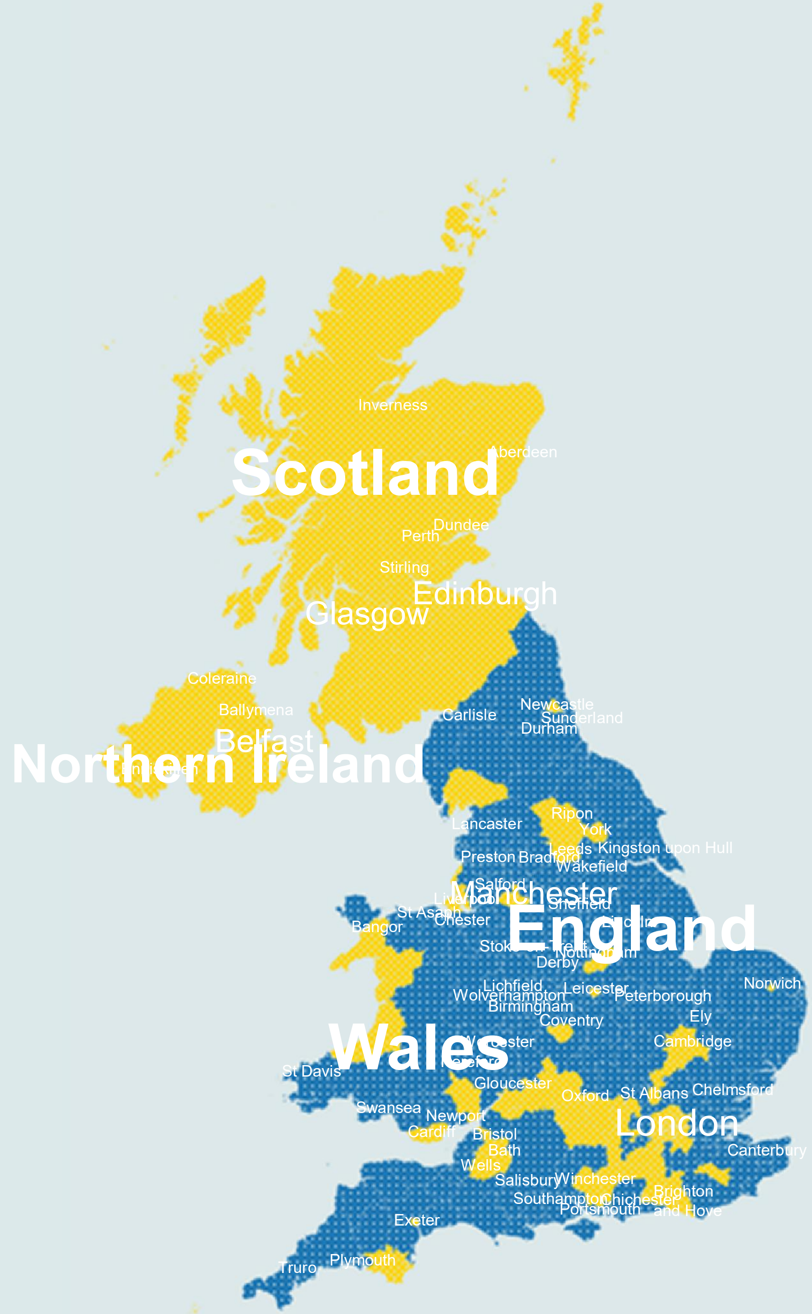
# AdiEU:
## The Impact of Brexit on UK Cities




Metro —— Dynamics

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# The purpose of this report

Introduction

It may not have been a regular subject at dinner tables around the country, but in the last couple of years, many of the UK's cities have been undergoing a period of radical structural reform as powers and finances have been transferred gradually from national to local government. These reforms have culminated in the City Devolution programme, which now covers ten cities and regions across the UK, and the creation of the Northern Powerhouse, to balance the London and South East economic powerhouse.

At the time of writing, there is significant trepidation that the events of the last few days could put these reforms at risk. The vote to leave the European Union ('EU') will impact upon the economies of cities and metropolitan areas. This impact will be felt acutely by local authority teams in cities, by businesses operating in cities, and by investors who fund development in cities.

The purpose of this report is not to forecast or speculate on how the unprecedented historical events of the last week will play out - this is available on the front pages of every newspaper daily - but to set out the facts as they are known today, and consider the range of likely impacts.

The possible economic impacts include the loss of significant European Union funding streams such as ESIF and EDRF, jobs and investment linked to European trade, future investment in infrastructure and business, universities' ability to continue to attract EU academics and students, and research and innovation investment.

The political uncertainty which is a by-product of the Referendum, creates short-term uncertainty about the prospects for the City Devolution programme. There is at least a risk that the process of devolution could be slowed or even halted as the political parties work through leadership changes and ensuing policy is realigned. For those places yet to start a formal City Devolution process, there is a worry the window may have started to close.

Whilst there are reasons to be concerned about the City Devolution programme, there are equally good reasons to believe it should be continued.

Firstly, the Referendum has revealed concerns about the nature of our national democracy. Voting patterns have highlighted divisions within our society. The results, and the ensuing political fallout, suggest that no leader of any single national political party can claim to be truly representative of the country. The UK needs progressive city leaders to help unify communities, and they will need the powers and finances implicit in devolution to enable them to do this effectively.

There can be no doubt that the UK economy is going to be affected by economic fallout as we withdraw from the EU, the only question is how deeply and for how long the impact will be felt. Cities are increasingly seen as the engines of economic growth and their response to the UK's withdrawal from the EU will be key to limiting its economic impact. The wisest cities will already be reaching out to local businesses, universities, and investors to assess the range of possible scenarios resulting from Brexit, and planning accordingly. Referendum results present a number of issues, but there will also be opportunities. City leaders, working in tandem with the private sector, need to identify those opportunities and ensure appropriate plans are put in place to realise them. Local government is best placed to do this with devolved powers. For these reasons, devolution as a policy objective should continue.

The Table of Contents to this report effectively sets-out a checklist of the immediate and known issues on which city leaders, businesses and investors should focus over the coming few months. This should be the agenda for cities as they shape their response to the post-Referendum world. It should be the basis on which cities and their stakeholders negotiate with a new Government. And the centrality of these issues makes a powerful case for city leaders to be fundamentally involved, alongside the devolved administrations, in the withdrawal negotiations.

This is the first in a series of regular briefings to be produced by the Metro Dynamics team to bring some clarity to everyone who has a direct or indirect interest in our cities. To receive more of these briefings, please contact the team.

Research@MetroDynamics.co.uk

# Cities and EU funding

Most people are aware that two of the EU's founding principles are the freedom of movement and access to open markets. Another of the EU's fundamental principles is to balance economic growth and price stability across and within countries in order to create a highly competitive social market economy that enables full employment and social progress.

The EU's main delivery mechanism to achieve this has been the creation of a number of multi-billion framework funding programmes that redistribute EU membership contributions. The UK has contributed significantly to these funds, and has also been a major beneficiary. The referendum debate revolved around the net total national figure. However, for cities and regions in the UK, there is no net figure to debate – it is only a loss.

The UK's decision to leave the EU will have a direct impact as EU funding streams are suspended or cancelled.  How much of an impact will depend on what redistributive mechanisms are put in their place by Government, and when. Set out below is an initial inventory of the EU funding streams and, where known, the potential economic exposure of the UK's cities and regions to those streams.

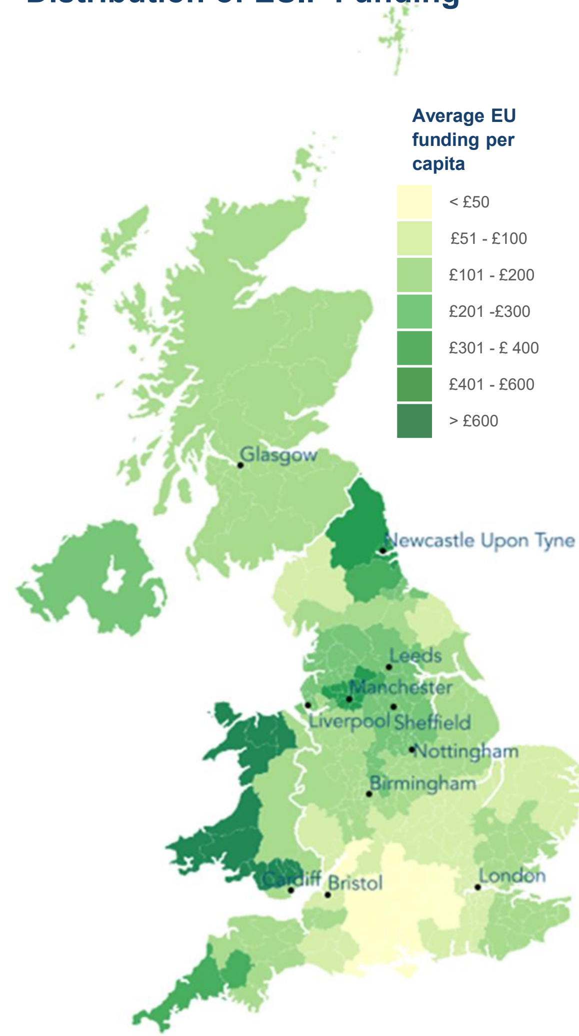
## European Structural and Investment Funds (ESIF)

European Structural and Investment Funds (ESIF) provide funds to help local areas grow. The overriding aim of ESIF is to reduce economic inequalities both between, and within, European countries. ESIF supports investment in innovation, business, skills and employment in order to create jobs. The funding that makes up ESIF is largely divided into three separate funds, two of which invest in UK cities: the European Social Fund (ESF) and the European Regional Development Fund (ERDF).

ESIF funding is vested through multi-year agreements and the current round covers the period from 2014 to 2020. Under the current agreement, the UK receives £1.8bn per year which is distributed across the country on the basis of an allocation set by the European Commission. The bulk of the funds are targeted at areas of the country with more pressing economic need, with Cornwall, West Wales and the Welsh Valleys receiving the highest allocation of funds per capita reflecting this.

A number of northern cities also receive large per capita allocations as this map illustrates. The LEPs in these cities have funded a number of specific programmes, the majority of which are designed to support the development of specific skills.

### Distribution of ESIF Funding




Source: European Commission

Section One

For instance, the funds are being used in Liverpool to run programmes to train residents for the marine energy sectors, and in Hull, the money is being used to fund a programme supporting the young unemployed.

There is no constitutional or legal precedent as to what will happen when the UK formally leaves the EU. If the UK withdraws from the EU before 2020, then there will be a question mark against what happens to ESIF funding between the departure date and the end of its allocation in 2020. This will be subject to exit negotiations. Should the EU choose not to extend the UK's ESIF funding beyond the UK's withdrawal date, there will be a funding gap. The Government will need to decide whether to cover the funding gap to the end of 2020, or whether ESIF funded programmes will need to end in tandem with the UK's withdrawal date. For cities, there is therefore a risk that training and skills development programmes may be impeded or end early.

## European Investment Bank lending

The European Investment Bank (EIB) is an important lender to the UK's cities. The EIB is owned by the 28 member states of the EU. Alongside Germany, France and Italy, the UK is one of the largest shareholders with a 16% stake. The EIB provides project finance for major infrastructure projects including energy, transport, telecommunications, water, sewerage and solid waste, and project finance direct to industry. In the last decade, the EIB has invested more than £40bn into the UK, of which £5.6bn was invested in the last year.

Of concern to cities is the fact that more than 78% of that funding has been directed at urban areas. The EIB has indicated that recent deals will continue uninterrupted. This includes major projects like the Thames Tideway Tunnel, funding to Swansea University, social housing developments, and to an off-shore wind-farm in Scotland. However, it is now uncertain whether the EIB will fund future UK-based projects. Shareholder status in the EIB (and therefore access to lending) is dependent on EU membership, which the UK will no longer have. Lending to non-members is subject to EU mandate, which the UK will need to negotiate. The EIB recently told the news programme Newsnight, that "the uncertainty created by the vote to leave the EU means that some [pending] UK projects, that would have stood a good chance, are now less likely to be approved"[i].

According to the EIB's database, there are 55 UK projects that have been submitted to the EIB for financing purposes that are currently going through due diligence and approval processes. As the map overleaf illustrates, many of these projects would have provided funding directly to UK cities. Should these projects not be funded, cities will either need to source alternative funding or not proceed with the project.

# Projects submitted to European Investment Bank (currently pending)

### Scotland
- Funding for capex programme of the University of Edinburgh
- Construction and operations of new deep-water port at Nigg Bay
- Investment in electricity distribution, generations and systems
- University of Aberdeen improvement and development

### North West
- Water and sewage infrastructure investment
- Energy efficiency, renewable energy and innovation investment
- Electrically powered rolling stock for use in Merseytravel's network

### Wales
- Cardiff energy from waste CHP plant
- Swansea University campus optimisation
- Programme to improve resource efficiency and adaption of new systems

### West Midlands
- University of Worcester development
- Walsall College development

### South East
- Medium-scale offshore wind farm investment
- Port of Dover development
- Hastings college development
- Integrated waste management service in Oxford

### North East
- Funding capex programme of University of Newcastle

### Yorkshire and the Humber
- Financing support of two offshore wind farm developments transmission networks
- Highway improvement, road bypass and urban public transport schemes

### East Midlands
- Water and drinking water treatment investment
- Expanding and upgrading Joseph Wright Centre
- Restoration and refurbishment of buildings in city centre at Roundhouse

### East of England
- Water and drinking water treatment investment

### London
- Investment to support social and affordable housing developments
- Supply of up to 60 4-car units (240 vehicles) to London Overground
- Station improvements and platform extensions investment

Source: Metro Dynamics analysis of European Investment Bank project database

## National infrastructure funding

Last year, the Government established a National Infrastructure Commission to oversee and coordinate investment in infrastructure and major projects across the UK.  Alongside this, a National Infrastructure Delivery Plan was developed to bring together the Government's plans for economic infrastructure, housing and social infrastructure over the next five years. The Government committed to deliver the plan by 2020/21 which today sets out over 600 projects costing a total of £420bn, of which £100bn is to be Government-funded, with the remainder provided by private investment and EU investment (such as the EIB as discussed above). The pipeline includes not only projects of national importance, but also the types of infrastructure that are critical to improving the functionality of cities, such as public transport, road maintenance and digital connectivity.

Whilst the decision to leave the EU will not directly impact on the Government's commitment to invest £100bn in the plan, the decision does introduce uncertainty around the feasibility of securing the balancing figure of £320bn, which could jeopardise some projects. Investors crave certainty. According to a recent survey of infrastructure investors active in the UK market carried out by S&P Global Ratings before the referendum, the majority (71%) were of the opinion that the UK's exit from the EU would suspend private investment in UK infrastructure for a period of two years after the vote[ii]. Investors may wait to see what impact the UK's withdrawal from the EU has on the national economy and the value of Sterling.  Of the 600 projects set out in the pipeline, about half are focused on cities. As illustrated in the following map, some of these projects are important enabling projects that open the door to further private investment. At this stage it would be imprudent to predict whether any specific projects are at greater or lesser risk, but at some stage in the not too distant future, discussions about the potential funding gap in the National Infrastructure Delivery Plan will become critical.

In addition to these projects, there are a number of super-infrastructure projects that may be impacted by the UK's referendum decision. The delivery of High Speed Two (HS2) is critical to the economic plans of many northern cities. The HS2 Hybrid Bill is currently some way through the legislative process. In March 2016, the HS2 Bill passed successfully its third reading in the House of Commons with MPs voting 399 to 42 in favour. There is a risk that the passage of the Bill through the House of Lords may now be delayed thanks to the current political situation. Should a General Election be called, all legislative work in Parliament will be suspended and purdah observed. There is a risk that until that time, the current political confusion will interrupt the legislative calendar. Construction on HS2 was due to commence in 2017.  Should the passage of the Bill be delayed, the start date for construction could be impacted.

At this stage it is unknown how the UK's exit from Europe will be viewed by foreign (and specifically non-EU) investors. However, as outlined above, there is a risk that the combination of Sterling exposure and uncertainty over the short-term political environment will delay investment decisions, further impacting on construction timescales.

There are also concerns about the future of Hinckley Point C, the UK's first new nuclear power station in over a generation. The new facility was projected to generate 7% of the UK's electricity and, through the construction, supply chain and related research activities, generate more than 25,000 jobs[iii]. The facility was to be backed by EDF, the French power conglomerate. The project has already been subject to numerous complications and delays, and not helped by EDF's difficult financial position and French union opposition. The company recently posted a 68% loss in net profit due to asset impairments as well as significant debts[iv]. This combined with the UK's decision to leave Europe may jeopardise the project, despite EDF's official statements to date.

Of equal concern is the impact on the much-delayed decision on whether to expand Heathrow or Gatwick airport. There is overwhelming consensus that one of London's airports urgently needs to be expanded. The decision on which airport to expand will likely be taken for political reasons, despite the extensive work of the Airports Commission which has recommended expansion at Heathrow. The current political uncertainty means that any decision is likely to be further delayed. This is of significant concern not just to London, but to all cities with airports that hub to London airports. The Transport Secretary has recently announced that a decision, which was expected in early July, will now not be taken until at least October 2016.

## National infrastructure pipeline projects

### Manchester
- Investment in Manchester Smart Motorways
- Substantial investment in Manchester airport

### Liverpool
- Surface access investment: A5036 to the Port of Liverpool
- Mersey Gateway Bridge

### Birmingham
- Midland Main Line
- M42 Junction 6
- Smart motorways investment: M6 Junctions 13-15

### Bristol
- Bristol Temple Meads development

### Newcastle upon Tyne
- Improvement and maintenance works to A1 North

### Leeds
- Flood alleviation scheme
- Leeds new generation transport investment

### Hull
- A63 Castle Street to Port of Hull

### Cambridge
- A14 upgrade
- Northstowe new town investment

### London
- Crossrail and Crossrail 2
- Northern Line extension to Battersea
- Thames Tideway Tunnel
- Francis Crick Institute
- London Power Tunnels

Source: National Infrastructure Delivery Plan, 2020

## University funding

The UK is blessed with an exceptionally strong university sector and is a magnet for international students, academics and research funding. The economies of many cities are dependent on these vital economic assets: the large numbers of European students who study in these cities exercise significant spending power; the intellectual prowess of European researchers and students contribute to universities' research and development strengths; and the EU's research funds invest heavily in UK academic institutions. The UK's decision to leave the EU will impact on all these dynamics. Each year, universities generate over £73bn for the UK economy, and support nearly 380,000 jobs[v]. Almost £4bn of this sum is generated by students from EU countries[vi].

More than 1.8mn undergraduate and postgraduate students are registered in the UK. Almost 25% of that number are overseas students (436,000), and of that, approximately 125,000 are from the EU[vii]. At any point in time, there are more international students studying and contributing to the British economy than the populations of a mid-sized city like Liverpool, Edinburgh or Bristol. The table on the right gives an indication of how those students are distributed across some of the major regions of the UK .

To date, EU students have benefited from the same funding regime as UK students. They are charged Scottish (£nil), Welsh (up to £3,900), Northern Irish (£3,925), or English (up to £9,000) fees, and benefit from access to student loan finance. These fees represent a very significant discount on the fees charged to non-EU students: overseas students pay up to £35,000 a year for clinical courses, and up to £16,000 for arts courses.

It is likely that EU students currently studying or applying for 2016/7 entry will not face changes to funding or fees. But beyond that, universities are likely to face stiffer competition to attract EU students. In addition, the Erasmus Plus student mobility programme may no longer fund EU students at UK academic institution which would also contribute to a reduction in students from the EU.

### European Student Numbers

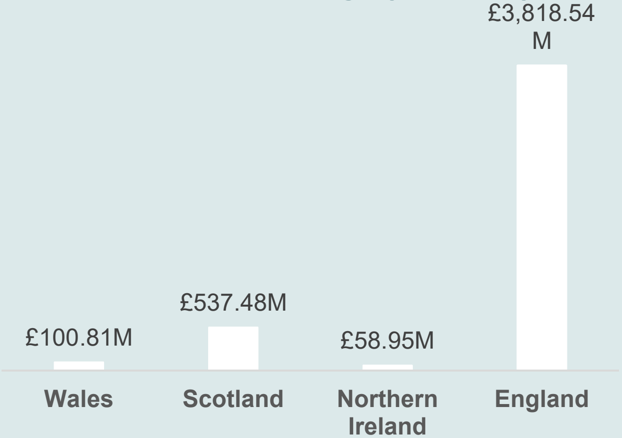
| | Total students | EU students | EU students as a % of the total |
|---|---|---|---|
| **Greater London** | 354,975 | 31,920 | 9.0% |
| **West Midlands CA** | 122,805 | 5,525 | 4.5% |
| **Greater Manchester CA** | 96,055 | 4,415 | 4.6% |
| **Glasgow CR** | 82,530 | 6,390 | 7.7% |
| **North East CA** | 81,470 | 3,140 | 3.9% |
| **Cardiff CR** | 76,905 | 2,960 | 3.8% |
| **West of England CA** | 71,180 | 3,395 | 4.8% |
| **Oxford** | 43,465 | 3,325 | 7.6% |
| **Cambridge** | 39,345 | 3,210 | 8.2% |

Source: Metro Dynamics analysis of Higher Education Statistical Authority figures

Today, the UK receives a net surplus of EU research and student mobility funding. Most of this funding is delivered through Horizon 2020, the EU Framework for Research and Innovation. The goal of the funding programme is to produce world-class science and to remove the barriers to innovation and make it easier for the public and private sectors to work together and deliver innovation. The UK has received £1.8bn of funding over the last two years and total investment was expected to reach £10.4bn by 2020, according to European Commission figures, accounting for almost 16.7% of the total. Of the £1.8bn grant, the bulk is directed to higher education institutions (Cambridge University receives the largest allocation), £257mn to SMEs that undertake research, £115mn to non-SME businesses and £270mn to research organisations. But when the grants to institutions and businesses are aggregated at the city level, it is clear major research cities will be impacted. The chart below illustrates this point. London leads the pack having received more than £1.25bn since 2007, followed by Cambridge and Oxford, each receiving more than £400mn. The West Midlands region received more than £260mn, and Greater Manchester received more than £175mn[viii].

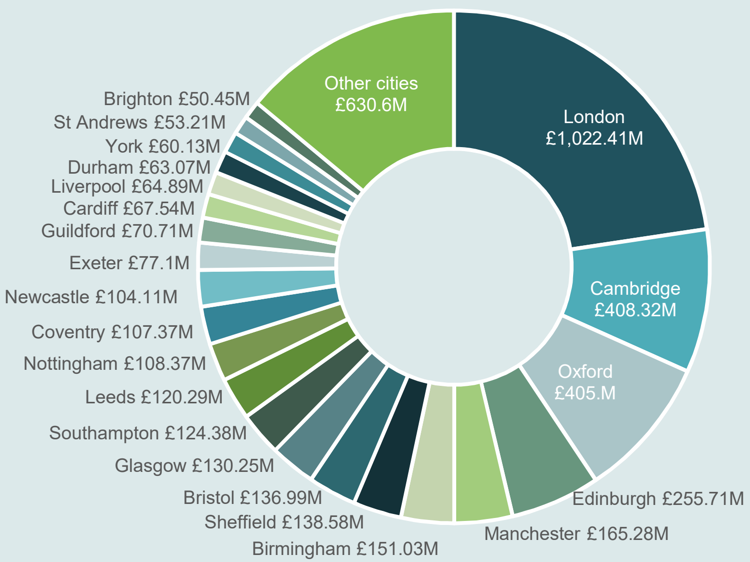
Continued access to EU research funding will constitute another plank of the UK's exit negotiations. However, it is possible that any ongoing access to EU grant funding will be contingent upon the UK's willingness to sign up to the free movement of people. A precedent has been set by Norway and Turkey, both of which take part in Horizon 2020 under "associate member" status. As the Horizon programme is set to complete in 2020, the EU is due to commence consultation next year on the next generation of EU research funding, referred to as Framework Programme 9. Given the strength of the UK university sector, this may provide a window to argue for the UK's further inclusion, which will be vital if the UK's university cities are to compete globally.

**EU Research Funding by Country**




Source: Data provided to Metro Dynamics by wizsom.ai

**EU Research Funding by City**




Source: wizdom.ai by colwiz (https://wizdom.ai/)

Section One

# Cities and EU trade

The functional economies of the UK's cities are diverse. London is likely to be most impacted by the decision to leave the EU – the trade in services and the free movement of labour are fundamental to the mechanics of the London economy. The future size and shape of the financial services sector centred in the City of London will therefore remain an issue of national concern.

Many smaller cities have more self-sufficient economies and as a result may be less exposed to the changes in EU trading terms. But as discussed in Section One, some of these cities will be more exposed to cuts in significant EU funding streams or the likely reduction in numbers of EU students choosing to study at UK universities. Other cities are economically dependent on the production of physical goods, like cars, that are then exported to the EU market. This section outlines the potential impact on cities of the UK's withdrawal from the EU from the perspective of trade.

International and intra-EU trade takes many more forms than it did when the EU's founding fathers set out a vision for a free trade area in 1958. Most UK cities have historically developed around a central organising principle, namely the physical production of specific type of good: cotton, steel, ships, engines. Despite all of the changes in the last century, the trade of physical goods remains an important mainstay of many UK cities, albeit a much smaller one proportionally. In response to the growing international competition for manufacturing and production operations, many cities have made a conscious decision to move up the production value chain. These cities have actively invested in the research and development of new goods, such as pharmaceuticals, medical devices and advanced materials by drawing on research assets like major universities.

Meanwhile the decrease in the production of physical goods has been inversely mirrored by an increase in the provision and trade of services. Many of these services are traded within the UK, and many (for example financial services and advertising) have become significant service exports to the EU. Finally, in recent years there has been a marked increase in intellectual property related trade, a good example of which is the creation of software, whether for games, virtual reality or enterprises.

To set the context for the discussion in this section, the UK's total trading position relative to the EU needs to be established. Approximately 44% of all UK exports end up in the EU whilst, conversely, less than 16% of the EU's exports are made to the UK. The likely impact on the trading position of the UK's cities on withdrawal from the EU will be a function of two things: the economic make-up of a city economy across the classifications listed above and the model of ongoing UK-EU trade that is eventually adopted. To set the background for this discussion, the table to the right shows the breakdown of trade across six significant sectors of the UK economy.

## Sectoral impact of Brexit

| Sector | Share of Employment | Share of sector's exports destined for EU | % of UK Exports |
|---|---|---|---|
| **Automotive** | 0.42% | 35% by value | 4.9% |
| **Chemicals & pharma** | 0.52% | 57% | 9.9% |
| **Aerospace** | 0.34% | 45% | 2.3% |
| **Capital goods & machinery** | 0.61% | 31% | 8.6% |
| **Food & beverage** | 3.7% | 61% | 3.7% |
| **Financial services** | 3.6% | FS* 41%<br>I&P**: 18% | FS* 9.3%<br>I&P** 4.3% |
| **Professional services** | 11.6% | 29.8% | 9.9% |

Source: Open Europe
* Financial Service
** Insurance and Pensions

Section Two

## Trade in physical goods

Possible limitations in the trade of physical goods have dominated the referendum debate. Today the UK has preferential access to European markets for the trade of goods across 52 countries as a result of 22 separate trade agreements between the EU and individual countries and five multi-lateral agreements. For many cities, the outcome of exit negotiations will be pivotal to future economic well-being. The potential imposition of tariffs and quotas on goods for export into the EU will make them less competitive. However, this impact could be partially mitigated by a potential long-term depreciation in Sterling.

There are a number of models being discussed that would allow the UK to continue to access the European market. The "Norway model" would theoretically allow the UK to become a member of the European Economic Area (EEA) in return for a financial contribution and acceptance of the majority of EU laws and free movement. The "Switzerland model" would allow the UK to become a member of the European Free Trade Association, but not the EEA, through a series of bilateral agreements that would become binding in return for a financial contribution by the UK. The "Turkey model" would allow the UK to enter into a customs union, which would prevent any tariffs or quotas on industrial goods exported to EU countries, but would not cover agricultural goods. Whilst there has been a lot of rhetoric about the shape of a future trade agreement, this is speculation, and proposals are unlikely to emerge until a new Prime Minister and Cabinet are in place later this year.

However, what is known is the EU trade balance in goods and how it varies geographically across the country. At a national level in 2015, the UK imported £219bn of goods from the EU and exported £134bn, equating to a net trade deficit of £85bn[ix].

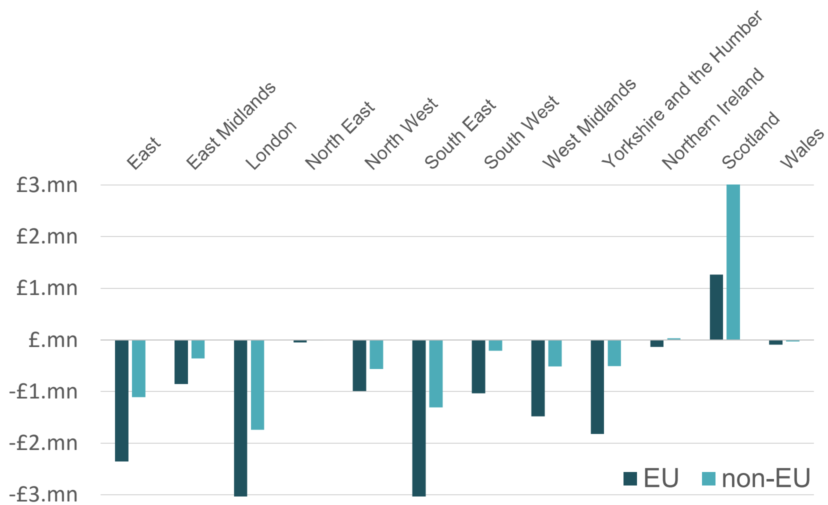
Unfortunately, the European trade statistics are only available at the regional level, not the city level, but the results are still compelling. In England, two of the eight regions ran an overall EU trade surplus in goods last year – the North East, and the South West. In addition, Northern Ireland, Scotland and Wales all ran trade surpluses as well.

Digging below these regional level figures exposes some of the uncertainties cities face. For example, much of the North East's overall EU trade surplus is driven by a surplus in manufacturing of machinery and transport (primarily cars) and production of chemicals. As is well known, Sunderland is home to Nissan, the UK's largest single car production site. Nissan has invested £3.67bn into the site since it was opened in 1986 and it is the EU manufacturing hub for the production of five different models. The region's highly successful production of chemicals is linked to concerted investment by over the last decade. In 2004, a formal industry cluster was established by the leaders of many petro-chemical and pharmaceutical raw material companies based across the region to accelerate growth and access to international markets, including the EU. Today the cluster manufactures 50% of the UK's petrochemicals and 35% of pharmaceutical raw materials. Companies, including Akzo Nobel (Dutch) and GSK (UK), have also invested in significant facilities in Newcastle, Billingham and South Tyneside to produce goods for export into Europe.

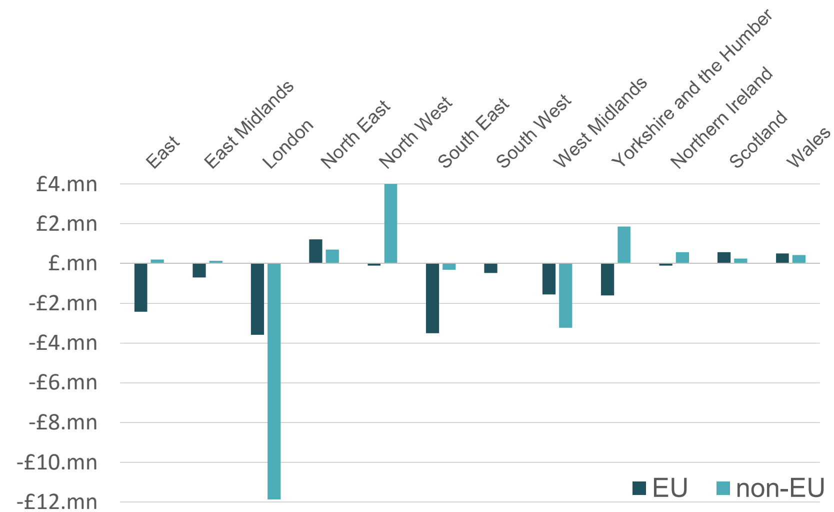
Whereas a century ago, much industry took place in the heart of cities, today, industry and manufacturing takes place in the hinterland of cities, many in the north of the country. The cessation of favourable EU trade terms could put those operations at some risk and in turn the city economies around which they are based – particularly as many city regions are exposed to high GVA manufacturing and production jobs. For these cities it will be imperative to understand the degree of exposure and hedge against possible job losses.

What is encouraging as the following trade balance charts show, is that in some regions while there is a negative trade balance on goods with the EU, the trade balance is in surplus on trade with non-EU states.

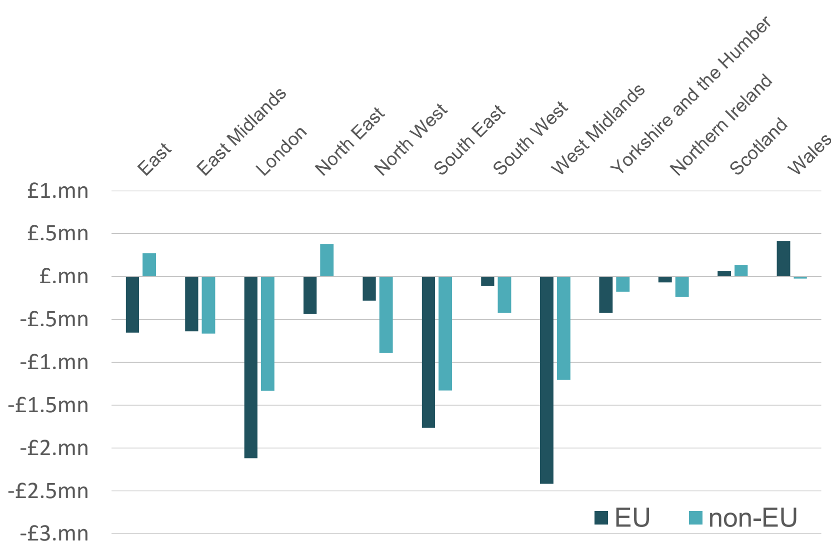
## Balance of Trade Statistics: Food and Beverages



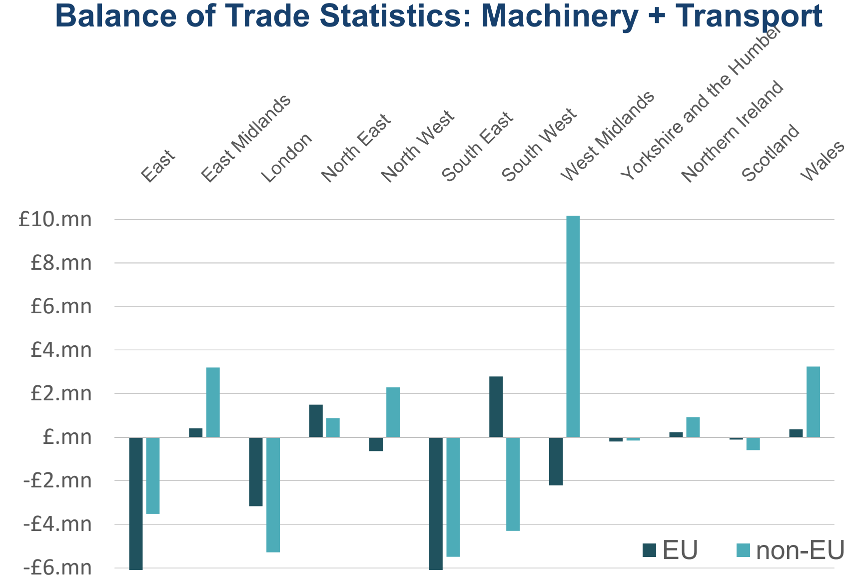

## Balance of Trade Statistics: Raw Materials




## Balance of Trade Statistics: Manufacturing




## Balance of Trade Statistics: Machinery + Transport




Source: Metro Dynamics analysis of Overseas Trade Statistics, HM Revenue & Customs

## Trade in R&D related production

In the last few years, many cities have invested in the creation of significant R&D clusters. These clusters do not depend on the free movement of goods, but the free movement of people. As a by-product of the inward movement of talent, global and European companies locate their research facilities to access leading thinking. As an example, Horiba MIRA is an automotive engineering and consultancy facility located in the West Midlands. The facility provides product engineering, research, testing, information and certification services to the global automotive sector. As testament to its global importance, in 2015 the entire site was purchased by Horiba, a Japanese-owned testing equipment group. Linked to the site physically is a technology park that is now home to scores of UK, European and international automotive-related companies. Cities like Cambridge have long attracted international companies to access the research and people linked to the University as discussed earlier: only last year, Apple set up an R&D facility in Cambridge. The UK's decision to leave the EU could impact on these cities, primarily through possible restrictions on free movement of people. But it should not be forgotten that these are globally competitive facilities and cities, so their ability to continue to attract companies and funding should remain strong.

## Trade in services

While many UK cities have diversified into services, London remains the dominant city for many service sectors – such as the financial, professional, and creative services. Many global financial institutions base themselves in London in order to access the wider EU market through what is termed 'passporting'. This means that any financial services firm that is authorised to conduct business in a European Economic Area (EEA) state is entitled to carry on permitted activities in any other EEA state. Clearly an exit from the EU could prevent global (and British) financial services companies based in London from accessing EU markets, which puts many London-based operations at risk.

On the upside, there are many European financial institutions that sell into the UK market. And many of these companies, particularly European insurance companies, have significant regional offices throughout many cities including Manchester, Birmingham and Leeds. And the UK's decision to leave the EU may strengthen their presence as UK operations would not be subject to Solvency II, the EU legislation that the sector fought hard against. Other services such as the UK's globally-leading advertising industry may not be impeded by the UK's decision. As with financial services they will be frustrated by the inability to hire European citizens, but their competitive position in European and global markets is unlikely to be fundamentally challenged.

## Trade in intellectual property (IP)

The UK has a number of competitive strengths in sectors that essentially sell intellectual property, rather than goods or services. These include the gaming industry, software, artificial intelligence (AI) and film production. As London has increased in cost, many of these sectors have anchored themselves in unexpected cities outside the capital. For instance: there is a significant gaming cluster in Leamington Spa; Bristol is home to documentary film production houses; and there is a burgeoning cluster of virtual reality programming in Hull. For these companies, and the cities in which they are based, the UK's decision to leave the EU could have an impact. It will again impede their ability to recruit European talent. And in these companies, highly technically trained talent is critical to success. As burgeoning sectors, many companies also depend on the infusion of investment and there is some fear that European investment houses will be less inclined to invest in UK companies and this will limit access to sometimes life-saving finance.

To offset this is the fact that the Government has made significant investment in the last few years to support these clusters, and despite the current political uncertainties, commitments that have been made (for instance Regional Growth Funds Round 1 and 2) are likely to be honoured. Furthermore, the UK's decision to leave the EU will not impede the sale or distribution of licenses as they are not covered by EU base legislation as they do not constitute goods.

Section Two

## What this means for UK cities

Many large UK cities have mixed economies. Some cities may choose to pivot and change existing growth plans to support and defend their economic base. For cities that are organised around the production of goods, significant planning may be required to protect and defend against the potential winds of change.  What should make many cities breathe a sigh of some relief is the fact that the offices, production facilities and factories of major European companies (we have used those in the Global 500 for the sake of this analysis) are scattered across the UK. Of all the cities in the UK, London and the South East are by far the most exposed. And while this will not help the many towns and smaller cities that depend on the operations of European corporates to employ talented UK staff, it does help illustrate the fact that the uncertainties are shared across the UK.

## UK operation locations of major European companies


Source: Metro Dynamics in-house spatial analysis

# Impact on the City Devolution programme

The City Devolution agenda has built significant momentum over the last year. In June 2015, the Government called for expressions of interest by cities and functional economic regions interested in devolution. 34 different submissions were put forward. It is not known how many were being seriously negotiated by Government at the time of the Referendum. However, ten separate devolution deals are fairly well progressed. Outlined below are the facts that are known, the legislative process involved, the status of the deals that are currently in train, and the risks to those deals.

## Devolution Legislative Process

The Government's City Devolution agenda, in its current form, can be traced back to the Scottish Referendum in 2014. When Scotland voted to remain in the UK, the Prime Minister announced that alongside proposals for additional devolution to Scotland, Wales and Northern Ireland, it was also "important we have wider civic engagement about how to improve governance in our United Kingdom, including how to empower our great cities."

In parallel, the RSA City Growth Commission developed a plan for devolution to city regions and metropolitan areas that garnered wide support across political parties and within Whitehall. In 2015, the Chancellor trailed the idea of a 'Cities Devolution Bill' to be introduced in the Queen's Speech that year and the Chair of the RSA City Growth Commission, was asked to lead the charge as Commercial Secretary to HM Treasury. This followed on from legislation introduced under the Labour government in 2009 to introduce the concept of Combined Authorities as a way of enabling groups of local authorities to integrate economic development and transport functions across a functional economic area. As promised by the Chancellor, the Government passed the Cities and Local Government Devolution Act in 2016. The Act provided for the introduction of directly-elected mayors who would hold powers in their own right and chair Combined Authorities in England.

The 2016 legislation also enabled the devolution of further powers, including but not limited to housing, transport, planning and policing, on Combined Authorities. It is enabling legislation that provides for a constitutional shift of power from Whitehall to locally-elected Mayors and Combined Authorities. It enables these local bodies to exercise specific powers and oversee budgets that were previously controlled centrally, subject to the agreement of Government. However, the legislation does not make devolution deals automatically binding. Under the terms of the Act, each individual devolution deal requires further secondary legislation to establish the role of Mayor, provide for elections and specify the powers to be devolved to the Mayor and Combined Authority. That secondary legislation also sets out, in headline terms, the way that local decisions will be taken by the Mayor and Combined Authority. These pieces of secondary legislation, Statutory Orders, are subject to consideration and debate by Parliament. In practice each devolution deal that establishes a new Mayor currently requires at least two Statutory Orders, one to establish the office of Mayor (and the Combined Authority if it does not already exist), and the other to confer powers on that Mayor and Combined Authority.

## Devolution Deals

To date, ten cities or counties in England have agreed devolution deals with Government. Nine involve the appointment of a Mayor and one (Cornwall) does not. Mayoral elections in those nine places are likely in May 2017. However, for these elections to be held, the secondary legislation described above will first need to be passed. Parliament has approved all the orders needed to establish the Greater Manchester Mayor and the election of a Mayor in Manchester will go ahead in May. Elsewhere, Statutory Orders to enable the election of Mayors have been laid in Parliament, or will be in the next few days, for the Tees Valley, West Midlands, Sheffield, Liverpool city regions and the North East. In the Autumn, a second round of Statutory Orders are scheduled to be laid for each Devolution Deal. These will set out the detail of powers and funding to be transferred and further details of how local arrangements will work.

It is probable that these Statutory Orders will be passed, and that Mayoral elections in these cities will go ahead in May 2017. However, it is possible that Parliamentary procedure and timetables could be interrupted by the current political confusion.

This in turn could delay the Orders and could impact on either the date of Mayoral elections in the cities or the transfer of powers to those Mayors, or both.  It is theoretically possible that a Mayor could be established, and the date of an election set, but that Parliament then fails to approve the transfer of any powers to that Mayor.  Were there to be a snap General Election in the next few weeks, Parliament would be dissolved and even if the current governing party were returned to power, it would be very unlikely that the necessary legislation could be passed in time.  The table to right outlines the current status of each of the devolution deals.

Given the context of the referendum vote, there are now possible delays in Mayoral elections and devolution deals that cover geographical areas where more than 16mn people live. And there is also a risk that the many civil servants involved in individual negotiations to date will be reassigned to focus on EU negotiations, which in turn would make it harder for devolution deals to secure the attention needed to drive progress.

## Devolution Deal Status as of 1 July 2016

| Devolution Deal | Status as of 1 July 2016 |
|---|---|
| **Greater Manchester Combined Authority** | No further legislation is needed to create the office of the Mayor and deliver the terms of currently agreed current devolution plans. Mayoral elections in May 2017 should continue unheeded. |
| **West Midlands Combined Authority**<br>**Liverpool City Region**<br>**Tees Valley Combined Authority**<br>**Sheffield City Region**<br>**North East Combined Authority** | The Order to establish the office of the Mayor, and to provide for Mayoral elections in May 2017 are before Parliament or will be in the days ahead.  But these have not yet been passed.  Further Orders to transfer powers and funding will be required in the Autumn. Government is committed to achieving this legislative timetable, but there is a risk that political developments mean that Orders are not approved or do not get Parliamentary time. |
| **East Anglia** | A deal was agreed with Government in March and local councils and LEPs are proposing to implement it through setting up two Mayoral Combined Authorities.  Local consultation will take place over the Summer and if agreed by Government then secondary legislation could be passed in the Autumn for elections in May 2017. There is a risk that these deadlines will not be achieved. |
| **Greater Lincolnshire**<br>**West of England** | Proposals for devolution for these areas were included in the 2016 budget and will be subject to local public consultation over the summer. Legislation to establish a Mayor could then follow in the Autumn. There is a risk that these deadlines are not achieved. |
| **Nottinghamshire/Derbyshire**<br>**Leeds** | Devolution proposals have been mooted for these areas, but have not yet been agreed locally or by Government. |

## Devolution investment funds

Under the terms of the devolution deals being negotiated, one of the fundamental components of many of the deals is the creation of Investment Funds that aggregate multiple streams of Government funding, together with additional funding, to create a single city fund that can be used to deliver 30 year programmes of transformational investment. Apart from in Greater Manchester, the setting up of these funds is dependent on the successful progress of the secondary legislation outlined above.

It should be noted that there is £106mn of ERDF funding tied-up in the Cardiff Capital Region City Deal, as a central element of the deal is the completion of the Metro, which has earmarked EU funding. Ensuring that this ERDF funding is protected will be priority for the Cardiff Capital Region.

## Implications of Brexit on City Devolution

Concluding where matters stand in relation to devolution is inevitably speculative at this stage, but some observations can be made.

The funding provided for City Devolution deals is no different to any other government spending. There is therefore no specific reason to believe that funding included in the current devolution deals will be impacted by the Referendum decision. Some devolution deals, such as Cardiff and Glasgow, do stand to be more affected because European funding was included in the deal construct. In the case of Cardiff, the local leaders agreed to £100mn of European funding; the Glasgow City Deal included funding to provide integrated employment support for young people and funding to develop stratified medicine, both of which were underpinned by European funding. In both cases the delivery of the deals must be under some risk until the Government's policy on how these gaps in EU funding will be closed is clear.

The current and previous government have placed particular emphasis on governance change as a precondition to significant devolution. The only exception to this is the Cornwall deal which, uniquely, retains a single upper-tier local authority. Governance change, in particular the creation of elected Mayors, has been the single most controversial part of the City Devolution reforms and some authorities may wish to use the current situation to pause or even reconsider governance change.
If the perceived economic benefits of devolution justified the creation of an elected Mayor in an area prior to the referendum, the economic arguments are even stronger now. The funding made available through devolution, though modest, could provide economic stimulus. Further capital expenditure (which may now be possible as the Government loosened its fiscal targets this week) would be even more welcome and could be administered through Mayoral Combined Authorities to further support devolved areas.

## Cardiff Capital Region and Glasgow City Region Deals

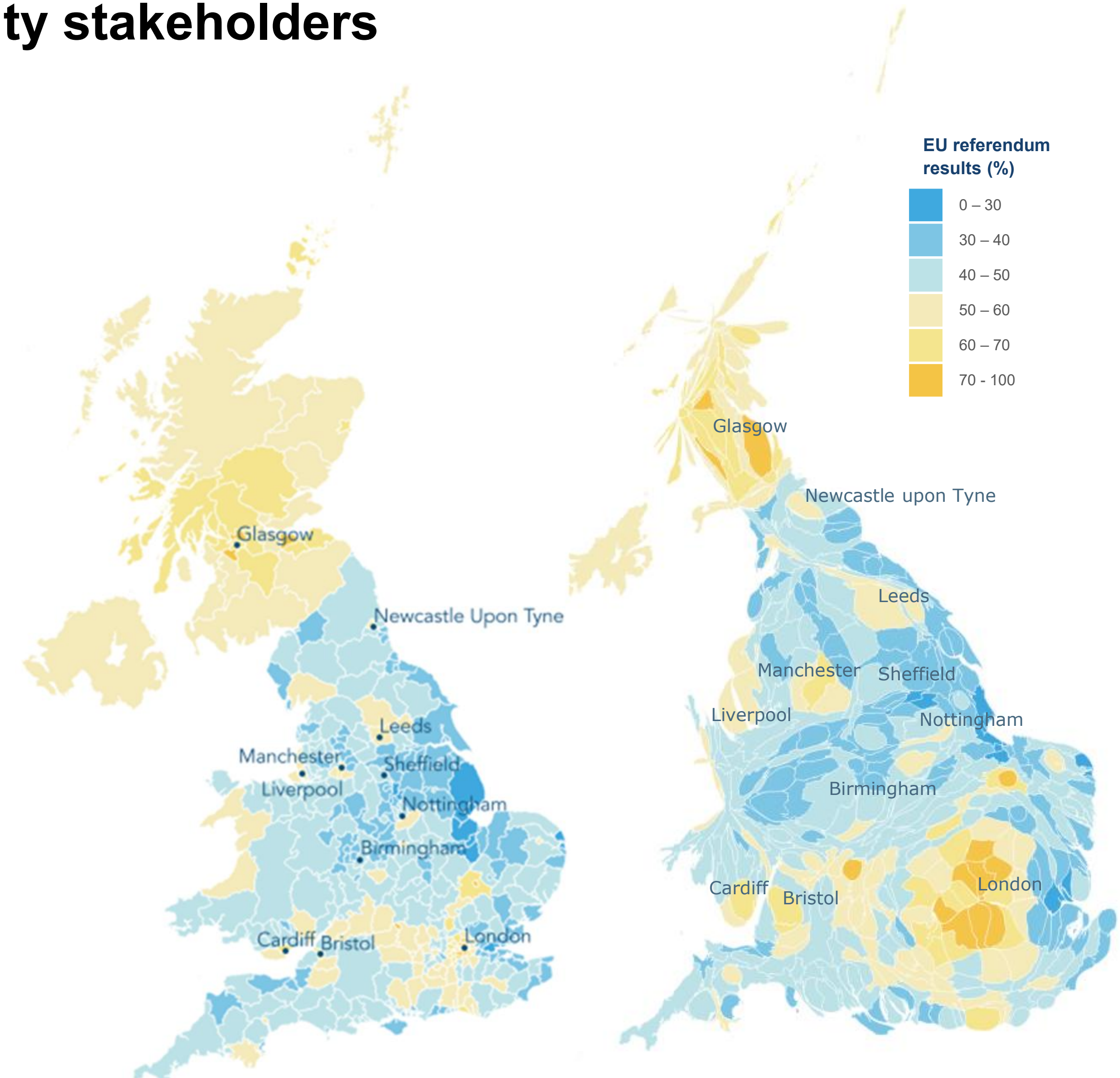
| | Cardiff Capital Region | Glasgow City Region |
|---|---|---|
| **Total Deal Investment** | £1.2bn | £1.13bn |
| **Composition** | Funding over 20 years: £500mn from UK Govt, £494mn from Welsh Govt, £106mn from ERDF, £120mn from CCR Councils | Funding over 20 years: £500mn from UK Govt, £500mn from Scottish Govt, £130mn from Glasgow Councils Funding |
| **Population** | 1.5mn | 1.75mn |

Section Three

# What this means for city stakeholders

Over the coming weeks those that lead, operate and invest in cities will face a period of unprecedented uncertainty. As discussed earlier the economic impacts on cities could begin to bite quickly as foreign investors delay pending investment decisions. Job losses will follow, although the speed of these losses will vary and depend on the sector of the economy affected. For example, in the London financial services sector, whilst there may be some headline job losses, the pattern is more likely to be gradual as foreign nationals working in London are repatriated over the coming months. For that reason, City of London job losses may not actually appear in the economic data until the 4th quarter of 2016/17. In other cases, it may be the predicted growth in the rate of employment which slows as planned investment is either deferred or cancelled.

Until the EU withdrawal negotiations are completed, the future of EU direct funding will remain uncertain. This is compounded by the political uncertainty that could affect both the timetabling of existing devolution legislation and the viability of extending the City Devolution programme to other cities and regions of England, as scarce Whitehall resources are increasingly drawn into negotiating and planning for the UK's withdrawal from the EU. The outcome of party leadership contests, a potential General Election and possible single party or coalition government outcome scenarios are frankly too complicated and unpredictable at this stage to map.




Source: Metro Dynamics analysis of Electoral Commission data.
Maps for the two city regions are displayed using different spatial scales

Section Four

It must be acknowledged that changes in the political landscape as seismic as this make the future trajectory of all major government reform programmes uncertain. This holds as much for major reform programmes like Universal Credit as it does for City Devolution.

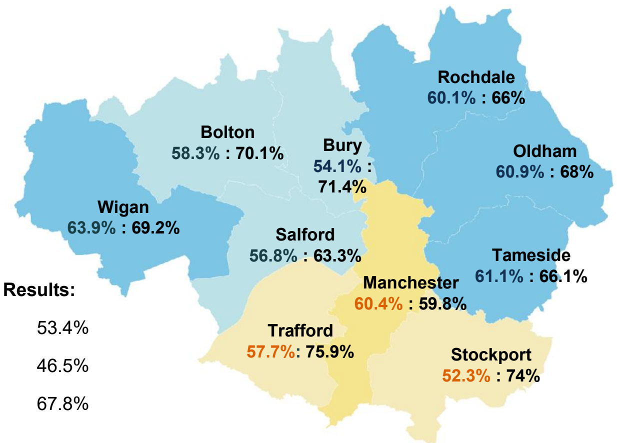
Set out below are some of the implications for UK City stakeholders of this historic set of events.

## Voting Patterns in Cities

It is not possible to fully evaluate the impact of the events of last week on cities without considering  Referendum voting patterns and what they mean for prevailing theories about the UK's cities. At first sight, the voting pattern was relatively consistent across the major cities. The urban city centres in for example, London, Manchester, Cardiff, Glasgow and Newcastle all voted to remain in the EU, which is consistent with what would be expected.

The two maps on the previous page show the difference in voting patterns across the country spatially. The map on the left hand side show the strength of the Leave and Remain vote across the UK geographically. The cartogram on the right hand side has been distorted to reflect the numbers of voters spatially.

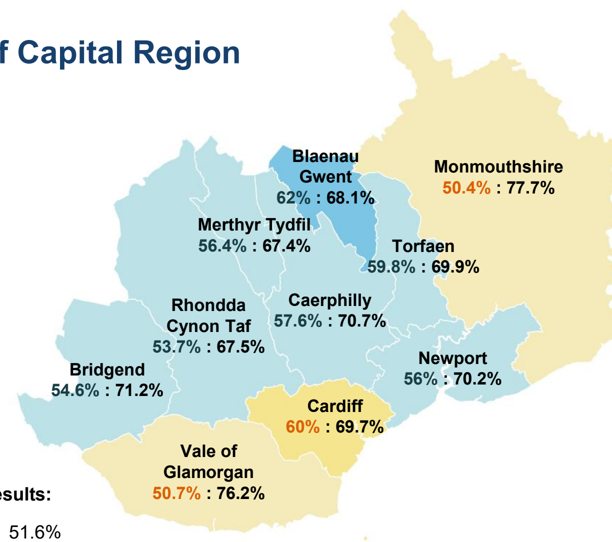
### Greater Manchester Combined Authority




**Overall Results:**

| | |
|---|---|
| Leave | 53.4% |
| Remain | 46.5% |
| Turnout | 67.8% |

### Cardiff Capital Region




**Overall Results:**

| | |
|---|---|
| Leave | 51.6% |
| Remain | 48.4% |
| Turnout | 70.6% |

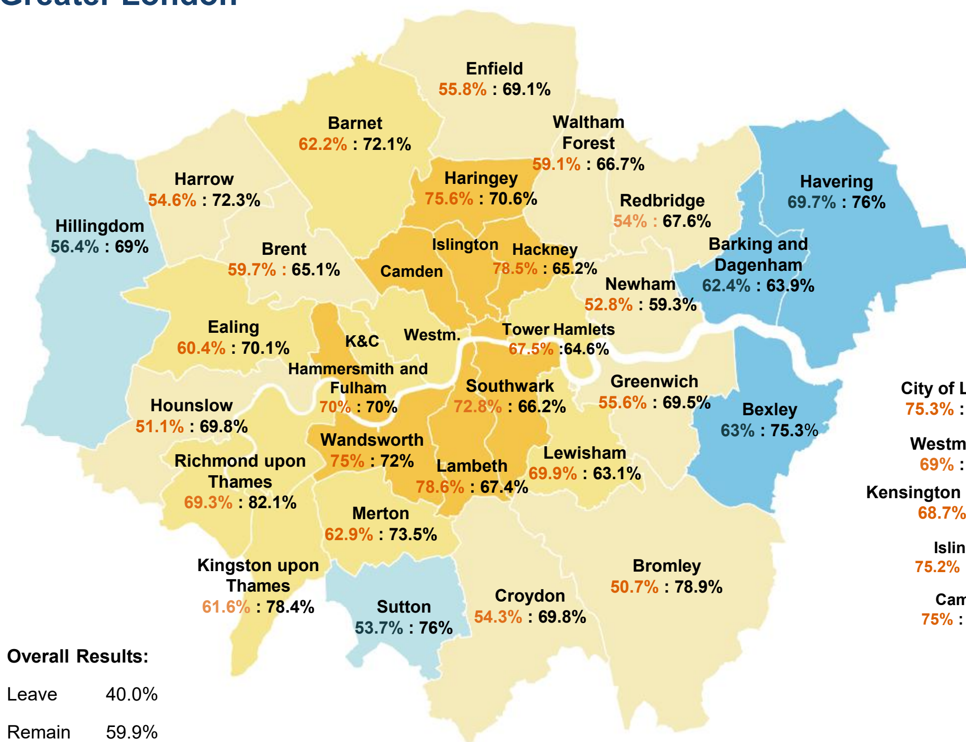
Source: Metro Dynamics analysis of Electoral Commission data.

Areas have been resized according to the total number of votes cast in each area. The map clearly shows that areas of high population density (as indicated by high numbers of total votes) were the areas where the majority vote was in favour of Remain.

This is not surprising as residents who live in cities tend to be more liberal, ethnically diverse and have an urban mind-set. This is particularly the case in cities that have been through a period of regeneration and have attracted in new young residents. People often choose to live in cities to access and live within a more cosmopolitan environment. But as the individual city maps illustrate, the story within major cities is also telling. The degree of support for Remain, outside of immediate urban centres (though in the minority) decreases almost in direct proportion to the distance from the centre. In other words, the further from the centre, the higher the proportion of Leave votes.

In city areas, this voting pattern appears to reflect the socio-demographic profile of city residents spatially. The general pattern is that as the distance from the city centre widens, the educational attainment and earning of residents declines, and as the maps show, so did the propensity to vote Leave.

## Greater London




City of London
75.3% : 73.6%

Westminster
69% : 65%

Kensington and Chelsea
68.7% : 66%

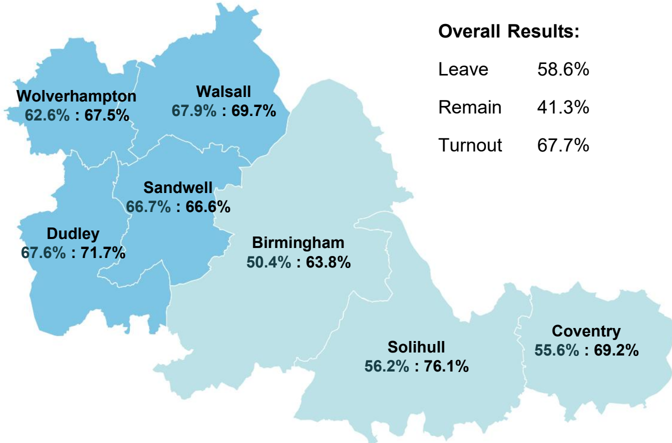
Islington
75.2% : 70.4%

Camden
75% : 65.5%

**Overall Results:**

| | |
|---|---|
| Leave | 40.0% |
| Remain | 59.9% |
| Turnout | 69.7% |

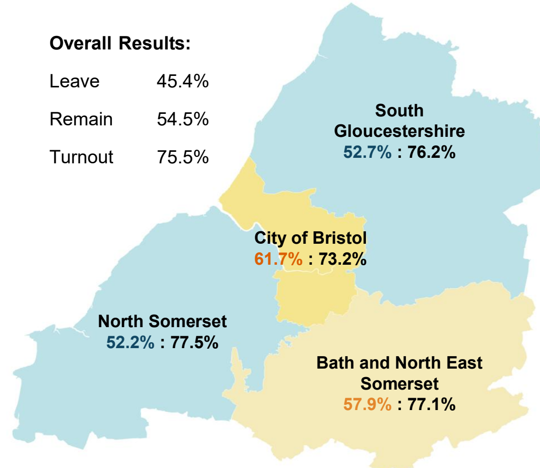
## West Midlands Combined Authority




**Overall Results:**

| | |
|---|---|
| Leave | 58.6% |
| Remain | 41.3% |
| Turnout | 67.7% |

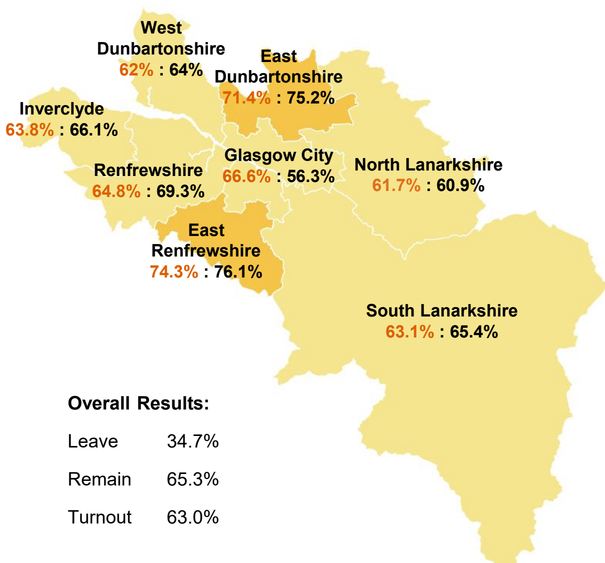
## West of England Combined Authority




**Overall Results:**

| | |
|---|---|
| Leave | 45.4% |
| Remain | 54.5% |
| Turnout | 75.5% |

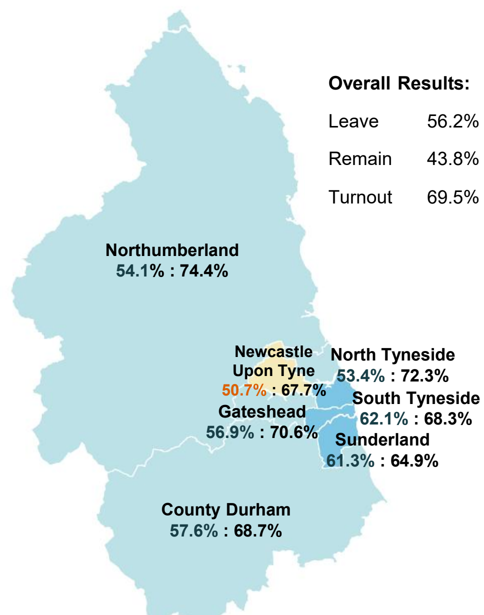
## Glasgow City Region




**Overall Results:**

| | |
|---|---|
| Leave | 34.7% |
| Remain | 65.3% |
| Turnout | 63.0% |

## North East Combined Authority

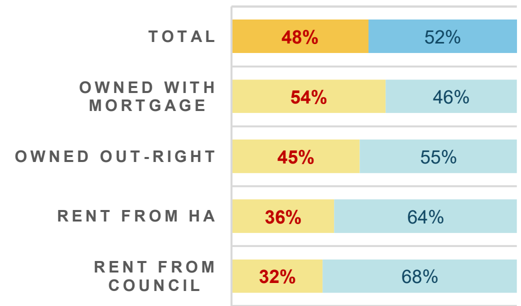



**Overall Results:**

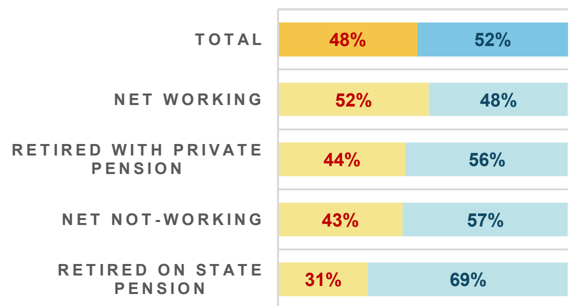
| | |
|---|---|
| Leave | 56.2% |
| Remain | 43.8% |
| Turnout | 69.5% |

Of great concern though are the divisions which a more studied analysis of voting patterns across the entire country, not just cities, reveal. Polling data released on 24 June 2016[x] suggests there are correlations between specific characteristics and voters' propensity to vote Leave. For example, more than two thirds of people in receipt of state pension intended to vote Leave; whilst two thirds of council and housing association tenants voted Leave. The polling data exposes important divisions in opinion across age group, socio-economic classes, level of education and other classifications.

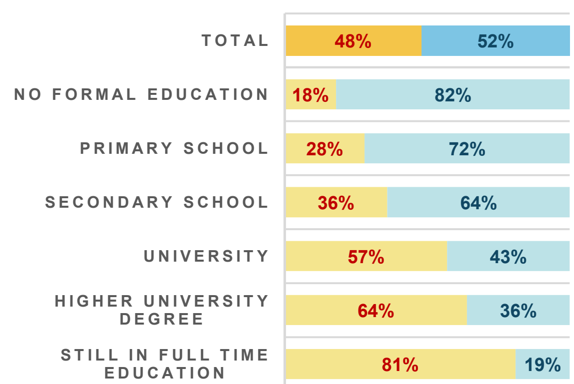
## Voting by tenure type



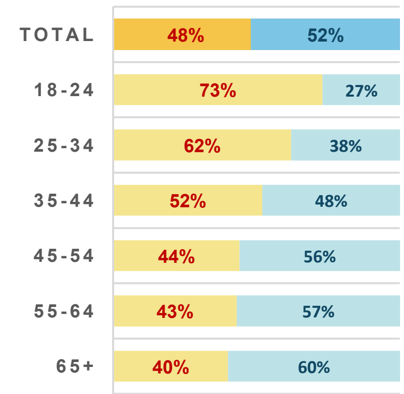

## Voting by working status



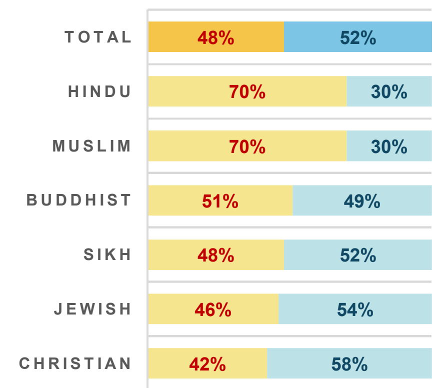

## Voting by level of education




## Voting by age




## Voting by religion




Vote remain Vote leave

Source: Metro Dynamics analysis of Lord Ashcroft polling data (21st-23rd June)

Section Four

## Inclusive growth

No doubt the Referendum results and the associated polling will be crawled over in the coming weeks. They are likely to raise two fundamental questions about the UK's accepted theory and policy on cities. The first question is the efficacy of agglomeration economics in UK cities. The theory behind agglomeration economies is that significant benefits are created (economic, financial and social) when firms and people locate near one another in cities and industrial clusters. The theory holds that benefits are derived from transport cost savings and the augmented competitive position of aligning economic purposes across a city region or combined authority. It is this theory that has informed much of the thinking on the Northern Powerhouse and the need for northern cities to link more closely, both physically through better transport links and commercially, by selecting a number of industrial specialisms that can be coordinated across a city. However, the city charts above suggest that to date, the effects of agglomeration are not yet rippling out from city centres across wider city regions. This either means agglomeration theory doesn't hold in the UK (which is unlikely), or cities are not yet reaping the benefits of agglomeration economics. This is not surprising as it takes years, if not decades, for benefits to be created. London is a case in point - it has taken more than thirty years for the benefits of the London's spatial and economic agglomeration to take root. Many UK cities are just at the beginning of this process.

This leads to the second question, which is how inclusive the economic growth in cities has been. The voting patterns provide further evidence for the perception that recent growth in cities has not been shared uniformly. Those who live outside of city centres and wealthier areas are not benefiting directly from economic growth: wages are not increasing, job opportunities are not expanding and social mobility does not feel as possible. Going forward, much more concerted thought and effort is required to find mechanisms to share the proceeds of growth. This applies equally if not more to the corporate sector as it does to the policy makers. That is why the RSA Inclusive Growth Commission has such an important task.

## National politics

It is inevitable that the decision to leave the EU will impact negatively on the UK's public finances over the short-term. As was debated at length during the run up to the Referendum, what the Institute of Fiscal Studies terms the 'mechanical effect', that is the savings the UK will make as a net contributor to the EU, will benefit the public finances. This will be offset by a national income effect, which is generally forecast to be negative. Increased uncertainty, higher costs of trade and reduced FDI are likely to hit tax receipts. In addition, the government will need to consider how to fund a potential funding gap in the National Infrastructure Delivery Plan and replace EU funding streams such as Horizon 2020. All of this suggests that the national accounts will be impacted.

This could open the window to full fiscal devolution to cities. One of the reasons the current and previous governments have not responded to calls for full fiscal devolution is a concern over the detrimental impact it might have on the public finances. For instance, if cities were given the power to retain a proportion of locally produced VAT, it would leave a hole in the national accounts. And under the Coalition's austerity regime, reductions in receipts to the Exchequer would have to have been offset directly by additional reductions in public spending, to maintain the commitments made by the Government. However, in the days since the Referendum vote took place, the Government has been forced to abandon its deficit reduction targets (which aimed to achieve a budget surplus by 2020), which opens the door to greater fiscal flexibility and the possibility of fiscal devolution.

In addition to fiscal devolution, national politicians and Whitehall officials will also need to consider the ongoing approach to the City Devolution agenda. As mentioned earlier, current and previous governments have favoured a highly controlled approach. Cities have negotiated for additional, and to date, fairly limited powers. To mitigate the extensive impact of the UK's withdrawal from the EU, the pace will need to accelerate. Loosening the devolution process and giving cities the power to make their own choices will be critical to this.

## City leaders

The Referendum vote changed the agenda for city leaders across local authorities, Combined Authorities, LEPs and businesses overnight. The drive for investment and inclusive economic growth is now central. City leaders will spend the coming weeks and months taking a city-wide view of the total EU economic exposure: ESIF funding, EIB lending, Horizon 2020, impact on university student numbers and different scenarios of private investment funding, amongst others. Proactive leaders will start discussions with local businesses that trade heavily with the EU to understand the impacts. Work should begin to diversify city economies that are heavily exposed to EU trade in physical goods.

Should the City Devolution programme stall, for the legislative and timetabling reasons identified above, City Leaders should explore alternative ways of driving forward city renewal. There are a range of investment approaches that UK cities have, to date, barely explored. Most cities have yet to leverage the full financial potential of their balance sheets. Many cities have yet to make compelling cases for significant private investment: too often the 'MIPIM approach' is adopted where individual sites are put to the market, instead of a whole-sale vision for a city extending beyond just real estate, which is more likely to attract large and sustained funding to be deployed in partnership with the public sector. Municipal bonds have rarely been used in the UK, despite the establishment of the Local Capital Finance Company . Investment banks have waited patiently for cities to approach with ideas for institutional bonds. There are a raft of funds available to create Social Impact Bonds. In short, for those city leaders who are eager to act, there are a range of possible funding mechanisms outside of Government-funded City Devolution investment vehicles that could catalyse growth.

Alongside this it will be important to deliver investment and city growth in a way that enables residents to feel and see the benefits. The doughnut of affected residents outside of several city centres need to be pulled more tightly into the fabric of the city.

And in some cities, where the vote was consistently Leave, work will be required to ensure growth benefits the entire city population.

## City investors

For investors in UK cities, the concurrence of economic and political events is unsettling. Foreign investors will need assurance that the political situation in the UK will stabilise, and that a future government will support major projects that require ongoing investment. The Sterling exchange rate over the coming months will play an important role in investment decisions.

For UK-domiciled investment funds, the risks are different. As discussed earlier, there are a range of major infrastructure investments that are now in question. They range from HS2 and Hinckley Point, to the 55 different projects that were to be funded by the EIB.

And while the political context puts major infrastructure programmes in question, a raft of solid, smaller prospective projects requiring investment remain unaffected by recent events. The trade-off is they will be smaller in size and this may in turn impact potential returns. But as the Bank of England has heavily hinted, there may be further Quantitative Easing (QE). These additional funds will need to be invested, particularly as further QE will lead to a further erosion of interest rates. It would be imprudent to suggest that all requests put forward by cities will justify investment. However, given the imperative to get current and future investment funds out the door, there will be opportunities for funds, or groups of funds, to create co-ordinated investment portfolios across individual cities or city regions that would make not only a significant impact in those cities, but also healthy returns.

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# About Metro Dynamics

## Further information

**Metro Dynamics provides strategic advice to those leading, growing or investing in cities and metropolitan areas.**

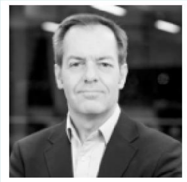
**The Metro Dynamics team has collectively advised 83 cities in 32 countries. We are experts on city economics, finance, investment, policy, governance and real estate. Our approach is evidential, and underpinned by a deep understanding of the dynamics of cities and metropolitan areas.**

During the coming months, those who lead, operate and invest in cities will require accurate information as it develops, and insight into what that information means. Metro Dynamics will be hosting a series of roundtable discussions with expert speakers and publishing further briefings on specific themes raised by the UK's decision to withdraw from the EU. If you would like to attend one of our roundtable events, or receive future briefings, please register your interest by email to Research@MetroDynamics.co.uk.

If you invest or operate in UK cities and would like to understand in more detail the impact of the Referendum and EU withdrawal on the city(ies) in which you invest or operate, please contact any of the Metro Dynamics directors.

We will be working with cities, counties and other metropolitan areas over the coming months to measure their exposure to the consequences of EU withdrawal, to plan and implement risk mitigation strategies, and to identify opportunities arising from this rapidly changing political and economic environment. If you would like to have a conversation about how Metro Dynamics can help you, please contact any of the Metro Dynamics Directors.


**Mike Emmerich -** Director
Mike.Emmerich@metrodynamics.co.uk
**T**: 0161 3934365
**M**: 07919 381009
**Tw**: @emmerich_mike



**Ben Lucas** - Director
Ben.Lucas@metrodynamics.co.uk
**T:** 0203 8177621
**M**: 07836 379076
**Tw**: @BenLucas_

**Patrick White** - Director
Patrick.White@metrodynamics.co.uk
**T**: 0203 8177622
**M**: 07595 847206
**Tw**: @BrockleyBoy

**Caroline Haynes** - Director
Caroline.Haynes@metrodynamics.co.uk
**T**: 0203 8177675
**M**: 07584 196450
**Tw**: @CarolineCHaynes

**Gerard McCleave -** Director
Gerard.McCleave@metrodynamics.co.uk
**T**: 0161 3934365
**M**: 07879 666452
**Tw**: @GerardJMcCleave

**Sarah Whitney** - Director
Sarah.Whitney@metrodynamics.co.uk
**T**: 0203 8177675
**M**: 07584 196450
**Tw**: @SarahJ_Whitney

**London Office:**
201 Borough High Street
London SE1 1JA
0203 817 7675

**Manchester Office:**
Elliot House, 151 Deansgate
Manchester M3 3WD
0161 393 4364

**Email:** Research@MetroDynamics.co.uk

**Twitter:** @MetroDynamics

**Web:** www.metrodynamics.co.uk

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