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Cardiff Employment Land and Premises Study

Final Report

Prepared on behalf of Cardiff Council

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Executive Summary

- i. HJA in partnership with Owen Davies Consulting and NP Linnells Property Consultants has been appointed by Cardiff Council to undertake an Employment Land and Premises Study (ELPS). This will be used to inform the ongoing review of the Cardiff Local Development Plan (LDP). The method followed to complete this study is founded on *Practice Guidance – Building an Economic Development Evidence Base to Support a Local Development Plan* (Welsh Government, 2015).

Current Context

Policy Context

- ii. National legislation and policy in Wales sets out the need to deliver a prosperous, resilient, and more equal Wales.
- iii. The *Well-being of Future Generations Act (2015)* places a duty on public bodies to carry out sustainable development. The definition of sustainable development has been expanded under the Act and it requires an improvement in the delivery of all four aspects of well-being: social, economic, environmental, and cultural.
- iv. The Act has established seven well-being goals which are intended to shape the work of all public bodies in Wales:
 - *A Prosperous Wales*
 - *A Resilient Wales*
 - *A Healthier Wales*
 - *A More Equal Wales*
 - *A Wales of Cohesive Communities*
 - *A Wales of Vibrant Culture and Thriving Welsh Language*
 - *A Globally Responsible Wales*
- v. *A More Equal Wales: The Socio-economic Duty Equality Act (2010)* requires relevant public bodies, when taking strategic decisions, to have due regard to the need to reduce the inequalities of outcome that result from socio-economic disadvantage.
- vi. Cardiff's LDP Review will need to provide the appropriate quality and quantity of employment land to support the ambitions of national policy. *Planning Policy Wales (Edition 11) (PPW)* sets out the land use planning policies of Welsh Government. The primary objective of *PPW* is to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales (following the *Well-being of Future Generations Act*).
- vii. As well as identifying new land for sustainable development, the Cardiff LDP Review should also support the retention and protection of existing sites. The traditional employment uses tend to generate lower land values than many other land uses, especially housing and retail. Consequently, any land lost to these uses is generally difficult to replace. Planning authorities should avoid releasing for other uses sites where there is strong evidence of likely future need for B1–B8 (TAN 23).

- viii. There is a need to take account of geographies beyond local authority boundaries. Demand for employment land does not have to be met within the local planning authority area in which it arises. Much of the demand for employment land is footloose across administrative boundaries. Authorities should work together to steer development to the locations which are the most sustainable and efficient (both when allocating sites and when dealing with proposals for development). Demand which cannot be met sustainably in the area where it arises should be met in neighbouring areas, and planning authorities should work together to accommodate demand which is not tied to particular areas (*PPW, TAN 23*).
- ix. Welsh Government supports Cardiff's status as an internationally competitive city and a core city on the UK stage. *Cardiff, Newport and the Valleys* will be the main focus for growth and investment in the South East Wales region. Cardiff is an important economic hub of CCR. The city region is committed to 'ecosystem development', which involves supporting the development of a strong economic and innovation ecosystem to deliver plans and develop clusters of excellence within the region (*Cardiff Capital Region Industrial and Economic Plan*).
- x. The Cardiff LDP Review should make decisions on where to locate development – including for employment centres – by focusing on the most sustainable and accessible locations, addressing congestion, reducing car-based commuting and improving air quality.
- xi. The Cardiff LDP Review will need to support the key strategic priorities set out in the Draft Economic Strategy. Cardiff Council will focus economic development efforts on four key strategic priorities (*Building More and Better Jobs: Draft Economic Strategy*):
- Key Priority 1: The City as a Creative and Digital Accelerator
 - Key Priority 2: The World's Leading Compound Semi-Conductor Cluster
 - Key Priority 3: The UK's dedicated Reg-Tech and Fin-Tech Cluster
 - Key Priority 4: A new approach to Life Sciences
- xii. Other key sectors in Cardiff's economy include: ICT; Energy and environment; and Financial and professional services (*Cardiff LDP 2006–2026*). The focus on these sectors will be in addition to supporting the foundational economy.
- xiii. Changing working practices and the impact on future need for employment land will be a key issue to consider as part of the economic recovery from the Covid-19 pandemic.

Economic Context

- xiv. Cardiff is home to a working age population of 247,100 persons and accommodates 242,000 jobs. The city has seen strong population growth in recent years. Cardiff's working age population accounts for much greater share of total population than the Wales and UK averages. However Cardiff's population profile has changed broadly in line with the Wales and UK profiles over the past few years. Cardiff's population is very well qualified compared to the Wales and UK average.
- xv. Cardiff's economic activity rate has generally fluctuated either side of the Wales average, and has tended to remain below the UK average. Cardiff's unemployment rate has tended to remain above the Wales and UK averages. However, in recent years this discrepancy has reduced. The influence of the large student population is clearly a driver for the differences with benchmark averages.

- xvi. However, Cardiff as a city and local authority area is not a homogenous entity. According to Wales Index of Multiple Deprivation data, Cardiff consists of small areas right across the deprivation spectrum, including significant numbers of small areas categorised as some of the most deprived places in Wales, and others categorised as some of the least deprived. Deprivation in Cardiff is not spread evenly across the city – it is highly concentrated in several communities.
- xvii. Employment levels have been rising steadily in recent years. The area has a very high jobs density when considered against the Wales and UK averages.
- xviii. Cardiff has a number of key sectors: Information and Communication (J); Financial and Insurance Activities (K); Professional, Scientific and Technical Activities (M); Administrative and Support Service Activities (N); Education (P); Health (Q); and Real Estate (L) have all shown strengths to varying degree in GVA, employment, and business activity.
- xix. In particular the Information and Communication (J), Financial and Insurance Activities (K), Professional, Scientific and Technical Activities (M), and Real Estate (L) sectors exhibit performance that distinguishes Cardiff from other local economies. These sectors are categorised as **‘Competitive Advantage’** sectors as they present an opportunity for Cardiff to distinguish itself from other local economies by capitalising on its strengths in these sectors.
- xx. The Professional, Scientific and Technical Activities (M) sector does not exhibit the same recent growth advantages as the three other Competitive Advantage sectors, but it is nonetheless a vital component of Cardiff’s economy. It is a sector that supports a significant level of high value GVA, employment, and business activity. In employment and business terms the sector has not grown over the past few years, however it’s GVA output has increased by around 20% over the same period. This indicates that productivity in the sector is improving.
- xxi. Health (Q), Administrative and Support Service Activities (N), Public Administration and Defence (O), Wholesale & Retail (G), and Education (P), are categorised as **‘Foundational Economy’** sectors. Overall these sectors do not exhibit a competitive advantage over other local economies, and they do not exhibit strong growth trends – however they support significant levels of GVA, employment, and business activity, albeit in lower value-added activities.

Cardiff’s Key ‘Competitive Advantage’ Sectors

- Information and Communication (J);
- Financial and Insurance Activities (K);
- Professional, Scientific and Technical Activities (M); and
- Real Estate (L).

Cardiff’s Key ‘Foundational Economy’ Sectors

- Health (Q);
- Administrative and Support Service Activities (N);
- Public Administration and Defence (O);
- Wholesale & Retail (G); and
- Education (P).

- xxii. Cardiff is the largest employment centre in Wales. However, in comparison to the other UK core cities it is not large. Nevertheless it has been one of the better performing locations in terms of population, employment and GVA growth.
- xxiii. The city plays an important role within the Cardiff Capital Region, as a provider of jobs to a much wider hinterland. Particularly in the key sectors as outlined above.

Office Market Context

- xxiv. Cardiff forms part of the south east Wales commercial market. Its major sub-regional competitors are Swansea, Newport and Bristol.
- xxv. Recent activity has been concentrated in the city centre, with less than 5% of development in the out of town (OOT) market. The number of lease transactions in the OOT market has been falling as a share of the total consistently over the last five years.
- xxvi. Almost 1 million sq ft of Grade A office space has been constructed in the 2016-19 period. The majority of this was subject to pre let. However, as a result of the pandemic there is expected to be a slowing of any speculative office development, with the focus on schemes with pre lets or repurposing existing stock.
- xxvii. City centre Grade A rents have remained stable at £25psf since 2016. This remains well below the headline figure for Bristol and sits in the middle of the range for UK core cities. Headline rents in Swansea and Newport are well below the Cardiff level. OOT headline rents are £15.50psf, this hampers viability for development in these locations.
- xxviii. City wide vacancy rates are around 9% but there is anecdotal evidence of occupiers reviewing their space needs as a result of the Covid-19 pandemic. Take up and transaction volumes have declined due to the pandemic. It will be important to see how the market evolves in the coming years as a result.
- xxix. There was already evidence of a general trend towards smaller average deal sizes and shorter lease lengths. This illustrates the increasing demand for flexibility. It is expected that there will be continued adjustment in the market (transactional and investment) to respond to this.
- xxx. Overall total stock across Cardiff has not changed significantly from 2011 to present, showing the extent of new development replacing losses. Across SE Wales there is generally an oversupply of secondary office space, which is largely unfit for purpose.

Industrial Market Context

- xxxi. Cardiff also forms part of the SE Wales industrial and warehouse market, with main competitor locations along the M4 including Bridgend, Newport and Bristol.
- xxxii. The market has been buoyant in 2021, primarily from the accelerated move to online retail driving demand for storage and distribution facilities close to customer bases to enable faster turnaround times. Positive market sentiment is evident in both occupier and investor markets.
- xxxiii. As well as strong demand for storage and distribution uses, there continues to be strong demand for smaller workshops. However, it can be hard for developers to identify suitable sites.
- xxxiv. There is a lack of availability across the sector, this is a national trend reflected in Cardiff.

- xxxv. Industrial rents have risen over the last decade. For smaller units rents have risen by 40% to £7psf, for medium units by more than 70% to £6psf and for larger units by 175% to £5.50psf.
- xxxvi. Deal sizes have increased in the recent past, with lease lengths decreasing. Overall there is a willingness to pay increased rents for the advantage of increased flexibility.
- xxxvii. Future market drivers are expected to be the move to net zero, continued move to e-commerce and growth in science, technology and innovation based markets.

Current Employment Land Supply

- xxxviii. All existing sites with policy status through the adopted LDP have been reviewed to assess current status, vacancy, pipeline and opportunities for further development.
- xxxix. Existing employment sites outside the Central and Bay Business Areas are classified as EC1, and comprise 816.5ha. There are varying vacancy rates across the 23 sites, with much greater vacancy (16%) on sites which are characterised by B1 office uses than those with a more industrial B2/B8 focus (7%). There is also evidence of increasing amounts of non employment uses within many of these employment areas.
- xl. Looking forward a total potential supply of 374,500sqm of B1 uses has been identified, including excess vacancy, pipeline (sites with permission) and additional development capacity or site allocations. A total of 120,300 sqm of B2/B8 industrial and warehousing supply has been identified. This is summarised in figure E1.

Figure E1 Summary of Supply (all figures in sq m of floorspace)

Category	Office/R&D (B1)	Industrial/Warehouse (B2/B8)
Excess vacancy (EC1 sites)	36,300	-
Existing pipeline (EC1 sites)	14,600	105,800
Further capacity (EC1 sites)	60,200	14,500
Cardiff Bay and Central Business Areas (pipeline)	116,600	-
Strategic sites [excluding KP2A] (pipeline)	146,800	-
Total	374,500	120,300

Future Requirements

Economic Forecast Scenarios

- xli. Baseline economic forecasts were obtained from two leading providers (Experian and Oxford Economics). These indicated that future economic growth (GVA) was anticipated to be lower than historic rates. When considering employment there was a substantial discrepancy between the two forecasts with Experian indicating growth close to historic levels and Oxford Economics projecting much lower rates. There were also substantial variations between sectoral growth expectations.
- xlii. Policy ambition within the adopted LDP is for 2,000 additional jobs per annum. Official data suggests this has been exceeded with around 2,500 jobs per annum added to the Cardiff economy. There is continued ambition to consolidate and grow Cardiff's role as a core city and economic hub, with growth at least equal to existing policy ambitions.

- xliii. A range of growth scenarios were developed, taking into account the baseline projections, policy ambitions, historic trends and demographic evidence. In order to achieve policy aims, scenarios in the medium – high range would be required, achieving long term jobs growth of 2,000 – 2,500 per annum.

Future Employment Sites and Premises Requirements

- xliv. The assessment draws on the two methods as set out in Welsh Government guidance, utilising evidence on historic patterns of development and the analysis of economic futures. In both instances initial results are adjusted and interpreted in the context of wider commercial market factors and qualitative evidence gathered through stakeholder consultation.

Office and R&D

- xliv. Based on historic completions a gross requirement of approximately 270,000sqm is identified. An uplift of 15% is applied to allow for range and choice, leading to a total estimated requirement of approximately 310,000sqm.
- xlv. Utilising the economic forecast approach a net additional requirement for 100,000 – 130,000sqm is identified. Uplift is made for the need for ongoing replacement and upgrading of supply, estimated at 1% of stock per annum, as well as a 15% uplift for range and choice. This leads a total estimated requirement of 280,000 – 320,000sqm across the 15 year LDP period.
- xlvii. When these estimates are considered in the context of stakeholder views, in pre-Covid market conditions there is a general view that future requirements would be at or above historic levels. However, as a result of the changes in working patterns during the pandemic there is now a very high degree of uncertainty as to the scale and nature of change in office demand. Notwithstanding, the majority of risks factors would put downward pressure on the total requirement and may lead to additional supply being released from the existing stock, albeit with some uncertainty as to whether this will be suitable for re-use.
- xlviii. On balance, planning for approximately 300,000 sq m of floorspace development appears appropriate, whilst closely monitoring changing trends.

Industrial and Warehouse

- xlix. Based on historic completions a gross requirement of approximately 205,000sqm is identified. Stakeholders indicated a consistent view of historic under delivery of industrial and warehousing space in Cardiff, reflected in very low vacancy rates and increasing rents. An uplift of 25% is applied to adjust for historic constraint. A further uplift of 15% is applied to allow for range and choice, leading to a total estimated requirement of approximately 290,000sqm.
- I. Utilising the economic forecast approach a net additional requirement for 25,000 – 80,000sqm is identified. Uplift is made for the need for ongoing replacement and upgrading of supply, estimated at a minimum of 1% of stock per annum, as well as a 15% uplift for range and choice. This leads a total estimated requirement of 270,000 – 340,000sqm across the 15 year LDP period.
- li. There is an expectation that future levels of development will exceed historic levels, as a result of both strong demand, and historic constraints on supply. The assessment of requirements suggests provision should be made for at least 300,000 sq m per annum across the LDP period equivalent to 75ha in land terms, whilst acknowledging that with continued strong market sentiment and accelerated needs to replace dilapidated stock this could be comfortably exceeded.

Analysis and Recommendations

Comparing Supply and Demand

- lii. Historic records show a proportion of office and industrial development has taken place through the direct reuse of existing employment sites. Estimates for this continued trend are added to the supply figures emerging from the sites review process.
- liii. Figure E2 compares the demand and supply figures in quantitative terms. This provides some quite clear conclusions.

Figure E2 Comparing Demand and Supply (Floorspace, sq m)

	Office/R&D	Industrial/Warehouse
Future Requirement	300,000	300,000
Total Supply	399,500	157,800
Net Position	+99,500	-142,200

Office and R&D

- liv. In quantitative terms the existing supply of office and R&D floorspace across the range of contributing areas is more than sufficient to meet core requirements.
- lv. Given that there is a reasonable expectation that some additional space will be released to the market following the Covid-19 pandemic there is no need to consider widespread additional provision of office and R&D space within the LDP at this time.
- lvi. The surplus of supply provides for a range of typologies and locations, including substantial provision within the Central Business Area and Cardiff Bay Area, as well as out of town/business park provision. Consultations have not raised significant concerns that there is any substantive qualitative deficits in the existing supply offer across the city.

Industrial/Warehouse

- lvii. Identified supply falls below the lowest estimate of future requirements. Whilst there may be some flexibility in the way in which the potential further capacity of EC1 sites could be utilised (albeit with implications for office/R&D supply) this would still fall well short of the reasoned assessment of 300,000 sq m across the LDP period.
- lviii. This indicates a substantive requirement for additional provision of land for industrial and warehouse needs across the LDP period. This is in the order of 140,000 sq m of floorspace, equivalent to an estimated 35ha in land terms.
- lix. With such a significant quantitative short fall the qualitative arguments become secondary. However, market sentiment suggests some concerns as to whether existing pipeline supply is appropriate to current market needs in terms of location, access and typology – with particular requirements for units with high eaves heights.
- lx. Stakeholder consultation has flagged a number of potential areas for consideration in identifying new sites, which are not necessarily mutually exclusive:
 - Provision to meet the growth in housing development on the western side of Cardiff;
 - A new strategic scale site to support the next phase of Cardiff's development;
 - A strategically connected site to meet the needs of logistics operators.

lxi. If additional sites cannot be identified potential options include:

- Seeking to deliver a far higher level of redevelopment and extensive refurbishment of stock within existing employment areas across the city;
- Exploring the potential for adjusting the development focus of already identified employment sites; and
- Exploring how unmet needs might be accommodated within the wider city region.

1 Introduction

- 1.0.1 HJA in partnership with Owen Davies Consulting and NP Linnells Property Consultants has been appointed by Cardiff Council to undertake an Employment Land and Premises Study (ELPS). This will be used to inform the ongoing review of the Cardiff Local Development Plan (LDP).

1.1 Approach

- 1.1.1 The method followed to complete this study is founded on *Practice Guidance – Building an Economic Development Evidence Base to Support a Local Development Plan* (Welsh Government, 2015). As a result this considers the policy environment, the commercial property market, audits employment sites and considers future land and premises requirements.
- 1.1.2 The team undertaking the study draws on economic development specialists, town planning expertise and commercial market experts.
- 1.1.3 A range of key stakeholders have been consulted to inform this research. The authors and Cardiff Council are grateful for their contributions. A list of all consultees is attached as Appendix 1 to this report.
- 1.1.4 The analysis is focused on the administrative area of Cardiff Council.
- 1.1.5 Further details on method are set out within each chapter of the report as relevant.

1.2 Report Structure

- 1.2.1 This report is structured in three parts:
- Part one deals with the current context in terms of policy, the economy, the commercial property market and the existing supply of employment sites and premises;
 - Part two deals with future requirements, considering economic forecasts, alternative scenarios and the implications for future employment sites and premises demand; and
 - Part three draws together the analysis and makes recommendations based on the evidence.
- 1.2.2 Further technical and supporting information is set out in accompanying appendices.

PART ONE: Current Context

2 Policy and Strategy Context

2.0.1 This chapter presents the policy and strategy position adopted at national (Wales), regional (Cardiff Capital Region/South East Wales), and local (Cardiff) levels.

2.0.2 The chapter considers the following legislation, policies, and strategies:

National

- Well-being of Future Generations Act (2015)
- A More Equal Wales: The Socio-economic Duty Equality Act (2010)
- Future Wales: The National Plan 2040
- Planning Policy Wales (Edition 11)
- Prosperity for All: Economic Action Plan
- Technical Advice Note 23: Economic Development
- Building Better Places, The Planning System Delivering Resilient and Brighter Futures

Regional and Local

- Cardiff Capital Region Industrial and Economic Plan
- Capital Ambition and Delivering Capital Ambition (Cardiff's Corporate Plan 2020-23)
- Adopted Cardiff LDP 2006-2026
- Greener, Fairer, Stronger City Recovery and Renewal Strategy (Draft)
- Building More and Better Jobs: Draft Economic Strategy (for Cardiff)
- Cardiff East Spatial Strategy

2.0.3 The chapter is structured as follows:

- Wales' policy and legislative context;
- Regional and local planning policy and strategy context;
- National, regional, and local priority sectors; and
- Post Covid-19 economic recovery.

2.1 National Policy and Legislative Context

2.1.1 The *Well-being of Future Generations Act (2015)* places a duty on public bodies to carry out sustainable development. The definition of sustainable development has been expanded under the Act and it requires an improvement in the delivery of all four aspects of well-being: social, economic, environmental, and cultural.

2.1.2 The Act has established seven well-being goals which are intended to shape the work of all public bodies in Wales:

- *A Prosperous Wales*
- *A Resilient Wales*
- *A Healthier Wales*
- *A More Equal Wales*
- *A Wales of Cohesive Communities*
- *A Wales of Vibrant Culture and Thriving Welsh Language*

- *A Globally Responsible Wales*

- 2.1.3 *A More Equal Wales: The Socio-economic Duty Equality Act (2010)* requires relevant public bodies, when taking strategic decisions, to have due regard to the need to reduce the inequalities of outcome that result from socio-economic disadvantage.

Planning

- 2.1.4 *Future Wales – the National Plan 2040* is the national development framework, setting the direction for development in Wales to 2040. It is a development plan with a strategy for addressing key national priorities through the planning system, including sustaining and developing a vibrant economy, achieving decarbonisation and climate-resilience, developing strong ecosystems and improving the health and well-being of Welsh communities. *Future Wales* also initiates the process of preparing Strategic Development Plans for all four of the regions established as part of the development framework: North Wales, Mid Wales, South West Wales, and South East Wales.
- 2.1.5 Wales' Economic Action Plan (*Prosperity for All*) establishes the need to grow the economy inclusively, spreading opportunity, and promoting well-being. The Welsh Government's role is to support an economy that increases Wales' wealth and well-being through inclusive growth – which means a fairer distribution of the benefits of economic growth both at an individual level and between different parts of Wales. The Welsh Government wishes to support a strong, resilient and diverse economy that enables individuals to realise their ambitions, businesses to prosper, and communities to thrive.
- 2.1.6 *Planning Policy Wales (Edition 11) (PPW)* sets out the land use planning policies of Welsh Government. The primary objective of *PPW* is to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales (following the *Well-being of Future Generations Act*).
- 2.1.7 Sustainable Places are the goal of the land use planning system in Wales. All development decisions, either through development plans, policy choices, or individual development management decisions should seek to contribute towards the making of sustainable places and improved well-being.
- 2.1.8 The planning system should ensure that the growth of output and employment in Wales as a whole is not constrained by a shortage of land for economic uses (*PPW*). Planning authorities should support the provision of sufficient land to meet the needs of the employment market at both a strategic and local level. Development plans should identify employment land requirements, allocate an appropriate mix of sites to meet need and provide a framework for the protection of existing employment sites of strategic and local importance (*PPW*).
- 2.1.9 The traditional employment uses tend to generate lower land values than many other land uses, especially housing and retail. Consequently, any land lost to these uses is generally difficult to replace. Planning authorities should avoid releasing for other uses sites where there is strong evidence of likely future need for B1–B8. In some areas, older, lower-cost employment areas may be required, especially for small and new firms who cannot afford newer and more prestigious accommodation. The loss of such areas may cause harm to local economies and should be avoided (*TAN 23*).

2.2 Regional and Local Policy and Strategy Context

Regional Planning

- 2.2.1 Demand for employment land does not have to be met in the local planning authority area in which it arises. Much of the demand for employment land is footloose across administrative boundaries. Authorities should work together to steer development to the locations which are the most sustainable and efficient (both when allocating sites and when dealing with proposals for development). Demand which cannot be met sustainably in the area where it arises should be met in neighbouring areas, and planning authorities should work together to accommodate demand which is not tied to particular areas (*PPW, TAN 23*).

South East Wales, Cardiff City Region, and Cardiff

- 2.2.2 Sustainable growth is supported in all parts of Wales, with three National Growth Areas expected by Welsh Government to see growth in employment and investment in infrastructure – *Cardiff, Newport and the Valleys* is one of these areas (Policy 1, *Future Wales*).
- 2.2.3 Welsh Government supports Cardiff's status as an internationally competitive city and a core city on the UK stage. *Cardiff, Newport and the Valleys* will be the main focus for growth and investment in the South East Wales region. Strategic planning should recognise this National Growth Area as the focus for strategic economic growth, essential services and facilities, and transport and digital infrastructure (Policy 33, *Future Wales*). However, the economic strength of Cardiff must generate region-wide prosperity and well-being.
- 2.2.4 Key locational decisions, including for employment centres, should focus on the most sustainable and accessible locations, addressing congestion, reducing car-based commuting and improving air quality. Welsh Government will work with Transport for Wales, local authorities, operators and partners to deliver the South Wales Metro in order to improve regional connectivity (Policy 12, *Future Wales*).

Cardiff

- 2.2.5 Cardiff Council will focus economic development efforts on four key spatial priorities (*Building More and Better Jobs: Draft Economic Strategy*):

Key Priority 1: Metro Central and the City Centre

- 2.2.6 Work with partners to secure the £160m **Metro Central** project.
- Work with partners to complete the **Central Quay** and **Capital Quarter** developments.
 - Work with partners to bring forward developments that will better connect the city centre to the Bay including the regeneration of **Dumballs Road**, the completion of the **Callaghan Square** development and the improvement of **Bute Street** and **Lloyd George Avenue**.
 - Link the Metro Central development to adjacent communities through the **South Riverside Business Corridor**.

Key Priority 2: Kick-starting the Bay

- Deliver a new 15,000 capacity **Indoor Arena**.
- Develop proposals for a new public realm corridor across **Bute Street** and **Lloyd George Avenue** to improve the connection between the city centre and the Bay ('**Highline**').
- Work with partners to provide additional temporary and permanent commercial business space

- Pursue an iconic home for **contemporary arts and culture**.
- Work with partners to establish an anchor visitor attraction at **Alexandra Head**.

Key Priority 3: A New Focus on Industry

- Work with partners to deliver a new **Cardiff Parkway Station** at St Mellons.
- Publish an **East Cardiff Development Strategy**.
- Better exploit new and existing infrastructure to establish a cluster of logistics businesses (**'Eastern Distribution Centre'**).
- Improve the connection to local communities through the **Adamsdown** and **Roath Business Corridors**.

Key Priority 4: The Knowledge Corridor

- Work with partners to complete the new Innovation Campus at Maindy Park (**'Cardiff Innovation System'**).
- Support the development of a new **life sciences park** on Junction 32 of the M4.

2.2.7 An additional 40,000 new jobs are expected to be created in Cardiff between 2006–2026 (*Adopted Cardiff LDP 2006-2026*). In order to support this growth, Cardiff Council will ensure a range and choice of employment land and business premises at sustainable locations across the city is provided to assist economic competitiveness, encourage entrepreneurship, promote the growth of indigenous businesses of all types and size and attract inward investment (*Adopted Cardiff LDP 2006-2026*).

2.2.8 The *Adopted Cardiff LDP 2006-2026* allocates Strategic Sites at the following locations in order to meet the demand for new jobs (in bold) and dwellings:

Brownfield Strategic Sites:

- **(A) Cardiff Central Enterprise Zone and Regional Transport Hub;**
- (B) Former Gas Works, Ferry Road;

Greenfield Strategic Sites:

- **(C) North West Cardiff;**
- **(D) North of Junction 33 on M4;**
- (E) South of Creigiau;
- **(F) North East Cardiff (West of Pontprennau);**
- (G) East of Pontprennau Link Road; and
- **(H) South of St Mellons Business Park – employment only.**

2.2.9 A key role for the LDP has been to ensure the provision of a portfolio of an appropriate range, quantity and quality of employment land and premises to meet the current and future needs of the city and the city's workforce. One of the main strategies to achieve this aim is the protection of existing employment sites across the city (*Adopted Cardiff LDP 2006-2026*).

2.2.10 Policy EC1 of the *Adopted Cardiff LDP 2006-2026* establishes that existing employment areas outside of the Central and Bay Business Areas will be protected for B Use Class employment generating uses (together with appropriate ancillary and/or complementary uses and activities) as described in Figure 2.2 below:

- 2.2.11 Supported by policy KP10, the City Centre and Cardiff Bay remain the principal office locations complemented by out of centre sites but Cardiff lacks a large supply of Grade A office space and the Plan supports the on-going regeneration of the Bay Business Area, including Mount Stuart Square. The Cardiff Central Enterprise Zone will be a key element of the approach, but there is also a need to maintain the roles of the City Centre, Cardiff Bay, and existing employment sites, together with providing a range and choice of sites to cater for demand across sectors.
- 2.2.12 A critical factor in Cardiff maintaining a supply of employment land will be the ability to protect land and premises for employment from being lost to alternative uses. There has been growing pressure over recent years for the development/redevelopment of employment land and premises for other uses (predominantly residential), whether still occupied or where current operations have ceased. Such development proposals can result in significant losses to stock of employment land and premises (*Adopted Cardiff LDP 2006-2026*). Policy EC3 supports the protection of employment land and premises, whilst Policy EC4 specifically supports the protection of offices in the Central and Bay business areas.

Figure 2.1 Protected employment areas, Adopted Cardiff LDP 2006–2026

Site Ref	Site Name	Primary Use/Activity	Status
EC1.1	Ocean Park	B1, B2, B8	Primary
EC1.2	Cardiff Port (and Heliport and surrounds)	B1, B2, B8	Primary (port related activities)
EC1.3	Rover Way (Celsa Steel Works, Tremorfa Industrial Estate, Seawall Road)	B2, B8	Primary
EC1.4	Wentloog Road (Capital Business Park, Lamby Way Industrial estate, Wentloog Corporate Park, Rail Freight Terminal)	B1, B2, B8	Primary
EC1.5	St Mellons Business Park	B1, B2, B8	Primary
EC1.6	Cardiff Gate Business Park	B1 (offices), ancillary B2	Primary
EC1.7	Cardiff Business Park & Land North of Maes y Coed Road, Llanishen	B1, B2, B8	Primary
EC1.8	Forest Farm, Longwood Drive	B1, B2, B8	Primary
EC1.9	Green Meadow Springs	B1 (offices)	Primary
EC1.10	Penarth Road Area (includes Hadfield Road, Sloper Road, Bessemer Road)	B1, B2, B8	Primary
EC1.11	Ty Nant Road	B1, B2, B8	Local
EC1.12	Crown Way (Companies House)	B1, B2, B8	Local
EC1.13	Wentloog Road (North of railway line)	B1, B2, B8	Local
EC1.14	Pentwyn (Panasonic Plant, Avenue Industrial Estate)	B1, B2, B8	Local
EC1.15	Eastern Business Park	B1 (offices)	Local
EC1.16	Willowbrook Business Technology Park	B1 (science, research and development)	Local

Site Ref	Site Name	Primary Use/Activity	Status
EC1.17	Excelsior Road	B1, B2, B8 & complementary trade counter	Local
EC1.18	Norbury Road Industrial Estate	B1, B2, B8	Local
EC1.19	Wroughton Place, Ely	B1, B2, B8	Local
EC1.20	Argyle Way, Caerau	B1, B2, B8	Local
EC1.21	Garth Industrial Estate	B1, B2, B8	Local
EC1.22	Land at East Bay Close	B1, B2, B8	Local
EC1.23	Alexandra Gate Business Park	B1	Local

Source: Adopted Cardiff LDP 2006–2026

2.2.13 Cardiff East includes some of the city's key infrastructure, including the Port of Cardiff, Viridor Waste-to-Energy plant, Celsa Steelworks, and Eurofreight rail terminal. The Council wishes to explore how additional employment related development could help deliver further important infrastructure improvements. Cardiff has a low supply of available employment sites, which is further threatened by plans to redevelop and regenerate existing industrial and mixed-use areas including Dumballs Road and incremental losses at Newport Road. There will be increasing pressure on eastern Cardiff to offset these losses and provide new capacity. An integrated and comprehensive approach to all development across the East Cardiff area is essential to ensuring that employment expansion forms a coherent, sustainable and resilient part of the urban and social fabric (*Cardiff East Spatial Strategy*).

2.2.14 This will be achieved by (*Cardiff East Spatial Strategy*):

Phase 1: Filling in the gaps - Expanding from Lamby Way to the east

- Infill gaps within existing EC1 Existing Employment Land designated areas, notably at Wentloog Avenue/Lamby Way. Potential for a mix of employment uses including expansion of creative industries, building on Badwolf Studios.
- Scope for remodelling existing employment areas with consideration of potential for remodelled/replacement units, parking areas and localised public realm/landscape enhancements, including consideration of sustainable drainage and biodiversity enhancements.

Phase 2: Expanding to the south

- Development parcels opened up to the south of Lamby Way/Wentloog Avenue, extending (to a maximum) as far south as the existing overhead powerlines.
- Minor development at Trowbridge Mawr between existing employment sites. Development at Pengam Moor, transitioning from the Celsa site and existing employment edge towards existing residential areas.

Phase 3: Optimising the opportunity

- Additional development parcels opened up to the south of Lamby Way/Wentloog Avenue, extending (to a maximum) as far south as the existing overhead powerlines.
- Significant infill development at western Trowbridge Mawr on undeveloped land with wider potential for comprehensive development including relocation/redesign of the existing recreation space (11ha).

2.3 Priority Sectors

- 2.3.1 Strategic planning should consider how traditional and new economic sectors can be supported and be open to exploring the role of both existing and new types of employment areas. It should also recognise opportunities for the development of economic clusters, where businesses choose to locate in close proximity for mutual benefit, and whether there is a need for further infrastructure investment to support this (Policy 33, *Future Wales*).
- 2.3.2 Welsh Government sets out three national thematic sectors that will proactively be supported across Wales (*Prosperity for All: Economic Action Plan*). These are:
- **Tradable Services:** Enterprises involved in providing services that can be exchanged between residents and non-residents of an economy, including services provided through foreign affiliates established abroad.
 - **High Value Manufacturing:** Enterprises applying leading-edge technical knowledge and expertise to the creation of products, production processes and associated services that have the strong potential to bring sustainable growth and high economic value.
 - **Enablers:** Key enablers that drive competitiveness for successful businesses. For example, digital, energy efficiency and renewables.
- 2.3.3 Growth in innovative, emerging technology and high value-added sectors such as advanced engineering, renewable and low carbon energy, digital and bio-technology sectors are strongly supported by Welsh Government (*PPW*).
- 2.3.4 Cardiff Capital Region (CCR) is committed to 'ecosystem development', which involves supporting the development of a strong economic and innovation ecosystem to deliver plans and develop clusters of excellence within the region (*Cardiff Capital Region Industrial and Economic Plan*). Cardiff will play an important role in this process.
- 2.3.5 Building on CCR's competitive advantage and opportunity within the economy, sectors will be strategically targeted for support, enabling them to grow and flourish. These will include the following (*Cardiff Capital Region Industrial and Economic Plan* – bold sectors are common with *Adopted Cardiff LDP 2006-2026*):
- Compound Semiconductors, its supply chain and applications
 - FinTech
 - Cyber Security Analytics
 - Artificial Intelligence and Data Science
 - **Creative Economy**
 - **Life sciences** – and more specifically the medical devices and diagnostics sub-sectors
 - Transport Engineering – automotive, trains and aircraft
- 2.3.6 Opportunities arising from investment in the compound semiconductor sector should be maximised. Compound semiconductor technology is a technology growing rapidly in Wales. The technology underpins a range of products including smartphones, Wi-Fi, satellite communication systems, robotics and efficient LEDs. In Wales, industry, academia and governments are working to develop a world-class compound semiconductor cluster. By developing these capabilities in the region, Wales has established the core elements for a compound semiconductor ecosystem that

will help bridge early stage research, applied industrial research and innovation through to high volume manufacturing and its supporting supply chain (Policy 33, *Future Wales*).

2.3.7 Cardiff Council will promote clusters of specialist sectors and research and development expertise, including the following key sectors (*Adopted Cardiff LDP 2006-2026* – bold sectors are common with *Cardiff Capital Region Industrial and Economic Plan*):

- ICT;
- Energy and environment;
- Advanced materials and manufacturing;
- **Creative industries**;
- **Life sciences**; and
- Financial and professional services.

2.3.8 Cardiff Council will focus economic development efforts on four key strategic priorities (*Building More and Better Jobs: Draft Economic Strategy*):

Key Priority 1: The City as a Creative and Digital Accelerator

- Establishing an internationally significant creative and digital showcase programme.
- Putting in place a '**Creative and Digital Accelerator**' programme to establish Cardiff as a UK centre for innovation in the creative industries, including both incubation, enterprise and skills programmes.
- Delivering a **Music Strategy** for Cardiff.

Key Priority 2: The World's Leading Compound Semi-Conductor Cluster

2.3.9 Cardiff is well positioned in one of the global economy's fastest growing sectors. There are already around 700 business in Cardiff's compound semi-conductor cluster, supported by expertise in Cardiff University and the Compound Semi-Conductors Applications Catapult. The Cardiff region has made a £40m investment in the cluster, and the intention is to build on this to create a sector that employs more than 2,000 highly skilled workers directly, but just as crucially drives innovation and growth in the wider digital sectors.

2.3.10 Ambitions to deliver this key priority include:

- Supporting the development of CS Connected – the world's first semi-conductor cluster.
- Providing space for the expansion of the sector through the Spatial Strategy.

Key Priority 3: The UK's dedicated Reg-Tech and Fin-Tech Cluster

2.3.11 Through establishing expertise in this sector, the Council will seek to grow a cluster – with a focus on fin-tech businesses, regulation and cyber security – that not only creates jobs, but also drives the growth of a new and emerging industry for the UK.

2.3.12 Ambitions to deliver this key priority include:

- Establishing a **Fin-Tech and Reg-Tech Accelerator** and Academy programme.
- Promoting the sector to new and expanding businesses, as well as the public sector, as a competitive business location.
- Providing space for the expansion of the sector through the Spatial Strategy.

Key Priority 4: A new approach to Life Sciences

- Working with partners to explore options for a new **Life Sciences Park** for Wales on the junction between the M4 and A470.
- Establishing a healthcare focussed Collaborative Centre for Learning, Technology and Innovation.
- Providing space for the expansion of the sector through the Spatial Strategy.

2.3.13 Welsh Government strongly supports the development of the foundational economy (particularly the food, retail, tourism, and care sectors). Strategic planning should identify the role of the foundational economy, consider how the land-use planning system can support it, and develop appropriate policies (Policy 33, *Future Wales; PPW; Prosperity for All: Economic Action Plan*).

2.4 Post Covid-19 Economic Recovery

2.4.1 The Welsh Government's paper entitled *Building Better Places, The Planning System Delivering Resilient and Brighter Futures (2020)* identifies key issues which bring individual policy areas together to ensure that action is the most effective. The eight issues are:

- Staying local: creating neighbourhoods
- Active travel: exercise and rediscovered transport methods
- Revitalising town centres
- Digital places – the lockdown lifeline
- Changing working practices: the future need for employment land
- Reawakening Wales' tourism and cultural sectors
- Green infrastructure, health and well-being and ecological resilience
- Improving air quality and soundscapes for better health and well-being

2.4.2 In particular, changing working practices relating to increased homeworking and its impact on future employment land requirements will be a critical issue for the Cardiff LDP Review to consider. Welsh Government has a stated aim of having 30% of workers in Wales working 'from home or close to home'. Although this is currently not a target and no requirements will be put upon organisations and employers, it is an indication of the direction of travel. *Building Better Places* emphasises the need for the planning system to adapt, ensuring that supply of land for employment uses is adequate and suitable for future working practices, taking into account the need for a choice of sites. On strategic employment sites, local planning authorities should continue to assess if these are still needed or how needs may change, and work collaboratively across a region to designate land if there is a realistic prospect of it being developed in the medium-term.

2.4.3 Increased homeworking will require new approaches to the flexible workplaces that are provided for remote workers to office environments and facilities. Welsh Government is undertaking research and exploring pilot locations for a network of remote working hubs in towns and communities¹. *Building Better Places* indicates that retail and town centres are best suited to meet this need, with benefits to these centres by way of reinforcing the vibrancy of these locations. This will require innovation by developers and planning authorities, including the identification of

¹ <https://gov.wales/remote-working>

suitable sites and buildings in parts of communities where they can be accessed in a sustainable way.

2.4.4 Emerging research has found that the impact of Covid-19 on Cardiff has been (*Greener, Fairer, Stronger City Recovery and Renewal Strategy*):

- The city economy was hit hard by the pandemic, with a doubling of unemployment only mitigated by high levels of public support.
- There was a rapid and significant shift to home working, with 46% of the workforce working from home at the peak of the pandemic.
- The city centre in particular felt the impact due to the restrictions imposed, and the prevalence of working from home.
- The cultural, arts and heritage sector was hit hard, and Cardiff's major events programme suspended.
- Transport flows across and into the city reduced, with a shift to cycling and walking
- Economic inequalities that existed before the pandemic: between young and old; rich and poor; and between ethnic minority groups; have widened.

2.4.5 The Greener, Fairer, Stronger City Recovery and Renewal Strategy identifies a number of 'missions' to help Cardiff's social and economic recovery from Covid-19, including:

- Mission 1: Reimagine the city centre
- Mission 2: A City for Everyone
- Mission 3: A City of Villages
- Mission 4: Culture and sport-led renewal
- Mission 5: Tech City
- Mission 6: One Planet Recovery

2.4.6 Mission 6 is particularly relevant to the Cardiff LDP Review. It will focus on the following:

- Agglomeration, innovation, creativity will continue to drive economic and wage growth.
- Hybrid working is here to stay – and the adoption of technology has been accelerated.
- There are opportunities for smaller cities to take advantage of the potential move away from the 'mega cities'.
- Technology has enabled business to operate and develop through the pandemic.
- Public services have also embraced and used technology to deliver services and improve performance.
- Competitive cities of the future will be reliant on a technology focused enterprise culture and an associated skilled workforce.

2.5 Summary

2.5.1 National legislation and policy in Wales sets out the need to deliver a prosperous, resilient, and more equal Wales.

2.5.2 The *Well-being of Future Generations Act (2015)* places a duty on public bodies to carry out sustainable development. The definition of sustainable development has been expanded under

the Act and it requires an improvement in the delivery of all four aspects of well-being: social, economic, environmental, and cultural.

2.5.3 The Act has established seven well-being goals which are intended to shape the work of all public bodies in Wales:

- *A Prosperous Wales*
- *A Resilient Wales*
- *A Healthier Wales*
- *A More Equal Wales*
- *A Wales of Cohesive Communities*
- *A Wales of Vibrant Culture and Thriving Welsh Language*
- *A Globally Responsible Wales*

2.5.4 *A More Equal Wales: The Socio-economic Duty Equality Act (2010)* requires relevant public bodies, when taking strategic decisions, to have due regard to the need to reduce the inequalities of outcome that result from socio-economic disadvantage.

2.5.5 Cardiff's LDP Review will need to provide the appropriate quality and quantity of employment land to support the ambitions of national policy. *Planning Policy Wales (Edition 11) (PPW)* sets out the land use planning policies of Welsh Government. The primary objective of *PPW* is to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales (following the *Well-being of Future Generations Act*).

2.5.6 As well as identifying new land for sustainable development, the Cardiff LDP Review should also support the retention and protection of existing sites. The traditional employment uses tend to generate lower land values than many other land uses, especially housing and retail. Consequently, any land lost to these uses is generally difficult to replace. Planning authorities should avoid releasing for other uses sites where there is strong evidence of likely future need for B1–B8 (*TAN 23*).

2.5.7 There is a need to take account of geographies beyond local authority boundaries. Demand for employment land does not have to be met within the local planning authority area in which it arises. Much of the demand for employment land is footloose across administrative boundaries. Authorities should work together to steer development to the locations which are the most sustainable and efficient (both when allocating sites and when dealing with proposals for development). Demand which cannot be met sustainably in the area where it arises should be met in neighbouring areas, and planning authorities should work together to accommodate demand which is not tied to particular areas (*PPW, TAN 23*).

2.5.8 Welsh Government supports Cardiff's status as an internationally competitive city and a core city on the UK stage. *Cardiff, Newport and the Valleys* will be the main focus for growth and investment in the South East Wales region. Cardiff is an important economic hub of CCR. The city region is committed to 'ecosystem development', which involves supporting the development of a strong economic and innovation ecosystem to deliver plans and develop clusters of excellence within the region (*Cardiff Capital Region Industrial and Economic Plan*).

- 2.5.9 The Cardiff LDP Review should make decisions on where to locate development – including for employment centres – by focusing on the most sustainable and accessible locations, addressing congestion, reducing car-based commuting and improving air quality.
- 2.5.10 The Cardiff LDP Review will need to support the key strategic priorities set out in the Draft Economic Strategy. Cardiff Council will focus economic development efforts on four key strategic priorities (*Building More and Better Jobs: Draft Economic Strategy*):
- Key Priority 1: The City as a Creative and Digital Accelerator
 - Key Priority 2: The World’s Leading Compound Semi-Conductor Cluster
 - Key Priority 3: The UK’s dedicated Reg-Tech and Fin-Tech Cluster
 - Key Priority 4: A new approach to Life Sciences
- 2.5.11 Other key sectors in Cardiff’s economy include: ICT; Energy and environment; and Financial and professional services (*Cardiff LDP 2006–2026*). The focus on these sectors will be in addition to supporting the foundational economy.
- 2.5.12 Changing working practices and the impact on future need for employment land will be a key issue to consider as part of the economic recovery from the Covid-19 pandemic.

3 Economic Context

3.0.1 This chapter sets out Cardiff's economic history, economic geography, and profiles its recent economic performance.

3.1 Economic History

3.1.1 Having been designated a city in 1905, Cardiff was made the capital of Wales in 1955. This has played a significant role in establishing Cardiff as the most important economic, administrative, leisure, retail, and cultural centre in the country.

3.1.2 Cardiff is now the home of the devolved Welsh Government and is a hub for commerce, law, higher education, media, and film and television production². It also remains an important industrial centre.

3.1.3 Cardiff is the largest employment centre in Wales, with a total of 242,000 jobs in 2019, compared to 125,000 in Swansea and 88,000 in Newport as the next largest employment locations. Cardiff has also been one of the most rapidly growing employment centres in Wales since 2006 and growing much more strongly than the cities of Swansea and Newport.

3.2 Economic Geography

3.2.1 The Welsh Government (WG) report *Identification of Regional Areas for the National Development Framework* defines the four regions that have been taken forward as part of the *Future Wales National Development Framework*. These regions are defined on the basis of commonalities across 54 indicators, each categorised according to the Well-being goals (as defined in the *Well-being of Future Generations Act*). The analysis places Cardiff within the South East (SE) Wales region based on the functionality of the area. The SE Wales region is equivalent to the definition of the Cardiff Capital Region (CCR).

3.2.2 The local authorities (LAs) that form the SE Wales region are:

- | | |
|---------------------|------------------|
| • Bridgend | • Blaenau Gwent |
| • Vale of Glamorgan | • Torfaen |
| • Cardiff | • Monmouthshire |
| • Rhondda Cynon Taf | • Newport |
| • Caerphilly | • Merthyr Tydfil |

3.2.3 Cardiff has strong linkages with the rest of the CCR.

3.2.4 Cardiff is a significant hub for employment in CCR. Of the approximately 693,100 jobs located in the region, 38% of them are located in Cardiff. This is by far the greatest share of the region's jobs on a LA basis – the next local authority is Newport, which accounts for around 11% of CCR's jobs.

3.2.5 Of the approximately 717,300 residents in CCR that are in work, 35% of them work in Cardiff (250,900 overall). This is by far the greatest share of CCR commuters on a local authority (LA) basis – the next local authority is Newport, which accounts for around 11% of CCR commuters.

² <https://www.britannica.com/place/Cardiff-Wales>

- 3.2.6 There are 193,400 Cardiff residents in work – this accounts for 27% of CCR’s resident workers. This signals that Cardiff accounts for many more jobs than would simply support its own resident workers.
- 3.2.7 Cardiff is also a significant contributor towards CCR’s economic output – its share of the region’s GVA is 35%. This is by far the greatest share of SE Wales GVA on a local authority (LA) basis – the next local authority is Newport, which accounts for around 12% of CCR’s GVA.

3.3 UK Comparator Locations

- 3.3.1 Compared to other UK core city comparator locations Cardiff is far from one of the largest, although it has performed very strongly over the last 15 years. It is important to recognise that whilst Cardiff is the largest city and economic hub within Wales, within a wider UK (and international) context it remains relatively small.
- 3.3.2 Due to quirks of administrative boundaries there can be limitations in considering either the comparator cities themselves or their city regions as a whole.
- 3.3.3 Based on the city administrative areas only, of the ten core cities for which data is available on a consistent basis³, Cardiff is the 7th largest in terms of population, 6th largest in terms of jobs and 7th largest in terms of GVA. In terms of growth, Cardiff is ranked 4th for both population and employment, and 3rd for GVA. This shows the strong recent performance of the city.

Figure 3.1 Population, employment, and GVA –core city comparators

Core city (city only)	Population (MYE)		Employment (Total Jobs)		GVA (ONS)	
	2019	Change 2006-19	2019	Change 2006-19	2018 £m	Change 2006-18
Birmingham	1,141,820	12%	601,000	11%	29,080	47%
Bristol	463,380	13%	326,000	26%	14,730	57%
Cardiff	366,900	13%	242,000	15%	11,770	49%
Glasgow	633,120	11%	463,000	9%	20,440	30%
Leeds	793,140	8%	525,000	15%	26,240	35%
Liverpool	498,040	10%	299,000	20%	13,450	31%
Manchester	552,860	19%	460,000	35%	22,550	56%
Newcastle upon Tyne	302,820	12%	211,000	8%	9,030	32%
Nottingham	332,900	16%	223,000	10%	10,110	49%
Sheffield	584,850	11%	300,000	9%	12,640	29%

Source: HJA analysis of ONS data. Equivalent data not available for Belfast for all indicators.

- 3.3.4 Based on the city region or Local Enterprise Partnership areas, of the ten core cities for which data is available on a consistent basis, Cardiff is the 7th largest in terms of population, jobs and GVA. In terms of growth, Cardiff is ranked 7th for both population, 9th for employment, and 4th for GVA. This is a far more mixed picture in terms of recent growth and shows the importance of the city of Cardiff as a driving force for the city region.

³ Data not available for all indicators for Belfast.

Figure 3.2 Population, employment, and GVA –core city comparators

Core city (city region/LEP)	Population (MYE)		Employment (Total Jobs)		GVA (ONS)	
	2019	Change 2006-19	2019	Change 2006-19	2019 £m	Change 2006-19
Birmingham	2,046,600	9%	1,104,000	14%	54,700	52%
Bristol	941,800	13%	620,000	24%	36,500	58%
Cardiff	1,543,400	7%	719,000	7%	34,070	43%
Glasgow	1,640,800	8%	955,000	5%	47,320	39%
Leeds	1,845,000	6%	1,223,000	12%	57,910	42%
Liverpool	1,559,300	5%	741,000	13%	33,600	33%
Manchester	2,835,700	10%	1,557,000	20%	74,970	52%
Newcastle upon Tyne	833,200	7%	437,000	10%	19,150	35%
Nottingham	2,221,100	9%	1,089,000	12%	50,510	43%
Sheffield	1,409,000	8%	649,000	8%	27,780	38%

Source: HJA analysis of ONS data. Equivalent data not available for Belfast for all indicators.

3.4 Competitiveness

- 3.4.1 Data on the competitiveness of local economies can be found in the UK Competitiveness Index⁴ (UKCI). The UKCI provides a benchmarking of the competitiveness of different spatial scales across the UK, namely local authorities, cities, LEPs, and regions (but not counties). It is designed to be an “*integrated measure of competitiveness focusing on both the development and sustainability of businesses and the economic welfare of individuals*” (p7). The report considers competitiveness to be the capability of an economy to ‘attract and maintain firms with stable or rising market shares in activity’ (p7), while maintaining stable or increasing standards for residents.
- 3.4.2 The competitiveness of places in the UK are measured according to a number of factors, which are summarised in Figure 3.3 below.

Figure 3.3 Three Factor Model Underlying the UK Local Competitiveness Index

Input Factors
Economic activity rates
Business start-up rates per 1,000 inhabitants
Number of business per 1,000 inhabitants
Proportion of working age population with NVQ Level 4
Proportion of knowledge-based business
Output Factors
Gross Value Added per head at current basic prices
Productivity – output per hour worked
Employment rates
Outcome Factors
Gross weekly pay
Unemployment rates

Source: Huggins et al (2019)

- 3.4.3 These factors are combined to produce a score of 100 for the UK. A score below 100 indicates a location that is less competitive than average, and a score above 100 suggests a location that is

⁴ Huggins et al. UK Competitiveness Index 2019.

more competitive than average. Districts and unitary authorities are ranked from one (the most competitive) to 379 (the least competitive).

Figure 3.4 Summarised UK Local Competitiveness Index Findings (2015 vs 2019)

Geography	Location	2015		2019		Change	
		Score	Rank	Score	Rank	Score	Rank
City ⁵	Cardiff	96.6	17	96.8	16	+0.2	+1
Local Authority ⁶	Cardiff	96.6	144	96.8	141	+0.2	+3
LEP/City Region ⁷	Cardiff City Region	87.0	36	87.5	33	+0.5	+3
Region ⁸	Wales	84.4	301	84.4	296	±0.0	+5

Source: Huggins et al (2019)

- 3.4.4 Cardiff has performed well according to the UKCI between the 2015 and 2019 release. The UKCI provides a ranking for ‘extended core cities’ – the largest urban areas in the UK. Cardiff is ranked 6th of 12 extended core cities, as shown in Figure 3.5. Cardiff has also seen an increase in its score (+0.2) and rank (city +1, local authority +3). Overall, of the 44 UK cities with populations over 100,000 that are ranked as part of the UKCI, Cardiff is ranked 16th overall.

Figure 3.5 UKCI index and rank for ‘extended core cities’

Rank	Location	2015		Change	
		Score	Rank	Score	Rank
1	Edinburgh	113.1	1	114.3	-1.1
2	Bristol	106.0	2	105.6	+0.4
3	Manchester	105.7	3	101.9	+3.8
4	Leeds	98.8	5	98.9	-0.1
5	Glasgow City	98.7	4	100.3	-1.7
6	Cardiff	96.8	6	96.6	+0.2
7	Belfast	92.8	7	94.4	-1.6
8	Newcastle upon Tyne	92.6	8	93.3	-0.7
9	Birmingham	92.5	9	91.9	+0.6
10	Liverpool	90.5	10	89.1	+1.4
11	Sheffield	88.2	12	88.3	±0.0
12	Nottingham	85.6	11	89.1	-3.5

Source: Huggins et al (2019)

- 3.4.5 Cardiff is also one of the most improved LEP/City Regions in the UK since the 2010 UKCI release as shown in Figure 3.6. Cardiff significantly outperforms the UKCI average for Wales. Its overall score is +12.2 above Wales’. Cardiff is also clearly the driving competitive force in the CCR economy – Cardiff’s score is +9.6 above the average.
- 3.4.6 Cardiff is the highest performing LA in Wales on the basis of competitiveness – it is in the 67th percentile amongst UK LAs. The majority of Wales’ LAs are ranked in the lower echelons amongst

⁵ Ranks larger localities (with populations exceeding 100,000 people) of UK designated cities – total of 44 cities ranked.

⁶ Total of 379 local authorities ranked.

⁷ Total of 44 Local Enterprise Partnership areas and Scottish and Welsh City Regions ranked.

⁸ Highlights the average scores and ranks of local authorities based on their regional location – ranks are based on 379 local authority scores.

UK counterparts. Twelve of Wales' LAs are ranked in the lowest decile. Cardiff is by far the most competitive urban conurbation in Wales. Cardiff's competitiveness at the UK level is a significant outlier compared to the picture across the rest of Wales.

Figure 3.6 City Region UK Local Competitiveness Index Findings (2010 vs 2019)

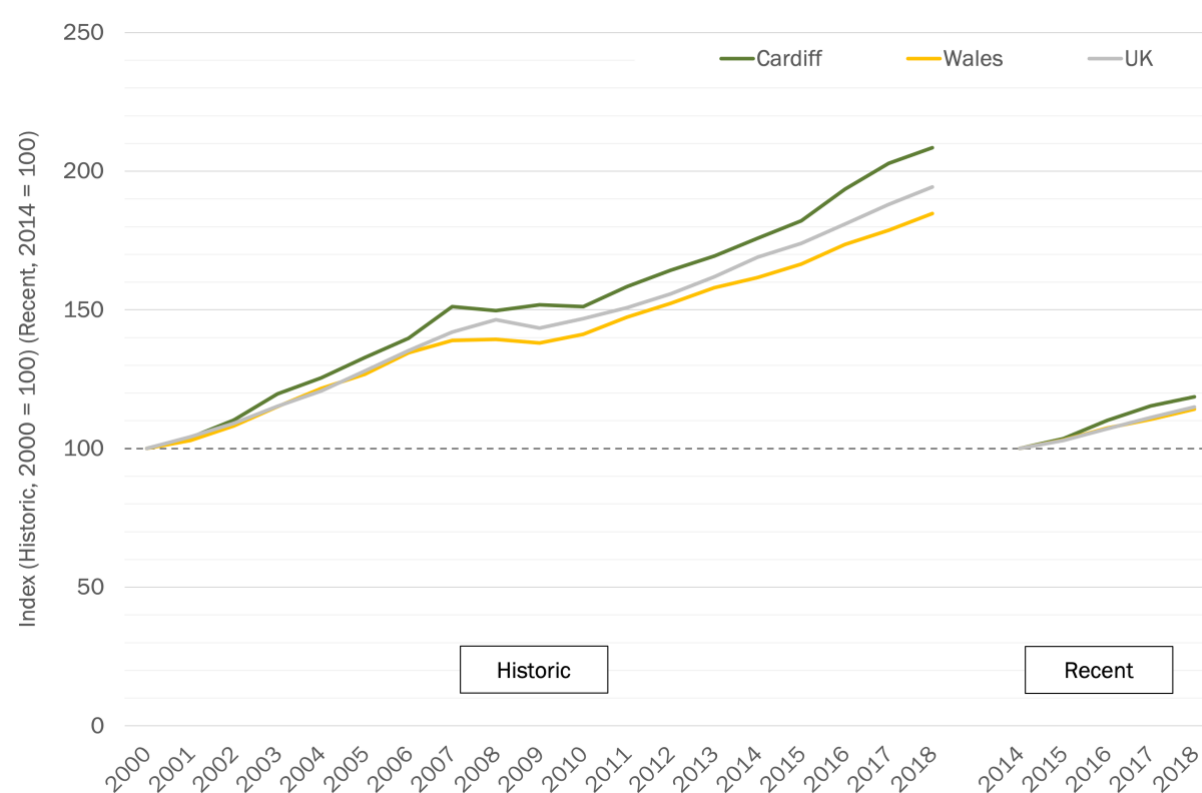
Geography	Location	2010		2019		Change	
		Score	Rank	Score	Rank	Score	Rank
LEP/City Region ⁹	Cardiff City Region	85.8	41	87.5	33	+1.7	+8

Source: Huggins et al (2019)

3.5 Gross Value Added

- 3.5.1 Gross value added (GVA) measures the contribution to an economy of an individual producer, industry, sector or region. The latest data available indicates that Cardiff's economy contributes around £11.8 billion per annum in GVA to the national economy based on current prices. This equates to around 18% of Wales' economic output, and 0.6% of the UK's.
- 3.5.2 Since 2000, the growth rate of Cardiff's GVA has consistently remained above both the Wales and UK economies. This trend has persisted over the last five years for which ONS data is available (2014–2018). This is shown in Figure 3.7.

Figure 3.7 Historic and Recent GVA Performance, Index

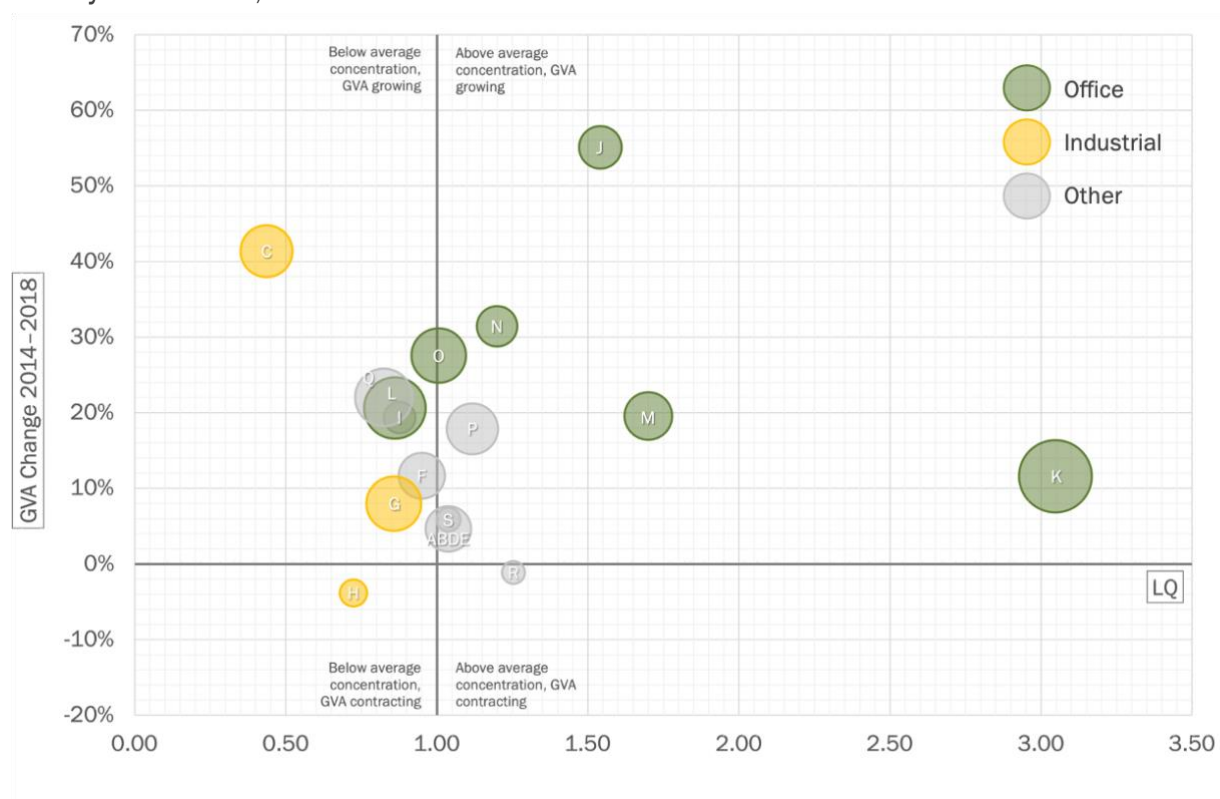


Source: HJA analysis of Regional gross value added (balanced) by industry: local authorities by NUTS1 region: UKL Wales (ONS, published Dec 2019)

⁹ Total of 44 Local Enterprise Partnership areas and Scottish and Welsh City Regions ranked.

- 3.5.3 Figure 3.8 sets out the contribution of each sector to Cardiff's economy in terms of:
- Magnitude: the overall GVA contribution of each sector – indicated by 'bubble' size;
 - Concentration: the relative share of each sector's GVA contribution – horizontal axis;
 - Change: each sector's GVA growth over the period 2014–2018 – vertical axis; and
 - Employment Premises: an indication of the type of employment premises most likely to be occupied by each sector is provided through the use of colour coding.
- 3.5.4 The sectors can be divided into four categories, which are discussed below. The most significant sectors are considered, therefore some sectors do not appear in the following discussion.
- Category 1: Above average GVA concentration, GVA growing**
- Agriculture and Utilities (ABDE)
 - Information and Communication (J)
 - Financial and Insurance Activities (K)
 - Professional, Scientific, and Technical Activities (M)
 - Business Service Activities (N)
 - Public Administration and Defence (O)
 - Education (P)
- 3.5.5 Most of Cardiff's sectors fall into this category. These sectors exhibit significant GVA output, above average concentration, and show signs of strength given recent GVA growth. As such, they should be considered as very important to Cardiff's economy.
- 3.5.6 GVA in the *Information and Communication (J)* and *Professional, Scientific, and Technical Activities (M)* sectors has shown significant concentration and growth in Cardiff over the period.
- 3.5.7 GVA in *Information and Communication (J)* and *Public Administration and Defence (O)* has grown significantly above the Wales average over the same period. GVA in *Financial and Insurance Activities (K)*, *Professional, Scientific, and Technical Activities (M)*, and *Business Service Activities (N)* has grown slightly above the Wales average.
- 3.5.8 The majority of sectors in Category 1 primarily occupy office premises.
- 3.5.9 The significant higher education sector in Cardiff also contributes to strong performance.

Figure 3.8 Magnitude¹⁰ (2018), Concentration¹¹ (2018), and Change¹² (2014–2018) in Total GVA by SIC sector¹³, Cardiff



Source: HJA analysis based on Regional gross value added (balanced) by industry: local authorities by NUTS1 region: UKL Wales (ONS, December 2019)

Category 2: Below average GVA concentration, GVA growing

- **Manufacturing (C)**
- **Construction (F)**
- **Wholesale and Retail (G)**
- **Accommodation and Food Services (I)**
- **Real Estate (L)**
- **Health and Social Work Activities (Q)**

3.5.10 Although these sectors exhibit below average concentration, they do also exhibit significant GVA output and show signs of strength given recent GVA growth¹⁴. As such, they should be considered as very important to Cardiff's economy, albeit not as concentrated as those sectors listed in Category 1.

¹⁰ Magnitude i.e. total GVA, is represented in Figure 3.8 by the size of a sector's 'bubble'

¹¹ Concentration is represented by Location Quotient (LQ) on the horizontal axis. LQ is a way of quantifying how concentrated a particular sector is in a specific area as compared to the national average. This is calculated by dividing the share of each sector's GVA in a given area by the share of GVA in the same sector in Wales. An LQ above 1 indicates an above average GVA concentration, whilst an LQ below 1 indicates a below average GVA concentration.

¹² Change i.e. percentage change in total GVA, is represented on the vertical axis.

¹³ ABDE: Agriculture and Utilities; C: Manufacturing; E: Water Supply; Sewerage, Waste Management and Remediation Activities; F: Construction; G: Wholesale and Retail; H: Transportation and Storage; I: Accommodation and Food Services; J: Information and Communication; K: Financial and Insurance Activities; L: Real Estate Activities; M: Professional, Scientific, and Technical Activities; N: Business Service Activities; O: Public Administration and Defence; P: Education; Q: Health and Social Work Activities; R: Arts, Entertainment, and Recreation; S: Other Service Activities.

¹⁴ Note: given the data is reported until 2018, the impact of Covid (particularly on the Accommodation and Food Services sector) will not be reflected in the recent growth trends.

3.5.11 The *Manufacturing* (C) sector and elements of the *Wholesale and Retail* (G)¹⁵ sector typically occupy industrial premises.

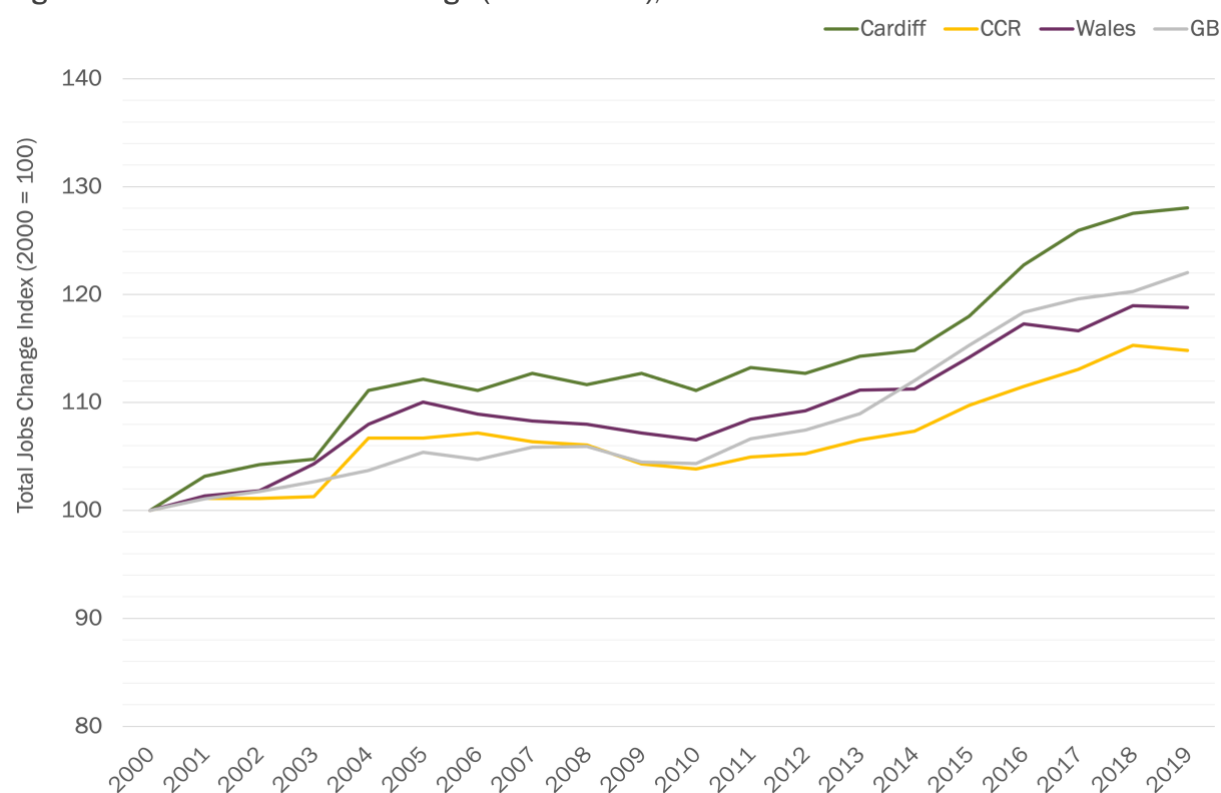
Category 3: Above average GVA concentration, GVA contracting

3.5.12 *Transportation and Storage* (H) is the only sector that appears in Category 3. This sector is typically associated with occupying industrial premises. This sector exhibits relatively small GVA levels and GVA concentration, and is showing signs of weakness given the recent decrease in GVA levels.

3.6 Employment

3.6.1 The most comprehensive measure of jobs in an area is provided via ONS Jobs Density data. This measure looks at employees, self-employed, government trainees, and HM Forces jobs. The number of jobs in Cardiff has steadily increased since 2000, and stands at 242,000 total jobs (as of 2019). Cardiff has a relatively high jobs density of 0.98 – much higher than the CCR (0.74) Wales (0.77) and UK (0.87) figures. This indicates the number of jobs in Cardiff and the number of residents aged 16 to 64 are at comparable levels.

Figure 3.9 Historic Total Jobs Change (2000–2019), Index



Source: HJA analysis of ONS Jobs Density

3.6.2 The Business Register and Employment Survey (BRES) provides the most robust, and detailed workplace-based measure of employment and will be relied upon for the following section. Analysis is provided for the period 2015 to 2019 as there is a discontinuity with earlier data following the inclusion of PAYE only businesses in the dataset.

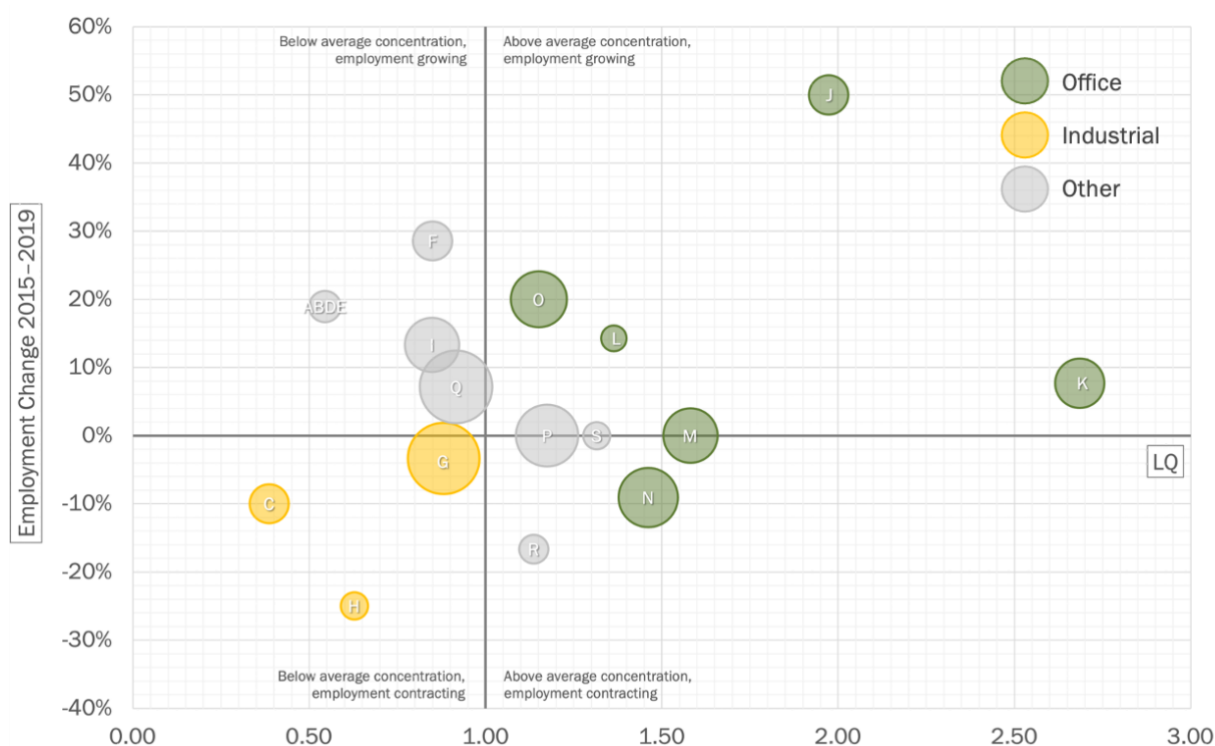
¹⁵ Around 37% of *Wholesale and Retail* (G) sector GVA in Cardiff is accounted for by 'Wholesale' activities. 'Wholesale' activities accounted for 50% of overall GVA growth in the *Wholesale and Retail* (G) sector over the period. 'Wholesale' activities do, however, has a lower GVA LQ (0.79) compared to 'Retail' activities (0.91).

3.6.3 Total employment in Cardiff in 2019 was approximately 217,000 according to BRES. This is lower than the Jobs Density measure as it does not effectively capture self-employed, HM Forces, and government trainee figures. As per the Jobs Density measure, employment has been growing steadily in Cardiff since 2015. Cardiff's employment has increased at a much greater rate than the CCR and Wales averages, and at a similar rate to the GB¹⁶ average over this period.

3.6.4 Figure 3.10 sets out the contribution of each sector to Cardiff's economy in terms of:

- Magnitude: the overall employment contribution of each sector – indicated by 'bubble' size;
- Concentration: the relative share of each sector's employment – horizontal axis;
- Change: each sector's employment growth over the period 2015–2019 – vertical axis; and
- Employment Premises: an indication of the type of employment premises most likely to be occupied by each sector is provided.

Figure 3.10 Magnitude¹⁷ (2019), Concentration¹⁸ (2019), and Change¹⁹ (2015–2019) in Total Employment by SIC sector²⁰, Cardiff



Source: HJA analysis based on Business Register and Employment Survey (ONS, 2020)

¹⁶ GB data is used as a benchmark here instead of UK as BRES does not report employment at a UK level.

¹⁷ Magnitude i.e. total employment, is represented in Figure 3.4 by the size of a sector's 'bubble'

¹⁸ Concentration is represented by Location Quotient (LQ) on the horizontal axis. LQ is a way of quantifying how concentrated a particular sector is in a specific area as compared to the national average. This is calculated by dividing the share of each sector's employment in a given area by the share of employment in the same sector in Wales. An LQ above 1 indicates an above average employment concentration, whilst an LQ below 1 indicates a below average employment concentration.

¹⁹ Change i.e. percentage change in total employment, is represented on the vertical axis.

²⁰ ABDE: Agriculture and Utilities; C: Manufacturing; E: Water Supply; Sewerage, Waste Management and Remediation Activities; F: Construction; G: Wholesale and Retail; H: Transportation and Storage; I: Accommodation and Food Services; J: Information and Communication; K: Financial and Insurance Activities; L: Real Estate Activities; M: Professional, Scientific, and Technical Activities; N: Business Service Activities; O: Public Administration and Defence; P: Education; Q: Health and Social Work Activities; R: Arts, Entertainment, and Recreation; S: Other Service Activities.

3.6.5 The following assessment summarises the most significant sectors in terms of employment²¹.

Category 1: Above average employment concentration, employment growing

- Information and Communication (J)
- Financial and Insurance Activities (K)
- Real Estate (L)²²
- Professional, Scientific, and Technical Activities (M)²³
- Public Administration and Defence (O)
- Education (P)

3.6.6 These sectors exhibit significant employment levels, above average employment concentration, and show signs of strength given recent employment growth. As such, they should be considered as very important to Cardiff's economy. The sectors in this category highlight the professional services strengths of Cardiff's economy.

3.6.7 Employment in the *Information and Communication* (J) sector has shown significant concentration and growth in Cardiff over the period.

3.6.8 The majority of sectors in Category 1 typically occupy office premises.

Category 2: Below average employment concentration, employment growing

- Agriculture and Utilities (ABDE)
- Construction (F)
- Accommodation and Food Services (I)
- Health and Social Work Activities (Q)

3.6.9 Although these sectors exhibit below average employment concentration, they do also exhibit robust employment levels and show signs of strength given recent employment growth (or consistently strong employment). As such, they should be considered as very important to Cardiff's economy.

3.6.10 These sectors typically occupy 'other' types of employment uses not covered by this assessment.

Category 3: Above average employment concentration, employment contracting

- Business Service Activities (N)

3.6.11 This sector exhibits significant employment levels, above average employment concentration, but is showing some signs of weakness given the recent decrease in employment levels.

3.6.12 The *Business Service Activities* (N) sector typically occupies office premises.

Category 4: Below average employment concentration, employment contracting

- Manufacturing (C)

²¹ Due to the way BRES data is reported in aggregate form, it is not uncommon for employment to remain unchanged over a period. In such cases it is unlikely employment has remained completely static, however it is an indication that employment has not changed significantly. Where a sector's employment hasn't changed over the period, they are included in the relevant 'employment growing' category with a footnote to indicate no change has occurred.

²² Real Estate makes a relatively small contribution to overall employment.

²³ Employment in Professional, Scientific, and Technical Activities has not increased or decreased, but has stayed consistently high.

- Wholesale and Retail (G)
- Transportation and Storage (H)

- 3.6.13 These sectors exhibit below average employment concentration and is show signs of weakness given the recent decrease in employment levels.
- 3.6.14 The impact of Covid-19 is likely to mean that data for 2020/21 is likely to suggest a weakened position for the *Wholesale and Retail* (G)²⁴ sector, and a stronger position for the *Transportation and Storage* (H) sector.
- 3.6.15 These sectors (or elements thereof) are all typically occupiers of industrial premises. Given that employment densities are one of the significant drivers of net additional floorspace requirements, it is possible that recent poor employment performance in these sectors might have a downside effect on that aspect of the assessment.
- 3.6.16 On the other hand, a potential driver in these sectors is automation. Although employment in these industrial premises driver sectors might decrease over time, increased automation and the associated floorspace requirements of this technology will continue to drive demand.

3.7 Business Demography

- 3.7.1 Data on the number of businesses in a location is available from the ONS UK Business Counts dataset²⁵. Data is available for both the number of enterprises²⁶ and the number of local units²⁷.
- 3.7.2 The number of enterprises in Cardiff has increased since 2015, and stands at 11,500 (as of 2020, latest available data). The rate of growth in Cardiff (+6%) has been the same as the Wales average (+6%), and below the rate of growth seen at the overall UK level (+8%).
- 3.7.3 Reflecting the typical business base profile pattern in the UK, the vast majority of enterprises in Cardiff are 'micro' enterprises, i.e. with fewer than ten employees. However, Cardiff's share of enterprises that are micro (87%) is lower than the Wales (89%) and UK (90%) averages. This difference is inversely reflected in the share of enterprises that are 'small' and 'medium' sized²⁸ (SME). Cardiff's share of enterprises that are SMEs (12%) is higher than the Wales (10%) and UK (10%) averages. Cardiff's share of 'large'²⁹ enterprises (0.6%) is also higher than the Wales (0.3%) and UK (0.4%) averages. Although in percentage terms the difference is minimal, given the size of these 'large' enterprises in question, such a difference should be considered significant. In effect, Cardiff has almost twice as many large enterprises per business than the Wales average.
- 3.7.4 The three-year business survival rate³⁰ (for businesses born in 2014) in Cardiff was 60%. This is the same as the Wales (60%) average and below the UK (61%) average. The five-year business

²⁴ Around 36% of *Wholesale and Retail* (G) sector employment in Cardiff is accounted for by 'Wholesale' activities. Employment in 'Wholesale' activities increased (+5%) over the period, whereas employment in 'Retail' activities decreased (-14%).

'Wholesale' activities do, however, has a lower employment LQ (0.81) compared to 'Retail' activities (0.88).

²⁵ The UK Business Counts is an extract of the Inter Departmental Business Register (IDBR).

²⁶ The overall business which can be made up of a number of sites or workplaces.

²⁷ Individual sites such as a factory or shop associated with an 'enterprise'.

²⁸ Between 10–250 employees.

²⁹ More than 250 employees.

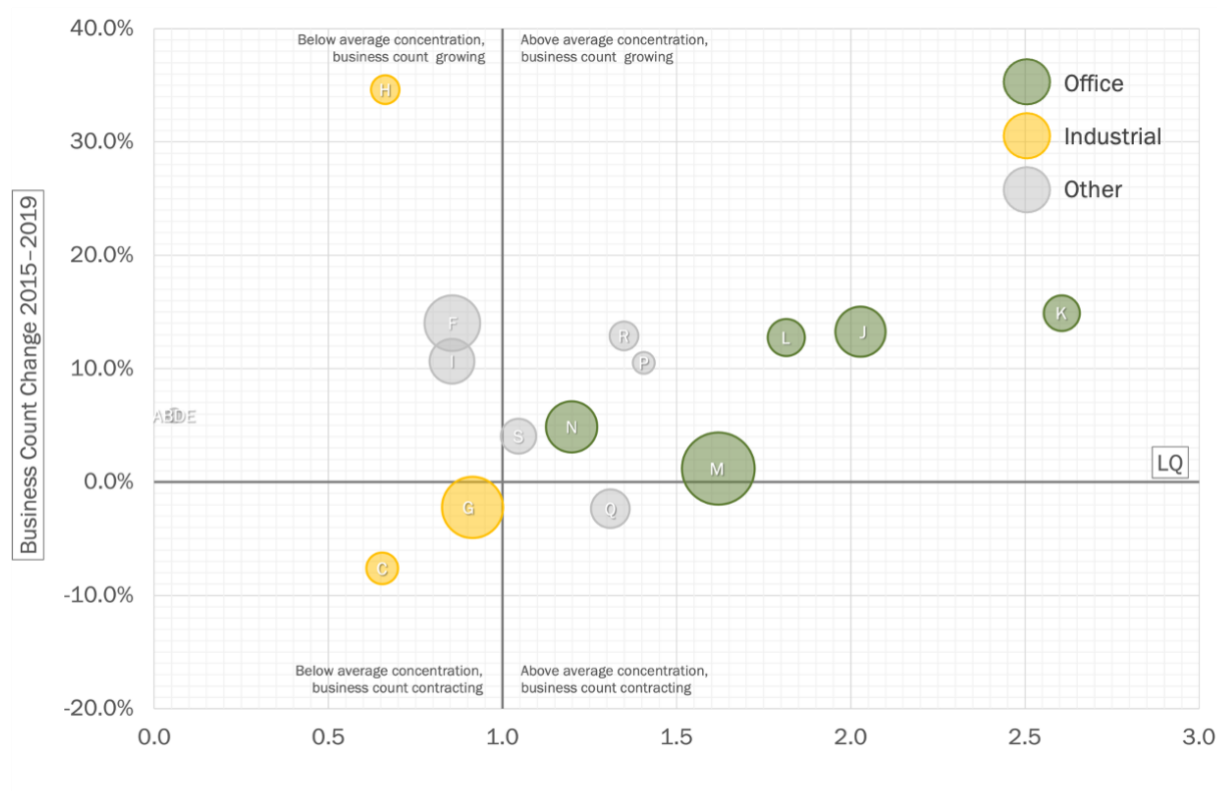
³⁰ Table 5.1a, ONS Business Demography 2019

survival rate (for businesses born in 2014) in Cardiff was 41%. This is marginally below the Wales (42%) and UK (43%) averages.

3.7.5 Figure 3.11 sets out the contribution of each sector to Cardiff's economy in terms of:

- Magnitude: the overall business count of each sector – indicated by 'bubble' size;
- Concentration: the relative share of each sector's business count – horizontal axis; and
- Change: each sector's business count growth over the period 2016–2020 – vertical axis.
- Employment Premises: an indication of the type of employment premises most likely to be occupied by each sector is provided.

Figure 3.11 Magnitude³¹ (2020), Concentration³² (2020), and Change³³ (2016–2020) in Business Count by SIC sector³⁴, Cardiff



Source: HJA analysis based on UK Business Count (ONS, 2020)

Note: Public Administration and Defence (O) is not displayed in Figure 3.11. The very small number of businesses in this sector in Cardiff means that little insight is gained from its inclusion.

3.7.6 The following assessment summarises the most significant sectors in terms of business count.

Category 1: Above average business concentration, business count growing

- Information and Communication (J)

³¹ Magnitude i.e. total business count, is represented in Figure 3.11 by the size of a sector's 'bubble'

³² Concentration is represented by Location Quotient (LQ) on the horizontal axis. LQ is a way of quantifying how concentrated a particular sector is in a specific area as compared to the national average. This is calculated by dividing the share of each sector's business count in a given area by the share of business count in the same sector in Wales. An LQ above 1 indicates an above average business concentration, whilst an LQ below 1 indicates a below average business concentration.

³³ Change i.e. percentage change in total business count, is represented on the vertical axis.

³⁴ ABDE: Agriculture and Utilities; C: Manufacturing; E: Water Supply; Sewerage, Waste Management and Remediation Activities; F: Construction; G: Wholesale and Retail; H: Transportation and Storage; I: Accommodation and Food Services; J: Information and Communication; K: Financial and Insurance Activities; L: Real Estate Activities; M: Professional, Scientific, and Technical Activities; N: Business Service Activities; O: Public Administration and Defence; P: Education; Q: Health and Social Work Activities; R: Arts, Entertainment, and Recreation; S: Other Service Activities.

- Financial and Insurance Activities (K)
- Real Estate (L)
- Professional, Scientific, and Technical Activities (M)
- Business Service Activities (N)
- Arts, Entertainment, and Recreation (R)
- Other Services (S)

3.7.7 These sectors exhibit strong business counts, above average business concentration, and show signs of strength given recent business count growth. As such, they should be considered as very important to Cardiff's economy. Although the *Education* (P) sector doesn't exhibit such strong business counts, it has shown notable growth in business counts and exhibit above average business concentration.

3.7.8 The majority of sectors in Category 1 typically occupy office premises.

Category 2: Below average business concentration, business count growing

- Construction (F)
- Transportation and Storage (H)
- Accommodation and Food Services (I)

3.7.9 Although these sectors exhibit below average business concentration, they do also exhibit robust business counts and show signs of strength given recent business count growth. As such, they should be considered as important to Cardiff's economy.

3.7.10 *Transportation and Storage* (H) typically occupies industrial premises. The other sectors in this category typically occupy 'other' types of commercial premises not covered by this assessment.

Category 3: Above average business concentration, business count contracting

- Health and Social Work Activities (Q)

3.7.11 *Health and Social Work Activities* (Q) exhibits a notable business count and business concentration, and has experienced negative business growth. However, it remains an important sector in the Cardiff economy.

3.7.12 The sector typically occupies 'other' types of employment uses not covered by this assessment.

Category 4: Below average business concentration, business count contracting

- Manufacturing (C)
- Wholesale and Retail (G)

3.7.13 These sectors exhibit below average employment concentration and show signs of weakness given the recent decrease in employment levels.

3.7.14 However both sectors – in particular *Wholesale and Retail* (G) – contribute a significant number of businesses to Cardiff's business base. Therefore, although *Wholesale and Retail* has exhibited relatively weak business performance, it remains an important sector to Cardiff's economy.

3.8 Labour Market

3.8.1 Figure 3.12 provides a summary of key labour market indicators. Key highlights for each theme are discussed.

Population

3.8.2 The population of Cardiff is 366,900³⁵ (as of 2019). Cardiff has seen steady growth in its population over the period 1991–2019 (+70,000, +24%). This rate of population growth is much higher than the CCR (+11%), Wales (+10%), and UK (+16%) averages.

3.8.3 This trend has slowed significantly over more recent years. Since 2015, Cardiff's population has increased by +2.6% – the same as the rate of population change in the UK (+2.6%) and slightly above the rate of change in CCR (+2.4%) and Wales (+1.7%).

3.8.4 Cardiff has a working age population (16–64 years) of 247,100. The share of Cardiff's population that is of working age has increased since 1991 (64%, increasing to 67% in 2019). As of 2019 Cardiff's working age population accounts for a much greater share of the overall population (67%) than the CCR (63%), Wales (61%), and UK (63%) averages. This reflects the large student population across the city's higher education institutions.

Figure 3.12 Labour market profile section summary data

Column Heading	Cardiff	CCR	Wales	UK (*GB)
Population				
Population growth (1991–2019)	+24%	+11%	+10%	+16%
Population growth (2015–2019)	+2.6%	+2.4%	+1.7%	+2.6%
Economic Activity				
Economic activity rate, smoothed (2020)	78%	76%	76%	79%
Change in economic activity rate, smoothed (2004–2020)	+3.6%	+3.4%	+4.2%	+2.8%
Change in economic activity rate, smoothed (2016–2020)	+3.8%	+0.8%	+0.5%	+0.9%
Unemployment				
Unemployment rate, smoothed (2020)	3.9%	–	3.7%	4.2%*
Change in unemployment rate, smoothed (2015–2019)	–3.2%	–	–1.3%	–1.8%*
Skills and Qualifications				
Share of working age residents qualified to NVQ4+ level (2020)	50%	41%	39%	43%
Share of working age residents qualified to NVQ3+ level (2020)	67%	59%	59%	61%
Share of working age with no qualifications (2020)	5%	8%	8%	7%
Earnings				
Resident-based median gross annual earnings (2020)	£28,200	–	£28,300	£31,500
Workplace-based median gross annual earnings (2020)	£29,200	–	£28,100	£31,500

Source: Various ONS (Note: some data not available for CCR, Unemployment reported for GB not UK)

³⁵ ONS Population Estimates (2021)

- 3.8.5 There has been a decrease in Cardiff's share of the population aged over 65 years (-1.2%) since 1991. These trends are counter to the ageing population at the CCR, Wales, and UK levels, all of which saw a decrease in working age population and an increase in those aged 65+ years as a share of overall population.
- 3.8.6 However, in more recent years Cardiff's population profile change has reverted to reflecting national trends. Between 2015–2019, Cardiff's working population decreased by -0.3% as a share of the overall population, and the share of the population aged 65+ years increased by +0.4%. These trends are similar to the CCR (-0.7%, +1.4% respectively), Wales (-0.8%, +0.8%), and UK (-0.9%, +0.7%) levels.

Economic Activity Rate

- 3.8.7 Data on economic activity rates and resident-based employment are collected via the Annual Population Survey³⁶. As this is a survey, data from smaller areas tends to exhibit more volatility than data from larger areas due to smaller sample sizes. To account for this the data has been 'smoothed' to a three-quarterly rolling average.
- 3.8.8 From 2004–2019, the economic activity rate in Cardiff increased overall. This is largely a result of a significant increase in the number of 18–24 year olds living in the city since 1991 – a trend primarily driven by university students. Whilst acting as a brake on economic activity rates during their studies, the proportion of students continuing to live in the city beyond their studies has resulted in a progressively increasing population of well-qualified residents of working age.
- 3.8.9 Over this period Cardiff's economic activity rate has fluctuated either side of the CCR and Wales averages, and was consistently below the UK average.
- 3.8.10 Much of Cardiff's increased economic activity rate has taken place in the latter part of this period. Between 2016–2020, Cardiff's economic activity rate increased by +3.8% – well above the CCR (+0.8%), Wales (+0.5%), and UK (0.9%) rates.

Unemployment

- 3.8.11 Data for those who meet the international definition of unemployment³⁷ is gathered via the Annual Population Survey. Due to small sample sizes across local authority areas, direct estimates from this survey are generally not robust at this geographical level. To overcome this problem, a model-based estimate is generated by the ONS (Office for National Statistics) using a combination of Annual Population Survey data and, data from the Claimant Count³⁸.
- 3.8.12 In December 2020 the unemployment rate for those aged 16+ in Cardiff was just under 4%. Applying a three-quarterly rolling average, over the period 2015–2019 Cardiff's unemployment rate has been declining at a slightly greater rate than the equivalent at Wales and GB³⁹ levels, albeit from a higher starting point. Cardiff's unemployment rate has been consistently higher than the Wales and GB rates since 2004. The one exception to this is during the last 12 months of data (October 2019 – September 2020), which will clearly have been affected by the impact of pandemic-related public health restrictions on the labour market.

³⁶ Annual Population Survey (2021)

³⁷ Anybody who is not in work, available for work and has actively sought work (in the UK this is limited to within the last two weeks)

³⁸ This counts the number of people claiming benefits principally for the reason of being unemployed

³⁹ GB data is used as a benchmark here instead of UK as the ONS does not report model-based unemployment at a UK level.

Skills and Qualifications

- 3.8.13 Cardiff's share of working age residents qualified to NVQ4+ level is 50% (as of December 2020)⁴⁰. This is well above the CCR (41%), Wales (39%), and UK (43%) averages. At NVQ3+ level, Cardiff (67%) also performs much better than the CCR (59%), Wales (59%), and UK (61%) averages. In terms of residents with no qualifications, once again Cardiff (5%) performs better than the CCR (8%), Wales (8%), and UK (7%) averages.

Earnings

- 3.8.14 The resident-based median gross annual earnings⁴¹ in Cardiff (£28,200) (as of 2020) is below both the Wales (£28,300) and UK (£31,500) averages. As such, Cardiff's residents earn less on average than their Welsh and UK counterparts. Looking at data since 2008, the data for 2020 is an outlier – Cardiff's resident-based median gross annual earnings consistently sat very close to the UK average and slightly above the Wales average.
- 3.8.15 The workplace-based median gross annual earnings⁴² in Cardiff (£29,200) (as of 2020) is above the Wales average (£28,100), and below the UK average (£31,500). As such, jobs based in Cardiff pay more on average than the Wales average, and pay less on average than elsewhere in the UK.

3.9 Deprivation

- 3.9.1 The Welsh Index of Multiple Deprivation (WIMD) is the official measure of relative deprivation for small areas in Wales. It is a National Statistic produced by the Welsh Government.
- 3.9.2 WIMD identifies areas with the highest concentrations of several different types of deprivation. The prime purpose of the Index is to provide the evidence needed about the most deprived areas of Wales to inform a variety of decisions, such as funding or targeting of programmes and services for local areas. WIMD ranks all small areas (Lower Super Output Areas – LSOAs) in Wales from 1 (most deprived) to 1,909 (least deprived).
- 3.9.3 WIMD consists of eight separate 'types' of deprivation. Each domain is compiled from a range of different indicators. The domains included in the latest WIMD release (2019) are:
- Income
 - Employment
 - Health
 - Education
 - Access to Services
 - Housing
 - Community Safety
 - Physical Environment
- 3.9.4 Cardiff is above the CCR and national averages for the share of its small areas ranked in the 1st (i.e. most deprived) decile, and the 9th and 10th deciles (i.e. least deprived). These are the only three deciles in which Cardiff's share of small areas is above the national average. This suggests that Cardiff is relatively polarised as a local authority in terms of deprivation.
- 3.9.5 Figure 3.14 highlights that deprivation is not spread evenly across the city boundaries – it is highly concentrated in several communities.

⁴⁰ Annual Population Survey (2021)

⁴¹ Annual Survey of Hours and Earnings – Resident Analysis (2021)

⁴² Annual Survey of Hours and Earnings – Workplace Analysis (2021)

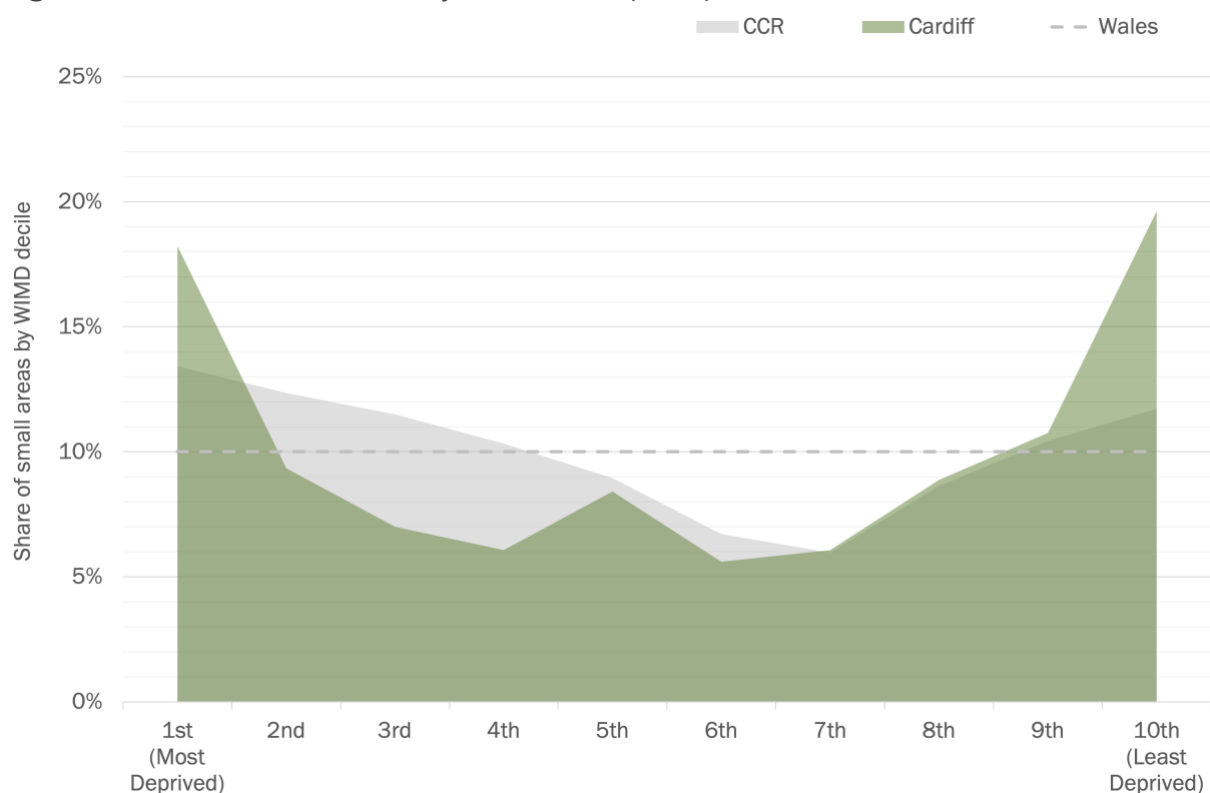
3.9.6 The following areas of Cardiff are categorised as being some of the most deprived places in Wales according to analysis of WIMD data:

- Ely
- Caerau
- Fairwater
- Grangetown
- Butetown
- Splott
- Adamsdown
- Plasnewydd
- Riverside
- Llandaff North
- Trowbridge
- Rumney
- Llanrumney
- Pentwyn

3.9.7 The following areas of Cardiff are categorised as being some of the least deprived places in Wales according to analysis of WIMD data:

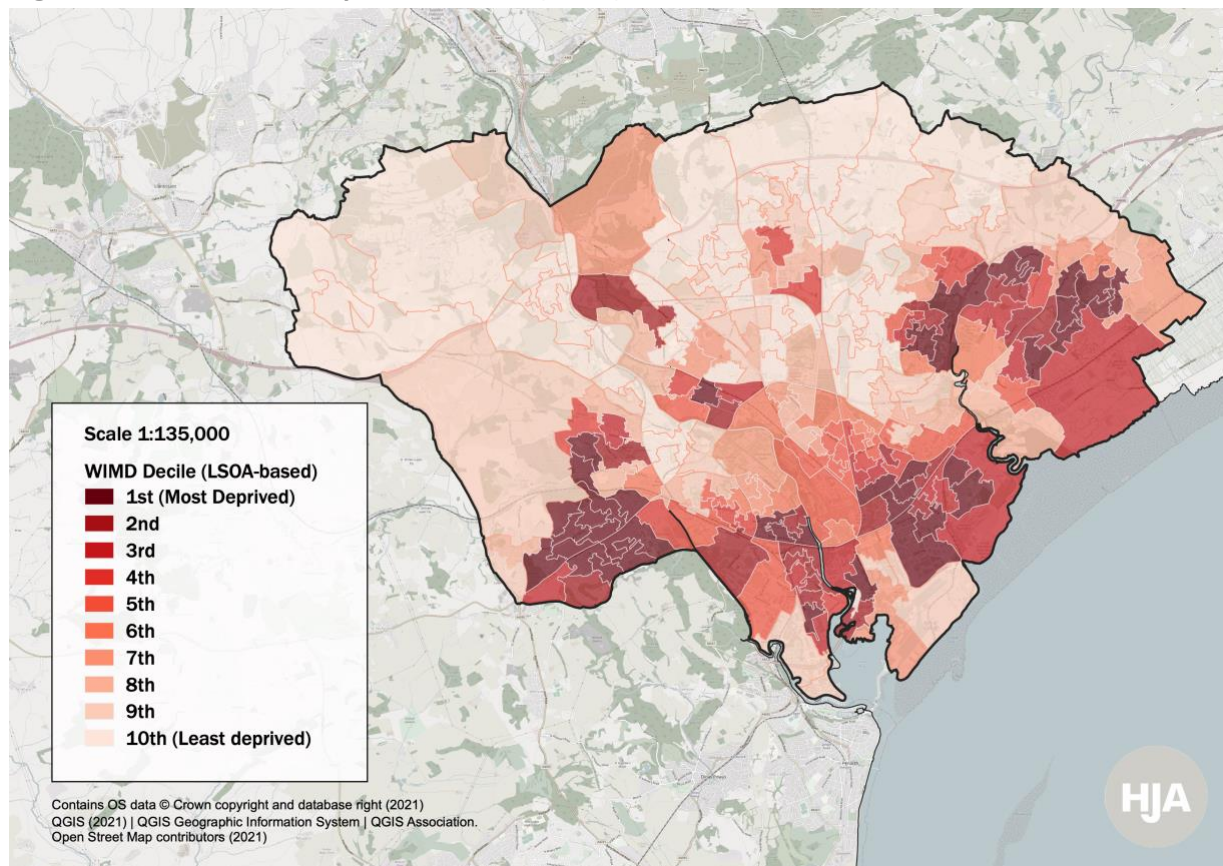
- Pentyrch
- Creigiau/St Fagans
- Radyr & Morganstown
- Llandaff
- Rhiwbina
- Heath
- Cyncoed
- Lisvane
- Pontprennau/Old St Mellons

Figure 3.13 Share of small areas by WIMD decile (2019)



Source: HJA analysis of WG data

Figure 3.14 WIMD decile by LSOA, Cardiff (2019)



Source: HJA analysis of WG data

3.10 Summary

- 3.10.1 Cardiff is home to a working age population of 247,100 persons and accommodates 242,000 jobs.
- 3.10.2 The city has seen strong population growth in recent years. Cardiff's working age population accounts for much greater share of total population than the Wales and UK averages. However Cardiff's population profile has changed broadly in line with the Wales and UK profiles over the past few years.
- 3.10.3 Cardiff's economic activity rate has generally fluctuated either side of the Wales average, and has tended to remain below the UK average. Cardiff's unemployment rate has tended to remain above the Wales and UK averages. However, in recent years this discrepancy has reduced. The influence of the large student population is clearly a driver for the differences with benchmark averages.
- 3.10.4 Cardiff's population is very well qualified compared to the Wales and UK average.
- 3.10.5 However, Cardiff as a city and local authority area is not a homogenous entity. According to WIMD data, Cardiff consists of small areas right across the deprivation spectrum, including significant numbers of small areas categorised as some of the most deprived places in Wales, and others categorised as some of the least deprived. Deprivation in Cardiff is not spread evenly across the city – it is highly concentrated in several communities.

- 3.10.6 Employment levels have been rising steadily in recent years. The area has a very high jobs density when considered against the Wales and UK averages.
- 3.10.7 Cardiff has a number of key sectors: *Information and Communication* (J); *Financial and Insurance Activities* (K); *Professional, Scientific and Technical Activities* (M); *Administrative and Support Service Activities* (N); *Education* (P); *Health* (Q); and *Real Estate* (L) have all shown strengths to varying degree in GVA, employment, and business activity.
- 3.10.8 In particular the *Information and Communication* (J), *Financial and Insurance Activities* (K), *Professional, Scientific and Technical Activities* (M), and *Real Estate* (L) sectors exhibit performance that distinguishes Cardiff from other local economies. These sectors are categorised as '**Competitive Advantage**' sectors as they present an opportunity for Cardiff to distinguish itself from other local economies by capitalising on its strengths in these sectors.
- 3.10.9 The *Professional, Scientific and Technical Activities* (M) sector does not exhibit the same recent growth advantages as the three other Competitive Advantage sectors, but it is nonetheless a vital component of Cardiff's economy. It is a sector that supports a significant level of high value GVA, employment, and business activity. In employment and business terms the sector has not grown over the past few years, however it's GVA output has increased by around 20% over the same period. This indicates that productivity in the sector is improving.
- 3.10.10 *Health* (Q), *Administrative and Support Service Activities* (N), *Public Administration and Defence* (O), *Wholesale & Retail* (G), and *Education* (P), are categorised as '**Foundational Economy**' sectors. Overall these sectors do not exhibit a competitive advantage over other local economies, and they do not exhibit strong growth trends – however they support significant levels of GVA, employment, and business activity, albeit in lower value-added activities.

Cardiff's 'Competitive Advantage' Sectors

- Information and Communication (J);
- Financial and Insurance Activities (K);
- Professional, Scientific and Technical Activities (M); and
- Real Estate (L).

Cardiff's 'Foundational Economy' Sectors

- Health (Q);
- Administrative and Support Service Activities (N);
- Public Administration and Defence (O);
- Wholesale & Retail (G); and
- Education (P).

- 3.10.11 Cardiff is the largest employment centre in Wales. However, in comparison to the other UK core cities it is not large. Nevertheless it has been one of the better performing locations in terms of population, employment and GVA growth.
- 3.10.12 The city plays an important role within the Cardiff Capital Region, as a provider of jobs to a much wider hinterland. Particularly in the key sectors as outlined above.

4 Office Market Context

- 4.0.1 This chapter sets out an overview of Cardiff's commercial office premises market in terms of transactions, volumes, rents, drivers, and more. This has been prepared by NP Linnells Property Consultants.

4.1 Overview

- 4.1.1 The Cardiff local authority area forms part of the South East Wales regional market. In terms of the office property market Cardiff principally competes with Newport, Swansea and Bristol and to a lesser extent Treforest, Cwmbran and Bridgend.
- 4.1.2 Just short of 1,000,000 sq ft of new build grade A office space was completed in the city centre between 2016 and the end of 2019 at Central Square and Capital Quarter, which made up the vast majority of grade A new build office development in the city centre. Since 2016, grade-A availability has varied between 100,000 sq ft and 200,000 sq ft per year (135,000 sq ft per year 5 year average) demonstrating that the majority of grade-A development was subject to pre-let. The availability of grade-A space peaked in 2016 at 200,000 sq ft, the time prior such availability was recorded in the market was 2011, amidst the Credit Crunch hangover.
- 4.1.3 According to Knight Frank grade-A availability in Cardiff remained stable in 2020 with 191,651 sq ft available at the end of quarter 3, with a city wide vacancy rate of 9%. However, occupiers have continued to examine their space requirements as the Covid-19 pandemic has endured. This has led to a dump of grade-A space being put back into the market with occupiers such as Hugh James, RBS and Blake Morgan looking for takers for their surplus space in Cardiff city centre. Accordingly, this has led to an additional 300,000 sq ft of grade-A space coming to the market during 2021.
- 4.1.4 Generally speaking, across the South East Wales market there is an over-supply of secondary office accommodation which is largely unfit for purpose. This unsuitability has been exacerbated by the Covid-19 pandemic.
- 4.1.5 While the office market finds its new equilibrium there will be a halt to new speculative development of grade-A space in the city centre. The only development likely to take place in the short term is that secured with a pre-let and the re-purposing of existing grade-A space to meet modern occupier requirements.
- 4.1.6 The take up of office space in Cardiff has fallen year on year from the take up peak in 2016 and 2017 where approximately 700,000 sq ft of space was taken in both these years.
- 4.1.7 According to international property advisors Savills, take up in Cardiff in Q1 2021 was 39,881 sq ft, significantly lower than the same period the year prior, with only 13% of this up-take being grade A. By comparison, in Q4 2020 the total office take-up in Cardiff for that quarter 166,810 sq ft according to Avison Young.
- 4.1.8 Only 4.5% (7,169 sq ft) of take up was Out-of-Town (OOT) space which points to flaws in the OOT market which have been obvious for some time but magnified significantly by Covid-19. The main issues being:

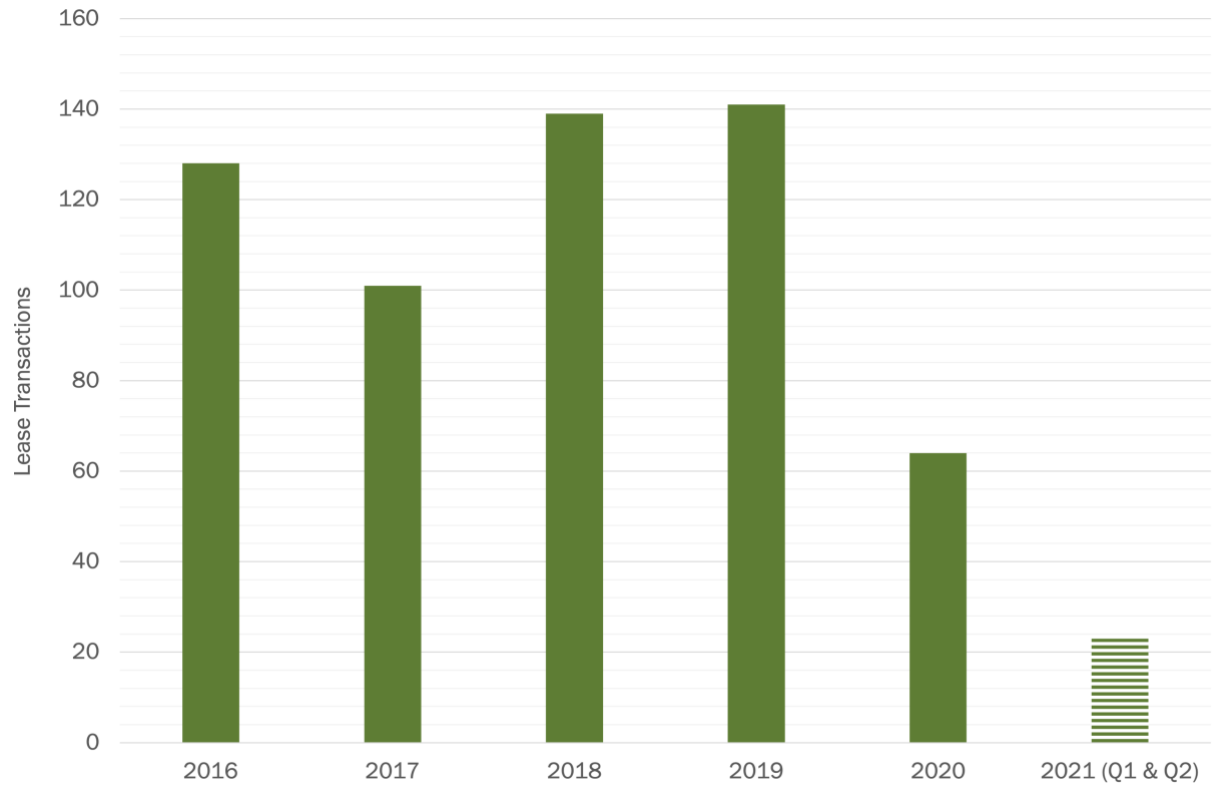
- Under provision of parking
- Poor connectivity to public transport, particularly rail
- Lack of on-site services and facilities for occupiers

- 4.1.9 Headline rents in the city centre have held static at £25.00/sq ft since 2016 despite 2019 forecasts that predicted rents would increase to £27.00/sq ft in 2020 and £28.00/sq ft in 2021. Whilst there is no evidence of rents dropping below this rate, it has been reported that occupiers have been seeking larger incentives as a result on the disruption in the market caused by the pandemic. OOT headline rents, by comparison as of Q4 2020 stood at £15.50 /sq ft which has remained static at this level since 2018 an increase of £2.00/sq ft from 2016 and 2017 levels, according to EGI data..
- 4.1.10 Prime yields currently stand at 5.50% with yields for secondary stock standing at 7.50%. Prime yields having held with secondary yields having softened by 50bp since the start of the pandemic. Most regional UK cities have experienced a softening of 25bp off prime yields since April 2020 arising from investor caution due to the pandemic. Across the UK investment transaction volumes have been disrupted by the pandemic however Cardiff investment volumes for Q1 2021 fell only 13% from the same period in 2020 and the 10 year quarterly average.
- 4.1.11 The current total office floor space stock stands at approximately 11,000,000 sq ft with availability standing at 1,000,000 sq ft (9%). The total floor space provision in 2011 stood at approximately the same level demonstrating that the redevelopment of older redundant office stock to alternative uses (principally residential) and the development of new office have remained balanced.
- 4.1.12 Office stock levels in the competing markets of Swansea and Newport have remained stagnant over the last 10 years with the markets dominated by secondary (at best, grade-B) stock, with very little grade-A speculative development over the last 10 years apart from the odd-pocket of comparatively small-scale development, often grant supported.

4.2 Office Take-Up

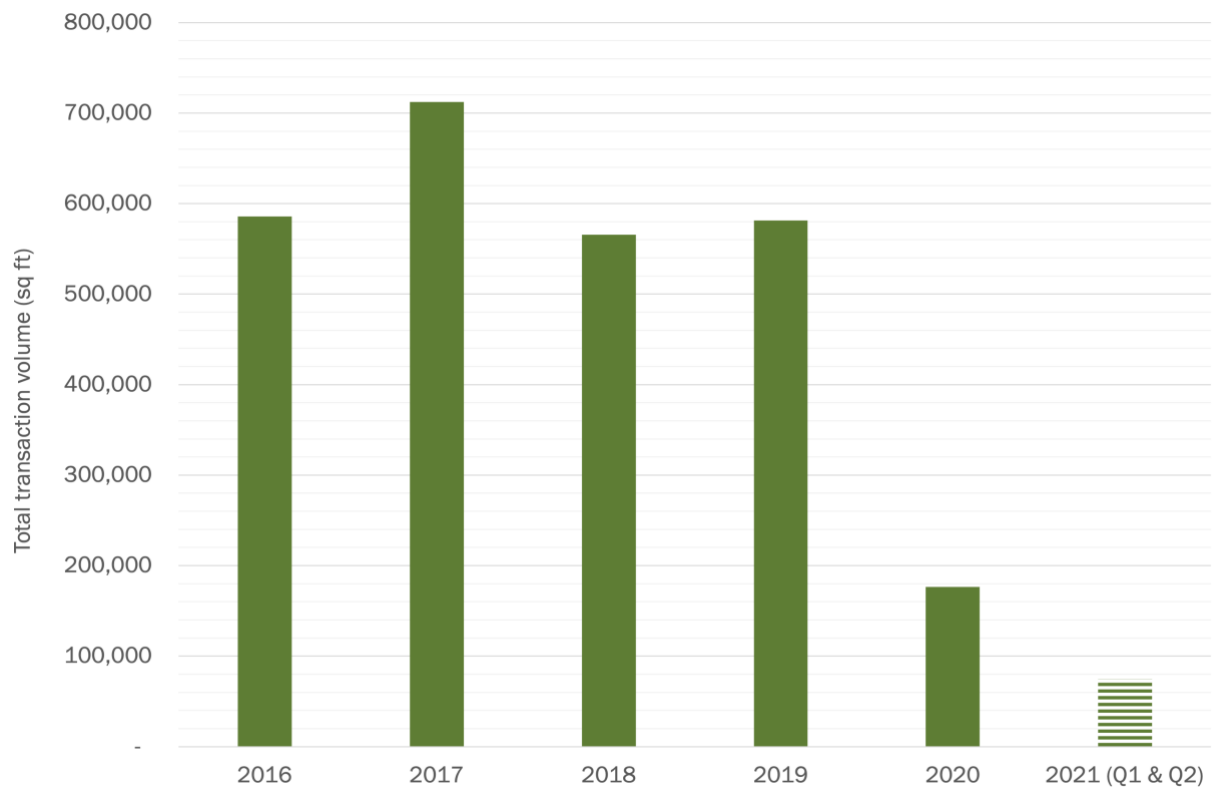
- 4.2.1 Unsurprisingly office space take-up in Q1 & Q2 of 2021 is below that of the same quarter in 2020 and furthermore space take-up was significantly down across the whole of 2020 compared with the preceding 4 years with 2017 forming the peak of space transacted in the last 5 years. It is anticipated that space take-up will remain low for 2021 while companies re-assess their property strategies and “hybrid working” will form part of the assessment process especially in the public sector where Welsh Government has set “the hare running” with a 30% homeworking target going forward in Wales.
- 4.2.2 Transaction volumes have largely mirrored the space uptake trends with the number of actual lettings of office space showing significant drops in 2020 from the preceding 5 years which reflects occupiers’ caution exercised as a result of the pandemic. It is anticipated that transaction volumes will remain lower than the 5-year average in the short term as the market adjusts to new regulation and working practices. These are illustrated in Figures 3.1 and 3.2.

Figure 4.1 Number of office premises lease transactions per annum, Cardiff (2016–2021)



Source: NP Linnells analysis (Note: data for 2021 represents half-year so far)

Figure 4.2 Volume of new office premises lease transactions per annum, Cardiff (2016–2021)



Source: NP Linnells analysis (Note: data for 2021 represents half-year so far)

4.3 Office Availability

- 4.3.1 Some large office occupiers in Cardiff have responded to the pandemic by rationalising space or even closing offices. Notable occupiers include Hugh James, which is re-marketing 40% of its space at 2 Central Square, Blake Morgan, JLL and RBS all off-loading surplus space responding to what is anticipated to be a permanent change to working patterns that is “hybrid working”. As such it is envisaged a 60% desk to workforce ratio will be sufficient going forward and it is thought by property professionals in the city that this hybrid working is likely to be adopted widescale. Cushman & Wakefield, Dunn & Bradstreet and Liverpool Victoria have all closed their offices opting for home working and linking with their wider office networks.
- 4.3.2 A trawl of EGI reveals the following stock availability currently on the market in Cardiff in the various Employment Land allocations:

Figure 4.3 Current office premises availability, Cardiff (28 June 2021)

LDP Ref	Location	Total available (sq ft)	Estimated Vacancy	LDP Ref
EC1.5	St Mellons Business Park	121,547	58%	EC1.5
EC1.6	Cardiff Gate Business Park	37,385	15%	EC1.6
EC1.7	Cardiff Business Park, Llanishen	170,919	88%	EC1.7
EC1.9	Greenmeadow Springs	5,834	24%	EC1.9
EC1.12	Crown Way	–	0%	EC1.12
EC1.14	Pentwyn	18,714	10%	EC1.14
EC1.15	Eastern Business Park	77,413	50%	EC1.15
EC1.23	Alexandra Gate	13,535	75%	EC1.23
EC6	Maindy Road	–	0%	EC6
CBA	Cardiff City Centre	1,109,185	TBC	CBA
BBA	Cardiff Bay	733,535	TBC	BBA

Source: NP Linnells analysis of EGI (Note: data for 2021 represents half-year so far). May include some duplication, but data has been cleaned as far as possible.

- 4.3.3 This represents a snapshot of availability and may not fully represent the true picture of those companies yet to put space back into the market pending upcoming lease events such as tenant breaks or indeed reflect space that is under offer and has not yet been formalised by an exchanged contract. Space availability exceeds 50% in some cases in the OOT locations, a trend that it is likely to continue into forthcoming years according to office agents, as the requirement for more flexible collaborative working spaces with smaller floor spaces grows along with the requirement for better transport connectivity by public transport and the need for more facilities and services in close proximity such as leisure and hospitality offerings to encourage the workforce from the home back to the office.

4.4 Lease Transactions

4.4.1 The number of office lease transactions can be separated into two categories

1. City Centre and Periphery with Cardiff Bay; and
2. Out of Town (OOT)

4.4.2 The table shows that over the last 10 years (excluding 2021) in the City Centre and Periphery, the most lease transactions took place on floor spaces between 1,001 sq ft and 2,000 sq ft, followed by the 2,001 – 3,000 sq ft range and the 501 – 1000 sq ft range. However, over the past three years the number of transactions in these categories have been below the 10-year average for each range. The number of transactions between 2018 & 2020 in the 5,001 – 10,000 sq ft floor space range are above the 10-year average (11.1 transactions) at 14.66 transactions.

Figure 4.4 Number of office premises lease transactions by unit size, Cardiff City Centre and Cardiff Bay vs out-of town (2011–2021)

Size (sq ft)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 Q1 & Q2	10 year total (exc 2021)	10 year average (exc 2021)
Cardiff City Centre and Cardiff Bay													
0–500	6	6	10	3	13	12	5	11	10	3	4	83	8.3
500–1,000	19	9	16	15	23	15	11	16	13	11	0	148	14.8
1,001–2,000	18	20	42	34	20	30	19	19	18	17	4	241	24.1
2,001–3,000	12	23	27	17	19	12	8	26	19	7	6	176	17.6
3,001–5,000	9	13	16	17	15	14	17	10	9	7	2	129	12.9
5,001–10,000	16	8	4	8	7	12	9	14	21	9	3	111	11.1
10,000+	8	3	7	10	9	7	8	9	9	1	0	71	7.1
Out-of-town													
0–500	10	0	3	4	0	0	0	0	3	0	0	20	2
500–1,000	6	5	1	2	6	4	3	8	7	3	0	45	4.5
1,001–2,000	12	6	10	11	8	6	11	5	11	4	0	84	8.4
2,001–3,000	8	5	3	6	7	7	0	6	8	0	0	50	5
3,001–5,000	7	4	9	3	4	5	7	12	7	3	2	63	6.3
5,001–10,000	4	4	3	4	7	4	2	6	7	0	0	41	4.1
10,000+	1	2	3	3	1	2	0	1	0	0	1	14	1.4
Total													
	136	108	154	137	139	130	100	143	142	65	22	136	108

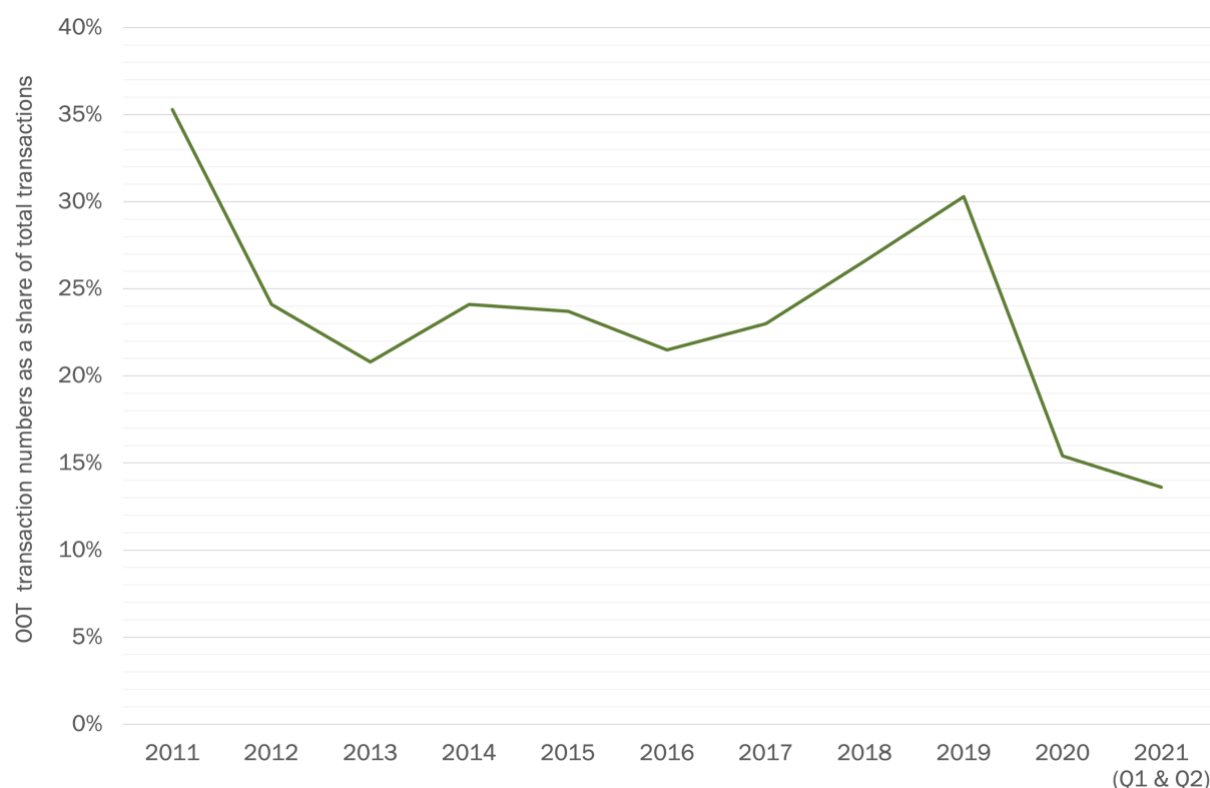
Source: NP Linnells analysis (Note: data for 2021 represents half-year so far)

4.4.3 Similarly, in the OOT category, the 1,001 – 2,000 sq ft floor space range has seen the most number of transactions over the past 10 years, followed by the 3,000 – 5,000 sq ft range and the 501 – 1,000 sq ft range. The 3,000 – 5,000 sq ft range showing the second highest number of

transactions over the past 10 years has also shown sales volume over the 10-year average between 2018 and 2020.

- 4.4.4 The letting of units in the smaller floor area ranges is expected to continue and indeed increase as occupiers consolidate their space requirements in the short to medium term with the letting of larger footplates expected to decline. However, it is anticipated that the city centre, periphery and Bay area will continue to rise in popularity whereas out of town locations will become less popular as occupiers focus on connectivity and lifestyle to attract workers back to the workplace which is key to the long-term vitality of the city centre and the attraction, retention and development of talent and therefore the growth of businesses.

Figure 4.5 OOT office premises transaction numbers as a share of total transactions, Cardiff (2011–2021)



Source: NP Linnells analysis (Note: data for 2021 represents half-year so far)

- 4.4.5 The following table shows how over the last 10 years the average deal size (sq ft) has reduced along with the average agreed lease term, whilst rents have marginally increased in Cardiff:

Figure 4.6 Average office premises deal size, lease length, and rent, Cardiff, previous 10 years

	Last 1 yr	Last 2yrs	Last 3 yrs	Last 5 yrs	Last 10 yrs
Average deal size (sq ft)	3,200	3,400	3,800	4,500	4,200
Average lease length (yrs)	5.6	5.9	6.3	6.3	6.1
Average rent £/sq ft	£15.88	£16.16	£15.63	£14.79	£13.29

Source: NP Linnells analysis

- 4.4.6 The increased requirement for flexible working and collaborative working spaces as demonstrated by the rising popularity of flexible workspace providers such as Tramshed Tech, Eagle Labs,

Clockworx means that Landlords and developers will need to provide workspaces with the following features;

- High quality finish and environment inc features such as air purification
- Collaboration space/co-working/community environment
- On site services and facilities such as coffee shop, break out areas, conferencing facilities
- Mentoring, training, academy programmes
- Flexible lease terms, membership type arrangements
- All-in rents/membership fees
- Add-ons such as things like Yoga studio, gym, food provision
- Hyper fast broadband connectivity
- Excellent transport connectivity

4.4.7 This is inevitably going to lead to increased fit-out costs which in the absence of requirement for long leasehold terms from occupiers means that landlords cap-ex will be required to be rentalised to cover increased expenditure. One issue arising from the increased flexibility required from tenants going forward is how funding institutions define value; traditionally value has been based on the financial strength and perceived security of the tenant and the term of the lease. Traditionally start-ups and smaller businesses occupying buildings on short leases has resulted such properties being regarded as higher risk by investors and therefore attaching higher yields which has resulted in lower capital values. Banks and funding institutions will need to look to KPIs such as energy efficiency, sustainability and build cost as valuation metrics in the future to ensure office development remains viable especially with construction costs rises being experienced particularly since Covid and Brexit.

4.5 Office Rents

4.5.1 The following table shows the correlation between lease term and agreed rent levels across Cardiff since 2016:

Figure 4.7 Average office premises agreed rents, Cardiff (2016–2021)

Lease Length (yrs)	2016	2017	2018	2019	2020	2021 (Q1 &2)
All lease lengths	£13.39	£14.12	£14.27	£15.80	£16.20	£16.34
0-3 yrs	£14.25	£15.25	£15.78	£17.13	£16.14	£21.21
3-5 yrs	£11.29	£11.34	£12.04	£13.95	£16.67	£9.76
5-10 yrs	£14.48	£15.65	£14.07	£14.78	£16.66	£14.77
10+ yrs	£16.77	£23.50	£16.49	£22.10	£10.57	–

Source: NP Linnells analysis (Note: data for 2021 represents half-year so far)

4.5.2 The statistics show that rental levels have increased year on year over the last 5 years for all lease lengths. The average rent on lease lengths over 10yrs has been more volatile which would be likely linked to large pre-let grade A deals completing in 2017 and 2019 at headline rents and the low point in average rents in 2020 relating to a small transaction sample and letting of secondary space which skews the figures.

4.5.3 The average rent for deals at 0-3 years lease length shows a gradual positive upward trend since 2016 with an uptick in 2021 which reflects the increase in demand for shorter leases and the

resultant increase in rent demanded by landlords as a trade-off for less security. Rents for leases of 0-3 years in length remain generally higher than other longer lease terms.

4.5.4 Cardiff Headline Rents as of end 2020 can be categorised as such:

Figure 4.8 Headline office premises rents, Cardiff (end of 2020)

City Centre Grade A	City Centre Grade B	OOT	Cardiff average (all deals)
£25.00/sq ft	£18.00/sq ft	£15.50/sq ft	£16.34/sq ft

Source: NP Linnells analysis

Benchmarking City Office Rents

4.5.5 Compared with other competing cities and their wider areas:

Figure 4.9 Headline office premises rents, benchmark areas (2020)

City	Grade A Rent	Grade B	Average (all deals)
Newport	£15.00/sq ft	£10.00/sq ft	£12.93/sq ft
Swansea	£14.00/sq ft	£10.00/sq ft	£10.61/sq ft
Bristol	£40.00/sq ft	£28.00/sq ft	£24.50/sq ft

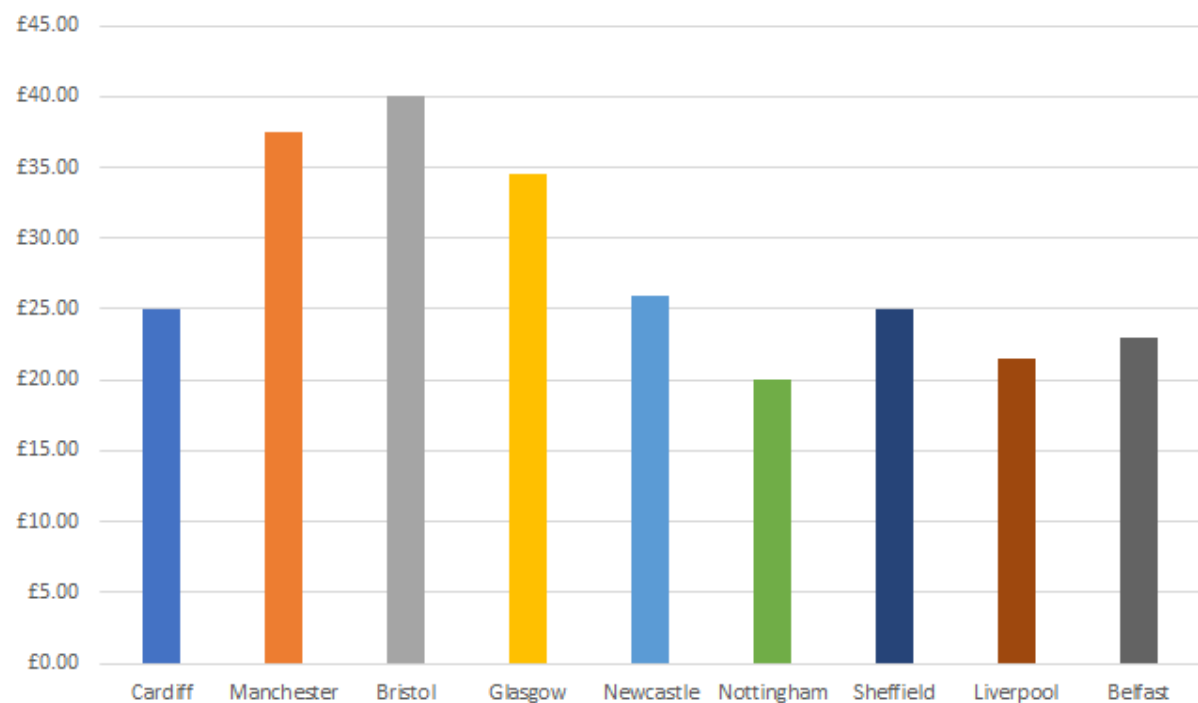
Source: NP Linnells analysis

4.5.6 Newport and Swansea have very little grade A space, with the market dominated by older secondary stock. Transaction levels are also significantly lower in these areas. With the rent levels being achieved development viability poses a major issue and this has prevented the development of new grade A stock in these locations. The pockets of new development that have occurred have been subject to interest free loans and the like from the local authorities in an effort to promote occupier expansion into these areas.

4.5.7 Bristol grade A rents are 60% higher than that of Cardiff and transactional activity is higher, as such Cardiff possesses a better value for money alternative, being the most affordable of the “Big Six” markets.

4.5.8 Below is a graph showing the relative affordability of prime office accommodation in eight competing regional core cities throughout the UK relative to Cardiff. The data shows that Cardiff shows much better value for money compared with Manchester, Bristol and Glasgow. Cardiff rents are similar to those of Sheffield and Belfast with Liverpool and Nottingham recording cheaper grade A rents.

Figure 4.10 Headline office premises rents, UK regional core cities



Source: NP Linnells analysis

4.6 Future Development Prospects in Cardiff

- 4.6.1 As previously mentioned the requirement for high quality flexible workspace in the city centre together with the off-loading of grade A space by big footplate occupiers in the city centre, together with the growing redundancy of secondary stock is going to inevitably mean that the development of new buildings in at least the short to medium term is going to cease unless the development is underwritten by a significant “blue chip” pre let. Also, taking into consideration the continuing demand for zero carbon through regulation and corporate social responsibility it is envisaged that development will be concentrated toward the re-purposing and redevelopment of existing office accommodation (where feasible and viable) to provide high quality flexible office space. This in part is due to the growing viability gap arising from increasing construction costs and shorter lease terms in demand from occupiers.
- 4.6.2 For example Legal & General’s 120,000 sq ft pre-let of the Interchange building under construction with Rightacres in the city centre will leave a 100,000 sq ft availability at Brunel House and Knox Court which will ultimately lead to the need of the landlords of the buildings to make this space fit for purpose whether it be through re-investment or sale to developers. The movement of HMRC from Brunel House to 5 Central Square has left a further 40,000 sq ft of space at Brunel House.
- 4.6.3 The only speculative new build scheme currently under construction in the city centre is JR Smart’s 109,000 sq ft John Street scheme which will offer grade A space on 13,000 sq ft foot plates.
- 4.6.4 Rightacres have reportedly put their Central Quay offices scheme on the former BMW & Brains Brewery site on hold due to market changes over the past 12 months and the resultant market and economic uncertainty, confirming that they require 50% pre-let before they commence works on their 250,000 sq ft Ledger Building.

- 4.6.5 The 120,000 sq ft Legal & General owned Hodge House on St Mary Street, following the departure of Hugh James solicitors two years ago has undergone a significant refurbishment programme on 60,000 sq ft to provide to part of the space, L&G's Capsule brand of flexible fully furnished workspace. Although this redevelopment pre-dates Brexit and Covid it is a good example of the type of redevelopment that will take place to facilitate the need anticipated in the emerging flexible workspace sector of the market.
- 4.6.6 Buildings in secondary locations or building of poor quality that are unviable for redevelopment to office accommodation are likely to be re-purposed for uses such as residential.
- 4.6.7 The future of Out of Town space poses a more difficult question. There will undoubtedly always be demand to an extent for this type of accommodation however as previously stated the provision of adequate car parking and better public transport connectivity as well as services and facilities on site that add to workers wellbeing and improved lifestyle are necessary to ensure that these out of town business parks do not become completely un-fit for purpose and ultimately become residential development sites in the future.

4.7 Development Pipeline

- 4.7.1 Notwithstanding future demand predictions, Out of Town office development remains disadvantaged by a lack of commercial viability. Anticipated rents are too low coupled with too high investment yields with relatively high construction costs means that speculative development cannot take place without grant intervention or without securing a blue chip pre-let for 15 -20 year plus i.e. a pre-let from an occupier with a good credit rating for an extended lease term without the inclusion of short term breaks at rack rents. This has meant that despite there being space for future office development on business parks such as Cardiff Gate, a lack of convertible demand means that there has been little activity from developers seeking B1 planning permissions. In fact, there has been attempts by developers to seek a change of use to undeveloped employment land to residential uses. It is anticipated that future development on these Out-of-Town business parks will be piecemeal refurbishments recycling existing stock in the absence of substantial active occupier requirements which may drive larger scale new development in these out-of-town locations and with the current market flux toward city centre requirement.
- 4.7.2 Given the occupier focus on worker wellbeing, flexibility and lifestyle (particularly accelerated during covid and what is expected post covid), it is envisaged that the opportunity for such larger occupier requirement will diminish over time, but this will remain to be seen as the market evolves. If there becomes a movement to the requirement for more "satellite" offices as office space need reduces, close to major road links on out-of-town business parks as national and large regional occupiers such as construction companies look to re-assess their business operation, it is anticipated that their needs could be met by existing provision on out-of-town sites, where a regional presence *need* may be the priority rather than the satisfaction of flexible and lifestyle *wants*.
- 4.7.3 With significant development sites in Cardiff Bay also remaining fallow (approx. 500,000 sq ft consented but undeveloped on Parmer Waterside (Pierhead Street) and Assembly Square), new development will continue to be focussed around the city centre where headline rents and yields make new development viable, albeit that given the fallout of the pandemic, any new development will be on the condition of a significant pre-let. Approximately 720,000 sq ft of space is under

construction or consented in the city centre (including Central Square, Central Quay and John Street), however it is anticipated delivery of some of large portions of this space will be somewhat delayed until the full impact of the pandemic is understood by occupiers in terms of its effect on their businesses and occupier reactionary real estate strategies are implemented and what the emerging market will look like.

4.8 Occupier Profile and Likely Future Trends

4.8.1 Over the last 24 months the take up in office space in Cardiff has been dominated in the following sectors;

- Technology, Media and Telecoms (TMT) – accounting for 27% of deals in 2019, 23% in 2020
- Business and Consumer Services – 17% of deals in 2020
- Public Services, Education and Health – accounting for 57% of uptake in 2020 however this is against lower than average take-up across the market.
- Insurance & Financial Services

4.8.2 Other notable occupier take-up has been in the Charities and Associations sector and Property Development & Construction sectors.

4.8.3 Since the end of 2019 there has been office space acquisition by challenger banks Monzo and Starling who provide digital banking solutions in the absence of physical branches. Tech Media and Telecoms occupiers including media giants Sky, tech specialists Incopro (online security), Sapiens (insurance software) and Loop-Up (cloud telephony) all took space in Cardiff in 2019 with Currencycloud and Fintec acquiring space in 2020. The take up has been a mix of secondary space, traditional grade A and high quality refurbished space all within the Cardiff city centre.

4.8.4 Cardiff along with South Wales has been recognised as one of 10 areas in the UK that are producing high growth fintech companies and with significantly above average start-ups in Cardiff and substantial focus and investment from the Cardiff Capital Region, this is an area where growth is predicted to continue particularly with the talent pool generated by the USW, Cardiff University and Cardiff Met.

4.8.5 Up to end Q3 2020, £317,000,000 capital had been invested over 41 deals in businesses headquartered in Cardiff, despite the economic uncertainty, this is the highest amount invested since 2016, which will inevitably release to an increase in headcount and therefore increased demand for office accommodation although, it is anticipated that this will be focussed on the city centre around transport hubs.

5 Industrial Market Review

- 5.0.1 This chapter sets out an overview of Cardiff's commercial industrial and logistics premises market in terms of transactions, volumes, rents, drivers, and more.

5.1 Overview

- 5.1.1 In terms of the industrial and logistics property market, Cardiff forms part of the wider South East Wales regional market. Cardiff principally competes with Newport, Bridgend and Bristol and to a lesser extent Swansea and Cwmbran.
- 5.1.2 The industrial and logistics market in Wales, particularly in South East Wales has been buoyant throughout the pandemic as retailers have accelerated their movement from the high street to online business. UK wide, retailers and distributors collectively have accounted for 76% of take-up in H1 2021 as they seek to expand online presence and increase home delivery capacity. According to Knight Frank online sales accounted for 32% of retail spend in the first five months of 2021 a rise from 28% of retail spend in 2020 and 19% in 2019. Distribution property take up in 2020 nationally has been dominated by non-food retail (41%), Third Party Logistics (36%) and Retail-Food (10%) according to Avison Young.
- 5.1.3 According to Cushman & Wakefield statistics at the end of 2020, availability of stock in Wales stood at 6,740,024 sq ft, with take-up standing at 2,455,889 sq ft for the year. Just over 10% of this national take-up was attributed to the Cardiff local authority area where 251,652 sq ft was transacted. Statistics for 2020 also show that out of the 6.74M sq ft of available space, only 196,000 sq ft was grade A (<3%) with only a further 100,000 sq ft of speculative grade A space under construction in Wales. This pattern of a lack of availability and speculative development of grade A space nationally, holds true in Cardiff where according to EGI only one grade A deal (3,180 sq ft) was transacted in 2020 representing just over 1% of space transacted and just over 2% in terms of deal count. To put those figures into perspective Cardiff's current standing industrial and warehousing property stock stands at approximately 8,500,000 sq ft with estimated vacancy of just shy of 1,000,000 sq ft and a mean vacancy rate of 11.6% across all of the industrial parks and estates across the Cardiff local authority area.
- 5.1.4 Whilst South East Wales is not a main retail distribution market, the change in shopping habits has gathered momentum locally and created requirements for midsize units in close proximity to customer bases to accommodate the faster and faster order turnaround times required. The shortage in good quality storage and distribution facilities across the region has led to companies such as DPD having to purpose build its new 60,000 sq ft facility in Swansea and operators such as DX having to improve existing warehousing space in Bridgend and Newport. Speculative development of last-mile distribution hubs has been limited to St Modwen's development of 50,000 sq ft at their Llanwern redevelopment site which was let to Amazon and 30,000 sq ft and 100,000 sq ft units due for completion in 2021 at the same location.
- 5.1.5 Continuing in a similar vein, the closure of Argos high street stores and the introduction of smaller "Click & Collect" points at Sainsburys stores has led to the requirement for a 60,000 sq ft warehouse and distribution facility in Cardiff.

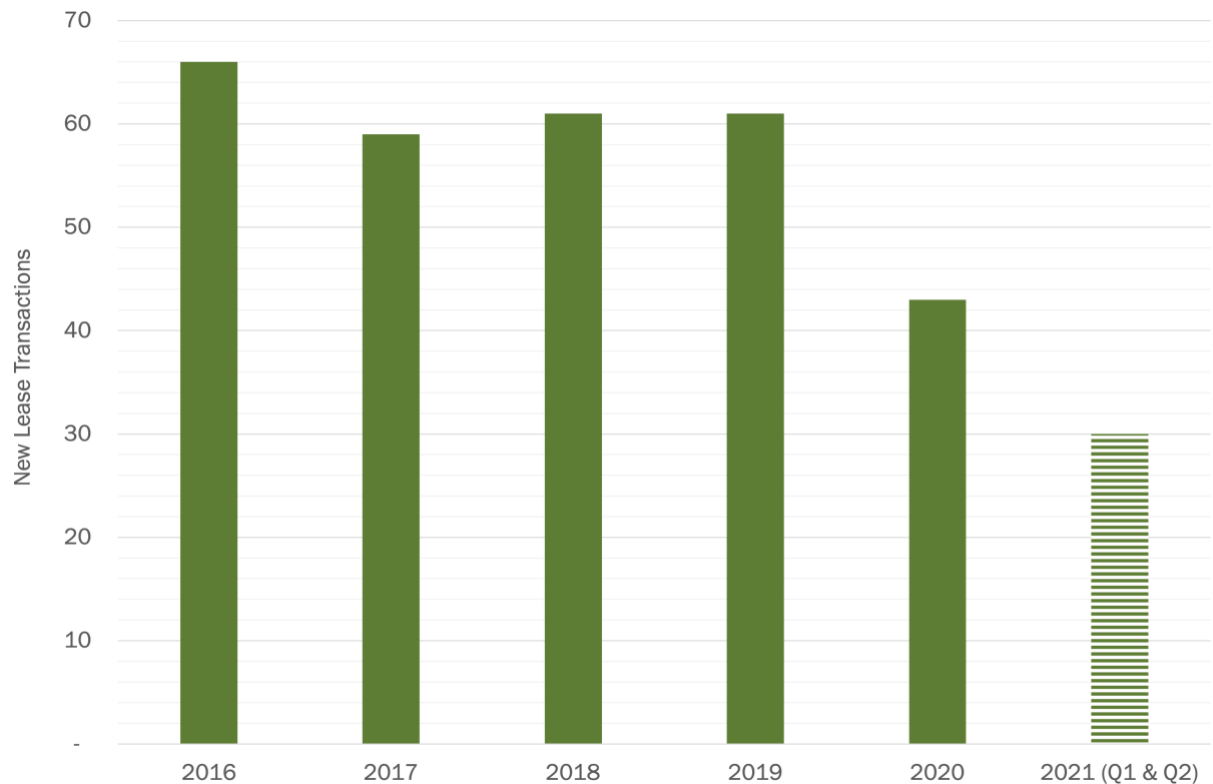
- 5.1.6 The quality-led requirement from occupiers has not only led to self-build purpose-built premises to accommodate their need but is also attracting industrial landlords to re-purpose and refurbish existing stock, attracted by the higher rents willing to be paid by occupiers to fulfil this need.
- 5.1.7 According to Knight Frank data industrial rents in Cardiff have increased year-on-year since 2010 from £5/sq ft in 2010 to £7/sq ft in 2020 for units under 20,000 sq ft representing an increase of 40% over the 10 year period. Similarly the rents for units in the 20,000 – 50,000 sq ft size range have increased from £3.50/sq ft to £6.00/sq ft over the same period (71% increase) and from just over £2/sq ft to £5.50/sq ft in the 70,000 sq ft + unit size range (175% increase).
- 5.1.8 Notwithstanding demand, the rent increases recorded have been exacerbated by a lack of supply of fit-for-purpose property where the take-up of units of 50,000+ sq ft in Wales has fallen year on year since 2016 (3,000,000 sq ft) to sub 1,000,000 sq ft in the first three quarters of 2020, despite active requirements from DHL and Hermes with 100,000 sq ft requirements, Argos and Operma with 60,000 sq ft and 80,000 sq ft requirements respectively, all of which have been unfulfilled for at least 12 months. Also, Total Produce with a 30,000 sq ft requirement which has been unfulfilled for the last 5 years.
- 5.1.9 Demand for smaller workshops in Cardiff remains strong despite the Covid-19 pandemic, and whilst transaction volume did decline in 2020 when compared to previous years, 67% of new lease transactions in 2020 were for units up to 5,000 sq ft, a higher proportion than for the preceding two years. This trend, whilst demonstrating the lack of activity in the mid and “big-box” segment of the market due to lack of quality stock, also demonstrates the growth of small manufacturing and retail businesses migrating from the high street to the industrial park on top of a traditionally buoyant churn of traditional industrial and light industrial uses associated with the use of smaller workshops such as vehicle repairs, fabrication and traditional small-scale manufacturing uses. This is a trend that is anticipated to continue.
- 5.1.10 An example of this demand can be captured in the recently completed development of a terrace of 6no. 1,000 -1,500 sq ft units at Fairfield Industrial Estate at Gwaelod-Y-Garth where 5 out of the 6 units were let before practical completion at a headline rent of £10.00 /sq ft. This therefore echoing the sentiment that occupiers will pay a higher rent for a good quality product with flexible space allowing for tenant fit-out in a well-connected location.
- 5.1.11 Development of this kind tends to be confined to 1-2 acre parcels in appropriately located areas of the city and whilst developers are prepared to pay up to £300,000 per acre for such opportunities, with occupiers prepared to pay more, the threat of competition from residential developers on white land or land not allocated for employment purposes will mean that such opportunities for speculative industrial development will remain few and far between as the industrial developers will inevitably be priced out in the bidding process.

5.2 Industrial Take Up

- 5.2.1 The take-up of industrial space in Cardiff in 2020 fell by 30% compared to the levels recorded in recent years, which was to be expected with the lockdowns implemented throughout the year a response to the pandemic. Typically new lease transaction volumes have remained at around 60 deals per year over the 2016 -2019 period, with transaction numbers falling to 43 in 2020.

However, the first half of 2021 has shown positive recovery with deal count at 50% of the number recorded in 2019 with 30 deals recorded.

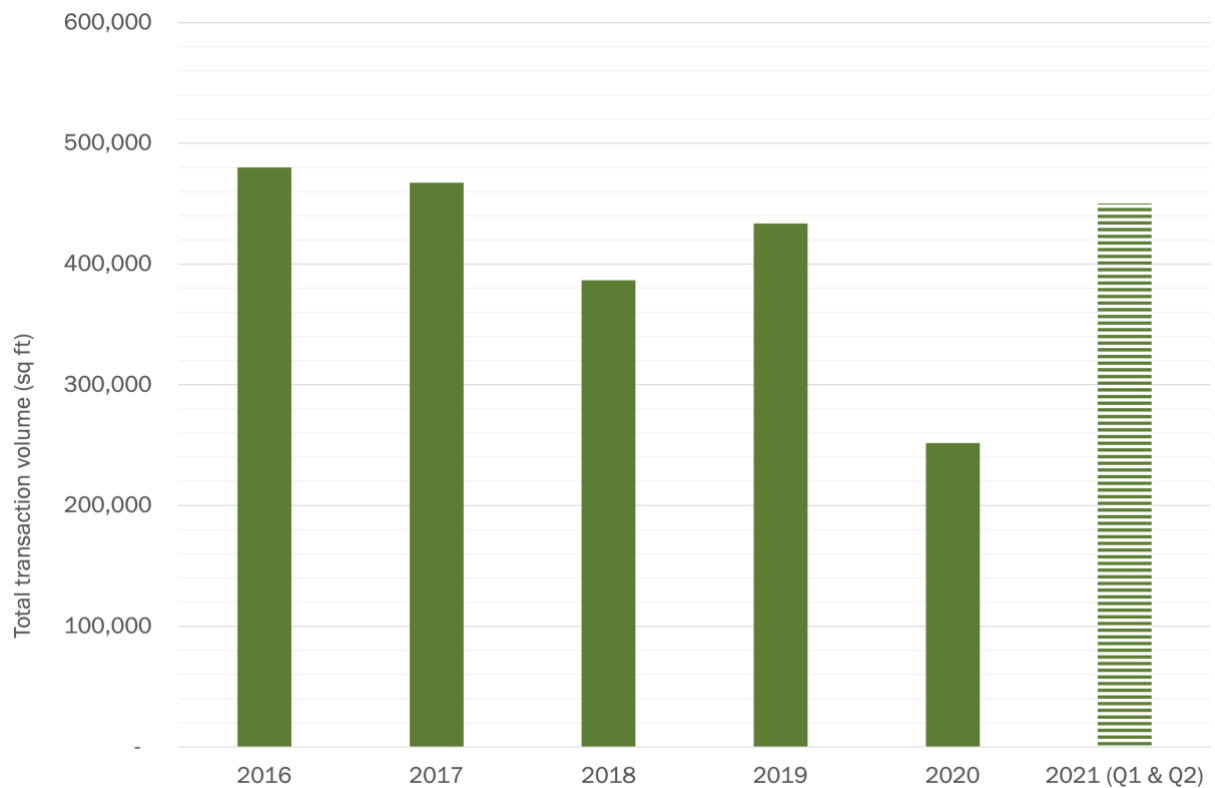
Figure 5.1 Number of new industrial and logistics premises lease transactions per annum, Cardiff (2016–2021)



Source: NP Linnells analysis (Note: data for 2021 represents half-year so far)

- 5.2.2** The amount of space transacted reflected this with just over 250,000 sq ft of space being transacted in 2020 compared with 433,000 sq ft traded in the year previous. The amount of space transacted in 2021 is already above the amount of space transacted in the whole of 2020, 2019 and 2018 which suggests that by the end of 2021 the amount of space let will significantly surpass the previously recorded levels and set a new 5 year high comfortably. It must be noted however that these figures include the 120,000 sq ft letting to Global Life Sciences on Fforest Farm Industrial Estate and two further lettings above 50,000 sq ft, including the 58,000 sq ft letting to Royal Mail at Parc Ty Glas of the former SA Brains Warehouse, the highest number of lettings over 50,000 sq ft recorded in the last 5 years.

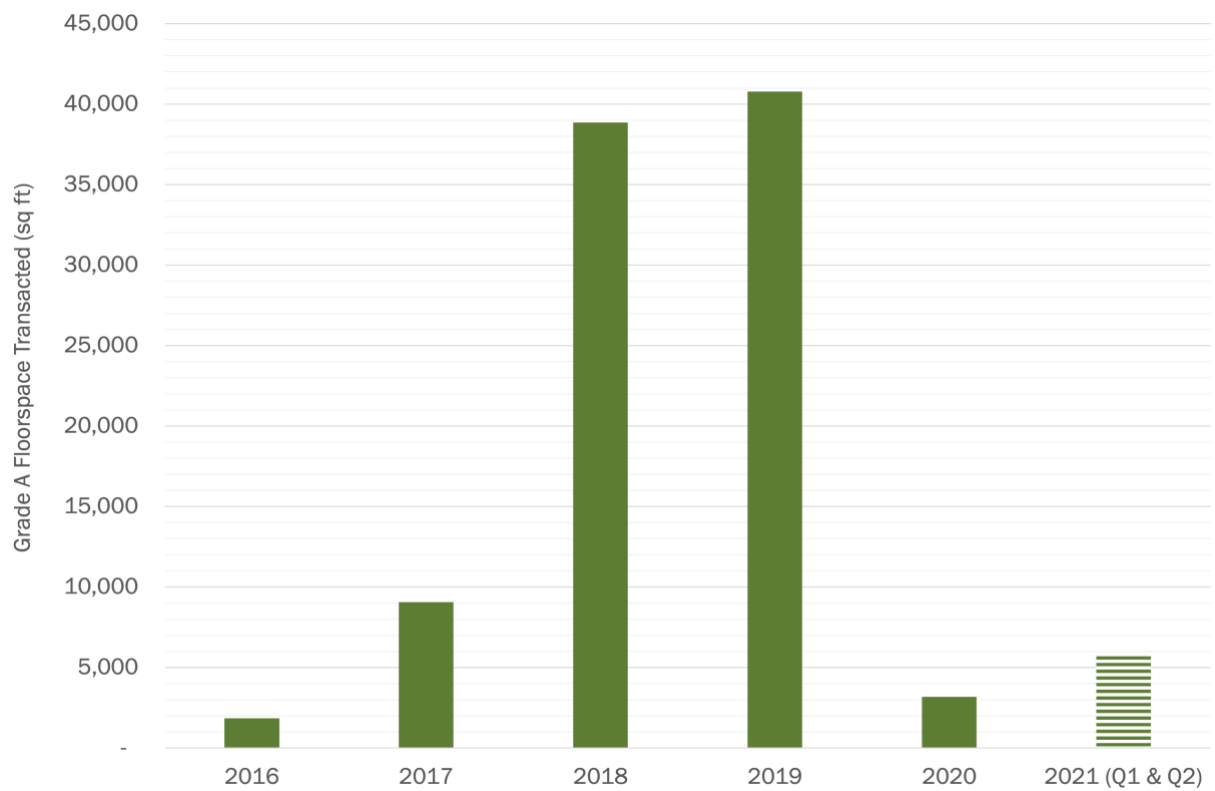
Figure 5.2 Volume of new industrial and logistics premises lease transactions per annum, Cardiff (2016–2021)



Source: NP Linnells analysis (Note: data for 2021 represents half-year so far)

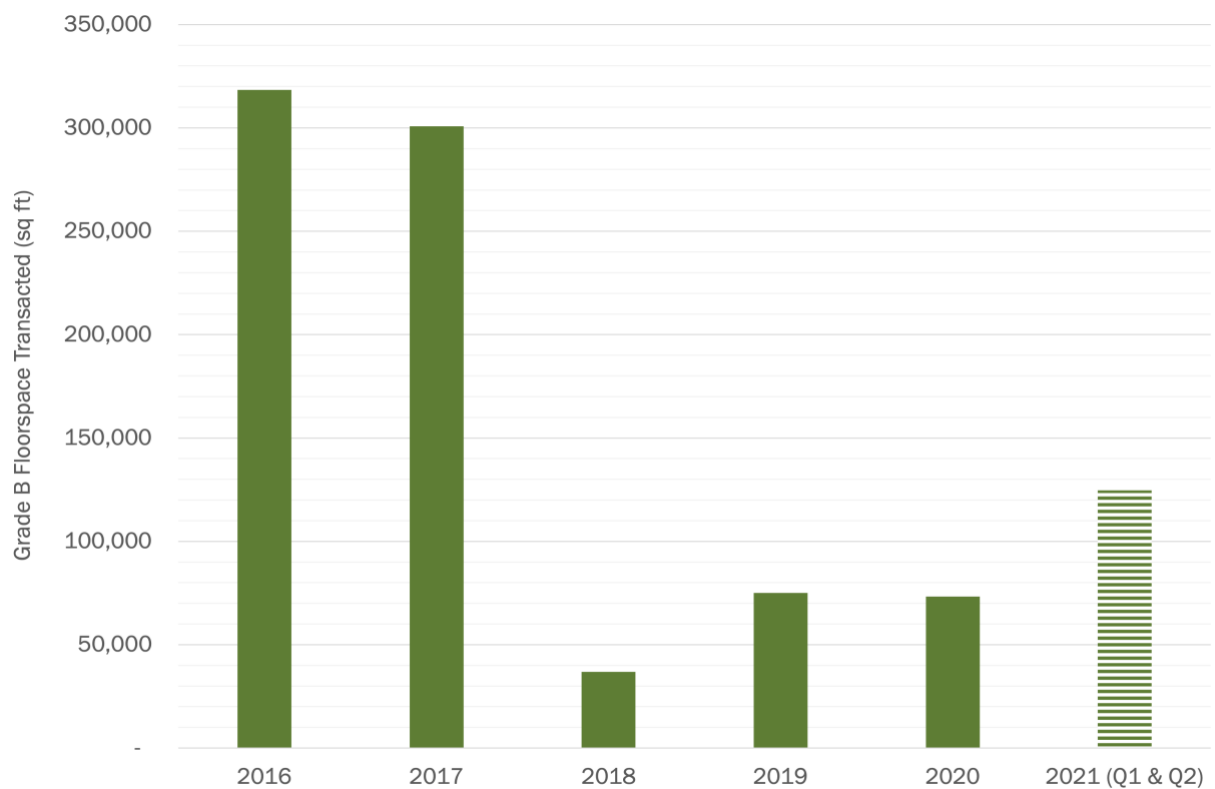
- 5.2.3 The amount of grade A and B space transacted in 2020 and 2021 (to date) is significantly lower than the 10% average of total space transacted in 2018 & 2019. The table above shows the general lack of new/grade A and grade B space transacted in Cardiff, which demonstrates the lack of new speculative development that has been undertaken in recent years despite an underlying requirement. This has been principally due to a lack of commercial viability coupled with a lack of land opportunities; rents levels and investment yields have traditionally not been strong enough against a back-drop of increasing construction costs and competition for land for alternative uses (thus higher land values) have meant that industrial development has not been viable or indeed feasible in the majority of cases.

Figure 5.3 Volume of grade A industrial premises transactions per annum, Cardiff (2016–2021)



Source: NP Linnells analysis (Note: data for 2021 represents half-year so far)

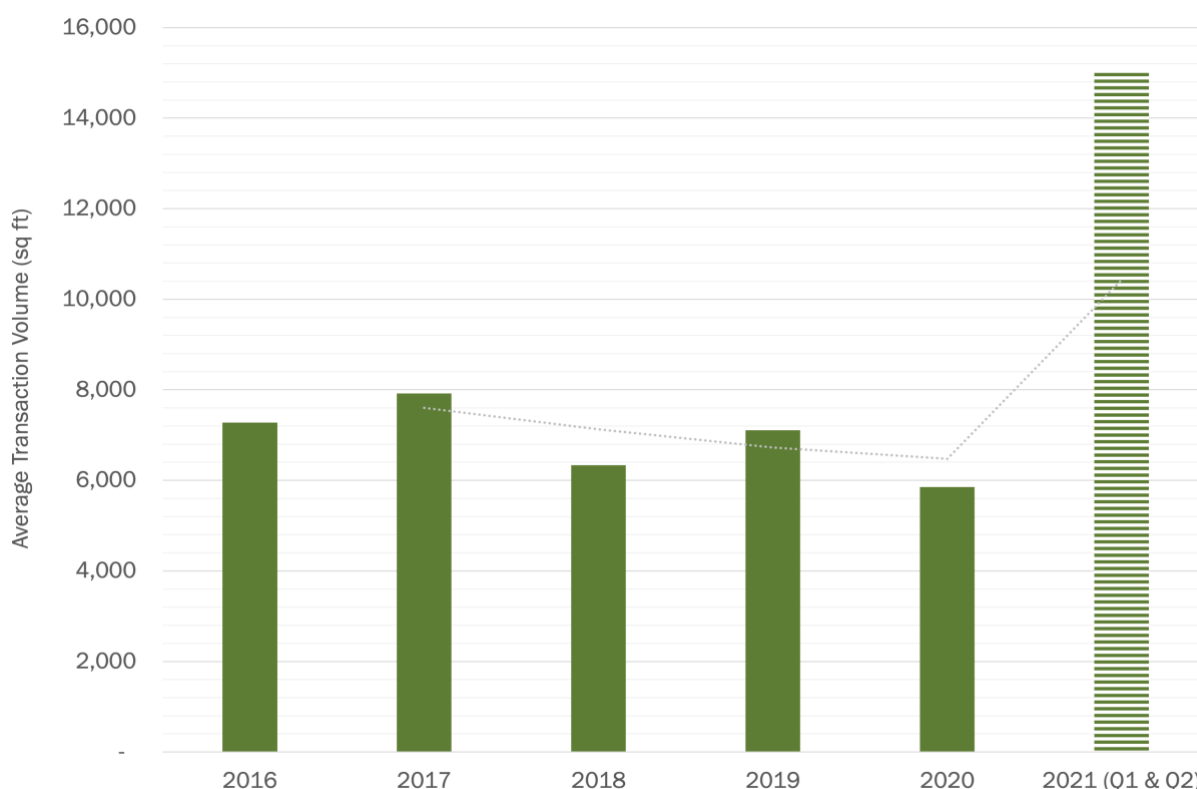
Figure 5.4 Volume of grade B industrial premises transactions per annum, Cardiff (2016–2021)



Source: NP Linnells analysis (Note: data for 2021 represents half-year so far)

- 5.2.4 According to EGI, all transactions recorded since 2016 were light, general and mixed industrial uses with only one transaction in 2020 and 2021 attributed to storage and distribution uses although this does not mean space has not been let to distribution operators it is more to do with the fact there has been very little purpose-built storage/distribution space transacted.
- 5.2.5 Figure 5.5 shows the general negative correlation of reducing space size per transaction since 2016. The data is skewed in 2021 by the three lettings of units over 50,000 sq ft.

Figure 5.5 Average volume of industrial premises transactions per annum, Cardiff (2016–2021)



Source: NP Linnells analysis (Note: data for 2021 represents half-year so far)

5.3 Lease Transactions

- 5.3.1 Figure 5.6 below sets out the number of lettings transactions by unit size between 2016 and 2021.

Figure 5.6 Industrial premises transactions by size, Cardiff (2016–2021)

Size (sq ft)	2016	2017	2018	2019	2020	2021 (Q1 & Q2)
0 – 1,500	5	8	10	5	9	2
1,501 – 3,000	17	25	13	21	11	8
3,001 – 5,000	14	14	12	11	9	6
5,001 – 10,000	18	6	16	15	8	6
10,001 – 25,000	8	2	7	6	6	3
25,001 – 50,000	4	3	3	1	0	2
50,000+	0	1	0	2	0	3
Total	66	59	61	61	43	30

Source: NP Linnells analysis (Note: data for 2021 represents half-year so far)

- 5.3.2 The data shows consistently that the most popular unit sizes are those in the 1,501 sq ft to 3,000 sq ft size range, a trend which continued through 2020, despite the pandemic impact, albeit that transaction numbers were down. As previously stated, unit sizes between up to 5,000 sq ft accounted for 67% of all industrial transactions in 2020 and 53% of transactions in 2021 to date. The number of transactions in the 5,001 – 10,000 sq ft range have fallen slightly since 2018 and 2019 from around 25% to 18% in 2020 and 20% in 2021 (year to date). The volume of transactions in the 10,001 – 25,000 sq ft range have remained consistent since 2018 in volume terms, however there was a decrease in percentage terms in 2020 which has increased based on data collected so far for 2021.
- 5.3.3 Units below 1,500 sq ft remain high in demand according to our discussions with local industrial agents however there is a lack of new stock coming to the market and there is less churn in this segment of the market due to occupiers being keen to hold their space and renewing their leases on revised lease terms.
- 5.3.4 It is anticipated that tenant demand will continue for the smaller floor area units and the 50,000 sq ft mid-box category and due to increased rent levels for good quality stock and increased investor demand in the industrial sector as a whole, there will be an increase in transaction volumes in these size categories through small-scale development of pockets of land and through the re-purposing and refurbishment of existing available stock that is currently unfit for purpose.

5.4 Industrial Rents

- 5.4.1 The following table shows how over the last 10 years the average deal size (sq ft) has increased, whilst the average lease length has decreased and rents have increased.

Figure 5.7 Average industrial and logistics premises deal size, lease length, and rent, Cardiff, previous 10 years

	Last 1 yr	Last 2yrs	Last 3 yrs	Last 5 yrs	Last 10 yrs
Average deal size (sq ft)	11,200	9,600	8,500	8,000	7,400
Average lease length (yrs)	5.3	5.8	5.8	5.8	6
Average rent £/sq ft	£5.86	£6.02	£5.87	£5.63	£5.24

Source: NP Linnells analysis (Note: data for 2021 represents half-year so far)

- 5.4.2 The reducing lease term pattern, as evidenced also in the office market in Cardiff is a pattern that has emerged since the Credit Crunch of 2008, with occupiers seeking more flexibility in their lease terms.
- 5.4.3 Figure 5.8 shows the correlation between lease term and agreed rent levels across Cardiff since 2016.

Figure 5.8 Industrial premises lease lengths and average agreed rent levels, Cardiff (2016–2021)

	2016	2017	2018	2019	2020	2021 (Q1 & Q2)
All lease lengths	£4.68	£5.50	£6.05	£5.81	£6.28	£5.35
0-3 yrs	£4.43	£4.71	£6.42	£6.26	£5.89	£4.02
3-5 yrs	£4.67	£6.16	£6.02	£5.88	£6.43	£6.43
5-10 yrs	£4.91	£5.47	£5.56	£5.51	£6.77	£4.79
10 + yrs	£5.47	£9.15	£4.35	£5.27	£4.87	-

Source: NP Linnells analysis (Note: data for 2021 represents half-year so far)

- 5.4.4 The statistics show that rental levels have generally increased over the 2016 - 2020 period, 2021 shows a slight decline compared to 2020 largely because of a significant deal at lower rent over a shorter reporting period which skews the figures. The average rent for lease of 0-3 years in length peaked in 2018 with a marginal decline in 2019 and a further decline in 2020. A similar pattern can be seen in leases of 3-5 yrs length but with an uptick in 2020 and holding level through Q1 & Q2 of 2021. Leases of 10 year plus show a much more erratic pattern with a substantial peak in 2017 to over £9.00/sq ft, falling to below 2016 levels in 2018 before rising again and falling marginally in 2020. The substantial decline witnessed in 2021 is purely because there have been no lettings so far in 2021 of leases in excess of 10yrs.
- 5.4.5 Generally speaking, the stats show that the shorter the lease, the higher the rent and that tenants are prepared to pay more rent for more flexibility which is the trade-off for less security which the landlord risks in return.
- 5.4.6 Figure 5.9 sets out the headline rents for Cardiff for good quality modern stock. The average rents reported in previous tables demonstrate the quality of the stock being transacted falls some way below what is required to achieve these headline rents and that there is a paucity of good quality stock.

Figure 5.9 Headline industrial premises rents, Cardiff (2021)

Size	Rent (£/sq ft)
1,500 sq ft or less	£10.00
20,000 sq ft or less	£7.50
20,000 sq ft – 50,000 sq ft	£7.00
70,000 sq ft and over	£6.50

Source: NP Linnells analysis (Note: data for 2021 represents half-year so far)

Figure 5.10 sets out the average rents achieved in Cardiff local authority area compared with other competing towns and local authorities in the region. The table compares average rents achieved over the last 12 and 36 months for each of the area (to end Q2 2021), the average size of the unit transacted and the deal count for 2020.

Figure 5.10 Average industrial premises rent over previous 3 years, deal size, and deal count, Cardiff

Town/City LA Area - where applicable	Last 12 months (to end Q2 2021)	Average size (sq ft)	Last 3 years (to end Q2 2021)	Average size (sq ft)	Deal count 2020
Cardiff	£5.86	11,200	£5.87	8,500	43
Bristol	£9.79	12,700	£8.28	12,400	69
Newport	£5.78	3,800	£5.38	10,000	17
Swansea	£6.81	3,800	£8.32	7,500	14
Bridgend	£5.70	3,900	£5.32	8,400	8
Cwmbran (town)	£6.34	2,400	£6.12	2,800	23

Source: NP Linnells analysis (Note: data for 2021 represents half-year so far)

- 5.4.7 The table demonstrates the premium rents attributed with Bristol owing to its regional retail distribution hub status and its proximity to major road networks, particularly the M4 and M5, access to ports and major rail links. The average size of unit transacted over the past three years reflects this also. Bristol, unsurprisingly also enjoys the highest deal count. Cardiff, although shows the second highest deal count among those areas compared, shows average rents considerably lower than Bristol and a considerably smaller average footplate size transacted. Indeed, Cardiff average rents, for the last year and the last three years measured, are lower than that of Swansea and Cwmbran. The lower average rent is testament to the stock supply in Cardiff as there is no shortage in demand for property in the area
- 5.4.8 One of the factors effecting desirability in Cardiff as a major regional retail distribution hub (stock aside) is the Brynglas Tunnels. Cardiff has the access to the M4 and the port, however with the M4 Relief Road plans shelved, Cardiff and towns and cities further west must continue to account for the inconvenience and cost of the Brynglas traffic bottleneck.

5.5 Investor Sentiment in the Industrial and Logistics Sector

- 5.5.1 Prime yields in Wales have compressed in the last year, demonstrating the current insatiable demand for good quality industrial assets in the region. According to Cushman & Wakefield prime yields started 2020 at 5.25% compressing by 10bp to 5.15% by the end of Q4 2020 and further sharpening to 5.05% at the end of Q1 2021. Currently prime yields in Cardiff stand in at 5.0% according to Knight Frank for single long let grade A stock and 6.0% for good quality multi-let industrial.. What has been consistently strong demand for the past few years from investors has been magnified by the movement of investors from the office, leisure and retail markets. According to Avison Young a total of £4.95bn was invested in distribution property in 2020, 32% up on the 5-year average, with the investor profile dominated by overseas investors, followed by UK institutions and then UK Prop Cos.

5.6 Future Development Prospects

- 5.6.1 Along with the requirement to improve and redevelop existing estates within Cardiff, there is a requirement for new well- located sites to be allocated for employment use to meet the demand for good quality light industrial and warehouse accommodation. It seems that given the

geographical constraints of the city the opportunity presents itself to utilise land within the strategic allocations which present good transport links, particularly:

- KP2(D) Land north of Junction 33 of M4 – the proximity to the M4 and the railway junction and connectivity into Cardiff via the A4232 Grange Link trunk Road make the location suitable for a warehousing and distribution centre
- KP2(FD) North East Cardiff (west of Pontprennau) – proximity to the A48M and M4 at Junction 30 provide good connectivity to Cardiff and the wider region, with the surrounding population created by residential development creating good access to work force.
- KP2(H) Land South of St Mellons – good potential road and rail connectivity with new proposed Metro station present the opportunity for B2-B8 development

5.7 Future Drivers

Energy Efficiency (Net Zero Target)

- 5.7.1 Under the Energy Efficiency (Private Rented Property) (England and Wales) Regulations 2015, since April 2018 any new lease or lease renewal on a commercial building, that building must have an certified energy performance rating of E or better. Meaning that properties with an F or G rating have become un-lettable. From April 2023, it is understood that all buildings vacant or not, or with long standing tenancies pre-dating April 2018 will have to meet this minimum E rating. The UK Government are currently consulting on bringing the minimum energy performance rating up to a C level. Having consulted with a firm of Energy Performance Assessors based in South Wales who are currently consulting a number of Local Authorities and private landlords on the energy performance of their assets, their view is that it is likely that the consultation will lead to a minimum D rating be required on all non-domestic properties by the end of this decade.
- 5.7.2 Add to this the increasing demand for good quality stock and take into account the unfit for purpose-ness of existing stock and the impending redundancy of currently occupied assets and what we have is a potential future shortage of industrial property in the not too distant future. We only need to refer to the first table in this report to see how much grade A and grade B space has been transacted to see how much space is potentially poorly performing in energy terms. Notable feedback in our consultation with Cardiff's industrial agents reveal that future requirements will include 10 to 15m eaves height to accommodate the storage requirements of warehousing and distribution operators and increased utilities infrastructure to accommodate the growing movement toward automation. As such, this will mean that the growing obsolescence of Cardiff's industrial property stock will need to be tackled head on. Landlords and investors will need to invest in the improvement and refurbishment of existing buildings or redevelop existing sites in order for them to be able to continue to draw income from their asset, if they fail to undertake any works they could be left holding a substantial liability especially when empty business rates are added to the equation. Indeed, institutional investors including Threadneedle who own a sizeable portion of Portmanmoor Rd Industrial Estate and Cardiff Industrial Park, and Mileway who own Trident Park and East Point are already investing in their estates to bring about these improvements. Bank charged assets that are owned by landlords who do not have the funds to invest/redevelop could result in forcing Landlords to sell to investors and developers who are prepared to undertake these works. Older estates are likely to see these refurbishment programmes first as these are ones that are likely to have the poorest performing buildings (in energy terms).

- 5.7.3 The question of viability rears its head as to whether some of the less desirable locations and poorer quality units are commercially viable to redevelop with increasing build costs and tightening of building regulations in line with the movement to sustainable carbon neutral development. It could be that grant or low interest loan intervention is required to tackle this problem. The positive correlation on rents and investor sentiment toward industrial property in the city is encouraging in terms of development viability and evidence of rents headlining at £10.00/sq ft for smaller units is positive evidence that occupiers will pay good rents for good quality property, and larger companies with corporate social responsibility policies will put the meeting of their criteria before rent. However, the need for pre-lets will undoubtedly be required in some cases. One must also take into consideration the tenants and owner occupiers operating in secondary workshops, such as vehicle repairs and metal fabricators, and whether their businesses can remain sustainable with the increased rents or costs required to accommodate the requisite building improvements. One senior agent in the Cardiff industrial sector commented that improvement costs are roughly equating to 3 times the annual rent. An audit of the energy performance of the Cardiff industrial stock would be necessary to establish exactly how many buildings fall within the category of “at risk” of not meeting future energy efficiency requirements and therefore requiring renovation.

E-commerce

- 5.7.4 It has been stated repeatedly that the pandemic has accelerated what was inevitable, the movement of retail from the high street to online thus increasing demand for good quality warehousing, light industrial and distribution property. As such, the increase in demand in the short to medium terms will come from retailers, particularly non-food, warehouse and logistics operators and manufacturers and supply chain services to meet the demands of their customer base. According to our consultation with local property professionals there will be increased demand for greater eaves height and greater power capacity on site to accommodate growing reliance and demand for automation.

Science, Technology, and Innovation

- 5.7.5 With technological advances and the emergence and development of medical technologies e.g. biotech and meditech it is envisaged that the requirement for high quality research, development and manufacture will grow. According to Knight Frank, global property advisors, over 1000 new life science companies were incorporated in the UK in 2020, 45% more than in 2019. Couple this with Cardiff (along with South Wales) being recognised as one of the 10 areas in the UK that are producing high growth tech companies and producing an above average level of start-ups and substantial focus from Welsh Government and the Cardiff Capital Region, it would seem logical that growth in the Medtech, Biopharma, AI, supply chain and broader ecosystem will occur as a result. The Life Sciences 2030 Skills Strategy predicts that 133,000 extra skilled scientific jobs will be required in the Life Sciences sector through to 2030 and the talent pool available in Cardiff's universities is ripe for contributing to these numbers. How this potential demand is realised will be down to the successful consultation and integration with Cardiff and South Wales tech community.

6 Site Assessment and Supply Review

- 6.0.1 This chapter sets out a summary of analysis of Cardiff's existing employment sites, including policy protections and site allocations. This has been prepared by Owen Davies Consulting. Individual site proformas are contained within Appendix 2.

6.1 Methodology

- 6.1.1 An audit of employment sites has been carried out in accordance with the Welsh Government's practice guidance for *Building an Economic Development Evidence Base to Support a Local Development Plan* (2015). Further details of the site assessments are set out within Appendix 4 to this report.

Quantitative site inventory

- 6.1.2 A quantitative site inventory was prepared using the adopted policies of the Local Development Plan (LDP) to identify and categorise existing, potential and committed employment sites.

- 6.1.3 The following policies were used to categorise sites:

- EC1 – Existing employment land
- EC4 – Protecting offices in the Central and Bay Business Area
- EC6 – Non-strategic employment site
- KP2 – Strategic sites

- 6.1.4 Policies EC1 and EC4 cover existing employment land, with EC1 covering B1, B2 and B8 use and EC4 covering singularly B1 office use. Policies EC6 and KP2 cover committed and strategic sites, which have planning commitments or are planned supply.

Qualitative site appraisals

- 6.1.5 A baseline position was established for each employment site using Cardiff Council's database to identify the number, location and use class of units (by site). This information was updated based on information collected during site visits and subsequent desk-based research
- 6.1.6 The occupancy of units was noted during site visits and verified by cross-referencing with listings on agents' websites and the market appraisal study undertaken by NP Linnells. Industrial units that were being actively marketed and/or listed online on agents' websites were identified as vacant.

6.2 Existing Employment Sites

- 6.2.1 Under the EC1 policy, 816.5 ha of employment land is protected, the majority comprising of B use classes, however within some sites there are also non-employment uses including retail and residential.
- 6.2.2 Vacancy rates in EC1 sites vary significantly within and between sites. Office sites, particularly those located further from the city centre in out-of-town locations such as St Mellons Business Park (EC1.5) saw far higher vacancy rates than predominantly industrial EC1 sites. There is a trend of higher vacancy rates for office space outside of the city centre, particularly at sites with weaker public transport connections.

6.2.3 Industrial sites with more B2 and B8 floorspace largely have lower vacancy rates than office sites protected by the EC1 policy, with sites such as Cardiff Port having an estimated vacancy rate below 3%. The lower vacancy rates across a range of industrial EC1 sites indicate a high demand for all types of industrial units in Cardiff, from small workshop units to large distribution centres.

Figure 6.1 Estimated vacant floorspace and vacancy rates of EC1 sites

Site reference	Site name	Total floorspace (sq m)	Estimated vacant floorspace (sq m)	Estimated vacancy rate
EC1.1	Ocean Park	255,300	16,400	6%
EC1.2	Cardiff Port	70,700	1,800	3%
EC1.3	Rover Way	180,100	6,200	3%
EC1.4	Wentloog Road	227,300	11,600	5%
EC1.5	St Mellons Business Park	34,900	11,300	32%
EC1.6	Cardiff Gate Business Park	36,100	3,500	10%
EC1.7	Cardiff Business Park and Land North of Maes y Coed Road, Llanishen	85,900	24,400	28% ⁴³
EC1.8	Forest Farm	23,400	15,700	67%
EC1.9	Green Meadow Springs	4,800	500	11%
EC1.10	Penarth Road Area	148,300	17,900	12%
EC1.11	Ty Nant Road	5,800	300	4%
EC1.12	Crown Way	22,700	0	0%
EC1.13	Wentloog Road (North of Railway Line)	12,200	2,900	23%
EC1.14	Pentwyn	57,900	1,700	3%
EC1.15	Eastern Business Park	15,000	7,200	48%
EC1.16	Willowbrook Business Technology Park	2,300	500	20%
EC1.17	Excelsior Road	4,000	0	0%
EC1.18	Norbury Road Industrial Estate	4,900	200	4%
EC1.19	Wroughton Place	12,200	0	0%
EC1.20	Argyle Way	9,200	500	5%
EC1.21	Garth Industrial Estate	12,500	2,200	18%
EC1.22	Land at East Bay Close	8,400	0	0%
EC1.23	Alexandra Gate Business Park	1,700	1,300	75%
Total	B1	438,600	69,200	16%
Total	B2 and B8	796,900	56,700	7%

Source: Cardiff LDP 2006–2026

6.2.4 Sites with potential for consolidation (adjustment of the site allocation boundary) have been marked in Figure 6.2. Some sites, such as Cardiff Business Park and Land North of Maes y Coed Road (EC1.7), have seen increasing amounts of non-employment uses within the boundaries of the site – potentially providing scope for consolidation. Trade counter retail, gyms and healthcare uses account for the majority of non-B use class uses within protected employment sites. Another site that may require boundary adjustments is Excelsior Road (EC1.17) which has seen the majority of the south of the site turn from B use class to residential and retail and food & drink, as well as student accommodation.

⁴³ It is believed there has been take up of at least one office unit since the site assessment took place. The former HMRC building and Gleider House have not been included in the calculation of supply or vacancy as the site is anticipated to be lost from employment use.

- 6.2.5 However, in a number of cases even though the non-employment uses have been permitted, the unit is unaffected and could be used for employment uses in the future and potentially remains part of the existing stock. Examples include Avenue Industrial Estate in Pentwyn (EC1.14).
- 6.2.6 A number of sites require consolidation to reflect environmental designations as in the case of Penarth Road Area (EC1.10) and Willowbrook Technology Park (EC1.16).
- 6.2.7 Figure 6.2 identifies all sites with employment protections, either protected sites or in the case of the Bay and Central Business Area sites with office protections, covered by the assessment.
- 6.2.8 Across existing EC1 employment sites B2 (general industrial) and B8 (storage or distribution) account for nearly twice as much floorspace as B1 use (see fig 6.1). This can be, in part, accounted for by the growing role and floorspace used by distribution centres in and around the city, such as at Capital Business Park in Wentloog Road (EC1.4).
- 6.2.9 The pipeline of B use class developments in EC1 sites features more than 105,000 sqm of B2 and B8 developments, including a major 45,900 sqm development at Cardiff Port by Associated British Ports and more than 52,000 sqm at Rover Way.
- 6.2.10 In addition, desk-based research and observations during site visits identified a number of undeveloped plots with the boundary of existing employment sites. At Green Meadow Springs (EC1.9) where there is an undeveloped plot at the north of the site as well as greenfield land within the boundary at the east of the site with development potential. However, office sites in out-of-town locations may have limited market appeal as noted in NP Linnells market assessment.
- 6.2.11 Policy EC4 is to protect existing office space and has been effective at doing so, with data from the LUF survey and the 2021 assessment suggesting that office floorspace remained stable between 2019 and 2021. Indeed, with an office pipeline of 49,600 sqm in Bay Business Area and 67,000 sqm in the Central Business Area (CBA), there is potential for growth in office space in the short to medium-term.
- 6.2.12 There are several longstanding permissions around Assembly Square in the Bay Business Area (BBA), and the implementations of some of these planning permissions may be impacted by the changes to working habits and a move towards rationalisation of office space in city centres, as noted in NP Linnells market assessment.

Figure 6.2 Sites with employment protections under policies EC1 and EC4

Site reference	Site name	Size (ha)	Scope for consolidation	Pipeline (sq m)	Estimated Remaining Developable Land (sq m) ⁴⁴
CBA	Central Business Area	195	N/A	67,000	N/A
BBA	Bay Business Area	91.7	N/A	49,600	N/A
EC1					
EC1.1	Ocean Park	131	Yes	15,400	18,000
EC1.2	Cardiff Port	190	No	45,900	0
EC1.3	Rover Way	79	No	52,300	0
EC1.4	Wentloog Road	124	No	1,900	13,000
EC1.5	St Mellons Business Park	24	No		10,000
EC1.6	Cardiff Gate Business Park	34	No		39,100 ⁴⁵
EC1.7	Cardiff Business Park and Land North of Maes y Coed Road, Llanishen	44	Yes		1,900
EC1.8	Forest Farm	23	No	1,400	26,500
EC1.9	Green Meadow Springs	6.1	No		16,300
EC1.10	Penarth Road Area	98	Yes	2,900	3,400
EC1.11	Ty Nant Road	0.7	No		0
EC1.12	Crown Way	4	No		0
EC1.13	Wentloog Road (North of Railway Line)	6.1	No		0
EC1.14	Pentwyn	18.5	Yes	700	0
EC1.15	Eastern Business Park	4.7	No		0
EC1.16	Willowbrook Business Technology Park	1.9	Yes		0
EC1.17	Excelsior Road	5.5	Yes		0
EC1.18	Norbury Road Industrial Estate	2.5	No		0
EC1.19	Wroughton Place	2.4	No		0
EC1.20	Argyle Way	2.4	No		0
EC1.21	Garth Industrial Estate	9	No		0
EC1.22	Land at East Bay Close	3.6	Yes		0
EC1.23	Alexandra Gate Business Park	2.1	Yes		0
Total EC1	B1			14,600	60,200⁴⁶
	B2 and B8			105,800	14,500⁴⁷

Source: Owen Davies Consulting

⁴⁴ Estimate remaining land area based on initial assessment unless specified otherwise.

⁴⁵ Figure based on floorspace as quoted in marketing particulars

⁴⁶ Total floorspace potential based on 40% site coverage for all sites quoted as land area. B1 office/R&D based on estimated capacity at the following sites: St Mellons Business Park, Cardiff Gate Business Park, Forest Farm and Green Meadow Springs

⁴⁷ Total floorspace potential based on 40% site coverage for all sites quoted as land area. B2/B8 based on estimated capacity at the following sites: Ocean Park, Wentloog Road, Penarth Road Area and Cardiff Business Park and Land North of Maes y Coed Road Llanishen

6.3 Allocated Employment Sites

- 6.3.1 Six sites allocated wholly or partially for employment use were assessed. Maindy Road (EC6) and South of St Mellons Business Park (KP2 H) are allocated exclusively for B use class uses, Cardiff Central Enterprise Zone (KP2 A) is a transport hub focused allocation that also supports the development of additional employment space in the city centre. The remaining three sites are large residential developments that feature smaller B use class allocations.
- 6.3.2 The five strategic sites covered within the audit are expected to deliver 200 ha of B use class floorspace, primarily for office and light industrial use. However, this may only deliver significant amounts of employment floorspace in the medium to long-term, due to the various stages they have reached in the planning and development process.
- 6.3.3 An outline planning application has been submitted for South of St Mellons Business Park, referred to as Cardiff Hendre Lakes, in January 2021 for 86,500 sqm of B1 floorspace. The site is centred on the prospective development of the Cardiff Parkway Station. The outline permission has not been granted as of July 2021.
- 6.3.4 Policy EC6 covers Cardiff University's Maindy Road development, which includes the 'sbarc', Translational Research Hub (TRH) and Abacws buildings at the University's Innovation Campus. Planning permission has been implemented for each of the developments with sbarc and Abacws due to be completed in 2021 and the TRH in 2022. The EC6 policy has achieved its aims with the construction of sbarc, TRH and Abacws delivering 34,000 sqm for research and development use. As a result, the site could receive the same protection of policy EC1.
- 6.3.5 In contrast to Maindy Road and South of St Mellons Business Park, North West Cardiff (KP2 C), North of Junction 33 on M4 (KP2 D) and North East Cardiff (KP2 F) are primarily residential allocations contributing smaller amounts of potential office and light industrial use. The three sites have a combined pipeline of 60,300 sqm within B use classes.
- 6.3.6 Cardiff Central Enterprise Zone (KP2 A) covers the city centre and focuses on three major projects delivering office floorspace, namely: Central Square, Capital Quarter and Central Quay. The three sites have a pipeline of 53,400 sqm of Grade A office floorspace which will be delivered in the short to medium-term with construction work soon to start on many of the sites.
- 6.3.7 Figure 6.3 provides a summary of the site allocations across policies EC6 and KP2.

Figure 6.3 Sites with employment allocations; policies EC6 and KP2

Site reference	Site name	Size (ha)	Pipeline of B use class floorspace (sqm)	Type of site
			0*	
EC6	Maindy Road	3.3	*34,000 to be delivered with the implementation of permissions	Non-strategic employment site
			53,400*	
KP2 A	Cardiff Central Enterprise Zone and Regional Transport Hub	56.7	*Across Central Square, Capital Quarter and Central Quay	Strategic site
KP2 C	North West Cardiff	299.3	15,500	Strategic site
KP2 D	North of Junction 33 on M4	77.4	16,300	Strategic site
KP2 F	North East Cardiff (West of Pontprennau)	134.8	28,500	Strategic site
KP2 H	South of St Mellons Business Park	80.2	86,500	Strategic site

Source: Source: Owen Davies Consulting (Note: Pipeline figures are subject to change based on the details of future planning applications and decision)

6.4 Combined Pipeline and Future Supply

- 6.4.1 Pipeline figures are subject to change based on the details of future planning applications and decisions. No account is taken for on-site replacement or redevelopment within the LDP Review period.
- 6.4.2 Figure 6.4 provides a summary based on the collated evidence. This includes a provision for excess vacancy, based on the guidance, where it exceeds 7.5% of stock, which could make a contribution to future supply.

Figure 6.4 Summary of Supply (all figures in sq m of floorspace)

Category	Office/R&D (B1)	Industrial/Warehouse (B2/B8)
Excess vacancy (EC1 sites)	36,300	-
Existing pipeline (EC1 sites)	14,600	105,800
Further capacity (EC1 sites)	60,200 ⁴⁸	14,500 ⁴⁹
Cardiff Bay and Central Business Areas (pipeline)	116,600	-
Strategic sites [excluding KP2A] (pipeline)	146,800 ⁵⁰	-
Total	374,500	120,300

- 6.4.3 The EC1 pipeline is comprised of planning applications which have been granted planning permission, whilst the BBA and CBA pipeline also includes sites which have implemented

⁴⁸ Based on estimated capacity at the following sites: St Mellons Business Park, Cardiff Gate Business Park, Forest Farm and Green Meadow Springs

⁴⁹ Based on estimated capacity at the following sites: Ocean Park, Wentloog Road, Penarth Road Area and Cardiff Business Park and Land North of Maes y Coed Road Llanishen

⁵⁰ Potential for light industrial B1c to contribute to industrial and warehouse demand.

permissions but have not finished construction, such as 1 John Street or Central Quay (the redevelopment of the Brains Brewery site).

- 6.4.4 The pipeline of B use class floorspace in strategic sites is comprised of the figures provided in outline planning permissions, depending on which is available for each site.
- 6.4.5 This shows a substantial supply of office and B1 supply. Whilst there is some flexibility with some supply on the strategic sites away from the CBA, the majority is office space.
- 6.4.6 There is a much lower supply of B2/B8. This is limited to the EC1 sites. There is no contribution from vacant stock, given current tightness in the market.

PART TWO: Future Requirements

7 Economic Forecast Scenarios

- 7.0.1 Economic forecasts have been purchased from two econometric forecasting companies, Oxford Economics (OE) and Experian. This allows comparison of the different views of the forecasters. Summary data for the baseline forecasts is set out at Appendix 3.
- 7.0.2 This chapter provides a review of the baseline or 'business as usual' forecasts as provided by these two forecasters for Cardiff. Consideration of further alternative scenarios will follow in the next revision of the report.
- 7.0.3 As a result of the Covid-19 pandemic there are complexities around selecting 2021 as a base year for analysis. Due to the negative impacts on GVA and employment, assessing growth over the LDP Review period of 2021-36 would be subject to some distortion, measured from a trough or low point. To help avoid any problematic implications of this the analysis set out in this chapter has sought to take a rounded view of the overall trends being projected. Charts show the LDP Review period, as well as marking the pre-pandemic period. When analysing long term growth patterns the periods 2001-19 (historic) and 2019-36 (future) are used. Not only does this map to much of the available official data reporting periods, but also removes the potential distortive short term effects of the pandemic. Charts also show forecast data to 2041 to help illustrate the currently anticipated long term direction of travel beyond the LDP Review period.

7.1 Headline Economic Performance

- 7.1.1 Set out below is analysis of three key indicators of headline economic performance:
- Gross Value Added (GVA) – a measure of economic output
 - Total Employment – a measure of total jobs including employment and self-employment
 - Productivity – a measure of output per job
- 7.1.2 As a result of small discrepancies in the way data is modelled by the two forecasters the charts in set out below use an index rather than absolute values. This ensures that at 2021 the two datasets align, and makes it easier to interpret any divergence between the different approaches over the LDP Review period.
- Gross Value Added (GVA)**
- 7.1.3 Figure 7.1 indicates both forecasters anticipate ongoing growth in GVA. However, the average annual rate of growth 2019-36 is lower than 2001-19 for both forecasters. This includes the negative impact of the Covid-19 pandemic. Pre pandemic both forecasters assessed Cardiff GVA growth rates at 2.1-2.2% per annum 2001-19.
- 7.1.4 Experian provides a more bullish projection of long term GVA growth over the period 2019-36. The growth rate of 1.7% per annum compares with 1.4% per annum by OE. Consideration of the different time periods indicates that Experian are expecting a return to pre pandemic trend GVA growth from 2022 onwards (2.1% p.a.), whereas OE are expecting a reduced growth rate (1.4%).
- 7.1.5 These differences highlight the value of drawing on the views of different forecasters in order to understand that there is no single view. Planning policy needs to recognise this.

Total Employment

- 7.1.6 Figure 7.2 shows historic and forecast trends for total employment. The effect of the pandemic is evident with a slowing of growth. However, because of the effectiveness of the 'furlough' scheme in preventing a major unemployment shock there has not been a sizeable trough in employment as might have been the case in the absence of such a scheme.
- 7.1.7 Experian forecast strong growth in employment (0.9% per annum) over the 2019-36 period, only marginally below the historic 1.0% per annum over the 2001-19 period. When removing the short-term pandemic effects, from 2022-36 includes 1.2% per annum employment growth in Cardiff.
- 7.1.8 The OE forecast is substantially different to Experian. With the same historic growth of 1.0% per annum, there is a substantial fall to 0.4% per annum from 2019 onwards, and this is unchanged even after stripping out the 2019-22 period which includes the short-term pandemic effects.
- 7.1.9 In absolute terms Experian is forecasting a growth of 39,900 jobs and OE growth of 18,600 jobs over the 2019-36 period. [For reference across the LDP Review period the growth figures are 45,500 and 21,100 respectively]. These are markedly different expectations for how the Cardiff economy will perform. For comparison, over the 2001-19 period the two forecasters modelled jobs growth of 38,600-40,200. Experian are therefore projecting a continuation of that same growth rate compared to the notably reduced rate of growth by OE. Some of the discrepancy is also driven by a strong expectation of part time jobs growth by Experian.

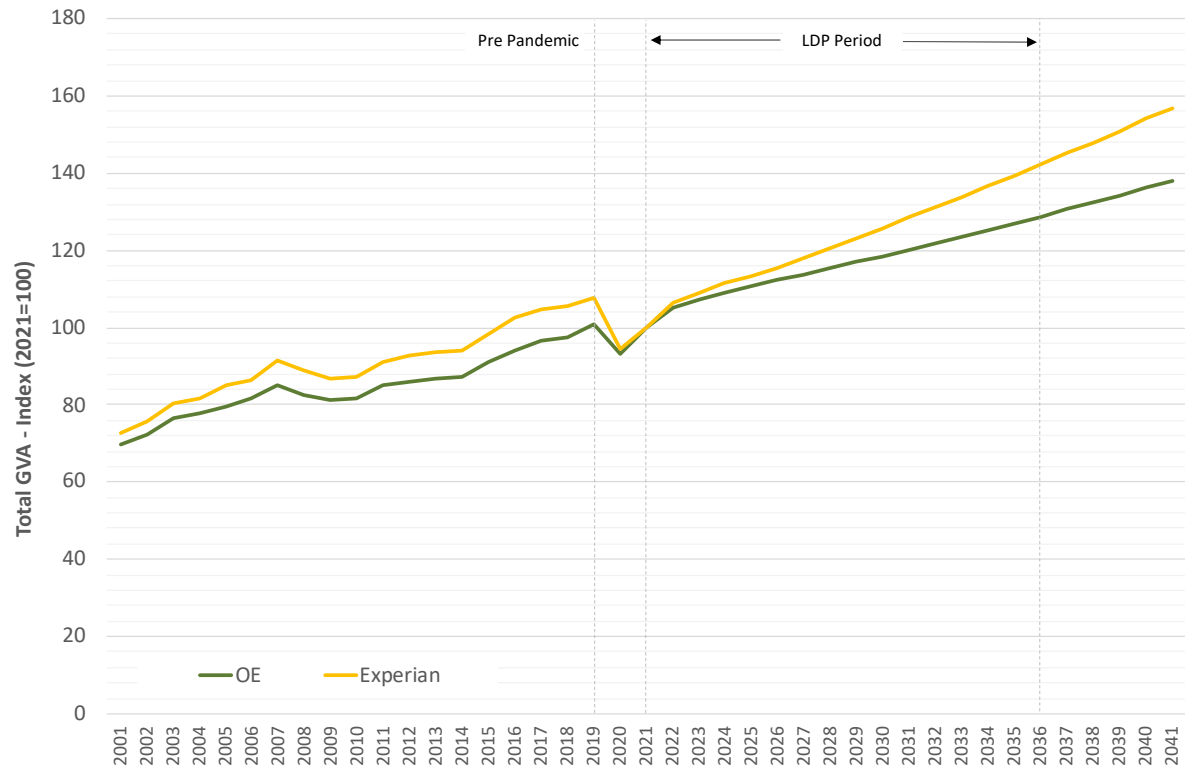
Productivity

- 7.1.10 Figure 7.3 sets out analysis of headline productivity. This is a HJA calculation based on GVA per job from the two forecast outputs. Over the 2001-19 period both Experian and OE model 1.1% growth in output per worker. Looking forward, there is some discrepancy with OE forecasting 1.0% per annum 2019-36, and Experian 0.7% per annum. This is primarily attributable to a more marked 'pandemic effect' in the Experian data, with the Experian growth rate 2022-36 closer to OE at 0.9% per annum.

Summary

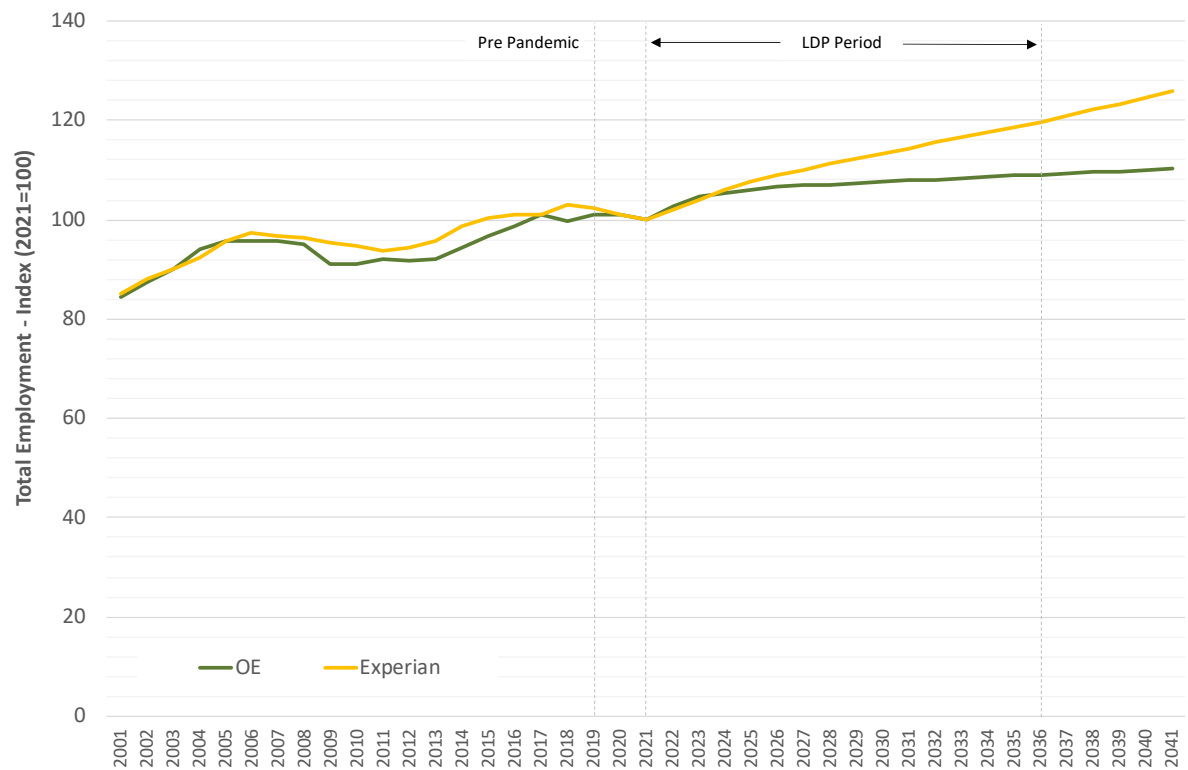
- 7.1.11 Overall Experian indicates stronger GVA growth and stronger employment growth than OE across the LDP Review period. This is most stark in employment terms with Experian projecting 45,500 additional jobs and OE only 21,100 additional jobs. The next stage of this work will explore in more detail both the validity and implications of these different employment scenarios.
- 7.1.12 GVA growth is a product of both changes in employment and changes in productivity (output per worker). The analysis shows that the higher GVA growth projected by Experian is a result of much higher employment growth expectations rather than productivity. This is therefore the critical variable to understand in terms of headline performance.

Figure 7.1 Total GVA index (2021=100)



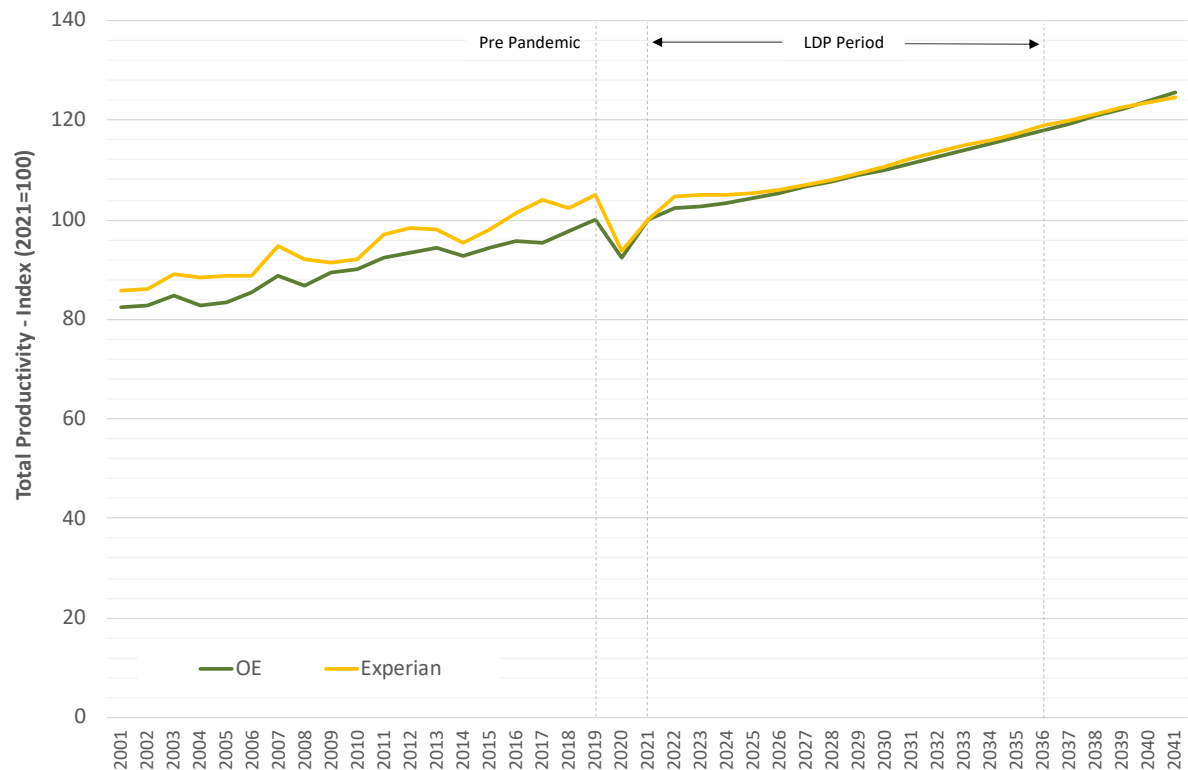
Source: HJA based on OE and Experian

Figure 7.2 Total employment index (2021=100)



Source: HJA based on OE and Experian

Figure 7.3 Total productivity index (2021=100)

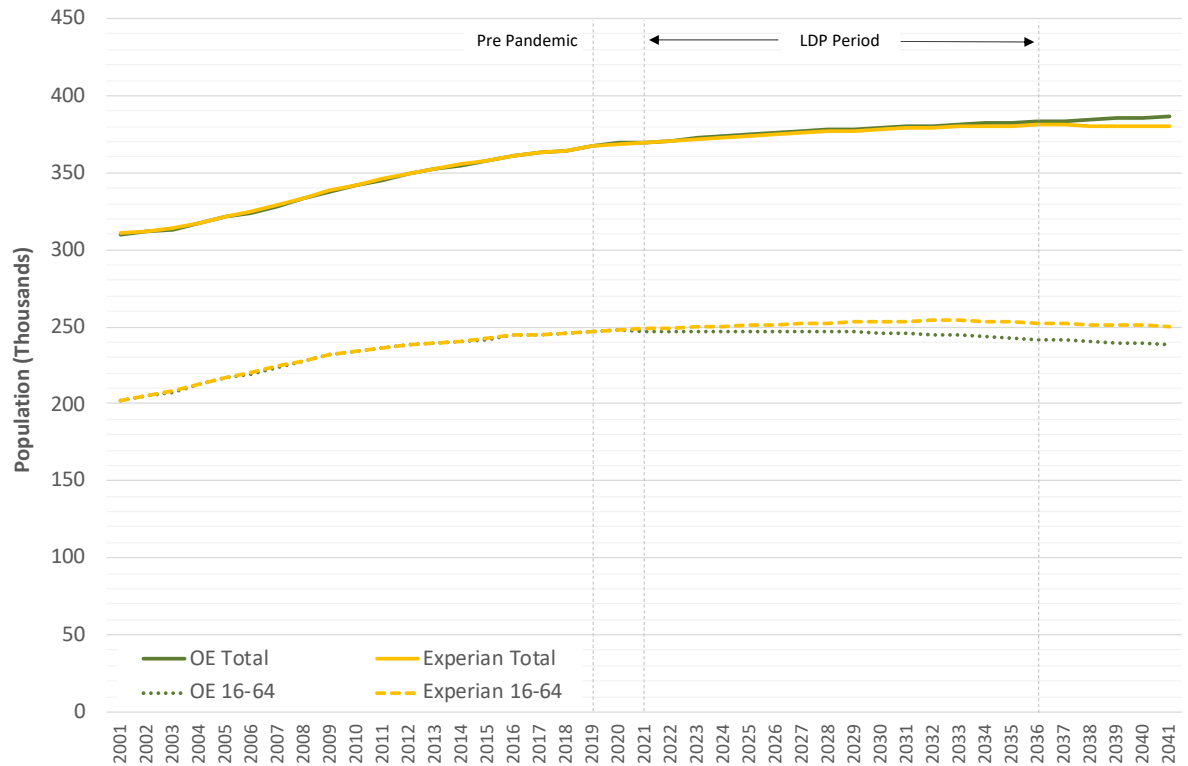


Source: HJA based on OE and Experian

7.2 Demographic and Labour Market Summary

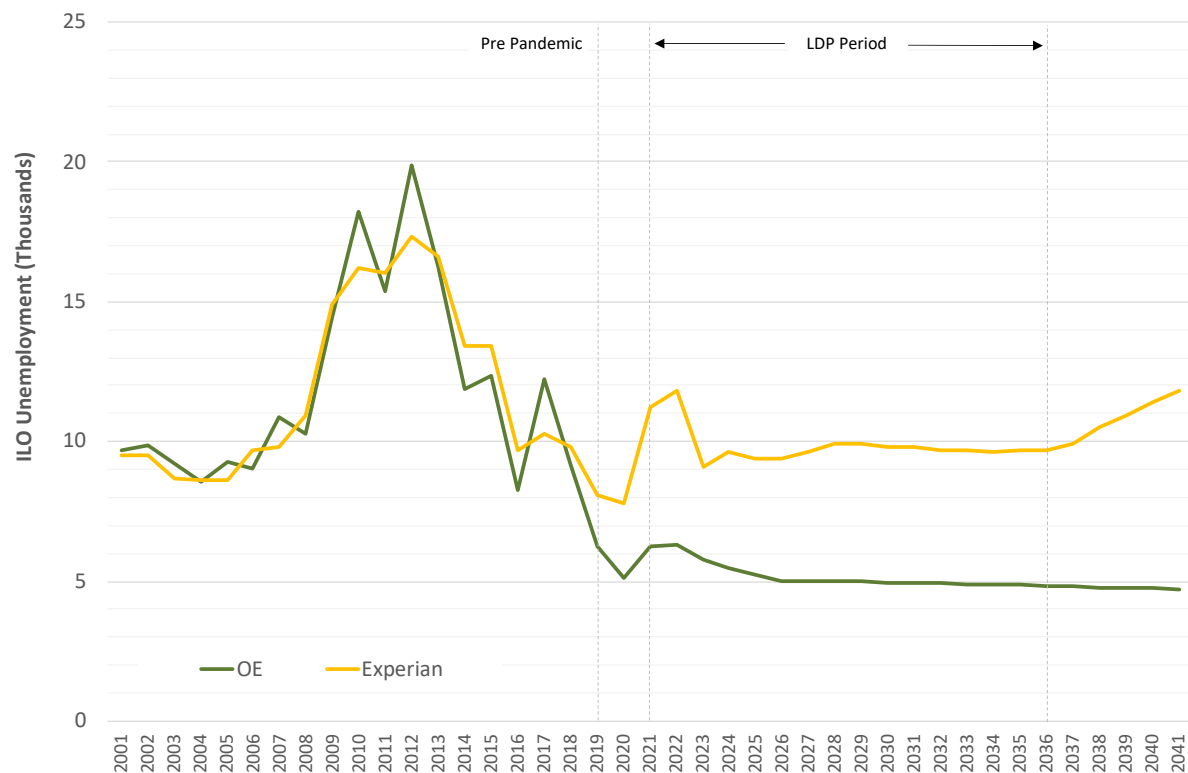
- 7.2.1 As was noted from the economic baseline, the labour market starting point is high levels of economic participation and a low unemployment rate. There is therefore relatively little slack in the existing labour market. Whilst the pandemic has had some short-term effects in terms of rising unemployment (much of this mitigated by the furlough scheme), both forecasters are anticipating these losses to be recovered fairly quickly.
- 7.2.2 Cardiff has witnessed strong population growth in recent history. The OE and Experian models indicate growth of approximately 56,500 persons 2001-19, an average growth rate of 0.9% per annum.
- 7.2.3 Both OE and Experian forecast slower total population growth over the LDP Review period than recent history since 2001, at 0.2%. When considering the population of 16-64 years growth rates are even lower, in fact negative within the OE modelling (-0.1%). This compares to very strong population growth in this age category 2001-19 of 1.1% per annum. This has potentially significant implications for labour supply in order to deliver continued employment growth.
- 7.2.4 In absolute terms this is a change from growth of approximately 45,000 16-64 year olds over the 2001-19 period to a growth of $\pm 5,300$ over the period 2019-36.
- 7.2.5 Over the period 2001-19 ILO unemployment in Cardiff fell. There is some discrepancy between the Experian and OE models, due to the approaches to modelling official datasets. However, the direction of travel is consistent. Looking forward across the period 2019-36 OE anticipate further falls in employment of around 1,400 persons, whilst Experian anticipate rises of 1,600 persons. In terms of rate this ranges of a fall of 1.5% to a rise of 1.1%.

Figure 7.4 Modelled Population (Total and 16-64 years) 2001-41



Source: HJA based on OE and Experian

Figure 7.5 Modelled ILO Unemployment 2001-2041



Source: HJA based on OE and Experian

7.2.6 The implications of these forecasts are some constraint on labour supply to underpin employment growth. The OE forecast data indicates a growth in the numbers of people in-commuting to Cardiff to supply the labour needed to deliver the forecast employment growth. Experian do not provide commuting data as part of its dataset.

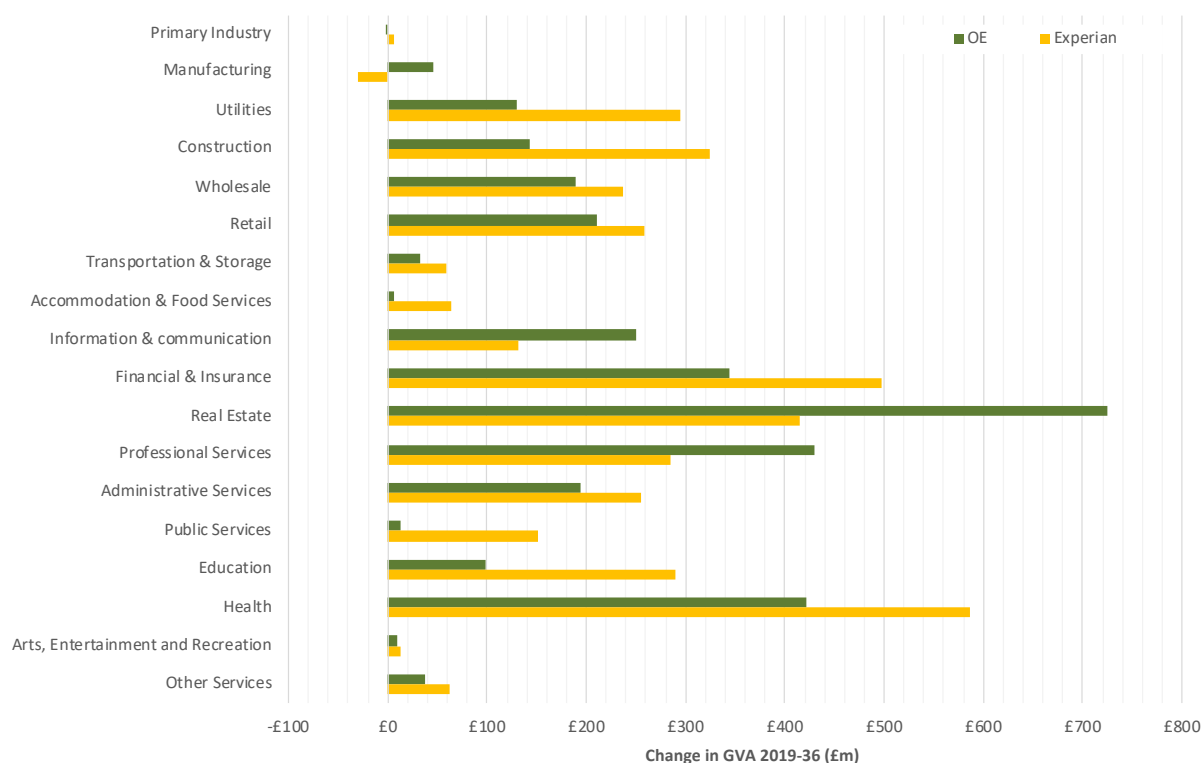
7.3 Sectoral Performance

7.3.1 The data above considers headline indicators. Set out below is change by sector, in order to help understand the components of forecast change in more detail.

7.3.2 Figure 7.6 considers the change in GVA by sector. This shows that GVA is anticipated to grow for nearly all sectors with the exception of primary industries (OE) and manufacturing (Experian), which shows small declines.

7.3.3 There are some significant variations between the two forecasters. Given the much higher overall GVA growth expectations of Experian it is unsurprising that there are higher GVA growth expectations for many sectors. The exceptions are Manufacturing, Information & Communication, Real Estate and Professional Services.

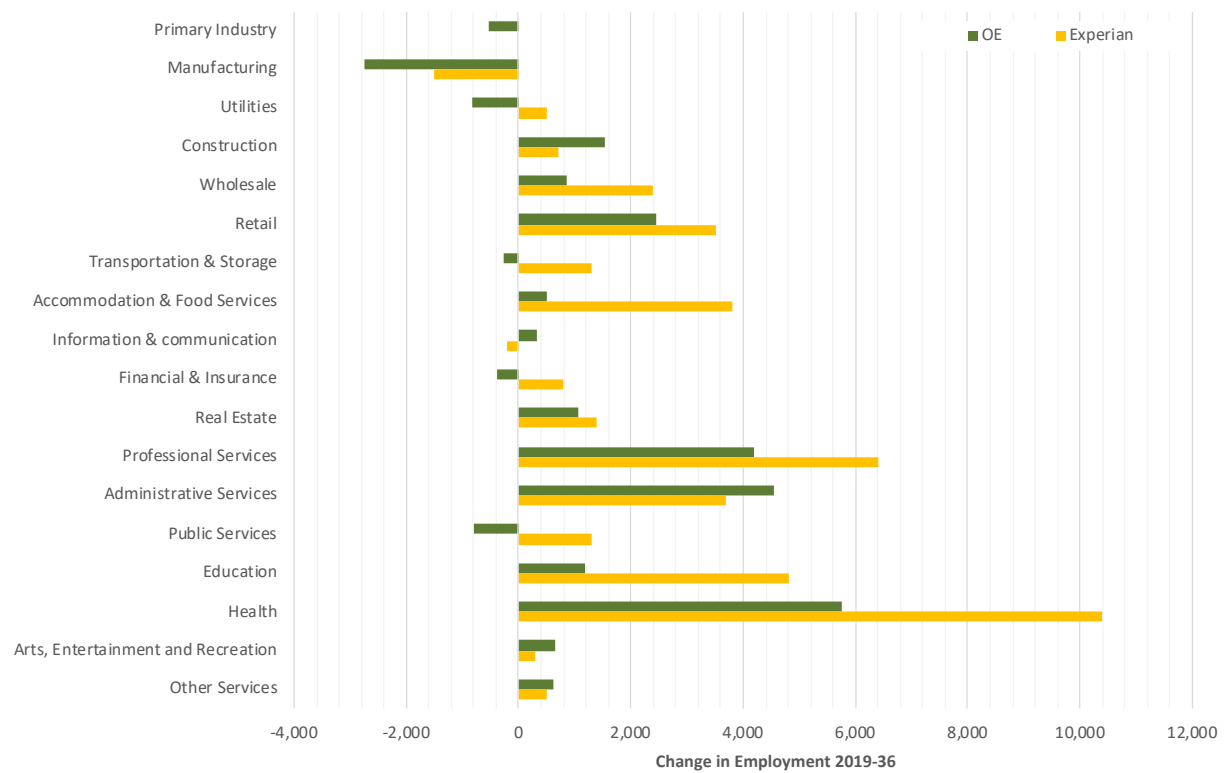
Figure 7.6 GVA change by sector 2019–2036



Source: HJA based on OE and Experian

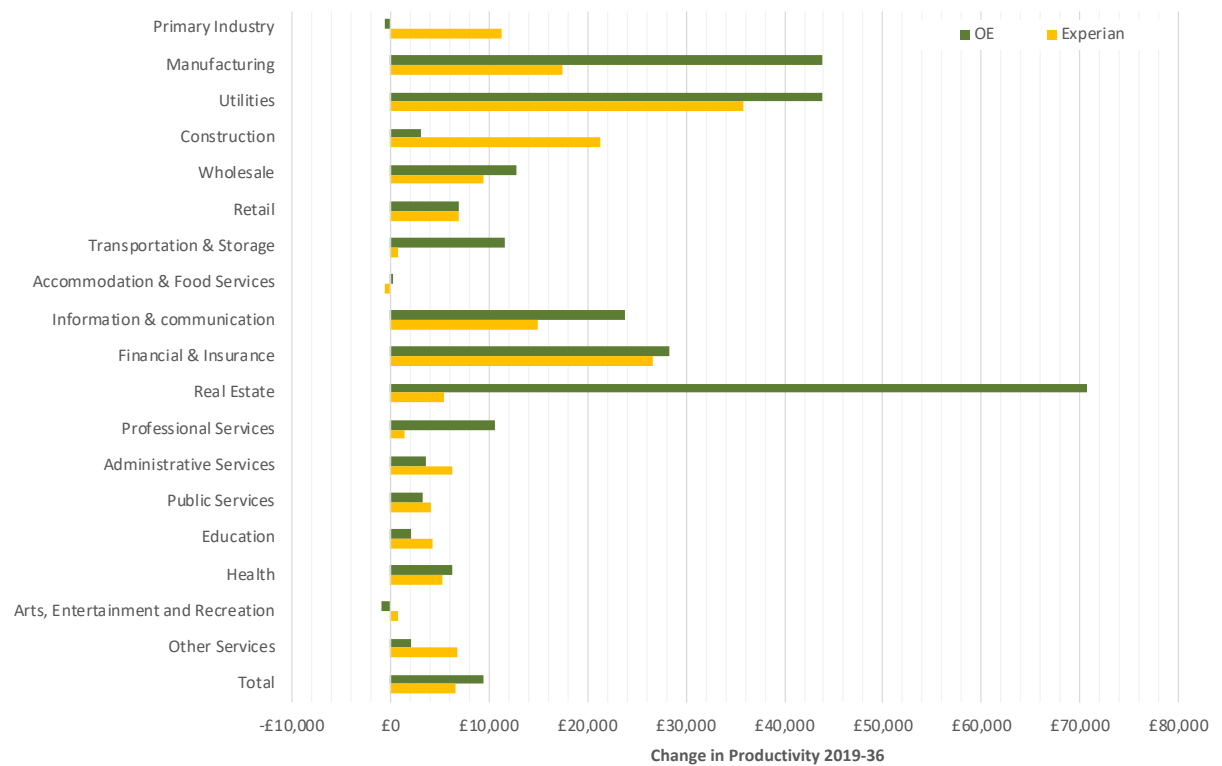
7.3.4 Figure 7.7 sets out the variation in sectoral employment. The overall direction of travel for the vast majority of sectors is consistent between the two forecasters, however, there are exceptions such as Utilities, Transportation & Storage, Information & Communication, Finance & Insurance and Public Services.

Figure 7.7 Employment change by sector 2019–2036



Source: HJA based on OE and Experian

Figure 7.8 Productivity change by sector 2019–2036



Source: HJA based on OE and Experian

- 7.3.5 Even where the direction of travel is similar there are often substantial discrepancies in the scale of change, most notably in Accommodation & Food Services, Professional Services, Education and Health. The higher growth expectations for almost all sectors by Experian is consistent with the far higher total level of employment growth it projects across the LDP Review period.

8 Alternative Scenarios

8.0.1 In order to build on the baseline economic forecasts a number of alternative scenarios have been considered. These takes into account:

- A sector by sector review of the two business as usual forecasts;
- Consultation with a range of key stakeholders and the Cardiff Council Economic Development team;
- Liaison with Edge Analytics and the Cardiff Council Planning Policy team to explore the linkages between labour supply (workforce) and labour demand (jobs growth); and
- Consideration of historic trends.

8.0.2 On the basis of the analysis undertaken a series of seven scenarios have been developed. These group into four broad categories, which will be taken further for consideration.

8.1 Context

8.1.1 The two business as usual forecasts provide quite different perspectives on the potential economic futures for Cardiff:

- Oxford Economics analysis indicates a growth of 21,100 jobs over the period 2021-36, equivalent to approximately 1,400 jobs per annum (jpa).
- Experian analysis indicates a growth of 45,500 jobs over the period 2021-36, equivalent to approximately 3,000 jobs per annum.

8.1.2 For comparison, ONS data for the period 2006-2019 (Total jobs, part of the Jobs Density dataset) indicates Cardiff has added approximately 2,500 jobs per annum. The current adopted Cardiff LDP sets out an ambition to achieve a jobs growth of 2,000 jobs per annum (2006-26). This shows that Cardiff has been performing ahead of this KP1 policy target.

8.1.3 Future ambition was a topic of discussion with stakeholders and the Cardiff Council Economic Development Team. There was consensus that Cardiff should continue to be ambitious and seek to grow its economy and employment base strongly. The Economic Development team indicated that a figure of 2,000 jobs per annum should be viewed as a minimum level of aspiration for any 'medium growth' scenario, given the continued growth ambition for the city's economy.

8.1.4 Based on historic trends a figure in the region 2,500-3,000 jobs per annum is worthy of consideration. If jobs continue to be added at the same percentage rate as has been achieved within the current LDP period the upper end of this range would be achieved (1.1% per annum jobs growth). If jobs continue to be added at the same absolute level then the lower end of this range could be achieved (2,500 jpa).

8.2 Scenario Options

8.2.1 The following seven scenarios have been developed:

- Oxford Economics – this is the OE business as usual forecast as originally prepared
- Experian – this is the Experian business as usual forecast as originally prepared

- Mid-point – this is the midpoint of the two scenarios, taking the average employment for each sector
- Hybrid – this is an alternative medium growth scenario based on a sector by sector review of the OE and Experian forecasts. The majority of sectors draw on the mid-point position, with two sectors based on the Experian forecast and one on the OE forecast.
- Minimum – this is a low option scenario, based on the lowest growth for each sector from OE or Experian
- Maximum – this is a high growth scenario, based on the highest growth for each sector from OE or Experian.
- Med-High – this is based on the central position between the Mid-point and Maximum scenarios.

8.2.2 Figure 8.1 sets out the overall jobs and GVA growth associated with this range of scenarios. These scenarios are also illustrated in Figure 1.

8.2.3 The jobs per annum for 2019-36 are also shown for comparison to help remove the effects of the Covid-19 pandemic. Considering the 2021-36 period in isolation causes some problems related to starting from a low employment point.

Figure 8.1: Headline Scenario Outputs

Scenario	Jobs Change (2021-36)	Jobs per Annum (2021-36)	Jobs per Annum (2019-36)	Average Annual GVA Growth
Minimum	19,600	1,300	900	1.5%
OE	21,100	1,400	1,100	1.7%
Mid-point	33,300	2,200	1,700	2.0%
Hybrid	35,200	2,300	1,800	2.1%
Med-high	40,200	2,700	2,100	2.2%
Experian	45,500	3,000	2,400	2.4%
Maximum	47,100	3,100	2,500	2.4%

Source: HJA based on Experian and Oxford Economics

8.2.4 These scenarios can be grouped into four broad categories (illustrated in the colour coding in Figure 8.1):

- There are two low scenarios, supporting 1,300-1,400 jpa (closer to 1,000 jpa 2019-36);
- There are two medium scenarios, delivering 2,200-2,300 jpa (less than 2,000 jpa 2019-36);
- One medium high scenario, delivering 2,700 jpa (closer to 2,000 jobs 2019-36); and
- Two high growth scenarios, delivering 3,000-3,100 jpa (closer to 2,500 jobs 2019-36).

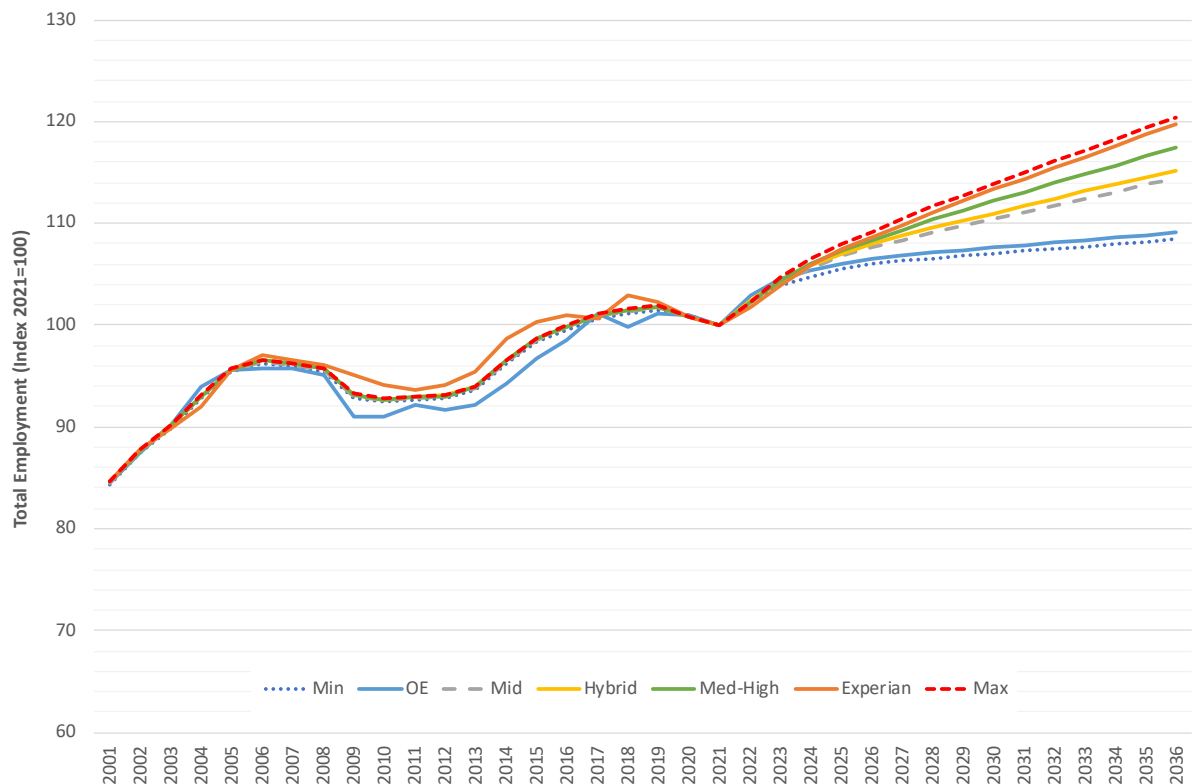
8.2.5 When considering the 2019-36 figures, removing some of the pandemic effects (including an element of regaining jobs lost), it is the Med-High scenario that aligns most closely with the 2,000 jpa target, and the two higher growth targets that align to the jobs growth achieved over the current adopted LDP period to date (2006-19).

8.2.6 There is continued planned investment into Cardiff, with major projects around the city centre and Cardiff Bay, as well as development of the South Wales Metro, Cardiff Parkway/Hendre Lakes proposals, Cardiff University Innovation Campus and the Life Sciences Park at Coryton. The

ambition for higher employment and economic growth is therefore backed by public and private sector action, building on the city's success in becoming more competitive.

- 8.2.7 Both the low scenarios and medium scenarios fall below the levels of historic growth and minimum policy ambitions of Cardiff Council.

Figure 8.2 Scenario Total Employment Change



8.3 Labour Supply

- 8.3.1 Demographic analysis undertaken by Edge Analytics has considered the potential labour supply. This has been coupled with research on the potential ratio of jobs to workers. The findings of these analyses suggest that:

- The WG 2018 projections would support 19,500 – 21,900 jobs over the period 2021-36 (1,300 – 1,500 jpa) – something akin to the low scenarios; and
- The WG 2018 HIGH projection would support 23,200 – 25,600 jobs over the LDP period (1,500 – 1,700 jpa) – remaining below the medium scenarios, effectively a medium-low scenario.

- 8.3.2 Neither of these options, nor the other projections (with the exception of the WG 2014 scenario), would deliver 2,000 jpa, and certainly not a level of growth aligned to recent historic performance. On this basis two additional demographic scenarios have been considered. This includes an employment led scenario aligned to 2,000 jobs per annum, and a further option which would support approximately 2,600 jpa – which is close to the medium-high jobs scenario. [All assume net commuting rate held constant].

8.3.3 Edge Analytics has undertaken further work to consider the levels of population and housing growth required to consider the alternative employment scenarios.

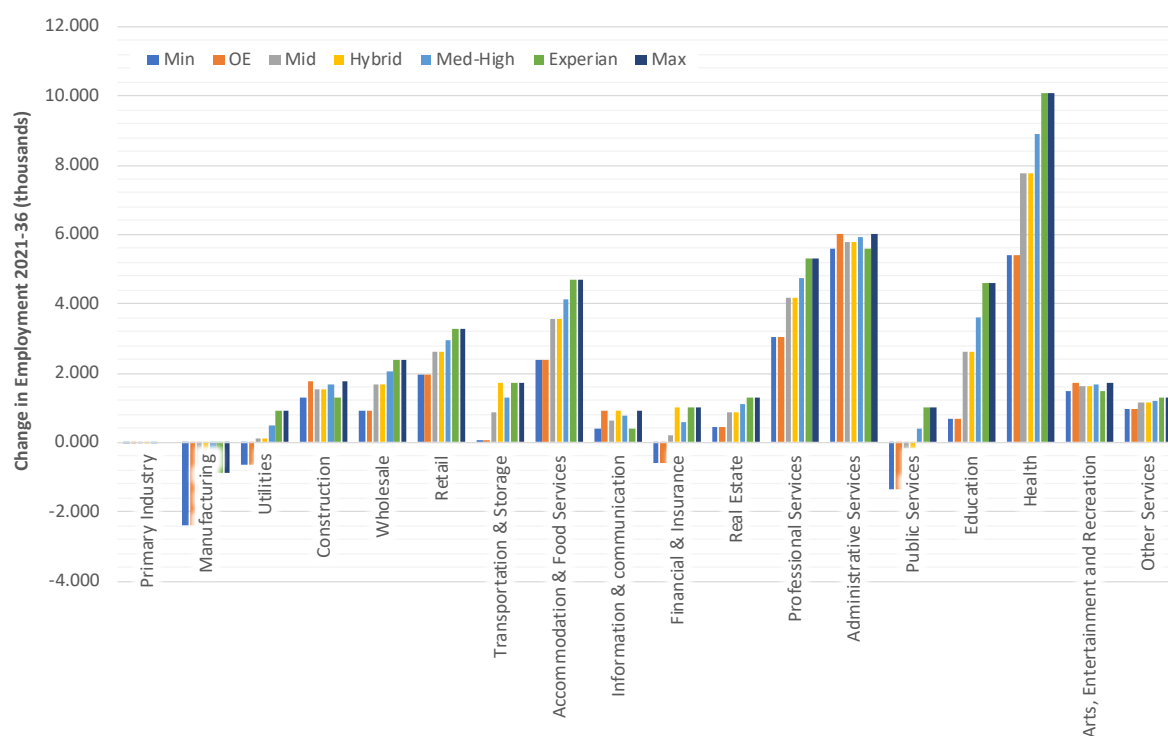
8.4 Sectoral Forecasts

8.4.1 Figure 8.3 shows the sectoral spread of the full range of scenarios. Sectoral distribution is based on the OE and Experian models.

8.4.2 The health sector is the most rapidly growing part of the economy in terms of absolute jobs numbers. There is also strong growth indicated in the professional and administrative services sectors (which includes R&D), as well as accommodation & food services and education.

8.4.3 The absolute scale of growth in the information & communication and financial & insurance sectors is relatively modest, even under higher growth scenarios. These are key sectors for Cardiff incorporating film, tv and media; cyber security; and fintech.

Figure 8.3: Sectoral Employment Change 2021-36



Source: HJA based on OE and Experian

9 Future Employment Sites and Premises Requirements

- 9.0.1 This chapter sets out the assessment of future employment sites and premises requirements in Cardiff across the LDP Review period 2021-36.
- 9.0.2 Throughout this analysis numbers are rounded. The purpose of this analysis is to provide estimates to inform policy planning, rather than fixed quantitative targets. Spurious accuracy should not be inferred from any of the numbers presented.

9.1 Approach

9.1.1 Welsh Government (WG) guidance on this matter is set out in *Practice Guidance – Building an Economic Development Evidence Base to Support a Local Development Plan* (2015). The guidance established two approaches to determining an LDP’s employment land requirement:

- **Method 1:** this method uses the average annual completions rate for B1, B2, and B8 employment land for the previous historic period in order to project future requirements over the life of the LDP.
- **Method 2:** this method involves acquiring employment growth forecast data for relevant Standard Industrial Classification (SIC, 2007) activity sectors⁵¹, assigning sectors to B use classes and then converting jobs to floorspace. Adjustment is then made to deal with the issue of losses from the existing stock.

9.1.2 The decision about which method or methods to use lies with the local planning authority (LPA). These methods are not the only approach to estimating future land demand, but ultimately whichever approach is adopted the authority must be able to justify why the preferred approach has been selected.

9.1.3 WG guidance states:

“A dual approach is recommended where sufficient data is available, where forecasting models are used in conjunction with past completions to allow alternative outcomes to be compared. LPAs may also seek to develop multiple scenarios reflecting different approaches to growth and future uncertainty to enable a more balanced consideration of employment land requirements.”

Method 1 – past building completions

9.1.4 Past completions reflect both market demand for employment land and actual development on the ground. The results can then be projected over the life of an LDP giving an estimate of annual and total land and premises requirements.

► Step 1: sum past completions for B1, B2, and B8 use classes

9.1.5 Cardiff Council has provided data on past B1, B2, and B8 use class floorspace completions between 2006–21. This data is relatively comprehensive and meets the necessary requirements to complete the analysis at this step.

9.1.6 Potential gaps in the data include:

⁵¹ Discussion of the labour market implications of these employment forecasts has already taken place at length during the circulation of separate notes.

- Completions records limited to developments over 500 sq m floorspace.
- Some Policy EC4 (Central Business Area) sites have not been included in the completions data provided. HJA has manually added data for relevant sites where possible.
- No data for period 2015–16 available due to change of monitoring periods affecting records.

► **Step 2: calculate average net annual completions for each use class**

9.1.7 Cardiff Council has provided partial data on past B1, B2, and B8 use class losses.

9.1.8 The gaps in this data include:

- Partial reporting of losses in the early years of the period under consideration (2006–21).
- Losses data relates to loss of employment land occurred on Policy EC1 protected sites, except where the proposal was considered a complimentary use under Policy EC2, or which satisfied Policy EC3. This means that losses monitoring does not include sites covered by Policy EC4 i.e. Central Business Areas of the LDP. HJA has manually added data for relevant sites where possible.
- No data for period 2015–16 available due to change of monitoring periods affecting records.

► **Step 3: project the average net annual completion over the study period**

9.1.9 Multiplying the average annual figures to provide an estimate of future net change over the 15-year LDP review period (2021–36).

9.1.10 It is HJA's professional opinion that projecting future requirements using only net completions has the potential to mask the total (gross) level of development activity that should be planned for.

► **Step 4: consider the use of alternative scenarios to address higher or lower growth outcomes**

9.1.11 This is an important step in contextualising the findings from steps 1–3. This stage can give due consideration to whether or not historic supply was constrained, and whether the demand profile is akin to that which we expect in the future. For example, have there been periods of economic weakness or strength, has there been a change in demand drivers, and so on.

9.1.12 WG guidance suggests the strength of past completions lies in the availability of robust historic data, collected over a credible length of time (preferably 5 years or more). Data over a 15 year period is available for this study.

9.1.13 As noted above, the difference between gross and net completions is an important consideration that is not dealt with directly in WG guidance.

- **Gross** completions deals with all gains in B-use employment floorspace over a given period.
- **Net** completions deals with all gains in B-use employment floorspace less all losses in B-use employment floorspace over a given period.

9.1.14 It is vital to recognise that considering net completions alone can provide a limited picture of the full scale of development activity that takes place (e.g. a gain of 1,000 sq m and a loss of 1,000 sq m would appear as no net change, masking the actual flows in and out of the stock of floorspace). For future planning purposes it is important to provide capacity for replacement of losses and changes in the nature of occupier requirements. The analysis in this report therefore considers both gross and net positions.

- 9.1.15 An adjustment is also considered to ensure sufficient flexibility and choice. The WG guidance considers 7.5% vacancy to be an appropriate provision for frictional movement of the market. An additional 7.5% is added for further flexibility, equivalent to just over one year of development. This leads to a total uplift of 15%.

Method 2 – labour demand forecasting

- 9.1.16 The previous chapters set out a detailed discussion of economic forecasts and scenarios for the Cardiff economy across the LDP Review period.

- 9.1.17 WG guidance recommends the following approach:

► **Step 1: Translate jobs by sector into jobs by land use (Use Class) to estimate the numbers of jobs that will be based in industrial property, warehouses and offices.**

- 9.1.18 To translate SIC employment sectors into B-class land uses, each classification is assigned an appropriate use class (B1, B2, B8). Appendix 2 of the guidance recommends a high-level approach to carrying out this step. HJA has developed this approach to develop a bespoke matrix for Cardiff based on its sectoral profile. This is set out at Appendix 4 of this report. Adjustments are made to ensure densities and employment figures are consistently measured as FTEs.

► **Step 2: For each of the employment land uses, translate jobs into floorspace using employment densities (floorspace per worker).**

- 9.1.19 Average floorspace-to-worker density ratios are typically used to translate jobs into employment floorspace. The guidance makes recommendations based on the general use categories of office and industrial premises. Assumptions about employment densities are a matter of judgment and local knowledge. The guidance advises measuring a range of densities to test alternative scenarios. The employment density assumptions used are set out at Appendix 4 of this report.

► **Step 3: Translate floorspace into land areas using development densities (plot ratios). Plot ratios can be highly variable, especially for offices, consideration should be given to the results of both floorspace capacity and to land areas.**

- 9.1.20 For industry, warehousing and out-of-town offices, where no more accurate information is available, a default plot ratio of 40% (4,000 sq. m. of floorspace per ha of site area) is recommended. However some plot ratios could be considerably higher, particularly in city centre office uses. Much of the analysis set out below, particularly for office based development is focused on floorspace figures.

► **Further adjustments.**

- 9.1.21 **Replacement:** A further step in the process within the WG guidance is to adjust for potential losses that may need to be replaced. It is suggested this might comprise known negative commitments and further losses. Given the 15 year LDP period there is a high degree of uncertainty in estimating losses on a site by site basis over such a long time horizon.
- 9.1.22 The methodology employed for estimating the level of replacement demand assumes that a proportion of the total existing stock of employment property needs to be replaced each year to ensure the overall stock of premises is sufficient and appropriate for modern needs, in terms of both building quality and site characteristics. Further details underpinning this approach are set out paragraph 9.3.4 below.

- 9.1.23 **Choice and flexibility:** a percentage uplift of the combined requirement for net additional and churn/replacement is applied to ensure an allowance for range and choice is incorporated. This uplift also builds in some additional flexibility to allow the normal frictional movement in the market. As with the historic completions this is set at 15%.

Variants and Adjustments

- 9.1.24 The analysis considers a number of variants and adjustments, to help understand the potential implications of changes in the way employment property is occupied through the LDP period. In particular this looks at the implications of changes resulting from the Covid-19 pandemic such as increased home or hybrid working.

9.2 Method 1 – Past trends

Historic Monitoring Data

- 9.2.1 The following analysis is based on historic monitoring data collected and collated by Cardiff Council. The underpinning data is set out at Appendix 5.
- 9.2.2 Figure 9.1 summarises the estimated average annual gross employment completions having aggregated the data over the 15 years for which data has been made available. Net figures are also provided, after deducting any losses of employment floorspace.
- 9.2.3 Not all developments can be categorised solely as office or industrial (including warehousing). These are set out as ‘Mixed B’. However, from a review of the data these developments are what might be described as quasi industrial or business park style developments (relevant to EC1 type sites) rather than CBA/BBA type developments.

Figure 9.1 Historic office and industrial floorspace gains and losses, sq m per annum (2006-21)

	Office	Industrial	Mixed B	Total B
Gains (gross completions)	18,000	9,000	5,000	32,000
Losses	1,000	3,000	1,000	4,000
Net	17,000	6,000	4,000	27,000

Source: HJA analysis of Cardiff Council annual monitoring data (figures may not sum due to rounding)

- 9.2.4 The economic conditions that have provided the backdrop to this period are many and varied. The primary external factors have been the financial crisis and subsequent recession, an austerity-driven policy environment, Brexit and associated uncertainty, and the Covid-19 pandemic. Despite all of these negative external drivers, Cardiff’s economic performance has been strong.
- 9.2.5 Figure 9.2 show that both gains and losses are not evenly spread on an annual basis. The data might reasonably be described as ‘lumpy’. For years where data is available gross completions ranged from less than 10,000 sq m to more than 70,000 sq m.

Figure 9.2 Historic gains and losses of B-use floorspace, 2006–2021



Source: HJA analysis based on Cardiff Council annual monitoring records

Future Projection

- 9.2.6 Based on the annual requirements (2006–21) identified, the following floorspace requirements are assessed across the 15-year LDP period.

Figure 9.3 Projected future floorspace requirements, sq m based on 2006–21 development patterns

	Office	Industrial	Mixed B
Gross completions-based	271,000	134,000	69,000
Net completions-based	258,000	94,000	59,000

- 9.2.7 There is relatively little difference between the gross and net position for offices, with a projected requirement of 258,000 – 271,000 sq m over the LDP period.
- 9.2.8 There is a much greater difference between the gross and net positions for both industrial and mixed B categories. This highlights the implications of losses of floorspace. Whilst the mixed B Use Class category is not pure industrial and warehousing related, a review of the schemes included in the historic data is predominantly industrial or quasi-industrial led and certainly relates to EC1 type sites, rather than CBA/BBA type development. It is therefore appropriate to consider these two elements in combination. This leads to a gross requirement for 203,000 sq m and a net requirement of 153,000 sq m across the 15-year LDP period.

Alternative Scenarios

- 9.2.9 As noted the 15-year period for which historic data has been analysed covers a range of economic conditions and has not been unduly skewed by either a period of boom or bust.
- 9.2.10 Consultations have been undertaken with a range of stakeholders in the Cardiff economy and commercial property market. Whilst a range of views were expressed there was broad consensus that industrial and warehousing development, in particular, has been somewhat constrained by both the supply of sites, issues of viability and other market factors including the potential to secure higher values through other forms of development.
- 9.2.11 When asked to consider whether future levels of development would be lower, about the same, or higher than historic patterns, there was a general view that industrial and warehousing development would be higher. In support of this opinion a number of justifications were provided including:
- The historic market position leading to an under delivery;
 - Improving values in the industrial and warehousing market;
 - Strong demand in at least the short to medium term through continued growth in e-retail and increasing levels of demand for home delivery across an ever widening range of products.
- 9.2.12 This would suggest that higher growth scenarios should be considered in the industrial and warehousing sector. An indicative 25% uplift has been used to develop an alternative scenario.
- 9.2.13 There was less consistency with regard to the office market, with the potential implications of continued growth in key sectors in Cardiff, the development of South Wales Metro, hybrid working and the move to net zero creating a high level of competing pressures and uncertainty. These are discussed in more detail in later parts of this paper. Overall it was noted that in recent years there has been strong delivery of Grade A office space after a period of far lower development levels. This has likely met some (if not the majority) of latent demand in the market. There is no clear basis to plan for a substantially greater level of office development at present, but this should be kept under review.

Range and Choice

- 9.2.14 An uplift of 15% is applied. Figure 9.4 sets out the revised results after all adjustments.
- 9.2.15 In aggregate the analysis suggests an overall requirement for some 312,000 sq m of office floorspace and 233,000 – 291,000 sq m of industrial and warehousing floorspace based on the past trends approach.

Figure 9.4 Projected future floorspace requirements, sq m based on 2006–21 development patterns including uplift for range and choice

	Office	Industrial/Warehouse and Mixed B (Baseline)	Industrial/Warehouse and Mixed B (Adjusted, +25%)
Gross completions-based	271,000	202,000	253,000
Range and choice (15%)	41,000	30,000	38,000
Total	312,000	233,000	291,000

Source: HJA based on Cardiff Council historic monitoring data

9.3 Method 2 – Labour demand

Net Changes

9.3.1 As set out in the Cardiff ELPS – Scenarios Paper, a number of scenarios have been developed which can be grouped into four broad categories.

- **Minimum:** this is a low option scenario, based on the lowest growth for each sector from OE or Experian
- **Oxford Economics (OE):** this is the OE business as usual forecast as originally prepared
- **Mid-point:** this is the midpoint of the two scenarios, taking the average employment for each sector
- **Hybrid:** this is an alternative medium growth scenario based on a sector by sector review of the OE and Experian forecasts. The majority of sectors draw on the mid-point position, with two sectors based on the Experian forecast and one on the OE forecast.
- **Med-high:** this is based on the central position between the Mid-point and Maximum scenarios.
- **Experian:** this is the Experian business as usual forecast as originally prepared
- **Maximum:** this is a high growth scenario, based on the highest growth for each sector from OE or Experian.

9.3.2 The figures below summarise the spread of future floorspace changes across the core employment (B-use) use classes arising from net changes in the economy under the employment scenarios⁵².

9.3.3 Data has been provided for all of the scenarios. However, as noted in the previous chapter, the medium, medium-high and high options become the primary focus, with the lower options well below historic levels of growth and policy aims. The medium scenarios themselves are low relative to historic employment growth and both current and previous policy ambitions.

Figure 9.5 Estimated annual net changes in floorspace, sq m (2021–2036)

	Minimum	OE	Mid-point	Hybrid	Med-high	Experian	Maximum
Office	4,000	5,000	6,000	7,000	8,000	8,000	9,000
Industrial	(2,000)	(2,000)	2,000	2,000	4,000	5,000	6,000

Figure 9.6 Estimated total net changes in floorspace, sq m (2021–2036)

	Minimum	OE	Mid-point	Hybrid	Med-high	Experian	Maximum
Office	58,000	70,000	95,000	105,000	113,000	119,000	131,000
Industrial	(33,000)	(30,000)	25,000	31,000	54,000	80,000	83,000

Replacement

9.3.4 Replacement encapsulates the wider changes in the economy not picked up in the employment projections. Working practices change, new technologies are adopted, and the sites and premises used by firms need to adapt to these new ways of working. There are also losses to other uses either through sales and lettings or redevelopment. As a result, there will be a need for some existing employment stocks to be replaced. There will also be instances where existing buildings are so dilapidated that they require complete reconstruction. Developing a methodology to estimate the scale of replacement activity is not straightforward. As a result, the team at Hardisty

⁵² Analysis is based on average annual requirements for the period 2019-36 to remove the short term effects of the Covid-19 pandemic.

Jones Associates, drawing on our experience of working with clients over a number of years, has developed a methodology which is robust in terms of its underpinning logic and the evidence used to derive assumptions.

- 9.3.5 Typically within the property sector, development appraisals on new buildings consider a 25–35 year time horizon. As a result, one may expect that after this period, a building would be ripe for replacement. However, data on the age of commercial employment buildings indicates a very different picture with a majority of the UK building stock was built pre-1970.
- 9.3.6 If all stock was replaced every 25-35% years we would expect a replacement rate of 3-4% per annum. However, we know from the evidence that this assumption is too high. For the purposes of estimating future requirements two rates of replacement are considered: 1% and 2%. A 1% rate equates to stock being replaced every 100 years on average. A rate of 2% equates to stock being replaced every 50 years. It is reasonable to assume the real level of replacement falls within this range, which becomes useful for planning purposes.
- 9.3.7 Figure 9.7 sets out the average annual and 15-year aggregated replacement rates for both office and industrial/warehouse sectors based on the 1-2% range. This draws on data from the Valuation Office Agency on the current stock of employment floorspace in Cardiff.

Figure 9.7 Estimated replacement requirement, sq m (2021–2036)

	sq m per annum	sq m LDP period
Office		
1% replacement	10,000	147,000
2% replacement	20,000	294,000
Industrial		
1% replacement	14,000	210,000
2% replacement	28,000	420,000

Source: HJA based on VOA

- 9.3.8 Consultations with stakeholders were used to test these assumptions. These indicated that:

Offices

- There is always a requirement for new Grade A office stock, with brand and perception important to many occupiers. The lifecycle of offices is potentially shortening.
- The drive towards net zero will potentially encourage the reuse and refitting of existing office stocks rather than the development of new offices. This could reduce the rate of redundancy and replacement of office stocks.
- However, this may be tempered by the location of existing supply. In Cardiff there has been a significant shift in the centre of gravity in the office market over the last 20 years away from the north and east of the city centre (Newport Road, Dumfries Place) initially towards the centre (Greyfriars Road, Kingsway) and then to the south (Callaghan Square, Central Square). As a result the remaining stock in the north and east areas is not well located and may not be suitable for the types of low carbon refits that would be required.

Industrial

- Low levels of development activity in recent years have led to increasingly poor industrial stocks in some areas which are in need of upgrading.

- However, the costs of refurbishment or replacement are unlikely to be supported in the rental levels occupiers are willing to pay. This creates a viability challenge.
- The increasing drive for higher energy performance of buildings, as well as greater eaves heights limits the role of refurbishment activity and will require replacement over time. This could be accelerated with changes to the energy performance certificate (EPC) ratings buildings will be required to demonstrate within the next few years.
- There may need to be a strategic programme to encourage and facilitate the upgrading and/or replacement of aged industrial stock.

9.3.9 Therefore there are competing pressures in both the office and industrial market sectors. With no clear quantitative evidence on which to base alternative assumptions, or certainty as to whether upward or downward pressures will dominate the initial assumptions are retained. However, the identified trends should be monitored.

9.3.10 Figure 9.8 summarises the assessed average annual gross future office and industrial floorspace requirements having accounted for replacement.

Figure 9.8 Forecast annual changes in floorspace demand (net plus replacement), sq m per annum (2021–2036)

	Minimum	OE	Mid-point	Hybrid	Med-high	Experian	Maximum
Office							
1% replacement	14,000	14,000	16,000	17,000	17,000	18,000	19,000
2% replacement	23,000	24,000	26,000	27,000	27,000	28,000	28,000
Industrial							
1% replacement	12,000	12,000	16,000	16,000	18,000	19,000	20,000
2% replacement	26,000	26,000	30,000	30,000	32,000	33,000	34,000

9.3.11 Figure 9.9 summarises the assessed gross future office and industrial floorspace requirements over the LDP period.

Figure 9.9 Forecast total changes in floorspace demand (net plus replacement), sq m (2021–2036)

	Minimum	OE	Mid-point	Hybrid	Med-high	Experian	Maximum
Office							
1% replacement	205,000	217,000	242,000	252,000	260,000	266,000	279,000
2% replacement	352,000	364,000	389,000	400,000	407,000	413,000	426,000
Industrial							
1% replacement	177,000	180,000	235,000	241,000	264,000	290,000	293,000
2% replacement	387,000	390,000	445,000	451,000	474,000	500,000	503,000

Choice and flexibility

9.3.12 A 15% uplift of the combined requirement is applied to ensure an allowance for range and choice is incorporated. This uplift also builds in some additional flexibility to allow the normal frictional movement in the market.

Figure 9.10 Forecast total floorspace requirements, sq m (2021–2036)

	Minimum	OE	Mid-point	Hybrid	Med-high	Experian	Maximum
Office							
1% replacement	236,000	250,000	278,000	290,000	299,000	306,000	320,000
2% replacement	405,000	419,000	447,000	460,000	468,000	476,000	490,000
Industrial							
1% replacement	203,000	207,000	270,000	278,000	303,000	333,000	337,000
2% replacement	445,000	449,000	512,000	519,000	545,000	574,000	578,000

9.4 Comparing Methods 1 and 2

9.4.1 Figure 9.11 below compares the Method 1 and Method 2 outputs for the medium, medium-high and high scenario options.

Figure 9.11 Forecast total floorspace requirements, sq m (2021–2036)

	Office	Industrial/Warehouse
Method 1 (Past Trends)	312,000	233,000 – 291,000
Method 2 (1% replacement)		
Medium	278,000 – 290,000	270,000 – 278,000
Medium High	299,000	303,000
High	306,000 – 320,000	333,000 – 337,000
Method 2 (2% replacement)		
Medium	447,000 – 460,000	512,000 – 519,000
Medium High	468,000	545,000
High	476,000 – 490,000	574,000 – 578,000

9.4.2 When comparing it suggests that the 1% replacement options are much closer to the past trends outputs than the 2% variants. To achieve above these levels will require levels of development far greater than that witnessed in Cardiff over the last 15 years, and therefore unlikely.

9.4.3 On that basis the 1% variants are carried forward for further consideration. The LDP Review should seek to enable in the order of 300,000 sq m of both office and industrial/warehouse development $\pm 10\%$.

Converting to land use (hectares)

9.4.4 As stated previously, floorspace figures are retained as the key indicator for office development. However, figures are converted to hectares of land for industrial/warehousing use. Based on HJA analysis of annual monitoring records, a development density of 40% is assumed for industrial premises development.

9.4.5 In total approximately 75 ha of land for industrial and warehouse uses should be provided in order to accommodate the estimated 300,000 sq m of floorspace. This sits within the range of 58 – 84 ha which emerges from the various scenarios considered.

9.4.6 If higher replacement rates were required this could increase to 128 – 145ha.

9.5 Impact of hybrid working

9.5.1 The most significant potential impact as a result of the Covid-19 pandemic which has not been factored in within the analyses set out above, is the increased level of home or hybrid working on

the office sector. This has been discussed with consultees as well as a desk review of available evidence. A summary of available research is set out at Appendix 6.

- 9.5.2 The overriding conclusion of this research is that there is a high degree of uncertainty as to exactly how this will play out. There are examples of office occupiers that are looking to encourage high levels of home working, those considering hybrid working approaches with a mix of office and home working, and those anticipating bringing as many staff as possible back to offices. Examples have been cited of occupiers already releasing unwanted floorspace back to the market, with further releases expected as and when lease events take place. However, there are also examples of occupiers reconfiguring existing space to reduce the volume of desk spaces but increasing breakout and meeting spaces, with no net change in overall requirement.
- 9.5.3 Much of the commentary is based on armchair empiricism, with limited real world data. It will therefore be vital to monitor trends over coming years. At the time of writing Welsh Government advice to work from home where possible is still in place. It is unwise to make long term planning decisions in the midst of a significant unusual event.
- 9.5.4 From a Welsh Government policy perspective there is a strong steer that continued home or close to home working will be encouraged in the long term. However, consultees have highlighted that whilst this might have far reaching implications within the public sector the extent to which private sector employers will adjust practices is uncertain. It is recognised that in some quarters, where there was early enthusiasm for home working this has waned. There is also an awareness that the tacit knowledge exchange that takes place in physical spaces may not be possible in the same ways through home working and therefore employers are likely to want to create real world interactions both internally (with staff) and externally (with clients and suppliers). It is also noted that the experience of homeworking can vary widely depending on the facilities available for home working, with middle and senior managers potentially able to operate from home offices or spare bedrooms which may not be available or suitable for younger staff in shared housing or with young children.
- 9.5.5 For these reasons there is substantial uncertainty – but a broad consensus has emerged that we are unlikely to return fully to the pre pandemic situation with at least some degree of hybrid working across the majority of occupiers.
- 9.5.6 In order to quantify this we need to consider some illustrative examples.
- Example 1: Office workers return to office based working three days per week as society recovers from the pandemic (60% of the typical working week). This is a level of hybrid working that has been indicated as a preference by many employers and employees. However, the effect on office space will not be fully realised with some substituting of desk spaces for communal spaces. Under this scenario there could be a reduction in the total requirement of office floorspace estimated at 2036 of 30%.
 - Example 2: Many office workers return to office based working between three and four days per week. There is also some reconfiguration of office spaces by occupiers to enable greater interactions between staff when they are in the office e.g. providing additional breakout spaces and meeting rooms. As a result the adjustment in office floorspace is around 20%.

- Example 3: There is a far more modest adjustment in floorspace, with more workers returning to the office over time than expected at present, as well as reconfiguration of space. Under this scenario a reduction of 10% of office floorspace by 2036 is applied.

- 9.5.7 There are many permutations, but these provide some helpful examples to consider. A greater reduction of floorspace than Example 1 appears exaggerated relative to the current views of stakeholders and other third party comment. Even where there may be examples of occupiers looking to higher proportions of home working there are equally examples of those looking at less, and there are no definitive indications that all occupiers will adjust floorspaces on a full pro rata basis. However, this should be monitored over the next 3-5 years as lease events occur.
- 9.5.8 Example 2 is probably a sensible mid point option, balancing those looking for extreme adjustments and floorspace reductions, and those that are seeking to retain the pre pandemic situation as far as possible.
- 9.5.9 However, it is possible that the final reduction in floorspace will be lower than Example 2. Many smaller occupiers may not have the luxury of meeting rooms and breakout spaces and therefore need to retain desk spaces for all workers, particularly if they are keen to have all staff in the office at some times.
- 9.5.10 A further change that is expected in the market is a growth in the use of serviced office arrangements, much shorter tenancies or more frequent break options in order to provide much greater flexibility to occupiers to adjust their floorspace to changing market demands.
- 9.5.11 Figure 9.12 illustrates the potential scale of release under the three illustrative examples relative to the 2021 base position. In effect this balances the reductions from a move to widespread hybrid working and the increases resulting from changes to the economy.
- Example 1 could lead to a reduction in total office floorspace of approximately 150,000 – 180,000 sq m compared to the current stock;
 - Example 2 could lead to reductions of 60,000 – 90,000 sq m compared to the current stock.
 - Example 3 could lead to some growth

Figure 9.12 Preliminary results –forecast gross office floorspace demand when adjusting for impact of hybrid working (2021–2036)

	Minimum	OE	Mid-point	Hybrid	Med-high	Experian	Maximum
LDP period							
-30% demand	(207,000)	(201,000)	(182,000)	(174,000)	(169,000)	(163,000)	(156,000)
-20% demand	(119,000)	(110,000)	(90,000)	(81,000)	(75,000)	(69,000)	(60,000)
-10% demand	(31,000)	(20,000)	3,000	12,000	19,000	25,000	36,000

- 9.5.12 These figures are not revised assessments of future requirements, but adjustments to the total stock of offices at 2036, taking into account the various employment growth scenarios. Demand for replacement would be expected to continue.

9.6 Summary of Requirements

Office

- 9.6.1 Consultation responses with stakeholders highlight the very large degree of uncertainty surrounding the assessment of future office requirements. There are potential positive drivers as a result of the South Wales Metro investment enhancing the role of Cardiff as an economic centre and positive growth ambition expressed by Cardiff Council, which includes a number of key office led development schemes. However, the extent to which hybrid and homeworking continues into the medium and long term, the degree to which office spaces will change as a result, and the potential implications of net zero on the replacement rate of offices could all create downward pressure on demand.
- 9.6.2 As a starting point a figure similar to historic development levels would generate a requirement for 270,000 sq m of gross completions across the LDP period. With a 15% flexibility buffer this would suggest requirements of around 312,000 sq m over the LDP period. This is similar to the level resulting from the higher Method 2 scenarios including a 1% per annum replacement rate (280,000 – 320,000 sq m).
- 9.6.3 If there are significant reductions in office floorspace due to hybrid working, this could lead to a net reduction of occupied floorspace by the end of the LDP period⁵³. It is not simple to conclude that this offsets the requirement for all new development, particularly where stock is unfit for purpose. Whilst in these circumstances we would expect to see a net decline in the total occupied office stock in Cardiff, there could continue to be a replacement demand. At 1% of stock per annum this would lead to an ongoing need for 150,000 sq m of new floorspace across the LDP period.
- 9.6.4 If policy and market moves to significantly reduce carbon there is some suggestion this could make refurbishment of offices a more attractive option which might therefore reduce the need for replacement of stock. However, there is limited evidence on which to quantify the scale of this effect and uncertainty as to whether current older stocks are suitable for refurbishment.
- 9.6.5 There is a need for very close monitoring of patterns in the office market over the next five years in particular, to understand how occupiers are adapting. However, the balance of probabilities at the present time would suggest lower volumes of new office space being required over the next 15 years than were developed in the past. The starting point of around 300,000 sq m is therefore likely to be an upper estimate based on current evidence. However, to plan for substantially less than this carries risk to the economy, if, over the LDP period, the patterns of hybrid working unwind and there is a full return to the office.

Industrial and Warehousing

- 9.6.6 Consultation responses suggest that industrial and warehousing development in the future should exceed historic levels as a result of both strong demand expectations and historic constraints on supply (due to both site availability and commercial viability considerations). On this basis provision for at least 20,000 sq m per annum (300,000 sq m across the LDP period) should be made. This would equate to approximately 75 ha of employment sites.
- 9.6.7 However, there are further drivers that would suggest a higher figure might be reasonable. The implications of increasingly tight standards around energy performance of buildings, and changing

⁵³ This range is based on a reduction of 10%-30% of occupied space by 2036.

occupier requirements, particularly in terms of warehousing uses, are expected to drive higher levels of replacement demand than have been experienced in the last 15 years. It is appropriate to take account of this, alongside the strong market sentiment around demand in the sector and the potential constraints on historic activity levels. This could comfortably increase the total requirement towards 130-145 ha over the LDP period.

PART THREE: Analysis and Recommendations

10 Comparing Supply and Demand

- 10.0.1 The previous chapter set out analysis of future requirements. Chapter X set out the review of supply. This chapter considers how these two compare, and what this means for the LDP Review process.

10.1 Future Requirements

Office and R&D

- 10.1.1 When these estimates are considered in the context of stakeholder views, in pre-Covid market conditions there is a general view that future requirements would be at or above historic levels. However, as a result of the changes in working patterns during the pandemic there is now a very high degree of uncertainty as to the scale and nature of change in office demand. Notwithstanding, the majority of risks factors would put downward pressure on the total requirement and may lead to additional supply being released from the existing stock, albeit with some uncertainty as to whether this will be suitable for re-use.
- 10.1.2 On balance, planning for approximately 300,000 sq m of floorspace development appears appropriate, whilst closely monitoring changing trends.

Industrial and Warehouse

- 10.1.3 There is an expectation that future levels of development will exceed historic levels, as a result of both strong demand, and historic constraints on supply. The assessment of requirements suggests provision should be made for at least 300,000 sq m per annum across the LDP period (75ha), whilst acknowledging that with continued strong market sentiment this could be comfortably exceeded.

10.2 Supply Analysis

- 10.2.1 The review of existing employment sites, including an assessment of vacancy, remaining development potential and current committed pipeline provides a picture of the current employment sites and premises portfolio which can be utilised to accommodate future requirements.
- 10.2.2 Analysis of historic completions also allows consideration of the proportion of new B Use Class floorspace that was delivered on previously occupied B Use Class land. This is referred to as 'on-site redevelopment'.
- Monitoring records show that around 50% of office development has been achieved through direct redevelopment. This is dominated (>80%) by the redevelopment of Central Square and Capital Quarter. The supply assessment already takes account of pipeline in Cardiff Bay and the CBA which includes redevelopment opportunities. When historic redevelopment in the Central and Bay areas are removed historic monitoring data suggests around 23,000 sq m of office floorspace has been delivered on previous employment sites, or 9% of total office completions. On this basis an allowance for 25,000 sq m of floorspace to come forward on existing employment sites outside the Central and Bay area is made.
 - Records show 15% of industrial and mixed B development has been achieved through on site redevelopment, this is based on approximately 25,000 sq m of newly completed floorspace.

Applying 15% to the assessed requirement of 300,000 sq m leads to an estimate of 45,000 sq m of new industrial and warehouse floorspace to be achieved through the redevelopment of existing employment sites. In absolute terms this is some 80% higher than has been achieved in the past 15 years, reflecting the increased requirement for industrial and warehouse development. This is a very substantial uplift on past performance and may require focused effort on regeneration and redevelopment of existing employment areas to deliver new floorspace. A modest downgrading of the total level is made, to 37,500 sq m. This figure represents a 50% uplift on past performance.

10.2.3 The current supply position is summarised in Figure 10.2 below. Total supply is made up of the following:

- The potential contribution of existing employment sites to be redeveloped to deliver new employment floorspace;
- Excess vacancy, above the 7.5% threshold;
- Existing pipeline of new floorspace on EC1 sites;
- Identified opportunity sites within existing EC1 employment areas, as yet undeveloped;
- Existing pipeline in the Cardiff Bay and Central Business areas; and
- Potential pipeline within existing strategic sites.

10.2.4 Figure 10.2 shows a far greater supply of office/R&D floorspace than industrial/warehouse. The further capacity at EC1 sites could have some flexibility between uses. However, this would not substantially change the balance of existing supply. The lack of further strategic supply within the industrial and warehousing category, as well as the existing tight market, with no excess vacancy is clearly evident.

Figure 10.2 Summary of Supply (all figures in sq m of floorspace)

Category	Office/R&D	Industrial/Warehouse
On site redevelopment	25,000	37,500
Excess vacancy (EC1 sites)	36,300	-
Existing pipeline (EC1 sites)	14,600	105,800
Further capacity (EC1 sites)	60,200 ⁵⁴	14,500 ⁵⁵
Cardiff Bay and Central Business Areas (pipeline)	116,600	-
Strategic sites (pipeline)	146,800	-
Total	399,500	157,800

10.3 Comparison and Gap Analysis

10.3.1 Figure 10.3 compares the demand and supply figures in quantitative terms. This provides some quite clear conclusions.

⁵⁴ Based on estimated capacity at the following sites: St Mellons Business Park, Cardiff Gate Business Park, Forest Farm and Green Meadow Springs

⁵⁵ Based on estimated capacity at the following sites: Ocean Park, Wentloog Road, Penarth Road Area and Cardiff Business Park and Land North of Maes y Coed Road Llanishen

Figure 10.3 Comparing Demand and Supply (Floorspace, sq m)

	Office/R&D	Industrial/Warehouse
Future Requirement	300,000	300,000
Total Supply	399,500	157,800
Net Position	+99,500	-142,200

Office and R&D

- 10.3.2 In quantitative terms the existing supply of office and R&D floorspace across the range of contributing areas is more than sufficient to meet core requirements.
- 10.3.3 Given that there is a reasonable expectation that additional space will be released to the market there is no need to consider widespread additional provision of office and R&D space within the LDP at this time.
- 10.3.4 The surplus of supply provides for a range of typologies and locations, including substantial provision within the Central Business Area and Cardiff Bay Area, as well as out of town/business park provision. Consultations have not raised significant concerns that there is any substantive qualitative deficits in the existing supply offer across the city.

Industrial/Warehouse

- 10.3.5 Identified supply falls below the lowest estimate of future requirements. Whilst there may be some flexibility in the way in which the potential further capacity of EC1 sites could be utilised (albeit with implications for office/R&D supply) this would still fall well short of the reasoned assessment of 300,000 sq m across the LDP period.
- 10.3.6 This indicates a substantive requirement for additional provision of land for industrial and warehouse needs across the LDP period. This is in the order of 140,000 sq m of floorspace, equivalent to an estimated 35ha in land terms.
- 10.3.7 With such a significant quantitative short fall the qualitative arguments become secondary. However, market sentiment suggests some concerns as to whether existing pipeline supply is appropriate to current market needs in terms of location, access and typology – with particular requirements for units with high eaves heights.
- 10.3.8 Stakeholder consultation has flagged a number of potential areas for consideration in identifying new sites, which are not necessarily mutually exclusive:
- Provision to meet the growth in housing development on the western side of Cardiff;
 - A new strategic scale site to support the next phase of Cardiff's development;
 - A strategically connected site to meet the needs of logistics operators.
- 10.3.9 If additional sites cannot be identified potential options include:
- Seeking to deliver a far higher level of redevelopment and extensive refurbishment of stock within existing employment areas across the city;
 - Exploring the potential for adjusting the development focus of already identified employment sites; and
 - Exploring how unmet needs might be accommodated within the wider city region.

10.4 Short vs Long Term Needs

- 10.4.1 The analysis set out above considers the quantitative balance across the entire LDP Review period. It is also important to consider the potential to meet short term needs. In order to do so, the analysis below considers the potential to meet needs over the first five years of the LDP Review period.

Short Term Requirements

- 10.4.2 Requirements for the period 2021-2026 are based on the same modelling approach as set out for the entire LDP period.

Short Term Supply

- 10.4.3 Short term supply is based on sites with extant consent and vacancy which has been identified as potentially meeting supply requirements.
- 10.4.4 Figure 10.4 indicates that there is a quantitative surplus of short term requirements.
- 10.4.5 The surplus in Office/R&D supply is very comfortable, and likely to be greater than stated given potential of strategic sites to deliver some floorspace if required and the short term demand potentially suppressed due to uncertainties in the office market resulting from the Covid-19 pandemic.
- 10.4.6 The surplus in Industrial and Warehouse supply is potentially more fragile with evidence of strong short term demand and some uncertainty as to whether the available supply is suitable to the nature of short term requirements, with strong demand for logistics type space with high eaves heights.

Figure 10.4 Comparing Short Term Supply and Demand (Floorspace, sq m)

	Office/R&D	Industrial/Warehouse
Short Term Requirement (2021-26)	100,000	100,000
Short Term Supply	167,500+	105,800
Net Position	+67,800	+5,800

Long Term Supply

- 10.4.7 Long term supply is based on allocated sites with no consent in place at the current time. This is not explored in detail as is addressed through the overall position considered above.

11 Conclusions and Recommendations

- 11.0.1 This report has considered evidence to inform the provision of employment sites and premises within the Cardiff LDP Review, to cover the period 2021-36.
- 11.0.2 Cardiff is the capital city of Wales and the hub of the Cardiff Capital Region. It has performed strongly in economic terms over the last 15 years and jobs growth has exceeded the target set out in the current LDP period (pro rata) with approximately 2,500 jobs per annum against a policy ambition of 2,000 jobs per annum.
- 11.0.3 Whilst Cardiff is the largest economic centre in Wales, when compared to ten UK core cities Cardiff is ranked 7th, but has performed in the top three over the last 15 years.
- 11.0.4 On the basis of its role as an economic hub, a capital city and its strong historic performance it is appropriate to plan for its continued growth. Particularly given existing planned infrastructure and other investments into the city and city region.
- 11.0.5 However, it is also important to recognise the start of the LDP Review period has been impacted by the Covid-19 pandemic. This brings with it a backdrop of substantial uncertainty for the short-medium term, in terms of both the performance of the economy, and the future of working patterns and sites and premises use. As a result of the pandemic there has been a rapid increase in home and hybrid working, with uncertainty as to the long term implications for office use in particular. There has also been rapid growth in home delivery and online retail, which has major implications for the demand for industrial and warehousing space, as well as wider implications for town and city centres. At the time of writing the pandemic is not over and there are substantial challenges in making long term predictions with confidence. On this basis it will be vital to ensure substantial flexibility and careful monitoring of both economic and commercial property market behaviour and performance over the next 5-10 years.
- 11.0.6 As part of this assessment it is evident that the employment and economic policies within the current Cardiff LDP have largely performed well in terms of delivering employment growth (KP1), bringing forward new development within the Central Business Area (KP2A) and Maindy Road (EC6) and protecting existing employment sites (EC1 and EC4). However, there has been slower progress in bringing forward other strategic sites (KP2).
- 11.0.7 Overall the office market within the CBA has performed well, providing Grade A space for relocations and expansions within the city. Performance of secondary and out of town office markets has been weaker, with substantial levels of vacancy in some areas at present.
- 11.0.8 Analysis suggests the LDP should provide for approximately 300,000 sqm of office and R&D floorspace. When compared against available supply, there is potentially more than sufficient provision of office capacity within the current stock of vacant premises, confirmed pipeline and strategic allocations. There is also potential for reduced demand, or additional releases from the existing stock if high levels of hybrid working are retained in the medium-long term. There is also potential for higher levels of stock refurbishment in response to the need to reduce carbon emissions.

- 11.0.9 The industrial market has very low rates of vacancy at present, and there is strong levels of reported market demand. It has been stated by stakeholders that limited supply has constrained growth in this sector.
- 11.0.10 Analysis suggests the LDP should also provide for approximately 300,000 sqm of industrial and warehouse space. This is substantially greater than the available supply within the current pipeline and strategic allocations. Whilst some increase in light industrial B1c provision can be delivered through currently identified strategic sites, there is a need to consider where additional B2/B8 provision can be brought forward, particularly in the medium-long term. In quantitative terms an additional 35ha of land may need to be identified to be delivered within the LDP Review period.
- 11.0.11 Stakeholder consultation has flagged a number of potential areas for consideration in identifying new sites, which are not necessarily mutually exclusive:
- Provision to meet the growth in housing development on the western side of Cardiff;
 - A new strategic scale site to support the next phase of Cardiff's development;
 - A strategically connected site to meet the needs of logistics operators.

Appendix 1: List of Consultees

i. The following individuals were interviewed as part of the research to prepare this report. The authors are grateful for their time and insights.

- Simon Baston, Loft-Co
- Gary Carver, Savills
- Neil Francis, Knight Frank
- Natasha Hale, Badwolf
- Mark John, Tramshed Tech
- Rob Ladd, Cushman & Wakefield
- Tom Merrifield, Avison Young
- Rhydian Morris, JLL
- Steve Myers, Rombourne
- Caroline O’Flaherty, Hugh James
- Ian Price, CBI Wales
- Andrew Roberts, Cardiff Parkway
- Nigel Roberts, Cardiff Parkway
- Chris Sutton, Sutton Consulting
- Stephen Widnall, Rightacres
- Nick Williams, Resource

Appendix 2: Site Proformas

- i. Please see separate volume

Appendix 3: Baseline Economic Forecasts

- i. Please see separate MS Excel sheet

Appendix 4: Future Requirements Methodology Assumptions

- i. This appendix provides further technical information to support the analysis contained within chapter 9 of the main report.

Floorspace Per Worker

- ii. Best practice guidance on employment densities uses a mix of net internal area (NIA), gross internal area (GIA) and gross external area (GEA). To convert NIA to GIA a 15% uplift is provided, to convert GIA to GEA a +5% uplift is made.
- iii. The table below sets out further details on assumptions in respect of average floorspace per worker primarily based on *Homes and Communities Agency (2015) Employment Density Guide, 3rd Edition*.

Figure A4.2 Floorspace per worker assumptions

Historic Use Class	Assumption
B1a Offices	The Employment Densities Guide (2015) provides estimates for a range of office functions ranging from 8–13 sq m per FTE (NIA). The higher end of this range relates to Corporate HQ and the lower end relates to call centres. Financial Services, Public Sector and Professional Services fall within the 10–12 sq m range. The Occupier Density Study (2013) indicates an average density of 10.9 sq m for the UK. After applying uplifts to estimate Gross External Area (GEA), the utilised assumption is 13.5 sq m per FTE.
B1b R&D	The most recent (2015) best practice guidance sets out a range of 40–60 sq m (NIA) for R&D B1b premises. The midpoint of this range has been adopted and uplifted to convert to GEA. A figure of 61.9 sq m per FTE has been used within the analysis.
B1c Light Industry	The most recent (2015) best practice guidance indicates a figure for B1(c) light industry at 47 sq m per FTE (NIA). Allowances are made to align to GEA with a final assumption of 58.2 sq m per FTE (GEA).
B2 General Industry	B2 General is estimated at 36 sq m per FTE (GIA). Allowances are made to align to GEA (+5%) with a final assumption of 37.9 sq m per FTE (GEA).
B8 Storage & Distribution	Latest available estimates suggest a range of 70 – 95 sq m per FTE. 70 sq m per employee (GEA) for ‘final mile’ distribution centres and 95 sq m per employee (GEA) for national distribution centres. There is the potential for a mix of both and 80 sq m per FTE has been adopted for this analysis.

SIC Use Class Matrix

- iv. The proportion of employment in each category in this matrix is based upon the share of reported employment as recorded by the Business Register and Employment Survey (BRES) in different activities. This approach was applied to each of the sub-sectors in turn and with analysis going down to Standard Industrial Classification 2007 (SIC07) class level (i.e. four digit). The matrix therefore reflects the current structure of the Cardiff economy in detail.

Figure A4.1: SIC-Use Class Matrix

	A1	A2	A3-5	B1a	B1b	B1c	B2	B8	C1	C2	C3	D1	D2	SG	None & Homeworking
AB: PRIMARY INDUSTRIES	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
C: MANUFACTURING	0%	0%	0%	0%	0%	1%	90%	0%	0%	0%	0%	0%	0%	0%	9%
DE: UTILITIES	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	93%	7%
F: CONSTRUCTION	0%	0%	0%	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	94%
G: WHOLESALE	2%	0%	0%	1%	0%	0%	0%	60%	0%	0%	0%	0%	0%	31%	6%
G: RETAIL	91%	0%	0%	0%	0%	0%	0%	3%	0%	0%	0%	0%	0%	1%	6%
H: TRANSPORTATION & STORAGE	0%	0%	0%	17%	0%	0%	0%	12%	0%	0%	0%	0%	0%	2%	69%
I: ACCOMMODATION AND FOOD SERVICES ACTIVITIES	8%	0%	64%	0%	0%	1%	0%	0%	14%	0%	0%	0%	0%	0%	13%
J: INFORMATION AND COMMUNICATION	0%	0%	0%	41%	25%	0%	0%	1%	0%	0%	0%	0%	0%	0%	33%
K: FINANCIAL AND INSURANCE ACTIVITIES	0%	22%	0%	71%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7%
L: REAL ESTATE ACTIVITIES	0%	21%	0%	66%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	13%
M: PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES	0%	5%	0%	71%	7%	0%	0%	0%	0%	0%	0%	0%	0%	2%	15%
N: ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES	8%	0%	4%	30%	0%	0%	4%	4%	2%	8%	1%	5%	2%	6%	26%
O: PUBLIC ADMINISTRATION AND DEFENCE	0%	0%	0%	84%	0%	0%	0%	0%	0%	0%	0%	12%	0%	0%	4%
P: EDUCATION	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	95%	0%	0%	5%
Q: HUMAN HEALTH AND SOCIAL WORK ACTIVITIES	0%	0%	0%	9%	0%	0%	0%	0%	0%	60%	0%	26%	0%	0%	5%
R: ARTS, ENTERTAINMENT AND RECREATION	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	9%	39%	40%	12%
S: OTHER SERVICE ACTIVITIES	31%	0%	0%	39%	0%	0%	0%	0%	0%	0%	0%	8%	0%	7%	15%
Total	11%	2%	5%	25%	2%	0%	4%	3%	1%	9%	0%	15%	1%	6%	16%

Appendix 5: Historic Employment Land Monitoring

- i. See separate MS Excel sheet

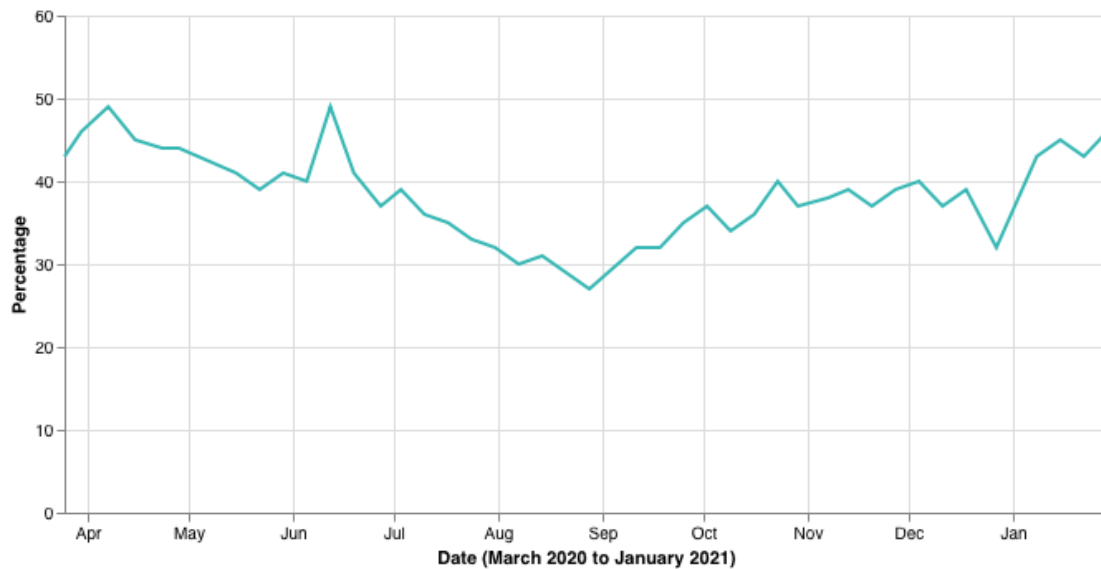
Appendix 6: Impact of Covid-19 Pandemic on Working Practices and Remote Working

- i. This appendix reviews the literature on the impact remote working (home and hybrid) may have on the demand for commercial and industrial employment sites and premises.
- ii. This paper considers the following areas:
 - The scale and reach of remote working across sectors and activities during the pandemic;
 - The long-term scale and reach of remote working across sectors and activities;
 - The impact remote working will have on employment densities; and
 - The impact remote working will have on the choice of employment sites.
- iii. The heightened level of remote work during the pandemic is expected to have a lasting impact on the amount of workers in the office at any given time. A range of estimates of the reduction in the number of workers have been made from 10% upwards.
- iv. While many businesses are beginning to re-evaluate the amount of space they require, most put the reduction of space in the bracket of between 10-15%, which according to Deloitte's London Crane Survey represents a 'modest rather than seismic' shift in demand.
- v. Any reduction in the number of workers in the office is also likely to be offset by the growth of lower density office spaces, with greater collaboration spaces and breakout rooms, which will become particularly important to encourage workers back to the office.
- vi. However, lowering densities and maintaining office space may be a luxury not available to all businesses and the degree to which businesses maintain a site will depend on a variety of factors including cost.
- vii. There are suggestions that businesses are beginning to look beyond the city-centre to a 'hub and spoke' system, which places an office or a microcosm of an office closer to the places where people live.
- viii. Overall it is too early to draw firm conclusions, and the full effects will not be evident until we are out of the pandemic and the decision making cycles (including working practices, financial viability and lease renewals) has completed.

The scale and reach of remote work across sectors and activities during Covid-19

- ix. Remote working during the 2021 winter lockdown reached a peak of approximately 45% of the workforce (see Figure 1).ⁱ

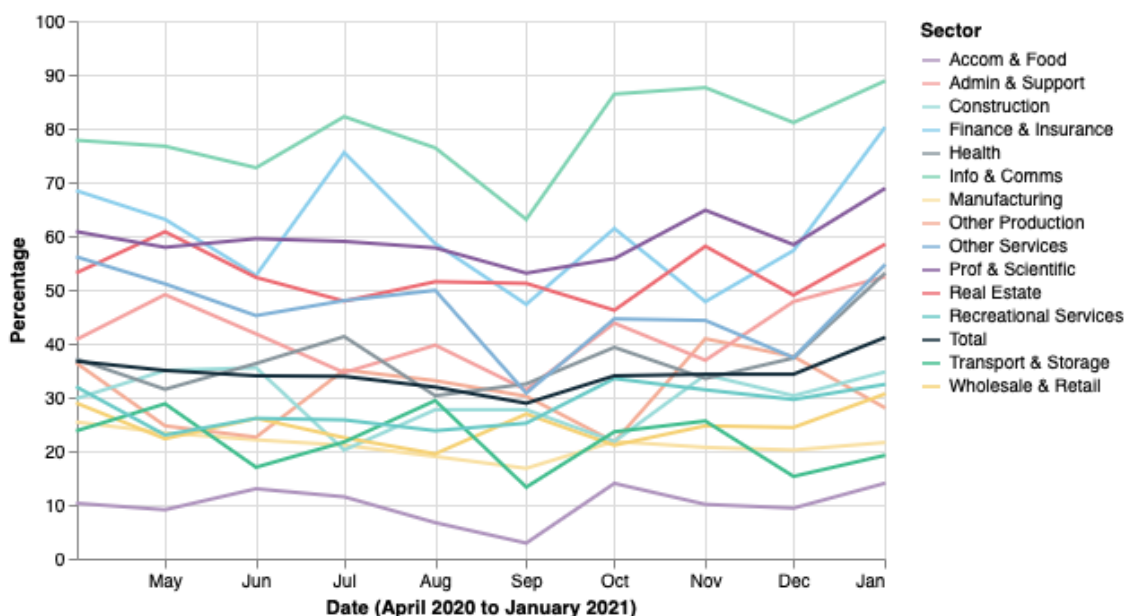
Figure 1: Percentage of working adults that are working from home



Source: ONS, via Economics Observatory

- x. Variation in the uptake of remote work varied significantly by sector during the pandemic. Figure 2 shows data from the Bank of England's Decision Maker Panel (DMP) survey from April 2020 to January 2021. This shows very high rates of home working in sectors such as information and communications, finance and insurance, and professional and scientific; but much lower rates within accommodation and food, transport and storage, and manufacturing.

Figure 2: Percentage of employees continuing to work from home across sectors



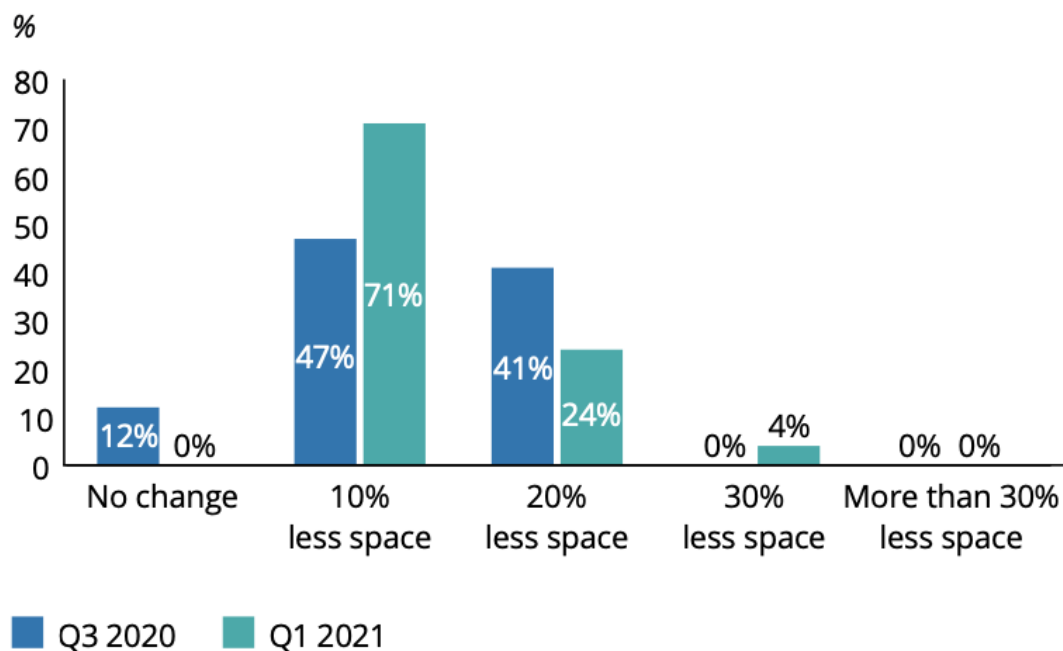
Source: Economics Observatory, using DMP Survey Data.

- xi. This highlights there is a wide variability by sector and it cannot be assumed that all job roles can be completed either partially or entirely at home. The impacts have been far greater within office based sectors.

The long-term scale and reach of remote working

- xii. It is not expected that the level of homeworking, which took place at the peak of the pandemic and lockdowns will continue. The Financial Times has reported a ‘common estimate’ of a reduction in the number of people in London offices on a daily basis to be 10 per cent, with those not in the office either working from home or working remotely.ⁱⁱ Given the differing policy environments between Wales and England, this figure may be greater in Wales than in England given the Welsh Government’s continued support for homeworking to prevent the spread of Covid-19 and to support a long-term adjustment toward greater levels of working at home or close to home. While there may be some variation, 10% remains a good minimum estimate of the reduction of workers in the office each day in Cardiff.
- xiii. The effects this reduction in day-to-day office occupancy on floorspace requirements has been described as a modest rather than a seismic shift in demand. In London, Deloitte’s *London Office Crane Survey* (2021) estimates the reduction of office-space demand to be on average 10-15% square footage.ⁱⁱⁱ Deloitte’s *Regional Crane Survey* (2021) also indicates that this is national rather than a London-centred development.
- xiv. The Crane Survey asked respondents on two separate dates ‘what impact will home-working have on the amount of office space tenants will be taking in the long-term?’ As Figure 3 shows, the majority of respondents are clustered between 10 and 20%.

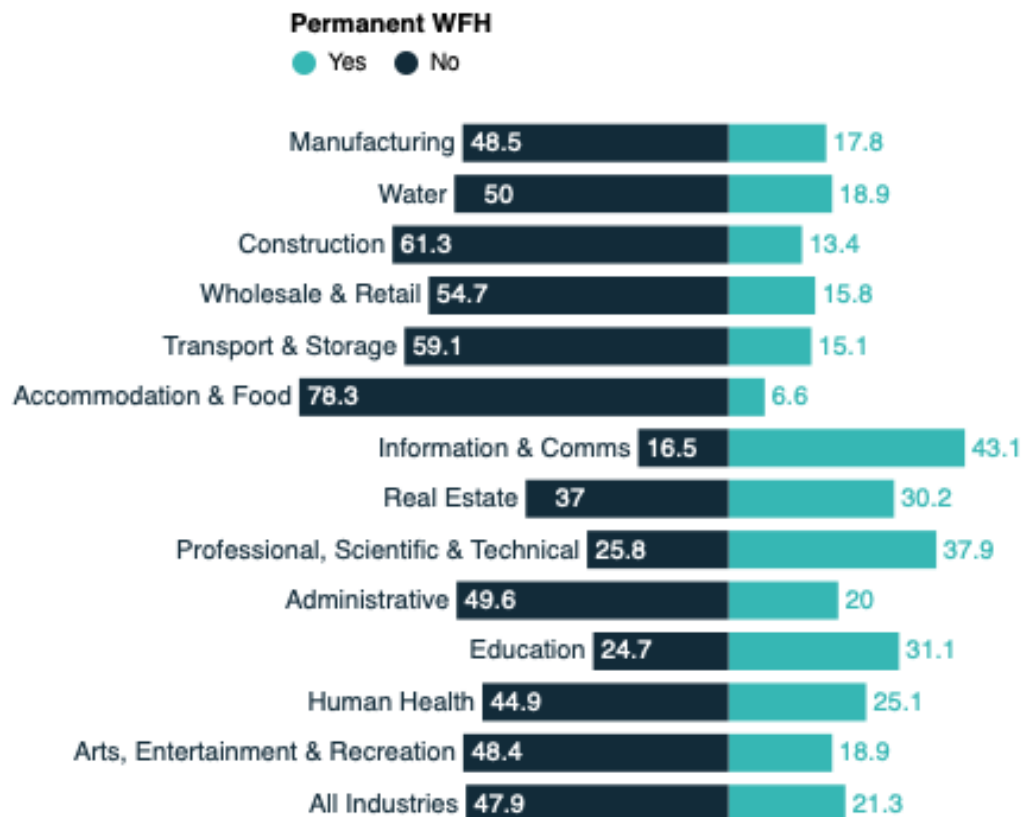
Figure 3: Landlord survey: ‘What impact will homeworking have on the amount of office space tenants will be taking in the long-term?’



Source: Deloitte, London Office Crane Survey (2021).

- xv. Jonathan Haskell and the Economics Observatory (April 2021) have also shown using ONS Survey data that overall, the majority of businesses *do not* intend to use remote working as a permanent feature in their business model.^{iv} However, there is again wide sectoral variation and a significant proportion do expect a permanent change.
- xvi. The survey asks, ‘Does your business intend to use increased home-working as a permanent business model going forward?’ An average of the results from each iteration of the survey up to the point of publication are taken in the analysis and have been reprinted here as Figure 4. This shows the answers of each sector, expressed as a percentage. The percentage of those replying ‘no’ outweighs those responding ‘yes’ in every sector except Information and Communications, Education and Professional, Scientific and Technical Occupations. 43% responded saying they would make home-working a permanent feature in their business model in Information and Communications industry, 31% in Education and 40% in Professional, Scientific and Technical. Accommodation and Food services had the highest percentage of respondents saying they would not make home-working a permanent feature in their business model at 78%, while Arts, Entertainment & Recreation, Administrative, Transport & Storage, Manufacturing all have a response rate of close to 50% saying they would not make homeworking a permanent feature. The survey does not include the finance and insurance sector but this is one we might expect also to consider maintaining homeworking in the future.

Figure 4: Percentage of businesses intending to use increased home-working as a permanent feature in their business model going forward.



Source: Economics Observatory, using ONS BICS Survey Data.

- xvii. The implications for office demand should not be understated at this point. While the majority (as shown in the bottom bar of Figure 4) do not intend to use increased home-working as a permanent feature, there remains a proportion that do. This is important for office-demand given that those sectors which have a higher percentage of office-using employment^v (ICT, Professional, Scientific and Technical) are those which have a greater number of respondents intending to use increased home-working as a permanent feature in their business model. Thus, a small rise in remote working in these sectors will have a proportionately high negative impact on demand for office space.
- xviii. The variation of results - with at least *some* businesses intending to use homeworking as a more permanent feature - suggests that anecdotal evidence of companies making widespread changes to working practices will be expected, but may not be indicative of wider trends.
- xix. Further, while it will be less common in some sectors for remote work to become permanent (sectors such as construction and transport require a majority of the workforce to be at a physical site), any increases in remote work from these sectors will likely come from office-based work.
- xx. These figures are not static and the level of remote work taking place will be subject to change as time goes on and perceptions of productivity gains or losses from remote working become more apparent.
- xxi. According to the Economics Observatory analysis, there is a high-degree of correlation between perceived productivity and the degree to which each sector answered 'yes' to making home-working a permanent feature. This is important for measuring the long term impact remote work will have on the demand for office space because if *perceptions* of productivity begin to change, either in the positive or the negative, this will have implications for the amount of remote work that will be done remotely, which in turn will determine the amount of office space required. This is not to say that productivity is itself the only factor driving heightened levels of home-working – in fact, many other considerations including the type of activity being performed^{vi}, organisational culture and norms, and technological availability will all play their role – but rather to note that these numbers are subject to change as time goes on.
- xxii. Any changes which do take place, however, will be slowed down by the duration with which businesses are locked-in to their office leases, which can often run for ten years or even longer and with expensive termination fees. In addition, many businesses are yet to decide which working practices best help to achieve business goals, which will further hinder any changes to demand. This means that only those firms with upcoming lease renewals or break clauses or those that have decided which working practices can work best will be able to implement office reduction quickly.
- xxiii. Looking further into the future, if remote working begins to drive down the demand for office space and, in turn, office rents, there is the potential that new occupiers – particularly those that had previously been priced out from renting office space - will take up the opportunity of renting an office space thus maintaining the same quantity of demand, which existed prior to the remote working exodus. However, this will depend on the commercial viability of landlords maintaining offices at lower rents and whether the building can be repurposed to meet other needs. The redevelopment of offices in to houses to meet the housing shortage, has been touted as one possible long-term scenario. A major example of this is already taking place in Central London as

Canary Wharf Group, scrap plans for a 1m sqft office space and replace it with a 60-storey apartment tower.^{vii}

The impact of remote working on employment densities

- xxiv. An emerging question which is linked to the scale and impact of home-working, is whether increased home-working is beginning to change office floorspace density. According to Deloitte's *London Office Crane Survey* (2021), most developers argue that the reduction in office occupation due to remote working is likely to be offset by growing requirements of tenants for lower density occupation, less hot desking and more collaborative space.^{viii} These findings are replicated in Deloitte's *Regional Crane Surveys* (2021), indicating that the trend of lower density office occupation and retainment of total floorspace demand will be reflected nationwide.
- xxv. While some sectors may see a decline in the number of workers in the office at any given time, the amount of office space required is expected to remain the same, in order to facilitate group-meetings and collaboration when workers are in the office. Workers need a reason to come to the office if they are to commute, and heightened collaboration is one justification. While offices may become less occupied on a day-to-day basis, total floorspace requirements may remain the same.
- xxvi. One important caveat however is that if offices are becoming less dense, this will not change uniformly across the office market. The amount of floorspace required by each worker will vary according to occupation, sector, business culture and business size.
- xxvii. According to NESTA (2021), one likely post-pandemic scenario for remote working may be high-paid knowledge workers continuing to work in cities, while a greater proportion lower paid work is undertaken remotely. The report continues, *"firms saw the cost saving possibilities that remote working offered them and as a result decided to eschew office working for much of their staff. The key exception were elite workers like CEOs, executive teams, and high skilled workers for whom face-to-face interaction was deemed essential."*^{ix}
- xxviii. The trend of lowering densities is also unbalanced with regard to high and low-value office space. While high-value businesses will continue to demand office space to support their corporate brand and images, it is uncertain whether the same level of investment will be placed in to lower-grade office spaces with lower rents and where smaller grid sizes make it difficult to renovate. According to the FT, it is likely many of these will 'empty out and have to be refitted or repurposed'.^x
- xxix. Finally, for remote working to lead to a lowering of density and a concurrent maintenance of space it will need to make financial sense for occupiers. The last 25 years has seen offices becoming more dense in order to make them more economically viable.^{xi} For remote working to reverse this trend, and for offices to maintain high levels of space despite fewer workers in the office on a day-to-day basis, it will need to be financially viable for businesses. If it is not, lower density occupation may become a luxury not available to all and businesses may prefer to downsize by some proportion, while maintaining some form of collaboration space.

The impact on location of new builds

- xxx. The impact of home and remote working is also impacting the conversation around where we are likely to see new office spaces being developed. An emerging model of office development is that of the 'hub and spoke' system, whereby businesses retain a city centre presence (i.e. the hub), while also utilising regional and local office 'spokes', which could include out-of-town co-working

workspaces.^{xii} The model has been promoted by Deloitte and KPMG and has received some media attention.^{xiii}

- xxxi. Many public sector organisations have already begun moving toward this model. HMRC has dispersed its workforce in to 170 offices, across 13 regions^{xiv}, while the Welsh Government has also favoured employment sites closer to residential areas by funding alternative office locations around Wales.^{xv}
- xxxii. This model is also likely to benefit from being more environmentally-friendly and compatible with the political and cultural shift toward a decarbonised economy. The hub and spokes model of office space will reduce the amount of travel required to a central location by bringing offices closer to the places where people live thereby reducing pollution. This increased densification of areas, bringing residential and employment sites closer is one of the main reasons the model has been favoured by the Welsh Government.^{xvi}

Conclusions

- xxxiii. Whilst still in the midst of the pandemic and various restrictions it is too early to draw firm conclusions. However, the evidence points to clear sectoral differences. The greatest effects of remote working are anticipated to fall within the office sector. However, the scale of such changes are uncertain. Whilst increased home and hybrid working is anticipated, the effects of this could be offset by changes in the density of occupation. There may be spatial effects with a move to hub and spoke models, which also aligns to the sustainable travel agenda. However, key factors of financial viability and lease flexibility will be critical to the speed at which any adaptations take place.
- xxxiv. Given that it is too early to draw firm conclusions it will be important to monitor activity, particularly in the office sector over the coming months and years to understand the medium and long term impacts on the demand for sites and premises.

ⁱ <https://www.economicsobservatory.com/what-is-the-future-of-working-from-home>

ⁱⁱ <https://www.ft.com/content/d6b8d468-e339-497d-b165-0de10bcddcae>

ⁱⁱⁱ <https://www2.deloitte.com/uk/en/pages/real-estate/articles/crane-survey.html>

^{iv} <https://www.economicsobservatory.com/what-is-the-future-of-working-from-home>

^v <https://www.jll.co.uk/content/dam/jll-com/documents/pdf/research/jll-future-of-office-demand.pdf>

^{vi} <https://www.adn.com/opinions/national-opinions/2021/09/25/you-may-get-more-work-done-at-home-but-you-d-have-better-ideas-at-the-office/>

^{vii} <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/real-estate/deloitte-uk-london-office-crane-survey-summer-2021.pdf>

^{viii} <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/real-estate/deloitte-uk-london-office-crane-survey-summer-2021.pdf> ; https://research.bco.org.uk/resources/clients/3/user/resource_1023.pdf

^{ix} <https://www.nesta.org.uk/blog/four-scenarios-future-remote-working/>

^x <https://www.ft.com/content/d6b8d468-e339-497d-b165-0de10bcddcae>

^{xi} <https://www.bco.org.uk/Research/Publications/Theme/working-practices.aspx>

^{xii} <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/real-estate/deloitte-uk-london-office-crane-survey-summer-2021.pdf>

^{xiii} <https://www.fastcompany.com/90545418/see-the-unusual-new-office-design-that-deloitte-and-kpmg-are-exploring>

^{xiv} https://research.bco.org.uk/resources/clients/3/user/resource_948.pdf

^{xv} <https://gov.wales/remote-working-locations-confirmed-across-wales>

^{xvi} <https://gov.wales/remote-working-locations-confirmed-across-wales>