

**Paper 4: Economic
Development Needs Assessment**
Greater Manchester Spatial Framework:
Strategic Options Consultation

Representation by The Peel Group

January 2016

Turley

Contents

Executive Summary	1
1. Introduction	4
2. Summary Response	6
3. Forecasting Economic Growth	16
4. Analysis of Land Requirements	25
5. Conclusion: Continued Failure to Plan for Growth	33
Appendix 1: The economics of the Greater Manchester Spatial Framework by Frontier Economics	35
Appendix 2: Frontier Economics Public Policy Brochure	36

Client

The Peel Group

Our reference

PEEM2087

11 January 2016

Executive Summary

1. This report responds to the Economic Development Needs Assessment which supports the Greater Manchester Spatial Framework (GMSF) Strategic Options Consultation (the Consultation Document). It provides a critique of the assumptions and analysis within the EDNA. It is informed by an independent review of the Consultation Document and its supporting evidence by Frontier Economics – one of Europe’s largest economic consultancies.

Outline of Main Representations

2. The GMSF vision is strong and Peel supports an ambitious plan for the growth of Greater Manchester. However, this vision is not captured within the assessment of the economic development needs of Greater Manchester within Background Paper 2. Our analysis has highlighted the following concerns in respect of the EDNA.

Under-estimating Greater Manchester’s economic potential

3. The EDNA continues to pay lip-service to the full economic potential of Greater Manchester.
4. The economic forecasts developed are overly reliant on past economic performance and for reasons which are not fully explained or justified omit proper consideration of ‘game changer’ investment associated with the Northern Powerhouse. Similarly, the competitive advantages of Greater Manchester are not fully reflected in the economic forecasts which have been developed in the EDNA.
5. Independent economic analysis undertaken by Frontier Economics on behalf of Peel demonstrates that Greater Manchester has stronger economic growth potential than the GMSF is planning for. Greater Manchester has significant levels of investment planned which constitute a step change with the past. It also has many of the attributes of “agglomeration economies” that drive high levels of growth in competitive global cities. Despite these apparent competitive advantages the GMSF is underpinned by assumptions which run the risk of constraining the labour force and employment levels. This is inconsistent with the ambition stated in the GMSF.

Constraining city growth

6. Planning for only a baseline level of economic growth belies a misunderstanding of the ways in which cities grow and assuming a near zero level of migration underplays Greater Manchester’s economic growth potential. Planning policy conceived under these assumptions will actively constrain growth.

Failing to meet objectively assessed needs

7. These flaws in the approach taken to developing the GMSF evidence base have significant and negative implications for the objective assessment of need for housing, the calculation of employment land and floorspace requirements and, over the longer term, the competitiveness of businesses seeking to recruit and locate in Greater Manchester.

8. The Consultation Document purports to have developed a suite of Accelerated Growth Scenarios but fundamentally mis-represents the process by which the claimed Accelerated Growth Scenarios have been developed. Peel objects to the input of trend-based population projections and labour-force adjustments as the main determinants of Greater Manchester's economic growth potential. There are many factors which determine the growth of city economies and the exclusive reliance on population and labour-force factors is not a robust basis for constructing economic forecasts.

Balancing in employment and housing needs

9. The work undertaken to calculate employment floorspace requirements and to balance these against land supply is lacking in detail, consistency and transparency. The supply side analysis has not been audited for the quality or consistency of informing data and therefore cannot be considered reliable for the purposes of plan making. This gives little reassurance that the needs of businesses will be met by the GMSF over the plan period.

Masking growth potential

10. The EDNA treats industrial and warehousing needs as interchangeable in the need calculation. The requirements of occupiers in industrial sectors and logistics are diverse and distinct and the blending of the need carries the risk of masking such specific needs and failing to make appropriate provision to meet their full needs in the GMSF.
11. This limitation is particularly important given the divergent economic forecasts for industrial and logistics related sectors and the fact that the former produces negative floorspace requirements over the plan period while the latter produces a positive requirement. The EDNA takes the approach of offsetting the negative with the positive – effectively blending industrial and warehousing needs. Such an approach effectively assumes that logistics related floorspace and land requirements can be met (or offset) by the contraction of industrial operations and the release of land and premises for logistics use. This approach is flawed and fails to reflect market realities or the distinct needs of occupiers.

Flawed supply side analysis

12. The paucity of site supply analysis means that it is not possible to assess the extent to which existing industrial supply is located and configured to appeal to the future requirements of the logistics sector.
13. We are concerned that the application of plot ratio assumptions for office floorspace that are generally reflective of high density and city centre office typologies may lead to an under-estimate of office floorspace requirements to accommodate the growth potential of office related sectors of the economy. The EDNA's office floorspace calculation is predicated on accommodating all growth in office need in one type of office development. We suggest that this is not reflective of the full range of office environments including the particular requirements of the out of town market, business parks and research and development focused office spaces.
14. The analysis of floorspace requirements omits consideration of losses from supply and also applies questionable assumptions relating to the distribution of needs to local authority districts.

Gaps in evidence

15. For the above reasons Peel does not consider the EDNA to provide a sufficient or sound evidential basis for planning to meet economic development needs in Greater Manchester. The identified gaps and flaws in the evidence must be addressed before the GMSF proceeds to the next stage of plan preparation.

1. Introduction

1.1 This report is part of a suite of documents which comprises The Peel Group's ("Peel") response to the "Strategic Options Consultation" (hereafter referred to as the "Consultation Document")^[1] and accompanying background papers published by AGMA and the GMCA in respect of the emerging Greater Manchester Spatial Framework (GMSF).

1.2 Peel's response to the consultation comprises the following documents:

- Paper 1: Summary of Representations
- Paper 2: Response to the Consultation Questions
- Paper 3: Identifying the Area of Assessment
- Paper 4: Economic Development Needs Assessment
- Paper 5: A Critique of the Objectively Assessed Need for Housing
- Paper 6: A Critique of the Housing Land Supply Position

1.3 This paper responds to the published 'Economic Development Needs Assessment' (EDNA) which is Background Paper 2 to the GMSF Strategic Options consultation. The structure of this document is as follows:

- **Summary response** – providing a summary of key conclusions in relation to the functional economic market area, strategic growth opportunities, net change in floorspace, market signals, site characteristics and spatial distribution of activity;
- **Forecasting Economic Growth** – a critique of the economic evidence used by Greater Manchester informed by independent work by Frontier Economics;
- **Analysis of Land Requirements** – a full review of the methodology used to estimate net employment floorspace and land requirements; and
- **Conclusions**

Frontier Economics were instructed by Peel to provide an objective and impartial review of the economics behind the GMSF Strategic Options consultation. The conclusions of this review have informed the content of this paper and are provided in full at Appendix 1. Frontier Economics is one of the largest economic consultancies in Europe. The company is chaired by Lord Gus O'Donnell, the former Head of the Civil Service who, in his role as Cabinet Secretary served under three Prime Ministers. The UK office of Frontier is based in London and advises governments, public and voluntary private sector bodies and businesses on a range of policy topics including economic growth and

^[1] *Greater Manchester Spatial Framework: Strategic Options Consultation*, AGMA and GMCA (November 2015)

productivity, migration and labour markets. A brochure explaining Frontier Economics' Public Policy Practice is enclosed at Appendix 2.

2. Summary Response

- 2.1 In this section a summary of Peel's responses and observations on the content of each part of the EDNA is provided. This is set out in summary form, focusing on the main areas which need clarification, additional assessment or correction.

Functional Economic Market Areas

- 2.2 An appropriate range of indicators relating to the definition of functional economic market areas are examined in section 2 of the EDNA including migration, commuting/travel to work and retail catchments among other factors. We have prepared a specific response to the housing market areas of assessment (see our Paper 3 for full details) which concludes that there are at least four housing market areas operating. In Paper 3 we conclude that for the purposes of distributing housing requirements it is appropriate to have regard to local authority administrative areas, while recognising adjacencies and localised relationships across boundaries that represent household choices and preferences.
- 2.3 The conclusion of the functional economic market areas analysis is that Greater Manchester as a whole exhibits high levels of self-containment in terms of migration and commuting. It is also noted that Greater Manchester is an important administrative unit with a Combined Authority and coterminous Local Enterprise Partnership. We do not disagree with these headline findings but do differ in relation to the subsequent interpretation of the findings.
- 2.4 At paragraph 2.27 it is concluded that,
- “The complex functioning of housing and labour markets within Greater Manchester means that there is no simple way of subdividing the sub-region into identifiable housing market areas or functional economic areas. Any boundaries would essentially be arbitrary [...]”*
- 2.5 We disagree with the above finding in relation to housing markets for the reasons fully set out in Paper 3. In relation to the functional economic area, there is some merit in thinking about Greater Manchester as a functional economic area given its' LEP arrangements, while noting that the functional economic area may differ from housing market areas due to different defining characteristics.
- 2.6 We agree that for the purposes of estimating and providing in full for the economic development needs of Greater Manchester for most forms of development, that the district level remains the most appropriate unit of analysis, however strategic consideration should be given to the ability of Greater Manchester as a whole to meet the land and floorspace requirements arising from its full economic potential.
- 2.7 Typical occupier site and location requirements, overlaid to district boundaries are an important further consideration in the development of a spatial appreciation of employment land needs. We note that some consideration is given to occupier requirements in Section 7 of the EDNA which is to be welcomed, however it is not

apparent that this intelligence has in any way been used to assess the distribution of site supply (other than the broad locations identified at paragraph 7.17 onward).

- 2.8 We note that the section of Background Paper 2 entitled “Distribution of housing and employment floorspace requirements” and the proceeding paragraphs 2.28 to 2.31 focus exclusively on housing distribution matters. The omission of consideration of the implications for distribution of employment floorspace should be addressed in further developing the GMSF.

Strategic Growth Opportunities

- 2.9 There is an explicit recognition at paragraph 3.1 of the fact that major economic initiatives and investments will exert a “strong” influence on Greater Manchester operating in the context of its wider economic area. The section of the EDNA on Strategic Growth Opportunities then goes on to provide a light touch and contextual analysis of the initiatives and investments which it purports will exert a strong influence on Greater Manchester’s economic prospects.
- 2.10 These include: the Northern Powerhouse (see Section 3 of this report for a full analysis of the impact of this initiative); the North West Economic Plan; High Speed 2; the Panama Canal Widening; the motorway network and strengthened links with surrounding areas. Each of these initiatives and investments is significant in its own right and cumulatively the impact of such factors will serve to boost Greater Manchester economic growth prospects over the plan period.
- 2.11 Despite the apparent importance of the identified initiatives and investments (each of which has the potential to be a “game changer”) on Greater Manchester’s economy, and therefore the acknowledged influence that they will have on estimating economic development needs, the report confines its consideration to commentary. No attempt is made to articulate or analyse the additional economic impact of such initiatives on Greater Manchester’s economy. They remain as ephemeral and contextual considerations. The potential future impact of “game changer” investments is not adequately incorporated into the economic forecasts on which the Consultation Document draws.
- 2.12 The EDNA then presents compelling evidence at paragraphs 3.27 to 3.36 of the competitive advantages of Greater Manchester including, but not limited to its’ scale, economy, devolution deal and a range of investment project and sector specific strengths – often regarded as “agglomeration effects”. Again, these apparent competitive advantages are presented in a detached, academic way with no follow on analysis of what they mean (either individually or collectively) for Greater Manchester’s future growth prospects above a “business as usual” outlook for the future.
- 2.13 This failure to acknowledge or attempt to take account of the known investment context or competitive advantages of Greater Manchester is manifest in the next section of the EDNA entitled “Projections and Forecasts”. This failure is a major limitation in the evidence base which has been assembled to date to support the GMSF.

Economic Forecasts

- 2.14 Section 3 of this report provides a full review and critique of economic forecasts used in the EDNA and has been informed by independent analysis conducted by Frontier Economics on behalf of Peel (see Appendix 1).
- 2.15 We have concerns about the misrepresentative labelling of “Accelerated Growth Scenarios” and the over reliance on population inputs to generate different economic growth scenarios.
- 2.16 At paragraph 4.14 we note the statement that economic forecasts do not make any allowances for “game changer” projects and investments. We understand this statement to be true, based on our knowledge of the economic forecasts utilised by Greater Manchester in the EDNA. We understand that Greater Manchester uses economic forecasts that feed past trends into the forecasts. They do not specifically take account of any new or additional “game changer” projects and investments.
- 2.17 We disagree with the assertion that no account should be taken of “game changer” projects and investments for the reasons stated at paragraphs 4.14 to 4.16 of the EDNA, notably the statement that past trends will reflect such developments. They would not be “game changers” if they simply represented a continuation of past trends. Neither would this approach be consistent with the Government’s commitment that *“rather than forecasting the future from current trends we aim to change that future”*¹.
- 2.18 The projects and investments that are set out in section 3 of the EDNA are different in scale and nature to investments that pre-dated them and that are to some extent reflected in the forecasts. Analysis by Frontier Economics has highlighted that investment in transport infrastructure in the North West is anticipated to increase by 70% to £1.7 billion per annum over coming years². In this context it is important to note that the objectives of Northern Powerhouse include to *“transform”* the economy of the North and see cities such as Manchester *“performing to its’ maximum”*³. It is clear that Government has a high level of commitment to a number of ‘game changing’ projects several of which are underway. A failure to account for this investment runs the significant risk of underplaying Greater Manchester’s likely economic growth trajectory.
- 2.19 It is illogical to assert that “game changer” projects and investments will in some way manifest in the reoccurrence of past trends. By definition they will redefine and enhance the economic performance of Greater Manchester in the future and as such, the sum total of three paragraphs consideration in the EDNA to the matter (paragraphs 4.14 to 4.16) is wholly inappropriate and inadequate. This limitation in the analysis is even more apparent given that the whole of Section 3 of the EDNA is devoted to articulating the importance of game changers and sources of competitive advantage.

¹ Northern Powerhouse: One Agenda; One Economy; One North. HM Government and Transport for the North. July 2015. Page 3

² See Appendix 1 section 4.1.

³ Northern Powerhouse: One Agenda; One Economy; One North. HM Government and Transport for the North. July 2015. Page 4.

- 2.20 It is notable that, having dismissed the potential for game changers to yield additional economic growth, the concluding paragraph of the section (paragraph 4.8) includes the following statement:

"[...] the forecasts provide a starting point for considering the scale and nature of economic growth, rather than a definitive picture of Greater Manchester's future."

- 2.21 This statement appears to contradict those at paragraphs 4.14 to 4.16 of the EDNA and suggest that proper consideration needs to be given to the factors, over and above the starting point forecasts, that have the potential to create additional economic growth. No such analysis is included in the EDNA and we consider this to be an important omission.

Distribution of Future Employment Growth

- 2.22 The failure to consider the implications of 'game-changing' employment opportunities also contributes to a lack of clear justification as to the spatial distribution of employment growth opportunities across Greater Manchester.
- 2.23 Whilst it is acknowledged that Greater Manchester represents an appropriate Functional Economic Market Area (FEMA) the distribution of employment growth will have a fundamental implication for labour requirements. This in turn will have implications for the demand for housing within housing market areas.
- 2.24 Background Paper 2 references the spatial distribution of employment growth forecast within the 2014 GMFM as providing a broad indication of the distribution of higher growth associated with the Accelerated Growth scenarios.
- 2.25 The application of this approach suggests particularly strong job growth in Bolton, Manchester, Salford, Stockport and Trafford. As recognised within Background Paper 2 this concentration of job growth aligns with the anticipated significant growth generators including for example the city centre and key employment locations/sites. This distribution has therefore been used, in the absence of a more sophisticated evidence based assessment, to inform the POPGROUP modelling undertaken by Edge Analytics and presented in Paper 5.
- 2.26 It is imperative, however, that GM provides a fuller evidence based consideration of the spatial distribution of job growth given its significance in underpinning an understanding of housing need and demand at a HMA level across the conurbation. This exercise must take into full account 'game changing' economic projects as well as an appreciation of the distribution of the supply of employment land across the conurbation.

Demand for Employment Floorspace

- 2.27 Section 4 of this report presents a full assessment and critique of the employment floorspace calculations and subsequent interpretation of the balance between need and supply.
- 2.28 We have significant concerns about the lack of transparency with which the assessment has been presented, the approach to estimating the needs of the office, warehousing and industrial market and the paucity of supply side information.

- 2.29 As currently presented, we do not consider the estimation of need for employment floorspace nor the supply demand balance to be sufficiently robust. The GMCA needs to provide a clear account of the modelling process undertaken in order to generate land requirements and to allow interested parties to comment meaningfully. Additionally, the distinct needs of the logistics sector (B8 use class) and the industrial sector (B2 use class) should be recognised and considered within the EDNA. An independent review and quality control check on site supply information should be conducted to ensure that Greater Manchester has a land supply which is capable of fully meeting economic development needs.

Market Analysis and Signals

- 2.30 The section of the EDNA entitled “Market Analysis” is largely contextual in nature and is not used as basis to moderate the economic forecasts, nor to make a quantitative adjustment to economic land needs in subsequent analysis.
- 2.31 The market commentary section (paragraphs 6.8 to 6.45) provides market analysis by property typology. Industrial and warehousing is grouped together as a typology. This covers a wide variety of occupier requirements. Greater focus should be afforded to the distinct requirements of the industrial and warehousing/logistics sectors. The blending of property typologies in this manner masks differences in property characteristics as well as location requirements of occupiers in different sectors and risks planned provision not fully meeting market requirements. Peel contests the implied interchangeable nature of occupier requirements in logistics and industrial sectors.
- 2.32 It is however noted that separate evidence has been commissioned in relation to the operation of the logistics sector in Greater Manchester (paragraphs 6.39 - 6.45), with the Greater Manchester Logistics Study⁴ referenced but not published as part of the consultation. This document should be made available in order to enable all stakeholders to respond to the consultation on the basis of the full extent of evidence available. Peel has had sight of the study as a co-funder and member of the steering group and considers that that it provides useful and specific evidence in deducing the needs of this important, growing sector of the economy. It includes moderate and high growth scenarios for Greater Manchester (see paragraphs 6.41 to 6.45) which provide useful illustrations of the future growth potential of the sector. It is not apparent, however, that the quantitative scenarios included in the logistics study have informed any of the economic forecasts that are included in the EDNA or subsequent floorspace need calculations. This is another example of the economic evidence available to inform the GMSF not being fully considered or modelled to derive land requirements. Greater Manchester should undertake work to ensure that the findings of the Logistics Study directly inform the requirements for B8 floorspace and land.
- 2.33 Commentary on the office market highlights the strength of Greater Manchester and its future prospects for growth. It is stated in paragraph 6.38 that:

“[...] overall Greater Manchester appears to be in a strong position in terms of its office market. With appropriate investment, it should be possible not only to continue this, but

⁴ MDS Transmodal (September 2014) *Greater Manchester Logistics Study: Technical Report*

to further enhance its pre-eminence amongst UK regional cities, which could potentially have benefits for other economic sectors in the sub-region.”

- 2.34 These conclusions on the enhanced prospects for Greater Manchester are not subsequently considered or explicitly translated into floorspace requirements. We also note that the commentary on the office market focuses almost exclusively on prime office markets and does not offer any commentary on the out of town market, demand for business parks or other office typologies/environments. Distinctions within the office market should be further explored to ensure that the GMSF understands and reflects different sources of demand and plans accordingly for land in the right locations to meet need. Greater Manchester needs to engage with land owners, developers and agents in order to understand the commercial differences between different office locations in Greater Manchester. This should in turn inform the conclusions of the EDNA with regard to the supply/demand balance.

Site Characteristics

- 2.35 The section of the EDNA entitled “Site Characteristics” provides a profile of the common characteristics associated with different property typologies, namely industrial, warehousing and offices.
- 2.36 The commentary on general site characteristics, which in turn is sub-divided into sections on value for money considerations and issues pertaining to certainty and speed of delivery, contains some well observed trends. For example at paragraph 7.4 reference is made to the need to avoid significant and disproportionate abnormal costs including planning obligations and community infrastructure levy. We would support this observation.
- 2.37 At paragraph 7.5 a reference is made to the importance of ensuring *“that there is a continuous flow and choice of sites that are ready for development within a short timescale”*. We agree with this observation, cautioning the over-reliance on one part of the market, one property type or one location to meet the full economic development needs of Greater Manchester. However it is apparent that GM has no way of assessing whether its’ stock of employment land will provide a flow or choice of sites for development because it has not undertaken a full review of land supply. GM therefore need to conduct a fresh assessment of employment land supply in order to reach robust conclusions as to the extent to which the existing supply of sites provides sufficient choice and range. This work needs to be completed with urgency and before the next stage of the plan making process commences as it will form a key part of the informing evidence base.
- 2.38 Commentary on industrial and warehousing site characteristics would benefit, as previously noted, from greater distinction and specificity between property typologies. It is considered that additional consideration should be given in relation to transport connections to “tri-modal” accessibility and in this context the competitive advantages that are afforded by the development of Port Salford (with links to the investment at Liverpool 2).
- 2.39 The specific requirements of the logistics sector could be better expressed in the EDNA, for example making distinctions between the types of property/sites/locations required

for different types of facilities (e.g. regional distribution centres, last mile deliveries, “dark stores” etc.). These will have important implications for the quantum and type of land and allocation of sites. There is likely to be a need for both large hubs that have critical mass and can provide for clusters of processing facilities (e.g. assembly, packing and consolidation facilities) and for smaller well placed facilities that can handle high volume “last mile” parcel delivery facilities.

2.40 The section on office site characteristics (paragraphs 7.11 to 7.16) contains reference to numerous locations within Greater Manchester which could be attractive to office occupiers including the City Centre, town centres and out of town locations such as Middlebrook. Notable by its absence in this section is Salford Quays and MediaCityUK which are well established high profile office locations with further development potential. Trafford City is also omitted despite having significant commercial potential and appeal for office based occupiers.

2.41 We raise the following specific points and suggested amendments in relation to the section on office site characteristics which we request are incorporated within the EDNA:

- Paragraph 7.11 – the final bullet point deals with locations which are attractive to occupiers based on accessibility criteria. Salford Quays and MediaCityUK as part of the Regional Centre should be clearly identified as an accessible major office location. This should be referenced in a new sub-bullet point between the city centre and Manchester Airport;
- Paragraph 7.12 – MediaCityUK boasts a major connectivity hub with over 20 service providers connecting the BBC and ITV as well as over 250 growing SMEs with the rest of the world. Unlike any other place in the UK, this world-class state of the art connectivity hub is built for the growing content and the heavy data needs of digital businesses. In order to maintain its’ position as the leading connectivity hub for business further investment in IP infrastructure is required.
- Paragraph 7.13 – this deals with access to labour. Reference should be made to the established digital and creative cluster at MediaCityUK, including the Landing, the University Training College and the University of Salford. Independent research carried out by KPMG for the BBC Trust⁵ demonstrates the importance of clustering of not only businesses but also “human capital” or labour. The report specifically cites the following benefits:

“Employers gain access to a large pool of specialised labour and are able to draw from concentrations of talented people who power innovation and capital growth. This rapid mobility of talent is a source of great competitive advantage” (page 28)

- Paragraph 7.14 – this deals with quality of environment as a site characteristic. We request that Salford Quays and MediaCityUK are acknowledged and referenced as having created a strong and appealing destination for office occupiers and workers. The high quality of the environment is a result of the

⁵ KPMG (October 2015) – “The role of the BBC in supporting economic growth: A report for the BBC Trust”

combination of amenities on offer, notably: the cultural, retail and leisure offer; the high quality of the public realm and the well managed and secure environment which has been created for office tenants and workers;

- Paragraph 7.15 – this deals with the profile of sites. MediaCityUK is one of the few truly international brands that greater Manchester can capitalise upon in terms of competing for and securing office occupiers. This should be explicitly acknowledged and built upon in the GMSF;
- Paragraph 7.16 – this deals with clustering characteristics of office locations. We request that the reference to Salford Quays in relation to the creative and digital sector should be expanded to include a clear reference to MediaCityUK;
- Page 91 – the plan illustrating broad office locations based on key criteria is misleading due to the scale of the Manchester Airport area relative to the scale of the city centre area. As currently depicted the airport appears to comprise a much larger office location than the city centre. This does not reflect an appropriate policy hierarchy and should be corrected to produce a more representative plan. A better style of plan is included on page 87 in relation to Industry and Warehousing and it is suggested that this style could be helpfully replicated for offices. The labelling used on the plan should also be amended to reflect the naming used at paragraph 7.30 (e.g. Major Town Centres) for consistency.
- Paragraph 7.28 – relates to Salford Quays. It is requested that this section is retitled to read “Salford Quays and MediaCityUK”. The key attributes listed should explicitly recognise that MediaCityUK is not only an internationally significant cluster for the digital and creative sectors but is also the focal point for these sectors in Greater Manchester and the north of England more generally.

- 2.42 The section that deals with locations meeting site characteristics (paragraph 7.17 onward) contains a key diagram on “Industry and Warehousing Broad Locations” (page 87). This diagram currently only shows road based connections. This should be amended to highlight rail freight, water (including the Manchester Ship Canal) and air enabled locations.
- 2.43 City Airport and Heliport is identified in the EDNA (paragraph 7.21) as having potential for small scale air-borne freight activity. This description does not reflect the potential of the airport which more closely relates to enhancing its role for general and business aviation (GBA) use.
- 2.44 It should also be noted that Port Salford (paragraph 7.21) is currently limited in scale to a development of 154,500 sq m of accommodation, however it has significant expansion potential to accommodate c.500,000 sq m floorspace.

Infrastructure

- 2.45 In considering site characteristics, it is also important to consider Infrastructure requirements. Supporting the scale of growth that GM needs and which its ambition relates to will have implications for key infrastructure. The GMSF should address strategic needs such as for the transport infrastructure improvements needed in order to fulfil the stated ambition of creating a “*highly interconnected region of thriving cities and*”

*towns*⁶. This will require early consideration of means to improve connectivity between the main economic drivers of GM and the workforce which will support them.

- 2.46 GM is essentially a “radial” conurbation. Most public transport routes feed interchanges within the city centre. This means that high volumes of people seeking to move around GM have to cross the city centre. Some of the key economic drivers including the Airport, MediaCityUK, Logistics North and Port Salford would benefit from improved “Orbital” connectivity. This would enable workers from further afield to access the jobs being created and extend the economic reach of these key economic assets.
- 2.47 Planned extensions of Metrolink are welcomed but they essentially follow the radial principle. Consideration should be given to investment in public transport infrastructure which enables journeys around and across GM without overloading already busy city centre interchanges. This principle has been successful in London through investment in Crossrail and GM should address this key strategic matter now in order to build a persuasive case for greater public investment in transport connectivity in GM.
- 2.48 It is understood that early consideration has been given by TfGM to the principle of better orbital connections for example between areas of economic need in north and east GM with areas of economic growth in south Manchester. These early investigations should be extended in the context of GMSF and accelerated.

Supply and Gross Floorspace Requirements

- 2.49 See Section 4 of this report for a full analysis of the estimated site supply and gross floorspace requirements arising from the calculations contained in Background Paper 2.

Summary

- 2.50 In summary, while the EDNA contains useful evidence on the economic assets and competitive advantages of Greater Manchester, as well as “game changer” initiatives and investments, these are treated in a contextual and abstract manner. No attempt is made to use this important evidence to produce economic forecasts which are more reflective of Greater Manchester’s economic growth potential over the plan period. Independent analysis undertaken by Frontier Economics demonstrates that Greater Manchester is planning for an annual level of employment growth (0.7% per annum) which is low compared to current and historic growth rates; and planned investment in “game changer” projects which represent a step change from the past.
- 2.51 It is clear from this independent economic study that the forecasts that Greater Manchester is relying on in its’ evidence base underplay its’ economic potential. An example of this is that the economic forecasts on which the Consultation Document is based appear to significantly underestimate the job creation potential within the digital and creative sectors. It is considered that the approved development and wider masterplan proposals at MediaCityUK have the potential to enhance and grow what is already an internationally significant cluster to deliver significantly higher job growth than is accounted for in the forecasts.

⁶ Paragraph 2.7 of the Consultation Document

- 2.52 The failure to fully reflect the economic potential of Greater Manchester in the forecasts developed in the EDNA is then carried in to the estimation of economic development floorspace and land needs. We have specific concerns relating to the lack of transparency in the land requirements assessment and the application of assumptions.
- 2.53 We register concerns about the robustness of the supply side analysis contained in the EDNA and highlight the need for a more rigorous assessment to ensure the availability, suitability, deliverability and viability of sites included within Greater Manchester claimed supply. Specific consideration needs to be given to the suitability of sites and locations for distinct sectors and market segments, noting that the current evidence base inappropriately “blends” sectors such as industrial and logistics which has the potential to obscure needs.

3. Forecasting Economic Growth

- 3.1 The EDNA contains a series of economic projections and forecasts in Section 4. These include a range of local economic forecasts (including the GMFM, “Accelerated Growth Scenarios” and an Experian forecast). Consideration is also given to total employment, residence based and work based employment, unemployment and commuting. The outputs of the forecasts are then used to derive business floorspace requirements and housing needs.
- 3.2 Given that these economic forecasts directly inform the assessment of needs within the GMSF and therefore ultimately the provision of land to meet assessed needs, it is imperative that they are robust, including the assumptions that inform them.
- 3.3 In acknowledgement of the sensitivity of the GMSF to its forecast evidence base, Peel commissioned Frontier Economics to carry out an independent assessment of the growth that is being planned for in the GMSF. In particular Frontier was tasked with objectively examining the growth rates for key economic variables that underpin the GMSF preferred option (Option 2). In conducting their review, Frontier considered whether these assumptions, and particularly the employment growth rate assumed within Option 2, reflect the aspirations for economic growth that have been described for Greater Manchester.
- 3.4 Frontier’s work is drawn on within this section and their full report is attached at Appendix 1.

Summary of GMSF Economic Forecasts

- 3.5 Background Paper 2 presents two baseline employment forecasts, sourced from the 2014 GMFM forecast and an Experian forecast dated June 2015.
- 3.6 The two forecasts both suggest that employment will grow in Greater Manchester over the projection period. The GMFM projects a growth of approximately 155,600 jobs over the period from 2014 to 2035, representing an annual job growth rate of 0.5%. The Experian forecast projects growth of 203,100 over the same period, representing a higher job growth rate of 0.65% per annum. These forecasts can also be considered in the context of more recent releases by Experian, with the September 2015 forecast suggesting a level of growth which falls between the two forecasts cited in Background Paper 2. The creation of approximately 187,600 additional jobs⁷ under the latest Experian forecast represents an annual growth rate of around 0.6% over the same period.
- 3.7 When considering these forecasts, it is important to recognise that they have been developed based upon each of the forecasting house’s baseline assumptions, whereby trends continue over the plan period in the absence of any intervention (for example through public sector action or as a result of a major project or investment). The two forecasts both forecast a level of future employment growth which is **lower** than current

⁷ This level of employment growth is slightly lower than the Experian forecast cited in Background Paper 2

growth rates and those achieved historically in Greater Manchester. Over the period from 1997 to 2014 – which includes periods of growth and downturn as well as the worst recession for nearly 100 years – Oxford Economics estimate that the number of jobs in Greater Manchester has grown by 0.7%. Even over the more recent period from 2004 to 2014, which is evidently heavily influenced by the national recession and slow subsequent recovery, Greater Manchester saw growth of 0.5%. This demonstrates the resilience of Greater Manchester’s economy.

- 3.8 Frontier highlights that employment growth in the period 1999-2014 has been 0.76%, between 1999 and 2007 it was 1.07%. Since the recession ended (2009-2014) GM’s employment has grown by an average of 1.22% per annum.
- 3.9 It is also important to recognise that the baseline forecasts are influenced by population inputs into the modelling. The GMFM forecast includes Oxford Economics’ own assumptions around lower levels of migration into the UK than that officially projected by the ONS. In contrast, Experian’s forecasts use the ONS’ 2012-based sub-national population projections. Experian have previously confirmed through analysis prepared for Peel that iterations of the forecasts for Greater Manchester have constrained the forecast level of job growth across Greater Manchester due to a projected shortage of labour supply⁸.
- 3.10 Alongside the baseline forecasts, a series of Accelerated Growth Scenarios are presented. It is understood that these have been modelled by Oxford Economics based on the GMFM, but with higher population projections input alongside adjustments to reflect the aspirational labour-force targets in the long-term economic plan for the North West⁹. These forecasts show a stronger level of job growth, again clearly illustrating the impact that population inputs have on the GMFM model.
- 3.11 The so-called ‘AGS-SNPP’ forms the lower end of the spectrum of growth scenarios presented in the consultation documents. This forecasts job growth of almost 221,500 between 2014 and 2035, representing an average growth of 0.7% per annum. This level of forecast growth is still below the longer-term historic rate of job growth between 1997 and 2014 (0.76%). These scenarios cannot accurately be described as “accelerated”.
- 3.12 Whilst the scenario is labelled an Accelerated Growth Scenario, it is only accelerated in the context of the baseline forecasts that Greater Manchester uses, and actually only appears, at best, to represent a continuation of long-term trends. On this basis, this forecast is considered to only represent a ‘baseline’ of forecast job growth, with the 0.7% average annual growth in jobs only reflecting past long term trends and the current economic evidence for Greater Manchester.
- 3.13 Background Paper 2 includes a whole section on ‘strategic growth opportunities’ which includes programmes as well as specific investment projects, many of which are

⁸ This is confirmed in Peel’s previous representations to the Stage 1 consultation on the GMSF (Paragraph 4.30 Document 2, November 2014). Experian identified that for their June 2014 forecasts job growth was constrained by insufficient labour supply based on the ONS population projection inputs. Experian confirmed the potential for 46,400 additional jobs to be filled if labour supply was not a constraint.

⁹ Background Paper 2 cites this on page 28: HM Government (8 January 2015) *Long term economic plan for the north-west set out by Prime Minister and Chancellor*

approved initiatives and have secured funding and investment¹⁰. Irrespective of the exact impact of these programmes, there is an explicit expectation that planned investment is intended to enhance the growth of Greater Manchester from historic levels. Job growth below the AGS-SNPP cannot be considered as aligning with the expectations of the conurbation. The extent of planned investments and projects provides a strong foundation to conclude that growth will indeed actually exceed this, recognising as the Strategic Options document does that: *‘Our aim is to achieve a step change in the rate and quality of development’ (para 1.18)*.

- 3.14 Delivering the Northern Powerhouse is an implicit component of the Vision and Objectives set within the GMSF Strategic Options document. The ambition is presented as:

“Our ambition is for Greater Manchester to become a financially self-sustaining city, sitting at the heart of the Northern Powerhouse with the size, the assets, the skilled population and political and economic influence to rival any global city...” (GMSF Strategic Options, para 1.7)

- 3.15 Background Paper 2 goes on to state:

“The strong and widespread commitment to delivering a Northern Powerhouse has two main implications for Greater Manchester’s economic growth. Firstly, it will be vital for Greater Manchester to play a full role in supporting the Northern Powerhouse. Its position as the strongest economy in the North of England means that it has the potential to take a leading role in driving forward wider economic growth. Secondly, the central position within a more successful North will provide additional economic opportunities that can help to promote higher levels of economic growth within Greater Manchester than would otherwise be the case.” (Background Paper 2, para 3.4)

- 3.16 The Northern Powerhouse is an agenda for “transformation”. It seeks more than incremental change to current performance.
- 3.17 This aim is summed up in the joint foreword to ‘The Northern Powerhouse: One Agenda; One Economy; One North’ document published in March 2015 (“The Northern Powerhouse Strategy”). The Secretary of State for Transport and the Chair of the Transport for the North Partnership Board state that: *“Our shared aim is to **transform Northern growth, rebalance the country’s economy and establish the North as a global powerhouse**”¹¹ (emphasis added). The report emphasises this transformation by adding that *“rather than forecast the future from current trends we aim to change that future”¹²*.*
- 3.18 The November 2015 Comprehensive Spending Review confirms the Government’s commitment to build the Northern Powerhouse:

¹⁰ Most recently the Government announced the inclusion of Greater Manchester Life Science as one of the 18 new Enterprise Zones confirmed in November 2015 (<https://www.gov.uk/government/news/the-new-enterprise-zones>)

¹¹ Joint Foreword to The Northern Powerhouse: One Agenda; One Economy; One North by Partick McLoughlin MP and Sir Richard Leese. HM Government and Transport for the North. March 2015.

¹² The Northern Powerhouse: One Agenda; One Economy; One North. HM Government and Transport for the North. March 2015. Page 4.

“The Northern Powerhouse is the government’s plan to boost the economy across the North of England...It means investing in better transport to connect up the North; backing the science and innovation strengths of the North, so that new ideas can be turned into new products and new jobs; investing in culture, housing and the quality of life to make the North a magnet for new businesses and talented people; devolving powers and budgets from London to local areas across the North, and creating powerful new elected mayors who will give people in northern cities and towns a strong voice.”¹³

- 3.19 Within the GMSF, considerable emphasis is given to benchmarking performance against London. Indeed, the Vision confirms that by 2035 Greater Manchester will demonstrate ‘*economic performance in line with that of Greater London*’ (para 2.2) and that as part of the Northern Powerhouse GM will work with ‘*our neighbours as a dynamic counterweight and complement to the London and South-East economy*’ (para 2.7).
- 3.20 The GM evidence acknowledges that the forecast growth under the AGS-SNPP scenario will fail to bridge the gap with London in terms of productivity, with a GVA growth rate of 2.8% per annum for Greater Manchester falling below the baseline rate of growth forecast for London by Oxford Economics of 3.0%. No comparable figures for employment are presented from the Oxford Economics model, but the latest Experian forecasts suggest an average annual job growth rate of 0.9% per annum in London over the period from 2014 to 2035.
- 3.21 On the basis of the evidence presented within Background Paper 2, this would suggest that just keeping pace with London’s 3% annual growth in GVA and 0.9% growth in employment would require job growth aligned to the AGS-High forecast modelled by Oxford Economics for Greater Manchester. This assumes a higher level of job growth in Greater Manchester than the AGS scenario, with just over 300,000 additional jobs created between 2014 and 2035.

Independent Economic Analysis

- 3.22 Frontier has independently assessed the forecasts and options included within Background Paper 2. They have found that:
- The preferred growth option identified in the GMSF is inconsistent with the ambitions set out in the GMSF. Frontier conclude that employment growth of only 0.7% per annum appears too conservative in the context of a range of data sources and the extensive and credible published evidence on successful cities.
 - Frontier note that Greater Manchester is aiming for lower annual employment growth than it has achieved over the last 10 years, which included a severe period of recession. Annual employment growth since 1999 has been in the order of 0.76%, with the average rising to 1.07% per annum in the period 1999 to the start of the recession. Post-recessionary growth has risen further with an average of 1.22% per annum having been achieved between 2009 and 2014. This analysis of comparative growth rates puts GM’s preferred rate of 0.7% per annum

¹³ ‘Comprehensive Spending Review’ paragraph 1.253

into sharp contrast and demonstrates that it is more reflective of what has been historically achieved in Greater Manchester than an “accelerated” growth scenario.

- Frontier has also examined a peer group of global cities of comparable scale including Brisbane, Perth, Stockholm and Vancouver. The evidence compiled has shown that these comparator peer cities have achieved average annual employment growth rates of almost 1% in the period 2000 to 2014. This is consistent with the evidence of employment growth in Greater Manchester also exceeding 0.7% over the longer term. Comparison with peer global cities highlights that planning for just 0.7% growth per annum cannot be described as accelerated growth and underplays the growth potential of Greater Manchester. Frontier’s analysis shows that the average growth rate among the fastest growing of its peer cities – those which GM’s vision states it seeks to be alongside – is 1.46%. This shows that planning for employment growth of 0.7% per annum will in no way support GM’s ambition to become one of the leading city regions of the world.
- Frontier’s analysis shows that it is unrealistic to assume that the existing population of Greater Manchester will be sufficient to meet the needs of a growing economy. Frontier argue that Greater Manchester does not appear to be learning from the literature and evidence about how successful cities and city-regions grow. They note that the GMSF is reliant on economic growth being driven by natural population growth with relatively little (almost zero) net migration to supplement the skills base of the conurbation. The majority of employment growth is therefore assumed to be supported by unemployed or economically inactive people in Greater Manchester re-entering employment. Frontier highlight that this ignores the time lag in reskilling and redeploying such groups and is inconsistent with documented evidence that shows that competitive and growing regions actually attract significant levels of skilled labour, rather than being reliant on an existing population to meet future employment and skills needs. No compelling evidence is advanced by Greater Manchester to suggest that its’ labour market is capable of meeting the full needs of a growing economy.
- Evidence of a mismatch in employer skills requirements and the resident workforce’s skills base is also cited by Frontier as a potential threat to Greater Manchester achieving its’ economic potential. This further emphasises the tenuous nature of the assumption that the existing labour force will be sufficient to support Greater Manchester’s growth in the future, given that it currently does not meet the skills requirements of employers.
- Finally Frontier find that Greater Manchester is “discounting” major plans for infrastructure investment that are targeted at it. Whilst a certain level of historic infrastructure investment will have been taken into account in the economic forecasts, there are a number of key game changer investments that Frontier conclude are out of line with what has happened in the past. Logically then, these game changer investments are not included within the GMSF forecasts. By way of illustration, already committed transport infrastructure investment in the North West in the early years of the plan is anticipated to be around 1.7 times the level

of investment per annum witnessed in the previous ten years. This serves to highlight that the forecasts cannot accurately be described as an “acceleration” of growth when they simply perpetuate historic conditions.

- 3.23 The conclusion of the Frontier report is that an annual employment growth rate of 0.7% is reflective of what Greater Manchester has historically achieved over the long term and therefore is more reflective of a baseline rate of growth than an accelerated one. However, this level of growth (0.7% per annum) will not be sustained by an assumption in the GMSF that does not support sustained in migration to Greater Manchester. There is no compelling evidence to suggest that Greater Manchester’s labour force will be engaged or suitably skilled in time to take up employment opportunities, and therefore reliance on population growth of just 0.5% per annum will constrain growth rather than support it. This is consistent with emerging evidence that lack of suitably skilled labour is already acting as a constraint to business performance in GM¹⁴.

The Drivers of Growth in Greater Manchester

- 3.24 Frontier has also examined the key factors driving the growth of competitive cities, based on a review of contemporary literature on city and regional growth. The resulting “framework for understanding the economic performance of cities” makes clear distinctions between the “drivers” of economic performance and the “measures” of economic performance. These are useful distinctions as they make it clear that productivity (as measured by GVA) is a measure of economic performance and is not in itself a determining driver of the economy. Greater Manchester benchmarks its performance against London and the UK against GVA measures, without consideration of the actual drivers of its’ economy.
- 3.25 The drivers of the economy identified by Frontier include labour markets and skills, infrastructure, innovation, scale, business environment and quality of place. Identified measures of performance include labour productivity, employment rates, wages and profits. This framework is then used by Frontier to identify the key drivers of Greater Manchester’s economy and their respective potential.
- 3.26 Each of these drivers for Greater Manchester is considered in turn and the headline findings are presented. This serves to highlight that Greater Manchester has multiple drivers of its economy that will support high levels of economic growth.

Agglomeration

- 3.27 The baseline position on agglomeration effects in Greater Manchester is that productivity is lower than could be expected given the conurbation’s size. This is a function of the existing skills of the workforce.
- 3.28 Frontier note that productivity effects related to agglomeration can increase with a city’s total population. There could therefore be significant and positive effects on per capita productivity growth from increasing the scale of economic activity in Greater Manchester. Such benefits are contingent upon population growth and the attraction of

¹⁴ Source: BMG Research. Manchester Business Survey 2014, page 45 – referenced in The economics of the Greater Manchester Spatial Framework. Frontier Economics. January 2016. Section 4.3.

skilled labour. Necessarily this requires positive net migration and not the near zero migration that is assumed in the GMSF preferred scenario.

- 3.29 Frontier therefore conclude that agglomeration drivers of the economy and hence employment growth could be constrained if net migration is constrained or held at near to zero, as is the assumption in the GMSF preferred scenario.

Labour markets and skills

- 3.30 Frontier note that employment growth in Greater Manchester is expected to be in high skill sectors of the economy. This will in turn lead to increased demand for higher skilled jobs. This finding is positive in that it indicates that Greater Manchester has the potential to achieve growth in higher skilled and higher value sectors of the economy.
- 3.31 For Greater Manchester to achieve its potential an increased supply of skilled labour will be required to meet additional demand. Frontier note that the preferred Option 2 of the GMSF assumes that a high proportion of new jobs will be filled by the labour force already residing within Greater Manchester, rather than by attracting new skilled people in through migration. Frontier conclude that this assumption is unlikely and highly questionable given economic theory and evidence of labour market behaviour in growing city-regions.
- 3.32 Frontier also draw attention to an inherent contradiction in the labour market assumptions underpinning the GMSF preferred Option 2. They state that the proportion of people with higher level skills can be expected to be lower among those who are unemployed or economically inactive than it is in the working population¹⁵. Thus a reliance on economically inactive and unemployed people, together with a growing requirement for highly skilled labour, suggests that a shortage of appropriately skilled labour relative to demand will occur.
- 3.33 All of the available evidence on the labour market in Greater Manchester suggests that it is unrealistic to plan for a scenario with near to zero net migration. It is apparent from the evidence that higher levels of migration will be needed even to support 0.7% per annum employment growth.

Infrastructure

- 3.34 Frontier cites evidence of strong, game changer levels of investment in transport infrastructure accruing to Greater Manchester in the future. By way of illustration, six of the forty “Top Projects” in the National Infrastructure Plan relate to investment in Greater Manchester. Such levels of investment are additional to those experienced in the past and therefore trend based forecasts such as those underpinning the GMSF will not capture them.
- 3.35 Frontier concludes that Greater Manchester therefore is in procession of infrastructure drivers which will support strong levels of economic growth.

¹⁵ Evidence of skills differentials is presented in relation to levels of educational attainment and evidence on current job vacancies in Greater Manchester. See the Frontier report (section 4.3.1) for full details.

Innovation

- 3.36 Frontier states that innovation has an important impact on productivity levels. It is noted that there is some evidence that Greater Manchester's economy is becoming increasingly innovative. For example, Manchester appears in the "Innovation Cities Global Index," which ranks cities based on assessment of their innovation potential – its rank was 29th globally in 2014.
- 3.37 To the extent that increases in Greater Manchester's innovative capacity have not yet achieved their full impacts, these changes would not be reflected in the forecasts underpinning the GMSF.
- 3.38 It is clear from Frontier's review that Greater Manchester has innovation characteristics which will support and drive economic growth in the future.

Business environment and governance

- 3.39 Frontier concludes a positive environment for business exists in Greater Manchester. They state that there is evidence to demonstrate that investment by foreign firms in Greater Manchester does not "crowd out" UK domestic investment. Rather foreign and domestic investment in Greater Manchester utilises skilled labour rather than substituting for it. Thus planning for a larger pool of skilled labour, through the attraction of skilled people, would assist in attracting further inward investment.
- 3.40 Frontier also notes that the devolution agreement for Greater Manchester could create further enhancements in relation to the deployment of capital and resources in support of an appealing business environment. Greater Manchester will have the devolved power and resources to further enhance its' investor appeal.
- 3.41 Frontier therefore concludes that Greater Manchester processes a business environment and governance structure which can actively support and drive economic growth.

Quality of place

- 3.42 Frontier concludes that the planned investment in infrastructure will help to improve amenity and counter the potentially negative effects of city expansion. It is noted that the devolution deal may also provide additional benefits in terms of tackling inequalities and multiple deprivation, thereby improving quality of life for residents across a wider area of the conurbation.

Conclusion – extent to which drivers of economic growth are reflected in Option 2 Forecast

- 3.43 Frontier's independent analysis highlights that the drivers of Greater Manchester's economy are not fully factored in to the economic growth forecasts which underpin the GMSF. This means that the use of forecasts, which carry forward past trends, will underplay the growth potential of the conurbation.
- 3.44 Option 2 of the GMSF (Greater Manchester's preferred option) is merely considered to represent a baseline level of employment growth. It is only reflective of historic levels of economic growth experienced in Greater Manchester and cannot therefore accurately be described as an "accelerated" rate of growth.

- 3.45 Additionally, the underpinning migration assumptions for Option 2 are flawed. Frontier's analysis demonstrates that higher levels of in migration will be needed to sustain and achieve baseline levels of employment growth. There is no compelling evidence advanced in the GMSF to support the assumption that Greater Manchester's existing labour market will be sufficient to support even baseline levels of economic growth. There is already evidence of a shortage of appropriately skilled labour constraining business growth and it is highly improbable that GM's labour force will be able to upskill in the short term in sufficient quantity to respond fully to employer demands in the absence of the migration of skilled people in to Greater Manchester.
- 3.46 Planning for only a baseline level of economic growth and assuming a near zero level of migration at best underplays Greater Manchester's economic growth potential. At worst planning policy conceived under these assumptions will actively constrain growth.
- 3.47 These flaws in the approach taken to developing the GMSF evidence base have significant and negative implications for the objective assessment of need for housing, the calculation of employment land and floorspace requirements and, over the longer term, the competitiveness of businesses seeking to recruit and locate in Greater Manchester.

4. Analysis of Land Requirements

- 4.1 This section reviews the approach taken to establishing floorspace and land requirements within sections 5 and 8 of Background Paper 2. The sub-titles used within this section relate to those used in Background Paper 2.
- 4.2 The basis for our analysis is guidance provided in the PPG as well as our applied experience of assessing economic development needs.

Approach to Forecasting net change in Employment

- 4.3 We note the reliance on an employment floorspace module within the GMFM which is reported as the source of estimates of industrial, warehousing and office floorspace that would be required to accommodate the forecast number of jobs in particular sectors. There is a general lack of transparency with regards to the assumptions made in the GMFM module in relation to:
- (a) The proportion of jobs in each sector below the broad sector level (for which there are 16). It is standard practice to consider forecasts at a detailed sub-sector level (of which there are 38 within a typical Experian UK Quarterly Forecast). Reference is made to floorspace types. It is unclear which sectors have been included within each floorspace typology, making meaningful analysis and interpretation of the findings difficult.
 - (b) Use class distinctions and the proportion of jobs attributed in each sector to occupying different types of floorspace. This recognises that not all jobs will occupy B Use Class employment floorspace. The apportionment of jobs is dealt with in the former ODPM Guidance, which can provide a methodological reference point for the analysis, albeit the PPG provides the latest guidance.
 - (c) The amount of floorspace assumed per worker i.e. the employment density assumptions applied in the GMFM module and where these have been derived from. The number of B use class jobs carried forward to which employment density assumptions are applied should be clearly set out. Any resultant estimate of land and floorspace will be highly sensitive to these input assumptions. Indeed, the sensitivity of the requirement to the employment density assumptions applied, in particular those relating to industrial and warehousing uses, which vary considerably by use class (HCA Employment Densities Guide 2nd Edition) and potential occupier (3rd Edition), will have a strong bearing on the results. Presentation of the analysis in the EDNA obscures such distinctions.
- 4.4 As a result of the opaque application of assumptions, we reserve the right to comment further as details of assumptions are clarified and expanded upon in subsequent rounds of consultation on the GMSF. The extent to which the results of the EDNA land requirements modelling are robust or reliable is not sufficiently discernible due to the way in which information has been presented in the report. This is a risk to the GMSF going forward if not addressed.

- 4.5 The EDNA calculates net floorspace requirements for three broad floorspace types – office, industrial and warehousing with the following ranges generated depending on the scenario used to run the calculation of need:
- Industrial -656,461 sq m (2014 GMFM) to +23,121 sq m (AGS Higher)
 - Warehousing +417,482 sq m (2014 GMFM) to +1,320,714 sq m (AGS Higher)
 - Office +1,036,511 sq m(2014) GMFM to +1,964,227 sq m (AGS Higher)
- 4.6 It is noted in the EDNA that *'land supply details usually combine industrial and warehousing floorspace as premises often change between the two uses and they have similar site requirements'*. We would dispute this statement as the market views industrial and logistics space as distinct from one another. The requirements of logistics operators for example, will be very different from local SMEs operating within industrial sectors. This approach masks significantly different property requirements between the use classes which are typically associated with industrial and warehousing uses (i.e differences between B1c, B2 and B8 operations). The approach applied also contradicts the PPG which requires the needs of different market segments to be understood and planned for. This has not been done in the EDNA and is a failure in the approach taken to developing the economic development needs evidence for the GMSF.
- 4.7 Net change arising from the combination of industrial and warehousing property categories result in a wide range of requirements between -238,979 sq m (relating to the 2014 GMFM forecast) and +1,343,385 sq m (relating to the AGS Higher forecast). Warehousing floorspace gains are then used to offset the modelled negative industrial floorspace requirements. This is a further unsubstantiated assumption which is potentially misleading given that not all B1c or B2 land or premises will be suitably located, or of a suitable quality / scale to accommodate B8 occupier requirements. Such land is also potentially likely to be subject to demands from higher value uses.
- 4.8 Application of this broad assumption has the potential to mask or suppress the need assessment for warehousing floorspace and therefore land requirements.
- 4.9 Reference is made at paragraph 5.6 of the EDNA to Experian forecasts having insufficient sectoral detail to apply the same methodology as that applied through the GMFM. This is surprising given that Experian is a recognised forecasting house whose employment forecasts are widely used by local planning authorities in the assessment of employment land and floorspace needs. One possibility for a lack of comparable data could be the type of forecast that has been procured from Experian, as more detailed sectoral breakdowns are available upon request. This matter should be addressed in future stages of the GMSF.
- 4.10 The resulting figures based on the Experian forecast are, however, compared with those from the 2014 GMFM for the three broad floorspace types. Paragraph 5.6 goes onto note that this exercise is based on *'similar assumptions to the GMFM in terms of the relationship between sectors and the types of floorspace, but without making assumptions about job densities (floorspace per worker)'*.

- 4.11 There is no translation of net change in floorspace into land requirements in line with PPG. This information is only presented in the concluding section and is accompanied by very limited analysis or justification for the assumptions for converting floorspace need to land requirements. Greater Manchester should provide a clearer account of the methodological steps undertaken in order to derive land requirements, including all informing assumptions so that stakeholders can meaningfully comment on the consultation document.

Distribution of floorspace change across Greater Manchester

- 4.12 Paragraph 5.8 of the EDNA and accompanying table show the distribution of floorspace across Greater Manchester as forecast by the 2014 GMFM. A detailed breakdown by sector and local authority is not provided. The combination of industrial and warehousing results in a negative industrial requirement for seven of the ten Greater Manchester authorities. In the absence of similar analysis using the three AGS scenarios it is questionable whether the results are reflective of the growth ambitions of the different authorities.

Past trends in Floorspace Development

- 4.13 The PPG requires plan makers to consider a range of methods for calculating future employment floorspace and land requirements, including past development rates.
- 4.14 Paragraph 5.12 of the EDNA refers to district monitoring of employment floorspace completion over the period from 2004-2014, noting that comprehensive data on gross losses is not currently available across Greater Manchester. The omission of land or floorspace losses within the subsequent calculation of need has the potential to underestimate requirements.
- 4.15 The data used has a number of other significant limitations, including:
- The absence of any detailed breakdown of gross completions by market segment. This makes it difficult to reconcile the contribution of each of these sectors and potential needs of different property market segments (including B1a/b, B1c, B2 and B8) as advocated by the PPG.
 - The lack of an annualised breakdown of gross floorspace completions. This masks peaks and troughs over the ten year period of analysis. It also makes it difficult to determine the rate at which floorspace has been developed on an annual basis.
- 4.16 Comparison of net change in occupied employment floorspace over the period from 2004-2014 is provided at paragraph 5.16 of the EDNA. This highlights 'a very significant rate of loss per annum of occupied industrial floorspace over the period. In relation to the economic forecasts it is noted at paragraph 5.17 that:

'all scenarios point towards a considerable reduction in the amount of existing floorspace that will be lost each year, though there is still likely to be a significant renewal and redevelopment of premises, but they may also involve an increased demand for new floorspace as occupiers seek more modern premises...'

Identifying employment floorspace requirements

- 4.17 Section 8 of the EDNA summarises key outputs from the five scenarios assessed but again fails to transparently present the assumptions underpinning the calculations. The results of the analysis will be highly sensitive to the assumptions applied. It is therefore concerning that the consultation material does not include this important information which would enable stakeholders to meaningfully comment on the validity of the results. Greater Manchester should publish in full the assumptions that have been used to calculate floorspace requirements.
- 4.18 The table at paragraph 8.2 concludes with an estimate of the net change in employment floorspace. Reference is made to an additional Experian Baseline Forecast (June 2015), however as identified above, this is not translated into a floorspace requirement.
- 4.19 The accelerated growth scenarios are claimed to be an appropriate 'starting point' for identifying the scale of economic growth. We would agree that:
- 'simply seeking to meet growth levels identified in one of the Baseline economic forecasts (i.e. 2014 GMFM or Experian) may underplay the potential of Greater Manchester' (EDNA Para 8.3, p96).*
- 4.20 It should be noted, however, that the validity and representativeness of the accelerated growth scenarios are not fully accepted, as evidenced by the independent work prepared to inform Peel's representations by Frontier Economics.
- 4.21 In line with the PPG consideration is also given to demographically derived assessments of future employment needs (also referred to as labour supply techniques). The accompanying tables provide only a 'broad indication' of the key outputs that would be expected given the scale of underlying population growth compared to levels in the AGS-SNPP and the AGS-High forecasts
- 4.22 Whilst it is noted that the total employment of 228,000 associated with the housing OAN would represent a 16% increase over the period 2014-2035, it is unclear how this growth in employment is apportioned across different business sectors. This calls into question the robustness of the net increases that the EDNA considers appropriate to plan for i.e. for a net increase of 297,000 sq m of industrial/warehousing floorspace and a net increase of 1,529,000 sq m of office floorspace.
- 4.23 There is also a lack of justification for the preference of an approach based on labour supply over labour demand. This is symptomatic of an economic development need estimation process which is supply rather than demand led. The extent to which this is a true estimate of need is questionable, for reasons fully set out in section 4 of this report.
- 4.24 We therefore consider that the housing OAN estimate of floorspace that the EDNA concludes as being an appropriate basis for establishing the net change in floorspace is not clearly evidenced or justified.

Implications for districts

- 4.25 It is also notable at paragraph 8.10 of the EDNA that the approach to estimating the floorspace needs of the housing OAN forecast cannot be replicated for individual

districts. The approach that is implemented to derive district level needs therefore involves the distribution of growth in the 2014 GMFM to the Greater Manchester requirement. The report provides no justification for why the 2014 GMFM is being used to inform the spatial distribution of growth over other scenarios.

- 4.26 At paragraph 8.13 it is noted that the precise distribution of the uplift in employment growth is in practice highly dependent on the location of opportunities to bring additional land for development, and there would be considerable scope to deviate from the figures. However, it is noted that the spatial distribution only provides ‘a very general indication’ and is not considered a robust basis upon which to plan for accommodating future economic development needs.
- 4.27 This raises further questions over the reliability and robustness of the scenario for establishing net floorspace requirements. Greater Manchester should develop a reliable basis for the distribution of floorspace requirements among districts. This should not “mix” forecast assumptions in the way which has been attempted in the EDNA, albeit with acknowledged limitations.

Identifying employment floorspace requirements

- 4.28 It is concluded at paragraph 8.16 that methodologies for calculating employment land requirements are vague. We would refer GMCA to available guidance in the Planning Policy Guidance as well as its’ predecessor document ODPM Employment Land Guidance (which has informed employment land estimation methodologies for the last 11 years) which collectively set out methodologies for assessing future economic development needs and land requirements. Specifically, the PPG is clear that when translating employment and output forecasts into land requirements, there are four key relationships which need to be quantified:

- Standard industrial classification sectors to use classes
- Standard industrial classification sectors to types of property
- Employment to floorspace (using an employment density); and
- Floorspace to site (plot ratio based on industry proxies).

- 4.29 These are widely accepted methodological steps which support many EDNAs and employment land studies prepared by local planning authorities.

Net and gross floorspace

- 4.30 The forecast of net change in floorspace represent the balance between the gross additions and the gross losses to floorspace. Paragraph 8.19 of the EDNA notes the difficulties in estimating gross losses, which is largely due (as referenced in paragraph 8.20) to inconsistency in the quality of monitoring data across the Greater Manchester authorities.
- 4.31 It is then stated at paragraph 8.22 that *‘there is no widely acceptable methodology for translating forecast net change in employment floorspace into gross requirements for new employment floorspace space’*. It is accepted that the PPG does not make a clear

distinction with regards to net and gross estimates of land and floorspace. However, this does infer that professional judgement should be used to establish an appropriate requirement. This has not been attempted by Greater Manchester and should be addressed in order to produce definitive and clear evidence for the plan making process.

- 4.32 The EDNA considers past trends alongside the housing OAN scenario. At paragraph 8.27 past trends are used to identify gross requirements for individual districts alongside the housing OAN forecast to identify net change. Gross additions are then subtracted from the estimated net change to identify the potential scale of losses over the period from 2014 to 2035.

Land Supply

- 4.33 Paragraph 8.40 and the accompanying table provide estimates of the gross new floorspace that could be provided on sites over the period 2014 to 2035. It is noted that sites are considered to be developable and deliverable by the individual local authorities supplying the original data, however no evidence of deliverability is provided supporting this assertion. It also appears that no independent check on site deliverability has been undertaken so as to establish a robust and consistent basis for the supply assessment across Greater Manchester as a whole. For these reasons the validity of the supply side information is therefore called into question.
- 4.34 Site capacity is estimated based on the gross new floorspace (sq m) that could be accommodated for industrial/warehousing and office typologies. This approach to estimating the supply position is fraught with difficulties and is not considered to be a robust representation of Greater Manchester's land supply position.
- 4.35 We have a particular concern relating to the statement that *'the precise methodology that has been used for calculating their employment land supply may vary between districts...'* (see paragraph 8.4). This confirms that an independent audit or verification exercise has not been undertaken to assimilate the supply side work into a consistent format. This raises significant concerns that if the supply work is to be relied upon in the GMSF to meet economic development need, there is absolutely no guarantee of its sufficiency or quality.
- 4.36 There is also a lack of transparency with regard to how the estimates of floorspace have been derived. The PPG is clear on the need to understand and analyse the relationship between floorspace and site area when calculating employment land requirements, which is typically derived using a plot ratio. On this basis we would expect the land supply position to be presented by site area to enable this comparison to be made.
- 4.37 The approach taken in the EDNA precludes this and potential masks the capacity of the identified land supply to accommodate different uses. It is also not possible from the presentation of data in the EDNA to ascertain whether plot ratios have been varied by use typology.
- 4.38 We recommend that a range of plot ratio densities are modelled for different uses (and clearly presented within the report), reflecting the diversity of development densities achievable in different parts of Greater Manchester. For the purpose of establishing a

gross land supply position we consider that an assessment based on site area would be a more appropriate approach than that currently applied.

Comparison of past development rates and identified future supply

- 4.39 The supply approach that has been applied does, however, enable a broad comparison with past development rates which have been recorded on a square meter basis. Nevertheless, in the absence of data on the quantum of land actually taken up it is unclear how gross additions can be robustly used to determine a future land requirements.
- 4.40 Paragraph 8.42 and the accompanying table compare the identified supply of sites for gross new industrial and warehousing floorspace. In this table the estimated floorspace change (2014-2035) associated with the housing OAN forecast is presented and a comparative analysis is provided using past development rates projected forward. A 20% supply buffer is built into the calculation which is considered to be a reasonable assumption for this type of assessment in line with Peel's previous representations on this matter.
- 4.41 The combination of industrial and warehousing floorspace, as previously noted, is potentially misleading as this effectively assumes that B8 (warehousing) gains will offset B2 (industrial) losses. It is not evidenced in the EDNA that this would occur in reality and the absence of any consistent assessment of land suitability for B2/B8 uses is a limitation in this respect.
- 4.42 The PPG is clear that the available stock of land should be compared with specific requirements so that 'gaps' in local employment land provision can be identified. A breakdown by market segment is also recommended so that need can be identified for different types of employment land.
- 4.43 Critically, the amalgamation of industrial and warehousing uses does not enable a clear picture of the requirements to be established, which in turn means that any subsequent assessment of the supply demand balance (based on either net change from the housing OAN or past trends) is flawed and unlikely to be an accurate representation of the needs of specific sectors.

Conclusions relating to employment floorspace requirements

- 4.44 The 2014 GMFM is referenced at paragraph 8.50 and compared with the housing OAN forecast in terms of the different floorspace changes that are generated by each forecast.
- 4.45 No evidence is presented that proves the correlation between past trends and future requirements. This approach also fails to acknowledge that the distribution of jobs across sectors and locations in Greater Manchester – and in turn the associated land and floorspace requirements – will differ in future years. This is an important point, because the GMFM projects a negative industrial and warehouse floorspace change figure overall.
- 4.46 The assessment effectively adds an extrapolation of past take up of floorspace to 50% of the net difference between the 2014 GMFM and housing OAN derived floorspace

requirements. This produces a requirement for 3,452,312 sq m floorspace¹⁶. A 20% buffer is then added to generate a floorspace figure of 4,142,775 sq m.

- 4.47 This is an atypical approach to estimating need in the context of other economic development needs assessment and employment land reviews which tend to favour either an employment forecast or a take-up rate based approach rather than a hybrid. This aside, it is clear that there is a significant difference between past take up rates extrapolated and the floorspace change figures generated by the housing OAN forecast. This does suggest that floorspace needs could realistically exceed the levels associated with the housing OAN forecast, and that this should be “uplifted” to enable sufficient supply and choice in the Greater Manchester market.
- 4.48 An attempt to reconcile need and supply is provided at paragraph 8.55 of the EDNA and the proceeding table. This highlights a potential shortfall of over 1.1 million sq m of industrial and warehousing floorspace (2014-2035). As previously noted, we are concerned at the paucity of quality control checks on the employment site supply work and also the implied assumption in the modelled negative B2 floorspace requirements will be offset by B8 gains. This generalises the suitability of B2 sites for B8 occupiers in the future. This is an unevidenced proposition with the potential to under-estimate land needs.
- 4.49 An identical approach is applied to calculating office floorspace change generating a gross floorspace requirement of 2,398,669 sq m and a total requirement of 2,878,403 sq m floorspace once a 20% buffer has been factored in. Compared to supply, this generates a surplus of approximately 200,000 sq m floorspace over the plan period. A conclusion is reached that it would be desirable to retain all of the potential supply thereby maximising the potential to attract office occupiers during the plan period.
- 4.50 We have similar concerns in relation to the office based need assessment and reconciliation of need and supply. On the need side, the translation of floorspace into a land equivalent has been calculated using a plot ratio which we consider to be broadly reflective of city centre development (i.e. a plot ratio of 150%). It is noted at footnote 48 that plot ratios can “vary enormously” between development typologies and locations, however no attempt to reflect this statement is made in the analysis. As an example of the variation possible, plot ratios for business parks as oppose to city centre offices, can be generally observed at 40%. The application of a high floorspace yielding plot ratio across all office sites has the potential to under-estimate the actual requirement for office land. This is not sufficiently addressed in the EDNA.
- 4.51 The office site supply assessment also does not appear to have been tested for quality or consistency of assessment. The weight that can therefore be attributed to the need/supply balance at paragraph 8.57 and the proceeding table is therefore questioned.

¹⁶ Calculated by adding 3,171,015 sq m extrapolated take up to 281,297 sq m floorspace (representing 50% of the difference between the GMFM and OAN forecasts)

5. Conclusion: Continued Failure to Plan for Growth

5.1 The GMSF vision is strong and Peel supports an ambitious plan for the growth of Greater Manchester. However, this vision is not captured within the assessment of the economic development needs of Greater Manchester within Background Paper 2. There are also a number of deficiencies in the way in which the assessment has been conducted. We draw the following conclusions from our review:

- The economic development needs assessment continues to pay lip-service to the full economic potential of Greater Manchester and the GMSF vision;
- The economic forecasts developed are overly reliant on past economic performance and for reasons which are not fully explained or justified omit proper consideration of ‘game changer’ investment associated with the Northern Powerhouse. Similarly, the competitive advantages of Greater Manchester are not fully reflected in the economic forecasts which have been developed in the EDNA.
- Independent economic analysis undertaken by Frontier Economics on behalf of Peel demonstrates that Greater Manchester has stronger economic growth potential than the GMSF is planning for. Greater Manchester has significant levels of investment planned which constitute a step change with the past. It also has many of the attributes of “agglomeration economies” that drive high levels of growth in competitive global cities. Despite these apparent competitive advantages the GMSF is underpinned by assumptions which run the risk of constraining the labour force and employment levels. This is inconsistent with the vision and ambition stated in the GMSF.
- The Consultation Document purports to have developed a suite of Accelerated Growth Scenarios but fundamentally mis-represents the process by which the claimed Accelerated Growth Scenarios have been developed. Peel objects to the input of trend-based population projections and labour-force adjustments as the main determinant of Greater Manchester’s economic growth potential. There are many factors which are determinant of the growth of city economies and the exclusive reliance on population and labour-force factors is not a robust basis for constructing economic forecasts.
- The so-called ‘AGS-SNPP’ accelerated growth scenario forecasts average employment growth of 0.7% per annum. This level of forecast growth is still below the longer-term historic rate of job growth between 1997 and 2014 (0.76%) and post recessionary rates achieved in the period 2009-2014 (1.22% per annum). This scenario cannot therefore accurately be described as “accelerated and is more reflective of a historic baseline level of growth.
- Planning for only a baseline level of economic growth belies a misunderstanding of the ways in which cities grow and assuming a near zero level of migration

underplays Greater Manchester's economic growth potential. Planning policy conceived under these assumptions will actively constrain growth.

- The work undertaken to calculate employment floorspace requirements and to balance these against land supply is lacking in detail, consistency and transparency. The supply side analysis has not been audited for the quality or consistency of informing data and therefore cannot be considered reliable for the purposes of plan making. This gives little reassurance that the needs of businesses will be met by the GMSF over the plan period.
- The EDNA treats industrial and warehousing needs as interchangeable in the need calculation. The requirements of occupiers in industrial sectors and logistics are diverse and distinct and the blending of the need carries the risk of masking such specific needs and failing to make appropriate provision to meet their full needs in the GMSF.
- This limitation is particularly important given the divergent economic forecasts for industrial and logistics related sectors and the fact that the former produces negative floorspace requirements over the plan period while the latter produces a positive requirement. The EDNA takes the approach of offsetting the negative with the positive – effectively blending industrial and warehousing needs. Such an approach effectively assumes that logistics related floorspace and land requirements can be met (or offset) by the contraction of industrial operations and the release of land and premises for logistics use. This approach is flawed and fails to reflect market realities.
- The paucity of site supply analysis means that it is not possible to assess the extent to which existing industrial supply is located and configured to appeal to the future requirements of the logistics sector.
- We are concerned that the application of plot ratio assumptions for office floorspace that are generally reflective of high density and city centre office typologies may lead to an under-estimate of office floorspace requirements to accommodate the growth potential of office related sectors of the economy. The EDNA's office floorspace calculation is predicated on accommodating all growth in office need in one type of office development. We suggest that this is not reflective of the full range of office environments including the particular requirements of the out of town market, business parks and research and development focused office spaces.
- The analysis of floorspace requirements omits consideration of losses from supply and also applies questionable assumptions relating to the distribution of needs to local authority districts.

5.2 For the above reasons Peel does not consider the EDNA to provide a sufficient or sound evidential basis for planning to meet economic development needs in Greater Manchester. The identified gaps and flaws in the evidence must be addressed before the GMSF proceeds to the next stage of plan preparation.

Appendix 1: The economics of the Greater Manchester Spatial Framework by Frontier Economics



The economics of the Greater Manchester Spatial Framework

A REPORT PREPARED FOR PEEL HOLDINGS

January 2016

The economics of the Greater Manchester Spatial Framework

1	Executive Summary	1
1.1	<i>The focus of this report</i>	1
1.2	<i>Our findings</i>	1
1.3	<i>Conclusion</i>	5
2	Introduction	7
2.1	<i>The Greater Manchester Spatial Framework</i>	8
2.2	<i>The GMSF's alternative growth options</i>	9
3	Consistency of growth options with evidence about how cities grow	12
3.1	<i>Key factors driving the growth of cities</i>	13
3.2	<i>The economic growth drivers in the GMSF forecasts</i>	15
4	Consistency of growth options with economic policy context	20
4.1	<i>Investing for growth in Greater Manchester</i>	20
4.2	<i>The Northern Powerhouse</i>	22
4.3	<i>Labour market and skills</i>	24
5	Consistency with history and comparators	27
5.1	<i>Consistency with the history of Greater Manchester</i>	27
5.2	<i>Consistency with the experience of comparator cities</i>	28
6	Conclusions	34
	Annex 1	39

The economics of the Greater Manchester Spatial Framework

Figure 1. A framework for understanding the economic performance of cities	13
Figure 2. Indicative trend for capital expenditure on transport infrastructure in the North West	21
Figure 3. Employment growth for Greater Manchester, 1999-2014	28
Figure 4. Annual employment growth - cities with population in 2000 similar to Manchester's population in 2014 and positive GDP growth rates between 2000 and 2012	30
Figure 5. Annual employment growth - cities with population in 2000 similar to Manchester's population in 2014 and GDP growth rates above Greater Manchester between 2000 and 2012	31
Figure 6. City typology	32
Figure 7. Annual employment growth - "Transformation Pole" cities with GDP growth at least as good as Greater Manchester since 2008	33
Table 1: Summary of options and Oxford Economics scenarios (% growth forecasts are in annual terms)	11

1 Executive Summary

1.1 The focus of this report

Greater Manchester is a successful and growing city region, and has set itself the goal of matching the economic growth rate achieved in the South East of England. It aims to do this by playing a central role in the Northern Powerhouse, targeting investment on the drivers of growth, and removing the barriers that stifle growth.

An important policy instrument for delivering sustainable growth is the Greater Manchester Spatial Framework (GMSF). The GMSF aims to ensure that Greater Manchester “has the right land in the right places to deliver the homes and jobs we need up to 2035”. It has a pivotal role to play in influencing growth and productivity in the economy. The assumptions it makes about employment growth are important for subsequent requirements of land for development.

The GMSF is underpinned by its projections for the local economy over the period to 2035. Over this period it provides a ‘best estimate’ (identified as Option 2) of key demographic and economic factors that include:

- population growth of 0.5% per annum; and
- employment growth of 0.7% per annum.

We believe that the employment growth assumption is particularly significant for policy making. It substantially impacts on the type of development needed to provide housing and employment space for the workforce. In turn, these factors will influence growth and productivity opportunities.

This employment growth assumption is therefore a particular area of focus in our analysis. In particular, we ask whether the employment growth assumption in the GMSF is appropriate in the context of Greater Manchester’s growth strategy.

1.2 Our findings

Our main finding is that we believe the 0.7% employment growth assumption in the GMSF is too conservative given the aspirations for growth in Greater Manchester. Indeed, we believe there is a significant risk that growth could be constrained if development policy was based upon this assumption.

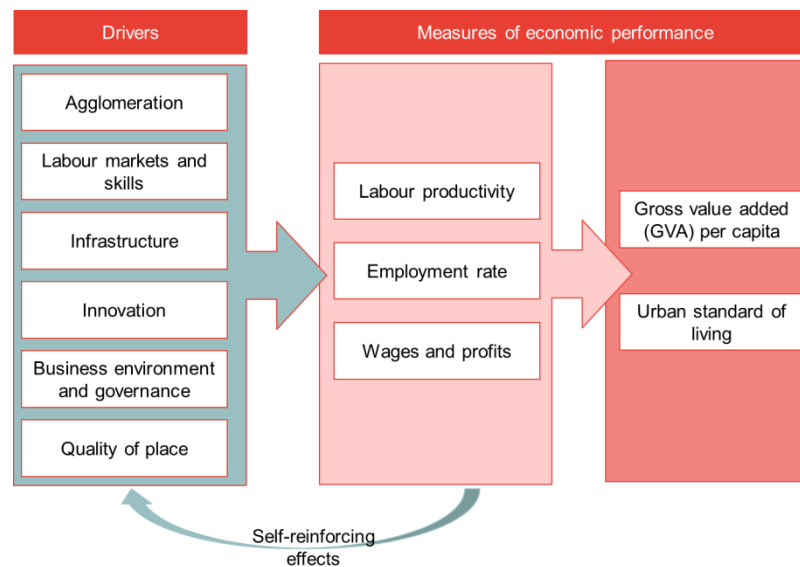
We put forward three reasons for reaching this conclusion.

1: The GMSF does not adequately take into account the economic evidence on urban and city growth

We have examined the consistency of the growth options described in the GMSF with established theory and evidence about what drives growth in cities and urban areas. We find that the drivers of growth have not been well articulated in the context of producing the options in the GMSF, and that the plan does not adequately reflect the evidence about how cities and city regions grow.

The figure below provides a stylised framework for understanding the economic performance of cities, drawing on this extensive body of evidence. It sets out the links between economic drivers and measures of economic performance.

A framework for understanding the economic performance of cities



Source: Frontier Economics, adapted from ODPM, 2006, *State of the English Cities*, Volume 1. London: ODPM, drawing on LSE Growth Commission, 2013, *Investing for Prosperity: Skills, Infrastructure and Innovation*; City Growth Commission, 2014, *Unleashing Metro Growth*, Final Recommendations of the City Growth Commission; and The Manchester Independent Economic Review, 2009.

Our analysis shows that the pivotal role of labour markets and skills as growth drivers are poorly captured and understood within the GMSF. The ability to attract or retain skilled employees within Greater Manchester is likely to be a key driver of projected growth but the employment forecasts that underpin the GMSF do not appropriately reflect this. They assume that the majority of additional employment growth will be brought about by the employment of existing inactive and unemployed residents of the region. We believe there is a significant risk to achieving the level of economic growth to which Greater Manchester aspires if the GMSF assumptions on employment are followed.

Executive Summary

Moreover, there are reliable estimates in the agglomeration academic literature that suggest an increase in city population can have a significant impact on the productivity of an area. There is also evidence to show productivity improvements in the service sector tend to be greater as city populations increase. These agglomeration effects which can be significant (and are expected to drive growth in Greater Manchester) have been inadequately captured and understood within the GMSF.

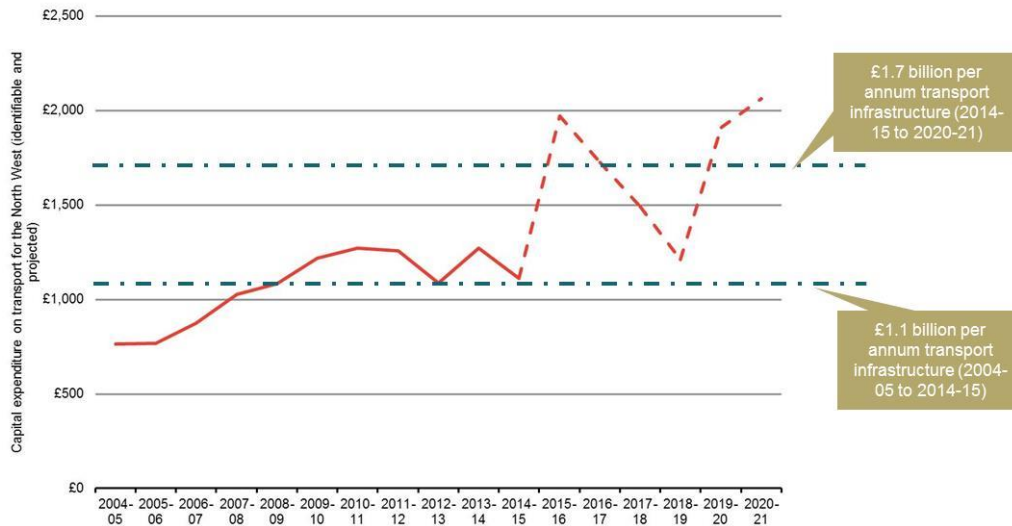
2: There is an inconsistency between Greater Manchester's economic policy and the GMSF employment assumptions

We have examined the economic policy aspirations and actions of Greater Manchester and also the aspirations and actions associated with the Northern Powerhouse policy drive. These are significant and are likely to have a greater impact on the Greater Manchester economy than past investments and policy actions.

As an example of the step up in Greater Manchester's intentions we provide illustrative evidence on future funding of transport investment. The evidence suggests that improving transport accessibility within the city (and between the city and other areas) is likely to unlock agglomeration benefits. These refer to productivity improvements that come about when the effective size (or density) of the local economy grows. By showing that investment is likely to be higher than in the past, we can indicate evidence of Greater Manchester's higher economic growth potential.

As an example the figure below shows that the amount spent on transport infrastructure in the North West averaged approximately £1.1 billion per annum over the period 2004-05 to 2014-15 but is anticipated to increase to around £1.7 billion per annum from 2014-15 to 2020-21. This is an increase of approximately 70% and suggests a step-change compared with the period for which the forecasts underpinning the GMSF were prepared.

Indicative trend for capital expenditure on transport infrastructure in the North West



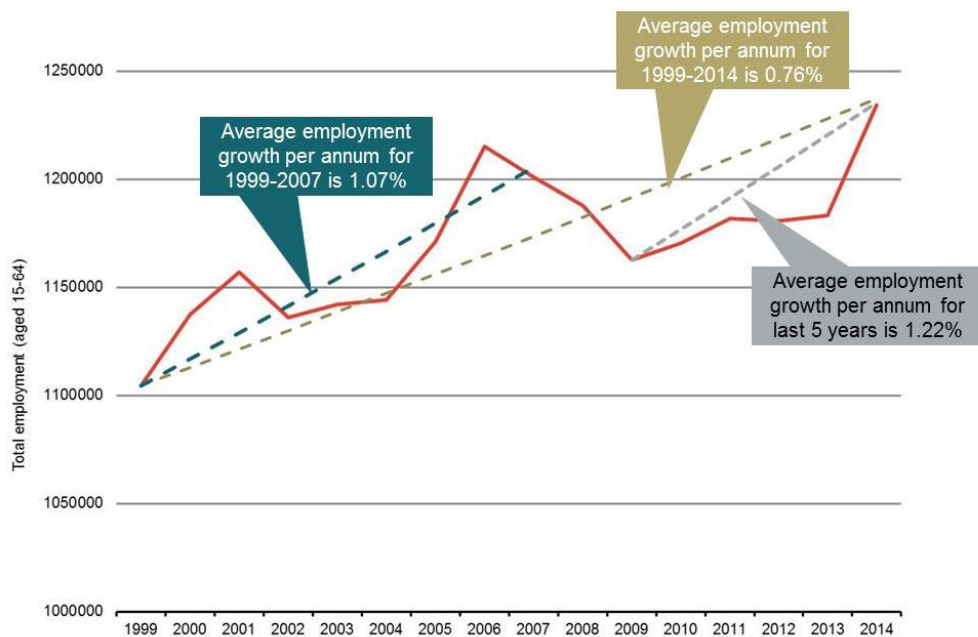
Source: Frontier analysis of Identifiable Capital expenditure, HM Treasury and National Infrastructure Plan, HM Treasury and Infrastructure UK

We believe that despite Greater Manchester's policy intentions, the GMSF could create a bottleneck by being too conservative on employment growth. It appears to have underestimated the amount of further net inward migration of skilled employees that will be required in the region to match its actions on investment, the goals of the Northern Powerhouse, and Greater Manchester's own aspirations for economic success.

3: The GMSF employment assumptions appear inconsistent with history and against comparator cities

We find that both historically and comparatively the GMSF's assumption of 0.7% employment growth per annum appears low. Growth in employment has averaged 0.76% per annum since 1999, despite the deepest recession in post-war history, and has averaged 1.22% per annum in the five years since 2009. In addition, growing comparator cities, reflective of the ambitions of Greater Manchester, have experienced median employment growth of 0.86% per annum in the recent past.

Employment growth for Greater Manchester, 1999-2014



Source: Eurostat, NUTS 2 region

1.3 Conclusion

Greater Manchester has strong aspirations for growing its economy. This is evidenced by its actual and planned investments in the key drivers of growth, and its pivotal role in the Northern Powerhouse drive. The evidence from academic literature on how cities grow indicates that these actions should lead to relatively high productivity and economic growth rates in the future.

Our main finding is that we believe the 0.7% employment growth assumption in the GMSF is too conservative given the aspirations for growth in Greater Manchester. Indeed, we believe there is a significant risk that growth could be constrained if development policy was based upon this assumption.

The step up in ambition in Greater Manchester suggests employment growth can be expected to exceed past trends. For example, growing comparator cities, reflective of the ambitions of Greater Manchester, have experienced median employment growth of 0.86% per annum in the recent past.

To secure these improvements in productivity and growth the evidence on labour markets suggests that higher levels of net inward migration of **skilled workers** will be required to realise Greater Manchester's growth ambitions.

Option 2 in the GMSF, described as Greater Manchester's best estimate, does not sufficiently account for the potential for such inward skills migration,

assuming minimal net inward migration. It is difficult to judge without further analysis what the appropriate migration and population assumptions should be, but the evidence on labour markets certainly points towards migration levels above those of Option 2.

2 Introduction

Frontier Economics were commissioned by Peel to undertake an independent assessment of the extent to which the assumptions underpinning the Greater Manchester Spatial Framework (GMSF) reflect and are consistent with the aspirations for economic growth described for Greater Manchester.

Our report focuses on the validity of assuming a 0.7% annual employment growth rate for Greater Manchester, the assumption underpinning GMSF's best estimate of future needs (Option 2 in the GMSF). The reason for this focus is the significant role that employment growth and the skills composition of the labour market play in policy making. They influence other economic assumptions, are a key driver of gross value added (GVA) and an important factor in determining population growth through the role of skilled migration. They substantially impact important policy questions for the GMSF, notably regarding the scale and type of development needed to provide housing and employment space for the workforce.

The rest of this chapter sets out the alternative growth options and their underpinning assumptions described in the GMSF. This provides the context for the three subsequent chapters, which set out our analysis in detail.

- In Chapter 3, we examine the consistency of the growth options described in the GMSF with established theory and evidence about what drives growth in cities, city regions and urban areas. We find that the drivers of growth have not been sufficiently well articulated in the context of producing the options in the GMSF, and that the plan does not adequately reflect the evidence about how cities grow. In particular, we believe that the pivotal role of labour markets and skills as key drivers of growth have been insufficiently captured and understood. This misunderstanding results in an underestimation of the employment growth required to meet Greater Manchester's aspirations as well as the skilled migration required to achieve it. In addition, agglomeration economies, which can be significant, whereby location of multiple firms close to each other result in benefits to firms and individuals are a key driver of urban economic performance, and are not sufficiently accounted for in the GMSF forecasts.
- In Chapter 4, we examine the consistency of the growth options described in the GMSF with policy in and relating to Greater Manchester. We see that Greater Manchester is investing for growth and is a critically important part of the Northern Powerhouse policy drive. Greater Manchester has a strong desire to develop sustainable growth that can match the growth rate achieved in the South East of England. We believe that despite Greater Manchester's policy intentions, the GMSF could create a bottleneck by being too conservative about employment growth. It appears to have

underestimated the further net inward migration of skilled employees required in the region to achieve its aspirations for economic success.

- In Chapter 5, we have provided a brief historical and comparative assessment of employment growth in Greater Manchester. Again, the evidence illustrates that the 0.7% annual employment growth rate assumption may well be too conservative. Annual employment growth in Greater Manchester averaged 0.76% since 1999 and 1.22% in the post-recession period. In addition, growing comparator cities, reflective of the ambitions of Greater Manchester, have experienced median employment growth of 0.86% per annum in the recent past.
- Chapter 6 draws together the conclusions of our analysis.

2.1 The Greater Manchester Spatial Framework

The Greater Manchester Spatial Framework (GMSF) is a plan to manage the supply of land for jobs and new homes across Greater Manchester. It aims to ensure that Greater Manchester “has the right land in the right places to deliver the homes and jobs the region needs up to 2035”.

The GMSF sets out a vision for growth in Greater Manchester over the next 20 years in the context of the Government’s Northern Powerhouse objectives and recent devolution of powers to Greater Manchester.

“Our ambition is for Greater Manchester to become a financially self-sustaining city, sitting at the heart of the Northern Powerhouse with the size, the assets, the skilled population and political and economic influence to rival any global city. We are one of a few economic geographies capable of becoming a national engine of growth for the North and the UK as a whole, and in doing so, become a net contributor to the economy.”¹

A key component of the plan is a description of the economic context for the region to 2035. This economic context has looked to take into account future demographic trends and the likely economic impact of the Northern Powerhouse. In assessing the future economic context, the GMSF sets out three options for future growth, as described in the next section, with a best estimate scenario that assumes annual growth rates for population growth of 0.5%, employment growth of 0.7% and GVA growth of 2.8%.

¹ GMSF Strategic Options Consultation, page 2.

2.2 The GMSF's alternative growth options

Three options for the future growth of Greater Manchester are set out in the GMSF, as described below.² Option 2 is proposed as Greater Manchester's best estimate of future needs to balance a range of economic, social and environmental objectives.

2.2.1 Option 1

Option 1 proposes annual development of 7,300 houses, 120,300 m² of industrial and warehousing space and 122,500 m² of office space.

This is underpinned by an assessment of the existing land supply and a 'baseline' scenario of economic performance from the Greater Manchester Forecast Model (GMFM). This scenario provides a view of future growth, largely based on past trends, with the following key assumptions:

- Population growth of 0.4% per year;
- Employment growth of 0.5% per year; and
- GVA growth of 2.5% per year.

2.2.2 Option 2

Option 2 is proposed as Greater Manchester's best estimate of development requirements following an analysis of 'objectively assessed need'. It proposes annual development of 10,350 houses, 164,400 m² of industrial and warehousing space, and 114,200 m² of office space.

This option is underpinned by an 'accelerated growth scenario' produced by Oxford Economics, with the following key assumptions:

- Population growth of 0.5% per year³;
- Employment growth of 0.7% per year; and
- GVA growth of 2.8% per year.

The basis of this economic scenario differs from Option 1 in two main respects. Firstly, objectives for the Northern Powerhouse regarding economic growth and job creation are assumed to be achieved. Secondly, population growth is based

² The economic assumptions outlined here are from supporting documentation on growth scenarios: Oxford Economics, 2015, An accelerated growth scenario for Greater Manchester. Development requirements are from the GMSF.

³ We note that the 'objectively assessed housing need' uses slightly higher assumptions on international inward migration than this Oxford Economics scenario, but this does not significantly alter the economic assumptions from those quoted.

on ONS estimates, which are higher than those used in Option 1 but assume net migration of close to zero. Both of these assumptions have the effect of increasing growth levels in Option 2 compared to Option 1.

2.2.3 Option 3

Option 3 proposes annual development of 16,000 houses, 192,900 m² of industrial and warehousing space, and 129,800 m² of office space. It is described as following an approach in line with housing needs identified in the 'Housing the Powerhouse' report.

This option is underpinned by a higher 'accelerated growth scenario' produced by Oxford Economics, with the following key assumptions:

- Population growth of 0.9% per year;
- Employment growth of 1.1% per year; and
- GVA growth of 3.3% per year.

The basis of the economic scenario follows the same assumptions as Option 2 in meeting economic objectives for the Northern Powerhouse, but assumes higher levels of inward migration to Greater Manchester. This increases the growth assumptions compared to Options 1 and 2.

2.2.4 Summary of growth option assumptions

The economic assumptions underpinning the three options are summarised in **Table 1**. An additional scenario produced by Oxford Economics is also included for reference, which has growth between the levels of Options 2 and 3, based on different migration assumptions.

Although each of the economic assumptions are important, as set out above, we consider employment growth to be particularly significant for policy making in the GMSF. Employment growth will influence the other economic assumptions, acts as a key driver of GVA and is an important factor in determining population growth through the role that migration plays. It substantially impacts important policy questions for the GMSF, notably regarding the scale and type of development needed to provide housing and employment space for the workforce. This assumption is therefore a particular area of focus in our analysis.

Table 1: Summary of options and Oxford Economics scenarios (% growth forecasts are in annual terms)

	Baseline	Accelerated Growth Scenarios (AGS)		
		AGS-SNPP	AGS-high	AGS-higher
Option*	Option 1	Option 2		Option 3
Population growth (%)	0.4	0.5	0.7	0.9
Employment growth (%)	0.5	0.7	0.9	1.1
Residents in employment growth (%)	0.4	0.6	0.8	1.0
GVA growth (%)	2.5	2.8	3.1	3.3
Rationale for Economic Performance	Greater Manchester Forecast Model baseline	North West achieves average UK GDP and employment rates	North West achieves average UK GDP and employment rates + GVA from extra population growth	North West achieves average UK GDP and employment rates + GVA from extra population growth
Rationale for Population Growth	Greater Manchester Forecast Model baseline Small outward migration	ONS projections Near zero net migration	ONS projections + Inward migration in line with average from 2002-2012	ONS projections + Inward migration in line with average from 2002-2012 + International migration from 'unattributable population change' in ONS data

Source: Frontier Economics analysis of Oxford Economics Scenarios and Greater Manchester Spatial Framework.
*Options mapped to Oxford Economics scenarios based on GVA assumptions, but there may be small differences in other outputs or assumptions as a result of additional analysis also used in the GMSF, such as the slightly higher international migration used in Option 2 of the GMSF.

3 Consistency of growth options with evidence about how cities grow

The urban economics and city growth literature contains a well-established evidence base about how cities, city regions and urban areas grow. This extensive and well-recognised body of evidence identifies the key drivers of growth at disaggregated spatial levels with city growth being a primary focus of much of the research. This chapter provides an overview of this evidence and considers the extent to which the key drivers of city growth have been captured for the Greater Manchester context within the GMSF and its underpinning forecasts.

We find that the drivers of growth have not been sufficiently well articulated in the context of producing the options in the GMSF, and that the forecasts underpinning the plan do not adequately reflect the evidence about how cities grow. In particular, we believe that the pivotal role of labour markets and skills as key drivers of growth have been insufficiently captured and understood. The ability to attract or retain skilled employees within Greater Manchester is likely to be a key driver of projected growth, yet the employment forecasts that underpin the GMSF assume that the majority of additional employment growth will be brought about by the employment of existing inactive and unemployed residents of the region. This misunderstanding results in an underestimation of the employment growth required to meet Greater Manchester's aspirations as well as the skilled migration required to achieve it.

In addition, the focus on growth in service sectors within Greater Manchester could result in high agglomeration effects. UK estimates of productivity elasticity with respect to city population size are as high as 0.18 in some service sectors, compared to 0.04 in manufacturing.⁴ This suggests that there could be greater economic benefits of agglomeration in Greater Manchester in future, as the sector composition of its economy changes. These agglomeration impacts are neither adequately articulated in the GMSF, nor sufficiently accounted for in the forecasts underpinning it.

The rest of this chapter describes these findings in more detail and is structured as follows:

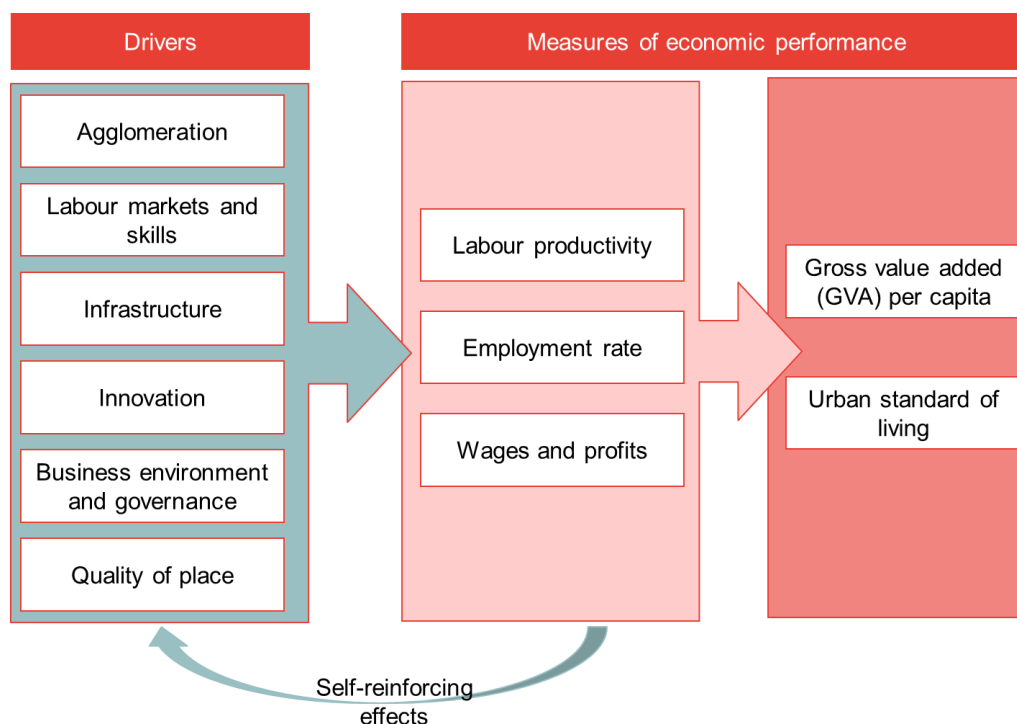
- Section 3.1 sets out the key drivers of the growth of cities, drawing on the extensive urban economics and city growth evidence and literature; and
- Section 3.2 considers the extent to which these drivers have been adequately captured within the GMSF.

⁴ Graham (2007) cited in MIER, 2009, The case for agglomeration economies.

3.1 Key factors driving the growth of cities

In **Figure 1** we provide a stylised framework for understanding the economic performance of cities, drawing on the extensive and well-recognised body of evidence identifying the key drivers of growth at disaggregated spatial levels. The framework maps the main high-level drivers of the economic performance of cities to the measures of economic performance that they feed into. Key drivers of economic growth include labour markets and skills, infrastructure, and innovation. Alongside these, the literature on urban economics identifies agglomeration economies⁵ as an important factor in the performance of cities and regions.

Figure 1. A framework for understanding the economic performance of cities



Source: Frontier Economics, adapted from ODPM, 2006, *State of the English Cities, Volume 1*. London: ODPM, drawing on LSE Growth Commission, 2013, *Investing for Prosperity: Skills, Infrastructure and Innovation*; City Growth Commission, 2014, *Unleashing Metro Growth, Final Recommendations of the City Growth Commission*; and The Manchester Independent Economic Review, 2009.

Economic performance measures include intermediate aspects (e.g. productivity of the workforce, the rate of employment, wages and profits), as well as aggregate

⁵ Agglomeration economies occur when the location of multiple firms close to each other results in benefits to firms and individuals (e.g. an increased pool of labour from which firms can hire employees).

performance measures (e.g. gross value added (GVA) per capita, and standard of living indicators).⁶ In turn, the literature identifies important feedback effects and interdependencies between economic growth and its drivers, such that achieving economic growth may rely on making improvements across multiple drivers at the same time. For example, attracting additional skilled labour to a city may rely on transport infrastructure investments which are in themselves productivity enhancing.

In the text that follows, we provide an overview of what the evidence tells us about how each high-level driver contributes to economic growth in cities.

- **Agglomeration.** Agglomeration economies arise where concentration of economic activity leads to benefits such as an increased pool of labour from which firms can hire employees (resulting in better skills matching), improved flows of knowledge between firms (resulting in increased innovation and therefore productivity), or improved access to markets (resulting in transport cost savings).
- **Labour markets and skills.** Skills have been identified as one of the main drivers of economic growth,⁷ by determining the productivity of the workforce, as well as being correlated with factors such as labour market participation.⁸ The ability to attract skilled employees to a city's labour market, whether through commuting, relocation (within a region, country, or internationally), or increasing the employment rate of the existing city population, affects economic performance, for example through impacting on productivity.
- **Infrastructure.** High quality physical and digital infrastructure is a driver of economic growth in cities, through increasing productivity levels, and attracting further investment and skilled labour.⁹ Significant investments representing a step change in infrastructure, referred to as 'game changers,' play a particularly important role in this context.

⁶ It should be noted that productivity (as measured by GVA) is a measure of economic performance and is not in itself a driver of growth. It results from changes to the growth drivers identified within the figure.

⁷ The LSE Growth Commission, 2013, Investing for Prosperity: Skills, Infrastructure and Innovation, cites theoretical and empirical literature that finds that human capital - the stock of knowledge and skills of individuals or populations - is one of the main drivers of growth.

⁸ Manchester Independent Economic Review, 2009, Understanding Labour Markets, Skills and Talent.

⁹ City Growth Commission. 2014, Unleashing Metro Growth, Final Recommendations of the City Growth Commission.

**Consistency of growth options with evidence
about how cities grow**

- **Innovation.** The development of new methods or ideas, which create value and/or fulfil needs are important drivers of economic growth, by raising productivity levels.
- **Business environment and governance.** A key aspect of the business environment affecting economic performance is the ability to attract investment in areas such as infrastructure, skills, and public services. Devolution of governance may also be important. Whilst there is currently a limited empirical evidence base on its impacts, emerging literature on decision-making suggests governance devolution could drive increased economic growth. This can be brought about by encouraging innovation or by increasing transparency, leading to greater investment and productivity levels.¹⁰
- **Quality of place.** The quality of a city or region as a place can affect economic performance by affecting location decisions for people with the required skills.¹¹ Amenities such as hospitals, schools, retail, and leisure facilities can often be offered at greater scale or with more choice in cities compared to non-urban environments. Increased density can also result in effects such as congestion, pollution, or a lack of access to open or green public spaces.

3.2 The economic growth drivers in the GMSF forecasts

In this section, we assess the extent to which the drivers of growth are accounted for within the GMSF. We consider this from three perspectives. Firstly, the extent to which the arguments and evidence are articulated within the GMSF and interpreted correctly in the context of the aspirations for growth. Secondly, the extent to which the growth drivers are captured within the growth forecasts underpinning the GMSF. Finally, the extent to which growth could be constrained by a misunderstanding of these drivers.

We find that the pivotal role of labour markets and skills as key drivers of growth have been insufficiently captured and understood within the GMSF leading to an underestimation of the employment growth required for economic success and

¹⁰ Department for Communities and Local Government, 2011, Updating the evidence base on English cities, available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6298/1829875.pdf.

¹¹ Department for Communities and Local Government, 2011, Updating the evidence base on English cities

of the skilled migration required to achieve it. In addition, agglomeration effects, which can be significant, particularly in the service sectors which are expected to drive growth in Greater Manchester, have also been inadequately captured and understood.

The GMSF forecasts are based to a large extent on past trends. However, many of the developments identified below, including infrastructure investment and devolution represent a step change relative to the past. These changes would not be accounted for in the GMSF forecasts but have the potential to have significant impacts on future employment and productivity growth.

3.2.1 Agglomeration

Estimates for Greater Manchester show that it is highly agglomerated but underachieving against its potential for agglomeration benefits. This is due to uneven productivity performance between northern and southern Greater Manchester.¹²

The agglomeration literature suggests that the focus on growth in service sectors within Greater Manchester could result in additional agglomeration effects in future. UK estimates of productivity elasticity with respect to city population size are as high as 0.18¹³ in some service sectors, compared to 0.04 in manufacturing.¹⁴ This suggests that there could be increased agglomeration benefits to growth in Greater Manchester in future, as the sector composition of its economy changes.

The agglomeration impacts of shifting Greater Manchester's economy towards skilled services sectors are neither adequately articulated in the GMSF, nor accounted for in the forecasts underpinning the GMSF.

3.2.2 Labour markets and skills

Labour market and skills developments that could drive increased economic growth in Greater Manchester include attracting more skilled labour to the area, improving the quality of education and enhancing the skills of those within Greater Manchester.

The focus on growth in skilled service sectors in Greater Manchester relies on an increased supply of skilled labour. There is a limited supply of available labour of this type in Greater Manchester currently.¹⁵ This means skilled labour growth

¹² MIER, 2009, The case for agglomeration economies.

¹³ That is, a 10% increase in city population is associated with a 1.8% increase in service sector productivity.

¹⁴ Graham (2007) cited in MIER, 2009, The case for agglomeration economies.

¹⁵ See Chapter 4.3 for evidence from the 2014 Greater Manchester Business Survey.

will likely require inward migration to Greater Manchester or better retention of its existing graduates¹⁶.

Improvement of the skills of the existing workforce takes time and the most effective interventions require investment in early years and school education.¹⁷ But this involves long lags between any such improvements and productivity impacts, reinforcing the importance of skilled labour migration in enabling increased economic growth over the GMSF period.

By assuming minimal net migration, Greater Manchester's best estimate (Option 2) does not sufficiently articulate or allow for economic growth to be driven by attracting skilled labour from outside the area, or retaining skilled graduates in Greater Manchester. The assumption that the employment rate amongst the existing workforce in Greater Manchester will increase may be unrealistic given evidence of a skills gap, and the long lags between education interventions and their impacts.

3.2.3 Infrastructure

A number of infrastructure investments that can be identified as potential 'game changers' for Greater Manchester are on the horizon. These include faster broadband speed, increasing aviation capacity, and improving transport connectivity between Manchester and other cities in the North.¹⁸ As an indication, six of the "Top 40 projects" identified in the National Infrastructure plan¹⁹ specifically affect transport in Manchester (road, rail, air and water).²⁰ These investments can have a significant impact in increasing economic growth - for example by impacting on the ability of individuals to commute and work in Greater Manchester, or by introducing new opportunities for businesses (e.g. ability to reach new markets).

By representing a step change in Greater Manchester's infrastructure, the growth enhancing impacts of these investments would not be captured in the GMSF forecasts which are based on past trends. In addition, where significant investments have occurred but have not yet achieved their full potential impacts

¹⁶ The evidence suggests that the North West retains a smaller proportion of graduates that have studied at universities in Manchester than the equivalent retention of graduates in London.

¹⁷ Evidence suggests that skills and aptitudes are to a large extent determined early in life, Manchester Independent Economic Review, 2009, Understanding Labour Markets, Skills and Talent.

¹⁸ City Growth Commission. 2014, Unleashing Metro Growth, Final Recommendations of the City Growth Commission.

¹⁹ National Infrastructure Plan, HM Treasury and Infrastructure UK, 2015

²⁰ 1) The national High Speed Rail network (phase 2) due in service in 2032 2) Northern Hub due in service in 2018 3) Manchester Victoria due in service in 2015 4) Manchester Smart motorways (M60 J8 to M62 J20) due in service 2017 5) A6 to Manchester Airport Relief Road (6.2 miles of new dual carriageway) due in service 2017 and 6) Port Salford Terminal

(e.g. MediaCityUK, which is expected to have continued impacts on employment growth, as set out in Chapter 4), these effects will not be accounted for in the forecasts underpinning the GMSF given their reliance on past trends.

Planning policy responsiveness also has a potential role in affecting growth. Land use policy can constrain economic growth by limiting the ability of cities to expand their stock of housing and business premises. For example, a study found that expansion of high-tech clusters (e.g. Cambridge and Oxford) had been hindered by planning restrictions, through affecting housing costs and availability for employees, restricting land use, and inhibiting digital infrastructure (e.g. the roll out of ultra-fast broadband).²¹ This suggests that increasing the responsiveness of planning policy to market signals around city expansion could be a significant enabler of increased growth in Greater Manchester, and getting it wrong could unduly constrain growth.

3.2.4 Innovation

In the past, innovative capacity in Greater Manchester has been found to be lower than its potential – for example, a 2009 study identified a lack of networks of businesses within Manchester, potentially limiting the spread of innovation.²² However, recent indicators suggest that this may be changing. There is some evidence that Greater Manchester’s economy is becoming increasingly innovative. For example, Manchester appears in the “Innovation Cities Global Index,” which ranks cities based on assessment of their innovation potential – its rank was 29th globally in 2014.

To the extent that increases in Greater Manchester’s innovative capacity have not yet achieved their full impacts, these changes would not be reflected in the forecasts underpinning the GMSF.

3.2.5 Business environment and governance

There are two aspects of the business environment and governance that could be associated with increased economic growth in Greater Manchester.

The first relates to the importance of skilled labour to attracting inward investment. In Manchester, foreign and domestic investment firms use skilled labour rather than substituting for it.²³ Their investment relies on a sufficient supply of skilled labour being available, and reinforces the need to develop a greater pool of skilled labour in Greater Manchester.

²¹ MIER, 2009, The case for agglomeration economies.

²² MIER, 2009, Innovation, Trade and Connectivity.

²³ Manchester Independent Economic Review, 2009, Inward and indigenous investment.

The second relates to the increased devolution of decision-making.²⁴ The case for devolution of responsibilities - including health and social care, skills, business support, and employment²⁵ - to Greater Manchester is predicated on there being benefits (e.g. to productivity and growth) from doing this that outweigh the costs. Given that this is a recent move with limited precedent in the UK, the impact of devolution on future economic performance is untested, but has the potential to be growth enhancing.

The reliance of inward investment on a sufficient supply of skilled labour in Greater Manchester is not well articulated or adequately accounted for in the GMSF. Further, insofar as devolution of governance to Greater Manchester is a new development, to the extent that it may drive future employment or productivity growth, these potential effects are not likely to be captured.

3.2.6 Quality of place

We outline two effects through which improvements to the quality of Greater Manchester as a place in which to live and work could impact on its future economic performance.

Firstly, through investing in amenities to ensure that Greater Manchester is a sufficiently attractive place in which to live and work or that the negative effects of city expansion (e.g. pollution) are counteracted. This relates closely to the infrastructure opportunities outlined above.

Secondly, addressing inequalities through investing in amenities and the physical environment in deprived urban areas can contribute to the benefits of economic growth being more evenly distributed, ensuring long-term sustainability of economic growth. Again, this is closely related to discussions above, for example in relation to addressing the productivity gap between Greater Manchester and London. The Manchester Independent Economic Review (MIER) found that the priority in addressing unequal economic growth was to address education, skills, and advice available in deprived areas.²⁶

Where 'game changer' investments improve the quality of Greater Manchester as a place in which to live and work, this would be expected to improve future economic performance, and is not explicitly modelled in the GMSF forecasts.

²⁴ We note that emerging literature suggests that devolution of governance could drive increased economic growth, for example by encouraging innovation, or by increasing transparency, leading to greater investment and productivity levels, although the empirical evidence is limited. Department for Communities and Local Government, 2011, Updating the evidence base on English cities.

²⁵ HM Treasury, January 2015, Long term economic plan for the north-west set out by Prime Minister and Chancellor, <https://www.gov.uk/government/news/long-term-economic-plan-for-the-north-west-set-out-by-prime-minister-and-chancellor>.

²⁶ MIER, 2009, Sustainable Communities.

4 Consistency of growth options with economic policy context

Greater Manchester has a strong desire to develop sustainable growth in the city region that can match the growth rate achieved in the South East of England. To achieve this ambitious goal, the Greater Manchester Combined Authority aspires to take action to facilitate economic growth by investing in the drivers of growth and reforming policies to remove the barriers that stifle it. Greater Manchester is also integral to a range of Northern Powerhouse policies that are focussed on stimulating economic growth in the north.

To achieve the full economic potential of the city region in terms of productivity and growth, it is essential that the Greater Manchester labour market has the flexibility to deliver the appropriate employment with the right level of skills. Despite its policy intentions, we believe that the GMSF does not account sufficiently for the employment growth that is likely to be needed and it has underestimated the amount of further (net) inward migration of skilled employment that will be required in the region.

This chapter describes the economic policy context for Greater Manchester and assesses the extent to which the growth forecasts underpinning the GMSF are consistent with these aspirations. The rest of the chapter is structured as follows:

- Section 4.1 assesses the transport policy context and the extent to which this is a significant break with the past in the context of the role that infrastructure investment can play in driving growth;
- Section 4.2 assesses Northern Powerhouse policy, the role of agglomeration economies and the extent to which these represent a step change for Greater Manchester relative to the past; and
- Section 4.3 considers the role that skilled labour plays in the growth of the region and the consistency of that role with the employment forecasts underpinning the GMSF.

4.1 Investing for growth in Greater Manchester

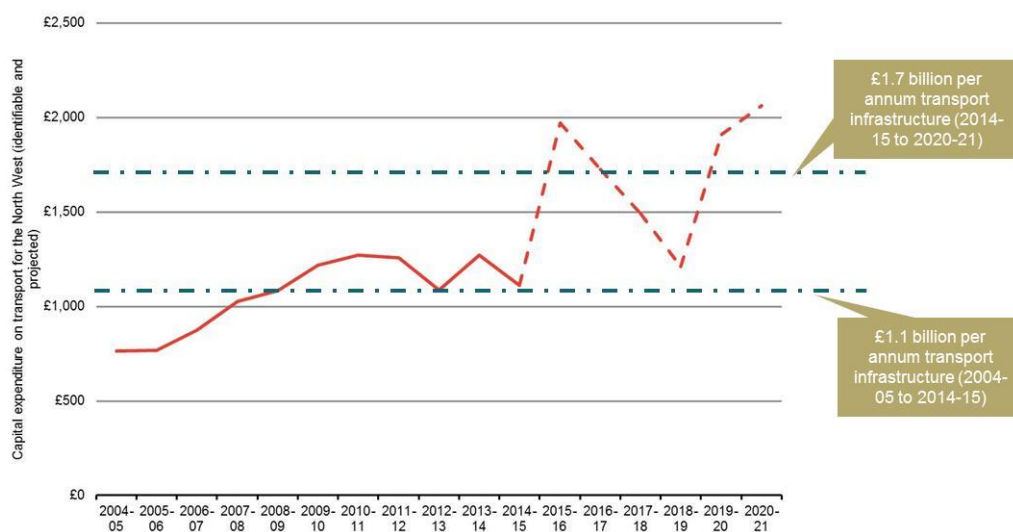
Over recent years, Greater Manchester has overseen a significant transport investment programme and is continuing to invest heavily.

It is a difficult task to estimate the scale of economic impact of the funding for transport investment in the coming years. However, evidence suggests that improving transport accessibility within the city (and potentially between the city and other areas) is likely to unlock agglomeration benefits. These refer to the

gains to workers and businesses - hence the local economy - when the effective size (or density) of the local economy grows. This is because workers are able to better match their skills to the jobs available, for example, and a well-connected city is more attractive to new business investment. By showing that investment is likely to be higher than in the past, this can at least provide indicative evidence of higher economic growth potential. Combining historic information on identifiable capital expenditure produced by HM Treasury with the Government's National Infrastructure Plan, it is possible to provide an indicative measure of the trend in capital expenditure for transport infrastructure²⁷.

Figure 2 shows that the amount spent on transport infrastructure in the North West averaged £1.1 billion per annum over the period 2004-05 to 2014-15 but is anticipated to increase to around £1.7 billion per annum from 2014-15 to 2020-21. This is an increase of approximately 70% and suggests a step-change compared with the preceding period on the basis of which the Oxford Economic forecasts were prepared.

Figure 2. Indicative trend for capital expenditure on transport infrastructure in the North West



Source: Frontier analysis of Identifiable Capital expenditure, HM Treasury and National Infrastructure Plan, HM Treasury and Infrastructure UK

Whilst this capital covers the North West region, there is good reason to believe that significant amounts of it will accrue to Greater Manchester. Of the so called

²⁷ Identifiable capital investment and planned infrastructure figures are both available for the North West for the period 2012-13 and 2013-14. As the National Infrastructure plan focuses mainly on major transport and energy infrastructure developments, we assume that the relationship between identifiable transport capital expenditure and planned capital investment continues in the future.

“Top 40 projects” identified in the National Infrastructure Plan, there are six that specifically relate to transport in Manchester and cover road, rail, air and waterways. This can be expected to provide a significant boost to growth. For example, Airport City has already secured £130m of foreign direct investment from China.²⁸

Greater Manchester has also invested in so-called ‘quality of place’ measures to improve the attractiveness of the area for the population that live there, and this also acts as a means of facilitating economic growth by helping to attract and retain individuals with the skills required to live and work in Greater Manchester.

4.2 The Northern Powerhouse

In June 2014, the Chancellor George Osborne set out the Government’s vision for the Northern Powerhouse. At its heart is an ambition to create a globally competitive economic hub in the north, “Not one city, but a collection of northern cities - sufficiently close to each other that combined they can take on the world.”²⁹

The aim is to create an agglomeration in the north that would counterbalance London. The Northern Powerhouse seeks to bring economic growth in the north at least in line with the UK average. This is an ambitious aim and will require a step change in economic performance. Although the Northern Powerhouse region has a population size comparable to that of London, GVA growth has been below the UK average over the past 10 years, and productivity (in terms of GVA per worker) is 29% below London.³⁰

The economic underpinning for the Northern Powerhouse includes the academic evidence on the role of agglomeration in increasing economic performance, as referred to above. The evidence from the research on agglomeration highlights three key factors which allow it to increase productivity:

- improved linkages between businesses;
- improved matching between specialised workers and firms; and
- knowledge spillovers.

In his speech the Chancellor refers to this evidence directly, stating “Over recent decades economists have explored all the different reasons why cities raise their

²⁸ Lambert Smith Hampton (2015), ‘The Northern Powerhouse – Office Market Report 2015/16’

²⁹ Chancellor George Osborne’s speech in June 2014

<https://www.gov.uk/government/speeches/chancellor-we-need-a-northern-powerhouse>

³⁰ Centre for Cities (2015), Northern Powerhouse factsheet

residents' productivity: specialisation is greater, competition and economies of scale increase, ideas and innovation spread faster.”

The GMSF focuses on growth in skilled services sectors, which have been found to be associated with relatively high agglomeration effects. For example, UK estimates of productivity elasticity with respect to city population size are 0.18 in some service sectors, compared to 0.04 in manufacturing³¹.

A recent example of agglomeration policy is the facilitation of the MediaCityUK cluster in Salford. MediaCityUK is a cluster for creative and digital companies and it acts as a hub with the potential for generating further growth. This is highlighted in a report by KPMG for the BBC:

“Approximately 6,500 people are employed in MediaCityUK, around 40% of whom are BBC employees and forecasts suggest that there will be an additional 1,700 creative industry jobs in Salford by 2034 (Oxford Economics, GMFM). This suggests that the positive spillover effects arising from the cluster of firms in Salford, catalysed by the BBC's presence, could be considerable.”³²

The full economic benefits from the cluster are still working their way through and have the potential to be considerably higher, with evidence implying the figure of 1,700 additional jobs above is likely to be an underestimate of the full potential. MediaCityUK is reported as having the long-term potential to more than double in size³³ with potential for additional jobs anticipated to be in the region of 17,000, mostly in the creative/digital sectors³⁴.

Greater Manchester's recent strong performance means it will have a pivotal role to play in achieving the Northern Powerhouse ambitions. Ernst & Young forecast employment and GVA growth in Manchester over the next three years in the top group of UK cities, with the highest growth of anywhere in the North, highlighting 1.2% employment growth per annum³⁵.

It is fair to say that there is no single authority that is in charge of Northern Powerhouse policy and that some policy announcements may have happened anyway, and in effect are unlikely to have a significantly different economic impact from projects in the past. However, there are also new announcements associated with the Northern Powerhouse, which will bring additional investment from what was seen in the past; and there is greater engagement between the

³¹ Graham (2007) cited in MIER, 2009, The case for agglomeration economies.

³² KPMG (2015). The role of the BBC in supporting economic growth, p3

³³ Lambert Smith Hampton, 2015, ‘The Northern Powerhouse – Office Market Report 2015/16’.

³⁴ Amion, 2015, Draft economic assessment

³⁵ EY (2015), ‘Rebalancing: UK region and city economic forecast’

different tiers of government to embrace the Northern Powerhouse, and ‘buy-in’ into the concept in order to make it a success.

4.3 Labour market and skills

Achieving the growth ambitions of Greater Manchester and the Northern Powerhouse will require expansion of the labour market. This is the case both in terms of increasing overall employment and also ensuring the skills mix of the workforce enables economic growth. This section focuses on the role of skills and finds that the need for inward migration of highly skilled workers appears to be underestimated in the GMSF. This further supports the case for a higher level of employment growth, above the 0.7% per annum in Option 2.

The increased supply of skilled labour necessary for growth can come from two sources: those within Greater Manchester that are not already employed, or from outside through inward migration and commuting from nearby areas. The analysis underpinning the best estimate in the GMSF, Option 2, assumes that a high proportion of new jobs are filled by the former.

However, this leaves a high risk of having insufficient workers with the skills required to match the growth and productivity goals of the region. Whilst individual circumstances will vary, the proportion of people with high skills can be expected to be lower among those who are unemployed or economically inactive than it is in the working population.³⁶ This reflects the fact that wages for highly skilled jobs are generally higher, and therefore there is a greater incentive to enter the labour market for those with high skills. This suggests a shortage of highly skilled labour among those in Greater Manchester that are not in employment.

Evidence of this skills differential can be seen by observing data on levels of educational attainment among those employed compared to those who are unemployed or economically inactive. In 2013 over 40% of those in employment in the UK had qualifications of NQF level 4 or above, compared to around 20% of those who were unemployed or inactive³⁷.

Within Greater Manchester, evidence on current vacancies also suggests a high risk of skills shortages unless additional inward migration is taken into account. Data from the 2014 Manchester Business Survey shows that vacancies for highly skilled jobs in the sectors expected to drive growth are proving especially difficult

³⁶ There is evidence that labour market participation is correlated with skills, and that there is a substantial skills gap in the existing Greater Manchester workforce (particularly in northern Greater Manchester, where a higher proportion of the workforce is unskilled). Manchester Independent Economic Review, 2009, Understanding Labour Markets, Skills and Talent.

³⁷ UK Commission for Employment and Skills, 2014, The Labour Market Story: The State of UK Skills.

to fill. This risks being a constraint on growth unless more highly skilled workers can be attracted and retained, such as through retention of more skilled graduates within the region.

Evidence from the 2014 Manchester Business Survey³⁸

The Manchester Business Survey collects data on various issues around economic performance, including growth opportunities, barriers to growth, employment information and skills. The 2014 survey conducted telephone interviews with over 2000 businesses.

The data on barriers to growth and recruitment issues demonstrate evidence of an apparent shortage of highly skilled workers in the current market, which suggests a mismatch of skills between growth sectors and the available pool of labour within Greater Manchester.

Evidence in the survey shows that:

- 24% of businesses cited ‘lack of staff or skills’ among their highest barriers to growth, the joint top category listed.
- Hard to fill vacancies are disproportionately in high skill sectors. The top three occupations with hard to fill vacancies, each cited in 20% of cases, are ‘professional occupations’, ‘associate professional & technical occupations’ and ‘skilled trade occupations’.

It is noted that “The main causes of hard to fill vacancies in Manchester centre on a low number of applicants with the required skills/qualifications (51% of those experiencing hard to fill vacancies).”³⁹

The evidence on the labour market discussed above suggests that higher levels of net inward migration of skilled workers are likely to be needed to realise Greater Manchester’s growth ambitions than assumed in the GMSF best estimate, Option 2.

Although Option 2 does not sufficiently account for the potential for such inward skills migration - with minimal net inward migration - the other accelerated growth scenarios in the Oxford Economics analysis do allow for the possibility of additional inward migration. The ‘high’ accelerated growth scenario, for example, assumes levels of migration consistent with the average from 2002 to 2012 and suggests employment growth of 0.9% per annum. Even this is

³⁸ This box draws on BMG Research, 2015, Manchester Business Survey 2014 – Manchester data, prepared for Manchester City Council.

³⁹ BMG Research, Manchester Business Survey 2014, page 45.

arguably on the cautious side given the recession occurred during this period. The 'higher' accelerated growth scenario assumes an even higher level of population growth, taking into account the historical levels of international migration but also recognising in full the potential under-count of population between the Census years (UPC). This scenario suggests employment growth of 1.1% per annum and is in line with Option 3.

It is difficult to judge exactly what the appropriate migration assumptions should be, but the evidence on the labour markets certainly points towards migration levels above those of Option 2.

5 Consistency with history and comparators

The potential of Greater Manchester to achieve employment growth over the GMSF period should be considered in both a historical and comparative context. Growth in cities is driven by a number of factors (as described in chapter 3) that come together to drive economic growth. The scale and composition of that growth will vary by city because it depends significantly on local conditions. However, the experiences of other similar cities and the conditions under which these cities have been able to drive increases in employment growth can be an important sense-check of the realism of the plans and aspirations for Greater Manchester.

In this chapter we provide a brief historical and comparative assessment of the employment projections underpinning the GMSF as a sense-check of what might be feasible for Greater Manchester given its local conditions.

We find that Option 2, Greater Manchester's best estimate, appears low in a historical context. Growth in employment has averaged 0.76% since 1999, despite the deepest recession in post-war history and has averaged 1.22% per annum in the five years since 2009.

We also find that Option 2 looks low in comparative context. Growing cities with comparable population sizes in 2000 have a median growth rate of 0.96% per annum between 2000 and 2014. Growing cities comparable to Manchester, as defined by the 2007 European Commission City typology, experienced a median annual employment growth of 0.86% per annum.

The rest of this chapter describes this evidence and is structured as follows:

- Section 5.1 assesses the consistency of the employment projections in a historical context; and
- Section 5.2 considers the consistency with what comparator cities have achieved in terms of employment growth.

5.1 Consistency with the history of Greater Manchester

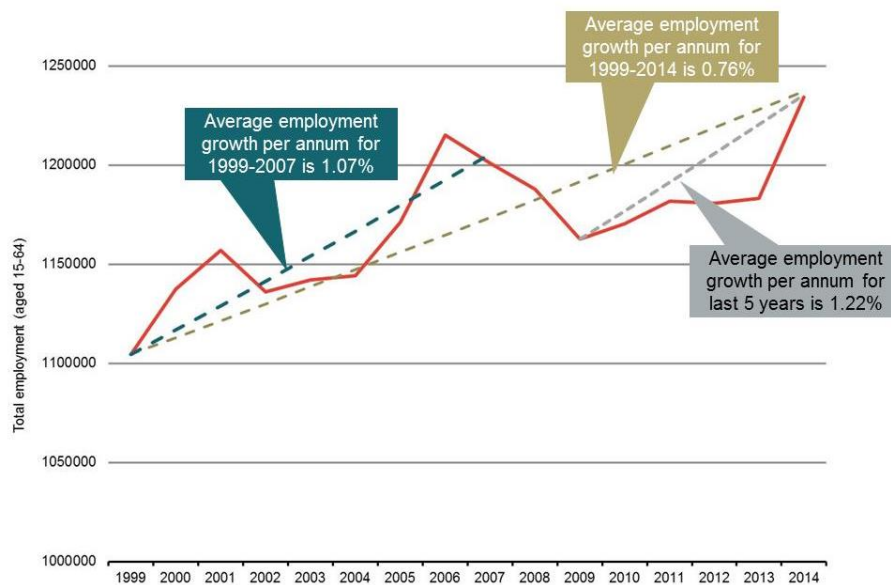
The GMSF includes three alternative options for annual employment growth over the plan period, which range from 0.5% under Option 1 to 1.1% under Option 3. We consider these options in a historical context.

For the period of 1999 to 2014⁴⁰, the annual growth in employment in Greater Manchester averaged 0.76% per annum, which is above the GMSF best estimate

⁴⁰ Available data on employment from Eurostat at a NUTS 2 level only goes back to 1999.

(Option 2), despite this period having included the deepest recession in post-war history. In fact, average growth in employment averaged 1.07% per annum in the period prior to the recession (1999-2007) and 1.22% in the five year period following the recession. Option 2 appears low when placed in this historical context with average annual employment growth of over 0.7% appearing more in keeping with a normal recession cycle.

Figure 3. Employment growth for Greater Manchester, 1999-2014



Source: Eurostat, NUTS 2 region

5.2 Consistency with the experience of comparator cities

Greater Manchester could be compared against many cities around the world but only some can be viewed as a realistic guide to the growth potential and aspirations for Greater Manchester. We consider two alternative sets of comparator cities which we believe represent a plausible guide to the growth potential of Greater Manchester over the plan period.

1. Growing cities whose population in 2000 was of a similar size to the current Greater Manchester population. These include Brisbane, Perth, Vancouver and Stockholm.

Consistency with history and comparators

2. Growing cities identified in the State of European Cities report (2007)⁴¹ typology of cities⁴² as “Transformation Poles”: cities with a strong industrial past, which are well on their way to managing change and developing new economic activities.

The two sections that follow present evidence of the historical employment growth achieved by these two comparator sets of cities and provide an interpretation of what this could mean about likely employment growth in Greater Manchester.

5.2.1 Cities with similar populations to Greater Manchester

There are a number of cities that in 2000 were of a similar size to Greater Manchester in 2014 and, whose employment growth over the last 15 years provides a guide to the prospects for employment growth in Greater Manchester over the GMSF period. It should be noted that this period includes the deepest recession in post war history and, as such, growth achieved over this period is likely to be a lower bound to what could be achievable in a period that includes more representative historical cycles.

The population of the Greater Manchester area in 2014 was approximately 2.73 million.⁴³ There are 36 other metropolitan areas covered by the OECD that had populations of similar scale in 2000. Of these, 15 cities have achieved positive GDP growth since 2000. Analysis of these cities, shown in **Figure 4**, indicates that the median employment growth rate they achieved in the period from 2000 to 2014 was 0.96% (shown as a dashed line on the chart)⁴⁴.

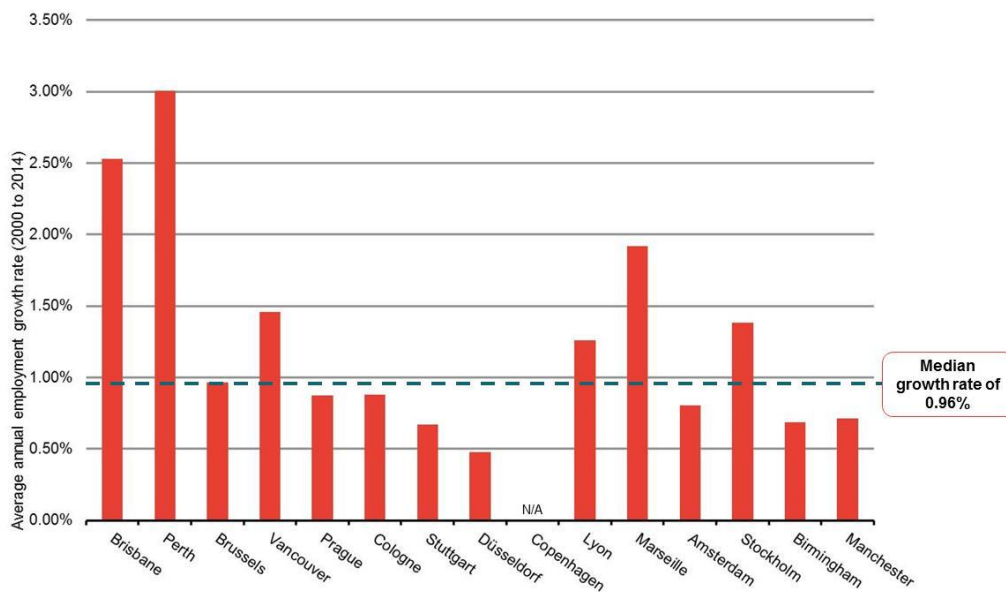
⁴¹ State of European Cities Report, Adding value to the European Urban Audit, European Commission, May 2007.

⁴² The criteria for allocating Urban Audit Cities to these typologies were size, economic structure, economic performance and drivers of competitiveness.

⁴³ Oxford Economics, 2015, An accelerated growth scenario for Greater Manchester. Using the OECD definition of the ‘Manchester Metropolitan Area,’ which does not align with Greater Manchester in full, suggests a lower total population of 1.93 million people in 2014.

⁴⁴ The average (mean) growth rate was 1.3% per annum.

Figure 4. Annual employment growth - cities with population in 2000 similar to Manchester's population in 2014⁴⁵ and positive GDP growth rates between 2000 and 2012

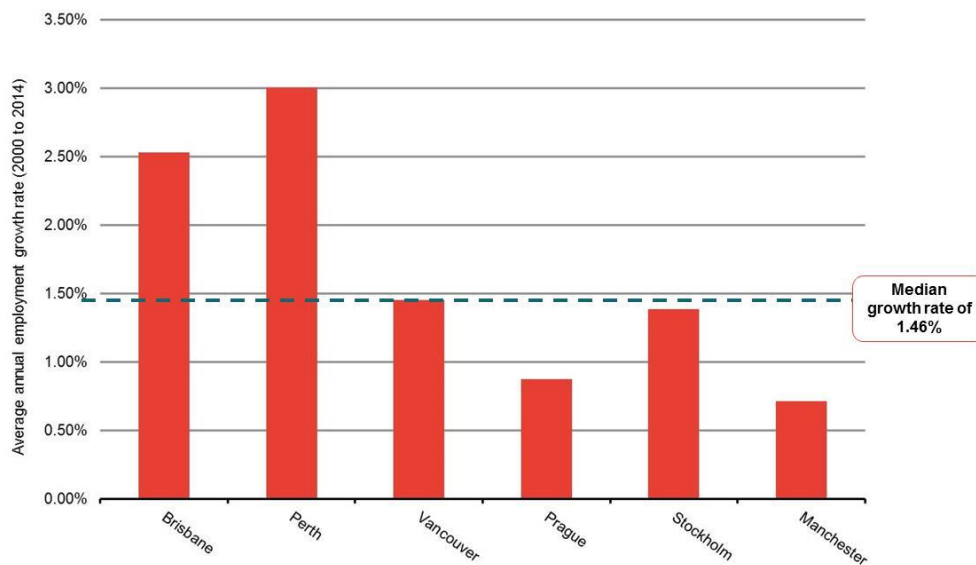


Source: OECD population data on metropolitan areas, OECD employment data on metropolitan areas, OECD GDP data on metropolitan areas

The employment growth assumptions underpinning Option 2 look low in the context of this evidence. The fastest growing cities over this period, achieving GDP growth of over 2.1% per annum, experienced median employment growth of 1.46% per annum. This is shown in **Figure 5**, which highlights the six cities from **Figure 4** with GDP growth rates equalling or above that of Greater Manchester. Three of the cities achieved GDP growth of more than 2.8% per annum (Brisbane, Perth and Prague) which was accompanied by employment growth of 0.87% per annum or higher.

⁴⁵ The population of Manchester metropolitan area (defined by OECD) in 2014 was 1.93 million. Cities were deemed similar in terms of population to Manchester if their population in 2000 was between 1.43 million and 2.43 million.

Figure 5. Annual employment growth - cities with population in 2000 similar to Manchester's population in 2014⁴⁶ and GDP growth rates above Greater Manchester between 2000 and 2012



Source: OECD population data on metropolitan areas, OECD employment data on metropolitan areas, OECD GDP data on metropolitan areas

5.2.2 Cities identified as Transformation Poles in 2007

The European Commission State of European Cities report from 2007 provided a typology of cities to be used as a tool for better understanding and making comparisons between cities. It utilised Urban Audit data for 258 cities in the EU to allocate cities to a typology based on size, economic structure, economic performance and drivers of competitiveness. Cities were grouped into three broad groupings: International Hubs, Specialised Poles and Regional Poles. These broad groupings were further divided into the sub-groups as shown in **Figure 6**.

⁴⁶ The population of Manchester metropolitan area (defined by OECD) in 2014 was 1.93 million. Cities were deemed similar in terms of population to Manchester if their population in 2000 was between 1.43 million and 2.43 million.

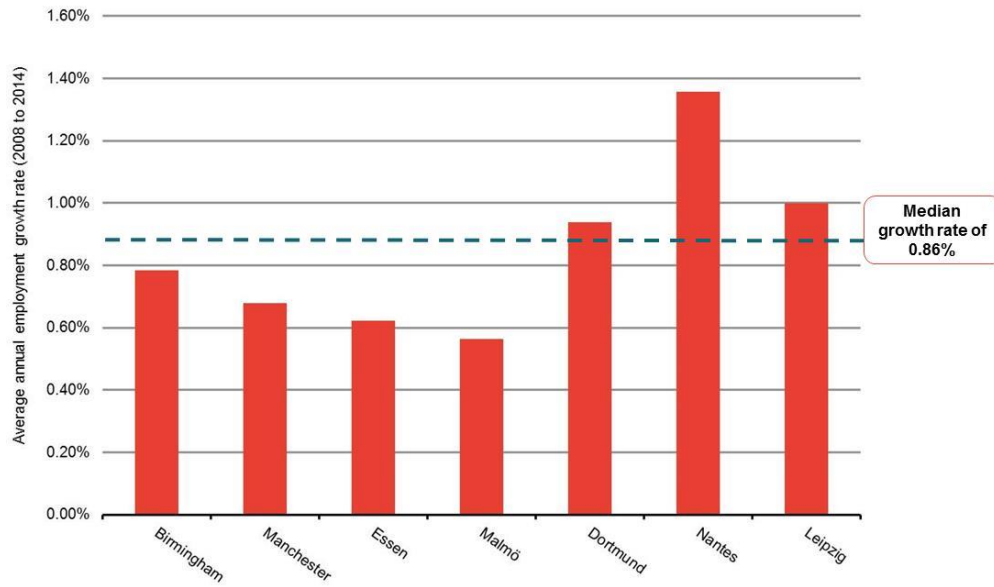
Figure 6. City typology

Source: Frontier Economics adapted from European Commission State of European Cities report, 2007

Manchester was allocated within the typology to the “Transformation Pole” sub-group within the “Specialised poles” grouping. This sub-group is described within the report as “cities with a strong industrial past, but well on their way to reinventing themselves, managing change and developing new economic activities”.

Comparing Manchester’s post 2007 performance to other growing cities within this grouping provides further insight as to the potential level of employment growth that could be achieved by Manchester over the GMSF period. For the cities that grew, in GDP terms, at rates similar or greater than Manchester, the median employment growth rate achieved since 2008 was 0.86% per annum.

Figure 7. Annual employment growth - “Transformation Pole” cities with GDP growth at least as good as Greater Manchester since 2008



Source: OECD population data on metropolitan areas, OECD employment data on metropolitan areas, OECD GDP data on metropolitan areas

Consistency with history and comparators

6 Conclusions

Greater Manchester has strong aspirations for growing its economy. This is evidenced by its actual and planned investments in the key drivers of growth, and its pivotal role in the Northern Powerhouse drive. The evidence from academic literature on how cities grow indicates that these actions should lead to relatively high productivity and economic growth rates in the future.

The GMSF is underpinned by its projections for the local economy over the period to 2035. Over this period it provides a 'best estimate' (identified as Option 2) of key demographic and economic factors that include:

- population growth of 0.5% per annum; and
- employment growth of 0.7% per annum.

We believe that the employment growth assumption is particularly significant for policy making. It substantially impacts on the type of development needed to provide housing and employment space for the workforce. In turn, these factors will influence growth and productivity opportunities.

Our main finding is that we believe a 0.7% employment growth assumption in the GMSF is too conservative given the aspirations for growth in Greater Manchester. Indeed, we believe there is a significant risk that growth could be constrained if development policy was based upon this assumption.

We put forward three reasons for reaching this conclusion.

1: The GMSF does not adequately take into account the economic evidence on urban and city growth

We have examined the consistency of the growth options described in the GMSF with established theory and evidence about what drives growth in cities and urban areas. We find that that the drivers of growth have not been well articulated in the context of producing the options in the GMSF, and that the plan does not adequately reflect the evidence about how cities and city regions grow.

2: There is an inconsistency between Greater Manchester's economic policy and the GMSF employment assumptions

We have examined the economic policy aspirations and actions of Greater Manchester and also the aspirations and actions associated with the Northern Powerhouse policy drive. These are significant and are likely to have a greater impact on the Greater Manchester economy than past investments and policy actions.

Conclusions

Substantial increases in infrastructure investment in the North West are a step-change compared to past levels and are expected to unlock significant agglomeration benefits for productivity in the region. The GMSF also appears to have underestimated the amount of further net inward migration of skilled employees that will be required to match aspirations for economic success.

3: The GMSF employment assumptions appear inconsistent with history and against comparator cities

We find that both historically and comparatively the GMSF's assumption of 0.7% employment growth per annum appears low. Growth in employment has averaged 0.76% per annum since 1999, despite the deepest recession in post-war history, and has averaged 1.22% per annum in the five years since 2009. In addition, growing comparator cities, reflective of the ambitions of Greater Manchester, have experienced median employment growth of 0.86% per annum in the recent past.

Annex 1

Alongside the main strategic options consultation document, a number of supporting papers have also been published, outlining the background evidence and analysis underpinning the GMSF. A description of key supporting documents is provided in the table below.

Document Title & Author	Description
Background Paper 1: Areas of Assessment (GMSF)	Identifies the areas of assessment for determining the need for housing and employment floor space and the implication for district requirements in the GMSF.
Background Paper 2: Economic Development Needs Assessment (GMSF)	Summarises evidence to inform the identification of employment floor space requirements. Outlines strategic growth opportunities and compares various alternative growth forecasts.
Background Paper 3: Objectively Assessed Housing Need (GMSF)	Summarises evidence to inform the identification of housing needs drawing on various alternative population growth forecasts.
Background Paper 4: Infrastructure and Environment (GMSF)	Provides the start of a process identifying strategic issues around (a) critical infrastructure, e.g. water, gas, electricity; and (b) the environment e.g. climate change, green and blue infrastructure, air quality.
Integrated Assessment of Vision, Objectives and Growth Option (ARUP)	Outlines analysis of (a) compatibility between the Integrated Assessment objectives and the GMSF vision and objectives; and (b) potential effects of three growth options in relation to the Integrated Assessment objectives.
An Accelerated Growth Scenario for Greater Manchester (Oxford Economics)	Summarises analysis of three accelerated growth scenarios for Greater Manchester, based on economic ambitions for the Northern Powerhouse and alternative population growth assumptions.

(1)

Frontier Economics Limited in Europe is a member of the Frontier Economics network, which consists of separate companies based in Europe (Brussels, Cologne, London & Madrid) and Australia (Melbourne & Sydney). The companies are independently owned, and legal commitments entered into by any one company do not impose any obligations on other companies in the network. All views expressed in this document are the views of Frontier Economics Limited.

FRONTIER ECONOMICS EUROPE

BRUSSELS | COLOGNE | LONDON | MADRID

Frontier Economics Ltd 71 High Holborn London WC1V 6DA

Tel. +44 (0)20 7031 7000 Fax. +44 (0)20 7031 7001 www.frontier-economics.com

Appendix 2: Frontier Economics Public Policy Brochure



OUR PUBLIC POLICY WORK

We **apply** economics to markets, organisations and policies.

Frontier is an economics consultancy that understands the intricacies and interrelationship between markets, organisations and government policies. We support our clients on some of the most interesting, topical and high-profile issues across these areas.

We help our clients to analyse and understand their markets and to formulate strategies based on sound economics. The methods and models we use are often complex, but our advice is always succinct, clear and honest.

We use our analysis to provide insight into complex situations, giving clients jargon-free opinions and results that can withstand even the closest scrutiny.

We advise across sectors and countries and are one of the largest economic consultancies in Europe (with offices in Brussels, Cologne, Dublin, London and Madrid).

We're enthusiastic about what we do. Whatever the task in hand – reviewing strategy, dispute support or getting best value for taxpayers – we tackle it with energy, expertise and determination.



Our public policy practice.

Governments are under increasing pressure to deliver better results while spending less. Expert economic advice is crucial to developing smarter and more cost-effective policies.

Frontier can provide specialist economic and institutional knowledge. We work closely with governments, public and voluntary sector bodies and businesses to create better policies.

Frontier teams comprise experts from our UK and European offices, who bring together the broadest possible policy and sector expertise.

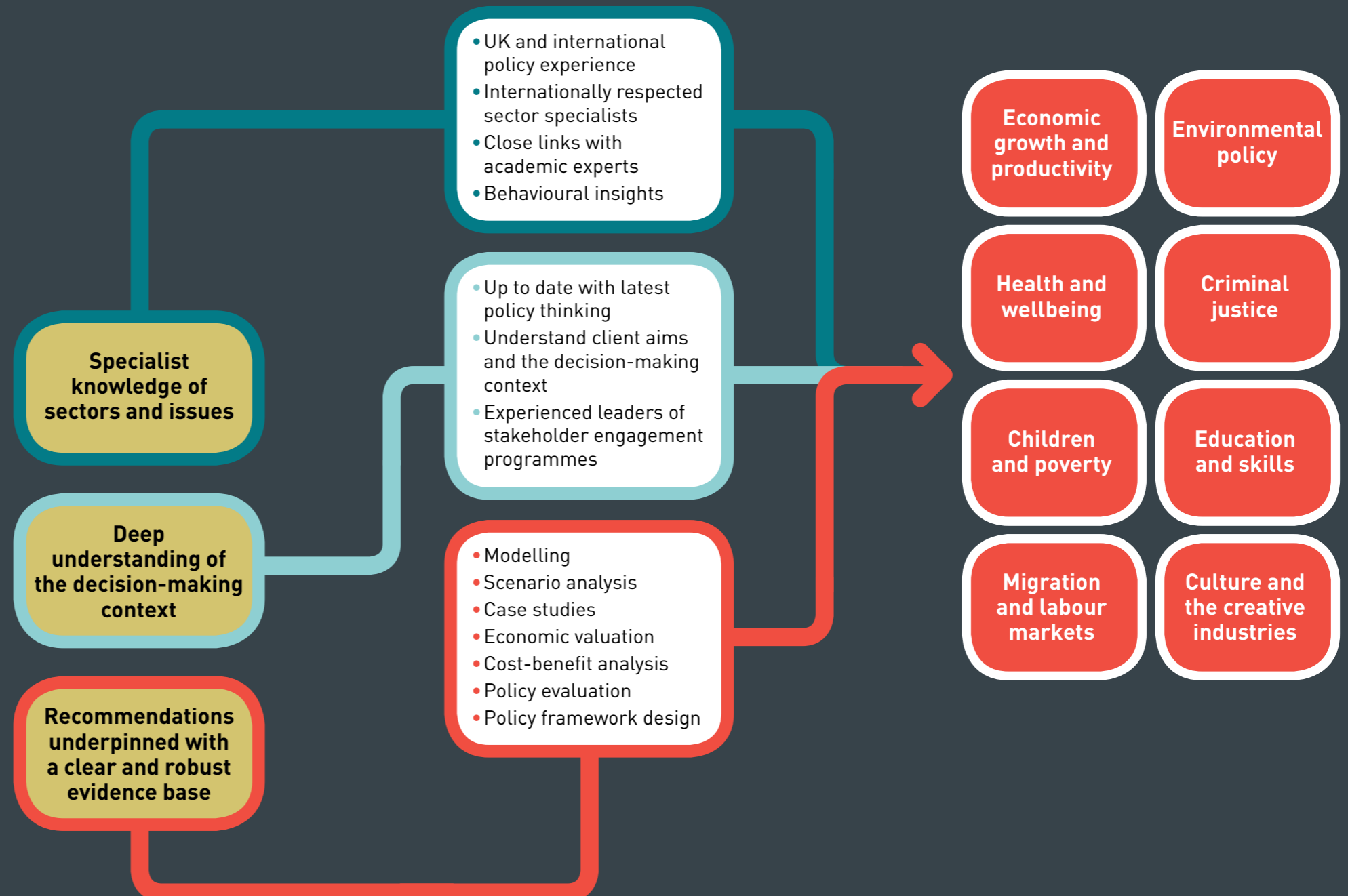
Our advice is objective, impartial and reflects the practical realities of delivering better policy. Clients have told us they value our ability to listen, to engage with them and to tackle the most difficult issues with clarity and sensitivity.

We use cutting-edge techniques and behavioural insights to measure the impact of policies on people and businesses and to improve their design. Our work often has to stand up to external scrutiny from experts and policy makers. Our clients regularly praise our ability to combine technical expertise with clear and effective communication.



Frontier is at the forefront of applying economics to tackle some of the toughest public and private sector issues.

Gus O'Donnell, Cabinet Secretary 2005-2011



Economic **growth** and productivity.

Stimulating sustainable economic growth is a priority for all nations. This requires a cohesive package of measures which deliver an environment in which individuals, businesses and other organisations can prosper. Frontier has advised governments and businesses on policies that encourage and contribute to growth.

We have worked on many areas that are key to improving long-term growth, including investment in infrastructure, skills, innovation and labour markets. Frontier teams understand the building blocks of economic growth.

Frontier teams are experts in assessing the drivers of economic growth, the contribution of different sectors to growth and the policies best able to encourage growth. In our analysis we include any relevant intangible effects not captured by traditional methods.

We have also worked with our clients to understand the barriers to growth and the policies that can tackle them effectively. This includes exploring alternative forms of taxation and regulation to ensure that growth, and other objectives, are achieved at the lowest overall cost.

It is important that there are credible and effective means to monitor and assess growth and productivity. We have worked on developing and applying appropriate indicators and tracking metrics for corporate and public sector decision-makers to use.



The redevelopment of King's Cross Central

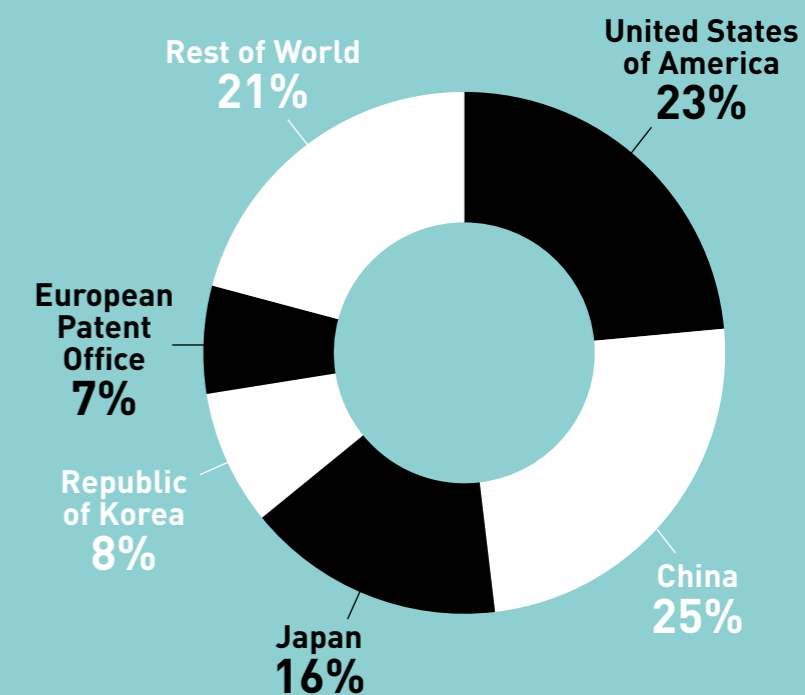
This 67 acre site in central London transforms a run-down area in and around Kings Cross rail and underground stations. When completed in 2020, it is expected to include 3.4 million square feet of office space; 500,000 square feet of retail space; 2,000 homes; 50 new buildings; 3 new parks plus the University of the Arts. The whole site development is expected to cost about £2 billion.

The potential for significant returns from transforming the site existed for several decades. However, it was only when government made specific targeted changes that the potential for the site could be unlocked. The main change was an increase in the capacity of local transport links that was only possible with government support.

The successful redevelopment of the site also illustrates the increasing importance of taking inter-dependencies between different forms of infrastructure into account to maximise the opportunities for growth. Transport, energy, water and telecommunications networks are increasingly inter-connected. Frontier have expertise in all these sectors which can be brought to bear in our analysis of public policy.

For more information see Frontier's report for HM Treasury "Systemic risks and opportunities in UK infrastructure".

Patent applications for top 5 offices and rest of world in 2011:



(Source: World Intellectual Property Organisation Statistics Database, 2012)

Whenever I think about who to turn to for independent economic advice and analysis, the first organisation that comes to mind is Frontier Economics.

Stephen Aldridge, Director for Analysis and Innovation, Department for Communities and Local Government

Environmental policy.

The natural environment is constantly evolving; how to protect it needs careful thought. We help our clients develop effective policies by understanding the opportunities, challenges and uncertainties around environmental changes. Our clients include governments, regulators, businesses and Voluntary & Community Organisations (VCOs) throughout the world.

Frontier teams are internationally recognised as experts on climate mitigation, including de-carbonisation of electricity generation. We advise some of Europe's largest companies, regulators and governments. We also have cross-sector expertise in advising how communities and organisations can best adapt to the inevitable impacts of extreme weather and climate change.

Assessing and designing effective environmental policies can be very difficult, facing challenges of insufficient information and uncertainty together with the complexities of human behaviour.

We regularly develop tools that tackle these challenges and allow decisions to be underpinned with credible analysis.

Examples of Frontier's recent environmental policy analysis include: exploring the impact of modal switching in transport; the impact of emissions trading and other market mechanisms; the costs and benefits of alternative regulatory frameworks; behavioural responses to measures to reduce energy demand; and assessing the case for intervention to prepare the UK for severe weather and climate change.



Q&A with Kat Deyes

What is unique about Frontier's environmental policy work?

We understand the theory and have extensive experience in applying it. We have worked with companies adapting to climate change or mitigating the impacts. We have also worked with governments, regulators and academics on designing policy, evaluating evidence and modelling impacts. We keep to Treasury guidelines as set out in the Green Book, so our work stands up to the strictest scrutiny.

How does adaptation to climate change differ from mitigation?

Both mitigation and adaptation are essential ingredients when confronting climate change. Mitigation refers to efforts that reduce or limit the emission of greenhouse gases. Adaptation refers to actions that limit the potential harm from inevitable climate change, or maximises opportunities. They complement each other. Our teams at Frontier are experts in both and we have worked extensively with our clients to provide effective advice and credible analysis.

400 PARTS PER MILLION

concentration of carbon dioxide in the atmosphere in May 2013, the highest level on record.

(Source: National Oceanic and Atmospheric Administration, 2013)



I was impressed by the flexibility of the Frontier team in delivering the project, the quality of the final report, and the presentation that communicated the work to key stakeholders.

David Legg, Economic Adviser, Rural Communities Policy Unit, UK Department for Environment, Food and Rural Affairs (Defra)

0.3-4.8°C

projected rise in global temperature by the end of the 21st century

(Source: Intergovernmental Panel on Climate Change, 2013)

Health and wellbeing.

Public spending can't keep up with rising demand for healthcare. Frontier provides crucial economic advice on all aspects of healthcare design and delivery. We have worked on developing and delivering policies relating to the economic regulation of healthcare, service design, and choice and competition.

Frontier regularly advises providers, governments and regulators about how healthcare services can be more effective and efficient. This includes advice to Monitor, the national regulator for healthcare in England, as well as work in France, the Netherlands and elsewhere in Europe. We have worked very closely with government to develop healthcare policy, including extensive work on hospital mergers and the costs and benefits of service redesign. We have also worked with a range of charities to better understand the costs and benefits of their efforts to improve healthcare services while reducing costs.

Frontier understands how providers operate in economic, financial and clinical terms. Providers face contentious issues, such as competition and choice, pricing developments and changes in commissioning. Providers must also contribute to the design of healthcare services that meet clinical, financial, and patient experience objectives. Frontier advises providers, regulators, commissioners and government on how to balance those issues to provide the best care for patients.



Q&A with Matthew Bell

Why are many hospital trusts considering mergers?

Healthcare delivery is changing: specialist services are being consolidated in fewer hospitals with other services moving from hospitals into community settings. Healthcare systems are also under significant financial pressure.

These factors are leading to mergers – and other forms of cooperation and integration – in an attempt to provide ever higher quality care for patients.

Why do hospital mergers need approval from competition authorities?

Competition authorities have a duty to weigh any likely benefits from merging against the potential negative impacts of reduced competition and patient choice.

So what do hospitals that are considering merger need to do?

Commissioners and hospitals need to consider whether a merger is the best way to achieve the changes needed. If it is, then they need to build and present the economic case for merging to the competition authorities.

60%

increase in individuals with multiple long-term conditions by 2016

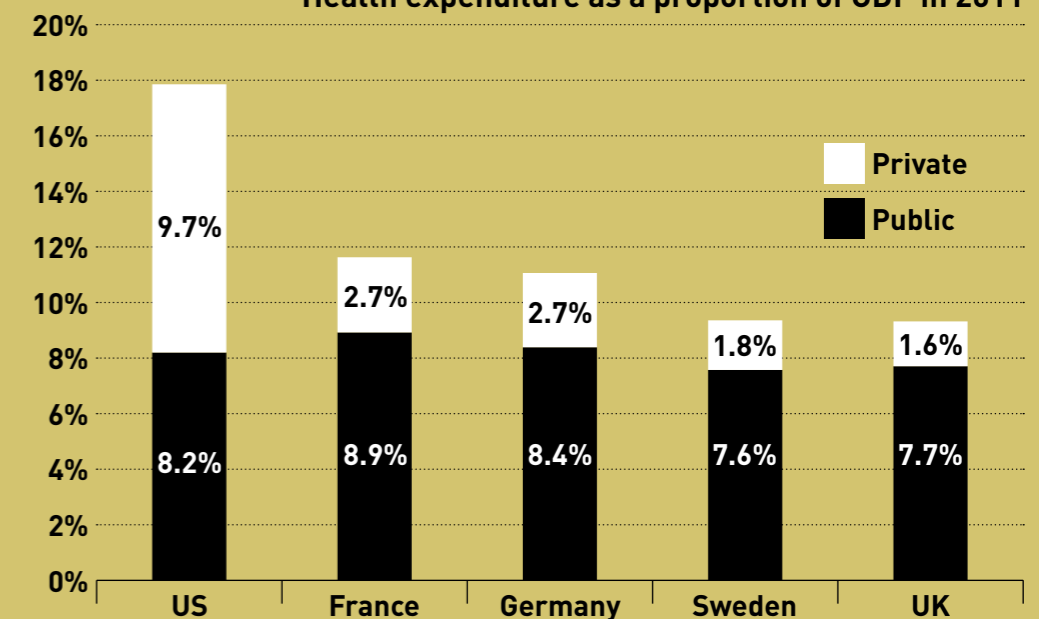
(Source: Department of Health, 2011)



Frontier's analysis has allowed us to understand and clearly communicate our benefits. Their rigour is widely recognised across the public sector.

Ruth Owen, CEO, Whizz-Kidz

Health expenditure as a proportion of GDP in 2011



(Source: World Development Indicators, 2013)

Criminal justice.

Crime is costly to society. We have advised clients on all aspects of the criminal justice system. Our work has covered the direct costs of the criminal justice system as well as wider social costs to individuals and communities.

Criminal justice is not short of facts and figures, such as crime levels, costs of legal aid, and benefits from reduced re-offending. Improving outcomes in this area requires understanding behavioural drivers and the economics of the legal system.

By working throughout the criminal justice system we can analyse the impact of specific measures on society. Our work focuses on how incentives can lead to a more effective, fair and accessible justice system, as well as understanding how some organisations currently deliver value for money.

Our clients include government departments and their delivery agencies, as well as the Law Society, regulatory bodies and charities working in this area. We have explored issues ranging from models to reduce re-offending; the demand and supply of lawyers; the price of legal aid; and the regulatory framework for legal service providers.



Q&A with Sarah Snelson

Why should policy makers be concerned about counterfeiting?

Counterfeit and pirated goods pervade virtually every sector in every country. As well as causing harm to legitimate businesses and exposing consumers to potentially unsafe products, counterfeit and pirated goods reduce tax revenues and increase expenditure on welfare, health services and crime prevention.

What work has Frontier done in this area?

As an example, one of our clients wanted to better understand the wider economic and social effects of counterfeit products. We developed a model (building on work by the OECD to assess the likely impact of counterfeit production on employment and output) to analyse its effect on government tax receipts and benefit payments. Our model also estimates the cost to society of increased levels of crime resulting from counterfeit activity and the harm (sometimes fatal) to consumers.

1 in 2

offenders with custodial sentences re-offend within a year of release from prison

(Source: Ministry of Justice, Reoffending statistics, 2013)

Preventing Crime



Reacting to immediate aftermath of crime

Responding to longer-term consequences of crime

▶ 40%

of prisoners report being permanently excluded from school

◀ 1%

of school pupils in England have been permanently excluded

(Source: Ministry of Justice, Surveying Prisoner Crime Reduction cohort study, 2012)

Children and poverty.

Designing policies to reduce the number of children living in poverty continues to provoke debate about how to provide minimum living standards for all children, while also maintaining strong incentives for parents to work. Critical to this discussion is how to improve the availability and affordability of good quality childcare without high costs to the taxpayer.

Longer-term approaches to tackling poverty focus on improving life chances for children from disadvantaged backgrounds.

Free entitlement to early education and the ongoing development of Sure Start Children's Centres are key elements of the early years strategy to help all children achieve their full potential in life.

Frontier staff have helped inform policy development in these and other areas. Our work ranges from analyses of poverty patterns and the dynamics of parental employment (using large scale survey data) to frontline collection of information on services and costs. This breadth of knowledge enables Frontier to effectively tackle specific policy questions within the broader context.



Q&A with Gillian Paull

What was the aim of Frontier's international review of skills, jobs and poverty?

Our client, the Joseph Rowntree Foundation, wanted to understand if the UK could reduce poverty by adopting different labour market policies.

How did you do that?

We studied the labour market policies of 10 countries in the developed world and identified institutions and policies associated with lower poverty rates.

What did you find?

Given the skills of its workforce, the UK has more income inequality and poverty than would be expected.

What were the policy implications?

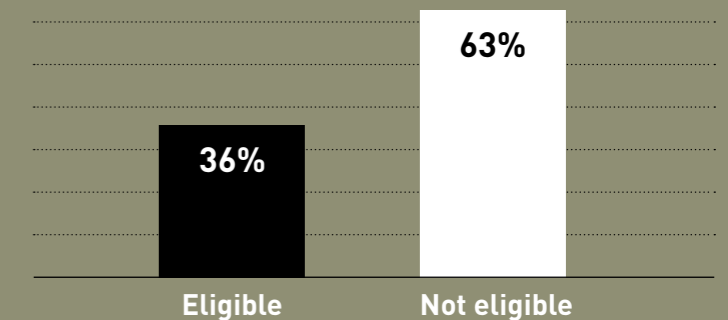
Substantial reductions in poverty in the UK could be aided by labour market changes such as increased female participation and more active programmes to alleviate unemployment. For more information see Frontier's 2012 report for JRF "An international review of skills, jobs and poverty".

3.5 MILLION

children in the UK live in poverty

(Source: Department for Work and Pensions, 2013)

Comparing the % of students with 5 GCSEs at A*-C (including English and Maths) by eligibility for free school meals



(Source: Department for Education, 2013)

In 2010, British workers without 5 "good" GCSEs earned 33% less than more qualified workers, compared with an average of 24% for OECD countries

(Source: Organisation for Economic Co-operation and Development)

£29 BILLION

the estimated cost of child poverty to society each year

(Source: Joseph Rowntree Foundation, Cost of Child Poverty, 2013)

Education and skills.

The education individuals receive and the skills they develop have a critical effect on their prospects in life. There is convincing evidence that improving the quality of education could have a significant impact on economic performance. At Frontier, we provide advice to governments on a range of issues in secondary, further and higher education.

Our work focuses on how government can get the best value for money from its education spend (nearly 6% of GDP for the UK). For instance, we recently evaluated the impact on educational outcomes of over £750 million of government spending on capital projects at further education colleges. We found a range of positive impacts on college performance, including increased student enrolment, greater student satisfaction, better engagement with employers and reduced dependency on other sources of government funding.

Recent analysis has helped to establish which policies have the best impacts on learners relative to the money government provides. We have advised the UK government on the economics of how best to administer the exam system for 16 year olds. This involved analysing the market dynamics facing providers of qualification exams. We have also advised on higher education policy and the impact of university research and development.



Q&A with Mick Ridge

What are the main challenges facing policy makers?

Youth unemployment rates remain stubbornly high in many countries, while certain sectors can't find workers with the right skills.

What work has Frontier done in this area?

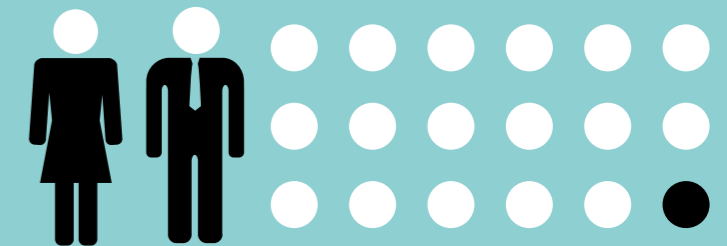
We carried out a strategic review of skills for the Guernsey Commerce and Employment Department. We found no evidence of a significant skills gap in Guernsey, but we stressed that the island should not be complacent in the context of global competitive pressures. The Guernsey Skills Agency will draw heavily on information from a business-focused advisory group.

How can policy makers address persistent skills shortages?

We looked at how registration schemes can encourage more efficient matching between technicians and job roles. Employers can then be confident that technicians have the skills they need, and that they recognise any skills that technicians need to improve.

Every £1million of capital expenditure increases participation in further education by at least 60 learners per year.

Evaluation of the Impact of Capital Expenditure in FE Colleges, BIS Research Paper Number 99, 2012



the pupil-teacher ratio for primary schools in the UK, compared to 10:1 in Sweden

(Source: World Development Indicators, 2011 data)

£4,097

UK's annual spend for each pre-primary student, which is £112 less than the OECD average

(Source: Organisation for Economic Co-operation and Development, 2013)

Migration and labour markets.

Labour markets are local and focused on particular skills. Many people commute or relocate to another city, region or country to take up job opportunities. Economic conditions influence migration patterns, and migration trends can impact local economies.

Understanding the dynamics of labour markets is critical when shaping government policy, from childcare reform to migration. At Frontier, we use labour market analysis to give our clients a clear understanding of the structure and productivity of the labour force, the prevailing wage rate and recruitment and retention issues.

We have worked extensively on the links between migration and labour markets. This includes work for the Migration Advisory Committee on the evidence for skills shortages, and the links between migration and jobs for domestic workers.

We have also looked at labour market issues in the context of specific reforms. For example, analysis of the pathology labour market helped to shape Lord Carter's review of NHS pathology services. Similar analysis by Frontier was critical to the review of legal services.



Q&A with Danail Popov

What have you been working on recently?

I have been advising the Migration Advisory Committee on the impact of recent immigration on low skilled employment.

How did you do that?

We carried out a detailed examination of the Labour Force Survey, focusing on the dynamics of the low skilled sector.

What did you find?

We found that migrants in these sectors tend to be more qualified than non-migrant workers. And that recent migration was disproportionately focused on these low skilled sectors.

What are the policy implications?

The policy debate often confuses the sectors in which migrants are found with the skills of those migrants. Our research helps clarify these distinctions and improves the quality of the debate.

27%

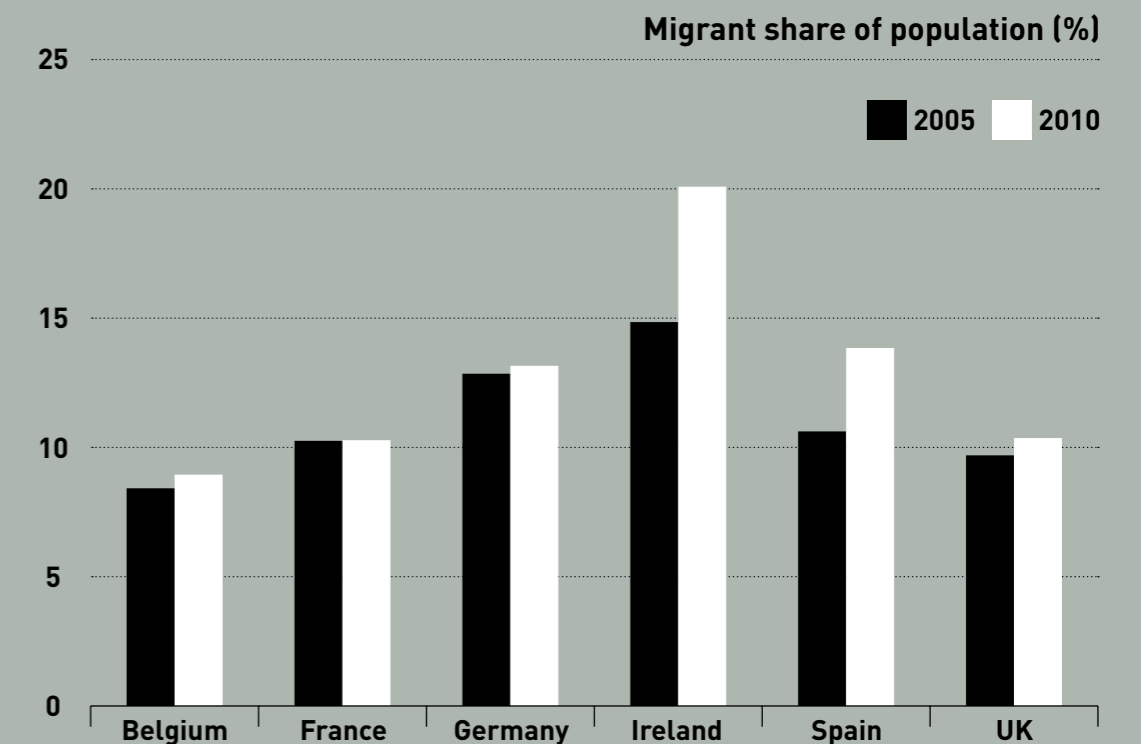
of workers are employed part-time

(Source: Office of National Statistics, 2013)



I am always impressed by the ability of Frontier people to bring both technical knowledge and economic understanding to bear so as to shed light on important social issues.

Ian Preston, Professor of Economics, UCL and Deputy Research Director, Centre for Research and Analysis of Migration



(Source: World Development Indicators, 2013)

Culture and the creative industries.

Art and culture deliver benefits to society in many ways, including both monetary and wider benefits. Frontier regularly works with clients in the arts, culture and creative sectors. We use innovative techniques to deliver effective advice on the impacts and future potential of these rapidly changing areas.

We have examined the creative industries sector intensively to better understand how its value to the economy and society can be enhanced, and the barriers that may hinder it from doing so. Our recent work found emerging technologies are creating new platforms for accessing culture, but that piracy threatens to undermine some potential gains. Our wider work in this area has highlighted the importance of analytical rigour when deciding where government should spend limited funds.

The need to balance direct impacts on economic growth with wider benefits to society will be a significant debate over the next decade.

People enjoy the arts and other cultural and creative activities; and they learn from them and appreciate their intrinsic value. These sectors can also bring real economic gains through investment that supports regeneration and brings together bright people with bright ideas.



Q&A with Nick Woolley

How is economics relevant to culture and the creative sectors?

Economics can help public bodies and charitable organisations understand the public and private values of their investment in the arts. The creative industries account for 6% of GDP in the UK, and are growing strongly. It is essential to understand what drives their activities and value and what government can do to support them.

How do you work with arts organisations?

We have worked with government and arts organisations to apply techniques that value intangibles, such as the satisfaction that people derive from the arts.

We also developed the business case that helped Tate Modern secure government funding for a major iconic extension to the existing gallery and for substantial renovations to Tate Britain.

3.6 MILLION

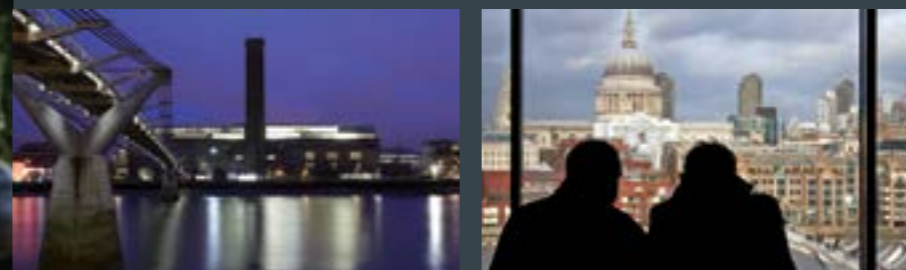
Europeans were employed in the cultural sectors in 2009, equivalent to 1.7 % of total employment for EU-27 countries

(Source: Eurostat Cultural Statistics, 2011)

76%

of English adults engaged in the arts in the last 12 months

(Source: DCMS, Taking Part survey 2012)



Where you can find us.

Brussels, Belgium

Place Stephanie
Avenue Louise 65
Box 11
Brussels 1050
T: +32 2 535 7927
F: +32 2 535 7700

Cologne, Germany

Kranhaus Mitte
Im Zollhafen 18
Cologne
D-50678
T: +49 221 337 13 0
F: +49 221 337 13 130

Dublin, Ireland

Fitzwilliam Hall
Fitzwilliam Place
Dublin 2
T: +353 1 669 8531

Madrid, Spain

Larra, 12
Madrid
28004
T: +34 91 591 4050
F: +34 91 591 2580

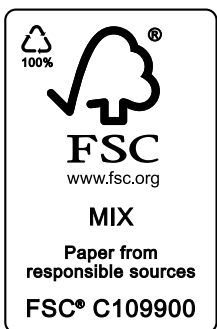
London, UK

71 High Holborn
London
WC1V 6DA
T: +44 20 7031 7000
F: +44 20 7031 7001

For more information please visit:

www.frontier-economics.com





Turley Office
1 New York Street
Manchester
M1 4HD

T 0161 233 7676

Turley