# CITIES AND THE WEALTH OF NATIONS: HOW CAN HELSINKI, LONDON, PARIS AND STOCKHOLM PROSPER FROM TTIP?

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## **EXECUTIVE SUMMARY**

- The two major forces shaping the global economy are globalisation and urbanisation. Both these forces have both contributed to a much greater role of global cities for the way an economy is structured. A global city is a large city but not necessarily a mega city a city defined by the size of its population alone. Size is important to build agglomerative strengths, but the defining character of a global city is rather its capacity to help reinforce the mechanics of specialisation and division of labour in the economy.
- A global city is a vector of globalisation: it fuses a larger economy by intermediating its connections to the world. In that way, a global city spurs natural structural reform in the market. It helps producers and consumers to adapt to new technology and new economic behaviour. It also helps producers to achieve scale by supporting their expansion abroad.
- Cities should take a much greater role in shaping trade policy. Global cities have interests in trade and global economic policy that are usually not high up the agenda of any country or non-city entity. Such cities are usually empowered by policy conditions for global commercial exchange that put the emphasis on the benefits of imports. Needless to say, a global city intermediates exports too and thus appreciates both flows of trade. But it is not a mercantilist entity that predominantly thrives on exports. Furthermore, the three key ways for a global city to fuse a larger economy are the movement of people, capital and data. All three issues have been neglected in past trade-policy agreements.
- This study contextualises trade policy in four global cities in Europe: Helsinki, London, Paris and Stockholm. They are in several ways different, but they share one character: they are cities that spur specialisation in a larger economy. Even "small" cities like Helsinki and Stockholm play that role and increasingly so as adaptation to data and the modern digital sector have become competitive strengths (or weaknesses) for a larger region. While London and Paris can utilise their size to achieve agglomerative effects in capital and labour, a city like Stockholm does it by serving the larger Nordic region and by stronger reliance on qualitative characters of specialisation.
- The study also outlines the trade-policy for global cities in the Transatlantic Trade and Investment Partnership (TTIP) negotiations. TTIP is an interesting trade-policy initiative for global cities because it is premised on the idea of ushering trade policy into the 21st century and begin the process of building new trade-policy mechanisms to address modern obstacles to trade. Such obstacles are much about the policy realities facing the movement of people, capital and data. Furthermore, a liberalisation of public procurement could be a boon for global cities that face infrastructural needs. Fragmented markets for infrastructural goods and services only serve to raise the cost of adapting cities to bigger population and the concentration of some environmental problems.

## 1. INTRODUCTION

CITIES HAVE ALWAYS been vectors of international trade and globalisation. For a good part of the last century, the cities that tied economies together were typically cities with international cargo ports. Marseille and Southampton were places were France and the United Kingdom transacted with their trading partners; their commercial windows to the rest of the world, as it were.

In previous ages too the typical trading city was geographically connected with the main routes of commerce. But the world economy has changed – and the role of cities for global commerce is different now than in the past. The cities that are now growing their role as the *entrepôts* of globalisation are not taking up a greater share of global commerce because they have international ports – or because of their geographical proximity more generally. Their attractiveness comes from other factors. Like before, the most prominent character of modern global cities is their capacity to *foster greater specialisation in the economy*. Yet the channels of specialisation have changed in the same way as the world economy has changed. The dominating factors of specialisation today – the *movement of people, capital and data* – have reinforced the role of the global city for trade and global commerce.

As much as 80 percent of global Gross Domestic Product (GDP) is now generated in cities, with the 600 major urban centres in the world, home of a fifth of world population, accounting alone for about 60 percent of global GDP. These numbers are likely to increase as the share of urbanized population keeps rising. The share has passed 50 percent in 2008 and it is estimated to reach 60% in 2030. In 2050, 7 out of 10 people in the world will live in cities (see figure 1). In other words, all of the increase of population expected onwards will be associated with a rising urban population, and a stable or even declining absolute rural population.

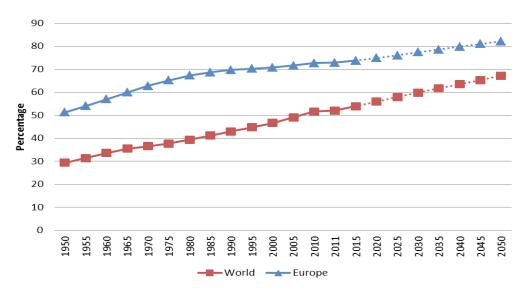


FIGURE 1: URBAN POPULATION, % OF TOTAL

Source: Data from the Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2010 Revision and World Urbanization Prospects: The 2011 Revision.

Why are cities, and especially global cities, transformative for the economy? Adam Smith had observed in the *Wealth of Nations* that cities are natural places for commercial exchange because they allow for division of labour and specialisation. In the 1970s and 1980s, the urban sociologist Jane Jacobs reinforced that point and made a powerful argument about how cities

re-shape economies – and how they would shape the post-industrial economy. Generally, Jacobs argued – long before it became fashionable – that nations were defunct economic units and that economic development in the past, as well as when she was writing, made cities the natural economic unit.<sup>1</sup>

Jacobs pointed to five economic forces of cities, all related to the way a city integrated with larger economic surroundings.<sup>2</sup> She argued, first, that the city is a big consumer of various resources, but that it does not thrive on proximity to resources. On the contrary, the city does not suffer from the resource curse – neither in its mild form (a city whose fortunes are too tied to one singular company) nor in its more serious form (the erosion of non-commodity sectors when the price of a commodity stays high).

Second, the city is a generator of jobs, attracting not only people but also people with different skills, reinforcing the capacity for specialisation. Third, it is a force of greater productivity – and diffusing the sources of greater productivity. Fourth, it is an entity that can transplant itself in different regions; while non-city economic life is often bound to a location, or is not easily transferable, city-based production is movable and constantly interacts with the rest of the world. Fifth, cities are centres of capital – and especially of outward capital: capital invested in different economic regions.

Jacobs portrayed the city as an "import replacing" economic entity. The city economy, she argued, holds the capacity to effect adaptation and innovation on a larger economy – and move with economic development of production factors in a way that reinforces the competitiveness of non-city regions.<sup>3</sup> In this view, the successful global city is not a force of import substitution, but the entity that helps to build commercially viable enterprise on the basis of existing resources and factors of production in a larger economic region.

In other words, global cities are vectors for structural economic change, both in the way a society produces and consumes, and allow those changes that are generated at home to find their ways to other economic regions through the intermediary role of the city. Moreover, many adaptations are imported from abroad: the exposure to global markets helps to transplant new ideas and performances to a larger base of production.

Consequently, a global city offers a larger region an interface with the rest of the world through its economic life. Global cities draw many regions and economic functions into a larger economic context and enable them to benefit from cross-border exchange. Through their connections to the outside world, global cities fuse an extended economy. In later years, they have also become centres of innovation. Cities attract capital and people with the capacity to effect innovative change. In short, they give access to economic characters and behaviour that are necessary in modern economic life. Without access to a global city, many countries would rapidly shrink their economic size.

So the economy of a city is different from the economy of a nation. They are mutually reinforcing – and together they have adapted to changes in economic conditions – but they behave differently. The question now is: does it follow from this observation that cities have different interests in the design of policy, especially trade policy?

<sup>1.</sup> Jacobs (1970).

<sup>2.</sup> Ibid.

<sup>3.</sup> Jacobs (1984).

<sup>4.</sup> Glaeser (2011).

There are two immediate arguments against that thesis. First, a nation or a larger economy is not only made up of one city acting as vector of globalisation. Decades of urbanisation have pushed many cities into having transformative roles for larger economic regions by fusing it with imported behaviour. Second, cities are no different from nations in the sense that the economic development of one unit is usually good for the other. If Birmingham expands, for example, London stands to benefit from that expansion too. In other words, there is not a zero-sum relation between cities, or between cities and non-city regions. Furthermore, some of the key benefits from economic integration arise when two very different economies are exposed to each other. Therefore, it can be argued that big or growing diversity between entities within a country, or a larger region like the European Union, is beneficial.

Nevertheless, this paper argues that major global cities should take a more active role in shaping trade policy – and that trade policy should make better efforts to give priority to trade-policy issues that are central to the way that global cities behave. There are two key arguments supporting this view.

First, even if the economic interests of global cities are not in opposition to the economic interests of other regions, they do not tend to be high up the list of priorities when countries – or, as in the case of Europe, the EU – form their trade-policy agenda and priorities. Simply, a trade-policy strategy is not designed on the basis of economic analysis alone – and every key priority in such an agenda needs its advocates to become a priority (and remain one).

Second, while the typical trade-policy agenda is shaped along the lines of export interests, one of the key roles of a global city is to intermediate imports and foster greater capacity for adaptation in domestic economic production by bringing the world to a local economy. This is not to suggest that the city itself does not have export interests, or that it does not help to foster export interests. But what distinguishes the role of the global city from other economic entities is its disposition to intermediate adaptation – to act as an "import replacer", to follow Jane Jacobs vocabulary.

Consequently, the global city has a much bigger interest in improving the policy conditions for the key channels of adaptation and transplantation. In the modern economy, they are predominantly about the movement of people, capital, and data. The global city thrives on these channels of adaptation – but they are not much addressed in "bread-and-butter" tradepolicy.

This paper will outline these arguments in greater detail – and it will put it in the context of four different cities in Europe that all serve as global cities: Helsinki, London, Paris and Stockholm. The intention is not to present a list of trade-policy priorities for cities, but to contextualise trade policy in the economic life of cities. The four cities are chosen because they are different in size and location but have strong complementarities in how their economies are shaped.

Furthermore, the actual trade-policy context of the paper is the Transatlantic Trade and Investment Partnership (TTIP). Other trade-policy initiatives are important too but this paper is occupied with TTIP for the simple reason that it is one of few trade-policy initiatives that is premised on the idea of addressing some of the trade concerns that are key to global cities.

## 2. CONNECTING TRADE POLICY TO GLOBAL CITY DEVELOPMENT

HELSINKI, LONDON, PARIS and Stockholm are very different cities. The most immediate thing they have in common, apart from being European capitals, is that they all cover a significant share of their national Gross Domestic Products (GDP). The strongest weight is represented by Helsinki, which comprises around 37% of national GDP – the lowest being London (28%) – while Stockholm and Paris are responsible for respectively 30% and 31% of national value added (see table 1).

Figures on the share of national population in these metropolitan areas – 19% for London and Paris, 21% for Stockholm and 27% in the case of Helsinki – support the view that these cities benefit from specialization of production. And, in fact, levels of productivity in these areas are significantly higher than the national average, with levels that go from 20% in Helsinki up to the level of labour productivity in Paris, which is 55% above the national average.

TABLE 1: SHARE OF GDP, SHARE OF POPULATION AND LABOUR PRODUCTIVITY

City	Share of national GDP	Share of national population	Labour productivity
Helsinki	37%	27%	19% above national average
London	28%	19%	46% above national average
Paris	31%	19%	55% above national average
Stockholm	30%	21%	26% above national average

Source: Data has been retrieved from the OCED, based on 2005 data. ECIPE calculations. Accessible at http://stats.oecd.org/#

Economic geographers argue that the disproportionate share of GDP in metropolitan regions relate to the agglomerative strength of cities. Not only do cities attract capital and labour like any other region attracts the same production factors, they also combine them in a way that empowers the forces of specialisation and drives up the value added for every unit of labour. In other words, the economy of a global city is based on an increasing return to scale. Urban proximity becomes an aspect of competitiveness: you can write computer codes from anywhere in the world, but the value added jumps when you put that engineer in an urban area with strong clusters for computer coding. More generally, moving labour from non-city areas into urban proximity is today a sure way of increasing the return on labour. Helsinki and Stockholm are far from the size of London and Paris. But a city does not have to be a mega city in order to be a global city. As the reminder of this chapter will show, these four cities have in common that they reinforce the dynamic of specialisation and intermediate globalisation.

# HELSINKI

A GLOBAL CITY is not necessarily a very big city. It is rather a city, an "import replacer", that fuses a larger economy through its connections to the outside world. Helsinki is a good example. It has for a long time been a dominant city in Finland. With a metropolitan population of around 1 400 000, Helsinki cannot boast about its size. Nor does it have a strategic commercial location; like Stockholm, its location does not give advantages as far as access and proximity to the liquid parts of the European market is concerned.

But Helsinki has characters of a global city. Founded as a trading city in the 16<sup>th</sup> century, Helsinki today has 37% of all Finnish production. About three quarters of the foreign companies

<sup>5.</sup> Glaeser (2008) and (2011).

operating in Finland are based in Helsinki. Helsinki is also attracting the vast part of FDI flowing into Finland. And these flows have increased. A survey by Ernst & Young showed that the Helsinki region had the fastest growing FDI in Europe in 2013, driven no doubt to a large extent by the software sector and the opportunities to snap up high-skilled labour when Nokia was restructuring the company.

The general conditions for investment and competitiveness are also good. The World Economic Forum has just ranked Finland as the most competitive economy in Europe in its index on competitiveness in 2020. One of the top-three countries in the World Economic Forum's annual ranking of competitiveness, Finland and especially Helsinki is seen as having very good conditions for innovation. Helsinki authorities are also keen to brand Helsinki as an innovation hub, not the least through its triple-Helix model of university-government-industry innovation.

The agglomerative strengths of Helsinki are not apparent when compared to larger metropolitan regions. It is not a global financial centre – the Global Financial Centres Index ranks it in the same region as Moscow and St. Petersburg. Nor is it a city of significant immigration. The foreign-born population has grown fast in the past ten years, but it started from a low base. In 2010, the foreign-born population was not more than approximately 100 000.8 In the same year, the foreign born population of Stockholm was more than four times larger.9 However, immigration to Helsinki is likely to continue to grow fast because of a high portion of labour moving close to retirement.

The fortunes of Helsinki – past, present and future – are obviously tied to the ICT sector. The entire Finnish economy has been damaged by the decline of Nokia; at its peak, Nokia contributed to around 1.5 percentage units of Finland's economic growth. However, it is not correct to portray neither the Finnish nor the Helsinki ICT economy as being a story about Nokia alone. The vegetation of both hardware and software ICT companies is richer and grows even faster now that the demise of Nokia has enabled other companies to snap up engineerial expertise no longer employed in the service of Nokia.

Finland has the largest ICT sector in the world, when defined as the share of the workforce employed in the sector. About a tenth of the non-agriculture workforce in Finland is employed in the ICT sector and the value-added of the ICT sector has been above ten percent of GDP for many years. Such figures are impressive – and out-distance any other country in the world. But they mask the fact that the role of the ICT sector in an economy is predominantly about spurring the productivity of other sectors. It is a "general purpose" sector – and one who merits should be judged in a bigger economic context.

In a way, the ICT sector is like a global city: the role of the global city too is to spur general economic activity. In the case of Finland, these two functions have merged. Helsinki is the high-tech city of Finland and attracts an increasing number of companies and investors. But it also exports productivity to other parts of Finland and helps to shape the competitiveness of the country at large.

<sup>6.</sup> http://www.ey.com/GL/en/Issues/Business-environment/european-attractiveness-survey-2014-europe-s-2013-fdi-map-and-rankings

<sup>7.</sup> http://reports.weforum.org/europe-2020-competitiveness-report-2014/

<sup>8.</sup> Brookings (2013).

<sup>9.</sup> Statistics Sweden Database.

<sup>10.</sup> Hirvonen (2004).

<sup>11.</sup> Unctad (2012).

A vast body of economic research have confirmed the contribution of the ICT sector on economic growth. There is also a direct link between ICT expansion and international trade growth, especially for small and open economies like the Finnish economy. Countries that have open product markets usually get a much greater effect from ICT investments and companies in those economies tend to globalise more than in other economies. The Finnish economy is an example. The internationalisation of the Finnish economy has been remarkable in the past two decades and much of that effect has been generated by the assistance of the domestic ICT sector.

Helsinki's ICT sector is now growing fast in software and the general consumer app market. It is one of the central hubs in the world for online gaming. This is part of a general strategy to re-engineer the structure of the ICT sector towards a part of the market that is more profitable than mobile and hardware equipment. It remains to be seen if the strategy pays off – and Finland remains strong in the market for telecommunication equipment.

The point, however, is that the diversification of the ICT sector reinforces the strong interest of Helsinki to enable better interoperability between ICT regulatory systems and avoid regulatory balkanisation. With a growing market for small companies and niche companies, the adaptation to various regulations across the world becomes a serious obstacle to commercial expansion. Large companies have problems with such adaptations – and thy have to spend resources to address issues of cross-border data portability. For small companies, however, such obstacles are not an issue that easily can be dealt with because they do not have the resources to spend on regulatory adaptation or investing in other parts of the world to get behind the new iron curtains of information.

The ICT sector also connects to public procurement. The Finnish government and Helsinki authorities are keen to propel e-government and a greater use of innovative software by the public sector. Much of this development is small scale and can easily be transplanted in other parts of the world. But there are also segments of this market that require much greater investments, especially in research and development. Finding better ways for the public sector to integrate across the world – especially with other countries of similar ambitions – would be a great assistance to this part of the public ICT market.

## LONDON

Contributing to more than a fourth of the UK's total output, London is the engine of the British economy. In the period from September 2007 to September 2012, around 267 000 jobs have been created in London, showing a different trend compared to the rest of UK economy, which has lost 284 000 jobs in the same period. London's financial sector is incredibly important for the city's and country's economy employing a third of all financial and related professional services workforce in UK. With a 5.9% increase between 2010 and 2012, the total number of London-based workers in financial and related professional services up to 675 600.

London is a truly global city and indeed it ranks first among European cities (second in the world only to New York) in the Global City Index 2014, which measures how globally engaged a city is across 26 metrics in five dimensions: business activity, human capital, information exchange, cultural experience, and political engagement.<sup>13</sup> In particular, London leads

<sup>12.</sup> Cardona et al (2013) offers a summary of the empirical literature.

<sup>13.</sup> ATKearney (2014).

the European ranking in the dimension of human capital and the world ranking in cultural experience's dimension, which is based on metrics such as museums, visual and performing arts, sporting events, international travellers, culinary offering and sister cities.

London is the hearth of UK financial sector – accounting for 45.8% of the total financial and insurance gross value added in the UK economy – and it is at the centre of UK's leading position in exports of financial services to the EU. The volume of UK exports to EU in this sector amounted to around 22 billion euros in 2010, 80% up from 2005, and was directed mainly to Netherlands, Germany, France, Ireland, Luxembourg and Spain, which covered around 75% of the total. The UK covers more than 70% of European financial markets in sectors such as interest rate OTC derivatives trading, foreign exchange trading and hedge fund assets, while it also represents a fifth of European financial markets related to bank lending to corporates and insurance premiums. The financial and professional service cluster around the city of London, the biggest in Europe, is leading the global sphere of trading in markets such as cross-border bank lending, international insurance, foreign exchange trading and OTC derivatives trading. Moreover, London is the European capital for hedge funds and private equity funds. Moreover, London is the European capital for hedge funds and

A recent analysis by TheCityUK (2014b) based on data from the Office of National Statistics shows that UK export of financial and related professional services contributed directly to around 4% of the national GDP in 2012 generating a trade surplus of 55£ billons . This surplus is larger than the combined surpluses of all other net-exporting industries in the UK and has played an important role in offsetting the large UK's deficit in trade of goods. The OECDWTO Trade in Value Added (TiVA) database allows for closer examinations of the role of London as a hub for the provision of financial services to EU countries. Data from 2005 and 2009 show that several EU countries rely on the UK's financial services for their exports and that this reliance has not been affected by the financial crisis.

The share of value added from financial intermediation embodied in gross exports by EU countries, which is attributable to financial intermediation services offered by UK, varies across different countries and sectors. Overall, the presence of UK in total value-added from financial services in EU countries exports is significant. It averages at 4.3%, with peaks close to 7% in countries like Ireland and small finance-intense economies like Malta and Luxembourg (see figure 2).

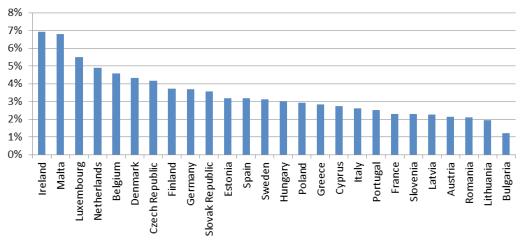
This national data can also be disaggregated by sectors (see table 2). The table shows which sector in an EU country has the highest share of UK-produced financial services in its export value added – as the share of total value-added attributable to financial intermediation.

<sup>14.</sup> Data from <a href="http://www.parliament.uk/briefing-papers/SN06193/the-financial-sectors-contribution-to-the-uk-economy">http://www.parliament.uk/briefing-papers/SN06193/the-financial-sectors-contribution-to-the-uk-economy</a>

<sup>15.</sup> The City UK (2012).

<sup>16.</sup> TheCityUK (2014a).

 $\textbf{FIGURE 2: SHARE OF VALUE-ADDED OF FINANCIAL INTERMEDIATION IN EU COUNTRIES EXPORT COVERED BY UK, 2005 \\$ 



Source: TiVA Database. ECIPE calculations. Accessible at http://stats.oecd.org/Index.aspx?DataSetCode=TIVAORIGINVA#

TABLE 2: TOP SECTORS IN EU COUNTRIES' EXPORTS BENEFITTING FROM UK FINANCIAL SERVICES IN 2005

Exporting Country	Sector (share of total value-added from financial intermediation)	
Austria	Basic chemicals and fabricated metal products (3.9%)	
Belgium	Chemicals and non-metallic mineral products (7.9%)	
Bulgaria	Electrical and optical equipment (2.1%)	
Cyprus	Other services (9.1%)	
Czech Republic	Business services (5.5%)	
Denmark	Chemicals and non-metallic mineral products (6.6%)	
Estonia	Electrical and optical equipment (6.4%)	
Finland	Electrical and optical equipment (5.1%)	
France	Transport equipment (4.2%)	
Germany	Chemicals and non-metallic mineral products (6.2%)	
Greece	Transport and storage, post and telecommunication (5.7%)	
Hungary	Electrical and optical equipment (4.5%)	
Ireland	Manufacturing, recycling (14,9%)	
Italy	Electrical and optical equipment (5.7%)	
Latvia	Business services (4.2%)	
Lithuania	Textiles, textile products, etc (4.3%)	
Luxembourg	Other services (9.3%)	
Malta	Wood, paper, paper products, printing, publishing (14.2%)	
Netherlands	Electricity, gas and water supply (8.8%)	
Poland	Transport equipment (3.8%)	
Portugal	Electrical and optical equipment (4%)	
Romania	Electrical and optical equipment (3.1%)	
Slovak Republic	Electrical and optical equipment (6.1%)	
Slovenia	Transport equipment (3.6%)	
Spain	Transport equipment (6.3%)	
Sweden	Chemicals and non-metallic mineral products (5.8%)	

Source: TiVA Database. ECIPE calculations. Accessible at http://stats.oecd.org/Index.aspx?DataSetCode=TIVAORIGINVA#

The privileged position of London in the financial sector is reflected in the latest Global Financial Centres Index survey, where it ranks second among international financial centres around the world. The index is based on 103 instrumental factors in broad areas of competitiveness: business environment, financial sector development, infrastructure, human capital, and reputational and other general factors. However, the report assigns a negative outlook to London in all the sub-sectors analysed, such as investment management, banking government & regulatory, insurance and professional services. If it wants to maintain its central position in this sector, London should aspire to a deeper liberalization of trade in business and financial services.

Not only does London host more head offices of banks than any other city in the world, but two in five of the 250 largest companies in the world have their main or European headquarters in London. Access to a qualified workforce and to capital is critical in multinational firms' decisions to locate their headquarters and, in fact, London is leading the European ranking of the Global City Index 2014 in the dimension of human capital. The dimension takes into account foreign-born population, top universities, population with tertiary degree, international student population and number of international schools. A recent study presented by the Financial Times (2014) also confirms that London employs 46% of the five biggest European cities' combined total of high-skilled workers, with a significant presence of foreign-born workers.

To be a headquarter-economy brings direct and indirect benefits to London by gathering the most knowledge-intensive segments of corporate value chains. Headquarters employ high-skilled professionals, creating a positive spillover to the rest of the economy by promoting the growth of ancillary professional services, such as auditing, consulting and financial services. In turn, a better service sector will be accessible to other enterprises, including small-and-medium sized enterprises, promoting a more productive and efficient business environment. London's productivity rates are, not surprisingly, around 45% above national average.

London is also a tech city and ranks second in the world in terms of ICT maturity, according to the Networked Society City Index 2013. Moreover, a recent project launched by the European Commission's DG CNECT and the Joint Research Centre's Institute for Prospective Technological Studies has investigated the situation of the "European ICT Poles of Excellence" and has ranked East London Tech City (a technology cluster located in Central and East London) as the second main location of ICT activity in Europe based on 42 indicators on R&D, innovation and business activity. The Tech City has been growing steadily, especially after 2010 when a larger initiative to boost the attractiveness of the City was launched. It is now recognised as Europe's largest digital cluster, promoting an increasing presence of tech companies in London whose number has risen by 76% up to 88,215 between 2009 and 2012. In its ICT revolution, the city has relied on highly qualified engineers and developers from all over the world and the recent announcement by David Cameron to give fast-tracked visas to

<sup>17.</sup> Z/Yen Group Limited (2014).

<sup>18.</sup> Source: https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/204004/UK\_European\_Headquarters\_Brochure.pdf

<sup>19.</sup> Bloom and Grant (2011).

<sup>20.</sup> The Index uses three main dimensions of ICT: infrastructure, due to its importance as an engine for connected cities; affordability, due to its importance in spreading ICT; and service usage, to capture how well society is making use of existing ICT solutions. For more information: Ericsson (2013).

<sup>21.</sup> European Commission (2014).

<sup>22.</sup> The Guardian (2013).

world-class technology experts is a recognition of the benefits arising from free movement of labour. <sup>23</sup>

Through its expertise in digital technology, London is revolutionizing the provision of services in several sectors, as it is the case of the healthcare sector and the smart urban infrastructure sector. Digitalization is at the core of "London Smart Vision" which works towards harnessing the potential of big data to cope with challenges related to healthcare, transport system, management of energy and utilities, waste and pollution issues. As for the healthcare sector, London has already started using an electronic patient record system which allows professionals to share information critical to improve diagnosis and monitoring of health conditions and to promote a patient-centred health system. Moreover, London authorities are building a "MedCity" to establish London and the Greater South East as a world-leading cluster for life sciences, focusing on a wide spectrum of activities that go "from research to clinical trials to manufacturing, across biotech, med tech and health tech".<sup>24</sup>

On the other side, big steps have already been taken in the area of smart urban infrastructure, such as the implementation of congestion pricing schemes (which has allowed reducing delays in congestion by 30% through the use of electronic license plate readers), the application of intelligent road network management system and substantial investment in clean technologies. Moreover, London boasts a pioneer example of smart urban solutions: the Beddington Zero Energy Development, BedZED. The project, launched in 2002, combines ecological architecture, soft transport and carbon-neutral development. The early switch toward smart solutions in dealing with typical urban challenges explains how London is the only one of the four cities analysed in this paper which has achieved lower levels of  ${\rm CO}_2$  emissions per capita than the national average.

London is therefore relying more and more on digitalization, cloud-based services, mobile devices and use of big data. It is therefore clear that data portability and free flow of data will be crucial for technology-and-innovation-based projects to flourish. The success of London's ambition to establish itself as European top technology centre and its positioning in the world market will depend on whether the city will be able to exploit freely the benefits of free trade and free exchange of data in innovative sectors.

Improved portability of data across borders and regulatory interoperability in digital services would allow London to export its innovative solutions, but also to gain from importing the provision of smart services from world leaders in the field, such as US. Moreover, the opening up of government procurement to foreign companies would be a significant opportunity to build successful collaboration for UK companies and promote exchange of know-how, especially in the sector of smart urban infrastructure which is at the core of the city's plan for this decade.

<sup>23.</sup> For more information: The Guardian (2013).

<sup>24.</sup> Boris Johnson, Major of London, in a speech given at the launch of the project. More information at: The Guardian (2014).

<sup>25.</sup> Information retrieved from the Smart London Plan available at the London.Gov.UK's website. Accessible at <a href="https://www.london.gov.uk/sites/default/files/smart\_london\_plan.pdf">https://www.london.gov.uk/sites/default/files/smart\_london\_plan.pdf</a>

#### **PARIS**

Paris claims a leading position among world global cities, ranking second among European cities and third in the world after New York and London in the Global City Index 2014. In particular, the French capital leads the European ranking in the dimensions of business activity and it is the world leader in the dimension of information exchange, which accounts for varying degrees of freedom of expression and broadband penetration such as access to TV news, news agency bureaus, broadband subscribers, freedom of expression and online presence.

Leading telecommunication companies, including IBM and Microsoft, have in fact chosen Paris to settle their European headquarters, as it has also been the case for successful innovative start-ups, such as Deezer, Dailymotion, Criteo and Leetchie. Parisian entrepreneurial ecosystem is considered to be among the best in Europe and ranks third in the "European ICT Poles of Excellence" classification released this year by DG CNECT and the JRC Institute for Prospective Technological Studies. The recently launched "La French Tech" initiative, aiming at promoting the creation of digital and innovative start-ups, sees Paris as the centre of the network and focuses on designing a local and urban innovation ecosystem. Parisian leading position in telecommunication and information exchange relies heavily on data flows and it would therefore benefit from improved portability of data across borders and better regulatory interoperability.

Paris is a headquarter economy and as much as 91% of the consolidated revenue of French companies is generated by Paris-based companies – the highest concentration in the world. <sup>26</sup> Paris leads the European scene in terms of total revenues earned by large companies and hosts the largest number of headquarters (33) of Global Fortune 500 companies in Europe. These companies belong mainly to the energy sector (the oil company Total is the biggest among the French companies in the Global Fortune 500), bank and insurance, construction, retail (Carrefour is the leading retail in Europe) and the telecommunication sector. However, a lot of these companies have chosen Paris as their headquarters more than a century ago and the high costs associated with moving the company's headquarters might create perverse incentives that distort this figure.

Recent announcements, such as the one from Total to move its financial headquarters to London, call for an action of the city to enhance its attractiveness in retaining the segments of corporate value chains with the highest value-added.<sup>27</sup> Moreover, it seems that Paris-based companies are fleeing Parisian stock market because of high costs and currently more than half of all transactions related to France's biggest companies are conducted from abroad, mainly London.<sup>28</sup> Liberalization of the financial market could restrain this trend and have strong beneficial effects on the economy of the city, whose companies also risk seeing financial services provisions weakened by the selling of Euronext.<sup>29</sup>

Nevertheless, the city remains well positioned in the financial sector and it is among the top five cities in the world (and second in Europe to London) by revenue of banking, insurance and business service companies with local headquarters.<sup>30</sup> Companies such as AXA, Crédit Agricole and Société Générale are based in Paris.

<sup>26.</sup> McKinsey (2013).

<sup>27.</sup> The Reuters (2013).

<sup>28.</sup> The Economist (2013).

<sup>29.</sup> Ibid.

<sup>30.</sup> McKinsey (2013).

Smart urban infrastructure will also need to be a focal area of intervention if Paris wants to save her historic charm. The recent smog attack experienced in Paris, in fact, has put smart growth at the centre of the debate on the future of the city.31 Urban success relies of the capacity of a city to attract and retain skilled people and people are valuing more and more the quality of life offered by a city when they choose where to locate. Opening up of government procurement to support innovative solutions could contribute to substantial welfare gains for the city and play an important role in spurring collaboration between local innovative companies and the international leaders in the area. An example of well-established leaders in the area is the Paris-based Velia Environment S.A, one of the Global Fortune 500s, which is in the forefront in the area of public utilities such as water supply and management, waste management, energy and transport service. The company has played an important role in the implementation of the smart collection system for municipal waste in of the urban communities of Grand Paris Seine Ouest - Issy-Les-Moulineaux. The complex is an example of an eco district, among the best in the world, which makes use of smart solutions from edomotica, geothermal energy, solar energy, eco-friendly construction materials and vacuum waste systems.

As a study by Ericsson (2013) confirms, the use of ICT solutions is crucial for a city to reduce negative environmental impact, increase accessibility to administration, healthcare, education and other services, and improve its overall efficiency and productivity. An example is the recent success of the mobile application Tranquilien, which predicts passenger load on the Paris region public transportation network. It is born by collaboration between a startup, Snips, and the SNCF, France's national state-owned railway company. Thanks to the app, people can check in advance how crowded trains are due to be, so that they can choose the one with vacant seats. The app helps reduce delays, increase the comfort of commuters and promote a more efficient transportation system. Already by the end of day one of its release in June 2013, 20,000 commuters had used it. Given its information and innovation-driven nature, data portability and free flow of data are (and will be) critical to guarantee a healthy growth of Paris.

## **STOCKHOLM**

SMALLER THAN PARIS and London, Stockholm is central for economic activity in Sweden and the Nordic region. The city grows faster than any other capital in Europe and hosts some of the leading tech companies in the world. Data and cross-border flows in data are powering not only the world economy, but also the Stockholm region.

The free flow of data is central to Stockholm's ability to grow through integration with other markets – export greater productivity to the rest of the region. Stockholm has a growing and vibrant community of data and ICT entrepreneurs – in sectors from online and smart payments to computer games – that are small and not resourceful enough to establish local presence in other markets in order to avoid costs related to crossing borders with data.

Stockholm is also the home to the world's largest supplier of telecommunication infrastructure and services, Ericsson, that recently announced a large data and research investment in Stockholm. Ericsson is in the process of building a new ICT centre to develop new products in areas like next-generation cloud services. Its capacity to generate output and employment

31. The Economist (2014).

in Stockholm – and other places – from such investments is affected by the freedom of its customers to move data across borders.

Equally important, regulations that restrict the free flow of data hurt the larger economy of Stockholm. Few regions in the world thrive so much on modern ICT and Internet technology and services as Stockholm. Its intensity of high-tech production has been acknowledged in several studies and rankings of city economies. Last year, for example, Stockholm was ranked as the most ICT savvy city in the world.<sup>32</sup> It is one particular advantage that is known to attract people and investors to establish businesses in Stockholm. Consequently, all matters related to free flow of data is central to Stockholm.

Business services are one of Stockholm's growing services sector. It is also increasingly internationalised. But its services sector grows rapidly outside business services – and a lot of this growth reflects the internationalisation of Stockholm more generally. The architectural sector is one example; management of public utilities like water or the metro is another. Generally, services within transport and logistics have increased their importance as the Stockholm economy has become increasingly globalised and as Stockholm increasingly has intermediated the globalisation of other regions. Furthermore, after Sweden's early reforms to open up welfare services to private suppliers, Stockholm now has a growing community of companies that operate in healthcare of educational services.

There are many remaining barriers for a TTIP agreement to address that would benefit Stockholm. In a way, such reforms are more beneficial to a small global city like Stockholm than it is to large cities with greater capacity of local supply. Stockholm is far behind the agglomeration of services that exists in Paris and London – and its role as vector of globalisation for Sweden, and other Nordic regions, can be enhanced substantially by a smoother supply of services.

In some services sectors, the regulatory situation has deteriorated in the past years. In several new financial regulations established since 2008, for example, discriminatory rules in the financial services sector have sneaked in. Such rules do not have positive prudential consequences; nor are they intended improve systemic financial stability. Yet they alter competitive relations in favour of domestic operators. Sweden, that still has a smaller public exchange than Oslo, is at the receiving end of such discrimination or restriction to trade in services.

Transport services from cabotage over port management to taxi app services should be opened up. Telecommunication services in the US are restricted by limitations on investing in companies with carriers radio license. Similarly, several EU countries have failed to open up their telecom markets. A key logistic service like postal service is generally closed – both in the EU and the US – and that affects cities like Stockholm disproportionally as it has greater distance to markets in Europe than other cities.

Professional services remain very restricted across Europe – and these restrictions have clearly curtailed their growth potential. Moreover, recreational services like hotel should be opened up in order to restrict efforts to block new services from companies like airbnb, a supplier of accommodation services. There is an ongoing educational revolution going on through the Internet, but many such services – even innocent things like online lectures – have been met with regulatory resistance and been found to have an uneasy relation with established structures of providing educational services.

32. Ericsson (2013).

Policies on higher education should be opened up to allow for more foreign establishments. Stockholm has a highly educated workforce, but the supply of skilled labour is a serious constrain on the city's development. And authorities in Stockholm and Sweden are not responding with greater investment in educational institutions. Generally, the quality of Swedish higher education is declining when compared to higher education elsewhere in Europe.

Healthcare services are another area of importance to Stockholm. It is the centre for Capio, a healthcare provider in several European countries. The economy of Stockholm and Sweden are too small to allow for huge investments in for instance ICT medical technologies – and it needs the context of larger markets in order to expand the capacity of some of its healthcare companies to grow.

Reforms with the effect of extending the services market would benefit Stockholm – both in terms of accessing better and cheaper services from abroad, and offering Stockholm firms better access to foreign markets. Stockholm has a huge community of companies that sell to public procurers. Producers of telecom equipment and services are one category – inarguably a big one in Stockholm. Innovators and suppliers of environmental technology are another group; public authorities are often their customers. Stockholm host headquarters for big companies providing city and construction infrastructure (e.g. Sweco) or security services (e.g. Securitas) to public entities. Stockholm is a cluster for companies involved in creating smart and sustainable cities.

## 3. GLOBAL CITIES, TRADE POLICY AND TTIP

The dominant view of a global city towards international economic policy is one of openness. A global city lives and breathes on openness to trade, investment and the movement of people. This does not necessarily single a city out from the rest of the country; in fact, the history of trade in many countries, especially in the post-war period of industrial internationalism, is that export interests have been located outside cities. Still, the global city integrates with the rest of the world in different ways – and this is true also for the four cities surveyed in this paper. How could their key policy interests in trade policy be characterised? Let us begin by outlining three critical characters.

First, their interface of actual integration covers more forms or modes of cross-border flows. In this way, its relation to the outside world is "thicker": it spans more channels and purposes of integration. For their capacity to grow, global cities need to have good access to foreign people and capital markets as well as to technology and data. The most important raw material for production and global commerce in a city is human capital. The freedom of companies to have staff moving in and out of countries is a key interest for a global city. Attracting skilled labour force has been proven to contribute to higher productivity, entrepreneurial assets and trading opportunities for the host regions. London and Paris are the European cities which benefit the most from highly skilled foreign-born individuals, with skilled immigrants in London representing more than 15% of the labour force.<sup>33</sup> In the light of the acknowledged benefits that immigrants bring about to these countries, the strengthening of immigration controls and regulations in countries such as UK and Germany, which are "migration-dependent", is particularly worrisome. Freer labour migration and more open intra-corporate labour transfer are in fact top priorities in the trade-policy agenda of global cities.

33. OECD (2011).

Second, global cities are often headquarter-oriented economies – or have equivalent characters. They are places where multinational firms locate their global headquarters, or where foreign multinational firms locate their regional headquarters to serve a larger economy. Stockholm, for instance, hosts more global headquarters for multinationals than Denmark, Finland and Norway together.<sup>34</sup> Paris and London are among the top-five cities in the world in rankings over hosting global headquarters. In fact, there are only a dozen cities in the world that host more than ten global headquarters for multinational firms (see table 3).

**TABLE 3: GLOBAL HEADQUARTERS FOR MULTINATIONAL FIRMS** 

City	No. of HQs	Share of total (603)
Tokyo	75	12.44%
New York	42	6.97%
Paris	22	3.65%
San José	21	3.48%
London	20	3.32%
Chicago	15	2.49%
Osaka	12	1.99%
Stockholm	11	1.82%
Dallas	11	1.82%
Seoul	10	1.66%
Taipei	10	1.66%

Source: Anders Olshov (2010) The Location of Nordic and Global Headquarters. Copenhagen: Öresundsinstitutet.

A headquarter-oriented economy requires access to services that are different from other types of regional economies. It needs a larger vegetation of service companies that are globally oriented and that freely can move in and out of a country without burdensome restrictions. Headquarters, and their suppliers, need to have access to people and capital that are globally competitive.

*Third*, global cities today are innovation-intense economies. Paris and London, for instance, rank as number five and seven in the City Innovation Index, measuring the innovation potential of cities.<sup>35</sup> There are plenty of other indices that also take stock of the innovation capacity of cities – and a plurality of the cities that rank high in them (e.g. the four cities surveyed in this paper) is global cities. Twenty years ago, many of the innovation centres in the world were not in such cities.

Most of the growing sectors in these cities connect to innovation and require access to foreign markets that is somewhat different from market access preferences in other regions. The big obstacles for most of the innovation-based firms are not traditional bread-and-butter trade restrictions (e.g. tariffs or technical barriers to trade) but restrictions to trade and investment that go deeper into the regulatory fibre of a country. Unsurprisingly, while successive rounds of global trade liberalisation in the past have freed up trade and investment in many sectors, the 'unfinished business' typically represent barriers facing these types of innovative firms. Worryingly, many of the new barriers erected in the past years especially hit innovative sectors, not least new barriers in the field of data and telecommunication.

<sup>34.</sup> Stockholms Handelskammare (2013).

<sup>35.</sup> Innovation Cities Global Index 2012-2013. Accessed at <a href="http://www.innovation-cities.com/innovation-cities.com/innovation-cities-global-index-2012/7237">http://www.innovation-cities.com/innovation-cities.com/innovation-cities-global-index-2012/7237</a>

#### THREE KEY TRADE-POLICY AREAS FOR TTIP

The Transatlantic Trade and Investment Partnership (TTIP) is an interesting tradepolicy vehicle for global cities in Europe for the simple reason that it is an initiative premised on the idea of negotiating a "21st century trade agreement" that addresses many of the "unfinished businesses" from other trade-policy agreements. TTIP holds the capacity to free up bilateral trade and unleash economic growth in both the European and the American economy. The potential gains from TTIP are significantly larger than the potential gains from other Free Trade Agreements that could be envisaged.

Yet what really enthuses many observers is the capacity of TTIP to usher trade and regulatory policy into a new century by addressing obstacles to economic integration that curtails the capacity of many new or new-ish sectors to grow. And this is the key promise of TTIP – repeated time and again by political leaders in both Europe and the United States. The merits of TTIP should not be judged on its success (or failure) to address traditional trade issues, but the extent to which it blazes a new trail for trade policy into thorny regulations and behind-the-border barriers that are the main obstacles to commercial integration in the modern economy. Such ambitions rhyme with the economic structure of global cities in the world. Their capacity to thicken their and their countries' integration with the world economy is predominantly about the liberalisation of an economy that happens internally, not at the border.

Let us now turn to three specific trade-policy areas in TTIP that are central to the global city.

## 1. Free trade in data

CROSS-BORDER FLOWS OF data power the world economy. There is virtually no transaction in the world today that is not based on the presumption of data flowing in and out of countries and therefore restrictions on the free flow of data affects all types of transactions and all types of sectors, including the booming cloud-based services.

Worryingly, a growing trend across the world is that governments employ regulations with the intention or the effect to re-territorialise data. This means that governments curtail the portability of data across countries, and require companies to locate and store data within their own jurisdictions. Such restrictions come in different forms. Some governments have introduced cybersecurity laws or restrictions that affect data portability. Other governments have rewritten rules for e-commerce in a way that effectively means that local establishment is necessary to serve a market, affecting especially small- and medium-sized enterprises that cannot afford to establish themselves in all markets where they would like to sell their products. Generally, governments are increasingly involved in changing data privacy regulations in ways that have consequences for the free flow of data.

Regardless the intention, the problem today is that protectionist sentiments often corrupt legitimate regulatory objectives. It happens all too often that cybersecurity regulations, to take one example, favour national suppliers at the expense of foreign competitors, regardless of the actual degree of security offered in a country or by a supplier. Furthermore, even seemingly innocent or marginal regulations in this sphere can have disproportionate consequences for trade and the world economy. The data driven economy is built on global value chains, and restrictions that erode this structure will immediately be felt in the real economy of producers and consumers trying to make business.

Free flow of data is an important issue in trade policy – and should be at the centre of TTIP. *First*, many of the companies that get affected by new regulations across the world are from Europe and America. Consequently, political leaders in the EU and the US should have strong interests in taking leadership to fashion new policies and standards for cross-border data flows that help rather than hurt their companies to access foreign markets.

*Second*, there is an emerging cooperation to this effect that started with the EU and the US agreeing in 2011 on ten principles for ICT services – principles they intend to get accepted in others parts of the world.<sup>36</sup> Unsurprisingly, the free flow of information and rules against requirements to use local infrastructure for ICT services, to name two examples, are key principles in that agreement. What is important now is that the EU and the US incorporate these principles in an actual trade agreement – an agreement based on rules and disciplines that effectively can police diversions from the principles. If the EU and the US want other countries to follow their example, they need to show their determination and give the principles real legal status.

Third, and important, some of the most damaging disruptions for the free flow of data could come from a new EU data protection regulation that is currently working its way through European Union institutions. It is difficult to exaggerate the importance for Europe to change the policies that have been proposed by the European Commission and the majority of the European Parliament. Not only would their proposals seriously risk impeding data portability between the EU and the US (and, of course, other countries). It would also harm Europe's own economy by forcing companies to pay higher costs for the services they usually obtain from foreign companies.

A recent study of the original proposal from the European Commission suggested that the harm to Europe from a fairly moderate version of the regulation would shave off 0.4-0.7 percent from the EU GDP.<sup>37</sup> If current threats of rules that would force greater re-territorialisation of data would materialise, the harm would be far higher, going up to 0.8-1.3 percent of GDP. The proposed data-protection regulation from the European Commission risks eradicating the potential gains in GDP growth from TTIP.

Unsurprisingly, the recent revelations of PRISM and accusations of large-scale US snooping of European communication have reinforced those forces in Europe that prefer the most intrusive forms of privacy regulation, regardless of its costs or effects on actual security and integrity. Yet the idea that national security activities by governments could be addressed by a commercial regulation on data privacy is difficult to understand. Much as it is important to improve personal integrity and subject government data surveillance to better constitutional standards, the EU proposal (or any other regulation intended to regulate commercial practices in handling data) aims to achieve something else and have no real consequences for government activities.

Internet readiness, and good infrastructural policy and capacity for data (and data portability), is one of the key characters of a global city. A good part of adaptation and transplantation – and connection to the outside world – is based on Internet and data communication services. According to the Network Society City Index, several European cities are highly ranked in terms of their broad capacity to facilitate network industry output (see table 4). All the four cities surveyed in this paper are ranked among the world's top-ten cities of their

<sup>36.</sup> Information about these principles can be accessed at <a href="http://europa.eu/rapid/press-release\_IP-11-402">http://europa.eu/rapid/press-release\_IP-11-402</a> en.htm

<sup>37.</sup> ECIPE and the U.S. Chamber of Commerce (2013).

capacity and readiness to help data services to develop. Restrictions of data flows would therefore seriously compromise the capacity of global cities grow and their role of vectors to the world economy.

**TABLE 4: NETWORK SOCIETY CITY INDEX** 

City	Rank
Stockholm	1
London	2
Singapore	3
Paris	4
Copenhagen	5
Oslo	6
Hong Kong	7
New York	8
Helsinki	9
Tokyo	10

Source: Network Society City Index 2013, accessed at http://www.ericsson.com/res/docs/2013/ns-city-index-report-2013.pdf

## 2. Openness in government procurement

GLOBAL CITIES ARE large cities – and they remain magnets for an increasing number of people. Access to technology that makes cities run are critically important – and such technologies include technology for transportation as well as key utilities like water and energy services. Many such technologies and services are traded with restrictions – and subject to oft-discriminatory practices by governments that procure them. A better market for such technologies and services would require a wholesale reform of government procurement in many parts of the world, leading to improvements in specialisation.

Public procurement is also one of the largest markets in the world. Governments and authorities across the world every year purchase goods and services for trillions of euros. Only the EU offers annually about 350 billion euro in public procurement contracts, according to figures from the European Commission. Yet trade in such contracts is so infrequent that it hardly registers. The European Commission has conservatively estimated that the EU loses around 12 billion euro annually in exports due to lack of reciprocity in public procurement.<sup>38</sup>

The European Union has made a big case for demanding greater access to the US public procurement market. This is a good ambition. The US market, like other markets, does not have much trade represented in its public procurement. There are also US states and municipal authorities that are not subject to the rules against discrimination in public procurement in the Government Procurement Agreement in the WTO. Furthermore, the Buy America provisions in the 2009 American Recovery and Reinvestment Act ushered in some new rules for determining the eligibility of a foreign supplier of goods and services for certain classes of public contracts.

Yet an equally good case can be made for why the European Union needs to be more open to foreign suppliers in public procurement. The EU generally exaggerates its openness – and, misguidedly, threatened to close access to suppliers from countries that do not offer reciprocal openness. To support its view, the EU claims that its public import represent between

<sup>38.</sup> European Commission (2012).

7 and 10 percent of public demand (the exact figure depends on the methodology used to calculate the import penetration in public procurement) while the equivalent figure for the US is only 4.6 percent. The problem in this approach is that the EU includes internal trade within the EU while it does not include trade between states in the US. If a comparison is made between the same types of trade in public contracts, excluding intra-EU trade, it is more likely that the EU has a smaller share of trade in its public procurement than the US.<sup>39</sup> One can debate the exact figures, but the important point is that both sides need to open up their public procurement market. Cities could gain access to better and cheaper services in other innovative sectors, and promote cross-border collaboration on one side, while gaining better access to foreign markets on the other side.

This is particularly true for new technologies such as those related to smart urban infrastructure on which global cities are investing to improve their attractiveness and foster a more efficient energy system. City leaders are increasingly recognizing that cities need to adopt smart solutions to improve the efficiency of public service delivery and achieve a better quality of life. Cities thrive on access to people – and cities with inhospitable climates will soon run out of economic steam.

 ${
m CO}_2$  emissions per capita in the cities analysed in this paper tend to be higher than the national average and the same is true when looking at the exposure of the population to air pollution, which goes from being 7% above national average in Stockholm to 49% in the case of Helsinki (see table 5). The data presented in the table refers to the metropolitan area of the cities and it is therefore an average between the usually lower levels of greenhouse-gas emissions per person in the densely-populated city centres and the higher levels of emissions in the suburbs. The data shows that a concerted action can smartly integrate the city with its suburbs and lower the overall level of  ${
m CO}_2$  emissions. This is the case of London which is already reaping the benefits of its investments in smart urban infrastructure, especially in transportation.

TABLE 5: EMISSIONS AND POPULATION EXPOSURE TO AIR POLLUTION, 2005

City	CO2 emissions per capita	Population exposure to air pollution PM2.5	
Helsinki	49% above national average	49% above national average	
London	5% below national average	26% above national average	
Paris	36% above national average	27% above national average	
Stockholm	23% above national average	7% above national average	

Source: Data from OCED database. ECIPE calculations. Accessible at http://stats.oecd.org/#

Cities are responsible for 75% of global CO<sub>2</sub> emissions and therefore their efforts towards cleaner transportation and smarter infrastructure would significantly impact not only the quality of life within the city, but also the global level of greenhouse gases emissions.

<sup>39.</sup> Messerlin & Mirodout (2012).

## 3. The freedom and "interoperability" of financial services

Access to Capital and capital markets is not only central for cities to grow, it is also key to their role as vectors of globalisation. Global cities have competitive capital markets – and cities like London and Paris also have large and liquid markets that help to foster global integration for larger regions.

That last point is important and often neglected in trade policy. A vast body of economic research recognizes that trade flows are promoted and substantially enhanced by financial intermediation. The WTO, for instance, confirms that 80% to 90% of trade transactions are facilitated by financial services, either in terms of credit, insurance and/or guarantees. Trade finance provides services such as credit insurance against exchange rate fluctuations, commercial risks, transportation risks, and political risks. Affordable trade financing facilitates international trade flows with a proper allocation of deposits and savings towards efficient uses in the private sector, allowing trade to happen.

In fact, most firms rely on external capital to finance fixed costs as well as intermediate inputs, inventories, payments to workers and other costs that occur before they receive the payment for their output. Even when the cash conversion cycle is short, the firm would find it hard to cover its needs when the financial markets are not working properly. Moreover, external finance plays an important role in the internationalization process of a firm, which might need extra resources for market research, market-specific investment, regulatory compliance and creation of foreign distribution networks.<sup>41</sup>

The recent financial crisis provides a good example of the consequences for trade generally when the financial sector is impaired. A paper by Chor and Manova (2012) analysed the effect of the financial crisis based on variation in the cost of capital across countries and over time, as well as the variation in financial vulnerability across sectors. They find that higher interbank rates, and thus tighter credit markets, significantly affected the amount of export to the United States during the crisis. Moreover, they find this effect to be amplified in sectors that require extensive external financing, have limited access to trade credit, or have few collateralizable assets.

Similarly, analysing evidence from formerly central planned economies such as the Commonwealth of Independent States, Carmignani and Chowdhury (2005) find that more financially open economies trade more with the EU-15. Showing higher cross-country convergence of per-capita incomes, they also caught up faster with the EU. Several other studies confirm the health of financial markets as a determinant in influencing the number of the exporters and their export performances.<sup>42</sup>

Freedom and "interoperability" of financial services is critical to ensure that global cities can specialize in providing certain services not only to the rest of the regional economy, but also at the national or even global level – as it is the case for London and Paris. Households, businesses and governments depend on the provision of financial services to manage their cash-flow and the degree of specialization offered by these cities allows for a more efficient and timely provision of these service. As it will be shown later in the paper, there are also significant portions in the export of different EU countries that rely on London's financial services.

<sup>40.</sup> Auboin (2009).

<sup>41.</sup> Contessi and de Nicola (2012).

<sup>42.</sup> Among others, Amiti and Weinstein (2009).

#### THE GLOBAL CITY TTIP AGENDA

THE TRADE POLICY agenda that follows these trade-policy characters of a global city is obvious. They are, without order of priority, described in table 6. It is not an exhaustive or a detailed list, but it highlights what areas that are central to a global city.

**TABLE 6: TRADE-POLICY PRIORITIES OF A GLOBAL CITY** 

Area	Result	
	Greater freedom to exchange financial services across borders	
Financial services/capital markets	Better interoperability of regulations	
	Better disciplines against discrimination in new regulations	
Digital comices and digital newtokility	Improved portability of data across borders	
Digital services and digital portability	Regulatory interoperability	
Business services	Greater freedom for movement of services	
Business services	Regulatory interoperability	
C	More openness in government procurement	
Government procurement	More openness for trade in infrastructural services	
Management of labour	Improved freedom to access foreign labour	
Movement of labour	Better openness for intra-corporate transfers	

## 4. CONCLUDING COMMENT

NATIONS MAY NOT be defunct economic units, but it is obvious that cities represent an increasingly important role for economic development. This role can be expressed in quantitative as well as qualitative terms. An increasing share of output in Europe is located in cities, but cities also have a growing role for the economies of non-city regions.

Global cities should also take a greater role in shaping trade policy. Their immediate interests are not contradictory to the interests of non-city regions, but they are often different. Global cities are intermediaries of globalisation and therefore build upon free access for the channels of globalisation. More often than not, the channels of modern globalisation – key among them are the movement of data, people and capital – face substantial restrictions. Worryingly, these restrictions are increasing, lowering the capacity of global cities to effect positive change on a larger economic region.

While there is an entrenched system of national trade policy, cities usually do not consider themselves to have a trade policy. Some specific sectors in a city, like London's financial services, have worked systematically about its global role for a long time. But such work is far too seldom represented in the key priorities of trade policy. That is unfortunate. If a greater share of production in Europe takes place in cities, a trade policy not reflecting the potential gains from global integration for cities translates into lost opportunities, for cities and nations alike.

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