% of Scottish GVA generated within (MN) Professional and Administrative services (see figure A9).

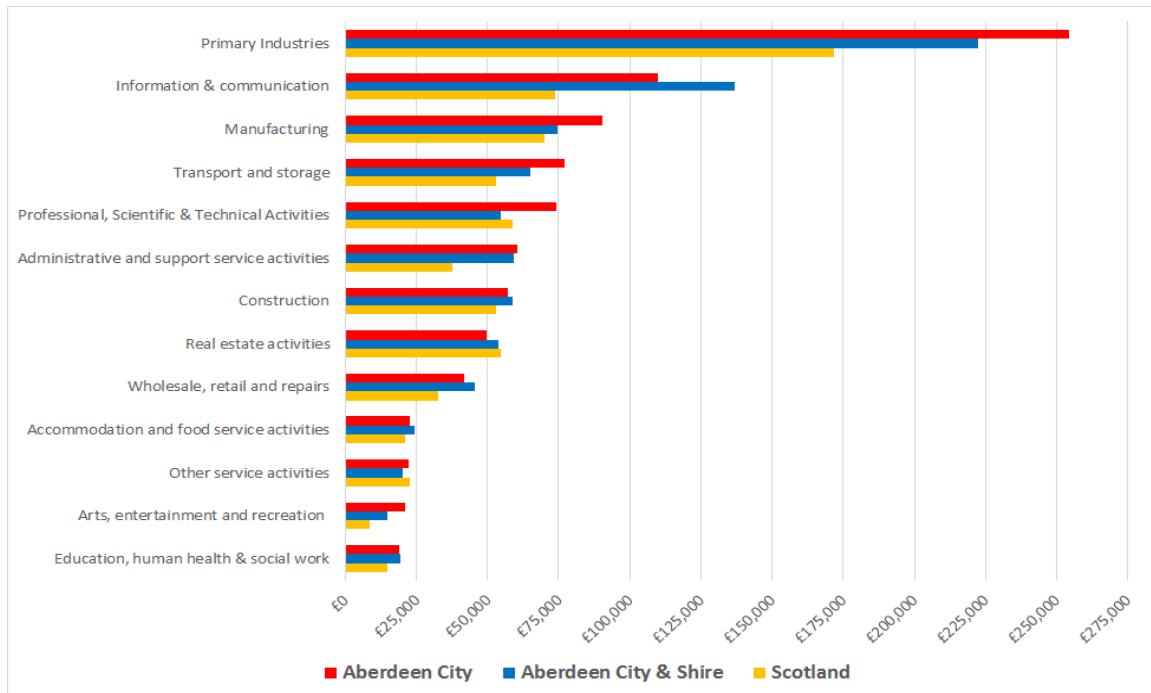
The oil and gas sector is integrated across many SIC codes and is not identified separately here. Oil and gas GVA is discussed in section 2.6.

1.3.4 Productivity

In 2016, Nominal GVA per Hour Worked (not adjusted for inflation) for Aberdeen City and Aberdeenshire was £36.30, compared to £32.38 for Scotland and £32.58 for the UK. Between 2012 and 2016, GVA per Hour Worked in Aberdeen City and Aberdeenshire began to slow. In the five-year period between 2011 and 2016, Nominal GVA per Hour Worked in Aberdeen City and Aberdeenshire increased by 4.6% compared to 12.5% for Scotland and 10.0% for the UK (see figure A10).

Figure 15 shows nominal GVA per job by industry in Aberdeen City, Aberdeen City and Aberdeenshire and Scotland. GVA per job by industry sector is considerably higher in the region than in Scotland as a whole. In 2016, the primary industries and information and communication sectors had considerably higher GVA per job in the region than in Scotland as a whole.

Figure 15: Gross Value Added per job by industry in Aberdeen City, Aberdeen City and Aberdeenshire and Scotland (2016) £m



Source: The Scottish Government. Scottish Annual Business Statistics 2016

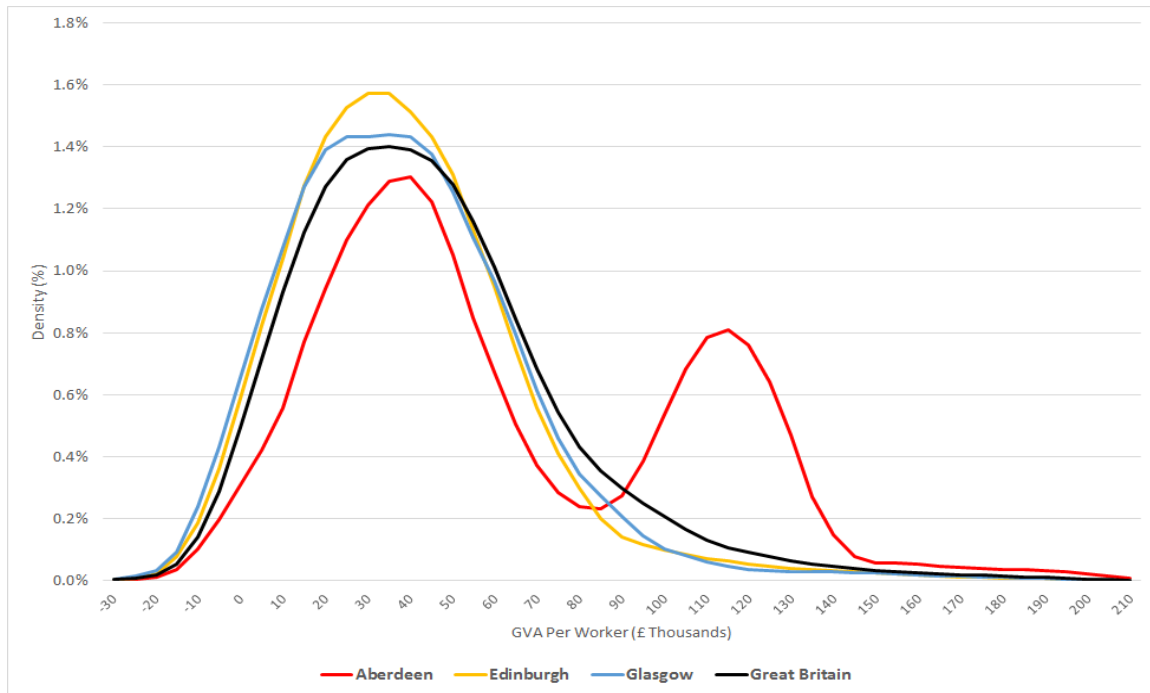
In 2016, Nominal GVA per Job Filled in the Aberdeen City Region was £61,419, a slight increase from £60,413 in 2015 and £60,258 in 2014. The Aberdeen City Region had the second highest GVA per Job Filled of all UK city regions in 2016, with London at £74,602, Edinburgh at £54,094, Glasgow at £48,796 and the United Kingdom average at £52,626⁹. GVA per Job Filled in the Aberdeen region was 16.7% higher than the UK in 2016.

Figure 16 shows the GVA per worker distribution in the Aberdeen, Edinburgh and Glasgow regions; and Great Britain. The GVA per worker distribution for the Aberdeen City Region in 2014 demonstrates that Aberdeen has a different productivity distribution than other regions of Scotland and the UK. Aberdeen has a far higher proportion of workers with a GVA contribution of between £110,000 and £120,000. Regions such as Glasgow and Edinburgh have a higher proportion of workers with a GVA contribution of approximately £20,000 to £50,000 than Aberdeen, but have a far lower proportion of workers with a higher GVA contribution. The Aberdeen City Region has a larger proportion of workers with a GVA contribution above £100,000 than all other UK regions, demonstrating the high value-adding

⁹ Source: Office for National Statistics. Regional and Sub-Regional Productivity in the UK 2016

contribution from the energy sector. In 2014, 40.7% of Aberdeen's regional GVA was generated within (BDE) Mining and Utilities sectors, with 16.8% of Aberdeen's GVA being generated within (M) Professional, Scientific and Technical Activities sectors and 11.0% of Aberdeen's regional GVA being generated within (C) Manufacturing sectors.

Figure 16: GVA per Worker Distribution in Aberdeen, Edinburgh, Glasgow and Great Britain (2014)



Source: Office for National Statistics. *Regions and City Region Firm-level Productivity Distribution Analysis for the Non-Financial Business Economy 2017*

1.3.5 Household Income

In 2016, gross disposable household income per head for Aberdeen was £22,508 and £20,681 for Aberdeenshire, compared to £18,231 for Scotland and £19,432 for the UK (see figure A11). Household income per head in the region increased substantially between 2010 and 2014, but has seen little change since 2014. Despite recent trends in disposable household income in Aberdeen City and Aberdeenshire, household incomes in the region remain substantially higher than the Scottish average. This demonstrates that, despite a downturn in the oil and gas industry, the region remains one of the most affluent in Scotland.

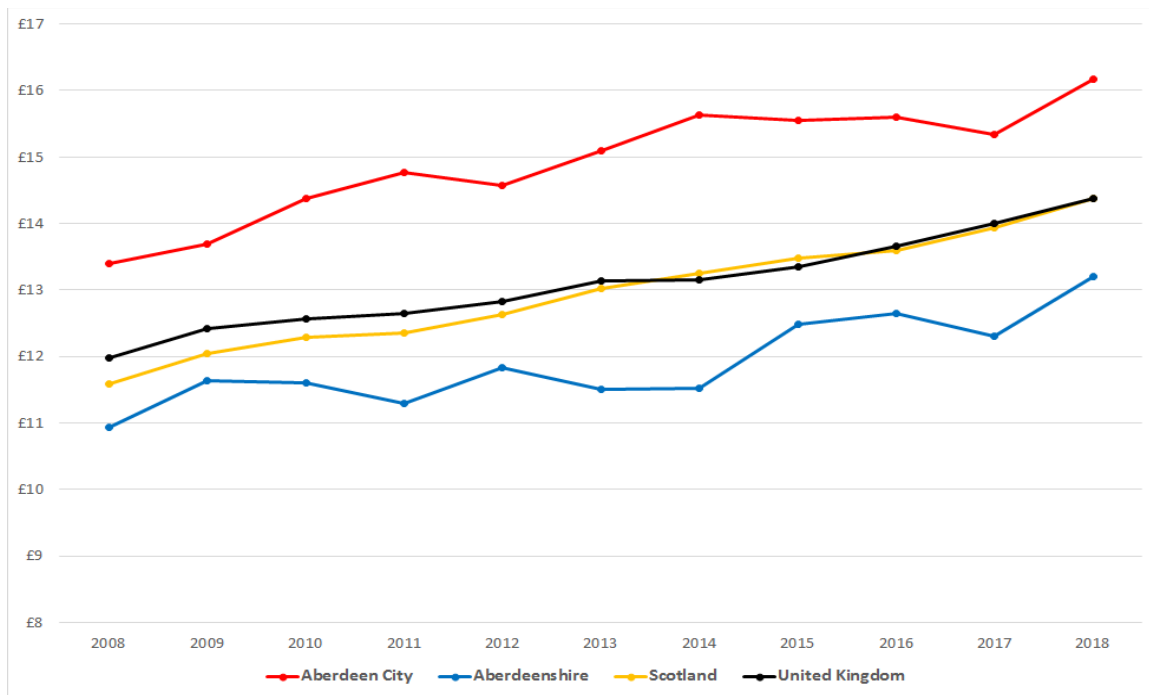
In 2015, gross disposable household income in Aberdeen City and Aberdeenshire accounted for 11.2% of household income in Scotland.

1.3.6 Wages & Salaries

Figure 17 shows workplace-based median gross hourly pay for full-time employees in Aberdeen, Aberdeenshire, Scotland and UK between 2007 and 2017. In 2017, workplace-based median gross hourly pay for full-time employees in Aberdeen was £15.33 (2nd highest

local authority area in Scotland) and in Aberdeenshire was £12.27, compared to the Scottish average of £13.98 and the UK average of £14.00. Median gross hourly pay for full-time employees in Aberdeen has slightly decreased since 2014¹⁰. Regional economic trends were running counter to the Scottish economy between 2015 and 2016, at a time when earnings in Scotland were increasing.

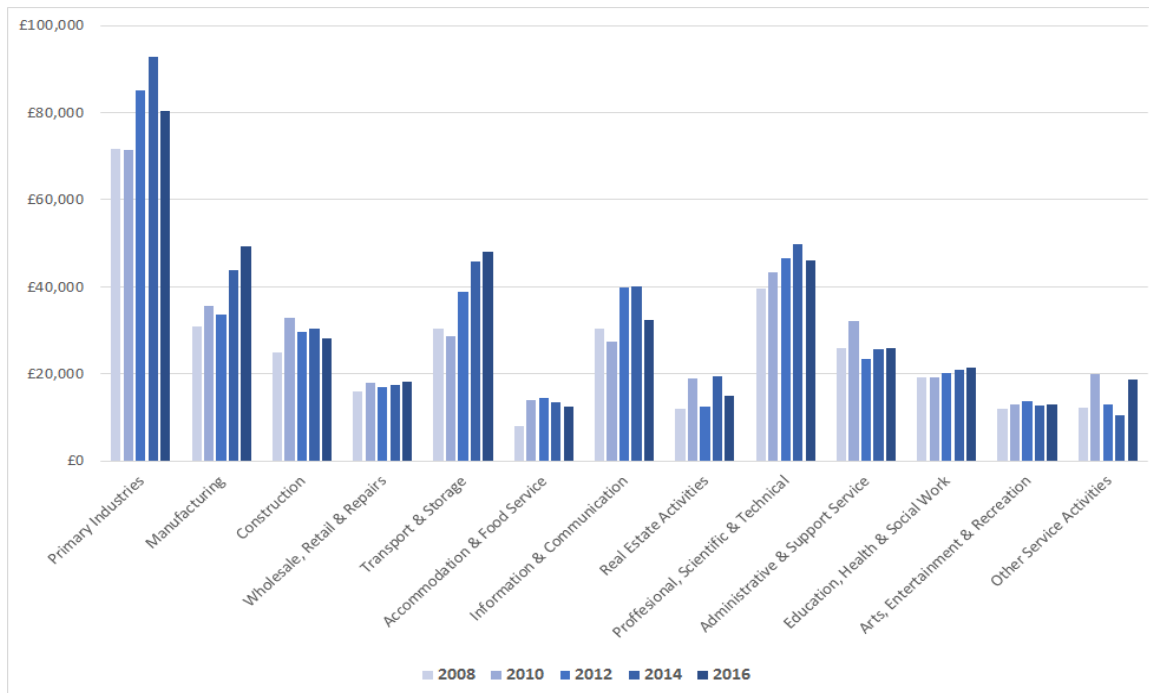
Figure 17: Gross Hourly Pay (workplace-based, median, full-time employees) in Aberdeen, Aberdeenshire, Scotland and UK (2007-2017)



Source: Office for National Statistics. Annual Survey of Hours and Earnings. Workplace Analysis

Figure 18 shows Gross Annual Salaries per head by sector in Aberdeen between 2008 and 2016. Gross wages and salaries for those working within different sectors in Aberdeen vary widely. Gross salaries per head within Aberdeen Primary Industries, which are almost entirely directly oil and gas, were substantially higher than other sectors at £80,271 in 2016, having declined from £92,935 in 2014. Growth of Gross Wages and Salaries within Aberdeen's Professional, Scientific and Technical Activities sectors also declined between 2014 and 2016, from £49,889 to £46,072. In 2012, gross salaries per head within Aberdeen's Manufacturing Industries were £33,514, which increased to £49,297 by 2016.

¹⁰ Source: Office for National Statistics. Annual Survey of Hours and Earnings. Workplace Analysis.

Figure 18: Gross Salaries per Head by Industry Sector – Aberdeen City (2008-2016)

Source: The Scottish Government. Scottish Annual Business Statistics 2016

1.4 Deprivation

There is a total of 623 datazones within Aberdeen City and Aberdeenshire – 340 (55%) within Aberdeenshire and 283 (45%) within Aberdeen. The Scottish Index of Multiple Deprivation (SIMD) provides a relative measure of deprivation which means that the main output from SIMD - the SIMD ranks - can be used to compare data zones by providing a relative ranking from most deprived (ranked 1) to least deprived (ranked 6,976) in Scotland. The SIMD combines 38 indicators across seven domains: income, employment, health, education, skills and training, housing, geographic access and crime which are then ranked as described.

Of these 623 datazones (8.9% of all datazones in Scotland), just four (1%) are within the top 10% most deprived in Scotland – three in Aberdeen and one in Aberdeenshire. Relative pockets of less severe deprivation (i.e. Deciles 3-4) are found in Aberdeen – around the north of the city and the harbour with particular deprivation in terms of crime and housing; and in Aberdeenshire – in both Peterhead and Fraserburgh, again in and around the harbours of both towns.

Overwhelmingly, however, there is relatively little overall deprivation within the region, with 136 datazones (22%) among the 10% least deprived datazones in Scotland (60% within Aberdeen and 40% within Aberdeenshire)¹¹.

¹¹ Scottish Index of Multiple Deprivation, 2016

However, other measures suggest deprivation is a problem in the North East:

- Child and Working Tax Credits are benefit entitlements to low income families. By April 2018, there were 17,200 families in Aberdeen City and Aberdeenshire in receipt of either Child or Working Tax Credits by 2018.¹²
- There are large numbers of people who are either income or employment deprived as defined by the SIMD, even if the concentration of poverty geographically is not as extreme as in other parts of Scotland. In 2016, 32,810 people in Aberdeen City and Aberdeenshire were classified as income deprived, accounting for 6.7% of the area's population. In 2016, 18,205 working age people in Aberdeen City and Aberdeenshire were classed as employment deprived, accounting for 5.6% of the working age population.¹³
- By November 2016, there were 23,680 working age people in Aberdeen City and Aberdeenshire in receipt of key out-of-work benefits (JSA/UC, ESA/IB, Lone Parent, Other Income relate benefits). 14.9% of the working age population of Aberdeen City and Aberdeenshire were in receipt of key out-of-work benefits in November 2016, an increase of 4,030 since November 2014.¹⁴
- Between January and December 2017, 15.6% of households in Aberdeen were workless, compared to 12.0% of Aberdeenshire households and 18.0% of Scottish households. This was substantially higher than comparative figures from 2014, when 13.4% of Aberdeen households and 9.6% of Aberdeenshire households were workless, but lower for Scotland with 18.3% of Scottish households.¹⁵
- Income distribution is highly skewed in the North East. By 2017, 23,810 (22%) of Aberdeen households had a median income of below £15,000 per annum, compared to 17.4% of Aberdeenshire households and 26.4% of Scottish households. 5.6% of Aberdeen households had median annual income of £100,000 and above, compared to 7.2% of Aberdeenshire households and 3.8% of Scottish households.¹⁶
- Between July and September 2017, there was an estimated 12,055 children living in Poverty in Aberdeen City and Aberdeenshire (household below 60% median income, after housing costs)¹⁷.
- Between 2014 and 2016, approximately 26.9% of children in Aberdeen were living in Families with Limited Resources, compared to 5.3% of children in Aberdeenshire households and 20.4% of children in Scotland.¹⁸ This suggests that beyond the elements of income measures for poverty, housing cost and other costs of living for

¹² UK Government HM Revenue and Customs. *Child and Working Tax Credits Provisional Awards Geographical Analysis*. April 2018.

¹³ SIMD. 2016.

¹⁴ Office for National Statistics. *DWP Work and Pensions Longitudinal Study*.

¹⁵ ONS. *Households by Combined Economic Activity Status*.

¹⁶ CACI Paycheck. 2017.

¹⁷ End Child Poverty. *Children in Poverty, Jul-Sep 2017 estimates*.

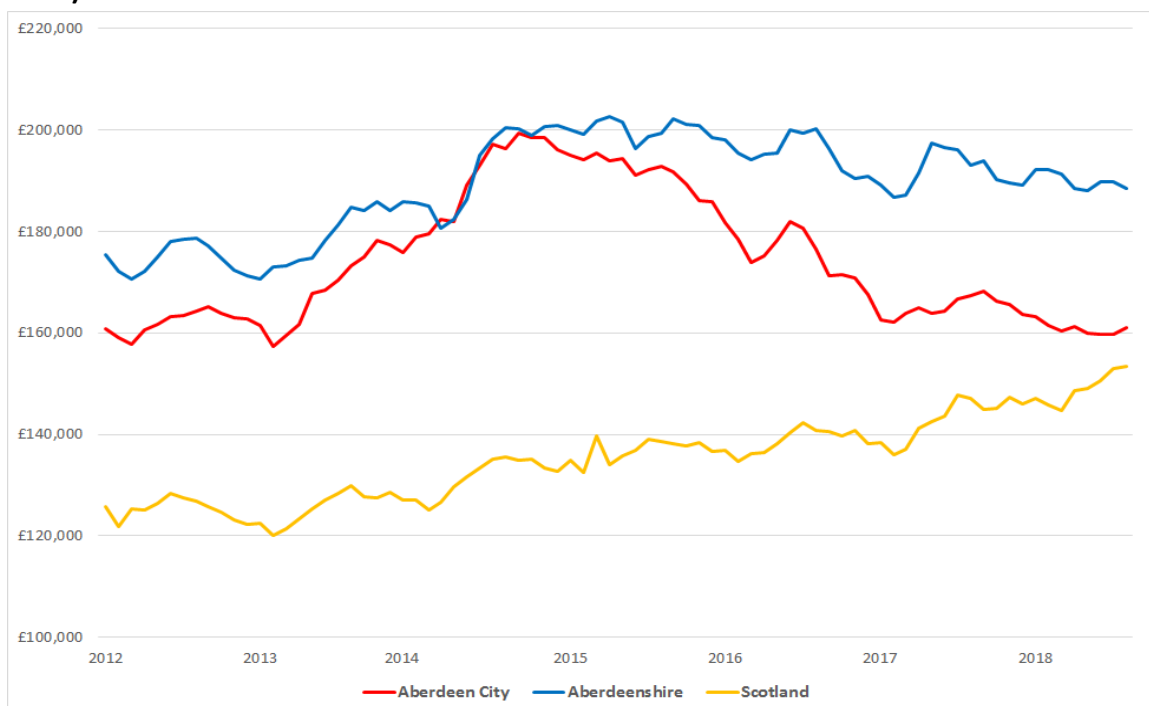
¹⁸ The Scottish Government. *Children in Families with Limited Resources Across Scotland. 2014-2016*.

families in Aberdeen are substantially higher than average, in large part due to high population, economic growth and substantially higher housing prices.

1.5 Residential Property

Figure 19 shows the average monthly house price in Aberdeen, Aberdeenshire and Scotland between 2012 and 2018. The average monthly house price in Aberdeen has declined since 2014, with the average monthly house price also declining slightly in Aberdeenshire (in 2018 the house prices in both local authority areas have been broadly flat suggesting the decline in house prices may have bottomed out). This has coincided with the downturn in the oil and gas sector, and declining household income, while house prices in Scotland have broadly been increasing. Between December 2014 and December 2017, the average house price in Aberdeen declined by 16.6%, with the average house price in Aberdeenshire declining by 5.9%, whilst the average house price in Scotland increased by 10.1%. There are very similar trends in house prices for first time buyers¹⁹.

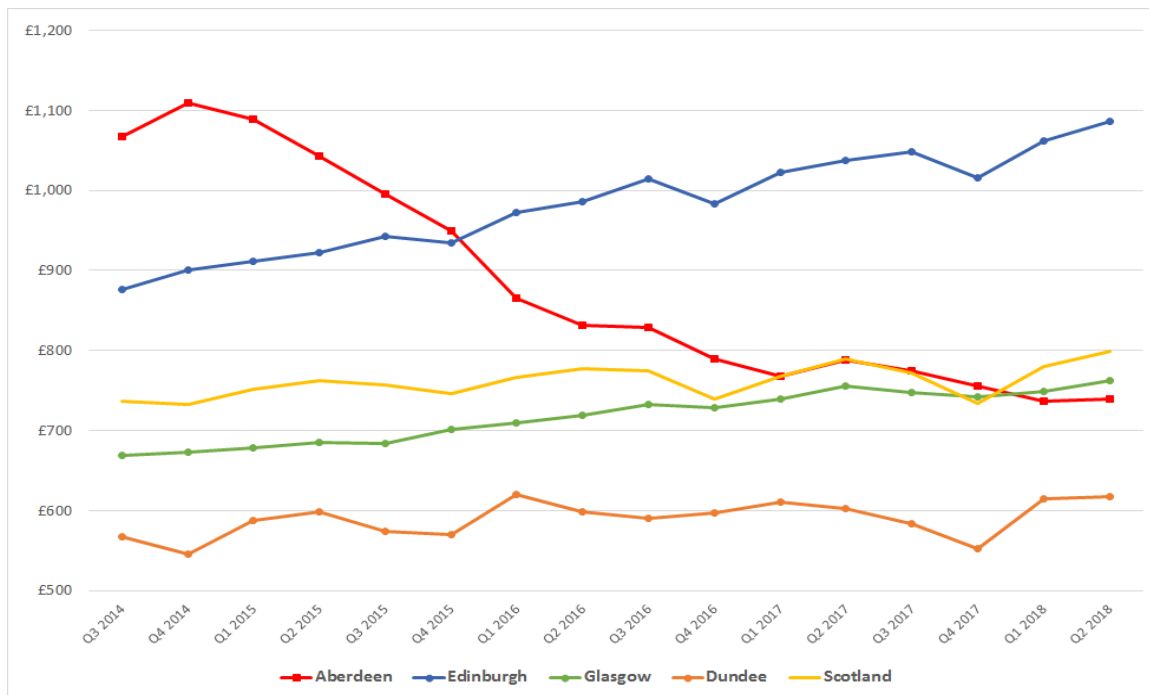
Figure 19: Average Monthly House Price in Aberdeen, Aberdeenshire and Scotland (2012-2018)



Source: Registers of Scotland. Monthly House Price Index

Figure 20 shows average monthly rental prices in Aberdeen, Scotland and other major Scottish cities between 2014 and 2018. Between Q3 2014 and Q2 2018, the average monthly rental price in Aberdeen City declined by 30.6% to £736 per calendar month in Q2 2018 from £1,067 in Q3 2014.

¹⁹ http://landregistry.data.gov.uk/app/ukhpi/browse?from=2014-01-01&location=http%3A%2F%2Flandregistry.data.gov.uk%2Fid%2Fregion%2Fcity-of-aberdeen&to=2018-09-01#buyer_status

Figure 20: Average Monthly Rental Prices in Scottish Major Cities (Q3 2014 - Q1 2018)

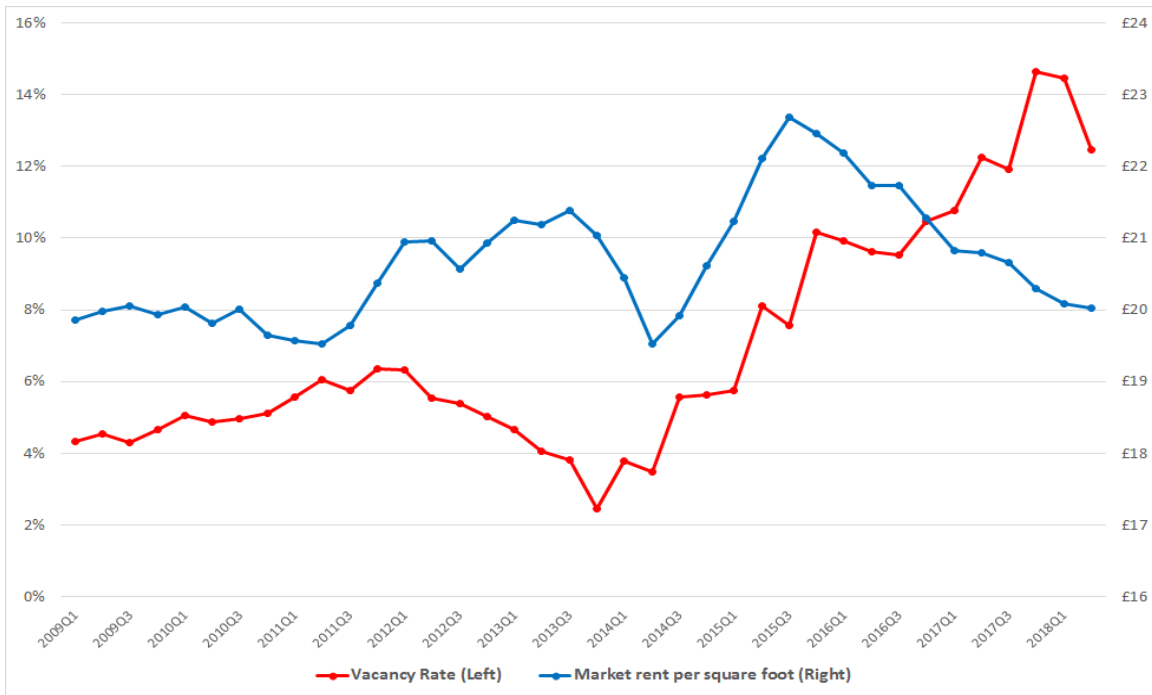
Source: CityLets Housing Rental data

1.6 Commercial Property

Figure 21 shows average commercial office vacancy rates and market rent price in Aberdeen between 2009 and 2018. The Commercial Office Vacancy Rate in Aberdeen City reached a historic high at 14.6% in Q4 2017, but has since fallen to 12.0% in Q2 2018. The average rent achieved on commercial office space increased between 2010 and 2015, reaching £22.69 per square foot in Q3 2015, but has since fallen to £20.02 in Q2 2018. There is some indication that office vacancy rates have peaked, though it is too early to make firm judgements about this. The change should also be set in the context of increasing supply of space coming forward in the same period.

This trend is also apparent in the hotel sector, where average hotel room rates fell from around £90 to £60 levels in Aberdeen from 2015 to 2017. The hotel sector is discussed further under tourism in Section 2.

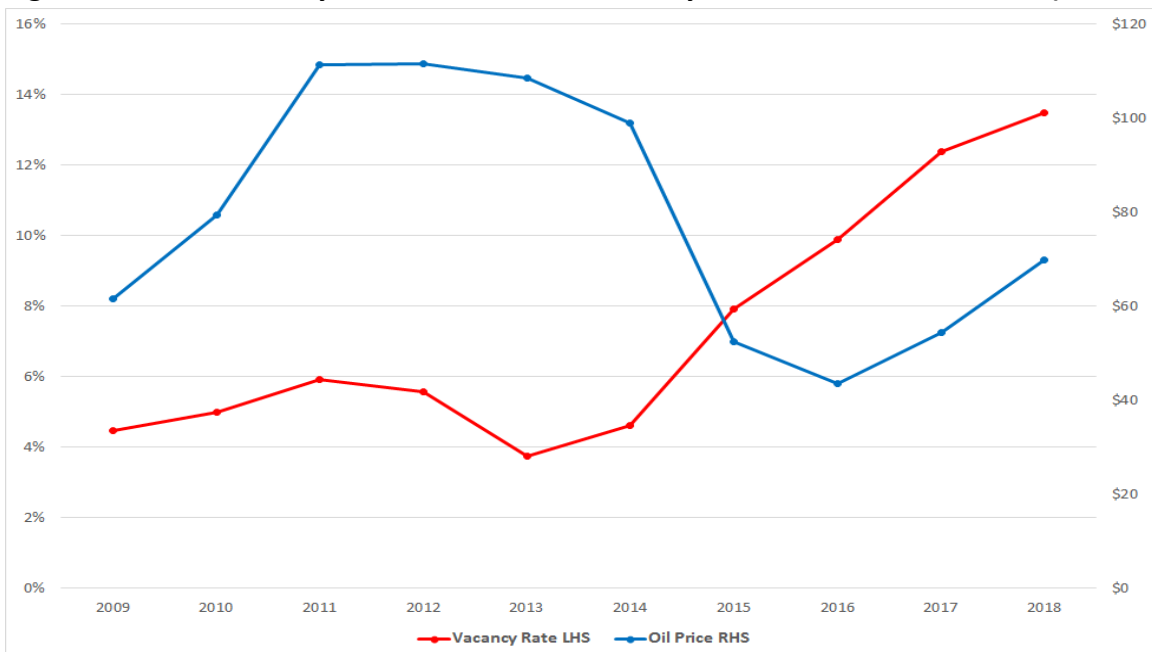
Figure 21: Aberdeen City Commercial Office Vacancy Rates and Market Rent Price (2009-2018)



Source: COSTAR Commercial Office Vacancy Rates

Figure 22 shows the relationship between commercial office vacancy rates and oil prices in Aberdeen from 2009 to 2018. The relationship between office vacancy rates and the oil prices is negative. As oil prices rise the office vacancy rate in Aberdeen tends to fall albeit with a slight lag.

Figure 22: Aberdeen City Commercial Office Vacancy Rates Related to Oil Price (2009-2018)

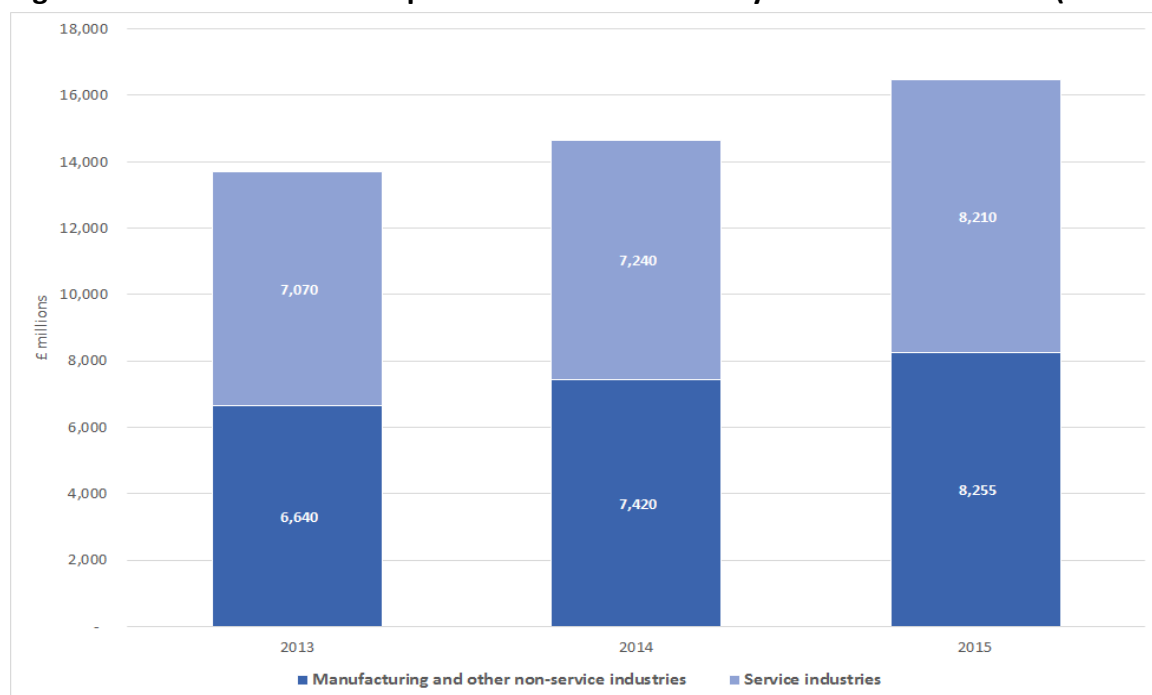


Source: COSTAR Commercial Office Vacancy Rates and Average Annual Brent Crude Oil data

1.7 Exports

Figure 23 shows the total value of Aberdeen City and Aberdeenshire exports between 2013 and 2015. In 2015, the total value of exports (including other parts of the UK outwith Scotland) from Aberdeen City and Aberdeenshire was worth £16,465 million, up from £13,710 million in 2013. In 2015, Aberdeen City and Aberdeenshire accounted for 21.0% of the value of all Scottish exports, with manufacturing and other non-service industries (Standard Industrial Classification codes 1-43) accounting for total exports of £8,255 million (20.6% of the Scottish industry export total). Exports from service industries in the region (SIC 45-99) were worth £8,210 million and made up 21.3% of the Scottish industry export total (see figure A12 for sector breakdown).

Figure 23: Total Value of Exports from Aberdeen City and Aberdeenshire (2013-2015)



Source: Scottish Export Statistics, Scottish Government

In Aberdeen City and Aberdeenshire in 2015, Mining and Quarrying exports were worth £5,145 million and accounted for 97.5% of Scottish exports within these sectors. Aberdeen City and Aberdeenshire exports within Legal, Accounting, Management, Architecture, Engineering, Technical Testing and Analysis Activities industries were worth £4,285 million and accounted for 64.4% of Scottish exports within these industries.

1.8 Education

In 2016, 34.5% of the Aberdeen City and Aberdeenshire workforce were educated to degree level. A higher proportion of the Aberdeen City and Aberdeenshire workforce was educated to degree level than the Scottish and UK average, with 32.6% of the Scottish workforce and 33.8% of the UK workforce educated to degree level in 2016.

65% of school leavers in Aberdeenshire and 66% in Aberdeen went into higher or further education as their initial leaver destination, compared with 59% in Scotland. Employment as an initial leaver destination was higher in Aberdeenshire (27%) than Aberdeen (21%), with both below the Scottish average (29%).

The 2017 Annual Participation Rate²⁰ (16 to 19-year olds), shows that Aberdeen had a rate of 89.7%, below the Scottish average of 91.1%. The Aberdeenshire rate (93.5%) was above the national average and the highest in the region.

1.9 Skills

In 2016, 70% of employers in Aberdeen City and Aberdeenshire had recruited in the 2-3 years prior to the survey²¹, and 28% had taken on leavers from Scottish education institutions. Employers in the region were more likely to report current vacancies than the Scottish average (24%, compared to 15%), harder-to-fill vacancies (12% compared to 6%) and skills shortage vacancies (9% compared to 4%). Almost a quarter of Aberdeen City and Aberdeenshire employers (24%) reported that not all of their staff were fully proficient, above the average for Scotland of 19%, with skills gaps most likely in care, leisure and 'other' services, and in customer service occupations.

1.10 Investment

1.10.1 FDI Projects in the region

Ernst and Young provide evidence on the number of Foreign Direct Investment (FDI) projects that Aberdeen has attracted each year²². The evidence suggests that the North East has remained resilient during the economic downturn in the oil and gas sector. The survey revealed that Aberdeen had 14 FDI projects in 2017. In 2016 it had 16 projects, up from nine in 2015 and 12 in 2014²³. The study highlighted that global investors' priorities include: infrastructure; skills; and creating incentives for foreign investors which correlate with the strategy being developed for the North East region.

The 2017 figures show Aberdeen in third highest position of cities in Scotland and reveal that the city has stepped up in the league of UK cities from joint tenth to eighth. Most of 2017's 14 projects have been classed as manufacturing and construction, but almost all are linked to

²⁰ 2017 Annual Participation Measure, % of 16-19-year olds participation 1st April 2016 to 31st March 2017. It is replacing the school leaver destination follow-up as the source of the indicator, "increase the proportion of young people in learning, training or work", published through Scotland Performs. See below for details:

<https://www.skillsdevelopmentscotland.co.uk/publications-statistics/statistics/participation-measure/?page=1&statisticCategoryId=7&order=date-desc>

²¹ SDS Aberdeen City and Aberdeenshire Skills Assessment 2016.

²² Ernst and Young, Scottish Attractiveness Survey, <https://www.ey.com/uk/en/issues/business-environment/ey-scotland-attractiveness-survey-2018>

²³ An investment in a company is normally included in FDI data if the foreign investor acquires more than 10% of the company's equity and takes a role in its management.

the energy industry. For example, the construction of offshore wind farms and the technical services these require, as well as some pipeline work for the oil and gas industry.

Scottish Development International tracks the number of inward investments in Aberdeen City and Aberdeenshire and in Scotland as shown in Table 1. In 2016/17, 22 inward investments to Aberdeen City and Aberdeenshire were confirmed, accounting for 17% of all inward investments in Scotland. This created 203 planned new jobs and 310 planned safeguarded jobs.

Table 1: Inward Investment Statistics in Aberdeen City and Aberdeenshire and Scotland (2017)

Activity	Scotland	Aberdeen City & Aberdeenshire	%
Confirmed Inward Investments	131	22	17%
Planned New Jobs	4,327	203	5%
Planned Safeguarded Jobs	2,925	310	11%
Planned High Value Jobs	2,737	212	8%

Source: Scottish Development International

1.10.2 Capital Investment Tracker in the North East

The total value of new infrastructure projects committed to the Aberdeen region has been estimated to be about £8.4 billion worth of investment before 2030²⁴. This includes Aberdeen City Council having committed £0.7 billion towards a range of projects that includes The Event Complex Aberdeen (TECA) and Marischal Square. Between 2018 and 2030, the total value of transport and infrastructure and connectivity projects being undertaken in the Aberdeen City Region amounts to £6.1 billion²⁵. Major projects include the Aberdeen Western Peripheral Route (AWPR), dualling the A90 between Balmedie and Tipperty, and the dualling of all remaining stretches of single carriageway of the A96 between Inverurie and Inverness.

The total value of leisure and cultural investment for the North East of Scotland between 2018 and 2030 is estimated to be worth £390 million, with TECA representing a £333 million investment.

The City Centre Masterplan is an ambitious design proposal for the heart of the city of Aberdeen. The project includes a range of economic, environmental, cultural and social projects to deliver an improved city centre for Aberdeen. The City Centre Masterplan includes city centre development projects in figure A31 and office and retail projects in figure A32. The total value of city centre development projects is estimated to amount to £329 million worth of investment and include the refurbished Aberdeen Art Gallery, Music Hall and Queen's Square. Office and retail investments within the region are estimated to amount to £505

²⁴ Aberdeen & Grampian Chamber of Commerce Investment Tracker: Telling the story of a renaissance region 2018

²⁵ Aberdeen & Grampian Chamber of Commerce Investment Tracker: Telling the story of a renaissance region 2018

million total project investments and include the Union Square and Bon Accord Centre expansions.

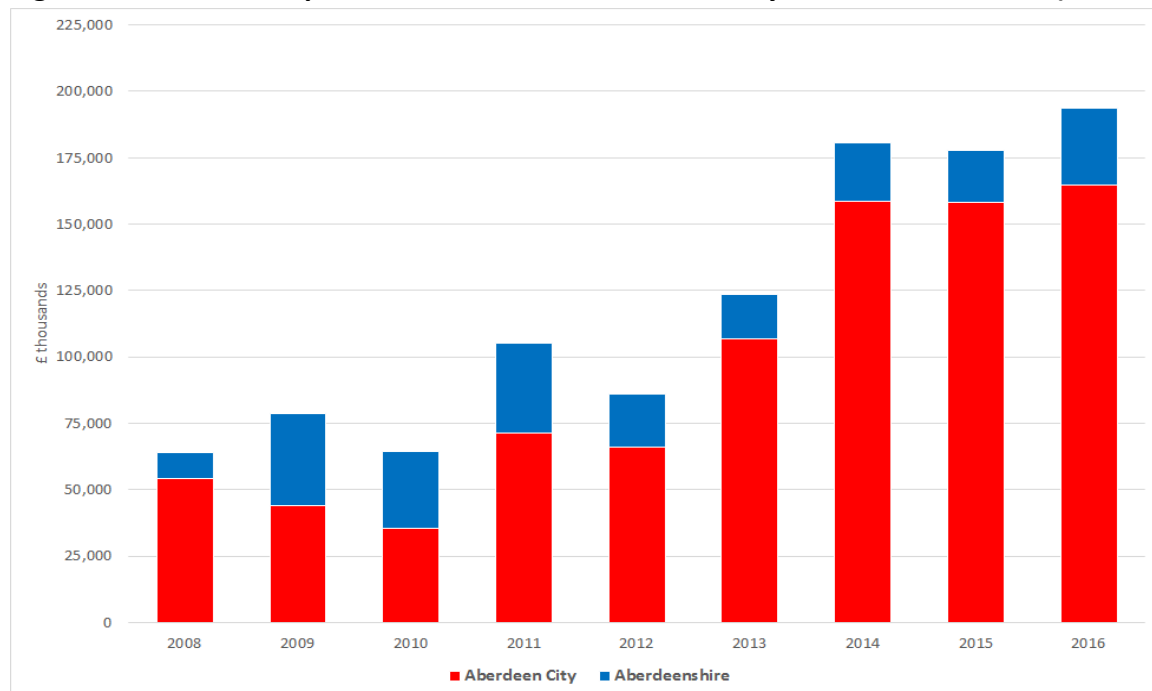
The Aberdeen City Region Deal is part of a long-term improvement programme to build further growth into the regional economy. However, the focus of the deal is on delivery of transformational economic projects and it is forecast the deal has so far attracted additional matched funding of £245 million, totalling circa £769 million of total investment. The Aberdeen City Region Deal will:

- Support the development of a world-leading Oil and Gas Technology Centre to become the “go to” centre globally for solving offshore mature basin, subsea and decommissioning technology challenges;
- Support Aberdeen’s continued economic diversity through the development of innovation hubs in the life sciences and food and drink sectors;
- Support the creation of a digital infrastructure fund to address the digital challenges of the City Region and deliver an enhanced service accessible by both the private and public sectors;
- Support the expansion of Aberdeen Harbour and improve the surrounding roads to support Aberdeen Harbour Expansion Project

More detail of all these investments is found in figures A13 to A18.

1.11 Research and Development

Figure 24: Business Expenditure on R&D in Aberdeen City and Aberdeenshire (2008-2016)



Source: The Scottish Government. Business Expenditure on Research and Development 2016

Figure 24 and Table 2 show business expenditure on research and development in Aberdeen, Aberdeenshire and Scotland by sector. In 2016, business expenditure on research and development in Aberdeen City and Aberdeenshire was worth £193.8m, with R&D spend in Aberdeen at £164.7m. Aberdeen City and Aberdeenshire accounted for 12.1% of Scottish business R&D expenditure in 2012, which had risen to 18.1% by 2016, with Aberdeen accounting for 15.4% of total Scottish business R&D spend in 2016. Between 2012 and 2016, business expenditure on research and development in Aberdeen City and Aberdeenshire increased from £85.8m in 2012 to £193.8m in 2016.

Table 2 Business Expenditure on R&D by Sector in Aberdeen, Aberdeenshire and Scotland in 2016

Expenditure on R&D performed within businesses in Scotland 2016 (£ thousands)				
	Manufacturing	Services	Other Sectors ²⁶	Total
Aberdeen City	21,715	73,718	69,286	164,719
Aberdeenshire	10,481	14,769	3,811	29,061
Aberdeen City and Aberdeenshire	32,196	88,487	73,097	193,780
Scotland	591,911	365,861	114,362	1,072,134
Aberdeen City and Aberdeenshire % Scotland	5.4%	24.2%	63.9%	18.1%

Source: The Scottish Government. *Business Expenditure on Research and Development. 2016.*

In 2016, R&D spend per head of population in Aberdeen was £717, with Aberdeenshire at £111 and the Scottish national average at £198. Aberdeen had the highest R&D per head of population for all local authorities in Scotland in 2016, compared to £563 for Edinburgh, £178 for Glasgow and £399 for Dundee²⁷.

In 2016, there were 60.1 patent application registrations per 100,000 population in Aberdeen. This rate was more than three times higher than the UK average, at 17.3 applications per 100,000 of the population. Aberdeen had the fifth highest rate of patent applications of all UK cities in 2016.²⁸

²⁶ Includes Agriculture, hunting and forestry, fishing, extractive industries, electricity, gas and water supply, sewerage, waste management, remediation activities, and construction.

²⁷ The Scottish Government. *Business Expenditure on Research and Development 2016.*

²⁸ Centre for Cities. *Cities Outlook 2018.*



Section 2: Key Industry Sectors

Section Summary

This section examines the performance of the Scottish Government growth sectors prominent in the North East of Scotland. It is through these industries in particular that the Regional Economic Strategy aims to diversify the North East economy. The industries include food and drink, tourism, life sciences, creative industries, digital, oil and gas and the renewables sector.

GVA per head across growth sectors in the region is very different by sector. The energy sector has GVA per head of employment several times higher than the other sectors. The food and drink and tourism sectors have a GVA per head of employment considerably below the regional average. GVA per head of employment has fallen since 2014 across most of the growth sectors in the region, except for life sciences which has continued to rise. 2016 data shows a levelling out of this downward trend, but more data will be necessary to monitor this.

Food and Drink

In terms of the North East's performance in Scotland, the region is estimated to account for a fifth of the country's food and drink industry output and almost a quarter of its primary agricultural output²⁹. In 2017 there were 3,115 registered food and drink businesses in the North East. 18% of the registered enterprises of the Scottish food and drink sector are based in the North East³⁰. The number of these businesses has remained roughly constant in the last seven years.

Tourism

Tourism in Aberdeen and Aberdeenshire is worth around £390m GVA, around 10% of Scottish tourism GVA in 2016. About 8% of all Scottish tourism enterprises in 2017 were based in the North East, where there was nearly 1,200 registered enterprises involved in tourism.

About 18,000 people in the North East (7.5% of the region's employed population) are employed in tourism. This equates to about 9% of the total Scottish population working in the sector. This rose from approximately 17,000 in 2011 to 20,000 in 2015, and declined to 18,000 in 2016.³¹

In Q4 2017, the average room rate for hotels in Aberdeen was £63, having fallen by about 50% from £95 in Q1 2015. The hotel occupancy rate in Q4 2017 was 60.9% slightly down from 66.6% in Q1 2015³². Since 2015, the average hotel room rate in Aberdeen has been in decline, in large part due to the downturn in the oil and gas sector and subsequent reduction in business customers. Hotel occupancy rates have only declined slightly as anecdotally lost business customers have been replaced by leisure customers. The hotel market in Aberdeen

²⁹ *Opportunity North East*

³⁰ *Scottish Government Growth Sector Statistics*

³¹ *Scottish Growth Sector Statistics*

³² *Alix Partners. AM: PM.*

has subsequently stabilised throughout 2017, although the average price and revenue per available room have not returned to 2015 levels.

Life Sciences

The life sciences sector is a significant part of the economy of North East Scotland. In 2017, 1,075 people were employed in life sciences industries in Aberdeen City and Aberdeenshire (6.3% of the total life sciences employment in Scotland), having increased from circa 700 people in 2010. 22% of all employment in life sciences research and development in biotechnology companies in Scotland is based in the Aberdeen area. The international growth potential of biotherapeutics has led to life sciences being identified as a priority economic sector in Scotland. Life sciences companies in the region have attracted £175m investment in the last five years and the academic base has attracted almost £250m in research funding.

Creative Industries

More than 6,600 people were employed in the creative industries sector in Aberdeen City and Aberdeenshire in 2016, about 6% of total creative industries employment in Scotland. Considerable investment is underway in Aberdeen, including a new £333 million conference and events centre, The Exhibition Complex Aberdeen, which will include significant event space and a 12,500-capacity arena, due for completion in 2019. The Aberdeen Art Gallery, Cowdray Hall and Remembrance Hall complex is undergoing a £30 million redevelopment and due to reopen in autumn 2019. The Aberdeen Performing Arts-operated Music Hall is undergoing a £7 million redevelopment and is due to reopen in December 2018. The £67 million Digital strand of the City Region Deal is delivering digital infrastructure and connectivity required to meet future demand and as part of that an extended Fibre Network and enhanced Internet of Things (IoT) Network – the network of physical devices including vehicles, home appliances and other items embedded with electronics, software, sensors and connectivity which enables these things to connect, collect, and exchange data, will be deployed over the next 12 months.

Oil and Gas

The oil and gas sector has remained resilient in a difficult period for the North East economy since the 2015 fall in the oil price and subsequent sector downturn. The sector now supports circa 282,700 jobs, down from over 460,000 in its 2014 peak. In the last few years, capital investment, production, tax receipts, employment, average earnings and capital investment have fallen. The oil price has risen again and there are signs that the bottom of the downturn has been reached, with optimism for the future increasing with key stakeholders in the industry. In addition, jobs supported in the UK have risen modestly between 2017 and 2018 for the first time since 2014.

2.1 Food and Drink

2.1.1 Scope of the Sector

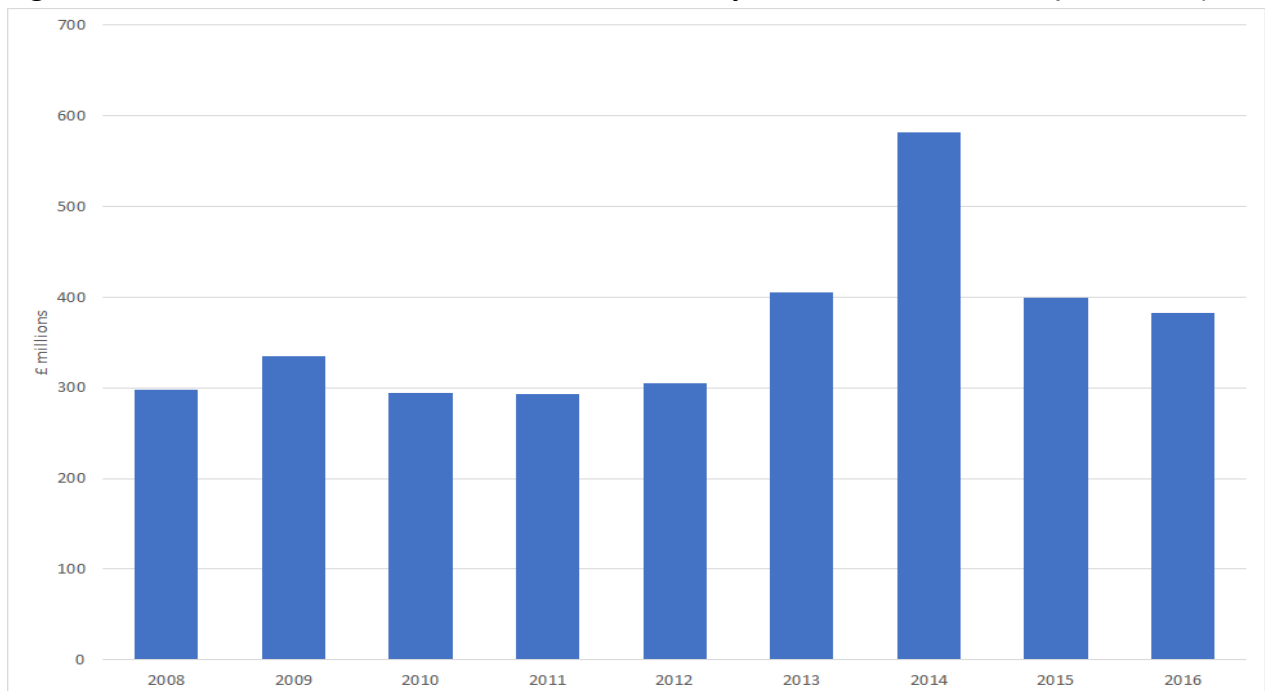
The Scottish Government definition of food and drink can be split into the following four main categories of activity:

- agriculture: including the activities associated with growing crops, raising animals, and hunting;
- fishing and aquaculture: covering both marine and freshwater activities;
- food manufacturing: covering all activities associated with the processing, preservation and manufacture of food;
- drinks manufacturing: including the manufacture of soft drinks, mineral waters and alcoholic beverages.

2.1.2 Economic Contribution

Although the food and drink sector experienced an overall upward trend over the period 2008-2016, there was some fluctuation year-on-year. Figure 25 shows food and drink GVA in Aberdeen City and Aberdeenshire between 2008 and 2016. GVA in this sector peaked in 2014 at £581m with a decline thereafter.

Figure 25: Food and Drink GVA in Aberdeen City and Aberdeenshire (2008-2016)



Source: The Scottish Government. Scottish Growth Sector Statistics. *Food and drink Sector GVA excludes agriculture

Aberdeen City and Aberdeenshire, along with Moray, is estimated to account for a fifth of Scotland's food and drink manufacturing industry output, half of its fish landings and almost a quarter of the country's primary agricultural output³³. The Scotch Whisky Association reports that Scotch Whisky (direct impact only) accounts for approximately 60% of the entire Scottish food and drink sector GVA³⁴.

Scotland Food and Drink's "Ambition 2030"³⁵ outlines plans to double the industry's turnover to £30 billion by 2030, an average annual growth rate of 5% per annum.

Aberdeen City and Aberdeenshire, along with Moray, accounts for 22% of the turnover and 19% of the GVA (2015) of the Scottish Food and drink manufacturing sub-sector. Aberdeen City and Aberdeenshire food and drink businesses derive an average of 62% of their turnover from the North East³⁶. The larger added value manufacturing businesses, however, derive much more of their turnover and expected growth from the rest of the UK and overseas. The non-SMEs derive more than 80% of their turnover from beyond Scotland.

GVA per head differs significantly across growth sectors in the region as shown in Figure 26. The energy sector has GVA per head of employment several times higher than the other sectors³⁷. GVA per head of employment has fallen since 2014 across most of the growth sectors in the region, except for the life sciences sector which has continued to rise. The food and drink sector showed increasing GVA per head until 2014 when it declined, although it has subsequently stabilised in 2016. The food and drink sectors and tourism sectors have a GVA per head of employment considerably below the regional average.

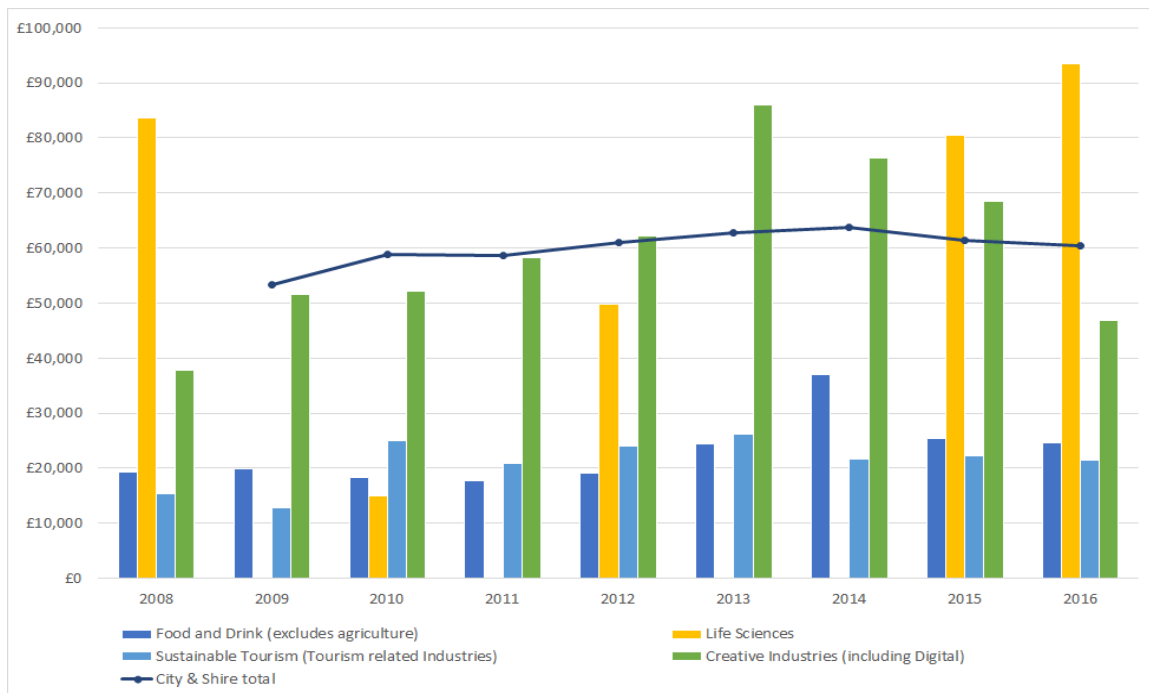
³³ Opportunity North East

³⁴ <https://www.scotch-whisky.org.uk/news-publications/publications/documents/the-economic-impact-of-scotch-whisky-production-in-the-uk/>

³⁵ <http://www.scotlandfoodanddrink.org/media/78130/strategy-brochure-smaller-size.pdf?Action=download>

³⁶ North East Food and Drink Sector Survey 2017

³⁷ GVA per capita in the energy sector has not been included in the chart below as oil and gas production is classified as extra-regio by UK official statistics.

Figure 26: Real GVA per head of Employment in North East Growth Sectors

2.1.3 Business Stock

The food and drink sector, including primary fishing and farming sectors, is characterised by a predominance of sole traders and businesses employing fewer than 10 people, and fewer SMEs and large businesses, relative to the Scottish economy as a whole. In 2017 there were 3,115 food and drink sector registered businesses in the North East. The vast majority (96%) of registered businesses in the food and drink sector are small (micro) businesses employing fewer than 10 people³⁸.

2.1.4 Employment

In 2017 14.6% of employment in the food and drink sector in Scotland was based in Aberdeen City and Aberdeenshire. This level of employment has remained steady over the last few years at 14.5% in 2016, and 13.7% in 2015. The level of food and drink employment in Aberdeenshire is significantly higher than in the city. In 2009, 90.3% of food and drink employment in the region was based in Aberdeenshire. This has grown to 92.8% in 2017³⁹.

The UK food and drink industry is highly dependent on migrant labour. In 2017, four in every 10 people working in the UK processing sector were born in the EU and EEA⁴⁰, highlighting the importance of migrants as a source of labour for the sector. There has been strong recent growth in the share of the UK workforce accounted for by migrants and this has been seen most amongst process workers (which includes food, drink and tobacco process operatives),

³⁸ SDS Food and Drink Investment Plan

³⁹ Scottish Growth Sector Statistics

⁴⁰ Labour Force Survey 2017

increasing from 8.5% in 2002 to 32% in 2014. This is forecast to increase to a total of around 29,000 jobs in the sector by 2025.

The restructuring of the food and drink sector workforce towards higher-skilled occupations is reflected in the changing demand for qualifications. The share of food and drink jobs that require individuals qualified to at least SCQF Level 7 is expected to increase from 34% in 2012 to 46% in 2022⁴¹. The industry rates skills shortages as a major issue. Engineers, senior management and technologists are the most difficult to recruit, but more than half of food and drink businesses also rate production staff as difficult to recruit⁴².

2.1.5 Investment Outlook

Investment in R&D by manufacturing companies in the food, drinks and tobacco sector more than tripled during the 10 years to 2014⁴³.

ONE is delivering more than £600,000 of investment to target growth in food, drink, fishing and agriculture projects in 2018/2019, with match-funding bringing the planned total to more than £1.3 million. This is to support projects looking at cattle supply chain data management, food and drink tourism, export market access and a sector-specific business growth programme. In addition, funding has been secured as part of the £250m Aberdeen City Region Deal to deliver a new Food Hub for Innovation.

In the 2017 North East Food and Drink Survey⁴⁴ businesses were asked to indicate what they had invested in during the previous two years. It was found that investment had remained relatively flat since the previous survey in 2013. However, when investment was made it was in equipment to improve productivity (64%). More than half (51%) of the businesses surveyed had invested in equipment to increase capacity and increasing staff numbers. The survey revealed that 58% and 11% of businesses respectively had invested in new products, processes, or services and robotics/automation.

2.1.6 Exports

Food and drink is an important export sector for Scotland, with particularly strong recent growth in international sales. The total value of exports (both international and rest of the UK) from Scottish food and drink businesses amounted to £9.3bn in 2016, accounting for 12.3% of all Scottish exports in that year, with international exports accounting for more than half (59%).

The Scotch Whisky industry is a particularly important export sector for Scotland and the UK, with exports valued at £4.4bn in 2017, up 9% from 2016. The whisky industry is recognised as

⁴¹ *Working Futures 2012-2022*

⁴² *North East Food and Drink Survey 2017*

⁴³ *Scottish Government Business Investment in Research and Development*

⁴⁴ *North East Food and Drink Survey 2017*

the UK's largest single industry within the food and drink sector and accounts for 80% of Scottish food and drink exports, impacting 200 markets worldwide. The whisky sector generates £5 billion GVA to the UK.

Scotland's seafood sector has also achieved impressive growth in export sales in recent years. Exports of salmon totalled £600 million in 2017,⁴⁵ an increase of 35% from 2016⁴⁶. One in four food and drink businesses in the North East report they are exporting outside of the UK (26%). A similar proportion plan to start trading outside of the UK in the future, either in the next one-to-two years (15%) or within three-to-five years (8%)⁴⁷.

⁴⁵ <https://www.scotsman.com/news/scotland-s-food-and-drink-exports-rise-11-in-a-year-1-4479160>

⁴⁶ <https://news.gov.scot/news/record-levels-of-salmon-and-whisky-exports>

⁴⁷ *North East Food and Drink Survey 2017*

2.2 Tourism

2.2.1 Scope of the Sector

The tourism sector is a very diverse industry, with a range of sub-sectors such as accommodation providers (hotels, camp sites and other), restaurants, bars, travel agents, museums and other recreational and cultural activities. Hospitality and cultural activities are the main cornerstones of the industry, but a range of sub-sectors such as retail and transport also benefit greatly from tourism.

2.2.2 Economic Contribution

In 2016, combined spending by day visitors and overnight visitors totalled £630 million in the North East. With improved facilities for cruise ships in Aberdeen, and a world-class exhibition centre opening soon, the volume and value of day and overnight visitors is set to increase. For instance, industry leaders have predicted tourism in the North East will generate £1 billion a year by 2023 through sustainable growth in visitor numbers⁴⁸, leading to an increased length of stay and associated expenditure. In 2016 there were 1.3 million tourist trips to Aberdeen and Grampian (1 million from GB residents and 0.3million from overseas residents). The average duration of trips to the North East from GB residents was 3.3 nights and 5.5 nights from overseas residents. Approximately half of all tourists visited the North East for a holiday, and more than a third for business.

GVA per head of employment for tourism industries in Aberdeen in 2016 was £22,921 and £21,428 for Aberdeenshire, compared to £19,314 for Scotland. GVA from the accommodation sector in Aberdeen in 2015 was £14.4 million, down from £145.3 million in 2014. GVA Per Head from the accommodation sector in Aberdeen was £38,589, compared to the Scottish national average of £24,373.

2.2.3 Business Stock

There are nearly 1,200 registered enterprises involved in tourism in the North East of Scotland- about 8% of all Scottish tourism enterprises in 2017. Turnover from tourism enterprises operating in Aberdeen City and Aberdeenshire was £710.6 million in 2016.

2.2.4 Employment

In 2017, 18,000 people were employed in tourism in Aberdeen City and Aberdeenshire, which is 8.7% of total Scottish employment for this sector. This figure has remained fairly steady since 2009, with Aberdeen City and Aberdeenshire accounting for 7-8% of total Scottish employment for this sector. In Aberdeen City and Aberdeenshire Tourism employment in

⁴⁸ <https://www.eveningexpress.co.uk/fp/news/local/city-on-track-to-generate-1-billion-from-tourism-as-visitor-numbers-grow/>

Aberdeen City and Aberdeenshire has consistently accounted for between 6-7% of total employment in the area over the last 10 years.

In 2017, 5,360 people were employed in the accommodation sector in Aberdeen City and Aberdeenshire. This was down from 6,200 people employed in the sector in 2011. The accommodation sector in Aberdeen was maintained by week-day clients related to the oil and gas industry. This commuter function which the city's accommodation sector used to uniquely enjoy as a result of the oil and gas sector has largely been eroded, with the sector transforming its main focus to accommodate more leisure tourism.

2.2.5 Investment Outlook

As noted earlier in the report, Aberdeen City Council has been investing significantly in new tourism infrastructure. Wider, the new Aberdeen Western Peripheral Route (AWPR) will see a wider catchment for the city region. Many businesses in the area will benefit from reduced costs and sales growth through better transport links and significantly shorter journey times. The project will increase the 90 minute drive-time population of Aberdeen City to around 750,000.

Aberdeen Harbour is a key commercial port serving the North East of Scotland and is one of Europe's leading marine support centres for offshore energy. The total expansion of the harbour is estimated to provide 5,550 additional jobs and £0.8billion additional GVA to the local economy per year⁴⁹. The Aberdeen Harbour expansion is expected to attract an increased number of cruises and cruise passengers to the city region, as well as larger cruise ships.

The Destination Aberdeen and Aberdeenshire Tourism Strategy has set a target to grow visitor spend in Aberdeen City and Aberdeenshire to £1 billion per year by 2023; the sum of £500 million in overnight spend and a further £500 million in day visit receipts⁵⁰. To deliver this, Visit Aberdeenshire, the destination marketing and management organisation which led the strategy development, has identified a set of priorities for building the region's competitive strengths, identified as: Business Events; Cruise; Golf; Culture, Heritage and Events; Food and Drink; and Touring and The Great Outdoors.

An associated series of high-level key performance indicators has been developed and will be reported on to measure the performance of the sector.

⁴⁹ According to the report 'Economic impact of Aberdeen Harbour Nigg Bay (Biggar Economics, 19th December 2013) commissioned by Scottish Enterprise. Assumes the Full Development Scenario including improvement to external roads infrastructure, also supported by Aberdeen City Region Deal under a separate but related workstream and business case(s).

⁵⁰ <https://www.visitabdn.com/assets/Destination-Strategy/Aberdeen-and-Aberdeenshire-Destination-Strategy-2018.pdf>

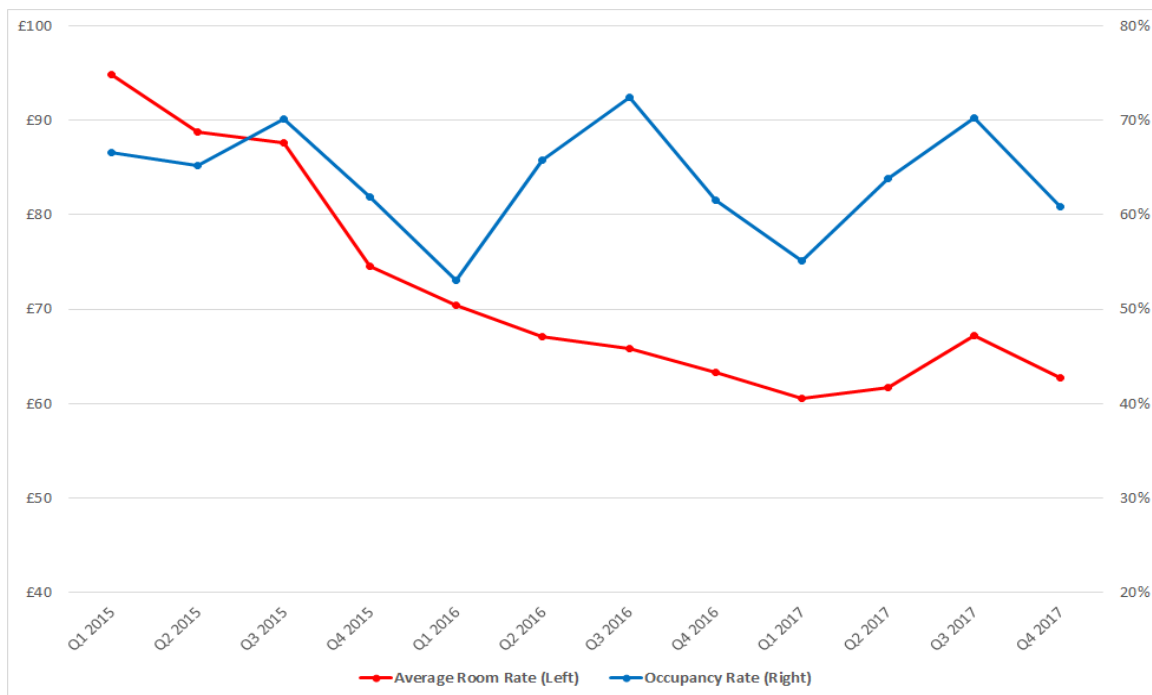
2.2.6 Accommodation, Hotel Occupancy and Room Rates

There are circa 6,500-7,500 hotel rooms in Aberdeen⁵¹. Figure 30 shows average room rates and hotel occupancy rates in the city between 2015 and 2017. This shows that:

- in Q4 2017, the average room rate for hotels in Aberdeen City was £63;
- Aberdeen City Council estimates that the hotel occupancy rate in Q4 2017 was 60.9% and revenue per available room was £37.90⁵².

Since 2015, the average hotel room rate in Aberdeen has been in decline, in large part due to the downturn in the oil and gas sector and subsequent reduction in business customers. This should also be set in the context of increasing supply of space coming forward in the same period. However, hotel occupancy rates have remained relatively constant, despite seasonal variations, as anecdotally lost business customers have been replaced to a degree by leisure customers. The hotel market in Aberdeen has subsequently stabilised throughout 2017, although the average price and revenue per available room have not returned to 2015 levels.

Figure 27: Hotel Occupancy and Average Room Rates in Aberdeen (2015-2017)



Source: AM:PM; LJ Research; Aberdeen City Council Analysis

⁵¹ <https://committees.aberdeencity.gov.uk/documents/s67194/CHI.17.018%20-%20Tourism%20Levy%20Report%20FPR%209th%20March%202017%20Cover%20Report%20-%20FINAL.pdf>

⁵² ACC analysis of Alix Partners and AM:PM data.

2.3 Cultural and Creative Industries

2.3.1 Scope of the Sector

Aberdeen has a rich array of cultural assets which includes traditional theatres, arts centres, music halls, libraries, archives, museums and galleries. There is a varied programme of cultural events and festivals which is attracting large numbers of visitors.

This sector includes digitalisation, the transition from traditional face-to-face to online business transactions facilitated by innovations in digital technology. In the UK the value of e-commerce jumped in excess of 50% between 2008 and 2016, and digital services now account for about 15% of total services exports.

2.3.2 Economic Contribution

The Cultural and Creative Industries (CCI sector) generates:

- £307 million of Gross Value Added (GVA) per annum in Aberdeen and £127 million in Aberdeenshire with £4.6bn across Scotland;
- GVA per head of employment in the sector is high at £73,258 in Aberdeen and £76,128 in Aberdeenshire, when compared to the Scottish average for the sector of £68,062. This reflects the inclusion of digital and design jobs, many of which are highly paid in Aberdeen - particularly those which are linked to the oil and gas sector⁵³.

2.3.3 Business Stock

In 2017, there were 1,655 CCI enterprises in Aberdeen City Region, accounting for 8% of the area's business base⁵⁴. The sector's much higher share of businesses, when compared to share of employment, reflects the high proportion of micro businesses in the sector. About 90% of Aberdeen City and Aberdeenshire's creative and cultural enterprises are micro businesses with 0-9 employees. A significant proportion of these are sole traders (57%) which have no employees.

Between 2013 and 2016, the number of CCI businesses in Aberdeen City Region increased by 14%, a lower growth rate than that in Scotland as a whole (20%). The lower growth rate in the North East is mainly due to a 3% decline in both areas between 2015 and 2016 during the economic downturn of the oil and gas industry, while in Scotland there has been a steady increase throughout the six-year period⁵⁵.

In 2016, 8.9% of Scotland's 9,810 digital industries sector businesses were located in Aberdeen and Aberdeenshire.

⁵³ *Growth Sector Statistics, Scottish Government 2017*

⁵⁴ *Growth Sector Statistics, Scottish Government 2018; UK Business Counts, NOMIS 2018*

⁵⁵ *Growth Sector Statistics, Scottish Government 2017*

2.3.4 Employment

Approximately 4,600 people were employed in the Culture and Creative Industries (CCI) sector in Aberdeen City in 2016, as shown in table 5. This accounts for approximately 70% of CCI employment in the Aberdeen City Region and equates to 6% of total CCI employment in Scotland. Over three quarters (77%) of CCI employees are in full-time employment, just below the Scottish average of 79%.

Table 5: Cultural and Creative Industries Employment in Aberdeen, Aberdeenshire and Scotland in 2016

	CCI employment	Total employment	% FT employment (CCI)
Aberdeen City	4,550	179,000	77% FT; 23% PT
Aberdeenshire	2,095	106,000	77% FT; 23% PT
Aberdeen City Region	6,645	285,000	77% FT; 23% PT
Scotland	83,600	2,588,000	79% FT; 21% PT

Source: Scottish Government Growth Sector Statistics, BRES, 2017

As is the case nationally, software/electronic publishing has the largest sub-sector share of CCI employment in Aberdeen City and Aberdeenshire (28%). This is followed by design which is highly represented and accounts for 20% of the area's CCI employment, compared to 9% nationally. For the most part this is driven by employment in engineering design activities, which accounts for more than 90% of employment in the sub-sector.

2.3.5 Investment Outlook

Considerable investment is underway in Aberdeen, including the new conference centre - The Exhibition Complex Aberdeen (TECA), which will include significant event space and a 12,500-capacity arena - due for completion in 2019. The Aberdeen Art Gallery, Cowdray Hall and the Remembrance Hall complex of buildings is undergoing a £30 million redevelopment and is due to open in 2019. The Aberdeen Performing Arts-operated Music Hall is undergoing a £7 million redevelopment and is due to reopen in December 2018.

The £67m digital programme of the City Region Deal is delivering digital infrastructure and connectivity required to meet current and future needs. The Digital workstream has the following projects.

- **Fibre Network Extension:** The city has secured £40m of investment from the private sector to extend the fibre network to the remaining 57 council sites and deliver 800km of fibre across the city. This will make fibre to the home accessible to approximately 90,000 homes by 2021;
- **Full Fibre Infrastructure:** Building on what is being achieved in the Fibre Network Extension project, an aggregated public sector demand approach will be taken to extend fibre further into the City Region, primarily key areas in Aberdeenshire. This

will be achieved by Aberdeenshire Council acting as an anchor tenant for new build dark fibre infrastructure, with NHS sites also being potential beneficiaries. This will provide fibre infrastructure into economically important areas in the region and will ensure industrial estates within the key locations of Westhill, Banchory, Inverurie, Kintore, Blackburn, Portlethen and Stonehaven.

- Duct Network: Aberdeen City Council already operates a duct network and this will be expanded to cover the main economic areas. Initially this duct network would be for Council use, followed by engagement with commercial organisations to encourage them to utilise the expanded network to enhance their fibre offering in Aberdeen, consequently stimulating the market. This project will also provide the enabling infrastructure for the proposed sensor network and provide the opportunity for Aberdeen to be used as a test-bed for autonomous vehicles as well as to support 5G installations. It is anticipated that the installation of the ducts will be completed in 2021;
- Regional Data Exchange: The UK and Scottish Governments have commissioned a number of studies assessing the economic value of making public sector data open and accessible. These studies concluded that the direct benefits are about £1.8 billion per year UK-wide and the indirect benefits are about £5 billion per year. The Regional Data Exchange will support transactions of data between participating stakeholders, with the aim of establishing an operational market in regional data and the development of innovative applications;
- IoT Network: In Aberdeen City there is a network of more than 1,000 sensors which are used to manage traffic flow, monitor the environment, etc. The Sensor Network project in the City Region Deal will expand this network to enable better transport management (both private and public sector), facilitate smart travel and autonomous vehicles, and provide data to feed the Regional Data Exchange. Most importantly, it will enhance urban living.
- A £1.5 million refurbishment of Robert Gordon University's 20,000 square foot former administration building on Schoolhill, Aberdeen will create the ONE Digital & Entrepreneurship (ONE D&E) Hub, a focal point for activity and investment to develop a vibrant digital cluster in the North East economy.

Current providers of the 4G Small Cell Network are looking to invest further in the city by extending the network across Aberdeen to include key sites such as the new TECA. This will provide the city with the potential to deploy 5G across the city.

Aberdeen Community Planning Partners report on digitalisation through a range of indicators in the Local Outcome Improvement Plan (LOIP) with improvement measures around digital connectivity, digital data, digital innovation and digital skills and education.

2.4 Life Sciences

2.4.1 Scope of the Sector

The life sciences sector is diverse and encompasses biotechnology and pharmaceutical companies, contract research organisations, medical device and diagnostic companies, along with specialist suppliers and support organisations.

2.4.2 Economic Contribution

In 2016, GVA from life science industries in Aberdeen City and Aberdeenshire amounted to £58.4 million, representing 3.9% of Scottish life sciences GVA⁵⁶. GVA per head for life science industries employees in 2016 was £97,136 for Aberdeen, £45,130 for Aberdeenshire and £93,735 for Scotland.⁵⁷

Scottish Government statistics show that GVA in the combined Life and Chemical Sciences (LCS) sectors slightly more than £1.7 billion and turnover was almost £3.8 billion in 2014⁵⁸. There are ambitious plans to extend both sectors substantially in the next five to ten years by increasing turnover in the life sciences sector to £8 billion by 2025⁵⁹ and increasing exports in the chemical sciences sector by 50% by 2020⁶⁰.

2.4.3 Business Stock

In 2017, there were 50 life science industry enterprises in Aberdeen City and Aberdeenshire, representing 9.3% of life science industry enterprises in Scotland.

In 2016, the largest life science enterprises in Aberdeen included the James Hutton Institute, Shell Research Ltd, GL Industrial Services Ltd, Caledonia Optical Ltd, Taurx Therapeutics Ltd and Novabiotics Ltd.

2.4.4 Employment

In 2017, 1,075 people were employed in life sciences industries in Aberdeen City and Aberdeenshire (6.3% of the total life sciences employment within Scotland), having increased from about 700 people in 2010. In 2017 83.7% of Aberdeen City and Aberdeenshire employment in this sector was based in Aberdeen.

2.4.5 Investment Outlook

Opportunity North East (ONE) is investing in the specialist support required to encourage the growth of established and new life sciences businesses in the North East to ensure that they

⁵⁶ *Scottish Growth Sector Statistics 2016*

⁵⁷ *Scottish Growth Sector Statistics 2016*.

⁵⁸ *Scottish Annual Business Statistics (2014)*

⁵⁹ *Life Sciences Strategy for Scotland 2025 Vision (Scottish Enterprise, January 2017)*

⁶⁰ *Life and Chemical Sciences Manufacturing Strategy for Scotland (Scottish Enterprise, September 2015)*

can continue to grow. ONE works with life sciences companies and partners to build on our globally recognised strength in high-value healthcare research and development, specialising in biotherapeutics for modern epidemics. Through the Aberdeen City Region Deal, the partners and ONE are supporting the development of the first Bio-therapeutic Hub for Innovation in North East Scotland, which will provide space for start-up businesses, specialist shared facilities and support services, building on capacity and global expertise at the Foresterhill Campus in Aberdeen and at the universities.

The international growth potential of biotherapeutics has led to life sciences being identified as a priority economic sector in Scotland. Life sciences companies in the North East have attracted £175 million of investment in the last five years and the academic base has attracted almost £250 million in research funding⁶¹.

2.5 Renewables

2.5.1 Scope of the Sector

Renewable energy is defined as energy from resources that can be replaced rather than depleted. The main technologies are defined below.

- **Onshore wind:** A significant proportion of the total onshore wind developments in Scotland are in the region, mainly in the form of small developments owned by farmers and landowners.
- **Fixed offshore wind:** This is capable of revolutionising the energy industry due to the potential scale of the projects and predicted low cost. This is a significant industrial opportunity for the local energy supply chain as the skills of the oil and gas industry will be required to make future developments work. Floating offshore wind is an emerging technology. The world's first floating windfarm has been installed and a second is under construction.
- **Wave and Tidal:** Scotland hosts leading test centre facilities and projects and has a global leading position in the emerging wave and tidal markets.
- **Biomass:** Biomass projects are good for local employment in terms of supplying the equipment, the feedstock, operations and maintenance. They also offer a valuable income stream for rural, agri- and food/distilling businesses through the production of local heat, electricity and the sale of electricity to the grid.
- **Storage:** Storage will be an important enabling technology, not only for renewables, but also for other sources of power. The ability to store excess production would greatly increase the efficiency of the generation industry and create valuable reserves of power, technologies include hydrogen, batteries and pumped storage.

⁶¹ *Opportunity North East*

- **Hydrogen:** As well as being used as a storage reserve for renewable energy, green hydrogen can be used in transport, energy and heat applications. This is an emerging market, particularly in the North East of Scotland.
- **Distribution/transmission:** This is important enabling technology as it allows the transport of power to areas of high demand and to new markets.

2.5.2 Economic Importance of the Sector and Employment

The renewable energy industry is not assigned a Standard Industrial Classification (SIC) code and therefore is not identified as a separate sector of the economy for statistical reporting purposes. Local activity and value is difficult to measure as it tends to be hidden in multi-disciplinary companies/organisations.

Estimates for Renewable Energy Sector jobs in Scotland vary widely. In 2015, Scottish Renewables estimated that 26,000 people were employed directly and indirectly in renewable energy jobs in Scotland, with almost 50% of these being within hydro energy. The Scottish Government estimates approximately 22,500 people were directly employed in the renewable and low carbon energy sectors in 2014, with 73,500 employed directly and indirectly in these industries. ONS estimates that 31,000 people are employed directly in renewable energy and another 27,500 employed indirectly in Scotland⁶². The ONS estimates total turnover from Renewable and Low Carbon energy sectors in Scotland in 2014 to be £5,614 million.

There are five windfarms under development or construction off the coast of North East Scotland: Beatrice; Moray; Hywind; the European Offshore Wind Deployment Centre; and Kincardine. The total construction value is in excess of £5 billion. There is potential for further developments, however at present it appears that the opportunities are all for floating offshore wind.

The investment outlook for renewables is variable across technologies. The leading opportunity is in offshore wind as this has matured to become an established technology. This is now seen as a low-risk, mainstream investment prospect with a high level of interest from institutional investors globally.

Other technologies such as wave, tidal geothermal and storage are still pre-commercial and therefore not as attractive investment prospects.

Hydrogen as a transport, energy and heat offering is, however, more developed with a number of transport applications having been successfully trialled in Aberdeen. The initial £35 million programme is being scaled up over the next five years, with just under £1 billion of investment estimated to develop hydrogen refuelling infrastructure, expansion of the

⁶²Office for National Statistics. *Low Carbon and Renewable Energy Economy (2015)*

production and distribution of hydrogen for energy, and develop enabling infrastructure of wider hydrogen uses - for example as part of district heating schemes.

2.6 Oil and Gas

2.6.1 Scope of the Sector

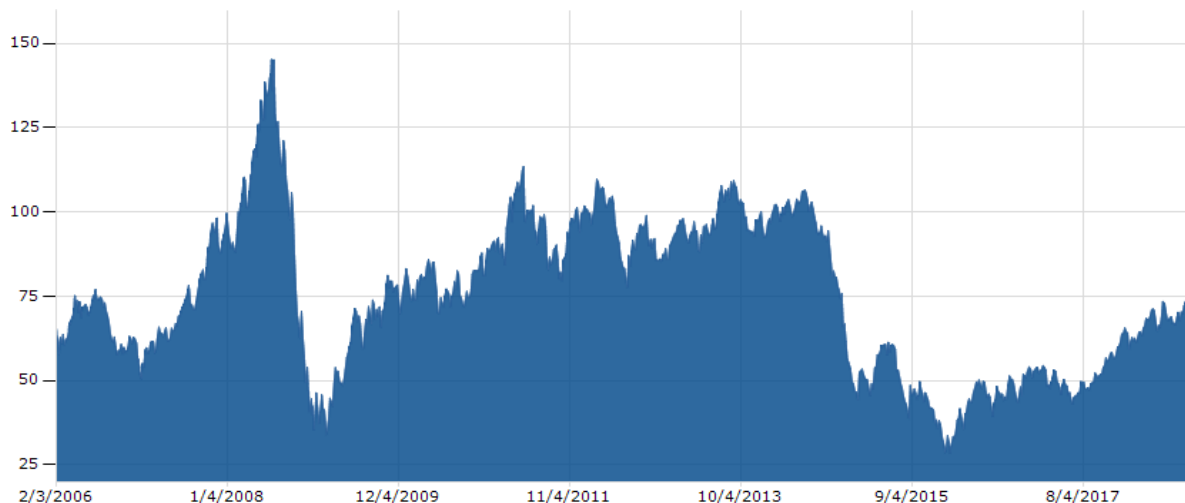
Oil and gas is the dominant fuel of the UK economy, providing three-quarters of the UK energy mix. Over the next 20 years, renewables capacity will grow, primarily for electricity generation, but oil and gas is still expected to comprise two-thirds of the energy mix in 2035.

The scope of the sector is huge and includes the exploration for crude oil and natural gas fields, as well as its recovery and production. It also includes the storage and transportation of oil and gas, as well as a diverse set of activities including the refining of crude oil and processing and purifying natural gas, through to sales, marketing and retail.

2.6.2 Economic Contribution of the Oil and Gas Sector

Much of the economic contribution of the sector is driven by the value of the oil price as shown in figure 28. In January 2016, the oil price fell to \$28 barrel of oil equivalent (boe), having traded at \$110 boe in 2013. This was due to the impact of rising non-OPEC supply in the US, and OPEC's decision not to cut output to rebalance the market. In 2017, it averaged \$54 per barrel, but has since recovered to between \$70 and \$80 today.

Figure 28: Price of a Barrel of Oil Equivalent in US\$ (2006-2018)



Source: Markets Insider <https://markets.businessinsider.com/commodities/oil-price?type=wti>

The extractive sector has made a sizeable contribution to the UK economy for many years. The mining and quarrying industry is for the whole UK extractive sector, the vast majority of

which is oil and gas. The GVA of extraction of crude petroleum and natural gas was £17.3bn in 2016, down from 22bn in 2013⁶³.

In the North East the mining and quarrying industry classification encompasses direct oil and gas activity in the North East. The GVA from mining and quarrying is £1.8bn in 2016, down from £2.2bn in 2013⁶⁴. However, GVA associated with off-shore activity, under UK regional accounts procedures, is normally allocated to a separate 'Extra Regio' category rather than allocated to a region within the UK.

However, Scottish Government growth sector statistics include offshore oil and gas activity. In 2016, GVA in the energy sector in Scotland amounted to £12.9 billion, representing a £1.6 billion (or 11.2%) decrease on 2015. This fall is as a result of the decline in the oil price. In the North East of Scotland the oil and gas sector represents the vast majority of the energy sector. The GVA of the energy sector in the area was £7.6 billion in 2016, which was down from £17.0 billion in 2013. GVA per head in 2016 in the energy sector in Aberdeen was £229,807⁶⁵.

2.6.3 Employment

There are numerous sources of information on employment in the oil and gas industry and no one source provides an accurate methodology of estimating the total employment of the sector in the North East of Scotland. In this section the various sources are presented as estimates of the total employment at a UK, Scotland and North East of Scotland level.

In 2017, 27,195 people were directly employed in the oil and gas sector in Aberdeen City and Aberdeenshire, representing 75.3% of all direct oil and gas employment in Great Britain, down from 32,500 people employed directly in 2014 (78.7%). Direct oil and gas employment in Aberdeen City and Aberdeenshire accounted for 9.9% of regional employment in 2017.

Latest estimates show that the UK offshore oil and gas industry supports more than 280,000 jobs⁶⁶. These 280,000-plus jobs are spread across the country, with almost 60% in England, 38% in Scotland and the remainder across Northern Ireland and Wales⁶⁷. This suggests there are 115,000 jobs in Scotland supported by the oil and gas industry.

Figure 29 shows total UK employment supported by the UK oil and gas industry. This latest employment estimate is 180,000 lower than the peak of more than 460,000 jobs in 2013. The pace of contraction in employment, however, has slowed considerably (and risen in the last

⁶³UK Extractive Industries Transparency Initiative, October 2018

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/749749/uk-eiti-payments-report-2016-updated.pdf

⁶⁴ONS, Regional Gross GVA (Balanced)

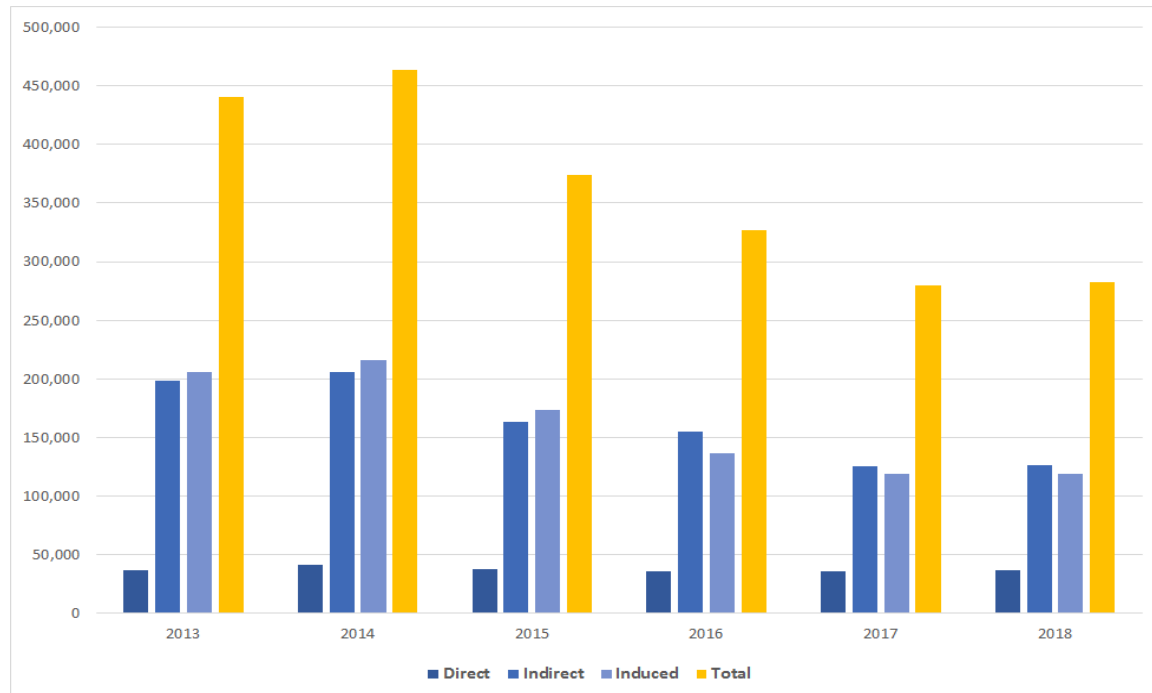
⁶⁵The Scottish Government Growth Sector Statistics. Extraction of crude petroleum and natural gas) data is included in Energy Totals and allocated to regions according to the address at which the business is registered.

⁶⁶UK Oil and Gas Economic Report 2018

⁶⁷UK Oil and Gas Survey 2017.

year) to a rise of 1% between 2017 and 2018, compared with a fall of 14% between 2016 and 2017, and a fall of 19.4% between 2014 and 2015.

Figure 29: Total UK Employment Supported by the Oil and Gas Industry (2013-2018)



Source: Oil and Gas UK Workforce Report 2018. Direct = those employed by companies extracting oil and gas. Indirect = those who provide goods and services for an oil and gas company. Induced = local economy jobs that benefit from the sector e.g. hospitality

Between 2014 and 2018, direct and indirect oil and gas employment both declined by 31%, with total employment supported by the sector having declined by 35%. The decline in employment supported by the oil and gas sector has had a substantial impact on the local economy.⁶⁸

The Scottish Government estimates 56% of Scottish employment supported by oil and gas⁶⁹ is in the North East of Scotland, which puts the figure at about 67,000 jobs in the North East which could be supported by the oil and gas industry.

About 75% of upstream oil and gas supply chain registered companies in Scotland in 2012 were in the North East of Scotland⁷⁰. Assuming this also holds for employment and 75% of Scottish employment supported by oil and gas is in the North East of Scotland, approximately 86,000 jobs in the North East could be supported by the oil and gas industry.

This estimated range of 67,000-86,000 would constitute approximately a quarter to a third of total employment in the North East.

⁶⁸ Oil and Gas UK Economic Report 2017.

⁶⁹ SPICE briefing March 2018, "The impact of Brexit on Scotland's Growth Sectors".

⁷⁰ Ernst and Young (EY UK Upstream oil and gas supply chain - Economic contribution).

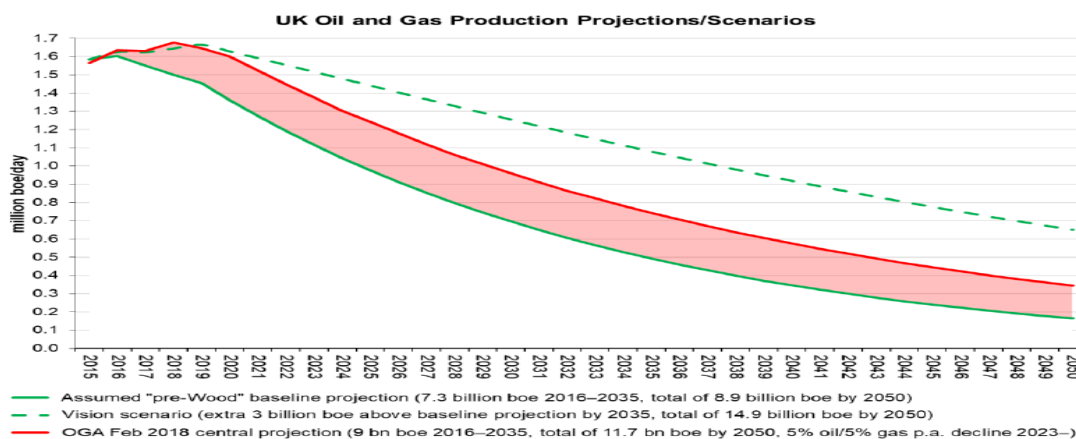
2.6.4 Production Outlook

More than 45 billion boe have been recovered from the United Kingdom Continental Shelf (UKCS) since the first production in 1967. The UK was the world's 21st largest oil and gas producer in 2015, accounting for 1.1% of global oil production.

2015 saw the first annual increase in production in 15 years, having increased by 10.4% between 2014 and 2015, and by 16% between 2014 and 2016. UKCS production in 2017 was equal to that of 2016 at 598 million boe, or 1.64 million boe per day, a continuation of the recent strong production performance on the UKCS⁷¹.

UK production is expected to rise until 2019. The production outlook for the basin is much more uncertain post-2019. Continued investment is required to increase recovery from existing assets and ensure potential development opportunities progress to sanction so that any decline is carefully managed and does not revert to the trend seen from 2010-13.

Figure 30: UK Oil and Gas Production Scenarios (2015-2050)



Source: Oil and Gas Authority March 2018, "Projections of UK oil and gas production and expenditure"

UK Oil and Gas has a range of production scenarios from 2015 to 2050⁷², as shown in figure 30. Based on central production projections, cumulative production from 2016 to 2050 is forecast to be 11.7 billion boe - 2.8 billion boe more than it would have been in the absence of implementation of the recommendations in *UKCS Maximising Recovery: Final Report (2014)* by Sir Ian Wood. The vision scenarios are oil and gas industry aspirations with an extra 3 billion boe above the central production projections. The vision is not to forecast performance of the industry, but to set aspirations that the industry should seek to pursue if it is to maximise its economic value. Fundamental transformation in delivery modes will be required if that vision is to be achieved.

⁷¹ Oil and Gas UK 2018 Business Outlook

⁷² Oil and Gas Authority March 2018, "Projections of UK oil and gas production and expenditure"

2.6.5 Investment Outlook

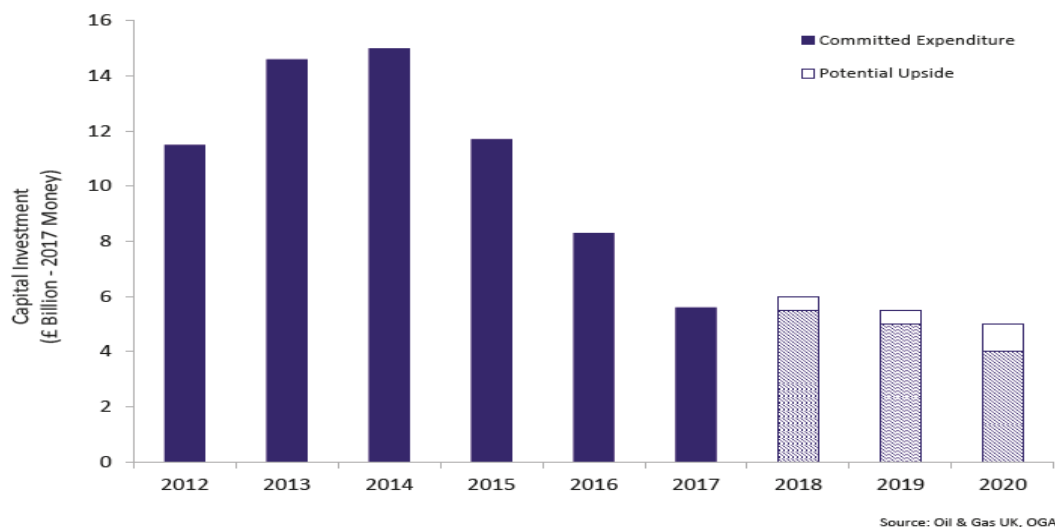
The annual level of capital investment (capex) has fallen sharply since 2013, as companies typically deferred or cancelled investments during the downturn and ongoing development projects reached their conclusion. That trend was seen last year as capex fell to £5.6 billion, almost 20% lower than start-of-year expectations and only a third of the peak of three years ago. After peaking at £13.8 billion in 2014, capital investment declined to £8.3 billion in 2016 and is likely to be about £6 billion in 2017.

There are two key drivers behind the lower than anticipated capex in 2017:

- Low activity levels, with only two greenfield capital projects approved;
- Efficiency gains in ongoing development projects, meaning less capital is required.

Figure 31 shows the forecast for capital investment in the UK until 2020. The outlook for the rest of the decade shows a stable level of investment. The decline in investment is projected to bottom-out with up to 25 fields under discussion with the Oil and Gas Authority (OGA) for potential development approval. At least 12 of these, some of which comprise multiple fields, are at an advanced stage and are expected to proceed in the next year.

Figure 31: Forecasts for Capital Investment in the Oil and Gas Sector in the UK (2018-2020)



Source: Oil and Gas UK, OGA

Trends in investment in the last 12 months and scheduled investment plans over the next two years are examined in the Aberdeen and Grampian Chamber of Commerce May 2018 Oil and Gas survey. The overall picture on measures of investment spend is significantly more positive than in previous years. For contractors, the net balance of total investment spend for the UKCS area in the 12 months to May 2018 improved, with more contractors increasing investment spend in the UKCS area (30%) than reducing spend (21%), while more than a third of contractors (35%) reported no change to their investment spend. This balance of plus 9%

compares to a negative net balance of minus 22% in June 2017 and to a negative net balance of minus 32% in May 2016.

The outlook for the next two years is even more positive. More contractors expect to increase investment (51%) than reduce (8%), while just over a quarter of contractors (26%) are forecasting no change to their investment spend. Operators and licensees are also forecasting a rise.

Figure A19 shows the net balance between those contractors reporting upward downward trends in each category of investment spending (the share of contractors reporting an increase in spending in this category minus the share of contractors reporting a decrease in spending). This reveals that the net balances for investment activity was positive in all categories (more contractors reported increasing than reducing spending in each of the categories). In the previous survey staff training, equipment maintenance and maintenance of infrastructure had been negative.

2.66 Business and Employment Outlook

The AGCC Oil and Gas May 2018 survey results revealed that business confidence among contractors had further improved from the lows seen over the past few years. This latest survey found that:

- In the six months to May 2018 64% of contractors (up from 49% in the autumn 2017 survey) were more confident about their activities in the UKCS in the current year, while only 8% were less confident;
- This net balance of plus 56% is the highest net balance since the November-March 2013 survey;
- With regard to the outlook over the year ahead, 71% expect this upward momentum to continue.

Firms were also asked about the value of their work in the UKCS in the areas of production-related, decommissioning-related and exploration-related work. This latest survey found that:

- 4% more contractors reported a decline than an increase in activity in the last 12 months. This is a major improvement on the previous two surveys where:
 - In the autumn 2017 survey, 17% more contractors reported a decline than an increase in activity;
 - In the spring 2017 survey, 63% more contractors reported a decline than an increase in activity.
- In the coming year contractors are forecasting an increase in the value of production-related work with a positive net balance of 28%.

The downward trend in the value of the UKCS exploration work since 2014 has finally been bucked with a net balance of 3%, which is expected to rise to 21% in the next 12 months.

International exploration work has also shown a net balance of 4% of contracting firms indicating an increase, the first since spring 2015. Again, the outlook for the next 12 months is improving with more contractors forecasting a rise in activity, a net balance of 18%⁷³.

Respondents were asked to give their predictions as to when the sector will reach the bottom of its current cycle and 60% felt that it already had (compared to 52% in the spring 2017 survey and to 29% back in the autumn of 2016). A further 24% forecast that this would happen within the next 12 months and 11% anticipated that it would happen within one-to-two years. Only 6% felt it would take longer⁷⁴.

The survey examines actual and expected trends in employment, hours worked, permanent and contract staff. In the 12 months to March 2018, operators reported an effective 5.4% reduction in employment compared to a reduction of 6.2% in the previous survey and to a reduction of 15% one year ago. This suggests that the rate of job reduction has slowed marginally⁷⁵.

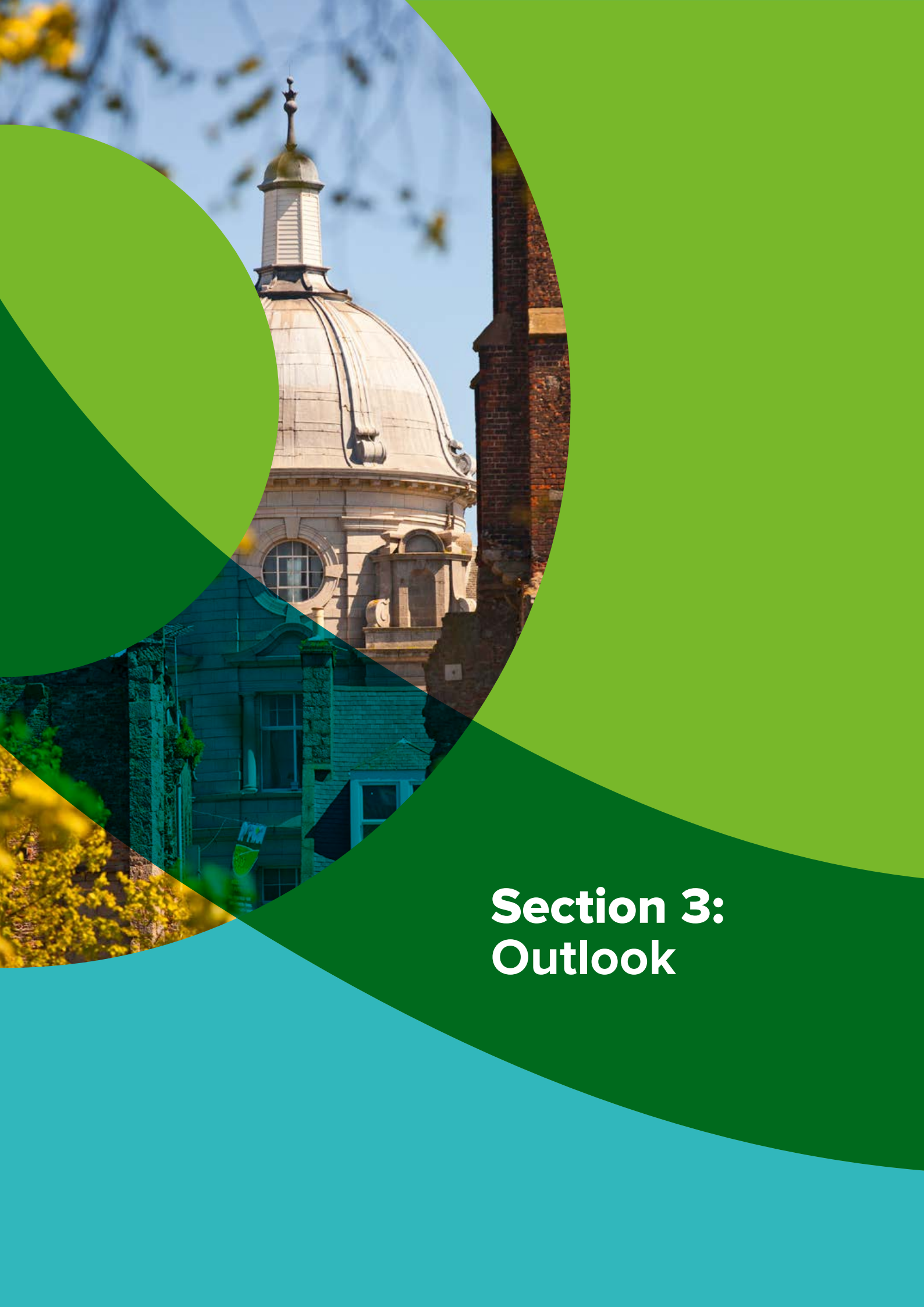
Operators anticipate there will be a 4.2% reduction in headcount from March 2018 to March 2019, suggesting that the downward trend will ease. However, contractors anticipate a rise in total employment during 2018, with a net balance of 35% forecasting a rise in permanent staff and 16% forecasting a rise in contract staff. Operators/licenses also display this positive outlook, as a net balance of 31% and 23% respectively anticipate a rise in permanent and contract staff⁷⁶.

73 AGCC Oil and Gas Survey May 2018

74 AGCC Oil and Gas Survey November 2017

75 AGCC Oil and Gas Survey May 2018

76 AGCC Oil and Gas Survey May 2018



Section 3: Outlook

Section Summary

This section of the report provides a commentary of the outlook for the region, Scotland and the UK.

- The latest Scottish Government Office of the Chief Economic Adviser Report finds that Scotland's annual GDP growth was the strongest it has been since 2014, with growth in 2018 Q1 across all sectors in services, construction and production. This has been driven by exports growth (at a time of weaker Sterling) and global economic growth, while a stronger outlook for the oil and gas sector alongside the rise in the oil price has provided a boost to confidence and activity through its supply chain and in the wider economy.
- Between 2018 and 2024, GDP growth in the North East is projected to be positive, but below Scottish GDP growth, the main reason being the city's and region's high dependence on the oil and gas sector and continued weakness following the recent downturn. Growth in Scotland is generally projected to be higher than in the North East, but below that of the UK. One reason offered is that while the Scottish population has been growing in recent years, it has not been growing as fast as the rest of the UK and this difference is projected to continue.
- National Records of Scotland data shows that the North East of Scotland total and working age population is projected to grow at a greater rate than the rest of Scotland, but below past trends in the region.
- Survey information shows that in 2018, Aberdeen City and Aberdeenshire had the joint-highest level of confidence in Scotland's economic outlook, along with the West of Scotland.
- The section concludes with an analysis of the future challenges the region may face. An obvious one is that of Brexit. The analysis finds that depending on the nature of the exit from the EU that is negotiated, UK/Scottish GDP could be reduced by between 1.3% and 8.5% over a 10-year period. HMT estimates a UK/Scottish GDP reduction of 3.8% over a 10-year period after leaving the EU in a soft-Brexit scenario. HMT estimates a UK/Scottish GDP reduction of 7.5% over a ten-year period after leaving the EU in a hard-Brexit scenario.
- A Centre for Cities report estimates that Aberdeen would be the hardest-hit city in the UK as a result of Brexit⁷⁷. The region would be susceptible to workforce challenges which could make it more difficult to recruit from the EU; and any non-tariff barriers to the EU under a soft-Brexit scenario. Additional tariffs under a hard-Brexit scenario could hit the North East particularly hard due to its high exports to the EU and its dependence on the oil and gas industry.

⁷⁷ <http://www.centreforcities.org/wp-content/uploads/2017/07/17-07-26-Brexit-trade-and-the-economic-impacts-on-UK-cities.pdf>

- Additional challenges are also discussed within this section. These include: an ageing population; technological change; productivity; inclusive economic growth; investment; and the future of oil and gas diversification.

3.1 Economic Outlook

The Scottish Government Office of the Chief Economic Adviser Report provides the most recent update of trends in the Scottish Economy⁷⁸ and an overall outlook for the economy. It finds that Scotland's annual GDP growth was at its strongest since 2014, with growth in 2018 Q1 across all sectors in services, construction and production. This has been driven by exports growth (at a time of weaker Sterling) and stronger global growth. Recent HMRC data shows that the monetary value of Scottish exports rose by 7% in the last year to June 2018, including a rise in oil and gas exports to the EU, which increased by 29%. The stronger outlook for the oil and gas sector alongside the rise in the oil price has provided a boost to confidence and activity through its supply chain and in the wider economy. Latest survey data from contractors in the sector⁷⁹ report increasing levels of business confidence and activity into 2018.

This latest report finds an improved outlook for the Scottish economy with recent growth outstripping UK growth for the first time in four years. It also finds that firms are stockpiling by building up stock inventories before the UK leaves the EU – this could boost Scotland's GDP by 0.4%, but would be more than offset by a subsequent slowdown.

Table 6 below summarises the set of independent economic forecasts for the North East region, Scotland and UK, which are detailed on subsequent pages.

Table 6: Summary of Economic Forecasts Detailed within the Section

Source	Year of Forecast	Geographical Area	Time Frame	Forecast Annual Average GDP Growth Rate
Mackay Consultants	2017	Local Authority (Aberdeen City/ Aberdeenshire)	2017-2019	Aberdeen: 1.03% Aberdeenshire: 1.24% Scotland: 1.49%
Regional Skills Assessment (Oxford Economics)	2017	City Region (Aberdeen City/ Aberdeenshire)	2016-2024	City and Aberdeenshire: 1.6% Scotland: 1.7%, UK: 2.0%
EY Scottish Item Club	2017	Aberdeen City	2017-2020	Aberdeen: 1.5%
EY Scottish Item Club	2017	Scotland	2017-2020	Scotland: 1.5%
Scottish Fiscal Commission	2017	Scotland	2017/18-2022/23	Scotland: 0.85%
Fraser of Allander Institute	2018	Scotland	2018-2020	Scotland: 1.4%
UK Forecasts Summary (OBR, Bank of England, NIESR, European Commission, IMF, EY Item Club)	2017-2018	UK	2018-2020	All UK Bank of England: 1.7%, OBR: 1.4%, NIESR: 1.8%, European Commission: 1.25%, IMF: 1.6%, EY Item Club: 1.8%

⁷⁸ Office of the Chief Economic Adviser State of the Economy Report, October 2018: <https://cdn.prqloo.com/media/ee63eff1857b4ddea655ae3eda63bbf>

⁷⁹ Aberdeen and Grampian Chamber of Commerce, 28th Oil and Gas Survey.

3.1.1 Mackay Consultants 2017-2019 Aberdeen City and Aberdeenshire

The MacKay Consultants 2017-19 report provides forecasts on Scottish economic prospects. This is an update on the 2016-2018-based forecast. GDP Forecasts are provided at industry sector level and at local authority level. A narrative for the forecast for both the sector and local authority is provided, although no model of how the GDP forecast for sector or local authority is arrived at is given.

Mackay Consultants updated its forecasts in 2017, when it forecast that Aberdeen City GDP would increase by annual average of 1.03% from 2017-19. The city was ranked 32nd of all 32 local authority areas, with East Renfrewshire and East Dunbartonshire ranked joint first at 2.1%. The organisation forecast that Aberdeenshire GDP would increase by an annual average of 1.24% from 2017-19. Aberdeenshire was ranked 31st of the 32 local authority areas. The Scottish economy was forecast to grow by an annual average of 1.49%, rising from 1.2% in 2017 to 1.7% in 2019. The main reason for this was the city and region's high dependence on the oil and gas sector, which had suffered a recent downturn.

3.1.2 Regional Skills Assessment Aberdeen City and Aberdeenshire

Regional Skills Assessments (RSA) include forecast data commissioned through Oxford Economics. The RSAs estimate that GVA growth in Aberdeen City and Aberdeenshire is forecast to average 1.6% between 2016 and 2024. This is slower than forecast growth for Scotland (1.7%) and the UK (2.0%).

The pace of growth is expected to slow in the short term with the consumer goods sector losing momentum in the face of rising inflation, businesses investing cautiously due to Brexit-related uncertainty, and fiscal policy remaining tight. Oil and gas continues to play a much larger role in the local economy than in Scotland generally and thus the downturn in sectoral activity will constrain economic growth. This activity is particularly prevalent in Aberdeen City, but is still more prominent in Aberdeenshire than in Scotland generally.

It is forecast that Professional, Scientific and Technical services will drive growth in Aberdeen City and Aberdeenshire, while wholesale and retail trade and manufacturing are also expected to be notable contributors. Public administration and defence is the only sector expected to contract over the forecast period.

Productivity in Aberdeen City and Aberdeenshire is projected to be higher than the overall Scottish average, rising 14.5% per job from 2016 to 2024. This compares with an overall rise of 13.2% in Scotland over the same period.

Employment has declined in Aberdeen City since 2014 and is forecast to continue a trend of moderate decline over the forecast period, decreasing by 2% to 2027 from the 2017 baseline. Aberdeenshire is projected to have jobs growth of 3% over the forecast period, while the regional picture remains static.

Figure A20 shows the total North East employment forecast from 2017 to 2027. The number of male full-time jobs is projected to decline slightly over the forecast period (-2%), while the number of female full-time roles will rise considerably (14%). During the same period the number of part-time jobs is forecast to decline for both males and females. This is in contrast to the national picture, where changes in the economy are seeing a trend of more part-time work.

3.1.3 EY Scottish Item Club Aberdeen City

The EY Scottish Item Club report forecasts that Aberdeen would experience a 0.1% contraction in employment in 2017, compared to growth in both Scotland (2.6%) and the UK (1.3%). Similarly, EY forecast that Aberdeen would experience a contraction in GVA of 1.0% in 2017.

Figure A21 shows EY's Aberdeen employment change forecast by sector from 2017 to 2020. EY forecasts that the labour market outlook will remain weak, with total employment failing to show any improvement throughout 2017 to 2020. While employment in the utilities, extraction and agriculture and construction sectors is expected to see some gains, public spending cuts will translate into job losses in public administration and health and social work. Despite muted employment growth, GVA growth is expected to average 1.5% per year between 2017 and 2020, in line with growth in Scotland, but still lagging behind the UK (1.8% per year).

3.1.4 EY Scottish Item Club Scotland

Figure A22 shows the EY Item Club Scottish Economic Forecast for GVA and other economic variables. Although forecast to rise steadily over the next three years, economic growth in Scotland will continue to lag behind the UK. In 2018, GDP growth is forecast to be 1.4%, increasing to 1.6% in 2019. For the period to 2022 the annual growth rate is set to average 1.7%, compared with a UK average of 2.0% a year.

Private services will continue to drive growth. Across Scotland, these sectors will contribute four-fifths of GVA growth in 2018, despite representing just half of economic activity. The fastest growing service sectors are forecast to be professional, scientific and technical activities, administrative and support services, and information and communication.

One important area of improvement is manufacturing, which is forecast to grow by 1.0% in both 2018 and 2019, after contracting in 2015 and 2016. Over the next five years manufacturing growth is forecast to pick up to 1.3% a year, in line with the UK average. Two reasons for this are the continuing expansion in world trade and a competitive exchange rate, alongside increases in productivity, which EY forecast will see a rise in the manufacturing sector by 2.8% a year up to 2022 (with the result that employment in the manufacturing sector falls from 187,000 in 2017, to 173,000 in 2022).

Figure A23 shows the EY Item Club Scottish Economic Forecast for employment. Although in 2017 employment growth in Scotland was double the UK rate (2.6% compared with 1.3%), the employment outlook over the decade ahead is weaker for Scotland. Employment growth is forecast to slow to 0.4% in 2018 and remain static in 2019. Growth is then forecast to resume, but remain lacklustre at 0.1% a year to 2022, which will result in only 23,000 additional jobs over the period. As UK employment growth slows overall, Scotland gradually falls behind with the result that, despite supporting 8.1% of the UK's jobs in 2017, Scotland contributes just 3.5% of UK jobs growth over the coming half-decade.

Over the forthcoming five years, employment growth will continue to be skewed towards Scotland's private services. This is largely underpinned by annual growth of 1.5% a year in administrative and support services and 1.4% in professional, scientific and technical services. These sectors will contribute 16,000 and 14,000 jobs growth respectively up to 2022, which will more than offset the net loss of 6,000 jobs elsewhere in the economy.

3.1.5 Scottish Fiscal Commission Scotland

Scottish economic growth has been slower over the last decade than historic average rates and the Scottish Fiscal Commission's (SFC) view is that this pattern of slower growth is likely to persist over the next five years.

Growth in recent years has been driven by factors which include a boom in the construction industry, strong labour market growth, a falling savings ratio and support from the oil and gas industry. These factors are unlikely to continue to support growth to the same extent in the coming years. Future downside risks include: the UK's changing relationship with the EU; a weakening outlook for global trade; Scotland's industrial and demographic structure; and weak onshore demand linked to activity in the oil and gas industry.

Like many developed nations, Scotland faces demographic challenges due to an ageing population. While the Scottish population has been growing in recent years, it has not been growing as fast as the rest of the UK (mainly England) and this difference is projected to continue. SFC expect growth rates of GDP per person in Scotland to converge with those in the UK, while growth in Scottish GDP will remain below UK rates because of a lower growth rate in the Scottish population than the UK population.

3.1.6 Fraser of Allander Institute Forecasts for Scottish Economic Growth

Table 7: Fraser of Allander Institute Forecasts for Scottish Economic Growth (2018-2020)

	2018	2019	2020
GVA	1.2	1.4	1.4
Production	1.4	1.6	1.9
Construction	0.7	0.8	0.6
Services	1.1	1.3	1.4

Table 7 shows Fraser of Allander Institute (FAI) Forecasts for Scottish Economic Growth. FAI forecasts that the Scottish economy will grow this year, and will quicken over the forecast horizon, but growth will remain below trend. FAI forecasts are more optimistic than those of the Scottish Fiscal Commission. They suggest that there is a degree of spare capacity in the Scottish economy that could help support growth if demand picks up.

FAI is also slightly more optimistic on the outlook for productivity. While Scotland's 16-64 population may decline, a combination of in-migration from the rest of the UK and an increase in those working into retirement age will help to mitigate that somewhat in the short-term. While the growth gap between Scotland and the UK is likely to remain over the next couple of years, FAI forecasts that it will narrow.

3.1.7 UK Forecasts (HM Treasury)

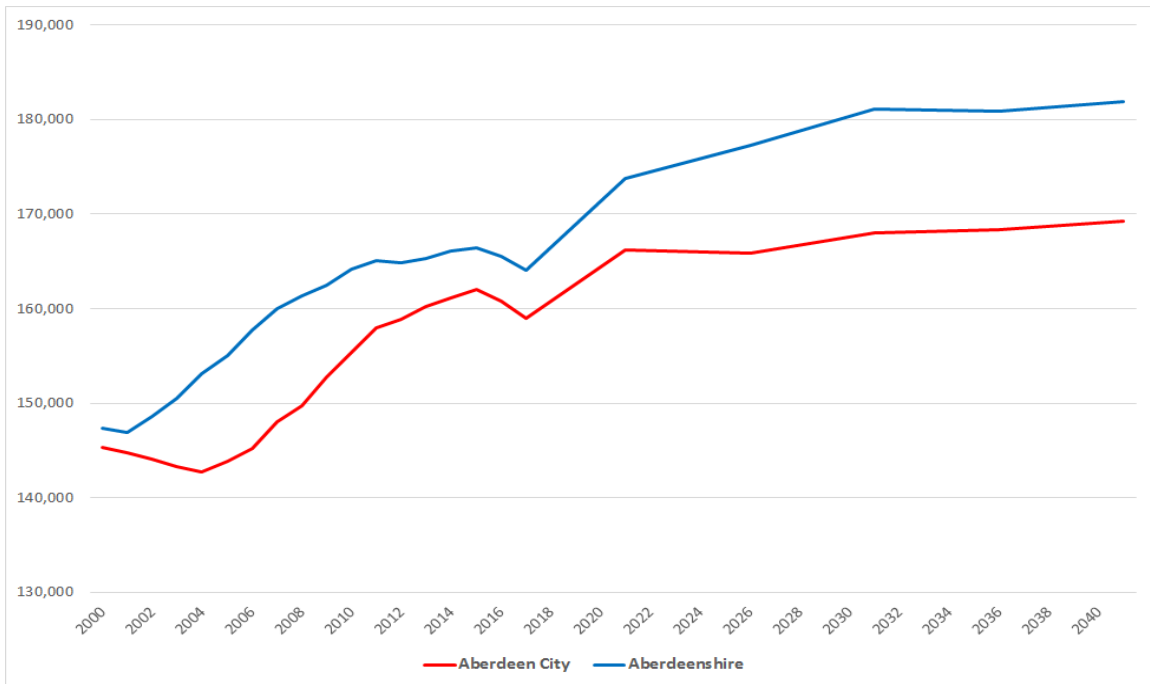
Table 8 summarises the forecasts for GDP growth at a UK level from various sources. These are typically slightly higher than forecasts for Scottish GDP growth.

	2018	2019	2020
Bank of England	1.7	1.8	1.7
OBR	1.5	1.3	1.3
NIESR	1.9	1.9	1.7
European Commission	1.4	1.1	n/a
IMF	1.5	1.6	1.7
ITEM Club	1.7	1.7	1.9

3.2 Population

Figure 32 shows Aberdeen City, Aberdeenshire, Scotland and the UK's actual population trends from 2000 to 2016, and population projections from 2016 to 2041 indexed to 2000. Between 2016 and 2041 the population of Aberdeen City is projected to rise by 5.7% from 229,840 to 243,056, while the population of Aberdeenshire is projected to increase by 12.8% from 262,190 to 295,760. In the region the population is projected to grow by 9.5% from 492,030 to 538,816 between 2016 and 2041, while the Scottish population is projected to increase by 5.3% during the same period.

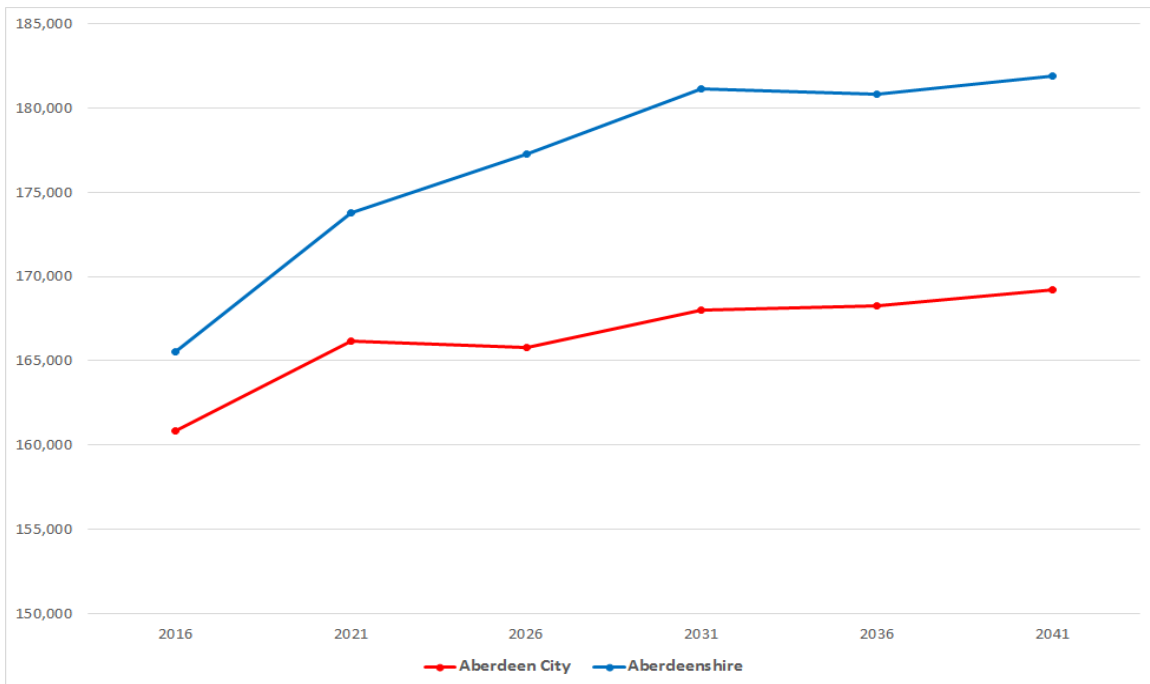
Figure 32: Aberdeen City and Aberdeenshire Population and Projections (2000-2041)



Source: National Records of Scotland. 2016-based Sub-National Population Projections

The annual growth rate in the projected period from 2016 to 2041 is less than half that of the actual annual growth rate experienced between 2000 and 2016. The drop in the growth rate is more pronounced across Scotland as a whole than it is in the North East as above average growth rates are projected to continue in Aberdeenshire.

Figure 33: Aberdeen City and Aberdeenshire WA Population Projections (2016-2041)



Source: National Records of Scotland. 2016-based Sub-National Population Projections

Figure 33 shows the Aberdeen City and Aberdeenshire working-age population projections from 2016 to 2041. The working-age population of Aberdeen City is projected to increase by 5.2% from 160,821 to 169,237 and by 9.9% from 165,548 to 181,925 for Aberdeenshire. The projected working-age population in Aberdeen City and Aberdeenshire between 2016 and 2041 is projected to increase from 326,369 to 351,162. This is an increase of 7.6% compared with an actual increase of 11.5% that was seen between 2000 and 2016. In comparison the overall Scottish working age population is projected to increase by 1.1% between 2016 and 2041.

Aberdeen City and Aberdeenshire's 25-year population projections have been revised down substantially in recent years, compare to previous projections. This is in large part due to lower economic migration to the region. According to the latest estimate, the population of Aberdeen City and Aberdeenshire in 2037 will be 53,958 less than the 2012 estimate. Based on 2016 estimates, the population of Aberdeen City and Aberdeenshire will reach half a million by 2019. Previous estimates of the regional population were based on higher levels of economic activity and inward migration at the time.

3.3 Sectoral Outlook

The key headlines across sectors from the Scottish Enterprise Economic Trends Survey, covering April 2018 to September 2018 are:

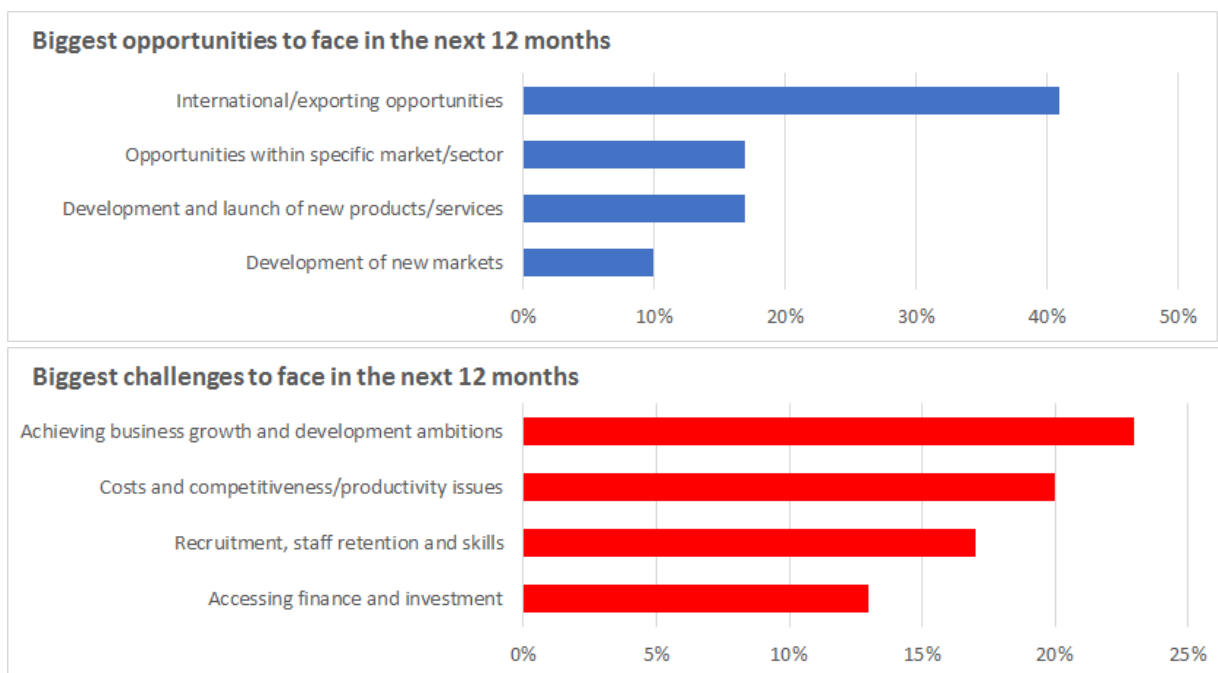
- Financial and business services and creative industries are the only sectors with more than half of responding companies holding a positive view of Scotland's economic outlook. Respondents in all other sectors were more likely to be neutral in their outlook;
- Political uncertainty continues to cloud the outlook for a majority of sectors, with seven out of 10 reported sectors identifying it as the main factor driving their outlook. Uncertainty around Brexit is most pronounced in life sciences, textiles, and food and drink;
- Achieving growth ambitions is the most pressing concern across the portfolio in the next 12 months. Oil and gas and tourism companies cite staffing issues as their greatest challenge.
- A majority of sectors continues to identify international/exporting opportunities as the biggest potential source of future growth. Life sciences and chemical sciences companies see a bigger opportunity in developing and launching new products and services.
- A majority of companies in all sectors reported growth in turnover in the last six months. Growth in exports, profitability and employment was less widespread, but high enough to fuel stronger expectations for the next six months in most sectors.

- Oil and gas companies are particularly confident in their expectations, with 100% of responding companies forecasting turnover growth and 90% predicting increased profitability.
- Food and drink and textiles companies are most confident in their ability to grow exports, while technology and engineering companies are most likely to add staff.

The Economic Trends Survey regional report for Aberdeen City and Aberdeenshire covers 32 companies surveyed from April to September 2018. In 2018, Aberdeen City and Aberdeenshire had the joint highest level of confidence in Scotland’s economic outlook, along with the West of Scotland. Between April and September 2018, 34% of respondents in the region were positive about Scotland’s economic outlook compared with just 3% who were negative. 63% were neutral.

Exporting and increasing international presence are important potential sources of growth. Achieving growth objectives in the next 12 months is the biggest challenge for companies, as shown in figure 34.

Figure 34: Opportunities and Challenges for Aberdeen City and Aberdeenshire Companies (May 2018)



Source: Scottish Enterprise Economic Trends Survey. Aberdeen City and Aberdeenshire Report. October 2018

3.4 Challenges

3.4.1 Brexit

The outcome of Brexit on the UK, Scottish and North East economy is uncertain. Table 9 summarises the range of estimates of the impact of Brexit on the UK economy from different

organisations based on different assumptions. A soft-Brexit assumes access to the single market, while a hard-Brexit assumes trading based on World Trade Organisation (WTO) rules.

Table 9: Brexit 10 Year Aggregate Long-Term Impact

	Soft-Brexit (EEA)		Hard-Brexit (WTO)	
	Estimated Impact on UK/Scottish GDP (%)	Impact on Scottish GDP Per Person	Estimated Impact on UK/Scottish GDP (%)	Impact on Scottish GDP Per Person
Fraser of Allander Institute (10-year impact)	-	-£800 to -£1,200	-	-£2,000
HM Treasury	-3.8%	-£1,000	-7.5%	-£2,000
National Institute of Economic and Social Research (dynamic)	-	-	-7.8%	-£2,100
National Institute of Economic and Social Research (static)	-1.8%	-£500	-3.2%	-£800
Centre for Economic Performance (dynamic)	-	-	-7.9%	-£2100
Centre for Economic Performance (static)	-1.3%	-£300	-2.6%	-£700
OECD	-	-	-5.1%	-£1,400
PWC	-	-	-3.5%	-£900

If the UK leaves the European Union, UK/Scottish GDP could be reduced by between 1.3% to 7.9% over a 10-year period after leaving the EU, depending on whether the Brexit is soft or hard. HMT estimates a UK/Scottish GDP reduction of 3.8% over a ten-year period after leaving the EU in a soft-Brexit scenario. Further, HMT estimates a UK/Scottish GDP reduction of 7.5% over a ten-year period after leaving the EU in a hard-Brexit scenario. Analysis by the Scottish Government on a hard-Brexit suggests shows that by 2030 Scottish GDP could be 8.5% lower than would otherwise have been the case⁸⁰.

⁸⁰ The Scottish Government. *Scotland's Place in Europe: People, Jobs and Investment*. 2018.

Centre for Cities estimates that Aberdeen would be the hardest hit city in the UK as a result of Brexit⁸¹. It estimates that 10 years after leaving the EU under a hard-Brexit scenario, GVA from Aberdeen City would be 3.7% less than under a soft-Brexit scenario.

The Office for Budget Responsibility has recently stated that Brexit will likely weaken public finances in the UK. The OBR state in its latest Fiscal Sustainability Report⁸²: “our provisional analysis suggests Brexit is more likely to weaken than strengthen the public finances overall”.

Approximately 25,000 people, all EU nationals, in Scotland were living in Aberdeen in 2015 – about 12.7% of the Scottish total.⁸³ Economic activity levels of EU nationals living in Aberdeen City and Aberdeenshire are far higher than those of the resident-based population. In Aberdeen 87.6% of EU nationals were in employment in 2015, compared to 76.6% of the overall working-age population. In Aberdeenshire 94.5% of EU nationals were in employment in 2015, compared with 80.6% of the working-age population⁸⁴. There are high numbers of EU nationals in employment within the food and drink sector and Aberdeenshire would be particularly affected by issues surrounding this workforce. EU nationals in the region are additionally employed in highly skilled energy sector employment, with about 5% of the workforce from the EU and 10% of the workforce from Europe being valuable to high value-adding sectors.⁸⁵

The region is susceptible to workforce challenges if Brexit makes it more difficult to recruit from the EU. Some industry leaders have argued that food and drink companies could be pushed towards automation if there is a worker shortage. This could, however, mean a greater need for higher-skilled labour in the industry which could prove to be an additional challenge if the oil industry continues to recover and employs skilled engineers.

In 2015, Aberdeen City and Aberdeenshire accounted for 21% of the total value of Scottish Exports. The non-tariff barriers to the EU under a soft-Brexit scenario and the additional tariffs under a hard-Brexit scenario could hit the North East particularly hard due to its high exports to the EU and its dependence on the oil and gas industry.

3.4.2 The Effect of Brexit on Key Sectors

Trading with the rest of the world involves an economic cost due to tariffs and non-tariff barriers. Oil and Gas UK estimate that currently, with the UK as a member of the EU, the UK oil and gas industry faces a cost of worldwide trade of around £600 million per annum. If the UK were to leave the EU without an agreed deal and reverted to World Trade Organisation (WTO) trading terms, the total cost of trade for the industry could almost double, to around £1.1 billion⁸⁶. Supply chain oil and gas companies are heavily reliant on the import of goods

⁸¹ <https://cdn.prqloo.com/media/ee63eff1857b4ddeae655ae3eda63bbf>

⁸² OBR Fiscal Sustainability Report July 2018, <http://obr.uk/download/fiscal-sustainability-report-july-2018/>

⁸³ The Scottish government. *EU nationals living and working in Scotland. 2017.*

⁸⁴ The Scottish Government. *EU nationals living and working in Scotland. 2017*

⁸⁵ Oil and Gas UK. *Brexit and the UK Oil and Gas Industry. 2017*

⁸⁶ Oil and Gas UK. (2017). *Economic Report 2017*

and equipment and will be adversely impacted by import penalties. There could be concerns in terms of availability and timeliness of equipment and technical repair. Challenges related to the likely exit from the customs union could work to the detriment of the smooth operation of businesses in the sector, unless effective customs processes are put in place. Roughly 2% of workers employed in Scotland's energy sector are non-UK EU nationals⁸⁷. However, access to talent still represents a prominent issue, as most of the EU workers are highly-skilled⁸⁸.

The weakening value of Sterling may have some positive benefits in terms of exports for oil and gas companies, but may also boost cost reduction efforts for UK projects. Companies may consider pausing prospective investments while assessing uncertainties around commodity prices, foreign exchange and potential tariffs⁸⁹.

For the renewables sector, the UK has been a large benefactor of EU renewable energy funds, having received 24% of all funding from the European Investment Bank, totalling €7.2 billion since 2007. When the UK is outside of the EU, it is not clear how funding for renewable energy projects will be replaced⁹⁰. The possible impact of Brexit on FDI attractiveness and crucial EU funding has been quoted as the number one issue for this industry⁹¹.

For the food and drink sector, according to the latest Scottish Enterprise reports, political uncertainty is the number one reason for the industry's overall neutral (rather than positive) level of confidence for the future of their business⁹². This sector enjoys a particularly high level of international exports. Tariffs and supply chain considerations are understandably a top concern.

The EU currently supports Scottish farming through the Common Agricultural Policy of circa £650 million a year until 2020, and it is not clear what funding will be in place post-Brexit. Leaving the Common Fisheries Policy will also have an effect in terms of funding. Scottish Seafood and Marine sectors received about £100 million in direct assistance supporting research and structural reform and it is unclear what will replace this.

Although the fishing industry represents a small percentage of Scotland's total GDP, its impact is significant for the North East. The processing sector could experience considerable problems because of its reliance on the EU workforce, with about 58% of overall employees coming from the European Economic Area. A further breakdown shows that EEA nationals make up 81% of temporary agency staff. 83% of interviewed businesses said that they employed Polish nationals, followed by Latvian (61%) and Lithuanian (56%)⁹³.

⁸⁷ Annual Population Survey 2015

⁸⁸ <https://oilandgasuk.co.uk/brexit-and-the-uk-oil-and-gas-industry/>

⁸⁹ Energy Voice. *Brexit: Dark Days for the UK Energy Industry?* July 2016.

⁹⁰ Mongoose Energy. *What Would Brexit Mean for UK Renewables?* 2016.

⁹¹ Written submission to SPICE by Claire Mack, Chief Executive. (2018). *Scottish Renewables. From SPICE briefing March 2018, "The impact of Brexit on Scotland's Growth Sectors"*.

⁹² Scottish Enterprise Economic Trends Survey May 2018

⁹³ Scottish Government. (2018, January 4). *Employment in Scotland's Seafood Processing*

Tariffs on Scottish Fisheries exports are a potential concern. Norway pays 2% tariffs on whole salmon exports and 13% on smoked salmon to the EU. If tariffs are imposed on Scottish fisheries exports to the EU then it may be more profitable to land direct into Danish, Swedish or French ports, which could have a catastrophic effect on the industry.

The sector relies heavily on migrant workers. In 2017, 15% of those employed in the sector were EU nationals⁹⁴. This figure excludes seasonal workers. Recent reports show there are between 5,000 and 15,000 seasonal workers employed in Scottish agriculture at any one time⁹⁵.

According to the Scottish Enterprise Economic Trends survey⁹⁶, companies in the life sciences sector are among the least optimistic about Scotland's economic outlook (only 33% expressed a positive view), however very few (3%) expressed an outright negative view. Political uncertainty, quoted by 56% of respondents, is the main reason clouding the economic outlook.

Most Scottish life sciences exports are directed to destinations outside of the UK. In 2016, exports to the EU accounted for £495 million and non-EU international exports stood at more than £600 million, compared to only £210 million to the rest of the UK.

Barriers to trade and more complex supply chain operations which could cause delays and other complications are some of the biggest concerns for the industry. Life Sciences Scotland's⁹⁷ position is that the preferred outcome would be a continued tariff-free regime, with minimal customs procedures to allow for a quick and efficient distribution of products.

Life sciences companies in Scotland expressed their desire for experts and life sciences managers from the EU and overseas to be "able to enter the UK at least as easily as at present," expressing concerns over any restrictions on highly-skilled talent entering the country⁹⁸.

The issue of access to European funding possibly being cut is of great importance to the industry. In the absence of this funding, Life Sciences Scotland expressed concerns⁹⁹ regarding

Sector: UK, European Economic Area and Non-European Economic Area Nationals. From SPICE briefing March 2018, "The impact of Brexit on Scotland's Growth Sectors".

⁹⁴ Annual Population Survey 2015

⁹⁵ NFU Scotland. (2017, December 18). *Seasonal Workers Still Vital to Scottish Agriculture as Brexit Approaches*. From SPICE briefing March 2018, "The impact of Brexit on Scotland's Growth Sectors".

⁹⁶ Scottish Enterprise. (2018). *Scottish Enterprise Economic Trends Survey, February 2018*.

⁹⁷ Tudor, D. (2017). *Industry Chair, Life Sciences Scotland Industry Leadership Group*. From SPICE briefing March 2018, "The impact of Brexit on Scotland's Growth Sectors".

⁹⁸ Tudor, D. (2017). *Industry Chair, Life Sciences Scotland Industry Leadership Group*. From SPICE briefing March 2018, "The impact of Brexit on Scotland's Growth Sectors".

⁹⁹ Tudor, D. (2017). *Industry Chair, Life Sciences Scotland Industry Leadership Group*. From SPICE briefing March 2018, "The impact of Brexit on Scotland's Growth Sectors".

being able to secure adequate funding levels and warned of possible knock-on effects on research and development relationships and collaborations.

Creative and digital businesses are part of a highly internationalised industry. This sector relies on cooperation with other countries, it is dependent on an influx of tourists, and benefits enormously from EU funding. Industry voices cite potential barriers in terms of tariffs, differing regulations post-Brexit, and the loss of the possibility to take part in collaborative EU-funded projects as representing major concerns¹⁰⁰.

Barriers related to restrictions of the ease of movement represent significant worries; availability of talent is a problem both in terms of seasonal and of permanent workers. The Creative Industries Federation found¹⁰¹ that 75% of their members employ non-UK EU nationals and that most of them believe that these jobs cannot be filled by British workers.

The creative industries sector in Scotland has benefited significantly from EU funding, as highlighted by recent research carried out by Euclid for Creative Scotland. The study identified at least £23 million of EU funding invested across 380 arts, media and creative industries projects in Scotland over the last ten years. In the last seven-year cycle (2007-2013), more than £16.7m was invested in Scottish projects, and £6.3 million had been injected during the current funding cycle to September 2017.

Political uncertainty has been quoted as the main reason for the tourism industry's overall neutral (rather than positive) level of confidence for the future, according to Scottish Enterprise¹⁰². Scotland's hospitality sector will have to address some specific challenges – anecdotal evidence suggests that since the EU referendum, the influx of workers from EU countries has been in steep decline; recruiters in the hospitality industry quote a fall in applications from prospective EU workers of 'easily 75%,'¹⁰³ in comparison to pre-EU referendum levels.

Foreign Direct Investment (FDI), of which Scotland was the 2nd highest recipient after London in 2016, has also been estimated to be in threat. An economic entity without the most favourable trading arrangements in its biggest economic neighbour makes some FDI opportunities seem less attractive. Single Market access and Customs Union arrangements will likely influence the location of FDI projects and evidence of this with companies relocating has already been occurring, particularly with regard to Business Services companies. The extent to which FDI is affected by Brexit is yet to be seen.

¹⁰⁰ SPICE briefing March 2018, "The impact of Brexit on Scotland's Growth Sectors".

¹⁰¹ House of Commons. Digital, Culture, Media and Sports Committee. (2018, January 23). *The potential impact of Brexit on the creative industries, tourism and the digital single market*. From SPICE briefing March 2018, "The impact of Brexit on Scotland's Growth Sectors".

¹⁰² Scottish Enterprise. (2018). "Scottish Enterprise Economic Trends Survey", based on 429 completed surveys between 1 November and 31 January

¹⁰³ Interview with George Chalmers, CEO. (2018). *International Hotel Jobs*. From SPICE briefing March 2018, "The impact of Brexit on Scotland's Growth Sectors"

3.4.3 Non-Domestic Rates

A revaluation of NDR by the Assessor set the Rateable Value for a five-year period which came into effect on 1 April 2017. The new Rateable Values were based on a 'tone date' of two years previously, 1 April 2015. The implications for businesses in Aberdeen and the North East of Scotland is that at that time, the effects of the then recent oil and gas downturn, had not yet fed through to the wider economy and large increases in some instances of over 100% in Rateable Values were being proposed. By 2017, the indications were that the effects of the downturn had been having an impact on local businesses, and with the increased rates liable from the proposed rateable values, there was concern that businesses would be materially affected in the context of the wider effects of the decreasing oil price.

To mitigate this, the Scottish Government introduced a relief package in 2017/18 and 2018/19 for the hospitality and office sectors in the North East of Scotland. This restricts bill increases to 12.5% in the sectors for those businesses not already qualifying for 100% relief. These sectors had been impacted during the economic downturn in the oil and gas sector in the North East and this assistance helped to prevent what would otherwise have been large increases in their NDR bills. Aberdeen City Council implemented a local relief scheme in 2017/18 providing relief to other sectors not covered by the Scottish Government relief scheme.

Anecdotal evidence from industry representatives suggests that this could continue to impact on these sectors next year. Further, these changes could be felt in industries that have been struggling since the economic downturn in the oil and gas sector and its induced impact across the economy. The Scottish Government recently announced that the relief scheme for offices and hospitality will be extended until 2022¹⁰⁴. This will be welcomed in these sectors. The challenge of how Non-Domestic Rates bills impacts on already struggling businesses across all sectors and in certain property types remains to be seen in the next few years.

3.4.4 Ageing Population

Like the rest of the UK and Scotland, the North East is projected to have an increasingly ageing population in future decades.

- The number of people living in Scotland of pension age and over is projected to rise by 25.1% by 2041 to 442,000;
- In Aberdeen this rise is projected to be 12.5% to 11,000 while in Aberdeenshire this rise is projected to be 28.7%, 23,500;
- The rise is particularly pronounced among the over 75s. The number of people living in Scotland aged 75 and over is projected to rise by 78.6% by 2041 to 348,000;

¹⁰⁴ <https://news.gov.scot/news/business-rates-cap>

- In Aberdeen this rise is projected to be 54.2% to 9,000 while in Aberdeenshire this rise is projected to be 94.2% to 19,000.

The demand for health and social care in later life could rise hugely which has implications for both the supply of health and social care places as well as the need for social carers in the North East. According to Skills for Care¹⁰⁵, the number of adult social care jobs in the UK needs to grow by between 24% and 82% up to 2025.

However, the care sector pays relatively low wages. According to Skills for Care, the average hourly rate for care workers was £7.10 (as at December 2012) compared with a gross average hourly rate of £17 in Aberdeen in 2012. Job roles within the sector in the North East are difficult to fill due to competition from other sectors and the financial reward package. High housing costs are also to blame especially in Aberdeen City¹⁰⁶. The challenge is exacerbated by the slowing of working-age population growth highlighted above, and a challenge will be to increase participation of those in the older age groups and/or by increased productivity.

3.4.5 Technological Change

The Centre for Cities has estimated the employment implications for UK cities from technological change reducing demand for some occupations and increasing it for others¹⁰⁷. Generally, those jobs that are made up of routine tasks are at a greater risk of decline, whereas those occupations requiring interpersonal and cognitive skills are well-placed to grow. Overall, one in five jobs in cities across Great Britain is in an occupation that is very likely to shrink by 2030. This amounts to approximately 3.6 million jobs, or 20.2% of the current workforce in cities. In Aberdeen this figure is slightly lower with 19.3% of the current workforce at risk of shrinking.

The majority of these jobs at risk are in a handful of occupations. Sales assistants and retail cashiers is the occupation group most at risk – as a whole, one in five urban jobs in this occupation is deemed at risk of displacement. In Aberdeen, 44.1% of all jobs at risk are in the categories, sales assistants and retail cashiers, other administrative occupations, customer service occupations, and administrative occupations such as finance and elementary storage occupations.

The labour market will continue to evolve - new occupations will arise and some occupations that already exist will become increasingly important. The report finds that half of the jobs very likely to experience an increase in demand are in the public sector, whereas the remaining half is almost evenly divided into high-skilled and lower-skilled private sector occupations.

¹⁰⁵ <http://www.skillsforcare.org.uk/Document-library/Finding-and-keeping-workers/Recruitment-and-retention-strategy/Workforceretentionfullresearchreport.pdf>

¹⁰⁶ "The recruitment and retention challenges in the third sector Research report June 2014

¹⁰⁷ <http://www.centreforcities.org/wp-content/uploads/2018/01/18-01-12-Final-Full-Cities-Outlook-2018.pdf>

Growing demand for publicly-funded activities in the future is driven by demographic shifts and expectations around increased demand for lifelong learning, with an impact on higher-skilled public-sector occupations. Demand will not just grow for high-skilled jobs though, some non-routine lower-skilled jobs in the private sector are also expected to grow as a result of increased demand for services in areas such as sports and fitness. Aberdeen is projected to have the second largest growth in the share of high-skilled jobs of any city in Great Britain.

The Centre for Cities report argues that the policy response to the changing nature of work in recent decades has not prepared those people and places most affected by these changes to adapt to them. Policy needs to focus on giving people the skills required to fill the non-routine occupations that have become, and will continue to be, increasingly common. An important part of this will be to provide their residents with the skills they need to be successful in a labour market which is likely to be ever-more dominated by non-routine work.

3.4.6 Productivity

Since the 2008 financial crisis, productivity growth across the G7 has been much lower than previously. However, the UK's productivity fall was steeper and its rebound weaker than in comparison countries. On a current price gross domestic product (GDP) per hour worked basis, UK productivity in 2016 was:

- above that of Japan by 8.7%;
- above that of Canada by 0.6%;
- lower than that of Italy by 10.5%;
- lower than that of the US by 22.6%;
- lower than that of France by 22.8%;
- lower than that of Germany by 26.2%;
- lower than that of the rest of the G7 by 16.3%.

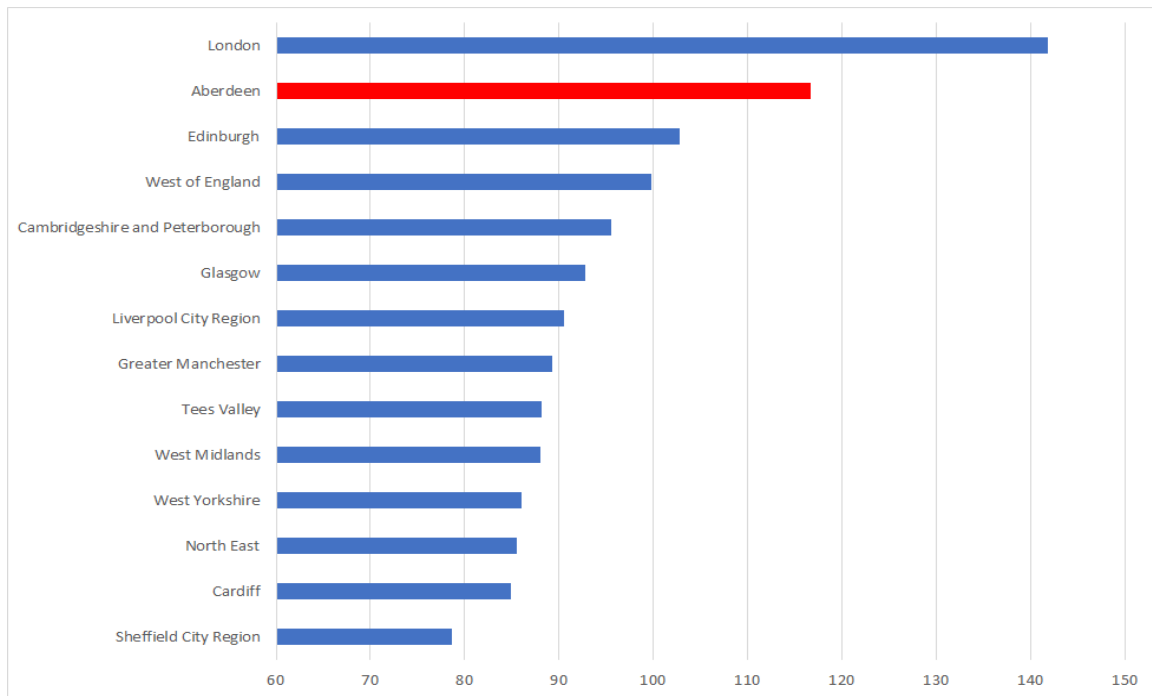
It has been difficult to assess the factors that have contributed to the UK's weak productivity performance since the financial crisis. Possible contributing factors have been low capital investment, low skill levels, the high employment rate (and firms hoarding labour as a result), low interest rates (which may have kept some of the least efficient companies afloat), weaker diffusion of knowledge and practice between firms and problems with measuring productivity particularly in service companies.

Brexit could hinder Britain's economy and further discourage investment with potential knock-on effects on productivity. The Office for Budget Responsibility (OBR) noted that while there isn't any meaningful basis on which to predict the outcome of the negotiations over the relationship between the UK and the EU after Brexit for economic forecasting, the economy appears to have weakened since the EU referendum vote. The fall in the pound has squeezed real household incomes and consumption, while providing only a modest boost to net trade.

The average quarterly growth rate has slowed from 0.6 per cent between 2013 and 2015 to 0.4 per cent since the beginning of 2016.

Productivity in the North East of Scotland has consistently been above the UK average and among the highest of all Scottish regions as demonstrated by the relatively high GVA per hour worked in figure 35.

Figure 35: UK City Regions GVA per Job Filled (UK=100; 2016)



Source: Centre for Cities, 2018

GVA per hour worked remained fairly consistent in Aberdeen City and Aberdeenshire between 2014 and 2016, whilst GVA per Hour Worked in Scotland and the UK increased at a faster rate. In 2016, the Aberdeen City region had the second highest GVA per job filled of all UK City regions, being 17% higher than the UK average.

GVA per job by industry sector is considerably higher in the region than in Scotland as a whole. In 2016, the primary industries and information and communication sectors had considerably higher GVA per job in the region than in Scotland as a whole. In Aberdeen City in particular, every sector has a higher GVA per job than the Scottish sector average per job.

The GVA per worker distribution for the Aberdeen City Region in 2014 demonstrates that Aberdeen has a far different productivity distribution than other regions of Scotland and the UK. Aberdeen has a far higher proportion of workers with a GVA contribution of between £110,000 and £120,000. Regions such as Glasgow and Edinburgh have a higher proportion of workers with a GVA contribution of approximately £20,000 to £50,000 than Aberdeen, although have a far lower proportion of workers with a higher GVA contribution.

3.4.7 Inclusive Economic Growth

The Inclusive Economic Growth Commission define inclusive economic growth as enabling as many people as possible to contribute to and benefit from growth¹⁰⁸. Despite the relative economic success there remains levels of deprivation in the North East. The Commission report¹⁰⁹ includes the following recommendations:

- City regions work together to form sectoral coalitions linking industry sectors and places to modernise industrial strategy;
- The creation of new institutions or civic enterprises to connect business and industry, schools, training providers and universities;
- That cities become places of life-long learning;
- New social contracts between city regions and central government that commit to specific social and economic outcomes, in return for control over local resources;
- Maximising the impact of national and local investment by mainstreaming inclusive growth in all public investments including physical infrastructure projects;
- Establishing inclusive growth as a regular, official statistic by publishing a quarterly national measure of inclusive growth alongside GDP;
- Places should define and be accountable for agreed inclusive growth metrics.

The recently established Scotland's Centre for Regional Inclusive Growth's aim is to drive improvements in inclusive growth outcomes across Scotland, recognising the different opportunities and challenges across Scotland's regions, by deepening the evidence base on what can accelerate regional inclusive growth and driving evidence-based policy and decision-making.

3.4.8 Investment

Ensuring the region retains existing and attracts new inward investment is paramount to ensuring a vibrant, inclusive, highly productive and diversified economy that develops and retains its skilled labour. This is core to the Regional Economic Strategy and City Region Deal. With that in mind Aberdeen City Council and Aberdeenshire Council recently launched *Invest Aberdeen* to develop propositions and promote the city and region to mobile company and institutional investors. The challenge will be to articulate the benefits of investing in the region and in response to that challenge there is now, for the first time, a soft landing service at the disposal of these investors, their intermediaries, the UK Government and the Scottish Government. This will target three areas:

- Traditional FDI, defined as from outwith Scotland;
- Corporate, institutional investment through pension funds, bonds and sovereign wealth funds. This is an area of significant interest in Aberdeen given the Council's

¹⁰⁸ https://www.thersa.org/globalassets/pdfs/reports/rsa_inclusive-growth-commission-final-report-march-2017.pdf

¹⁰⁹ https://www.thersa.org/globalassets/pdfs/reports/rsa_inclusive-growth-commission-final-report-march-2017.pdf

experience with its own Bond and schemes such as the Marischal Square development and the private rented sector housing scheme;

- The final strand is focussed on indigenous business growth and links back to wider key account management activity as well as retaining and growing existing investments.

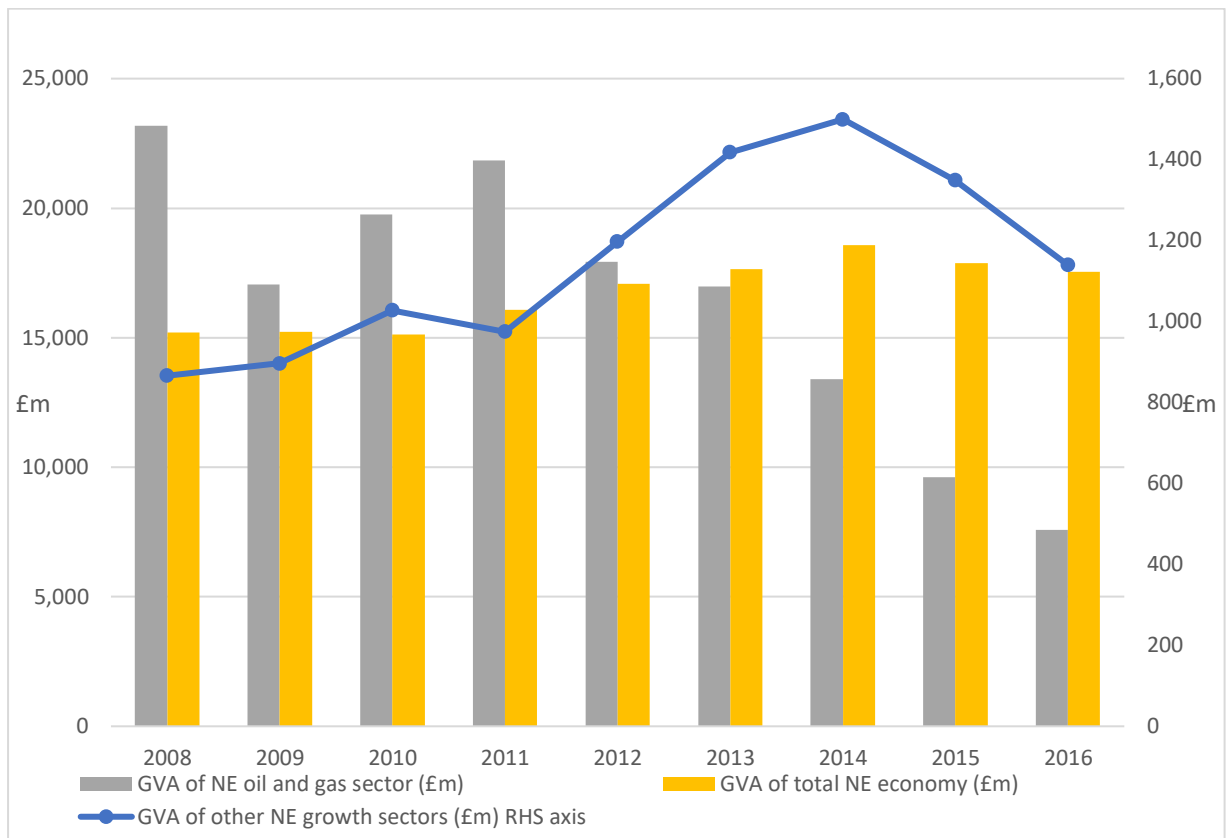
3.4.9 Oil and Gas Diversification

The cornerstone of the North East economy in recent decades has been the oil and gas sector. The sector is diverse and covers a wide range of activities. However, as set out in section 2 the region cannot rely on the industry to deliver the same benefits into the future, as UK oil production is expected to enter a period of decline in the 2020s. The ambition of the regional economic strategy is to ultimately diversify the North East economy away from oil and gas, and in particular towards the region's growth sectors.

Figure 36 shows recent trends in GVA in the North East economy, the North East energy sector and the North East growth sectors¹¹⁰. During the downturn in the oil and gas sector, the GVA of the other growth sectors declined slightly but it is too early to assess whether this is cyclical or the emergence of a more sustained trend. However, if the Aberdeen economy is to diversify successfully in the long-term in a way that supports productivity improvements and economic growth then it will be critical that new activity in the growth sectors and/or in other sectors is focused in high value-added activity. This is particularly vital in Aberdeen where the intention is to diversify away from a sector like oil and gas that is very high value added and underpins the high productivity of the economy¹¹¹.

¹¹⁰ Scottish Government Growth Sector Statistics. Note, SIC 06 (Extraction of crude petroleum and natural gas) data is included in GVA of NE Oil and Gas sector totals. The data is allocated to UK regions (including Scotland) according to the address at which the business is. Such offshore activity, under UK Regional Accounts procedures is normally allocated to a separate "Extra-Regio" category rather than allocated to a region within the UK.
<https://cdn.obr.uk/ExecutiveSummary.pdf>

Figure 36: GVA of North East Economy and Growth Sectors 2008- 2016



Source: ONS & Scottish Government Growth Sector Statistics



Section 4: Conclusions and Recommendations

4.1 Conclusions and Recommendations

The previous Sections of the report discuss the economic performance of the Aberdeen City and Aberdeenshire Council areas. The analysis confirms that the underlying indicators of economic performance were affected by the fluctuating oil price, but there are indications already that the outlook is improving.

The analysis also indicates that the North East economy is in a good place in terms of the fundamental strengths derived from the oil and gas sector; high productivity, employment rates, and wages and salaries.

However, with UK oil and gas production likely to decline in the future, the region cannot rely on the sector to make the same contribution to the success of the local economy as was the case in the past.

The table below provides a summary of our key findings and recommendations from the first annual report.

Table 10: Responding to the Challenges

The position	The challenge	The recommendation
Regional Economic Strategy		
The Regional Economic Strategy provides the framework for a collaborative approach and diversification plan for the city and region.	Although there are significant oil and gas reserves, in the longer-term production will decline. There is a dependency on the sector in the short/medium terms.	The Panel endorses the overall approach and recommends the close monitoring of actual progress and implementation, and in particular a focus on raising productivity outside the oil and gas sector to maximise the opportunities for future inclusive growth.
The Panel welcomes the ambition and direction of the Regional Economic Strategy and the accompanying 2018-23 Action Plan Programme areas.	Success will depend on the successful implementation and delivery of the key initiatives.	<p>The Panel will monitor progress and make additional recommendations in future reports depending on how implementation progresses.</p> <p>To make it easier for the Panel to do so, it would be beneficial if the Regional Economic Strategy Action Plan could go further and set out the timeline and key measurable objectives for each action. The Panel recommends setting out an economic performance framework – The North East Economy Performs (similar to the Scottish Government’s National Performance Framework) which should include key economic indicators against which progress can be assessed covering economic, productivity, inclusive and sustainable growth. It should also include further analysis of the type of diversification that will be most conducive to achieving the RES objectives and how it will be monitored going forward.</p> <p>The Council should engage with the Centre for Regional Inclusive Growth to define inclusive growth metrics that can be monitored and reported on at the regional level as part of The North East Economy Performs Framework.</p>

The position	The challenge	The recommendation
Infrastructure		
<p>The RES is being supported by a number of significant investments by the Councils and industry. These include current transport investments, The Event Complex Aberdeen, the City Region Deal, and the City Centre Masterplan.</p>	<p>Infrastructure – delivery of major investments is, not unusually, lagging the local economic cycle. The coordination of major infrastructure decisions at the local and national level is not aligned.</p>	<p>The discussion around forming a strategic utilities or infrastructure group is welcome. This should be prioritised. That group, comprised of national and local infrastructure partners, must oversee a clear process for assessing the economic, social and environmental impacts of proposed projects and prioritising them accordingly.</p> <p>The Group should also be tasked with regional coordination, assessment and planning for the future infrastructure needs of the city and region, as well as identifying and working with stakeholders who will be critical to the delivery of the investment and leverage required.</p> <p>All infrastructure investments should be monitored through the Local Development Plan and the proposed The North East Economy Performs Framework.</p> <p>Progress on the digital programme within the Aberdeen City Region Deal is critical to the success of the Regional Economic Strategy and the Panel recommends continued close monitoring of progress through the proposed The North East Economy Performs Framework.</p> <p>The RES recognises that the region’s natural assets and clean environment must be safeguarded to support key sectors such as tourism, food, drink, agriculture and fisheries. This is consistent with the approach to maintain and enhance our natural capital in the Scottish Government’s Economic Strategy, but there is an opportunity for Aberdeen to take a lead by developing key actions for applying these principles at the regional level and monitoring them through the proposed The North East Economy Performs Framework.</p>

The position	The challenge	The recommendation
Housing, a key strand of economic growth policy, is not as embedded into the economic planning of the city as it should be.	A region-wide housing strategy and action plan is another aspect which is fundamental to laying strong foundations for sustainable and inclusive growth.	The commitment to develop a housing strategy and action plan should be actioned for 2019 annual reporting overseen by a strategic governance group.
Innovation		
R&D spend levels are among the highest in Scotland, and innovation is a major strand of the City Region Deal.	Successful places are ensuring that barriers to innovation are identified and addressed for businesses across all sectors. The benefits of the investments made by the city region and the two universities need to transfer to other sectors.	The Panel suggests that the delivery of Scottish Government Economic Action Plan proposals for piloting Productivity Clubs are implemented in the city region. Any further barriers to innovation in the regional economy should be identified and addressed for businesses across all sectors, considering such issues as availability of key skills and finance, the spread of knowledge and technology within the local economy, how businesses learn from global best practice in leading international businesses and maximising the opportunities for knowledge transfer.
Inclusive Economic Growth		
There is a focus on inclusive economic growth in the RES, which is welcome. However, it is not as embedded in wider plans.	Skills Development Scotland (SDS) needs to ensure that key actions in the Regional Skills Strategy are accounted for across partners.	The skills challenges identified in this report around Brexit, future technology/automation, the ageing society, and diversification should be addressed as part of the local skills action plan, which should have clear SMART objectives. This should include actions to raise management and leadership skills within the regional economy. The focus on a strategic and coordinated Developing the Young Workforce with reference to future employment opportunities in the Skills Strategy is endorsed, which is particularly important given the potential implications of Brexit for access to key skills and resources in the region. Overall, if inclusive growth outcomes are to be achieved, interventions need to be future-proofed against the changing nature of the labour market, notwithstanding any Brexit effects, as

The position	The challenge	The recommendation
		set out in the Centre for Cities report on the employment implications of technological changes, globalisation and demographic change. This must include building on the need for life-long learning and ensuring that education provision can adapt to changing trends and that opportunities are provided at the right time for people to train or retrain in the skills of the future.
The region continues to perform well in terms of business start-up and survival rates.	Part of the city region's inward investment strategy will be to attract and grow new businesses. Part of this includes business births and ensuring their access to venture capital and support.	The Panel recommends that steps are taken to ensure that the combination of existing services from Scottish Enterprise, Business Gateway (Elevator) and ONE combine to support young businesses with high growth potential and facilitate productivity improvements across all business sectors.
Internationalisation		
The city region makes a disproportionate positive contribution to UK and Scottish international trade.	Given the challenges posed by Brexit we believe that the export sector needs to be protected and enhanced in terms of its importance in the Regional Economic Strategy. Dialogue is ongoing between AGCC, as the lead partner, and the Scottish Government for funding to establish an export partnership in the North East of Scotland between AGCC, Aberdeen City Council, the universities and other partners.	The city region should have a stronger export-oriented collaboration which capitalises on its existing advantages and the investment in new transport infrastructure. A bid for a formal export partnership should be considered. This is an example of the type of coordination between national and local stakeholders that must be achieved to enhance the future growth potential of the region. This requires that the ambition and commitment shown at the regional level will be matched at the national level.
The report also highlights the important role played by people who come to the North East from within the EU.	The approach to internationalisation must also extend to ensure that the regional economy can continue post-Brexit to access the key skills it requires for future growth from outside the UK. It is vital that the case is clearly made at	A programme of engagement by the city region leadership should be extended to the UK Government, in addition to any with the Scottish Government to ensure that the impact of Brexit on the flow of key skills to the North East is minimised.

The position	The challenge	The recommendation
	the local, national and UK level so that whatever Brexit deal is agreed there is minimum impact on the flow of key skills to the North East economy.	
Invest Aberdeen has been implemented during the review period.	The city region has, historically, not had to be as active as other city regions in attracting inward investment. That has now changed, as the need to attract a wider range of inward projects, from new sectors, and the institutional investment for the next phase of the City Centre Masterplan grows.	The Panel welcomes the Invest Aberdeen approach and recommends development of a monitoring framework against which to assess inward investment performance. There are existing measures including annual FDI statistics from Ernst & Young and Scottish Development International. However, local metrics, such as enquiry caseloads, conversion of enquiries at various stages, investments secured (£), value added, and jobs created, should be developed.
General		
The region has consistently delivered a higher level of economic growth than other parts of the UK and Scotland, and is a globally competitive location. Achieving the level of investment to deliver its priorities could be enhanced by further devolution of powers locally.	This report confirms that some challenges the North East region faces are specific to the local economy (such as the trends in future oil production/price). Under such circumstances a one-size-fits-all approach to economic policy is not going to be optimum and could risk undermining economic performance at the local and national level. The Aberdeen City Region Deal is the starting point of a long-term improvement programme to build further growth into the regional economy. However, the focus of this programme is on delivery of	It is the Panel's view that greater flexibility to allow local authorities and other stakeholders to adjust policy at the local level to meet different economic trends, priorities and challenges would be beneficial at the local and national level. The Panel recommends that Aberdeen City Council encourages the Scottish Government to take the lead in generating a national discussion as to how greater autonomy in economic policy could be created in a way that will improve economic outcomes at the local and national level. The significant economic challenges facing the regional and national economies in the years ahead, outlined in this report, emphasise the need for a more innovative, flexible and bottom-up approach to developing economic policy in Scotland.

The position	The challenge	The recommendation
	<p>transformational economic projects and not specific powers or fiscal levers. Additional mechanisms are needed, beyond capital investment, to deliver the regional economic objectives.</p> <p>The Panel notes the ongoing discussion around the introduction of a tourism levy in Scotland. This is just one way in which greater flexibility could be created in economic policy at the local level.</p> <p>Others that could also be considered are Non-Domestic Rates, Air Passenger Duty and powers to vary Council Tax.</p>	

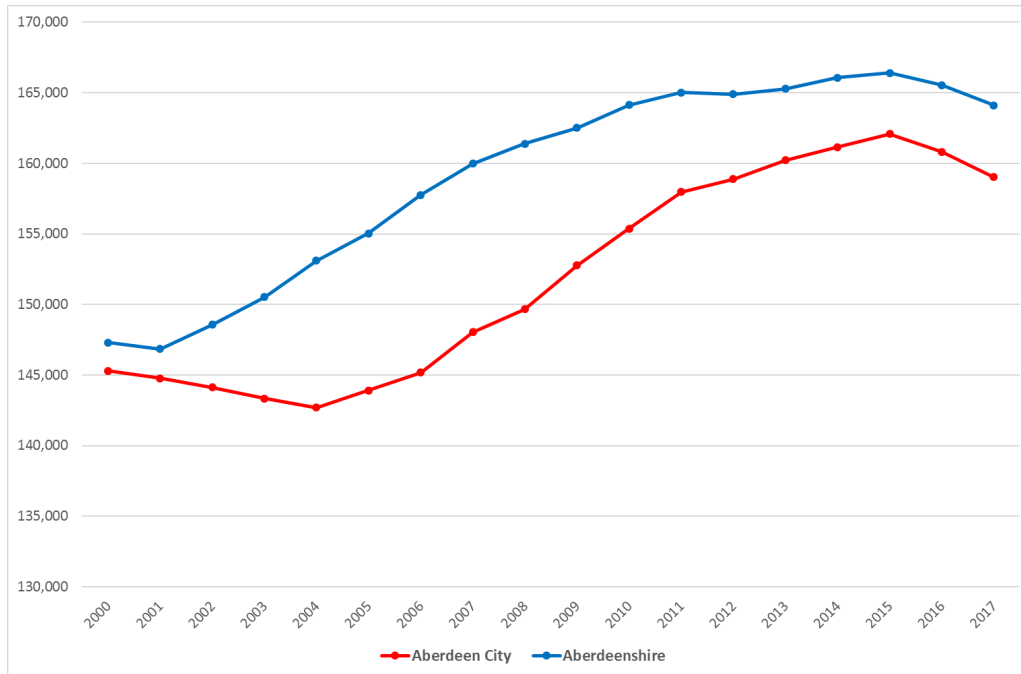


Appendices

Appendix

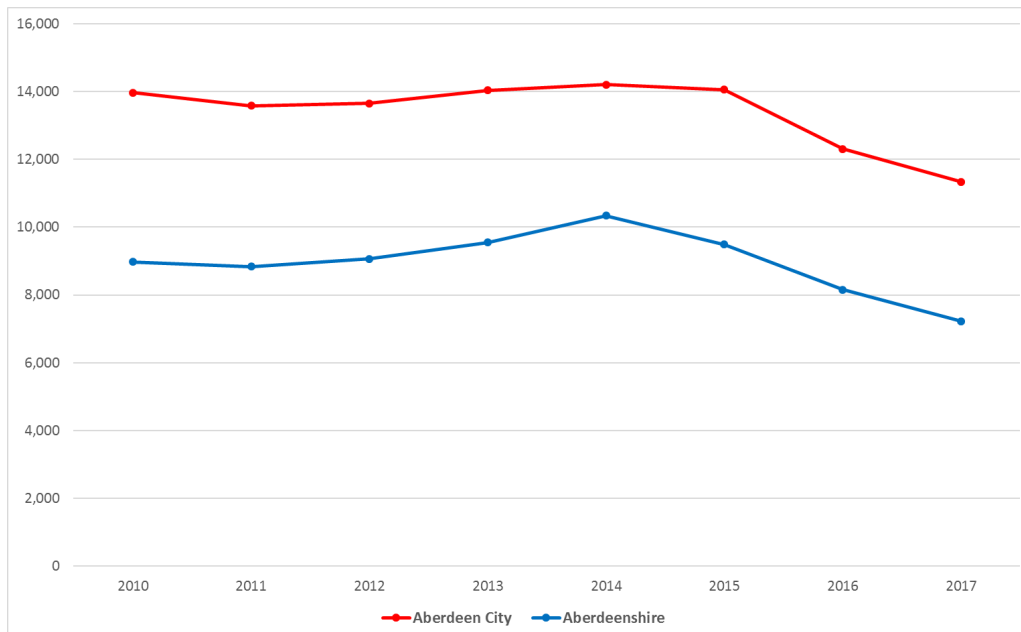
1.1 Demographics

Figure A1: Aberdeen City and Aberdeenshire Working Age Population Trends



Source: National Records of Scotland. Mid-year Population Estimates by Scottish Local Authority. 2017.

Figure A2: Aberdeen City and Aberdeenshire Working Net In-Migration Trends



Source: National Records of Scotland. Mid-year Population Estimates by Scottish Local Authority/Local Area Migration.

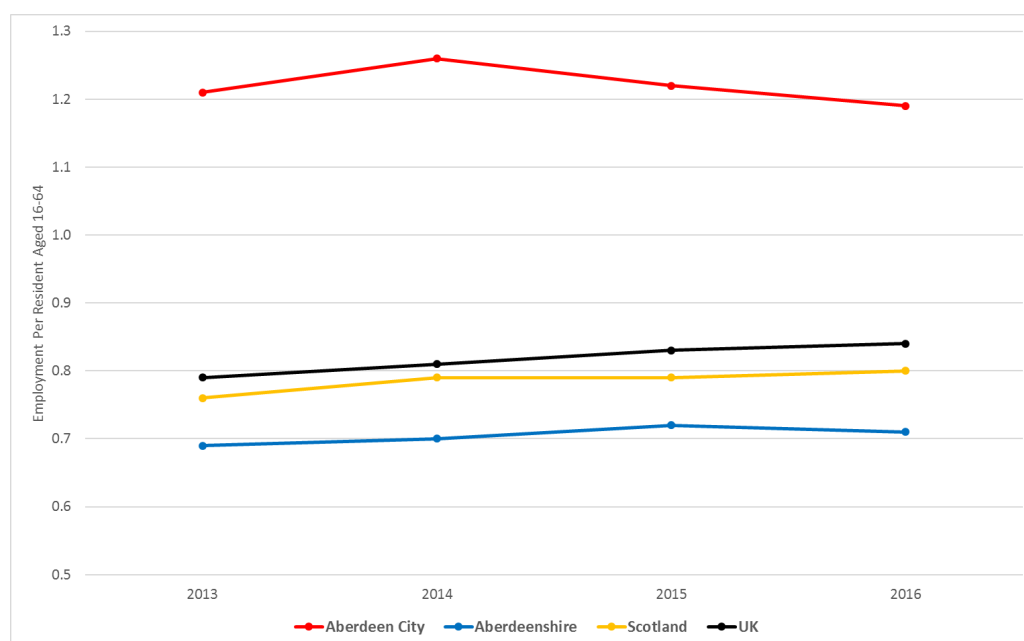
1.2 Labour Market & Economic Activity

1.2.1 Employment

Figure A3 shows Aberdeen City and Aberdeenshire had a 0.95 jobs density rate (jobs located in the region for every working age resident) in 2016. There is considerable variation in this figure between City and Shire. In 2016, the jobs density rate for Aberdeen City was 1.19 and 0.71 in Aberdeenshire.

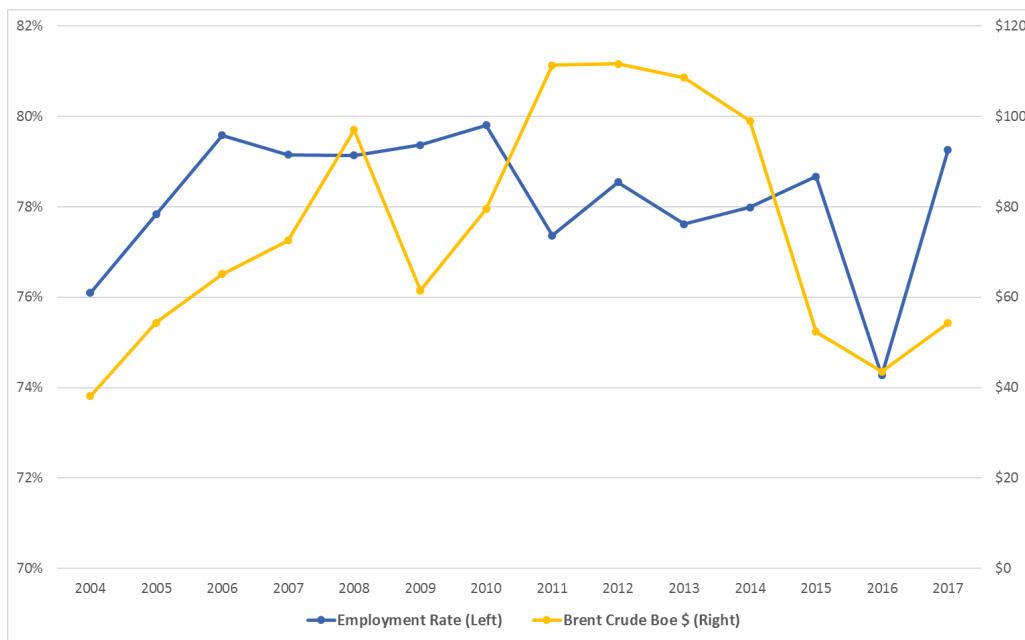
Aberdeen City's 1.19 jobs density rate was the highest of any Scottish Local Authority in 2016, compared to Glasgow at 1.05, Edinburgh at 1.02 and Dundee at 0.84. In 2016, there were 2,780,000 jobs in Scotland, with 0.80 jobs per working age resident. The jobs density rate for Aberdeen City in 2013 was 1.21, in 2014 was 1.26 and in 2015, was 1.22. Between 2014 and 2016, the total number of jobs in Aberdeen City declined by 11,000, from 203,000 in 2014 to 192,000 in 2016.

Figure A3: Aberdeen City and Aberdeenshire, Scotland and UK Jobs Density (2013-2016)



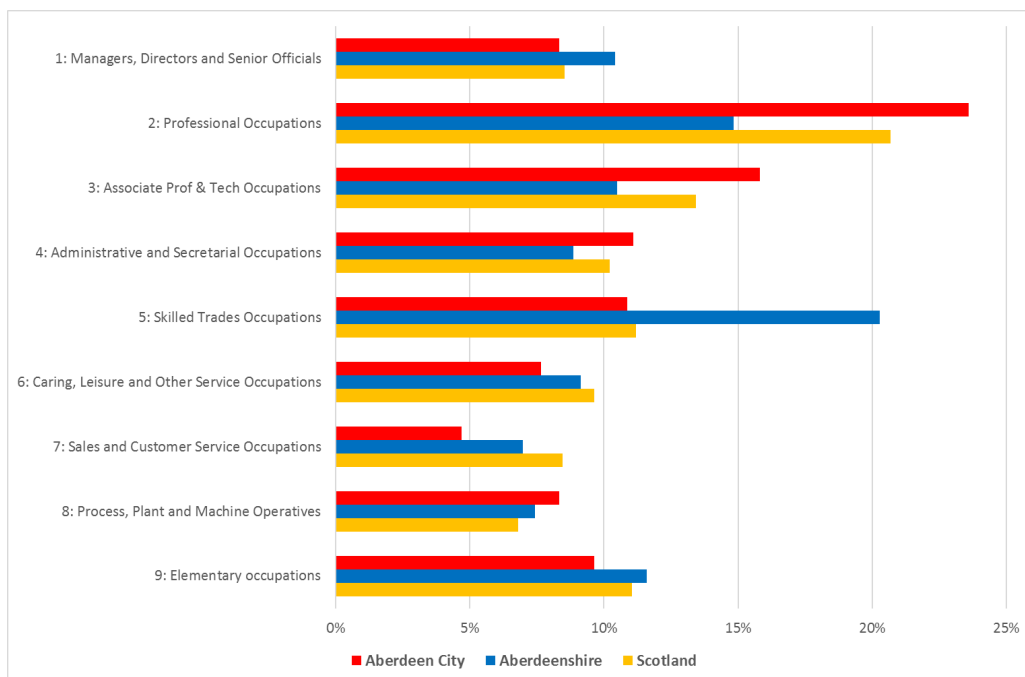
Source: Office for National Statistics/Nomis. Jobs Density.

Figure A4: Aberdeen City & Shire Employment Rate and Brent Crude BOE Price (2004-2017)



Source: Office for National Statistics. Annual Population Survey.

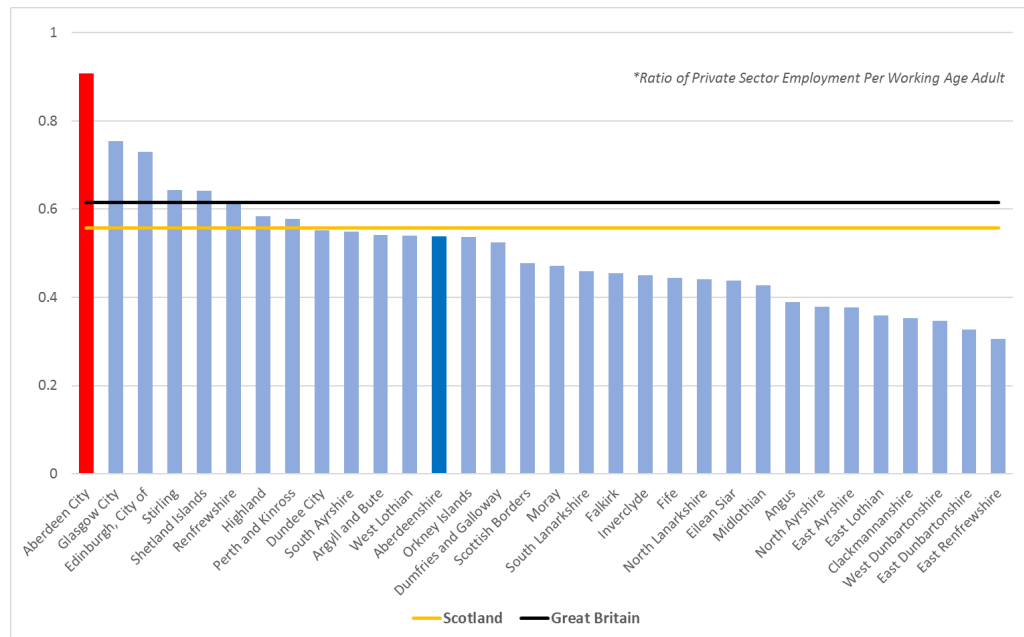
Figure A5: Aberdeen City, Aberdeenshire and Scotland Employment Rate by occupation type 2017/18



Source: Office for National Statistics. Annual Population Survey - Workplace Analysis.

Figure A6 shows the local authority private sector employment ratio in 2016. In 2016, there were 145,962 people in employment within the Private Sector in Aberdeen City. Aberdeen City had a working age population of 160,821 in 2016. The ratio of Private Sector Employment located in Aberdeen City to the working age population was 0.91 and 0.53 in Aberdeenshire, compared to 0.75 for Glasgow, 0.73 for Edinburgh, 0.56 for Scotland and 0.62 for Great Britain. Aberdeen City had the highest ratio of private sector employment to working age population of any Scottish local authority in 2016.

Figure A6: Local Authority Private Sector Employment Ratio (2016)



Source: Office for National Statistics. Business Register and Employment Survey. 2016.

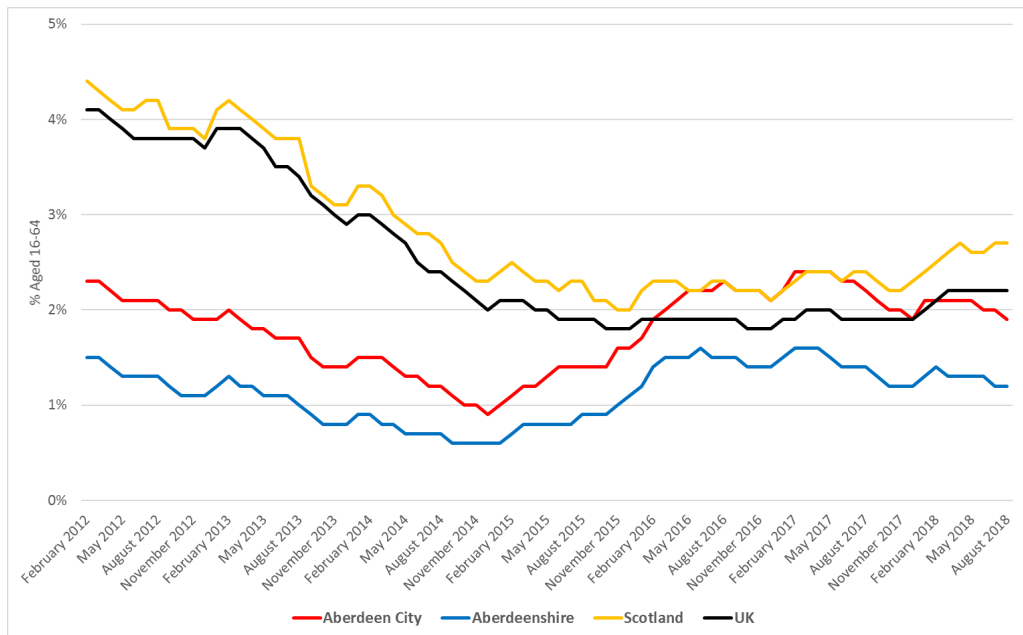
1.2.2 Unemployment

Figure A7 shows the Claimant Count Rate in Aberdeen, Aberdeenshire, Scotland and UK between 2012 and 2018. The Claimant Count measure the number of people claiming out-of-work benefits principally for the reason of being unemployed, including those on Universal Credit and Jobseeker's Allowance. The claimant count is one of the best short-term indicators available for the local economy, as it is derived from administrative data that is available monthly. The claimant count is a subset of unemployment, as those in unemployment are not necessarily able to claim these benefits.

By April 2018, there were 5,605 people aged 16 to 64 on the claimant count in Aberdeen City and Aberdeenshire. This represents a significant reduction since 2017 of those on the claimant count. In March 2017, there were 6,555 people on the claimant count in Aberdeen City and Aberdeenshire. The claimant count rate of the working age population for Aberdeen City in April 2018 was 2.1% and for Aberdeenshire was 1.3%, compared to the Scottish national average of 2.7% and the UK average of 2.2%. However, the claimant count level in the region remains substantially higher than the pre-oil & gas downturn level, when the number of claimants in Aberdeen City and Aberdeenshire was 2,485 in December 2014, with claimant count rates for Aberdeen City at 0.9% and for Aberdeenshire

at 0.6%. During the same month, the Scottish claimant count rate was 2.3% of the working age population, more than double the regional rate.

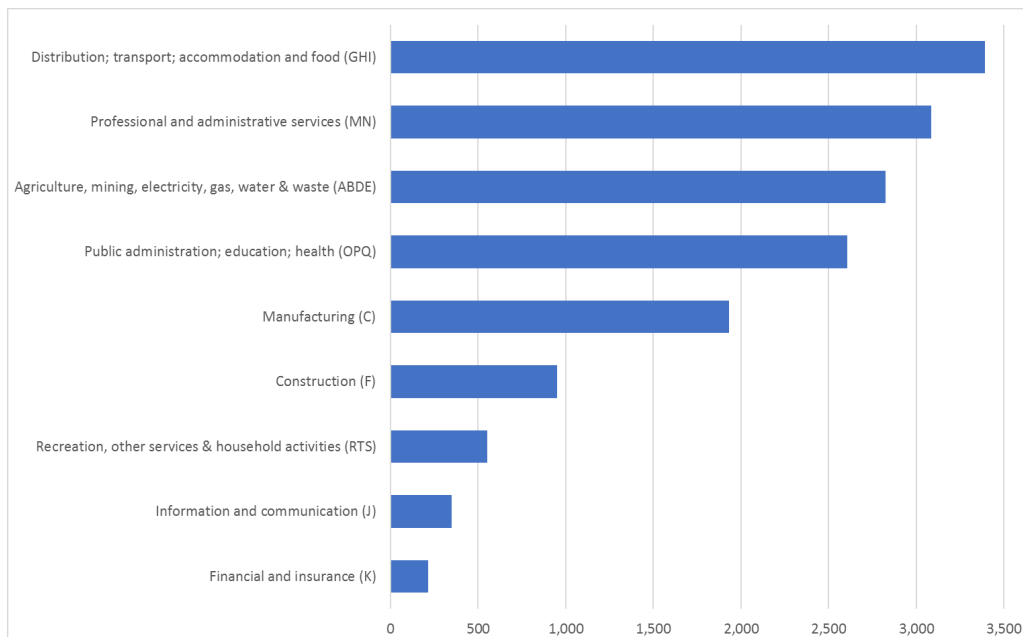
Figure A7: Aberdeen, Aberdeenshire, Scotland and UK Claimant Count Rate (2012-2018)



Source: Office for National Statistics/Nomis. Claimant Count.

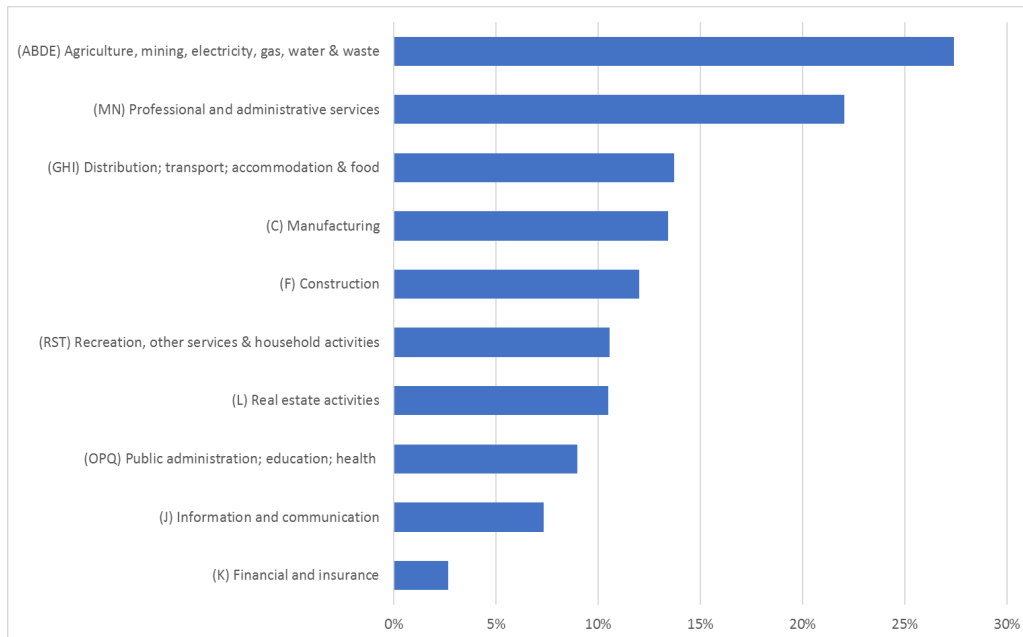
1.3.3 Gross Value Added

Figure A8: Gross Value Added in Aberdeen City and Aberdeenshire by sector (2016) £m



Source: Office for National Statistics. Regional Gross Value Added (income approach). 2016.

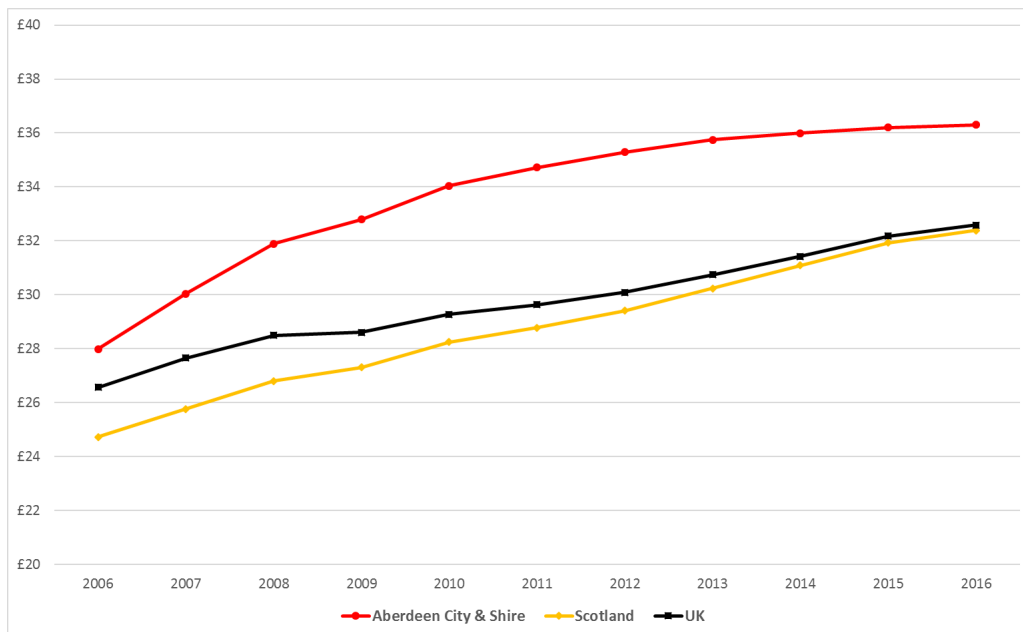
Figure A9: Gross Value Added in Aberdeen City and Aberdeenshire as a % of Scottish GVA by sector (2016) £m



Source: Office for National Statistics. Regional Gross Value Added (income approach). 2016.

1.3.4 Productivity

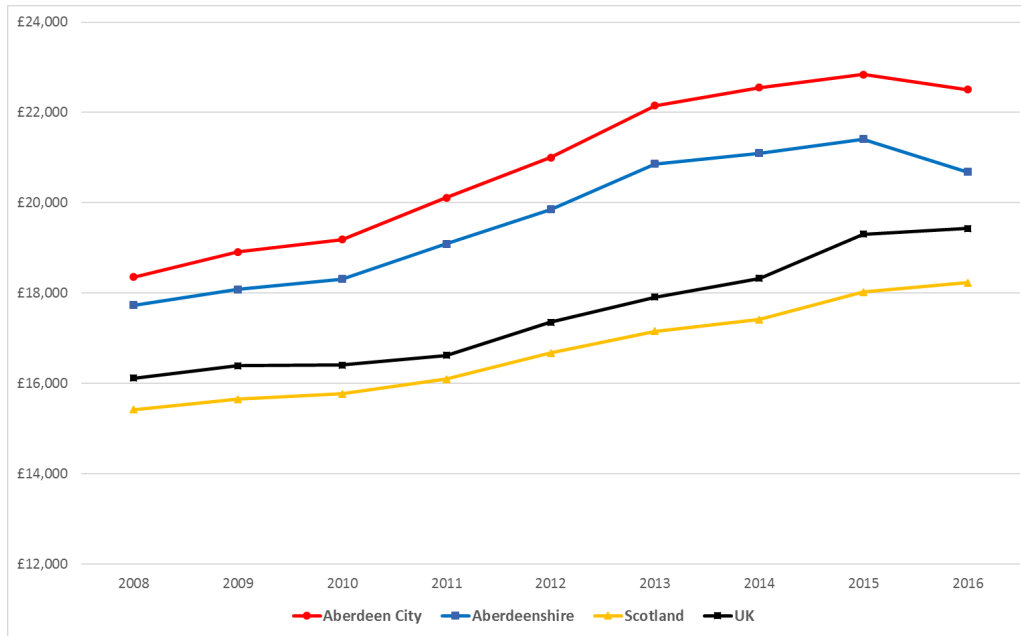
Figure A10: Nominal Gross Value Added per hour worked in Aberdeen City, Aberdeenshire, Scotland and UK (2006-2016) £m



Source: Office for National Statistics. Sub-Regional Productivity. 2016.

1.3.5 Household Income

Figure A11: Gross Disposable Household Income Per Head in Aberdeen, Aberdeenshire, Scotland and UK (2008-2016) £m



Source: Office for National Statistics. Regional Gross Disposable Household Income at Current Basic Prices.

1.7 Exports

Figure A12: Total Value of Aberdeen City and Shire Exports by sector (2015)

Aberdeen City & Shire Exports (2015)			
	International Exports (£ millions)	Total Exports (£ millions)	Total Exports (% Scotland)
Manufacturing and other non-service industries	3,650	8,255	20.6%
<i>Agriculture, Forestry and Fishing</i>	10	70	9.5%
<i>Mining and Quarrying</i>	2,100	5,145	97.5%
<i>Food products, beverages and tobacco products</i>	205	635	7.1%
<i>Coke, refined petroleum and chemical products</i>	70	100	2.5%
<i>Machinery and equipment NEC</i>	315	480	24.2%
<i>Repair and installation of machinery and equipment</i>	310	475	38.2%
<i>Remaining non-service industries</i>	635	1,355	7.6%
Service industries	3,730	8,210	21.3%
<i>Wholesale, retail trade; repair of motor vehicles and motorcycles</i>	375	1,090	13.1%
<i>Financial and insurance activities</i>	95	230	2.6%
<i>Legal, accounting, management, architecture, engineering, technical testing and analysis activities</i>	1,810	4,285	64.4%
<i>Scientific research and development</i>	60	75	9.3%
<i>Administrative and support service activities</i>	795	1,170	28.2%
<i>Remaining service industries</i>	595	1,360	14.0%
All industries	7,375	16,465	21.0%

Source: The Scottish Government. Export Statistics 2015. Aberdeen City & Aberdeenshire extract.

1.10 Investment

1.10.2 Capital Investment tracker in the North East

Figure A13: Transport Projects in the North East

Transport, infrastructure & connectivity

Kintore Station (2019)

New railway station at Kintore and car park
£16million

Aberdeen - Inverness rail Improvements (2019)

Dualling of rail track between Aberdeen and Inverurie with phase 1 Dyce - Aberdeen completed summer 2018
£330million

Aberdeen - Stonehaven rail capacity Improvements (2019)

Track and signalling improvements
£6.2million

Aberdeen International Airport (2019)

Phase 3 including catering, shops and more departure lounge space
£3.5million

Aberdeen Railway Station Improvements (2019)

Revamp the entrance and historic pavilion, with significantly enhanced passenger and retail facilities
£4million+

Haudagaln roundabout and development (2020)

Improvements including the construction of a new slip road through Middlefield with demolition works commenced summer 2018
£30million

Aberdeen South Harbour (2020)

State-of-the-art marine support facilities making Aberdeen the largest port in Scotland in terms of berthage
£330million

North East Shared Services Energy (2021)

Construction of a facility in East Tullos
£150million

Scottish Water (2021)

Capital investment and maintenance of water and waste infrastructure
£140million

NorthConnect (2022)

£1.5billion project providing an electrical link between Scotland and Norway, to exchange power and increase the use of renewable energy
£40million

Moray Offshore Wind Farm (East) (2022)

Offshore wind project including a new substation at New Deer in Aberdeenshire
£2billion

A96 dualling between Aberdeen and Inverness (2030)

Dualling of all remaining stretches of single carriageway between Inverurie and Inverness and upgrading junctions between the AWPR and Inverurie. Options appraisal underway
£3billion

New Dee Bridge crossing (TBC)

Options to be reassessed to take account of traffic re-routing following opening of AWPR
£60million+

Berryden corridor (TBC)

Widening of the road to a dual carriageway, with associated junction improvements and a new dual carriageway to the St Machar Drive roundabout
£26million

Source: Aberdeen and Grampian Chamber of Commerce, September 2018

Figure A14: Leisure and Cultural projects in the North East

Leisure & culture

The Event Complex Aberdeen (TECA) (2019)

New 12,500 arena capacity venue with 15,000m² multipurpose event space, two on-site hotels and energy centre
£333million

Braemar Gathering Heritage Centre (2019)

New museum and heritage centre at the Glamis site
£2.5million

Bon Accord - cinema/ restaurant development (2020)

New seven screen cinema and nine new restaurants
£15million

The Inchmarlo - phase 1 (2021)

Development of five-star hotel, spa and restaurant
£40million

Total value of projects
£390.5million

Source: Aberdeen and Grampian Chamber of Commerce, September 2018

Figure A15: City Centre development projects

City centre

Aberdeen Music Hall (2019)

Renovation to develop new studio and opportunities for creative learning, renovation of auditorium and new box office

£7million

Aberdeen Art Gallery (2019)

Additional gallery space and increase of size to accommodate international exhibitions

£30million

The Point (2019)

The redevelopment of the former Triple Kirks site to deliver Grade A student accommodation and associated facilities in the heart of the city centre

£20million+

Schoolhill Public Realm stage 1 (2019)

Improved setting for Aberdeen Art Gallery and Cowdray Hall

£0.5million

Provost Skene's House (2020)

Interior refurbishment as a new visitor attraction

£4.2million

Union Terrace Gardens regeneration (2020)

Renovation to improve access, amenity and activity while conserving heritage

£20million+

Mithar Kirk - Open Space project (2022)

Construction of the interior of the Kirk to house the civic archives, a café and a function space

£5million

Union Street Conservation Area Regeneration Scheme (2022)

Grants available from Historic Environment Scotland and Aberdeen City Council to support ongoing repairs and renovation of historic buildings

£2.4million+

Broadford Works (2022)

Mixed-use development incorporating residential, student accommodation, office and retail space

£140million

Queens Square (TBC)

Proposed residential led city centre mixed use development

£100million

Source: Aberdeen and Grampian Chamber of Commerce, September 2018

Figure A16: Office and Retail projects in the North East

Office & retail

Fraserburgh Saltoun Chambers project (2018)

Mixed-use development including an enterprise hub with open access pni/ start up advice and business networking facilities

£2.5million

The Falthlie Centre (2018)

A new business and enterprise hub, part of Fraserburgh 2021 regeneration

£1million

Meridian (2019)

Full refurbishment and upgrade of 45,000sq ft city centre office building

£4million

City South Business Park (2019)

Specialist development of 19 commercial units

£4million

Scotbeef Inverurie (2019)

State of the art abattoir facility

£6million

ONE Digital Tech Hub (2019)

The focal point for digital company cluster growth, cross-sector digital transformation and entrepreneurship at Schoolhill

£1.5million

Blackdog Town Centre and Regional Food Hall (2021)

A new retail, leisure and business hub at the junction of the AWPR and the A90

£50million

Aberdeen Market regeneration (2021)

Mixed use scheme

£10million+

Industrial portfolio & factory units (2032)

Various industrial redevelopments and upgrades across Aberdeenshire, delivered by Aberdeenshire Council

£14.8million

Kingshill Park (TBC)

Ongoing development of new business park in Westhill with up to 165,000sq ft of office space and 137,000sq ft of industrial units

£66million

Bon Accord Centre - George St extension (TBC)

Expansion including additional retail space, residential, office and potential hotel site

£100million

Union Square (TBC)

Planning permission granted in 2018 for retail and leisure/catering expansion, hotel and parking

£200million

Buchan Gateway Development - phase 2 (TBC)

Mixed use leisure and retail development in Peterhead

£45million

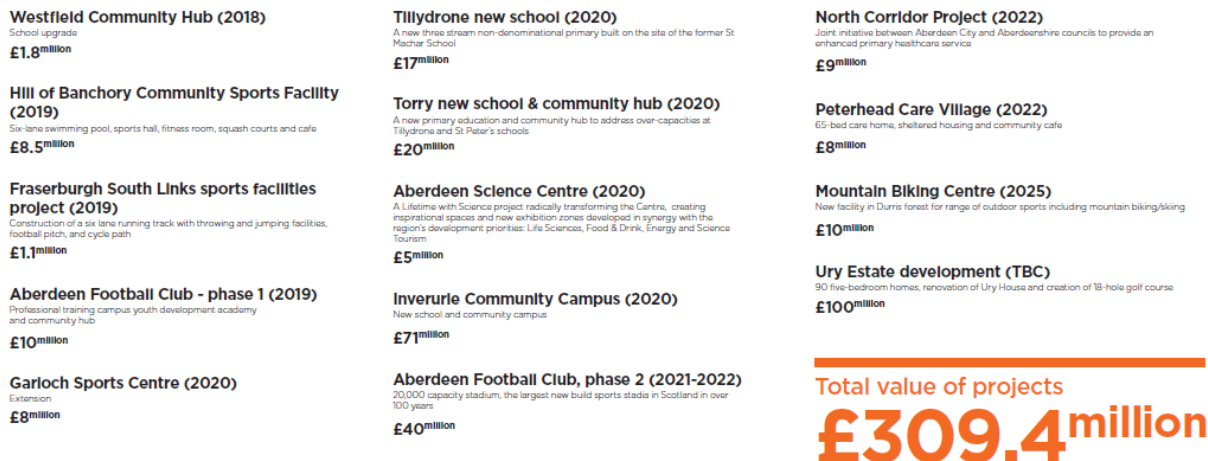
Total value of projects

£504.8million+

Source: Aberdeen and Grampian Chamber of Commerce, September 2018

Figure A17: Health, Sport and Education projects in the North East

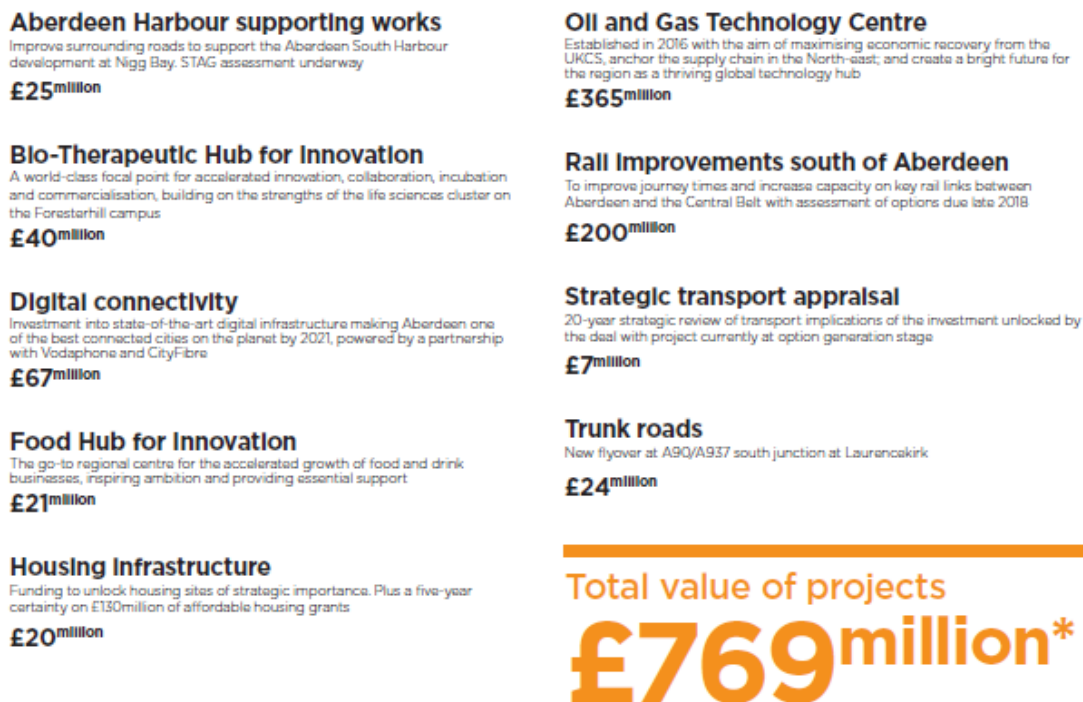
Health, sport & education



Source: Aberdeen and Grampian Chamber of Commerce, September 2018

Figure A18: City region deal projects in the North East

City Region Deal



Source: Aberdeen and Grampian Chamber of Commerce, September 2018

2. Oil and Gas

2.6.2 Investment Outlook

Figure A19: Net balance of contractors reporting a change in investment spend by category in oil and gas sector

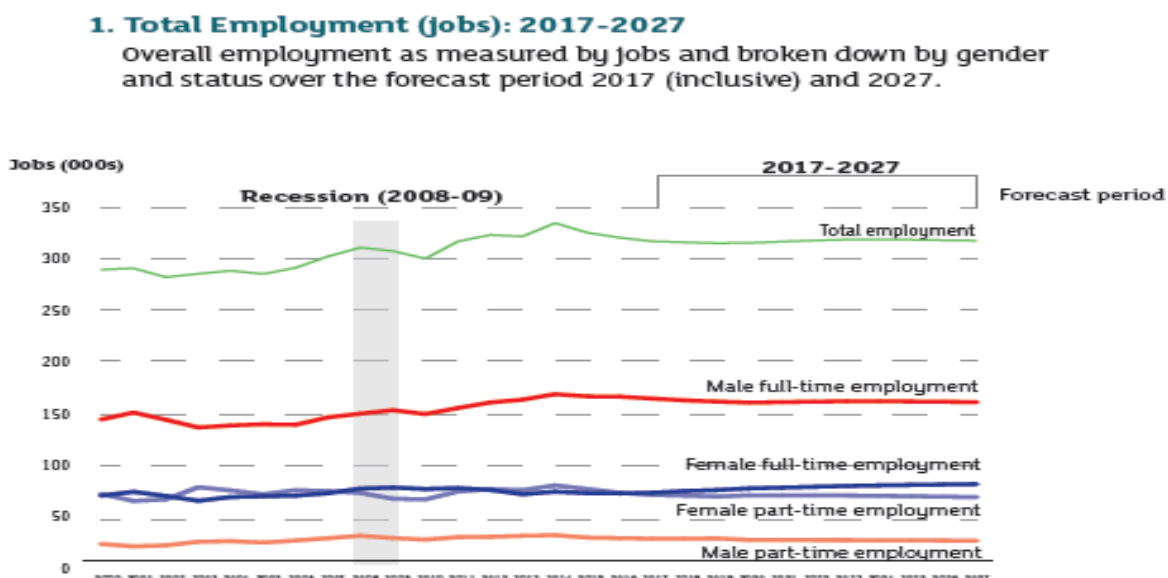


Source: AGCC, Oil and Gas Survey

3 Outlook

3.1.2 Regional Skills Assessment Aberdeen City and Aberdeenshire

Figure A20: Total North East Employment Forecast (2017-2027)



Source: Regional Skills Assessment Aberdeen and Aberdeenshire

3.1.3 EY Scottish Item Club Aberdeen City

Figure A21: Aberdeen Employment Change forecast (2017-2020)

Aberdeen: Employment change by sector			
Sector	Total employment		
	2017 (000s)	2020 (000s)	Annual % growth 2017-2020
Utilities, extraction & agriculture	24.5	25.3	1.0
Manufacturing	10.9	10.6	-1.2
Construction	7.0	7.1	0.9
Wholesale and retail trade	21.3	21.5	0.2
Transportation & storage	10.2	10.1	-0.3
Accommodation & food service	15.0	15.2	0.3
Information & communication	4.0	4.1	0.6
Financial & insurance activities	1.6	1.6	-0.5
Real estate activities	2.0	2.0	-0.5
Professional, scientific and technical	23.1	23.5	0.6
Administrative & support service	13.9	14.2	0.6
Public administration	8.5	7.9	-2.4
Education	10.1	9.9	-0.6
Human health & social work	27.0	26.4	-0.7
Arts, entertainment & recreation	3.8	3.9	0.8
Other service activities	3.2	3.2	-0.3
Total	186.2	186.3	0.0

Source: EY ITEM Club

Source: EY Item Club

3.1.4 EY Scottish Item Club Scotland

Figure A22: EY Item Club Employment Change forecast (2017-2020)

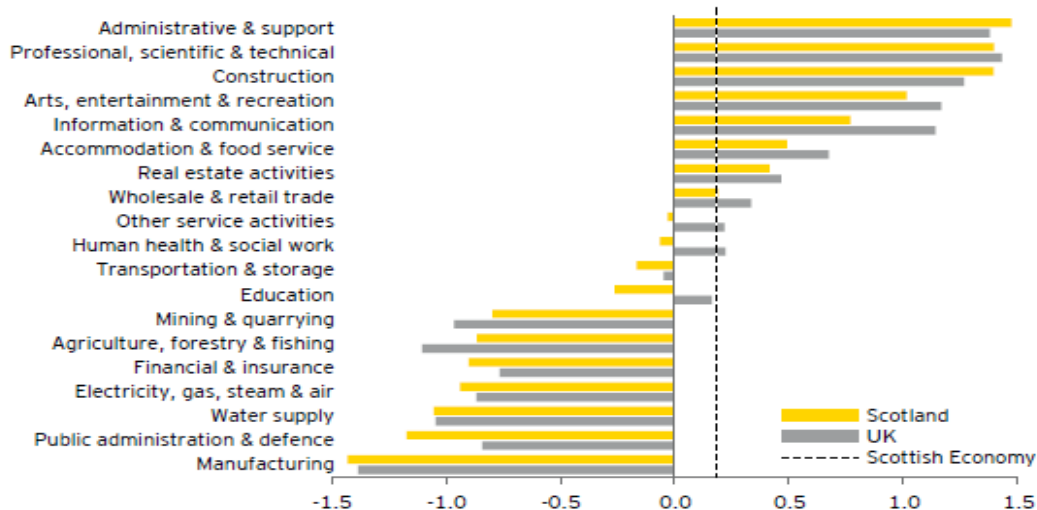
The ITEM Club forecast for the Scottish Economy, November 2017							
% changes on previous year unless otherwise stated							
	GVA	Personal disposable income	Consumers' expenditure	Population 000s	Employment 000s	Unemployment rate % (Claimant Count)	Working-age migration 000s
2016	0.4	-0.5	2.5	5,405	2,749	5.2	29
2017	0.8	0.4	0.8	5,420	2,821	3.9	11
2018	1.4	1.1	1.1	5,436	2,833	4.0	13
2019	1.6	1.2	1.2	5,449	2,834	4.2	10
2020	1.7	1.1	1.5	5,459	2,837	4.1	7

Source: EY ITEM Club

Source: EY Item Club

Figure A23: EY Item Club Scottish Employment Change forecast (2017-2020)

Forecast employment growth by sector: 2017-2022 (% y/y)



Source: EY ITEM Club

Source: EY Item Club

