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# EUROPEAN METROPOLISES

## Recession and Recovery

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Seppo Laakso Eeva Kostiainen

# EUROPEAN METROPOLISES

## Recession and Recovery

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# Contents

# Preface

The geographical concentrations of production and population are two of the most striking features of the economic geography of Europe and indeed of all developed countries. A major part of Europe's economic output is generated in urban areas, where populations, firms and jobs are concentrated. This is the current picture in Finland too, though Finland is one of the least urbanised countries in Europe. The Helsinki Region, comprising fourteen municipalities, covers only 1,2 % of the land area of the whole country but 25 % of Finland's population live there and 34 % of the total output (gross value added) is generated in the region.

Metropolises are the drivers of Europe's economic growth, providing benefits of agglomeration for businesses, and attracting the most dynamic companies and fastest growing industries. The higher productivity and greater degree of innovation within metropolises compared with other regions explain their economic performance.

The aim of this study is to provide a comparative overview of the economy of European metropolises. The emphasis is on the comparison of Helsinki with other European metropolises with respect to size, economic structure and economic performance. Of particular interest are the roles of the metropolises in generating economic growth in their respective home countries, and their impact on Europe as a whole. This study is indeed already the eighth one in a series of studies started in 2003. The study covers 29 countries in western, central and eastern Europe. In addition to the 27 EU countries, Norway and Switzerland are included. Moscow and St Petersburg are included, too, whenever the data for them are available, but are not included in the mean.

This study is based on empirical research carried out and published by Cambridge Econometrics Ltd in collaboration with a wide network of European research institutes. The Finnish partner in the network is Kaupunkitutkimus TA Oy (Urban Research TA Ltd).

We extend our thanks to all parties involved, especially to the researchers Seppo Laakso and Eeva Kostiainen from Kaupunkitutkimus TA Oy and to Helsinki Economic and Planning Centre, Office of Economic Development. Senior statistician Juha Suokas has been in charge of coordinating the work on this study report.

Helsinki, May 2011

Asta Manninen
Director
City of Helsinki Urban Facts

# 1 INTRODUCTION

The geographical concentrations of production and population are two of the most striking features of the economic geography of Europe and, indeed, of all developed countries. A major part of Europe's economic output is generated in its urban areas, where populations, businesses and jobs are concentrated. In Finland, the metropolitan area of Helsinki (four cities: Helsinki, Espoo, Kauniainen and Vantaa), covers only 0.2 % of the land area of the whole country but 19 % of Finland's population live there, and it generates 30 % of the total national output (gross value added). Nevertheless, Finland is one of the least urbanised countries in Europe.

European cities and towns differ considerably with respect to size, urban structure and economic base, ranging from small agricultural towns to huge mega-metropolises. This wide distribution of size of urban areas is an essential feature of the urban network of Europe.

The largest urban areas are generally called metropolises – even though there is no universally accepted definition of the term. In this study, any large and economically significant urban area is viewed as a metropolis. In most cases, the geographic area of a metropolis does not coincide with that of an administrative municipality, but rather consists typically of a central city – usually one, but in some metropolises two or more - and a variable number of suburban municipalities around it. In other words, by a metropolis we mean a functional urban area.

Metropolises are the motors of Europe's economic growth, providing benefits of agglomeration for businesses, and attracting the most dynamic companies and fastest growing industries. The higher productivity and greater degree of innovation within them compared with other areas explains their superior economic performance.

The Helsinki Metropolitan Region (hereinafter Helsinki) is the only urban area in Finland where the population exceeds one million. Moreover, because of its size and economic significance, it is also the only area in the country that can be termed a metropolis. On a European scale, however, it is only a medium-sized or even small metropolis.

This study provides a comparative overview of the economy of European metropolises. The emphasis is on the comparison of Helsinki with other European metropolises with respect to size, economic structure and economic performance. Of particular interest are the roles of the metropolises in generating economic growth in their respective home countries, and their impact on Europe as a whole.

An interesting group of metropolises to compare comprises those of the Baltic Sea area: Stockholm, Oslo, Copenhagen, St. Petersburg, Tallinn, Riga, Vilnius, Warsaw, Berlin, Hamburg and Helsinki. These cities have had close links for centuries due to the logistical importance of the Baltic Sea. However, the cities of Baltic States together with Warsaw and East Berlin were cut off from their neighbours in the Nordic countries, likewise from those in the western parts of Germany, from the end of World War II (in the case of St. Petersburg, from the time of the Russian revolution) until the beginning of the 1990s.

The economic, logistic, cultural and institutional relations between the Baltic Sea cities were re-established during the 1990s and 2000s. This cooperation is manifested by, among others, the Baltic Metropoles Network, a forum for the capitals and major cities of the Baltic Sea Region states.

# 2 METROPOLISES IN EUROPE

This study is based on empirical research carried out and published by Cambridge Econometrics Ltd in collaboration with a wide network of European research institutes. The Finnish partner in the network is Kaupunkitutkimus TA Oy (Urban Research TA Ltd).

The study covers 29 countries in western, central and eastern Europe. Thus, in addition to the 27 EU countries, Norway and Switzerland are included. In most countries embraced by this study, the capital is included, except in the case of Switzerland, where Zurich and Winterthur, and Geneva have been selected.

As regards the Nordic countries and the majority of those in eastern Europe, the capital city the only metropolis. This is also the case in most small countries of the EU.

In the big EU countries, by contrast, the study takes in several major metropolises as well as the capitals. The study encompasses 44 urban areas[1], which, altogether, are referred to as the mean of 44 metropolises. Moscow and St. Petersburg are added to the analysis whenever the data for them are available, but they are not included in the mean.

Most of the metropolises have more than one million inhabitants. However, some smaller urban areas are included because of their major economic or administrative significance. On the other hand, some urban areas with more than one million inhabitants are excluded.

The area of each metropolis is defined using the statistical regional divisions (NUTS) of the EU or the equivalent division in the case of non-EU countries. Thus, depending on the country and urban area, a metropolis is defined at one of the following levels: NUTS 1, NUTS 2 or NUTS 3. Most of the metropolises in the study fall into the NUTS 3 category. Helsinki is defined at NUTS 3 level (Uusimaa and Itä-Uusimaa regions together).

At the European level, one consequence of the regional statistical divisions used is that the borders of the metropolises are not defined by homogeneous criteria. In some cases the area of the metropolis is significantly larger than the functional urban area, whereas in others the area is clearly smaller. This affects the findings of this study in some cases.

1 Amsterdam, Athens, Barcelona, Berlin, Bologna, Bratislava, Brussels, Bucharest, Budapest, Copenhagen, Dublin, Edinburgh, Frankfurt, Geneva, Hamburg, Helsinki, Krakow, Lille, Lisbon, Ljubljana, London, Lyon, Madrid, Manchester, Milan, Munich, Oslo, Paris, Porto, Prague, Riga, Rome, Rotterdam, Sofia, Stockholm, Stuttgart, Tallinn, The Hague, Valencia, Warsaw, Vienna, Vilnius, Wroclaw and Zurich & Winterthur

The data that underlie the economic employment and population statistics in this study are in general derived from the official statistics of each country. That said, in some cases, problems exist with the comparability of data. Consequently, a number of the comparisons are based on a smaller group of cities because data are not available or not comparable. Nevertheless, still gives a reasonably reliable picture of the inter-metropolitan variation, and the differences between Helsinki and other metropolises.

The forecasts for economic developments in this study are based primarily on the European-wide macro-economic analyses and assessments of industrial sectors carried out by Cambridge Econometrics. In addition, the national experts of each country have contributed to the analyses and forecasts. The differing emphases and views of national experts may lead to some additional variation in the results.

Table 2.1: Key indicators of the Helsinki Metropolitan Region by zone in 2009

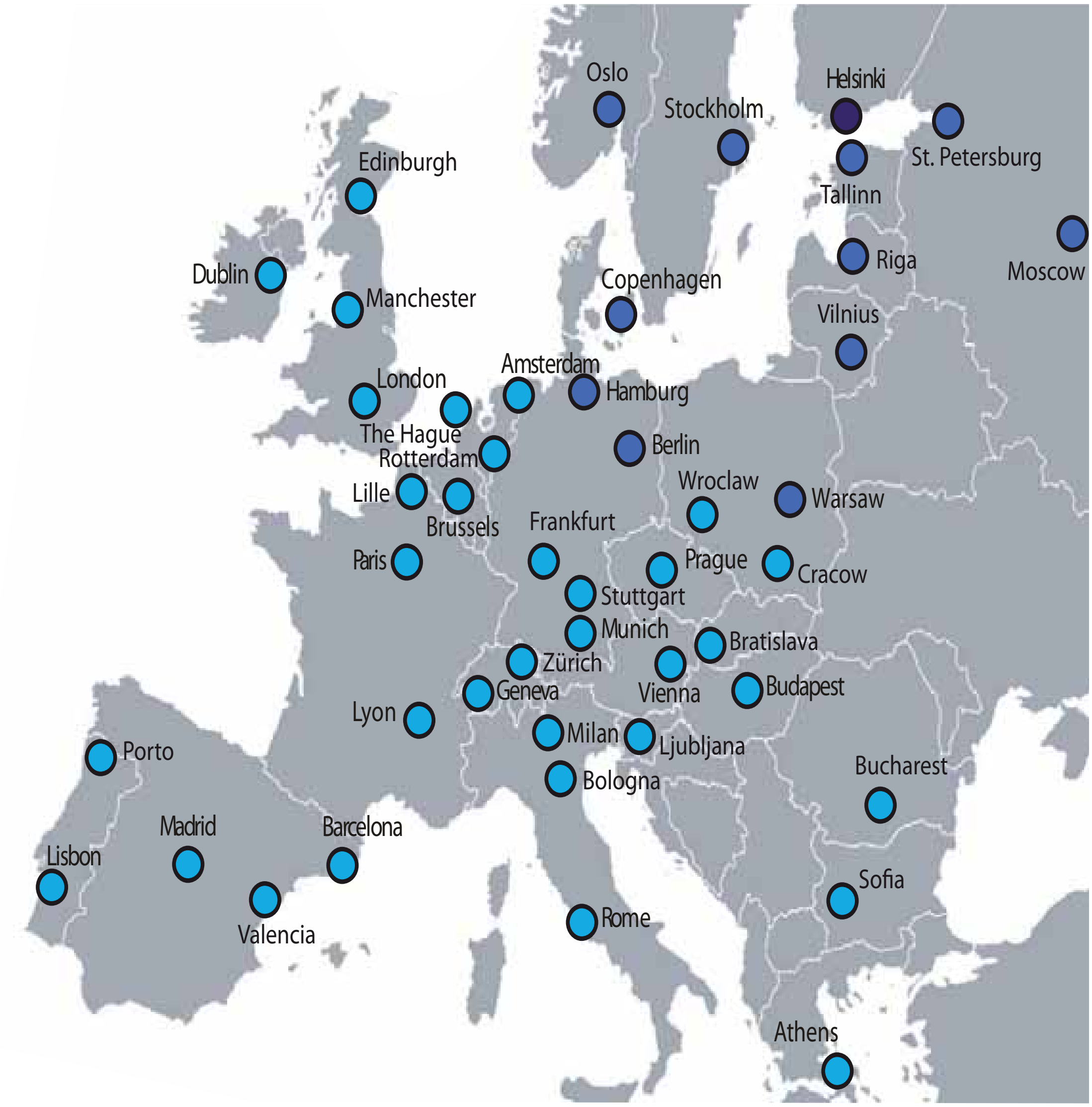
| | Land area km2 | Population | Employed population | Jobs | Population / km2 | Jobs / km2 | Jobs / employed |
|---|---|---|---|---|---|---|---|
| City of Helsinki | 214 | 583 400 | 320 220 | 408 395 | 2 700 | 1 908 | 1.28 |
| Helsinki Metropolitan area (cities of Helsinki, Espoo, Kauniainen and Vantaa) | 770 | 1 033 900 | 546 080 | 638 090 | 1 340 | 829 | 1.17 |
| Helsinki Region (Metropolitan area and 10 adjacent municipalities) | 3 698 | 1 335 400 | 696 270 | 738 010 | 361 | 200 | 1.06 |
| Helsinki Metropolitan Region (Uusimaa and Itä-Uusimaa regions) | 9 097 | 1 517 500 | 784 000 | 815 000 | 167 | 90 | 1.04 |

Data source:National Land Survey of Finland and Statistics Finland, population statistics and labour force survey

## The network of Baltic Sea metropolises

The eleven Baltic Sea metropolises – Helsinki, Stockholm, Copenhagen, Oslo, St. Petersburg, Tallinn, Riga, Vilnius, Warsaw, Berlin and Hamburg – are naturally linked by geographical proximity. Most of them have both a strong international and national role as logistic centres. In addition, all are either national capitals or at least regional (e.g. Hamburg and St. Petersburg) administrative centres. Beyond that, they have common interests in dealing with the environmental challenges facing the Baltic Sea. Each of these Baltic Sea cities interacts co-operatively with at least some of the other cities in this group in respect of trade, transport, investments, migration, labour markets, and social and cultural networks. For example, Helsinki intensively networks with Stockholm, Tallinn and St. Petersburg.

Map 2.1: Metropolises in the study



# 3 SIZE OF THE METROPOLISES

The size distribution of the metropolises summarises an essential dimension of the European urban network, which is made up of cities wide-ranging in size. According to the World Development Report (World Bank 2009), three forces drive economic concentration and consequent urbanisation: the 3 Ds – Density (i.e. agglomeration), Distance (i.e. accessibility, transport and communication) and Division (i.e. borders and other restrictions on mobility). These factors have moulded the urban network in Europe into its present form.

Various criteria are used to measure the size of a city, and the ranking and relative differences in size give an interesting picture of the network of the European metropolises. The size of an urban area is critical not only for its own sake but also because it is bound up with the economic structure and the potential for economic growth, as the following sections will show.

The size of a metropolis depends very much on how its area is defined. However, as noted above, the metropolises in this study are not defined by homogeneous criteria. Rather it is a combination of the particular local definition used and the NUTS level that dictates the statistics of each metropolis.

## Population

Population is the most common measure of the size of urban areas. Figure 3.1 presents the ranking by population of the 46 selected metropolises.

Based on the definition of area used in this study, Paris (Île-de-France), with 12.1 million inhabitants, is the biggest metropolis in Europe, and Moscow, with a population of 10.5 million, is second. London, with 7.7 million inhabitants, comes third. It should be noted that in this study London covers only the areas of Inner London and Outer London, whereas in some other statistical sources the functional urban area of London is significantly larger. The next six metropolises in rank order are Madrid (6.3 million) and Barcelona (5.4 million), followed by St. Petersburg (4.6 million), Athens and Rome (4.1 million) and Milan (3.9 million).

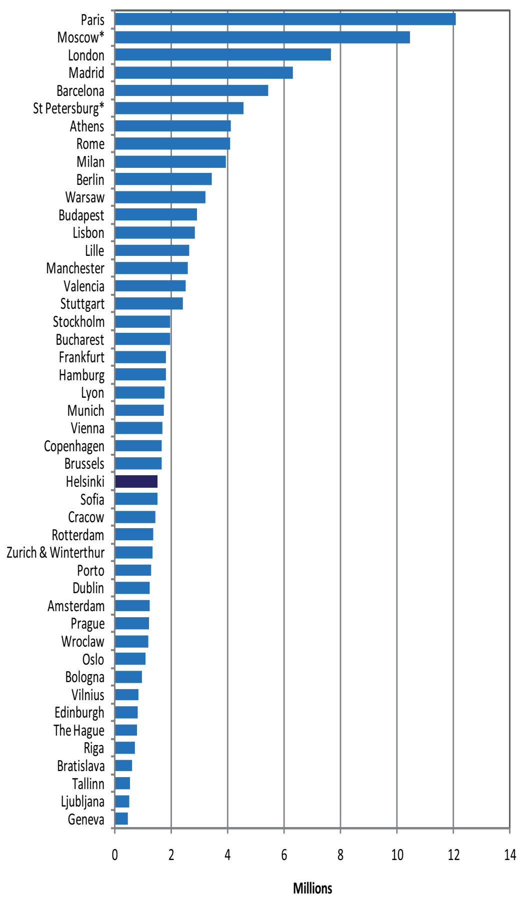
The biggest Baltic Sea cities in terms of population are St Petersburg (4.6 million) and Berlin (3.4 million), which rank 6th and 10th respectively in the top ten of the 46 European metropolises. The next Baltic Sea cities in rank order are Warsaw (3.2 million, 11th) Stockholm (2 million, 18th), Hamburg (1.8 million, 21st), Copenhagen (1.7 million, 25th), Helsinki (1.5 million, 27th), Oslo (1.1 million, 37th), Vilnius (0.8 million, 39th), Riga (0.7 million, 42nd) and Tallinn (0.5 million, 44th). The population of Tallinn, the smallest metropolis in the Baltic Sea area, is one ninth the size of the biggest, St. Petersburg.

## Value of production

Another criterion by which to compare the size of urban areas is the output of production. The size ranking of the European metropolises as measured by total gross value added (GVA) is presented in Figure 3.2, and it reveals a different picture from that measured by population.

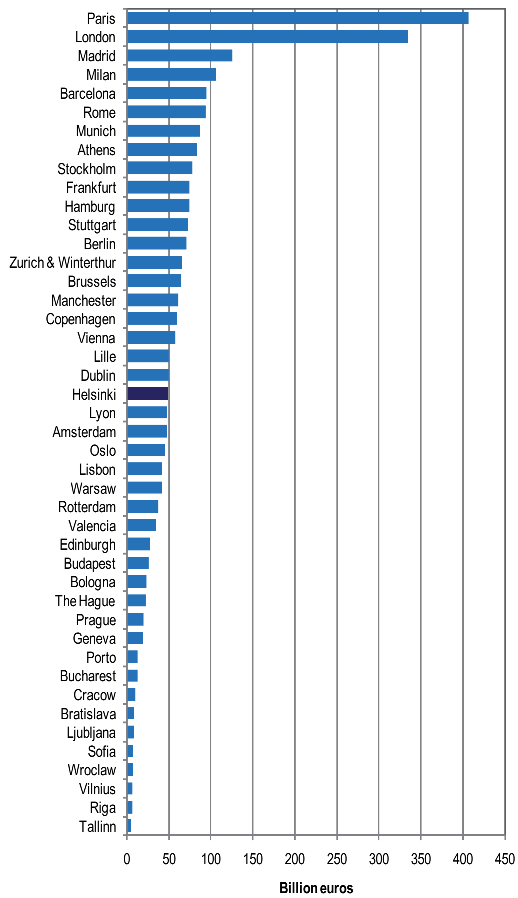
The range of sizes of the metropolises is relatively much wider when measured by production rather than by population.

Figure 3.1: The population of metropolises in 2009*




*Moscow and St. Petersburg 2008

Figure 3.2: The Gross Value Added of metropolises* in 2009**




*Data for Moscow and St. Petersburg unavailable

**Estimated value in the price level of year 2000

Again, Paris heads the list, but the size difference between Paris and the smallest cities in the study is significantly greater when comparing volume of output than when comparing population sizes.

Thus, whereas the population of Paris is 27 times greater than that of the smallest city in this study, Geneva, its total output is 87 times greater than that of Tallinn, which has the smallest output. London takes second place to Paris with respect to output, followed in rank order by Madrid, Milan, Barcelona and Rome.

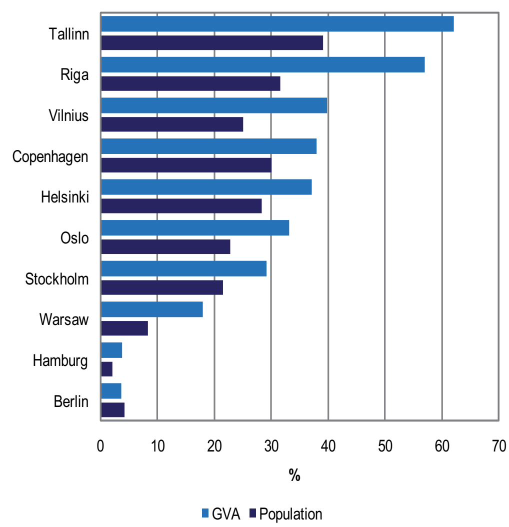
The distribution of the Baltic Sea cities also differs significantly when size is measured by output rather than by population. Stockholm leads the group of Baltic Sea cities, ranking 9th of the metropolises. It is followed by Hamburg (11th), Berlin (13th), Copenhagen (17th), Helsinki (21st), Oslo (24th), Warsaw (26th), Vilnius (42nd), Riga (43rd) and Tallinn (44th). The total GVA of Tallinn is only 6 % of that of Stockholm.

## Concentration of economic activity in metropolises

The above figures illustrate the geographical concentration of production and population in major cities in Europe. Altogether, the metropolises (of the EU countries) are home to 25 % of the total population of the EU27 and one third of its urban population.[2] However, the concentration of production goes much further: The sum of production of all of the EU metropolises contributes 34 % to the total GVA of the entire EU, with the combined output of Paris and London alone accounting for 8 %.

Differences exist between countries with respect to the role of major cities in their national economies. The analysis of the Baltic Sea cities gives a good picture of varying weights of the metropolises in each country (Figure 3.3). In general, in small countries the capital city usually plays a leading economic role. In the Baltic Sea area, Tallinn and Riga demonstrate this very well: each of these capitals produces about 60 % of the GVA of its national economy. At the same time, nearly 40 % of the population of Estonia lives in Tallinn, while Riga is home to one third of the population of Latvia.

Figure 3.3: Baltic Sea cities* share (%) of the national GVA and population 2009




*Data for St. Petersburg unavailable

2 According to UN's statistics the share of urban population in EU 27 is 74 % in 2005.

The share of production and that of population in capital cities are high also in Lithuania (Vilnius) and in all Nordic countries (Denmark – Copenhagen, Finland – Helsinki, Norway – Oslo, Sweden – Stockholm). In these five countries, the capital city contributes 30 – 40 % of output and is home to 20 – 30 % of the total population.

The role of capital cities (and Hamburg, in the case of Germany) is, by contrast, different in the large countries of the Baltic Sea area, i.e. Poland and, more especially, Germany. Poland is economically decentralised, and the major industrial centres are located in the western part of the country. The capital, Warsaw, generates 18 % of the national GVA, and is home to 8 % of the Polish population. In Germany, a dense urban network covers most of the country and this network embraces several large metropolises. That said, the biggest German metropolises remain significantly smaller than either Paris or London. Berlin's share of the total output, and likewise its population, of all of Germany is less than five per cent; the same applies to Hamburg. In contrast to all other Baltic Sea cities, Berlin's share of the population of Germany is higher than its share of output.

# 4 ECONOMIC STRUCTURES

## Importance of the service sector

Common to almost all big cities is the great importance of the service sector. In the metropolises in this study, the service sector share of total employment is on average 80.5 %, whereas in the 27 EU countries taken as a whole, the service sector employs approximately 70 % of the workforce.

However, if we look at the respective share of employment of the service sector in each of the metropolises, we see significant variation. The predominance of this sector is greatest in London, Brussels, Amsterdam and The Hague. In each of these, the service sector share of employment is around 90 %. In the Baltic Sea area, the share of services in Copenhagen, Oslo, Berlin, Stockholm and Hamburg is 85–87 %, while in Helsinki it is about 81 %, slightly above the mean of metropolises, and in Riga 79 %. By contrast, Warsaw and Vilnius and Tallinn, each with a share of 72– 73 %, are still significantly less service-oriented.

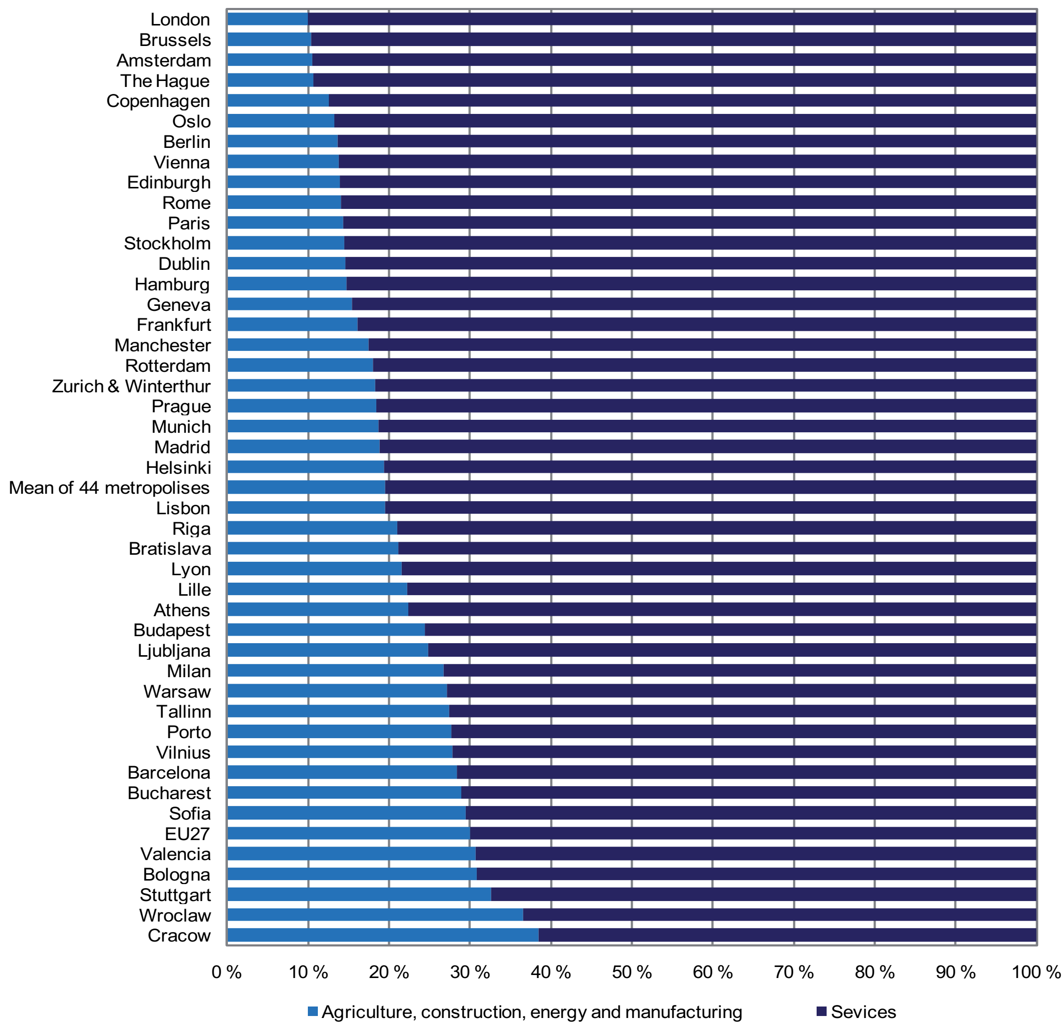
A large private service sector is a common feature of metropolises. Such sectors typically comprise concentrations of financial services, various business services, logistics, wholesale trade and diversified retail trade, and also tourism and associated hotel, catering and leisure services. Metropolises export specialised services nationally and internationally but also each is a large and wealthy local market area in its own right.

In addition to market services, there is the non-market sector, which is dominated by public administration and public services. As might be expected, capital cities of big countries have more people employed in the public sector because of their concentrations of central government functions and associated activities. This clearly affects the economic structure of cities such as Rome and Berlin. By contrast, the municipalities in the Helsinki metropolitan region and those in the other Nordic capitals play a much greater role in providing local education and social and healthcare services than do their respective national governments. As a result, the municipalities have sizeable concentrations of public sector employees – when compared to their national public administrations.

## Role of manufacturing and construction

Nineteenth and twentieth century industrialisation generated massive economic development in almost all of the cities which today are the metropolises of Europe. More recently, the service sector has grown and expanded at the expense of manufacturing industries in nearly all large European cities. As a result, in most of the metropolises, manufacturing now employs a smaller percentage of the workforce and its share of value-added production is clearly below that of the average of the 27 EU countries in this study. The combined sectors of manufacturing and construction and agriculture employ on average a total of 19 % of the workforce in the metropolises, while the equivalent figure for the European Union as a whole is 30 %. In Helsinki, the share is very close to the average of the metropolises.

Figure 4.1: The share of employment in the service sector (market services and non-market services) and in energy, manufacturing and construction in the metropolises* in 2009




*Data for Moscow and St. Petersburg unvailable

That said, manufacturing till plays a substantial role in the economy of many European metropolitan areas: it employs over 30 % of the workforce in Valencia, Bologna, Stuttgart, Wroclaw and Cracow. One or several clusters of manufacturing predominate in each of these cities: Bologna has machinery, food and clothing industries; Valencia specialises in furniture, food and textiles, and in Stuttgart there is a cluster of automotive manufacturing and associated industries. Wroclaw is an industrial centre, the traditional industries of which are the manufacture of railway rolling stock and electronics, and Cracow specialises in steel production and related manufacturing. Most of the fast-growing metropolises in the eastern European states had developed a strong cluster of construction industries prior to the global financial crisis, because of investments in massive infrastructure projects and property development.

It is worth noting that many of the industrialised metropolises in Europe are hardly cities in decline. On the contrary, some of the manufacturing oriented cities are among the most dynamic and economically robust metropolises in Europe.

## Economic structures in Baltic Sea cities

The Baltic Sea cities illustrate well the major differences in industrial structures between metropolises.

In general, a clear division remains between the cities of the former Eastern Bloc and other cities: in Warsaw, Tallinn and Vilnius the employment share of the construction industry and of energy and manufacturing are 27-28 %, significantly higher than in the rest of the Baltic Sea cities. It is interesting to note here that, in this respect, Riga stands apart from the other Baltic capitals and Warsaw.

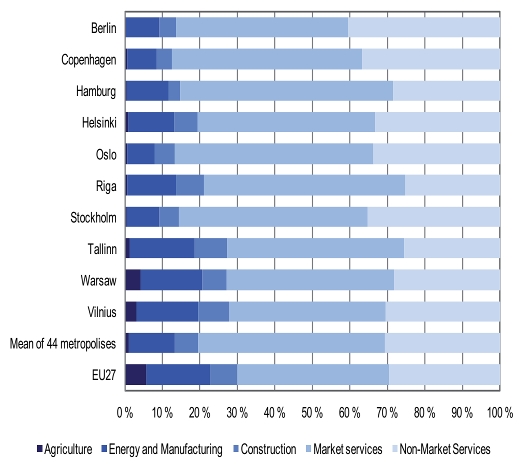
The economic structures of Vilnius, Tallinn and Warsaw are, in terms of employment, closer to the average of the EU area than that of the 44 cities. Construction employs nearly 10 %, and energy and manufacturing together around 16-17 %. In addition, agriculture remains a significant employer in Warsaw and Vilnius. In Helsinki and Riga the division of employment is closer to the average of the 44 metropolises, whereas in Stockholm, Copenhagen, Oslo, Berlin and Hamburg the role of construction and of manufacturing is less significant.

Since the 1990s, the economic structures in all Baltic States capitals have been changing rapidly: in particular, the share occupied by manufacturing has declined whereas that of market services has increased. For example, in Riga employment in the energy, manufacturing and construction industries declined from 43 % in 1993 to 20 % in 2009. Similarly, the Nordic, Polish and German Baltic Sea cities have experienced a decline but relatively far less. For example, in Copenhagen the share of energy, manufacturing and construction dropped from 17 % to 12 % during the same period. It seems, therefore, that the economic structures in the cities of the former Eastern Bloc are gradually converging on the structures of north European cities.

There are also differences in the relationship between the shares of market and non-market services: the share of non-market services is highest in Berlin, Copenhagen, Stockholm, Oslo and Helsinki, highlighting the significance of state administration in these cities, and, also, the scope of local public services provided by the municipalities. The proportions occupied by non-market services are lowest in Tallinn, Riga and Hamburg. However, it must be noted that there are statistical differences in the way some services are classified as being either market or non-market services.

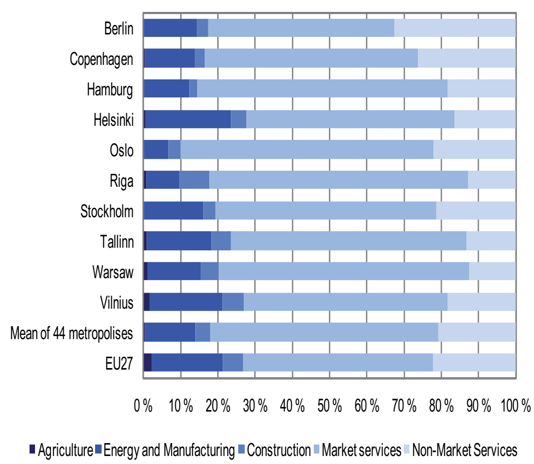
The economic structures look slightly different when viewed in terms of GVA shares rather than of employment. Generally, energy and manufacturing, and market services have a higher share of GVA than they do of employment, while construction and non-market services have a lower share. This reflects the level of productivity of these indusries – usually high in energy and manufacturing, and in market services, but low in non-market services and construction. However, in many of the metropolises of the newer EU member states, the combined share occupied by energy and manufacturing is lower in terms of GVA than in terms of employment. In Helsinki, Stockholm and Copenhagen, by contrast, the share of GVA is almost double the share of employment.

Figure 4.2: Employment division (%) by sector in Baltic Sea cities* in 2009




*Data for St. Petersburg unavaileble

Figure 4.3: GVA division (%) by sector in Baltic Sea cities* in 2009




*Data for St. Petersburg unavaileble

These cities specialise in high-tech manufacturing, which has high levels of productivity.

The share of energy and manufacturing of total GVA is highest in Helsinki, a result of the high value and high productivity of the electronics industry. Similarly, that share in Vilnius, Tallinn and Stockholm is also higher than the average of 44 metropolises, and lower than the average in Riga and Oslo. The share of market services is above the mean of the metropolises in Warsaw, Tallinn, Riga, Oslo and Hamburg but below the mean in Vilnius, Stockholm, Copenhagen, Berlin and Helsinki.

# 5 PRODUCTION AND PRODUCTIVITY

The Gross Value Added (GVA) per capita is a rough indicator of the volume of output relative to population and of the productivity of an area. In this study, the GVA figures are based on regional national accounting in each country.

It should be noted that to obtain the GVA figures for non-euro countries, current exchange rates are applied rather than purchasing power parity (PPP) equivalents. Consequently, the figures do not represent real income levels, but rather output per capita level measured in euros. For this reason, the results may differ from those in studies which use PPP figures. In addition, how a region is defined will affect its GVA values: in general, a large definition of an area lowers the GVA per capita level because production is usually more concentrated in the core of the urban area than is the population.

Figure 5.1 shows that the average GVA per capita of the metropolises is 37 % higher than that of the 27 EU countries, indicating that metropolises are wealthy, and more productive areas than the 27 countries as a whole. One third of the total GVA of the 27 EU countries is generated in the metropolitan regions, even though their share of the EU population is one fourth.

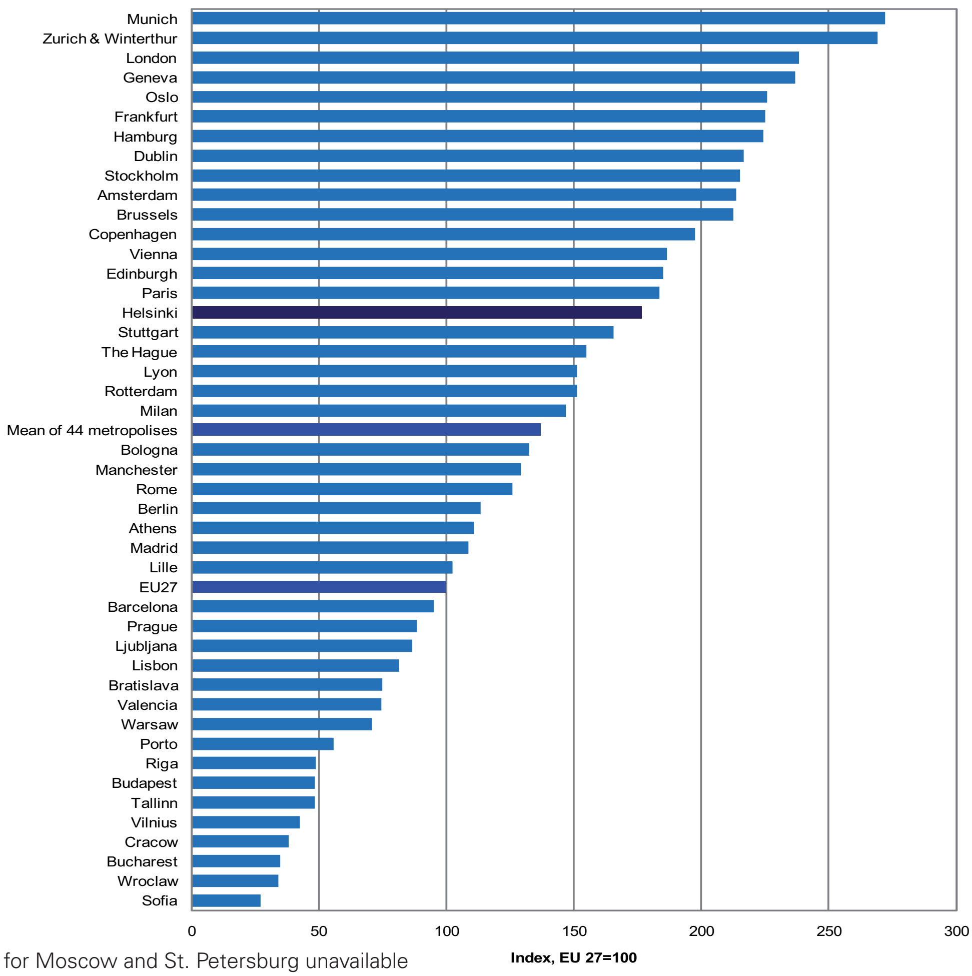
There are many explanations for the high productivity of the metropolises. For a start, both capital-intensive manufacturing enterprises and knowledge-intensive services typically concentrate in large city regions because of the optimal operating conditions. The opportunities for harnessing economies of scale coupled with competition and availability of skilled labour, all enhanced by efficient transport and communication networks, are the strengths of metropolises. Another factor accounting for high productivity is that agriculture – essentially a sector of low productivity – is typically absent.

Munich, in 2009, had the highest GVA per capita of all the metropolises: almost three times as high as the mean of the 27 EU countries, if we apply current exchange rates. The next metropolises in the ranking are Zurich and Winterthur, London, Geneva and Oslo, followed by Frankfurt, Hamburg, Dublin, Stockholm and Amsterdam. Helsinki is in 16th place, just below Paris, with the GVA per capita ratio nearly twice the mean of the 27 EU countries.

The lowest GVA per capita values, i.e. below 50 % of the EU average, are found mostly in eastern European cities: Sofia, Wroclaw, Bucharest, Cracow, Vilnius, Tallinn, Budapest and Riga. However, it must be noted that PPP figures would give higher relative values for most of these metropolises.

Major differences exist between the Baltic Sea cities with respect to GVA per capita. Oslo, Hamburg and Stockholm fall into the top quintile[3] of the 44 metropolises, while Copenhagen and Helsinki are in the second quintile: their respective GVAs per capita range between 1.8 and 2 times the average of the EU27. Berlin, with a GVA per capita in between the averages of the metropolises and the EU27, is in the middle quintile. Warsaw is in the second lowest quintile, and Riga, Tallinn and Vilnius are in the lowest quintile: their GVAs per capita are below the mean of the EU27.

Figure 5.1: The GVA (euros) per capita of metropolises* in 2009, (Index, EU27 = 100)




*Data for Moscow and St. Petersburg unavailable

3 quintile=fifth

One of the main factors explaining the GVA per capita differences between metropolises is the national GVA per capita. In general, a strong correlation exists between city GVA and national GVA. This is natural because usually the economic structure and the performance of a country closely interweave with those of its major metropolises. In most European countries, typically 30–40 % of the national GVA is produced in the capital region and other major metropolises. Estonia and Latvia are extreme cases: the capital city of each accounts for about 60 %.

At the same time, almost all of the metropolitan regions are considerably more productive than their respective countries. In other words, the per capita value-added goods and services produced in those regions are higher than the respective figure for the country overall. Only in the metropolises located in eastern Germany and in a few manufacturing cities in Italy, Germany, the UK and France is GVA per capita lower than in the country as a whole.

However, GVA per capita does not directly describe the well-being of inhabitants. The most recent edition (February 2011) of the liveability ranking published by the Economist Intelligence Unit ranks 140 selected cities throughout the world using 30 factors under five broad categories: stability, healthcare, culture and environment, education, and infrastructure. In the ranking, Vancouver tops the list. Helsinki, the only European metropolis in the top ten, is in 6th position.

# 6 ECONOMIC DEVELOPMENTS OF METROPOLISES

One current issue in regional economics is the difference between the economic development of metropolises and that of other regions. Historically, economic activity measured in terms of production, jobs and population has concentrated in cities, especially in big cities, all across Europe. Cities provide opportunities for economies of scale and other benefits of agglomeration for businesses, and they attract the most dynamic companies and fastest growing industries. Also, cities have concentrations of research and development and other innovation capacity necessary for high-tech manufacturing and specialist business services.

However, the economic development of metropolitan regions is heterogeneous. Thus, in general, in less developed countries the economic activity tends to concentrate in metropolitan regions, especially in the capital region, one consequence of which is that growth rates in these regions are higher than the national average. However, in more developed countries the regional development tends to stabilise when concentration and incomes reach a certain level. Hence, in the long term, differences in the growth rates between metropolitan regions and other regions may turn out to be quite small.

## Long-term trends

The data in this study make it possible to look at the long-term development of employment and output (GVA) of metropolises and countries of the western part of Europe, i.e. excluding the ex-Eastern Bloc. According to the data on 31 cities and 15 countries, employment across the entire area of western Europe increased by 19 % from 1980 to 2009, whereas employment in the cities rose by 25 %. The average annual growth rate was 0.6 % for the whole area and 0.8 % for the metropolises. Figures for output growth for the same period are 85 % (2.1 % p.a.) for the entire area and 105 % (2.5 % p.a.) for the metropolises.

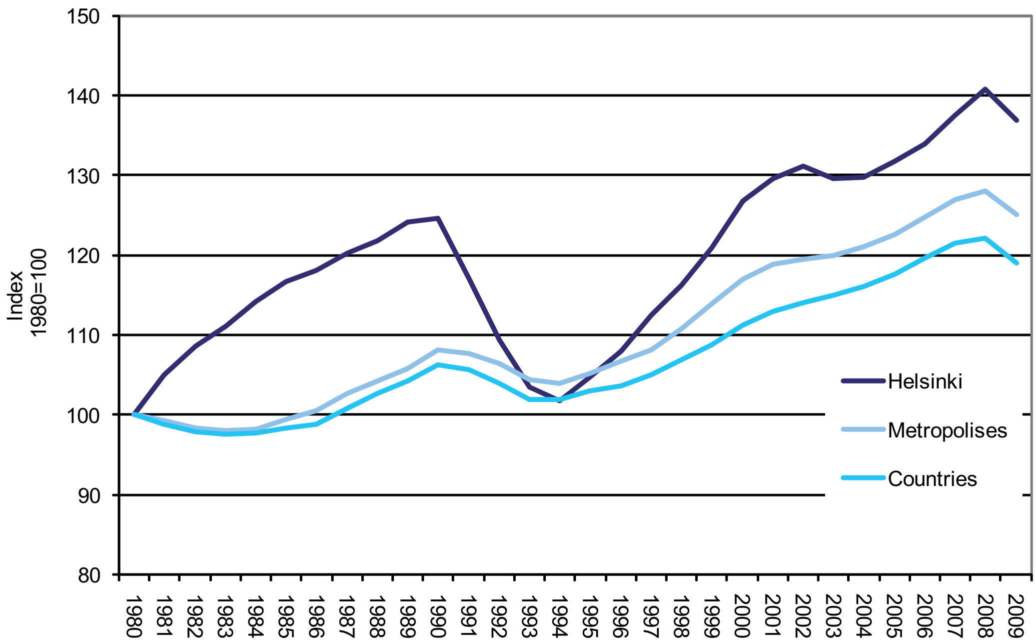
The difference in employment growth has been smaller, 0.2 % points p.a., than in growth of output, 0.4 % points p.a. Consequently, there has been some concentration of output and an increase in the GVA per employed person relative to other regions in western Europe during the 29 year period from 1980 to 2009. This indicates that during the last three decades the regional economic development in western Europe has been fairly steady, but there has been minor growth in the degree of concentration in the metropolises.

By contrast, there have been major differences between metropolitan regions with respect to economic development. Helsinki is one of the cities which have grown noticeably faster than the average of western metropolises. Employment increased by 37 % (1.1 % p.a.) and output by 189 % (3.7 % p.a.) from 1980 to 2009. The annual growth rate of employment was 0.5 % points and of output 1.7 % points higher in Helsinki than in the western European countries.

However, Figure 6.1 shows that the trend of employment has been significantly more variable in Helsinki than the average trend in the western European countries and metropolises. Helsinki was severely affected by the economic crisis of the first half of the 1990s. In addition, both the crash of the ICT sector 2002–2003 and the latest recession, in 2009, hit Helsinki harder than they did the western European countries as a whole. By the same token, however, the growth during the 1980s and after the crisis of 1990s was very rapid.

Figure 6.1 also shows that during the economic booms, employment in metropolises grew faster than in the western part

Figure 6.1: Employment growth in Helsinki and in Western European countries [4] and metropolises[5] 1980–2009




4 Belgium, Denmark, Greece, Spain, France, Ireland, Italy, Netherlands, Austria, Portugal, Finland, Sweden, United Kingdom, Norway, Switzerland. NB. Germany is not included. Data unavailable for the ex- eastern bloc.

5 Amsterdam, Athens, Barcelona, Bologna, Brussels, Copenhagen, Dublin, Edinburgh, Frankfurt, Geneva, Hamburg, Helsinki, Lille, Lisbon, London, Lyon, Madrid, Manchester, Milan, Munich, Oslo, Paris, Porto, Rome, Rotterdam, Stockholm, Stuttgart, The Hague, Valencia, Vienna and Zurich & Winterthur.

of Europe as a whole, whereas during the downturns, employment either slowed or fell at the same rate as in the entire area, or in some cases even faster. Several downturns have occurred during the 29 year period: in the first half of the 1980s; in the first half of the 1990s; the slowdown in the early part of the 2000s, and, finally, the recession of 2008–2009.

## Economic developments of the metropolises before the recession

Generally, the economy of the EU grew more steadily during the period 2004–2008 than in the first years of the 2000s, when Europe suffered from the consequences of the global ICT collapse. The GVA in the EU27 increased by 2.3 % p.a. from 2003 to 2008, compared with 1.5 % p.a. from 2000 to 2003. However, this growth rate of 2.3 % was far behind the average growth rate of the USA or Asia. The growth rate of the metropolises was faster than that of other regions with respect to population, employment and output.

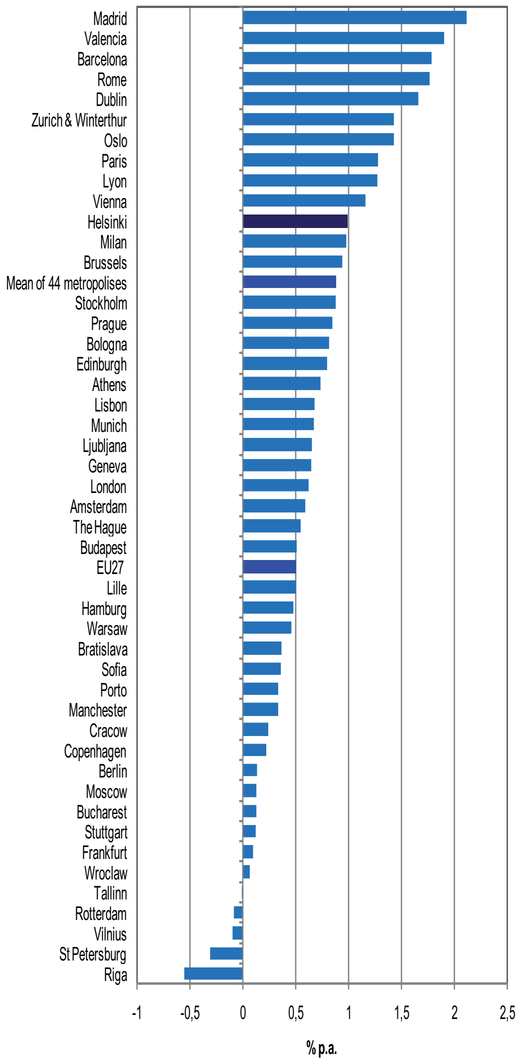
**Population growth**

Population change in a given area over a given period of time is based on a combination of net migration and natural population change, i.e. the net difference between births and deaths. Research shows that net migration is dependent upon local supply of labour coupled with demand for labour, which co-operate with many other regional factors, and, also, people's individual choices. Natural population changes are caused by shifts in the age structure of the population together with age- and sex-dependent mortality rates and age-dependent fertility rates.

Figure 6.2 shows that the population of the metropolises grew faster (approx. 0.9 % p.a.) than did the average of the 27 EU countries (0.5 % p.a.) during the period 2004–2008. Population growth was fastest in Madrid (2.1 % p.a.), Valencia (1.9 % p.a.), Barcelona and Rome (1.8 % p.a.), followed by Dublin, Zurich and Winterthur, Oslo, Paris and Lyon (ranging from 1.7 to 1.2 % p.a.). Population growth in Helsinki, 1 % p.a., also exceeded the average of the metropolises and that of the 27 EU countries, too. Of the other Baltic Sea cities, Stockholm's population grew at the same pace as in the metropolises on average. Population growth in Warsaw and Hamburg was very similar to that of the entire EU area, while in Copenhagen and Berlin population growth was below 0.5 % p.a.. The population fell considerably in Riga and St. Petersburg, while Tallinn and Vilnius are among the cities that experienced minor declines.

The overall picture of population growth of the metropolises in the five years 2004-2008 is something of an east-west division. The population grew fast in many southern, central and Nordic cities whereas the growth was slow or negative in most cities of eastern Europe. The migration from eastern Europe to the metropolises in the west affected population trends, as did immigration from Asia and Africa into the old EU countries. In addition, high mortality rates had a negative effect on the population in many eastern cities. The clear division in trends is also evident in the Baltic Sea area: Oslo and Helsinki were among the fastest growing group of cities whereas the Baltic capitals and St. Petersburg lost population.

Figure 6.2: Population change (% p.a.) in metropolises in 2004–2008




**Employment growth**

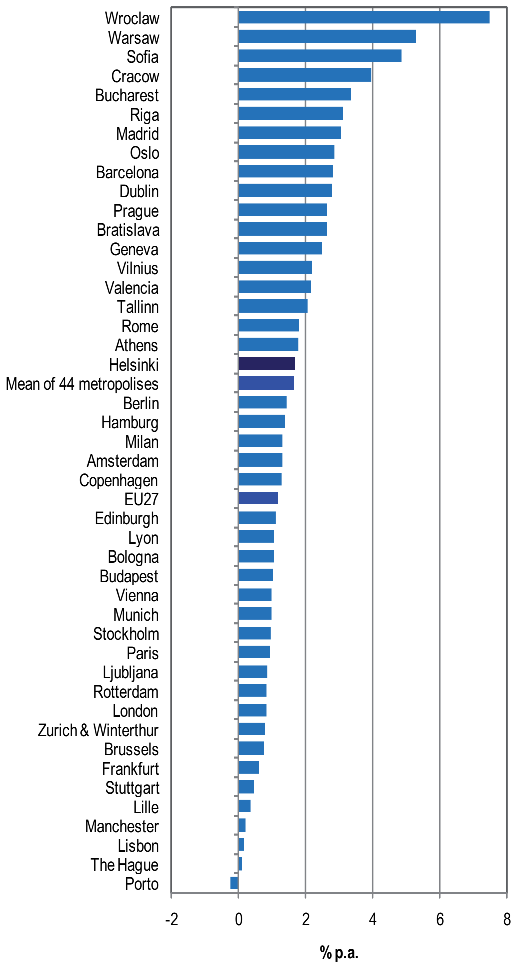
Alongside the rising metropolitan populations, employment rates also grew faster in metropolises compared with national averages. In fact, the growth rate difference exceeded that of population: employment in the 44 metropolises rose by 1.7 % p.a., while the average of the 27 EU countries was 1.2 % p.a.

Employment growth was particularly rapid in Wroclaw (7.5 % p.a.), Warsaw (5.3 % p.a.), Sofia (4.9 % p.a.), and Cracow (4.0 p.a.) from 2003 to 2008. In many eastern and southern European cities the growth rate exceeded the average of the 44 metropolises. However, employment declined in Porto, and growth was very modest in The Hague, Lisbon and Manchester.

In most of the Baltic Sea cities, i.e. in Warsaw, Riga, Oslo, Vilnius, Tallinn and Helsinki, employment growth exceeded the average of the 44 cities. The corresponding growth rates in Berlin, Hamburg and Copenhagen, however, lay between the averages of the metropolises and the EU27. In Stockholm, employment growth was slightly below the average of the EU area.

There was an east-west division in employment growth, too, but the reverse of what occurred in population growth. Employment grew fast in the cities of eastern Europe, along with investments and overall economic growth. Meanwhile, employment either declined or grew slowly in many western cities that suffered from major structural problems and in cities located in countries experiencing sluggish economic growth.

Figure 6.3: Employment change (% p.a.) in metropolises* in 2004–2008



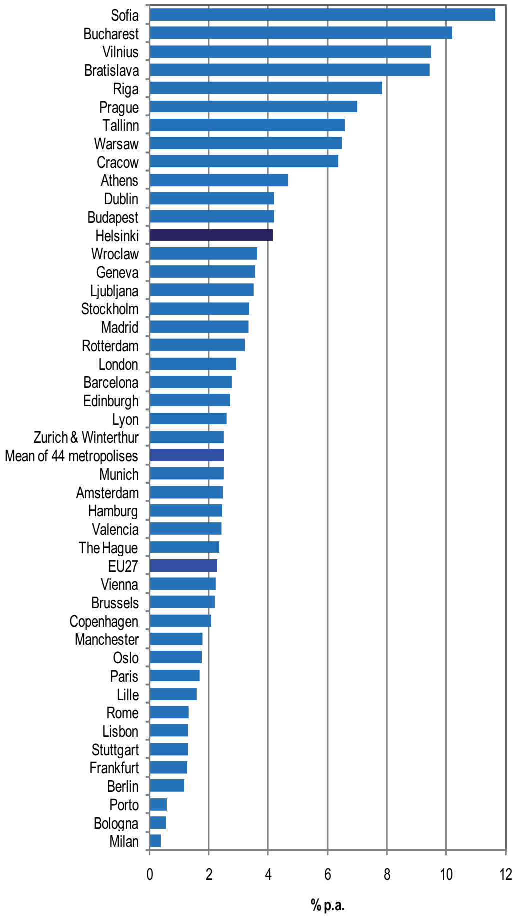

*Data for Moscow and St. Petersburg unavailable

**Production growth**

Production growth was on average slightly faster in the metropolises, 2.5 % p.a., than in the 27 EU countries as a whole, 2.3 % p.a., during the period 2004-2008. The regional pattern in GVA growth was fairly similar to that of employment, which is logical because of the close link between production and labour markets. The GVA growth rate was fastest in the eastern metropolises of the study, namely in Sofia (11.7 % p.a.), Bucharest (10.2 % p.a.), Vilnius (9.5 % p.a.), Bratislava (9.4 % p.a.) and Riga (7.8 % p.a.). Next in order were Prague, Tallinn, Warsaw and Cracow, with growth rates ranging from 7 % to 6.3 % p.a. GVA growth was slowest in Porto, Bologna and Milan, likewise in other Portuguese and Italian cities, and also German cities, which suffered as a consequence of their national economic slowdowns during the period.

In the group of the Baltic Sea cities, the Baltic capitals and Warsaw, with their growth rates ranging from 6.5 to 9.5 % p.a., fell into the top quintile, as did St. Petersburg. Also Helsinki (4.2 % p.a.) and Stockholm (3.6 % p.a.) enjoyed good growth rates exceeding the mean of the 44 cities. Hamburg, Copenhagen and Oslo were close to the average of the EU27, but in Berlin GVA growth was clearly below the EU average.

Figure 6.4: GVA change (% p.a.) in metropolises* in 2004–2008




*Data for Moscow and St. Petersburg unavailable

## Cities before the recession

There was a clear pattern in the economic developments of the metropolises in Europe before the recession. Those in eastern Europe stood at the top of growth table with respect to output and employment in the period 2004–2008. This narrowed the economic gap between them and western cities. Besides the western cities, the other group that grew more slowly than the eastern cities – albeit still faster on average than the metropolises – are the cities in the northern, western and southern fringe countries of Ireland, Spain, Greece and the Nordic group. Cities growing slower than the mean are mainly located in Italy, France, Germany and Portugal, while London, Amsterdam and Brussels were close to the mean. Population trends were different, however: population grew slowly or negatively in many eastern cities in spite of fast output and growth in employment. By contrast, population grew fast in many cities of the northern, western and southern fringe countries, and also in many metropolises of central Europe, where output growth was slow.

The Baltic Sea cities fit in well in the above picture of Europe 2004–2008. Warsaw, Tallinn, Riga and Vilnius are among the leading cities with respect to the growth rate of both output and employment. The rapid growth in employment and production in the eastern European cities was closely tied in with national growth in Poland and the Baltic countries, but in all of these growth was faster in the capital cities than nationally. In all Baltic countries the role of exports is central to the economy, whereas in Poland the domestic market dominates. Concentrations of foreign investments in major cities gave extra stimulus to growth. Booming property markets and construction were significant drivers of the economy. However, at the same time, the Baltic capitals lost population, and in Warsaw population growth was slower than in the EU as a whole.

In Helsinki and Stockholm the output growth exceeded the mean of the metropolises while in Hamburg, Copenhagen and Oslo the growth was slightly below, and in Berlin substantially below, the mean of the metropolises. However, Oslo was high in the rankings of population and employment growth.

## Cities in recession

The global financial crisis and the following recession of real economies strongly affected the EU area in 2008 and 2009. The growth rate of GDP of the EU27 slowed to 0.7 % in 2008, and GDP declined by 4.4 % in 2009, while employment continued to increase, by 0.9 %, in 2008, before dropping by 1.9 % in 2009. The strength of the effects of the recession varied considerably between European countries and, consequently, between the cities. The most extreme case was Latvia, where GDP dropped by 4 % in 2008 and by 18 % in 2009, but the financial crisis also impacted heavily on Estonia (GDP down 5.1 % in 2008 and down 13.1 % in 2009) and Lithuania (down 14.7 % in 2009). In the Baltic Sea region, the recession hit Finland hard, too (down 8.0 % in 2009), and also Denmark (down 5.2 % in 2009), Sweden (down 5.1 % in 2009) and Germany (down 4.7 % in 2009). In Norway, the decline in GDP was 1 %. Poland was the only EU member country where GDP growth continued, by 1.7 %, in 2009; this followed a rise of 5.1 % in 2008.

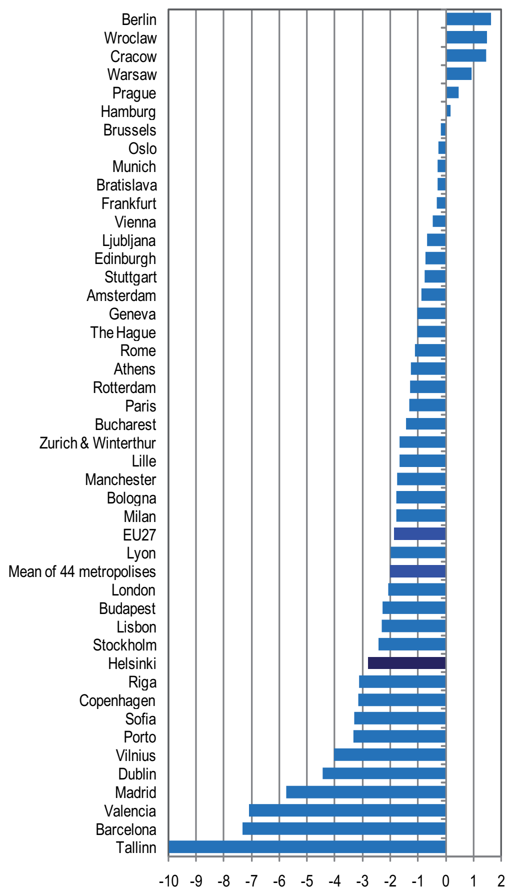
The crisis was compounded by the massive budget deficits and subsequent borrowing by governments in several EU countries, especially in Latvia, Lithuania, Hungary, Greece, Ireland, Portugal, Spain, Italy and the UK. This has forced those countries to cut public spending, which has further limited demand and slowed recovery of the economies. In contrast, the public sector finances have been in much better shape in all Nordic countries, Estonia and Germany. For example, there was surplus in government budgets in Denmark, Sweden, Finland and Germany until year 2008 and it was only in 2009 that their budgets went into the red.

These dramatic economic developments were reflected in the GVA and employment of European metropolises in 2009 compared with 2008 (Figure 6.5). Many of the east European cities and the northern, western and southern fringe cities, which had grown rapidly in the period 2004–2008, became the worst performing cities. Employment declined in the majority of the metropolises of Europe. This decline was slightly faster in the metropolises than the average of all the EU countries together. Tallinn, Barcelona, Valencia, Madrid, Dublin and Vilnius suffered the fastest decline. Employment fell more than the mean also in Copenhagen, Riga, Helsinki and Stockholm. On the other hand, in Berlin employment grew at the same rate as before, and it continued to grow in Wroclaw, Cracow, Warsaw, Prague and Hamburg, as well

– albeit more slowly than previously. In Oslo there was a slight decline.

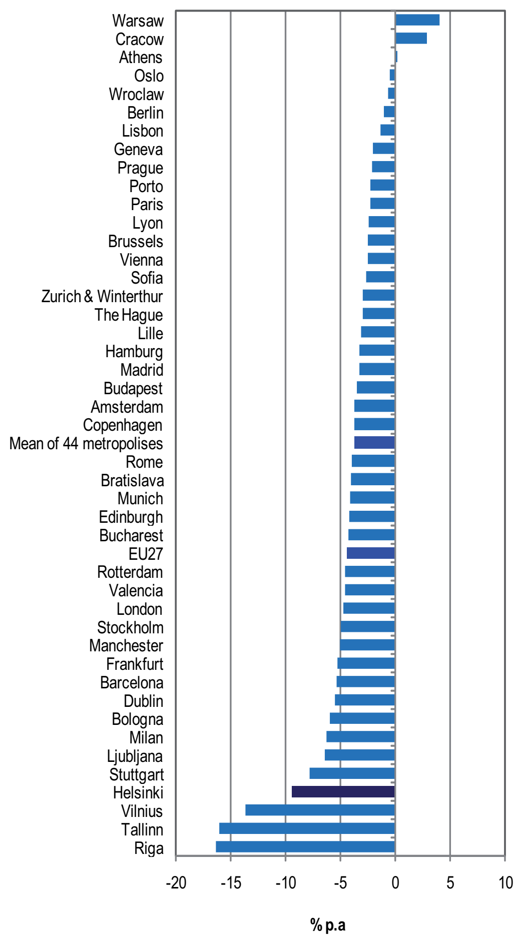
The trend in GVA during the recession exhibits a similar pattern to that of employment. Those metropolises experiencing rapid growth in the period 2004–2008 underwent serious decline in production in 2008–2009. The Baltic States capitals of Riga (down 16.3 %), Tallinn (down 16 %) and Vilnius (down 14 %) were the fastest declining metropolises in the study, followed by Helsinki (down 9.4 %). GVA fell also in Stockholm by more than the mean of metropolises, while in Copenhagen and Hamburg the decline was gentler than the mean. In Oslo and Berlin the level remained almost unchanged. Also western cities that had previously enjoyed growth, for example Dublin and Barcelona, experienced a big drop in their output. Warsaw and Cracow are exceptions:

Figure 6.5: Employment change (%) in metropolises* in 2009




*Data for Moscow and St. Petersburg unavailable

Figure 6.6: GVA change (%) in metropolises* in 2009




*Data for Moscow and St. Petersburg unavailable they are the only metropolises to grow rapidly in 2004–2008 that continued to grow in 2009. In the Baltic Sea region, Warsaw topped the list of cities experiencing GVA growth.

## Differences and similarities of the Baltic Sea cities in recession

**Tallinn**

Between the mid-1990s and 2007 the economy of Tallinn grew very rapidly, indeed, it was one of the fastest growing urban economies in Europe. However, such rapid growth always carried with it a substantial risk of a sharp downturn in the event of the economy overheating. That downturn arrived and was intensified by the impact of the global financial crisis and recession.

In 2008, exports were hit hard by the worldwide collapse in demand for consumer and automotive electronics, and were further affected in Estonia by the policy of fixed exchange rates. Trade volumes dropped sharply at the port as global trade contracted. The port of Tallinn owes about 84% of its freight traffic to the transit trade and this fell sharply in 2008, partly because of the contraction of world trade but also because of continuing hostility between Estonia and Russia. The Estonian government was obliged to cut public spending, which impacted on demand and on public sector employment: Tallinn has a significant share of this sector of employment.

The boom in house prices and in house building enjoyed in the early 2000s came to an end in 2007–2008. The recession also led to a sharp fall in the number of tourists flying Tallinn from more distant countries. Conversely, however, the numbers visiting from neighbouring countries, mainly Russia and Finland, rose. Finnish tourists are very important for Tallinn's economy.

**Riga**

During the years of rapid economic growth (nearly 8 % p.a. in Riga 2003-2008), Latvia built up a high deficit on balance of payments. This made the economy very vulnerable to the global financial crisis. In 2008 and 2009, Latvia suffered a more severe economic depression than any other EU member state and this affected Riga extremely strongly.

Starting in 2009 the government implemented wage and spending cuts, and raised taxes in an effort to bring the fiscal deficit under control and to meet the terms of the rescue package provided by the EU and the IMF. Until 2008 investments from private sources, central government and municipal authorities were rising strongly, and supported projects in residential and commercial building, hotels, industrial sites and other infrastructure. One year later, construction output declined by more than 35%.

However, while domestic consumption shrank because of the government's austerity package, exports started to lead a recovery in 2009, and Riga stands to benefit from increased flows of exports and transit trade. Outside the export sector, however, the cuts in salaries and the rise in unemployment have severely dampened household expenditure and domestic consumption. On the positive side, the government's austerity package seems to have prevented the financial situation from deteriorating and to have started the process of reducing the deficit. Moreover, the continued downward pressure on salaries and the rise in unemployment will lead to improved productivity and lower unit labour costs.

**Vilnius**

Being a small and economically open country, Lithuania's economy is largely driven by exports and imports, and, consequently, it is very exposed to developments both in the global economy and, more locally, in the Baltic region. Its foreign trade is also affected by political relations with Russia and Belarus. Exports to the former fell along with the fall in the price of oil and gas, since Russia has long been an important market for Lithuanian products, particularly foodstuffs. The Russian market, however, was also affected by the practice of banning imports of selected products (particularly types of food) from Lithuania. Some of Lithuania's foreign trade takes the form of cross-border retailing, and the steep depreciation of the Polish currency led to a sharp fall in retail sales to Poland.

Vilnius was the city where construction industry overheated most and, consequently, it was proportionately more affected by the collapse in the housing market and its associated slump in construction. The main thrust of the Vilnius strategic plan (2002–2011) is to move the retail and business centre from the old city on the left bank of the River Neris to the opposite side. The financial crisis is halting some partially-completed developments in this strategic plan and postponements of others, particularly commercial and retail projects and large housing projects.

Until the crisis, demand for labour exceeded supply in Vilnius. The gap was filled by inward migration from outside Lithuania, and salaries rose sharply, until they were forced down in 2009 by measures taken to reduce the fiscal deficit, and by the sharp decline in profits in many companies. About 10% of the Lithuanian labour force works in foreign countries. These countries (especially Ireland and Spain) are still suffering severely from the global crisis, especially in the construction sector, which was the most important source of work overseas for Lithuanians. To compound the problem, as Lithuanians lose their jobs abroad and return home, they add to the number of jobless there, thus exacerbating the ongoing rise in unemployment in their homeland.

**Warsaw**

Poland's economy, helped by low needs for external financing and the depreciation of the złoty, performed better in 2009 than any other economy of the EU27, and this was reflected in the economic growth in Warsaw. Poland's external financing needs are small and, because of the depreciation of the currency against the dollar and the euro, its exports have been rising while its imports have been falling. The increased prosperity of households has kept domestic demand growing, which, in turn, has stabilised the economy.

Infrastructure, housing and office construction have had a significant effect on growth, because, unlike what happened in many other cities, construction persisted in 2009. However, the fastest growing sector in Warsaw has been business services. The situation in this sector is likely to change, however, as increased foreign investment along with privatisation are expected to lead to improvements in management and productivity, the counter side of which will be a net loss of jobs in the financial sector and slower employment growth overall than seen in recent years.

In Warsaw, the gap between salaries in the private sector and those in the public sector is widening and this is provoking industrial action from public sector workers. The government's pro-business stance and its intention to reduce the state's involvement in the economy are likely to strengthen the private sector further.

**Berlin**

In 2009, economic growth in Berlin slowed less than the German average, mainly because of the city's orientation towards services, but also because its leading manufacturing industries performed better than their counterparts elsewhere in the country. Berlin has a small manufacturing sector, contributing about 18% to its total GDP compared to the German average of 27%. Moreover, the manufacturing industries that fared best in Berlin during the recession were precisely the ones that dominate Berlin's sectoral mix, namely chemicals, and printing and publishing. The economy was also helped by support for construction activities provided by the two national stimulus packages. The money will mainly be invested in infrastructure and in redevelopment projects relating to education and health.

The continuing growth in Berlin during the global recession is generally explained by the fact that the city's economic structure is markedly services-oriented, and this sector has been suffering less than manufacturing. However, one major service industry, namely tourism, is being impacted by the strength of the euro and the downturn in household spending. That said, tourist numbers have been rising for many years, including 2009. Public services were the main driver of growth whereas the transport sector suffered most.

The foundations of the good performance may turn out to be inadequate to withstand the continuing impacts of the recession. Towards the end of 2009, the unemployment rate in Berlin rose sharply, and it is not expected that slow in the near future. The city's economy is dominated by services but has a relatively poor consumer base compared with other parts of Germany. Looking ahead, low demand might curb growth in the services industries. However, those industries are expected to see moderate growth in output in at least the near future.

**Hamburg**

The port of Hamburg handles about 10% of Germany's foreign trade. Traffic through the port grew strongly each year from 2004 to 2007, but in 2008 cargo volumes levelled out and in 2009 traffic plunged by nearly a quarter, affecting the important logistics sector of the city.

The two major employers in the aerospace industry in Hamburg are Airbus and Lufthansa Technik. Delays in the delivery of the A380 (the superjumbo) and the long-running difficulties of the joint Franco-German management at EADS (which owns Airbus) brought much uncertainty to the aerospace industry in Hamburg.

A serious threat is looming for the Hamburg state budget. Both the city and the federal state of Lower Saxony have been badly hurt by the financial crisis at the NordLB bank.

**Copenhagen**

Copenhagen's economy is closely tied in with its high-technology sectors, the public-spending policies of the national government and the flow of international trade. A key high-technology grouping is the medical cluster growing in the Øresundsregion.

Increases in house prices in Copenhagen had stimulated consumer spending since 2006, but as prices fell in 2008, a reduction in household spending followed. At the same time, the port and associated services were hit by the steep decline in world trade and in deliveries of goods from Asia. Although most sectors suffered net job losses in 2009, the total decline in employment was less than 2%. Before the recession, unemployment levels were very low in Copenhagen, and in the rest of Denmark, too, about 2% at the end of 2008.

The fall in house prices throughout 2008 and 2009 has made Copenhagen affordable again. This, along with the construction of new housing in Ørestaden, may help to reverse the departure of residents from the city.

**Oslo**

The background to the recent history and current prospects of Oslo's economy is the strong performance of the Norwegian economy during the last few years. High and rising oil prices have been a considerable boost for this oil-producing country.

Another powerful stimulus to the economy has come from a change in the nature of inward migration. Previously, labour migration was largely short-term, but now whole families are settling in Norway. This has led to a sharp increase in the number of new households being established. Moreover, it seems that the downturn is not provoking return migration in large numbers, as migrants working legally have earned unemployment entitlements, and thus can afford to stay.

Oslo has a small but flourishing high-technology sector. Two of the leading innovative companies in this sector were bought in 2008 by international giants, and the resources and prospects of these companies have thereby been considerably enhanced. Looking ahead, the main problem constraining economic growth in the city is the public transport services, which are insufficient to bring essential commuters into the city.

**Stockholm**

Stockholm – like all of Sweden – has been severely affected by the global recession, mainly through declining exports and financial contraction. In particular, the city's manufacturing, and construction industries have suffered badly. Household consumption and the services industries, however, were not as seriously affected. Low interest rates and income tax reductions have stimulated household spending and, in turn, the retailing sector.

Sweden's key advanced industries, especially telecommunications, life sciences and pharmaceuticals, are located in Stockholm. That said, just over 85% of employment in Stockholm is in services, which also accounts for around 78% of the city's output. Because of its specialisation in services, the impact on Stockholm has been less severe than in Sweden's manufacturing regions in the north and the south-west of the country.

**Helsinki**

Finnish exports dropped dramatically in 2009 and this affected Helsinki, too. Exports of electronics and machinery, which are the main industrial branches in Helsinki, were cut by more than one-third. The sharp decline in exports and imports strongly affected the logistics and wholesale trade companies in the city.

Beyond that, the financial crisis led to a slump in construction. However, the collapse of demand for construction from the private sector has been partly counterbalanced by the allocation of state finance for the building of subsidised rental housing and grants for the renovation of old housing. The state also increased investments in transport infrastructure to support the construction sector, and these interventions have significantly mitigated the effects of the recession on that sector.

However, Helsinki, to a large extent, specialises in services for business and households, both of which were affected less than manufacturing and construction. Consequently, the effects of the recession on employment were not as dramatic as they were on output: employment declined less than 2 %, while the corresponding drop in output was 8 %, in 2009.

Helsinki is the centre of financial services in Finland. The reduction in interest rates outweighed the negative effects of the financial crisis and helped the banks to rebuild their capital base. The biggest banks in Finland remained largely unaffected by the international banking crisis.

**St. Petersburg**

St. Petersburg maintains an important manufacturing sector but market services is a particularly fast-growing sector. The city has well-developed financial, banking and insurance industries, and many property companies are located in the city. Scientific research and R&D remain very prominent, although they shrank severely in the 1990s. Tourism accounts for about 10% of the city's income.

Foreign investment in St. Petersburg is directed mainly at communications, trade and manufacturing (especially manufac turing in Leningrad Oblast) and – particularly in St. Petersburg – at hotels and catering. Several car plants were built in the region in the 2000s.

In 2009, the main effects of the recession were a decline in financial flows from the federal authorities and serious problems in traditional industries. The crisis has accelerated the pace of structural change. Unemployment, however, did not rise to a high level. Estimates put the decline in output at 12 % in St. Petersburg in 2009.

The financial crisis has led to reductions in the budgets of the city and the Leningrad Oblast, too, and, moreover, has cut the volume of inward investment for the immediate future. Both the federal and the regional authorities are concentrating their available resources on providing aid for major enterprises and projects. Many smaller projects have been postponed or cancelled.

# 7 FUTURE ECONOMIC GROWTH IN METROPOLISES

An essential focus of the research carried out by the research network led by Cambridge Econometrics is medium-term forecasting of metropolitan economic growth. Predictions until the year 2014 were made for production (GVA) and employment using an econometric model developed and applied by Cambridge Econometrics. The forecasts are based on detailed analyses – made in close co-operation with expert researchers in each country – of the development of several economic sectors at European, national and regional levels.

The forecasts for employment and production of European metropolises were made in the spring of 2010 on the basis of the information available at that time. Consequently, there are several uncertainties in the projections.

## Employment forecasts

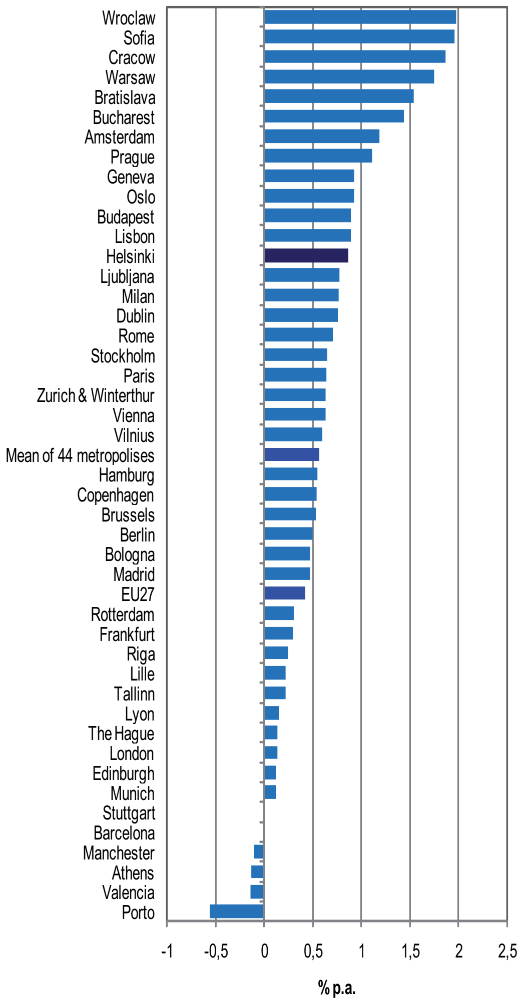
Employment is expected to grow again in most European metropolises during the period 2010-2014, but at a slower pace compared with the years 2004–2008. Thus, the mean employment growth of the cities is forecast to be 0.6 % p.a. in the period 2010–2014 as against 1.7 % p.a. in the preceding five-year period (excluding 2009, the year of the recession). The average employment growth rate of the 27 EU countries is predicted to be 0.4 % p.a. (1.2 % in 2004–2008).

Some east European metropolises are predicted to grow at a reasonable pace. According to the forecasts, employment growth will be fastest in Wroclaw, 2 % p.a., followed by Sofia, Cracow, Warsaw and Bratislava. However, employment is predicted to continue to decline in Porto, Valencia, Athens, Manchester and Barcelona.

In the Baltic Sea area, the expected rate of growth in employment is fastest in Warsaw (1.7 % p.a.). Similarly, the growth rate in Oslo, Helsinki, Stockholm and Vilnius is forecast to be higher than the average of the metropolises. In Hamburg, Copenhagen and Berlin, the growth rate is expected to be above the mean of the EU area, while Riga and Tallinn will experience only modest employment growth: below the mean of the EU countries.

Differences between the employment forecasts for metropolises are explained, in addition to national macro-economic developments, by economic structure, general prospects for the different sectors and various city-specific competitiveness factors. Figure 7.2 shows that the

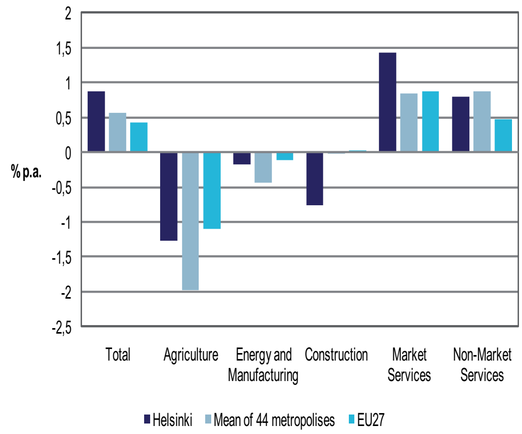
Figure 7.1: The forecast for employment change (% p.a.) in metropolises* 2010–2014




*Data for Moscow and St. Petersburg unavailable

services sectors are most likely to experience growth in employment in Helsinki. The same is predicted for the EU area as a whole and for the aggregate of the metropolises, although the rate of growth in market services is expected to be most rapid in Helsinki. Manufacturing is predicted to decline slightly on average in the metropolises and EU, as well as in Helsinki, similarly agricultural employment, but more steeply, whereas construction is forecast to decline only in Helsinki.

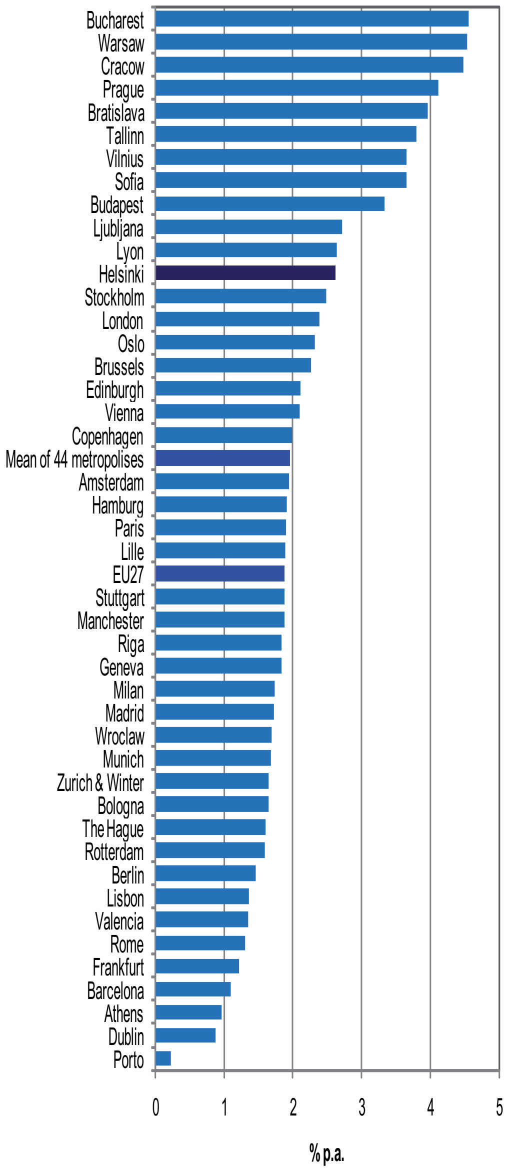
Figure 7.2: The forecast for employment change (% p.a.) by sector 2010–2014




## Production forecasts

Growth of GVA is expected to pick up again in all the metropolises covered by this study in the period 2010-2014. An average of 2 % p.a. GVA growth rate is predicted for the metropolises, which is somewhat slower than during the period 2004-2008 (2.5 % p.a.). The forecast for the 27 EU countries is 1.9 % p.a. (2.3 % in 2004-2008). According to the forecast, the growth rates of metropolises and the EU as a whole will converge in the near future, leaving only a small gap between them.

Figure 7.3: The forecast for GVA growth (% p.a.) in metropolises* 2010-2014



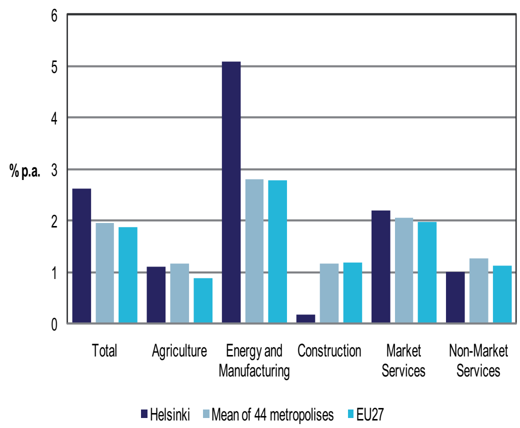

*Data for Moscow and St. Petersburg unavailable

Also expected is that the eastern metropolises that led growth in rates of GVA in the previous period will continue growing in the future, regardless of the serious decline in most of them in 2008-2009. Bucharest's growth rate of 4.6 % p.a. will head GVA growth these metropolises, followed by Warsaw and Cracow, the only growing metropolises in 2008-2009. The next cities in order are Prague, Bratislava, Tallinn, Vilnius and Sofia. The growth in GVA will remain modest in Porto, and also in many other south European and German cities.

In the Baltic Sea area, in addition to Warsaw, also Tallinn, Vilnius, Helsinki, Stockholm and Oslo are expected to experience relatively rapid growth in GVA, 2.3-3.8 % p.a. In Copenhagen and Hamburg the growth rate will be around that of the mean of the 44 metropolises, whereas GVA growth in Riga and Berlin will be more modest: below the average of the EU27. The GVA growth rate in Helsinki is predicted to be 2.6 % p.a., significantly lower than in the previous period (4.2 % p.a.).

Sector-specific differences in predicted GVA growth are presented in Figure 7.4. The growth sectors in Helsinki are likely to be energy and manufacturing and market services; non-market services and agriculture are also expected to grow, whereas in construction the growth will be very modest. That is similar to what is forecast for the EU area and 44 metropolises, although growth in energy and manufacturing in Helsinki is predicted to be significantly faster and in construction somewhat slower.

Figure 7.4: The forecast for GVA growth (% p.a.) by sector 2010–2014



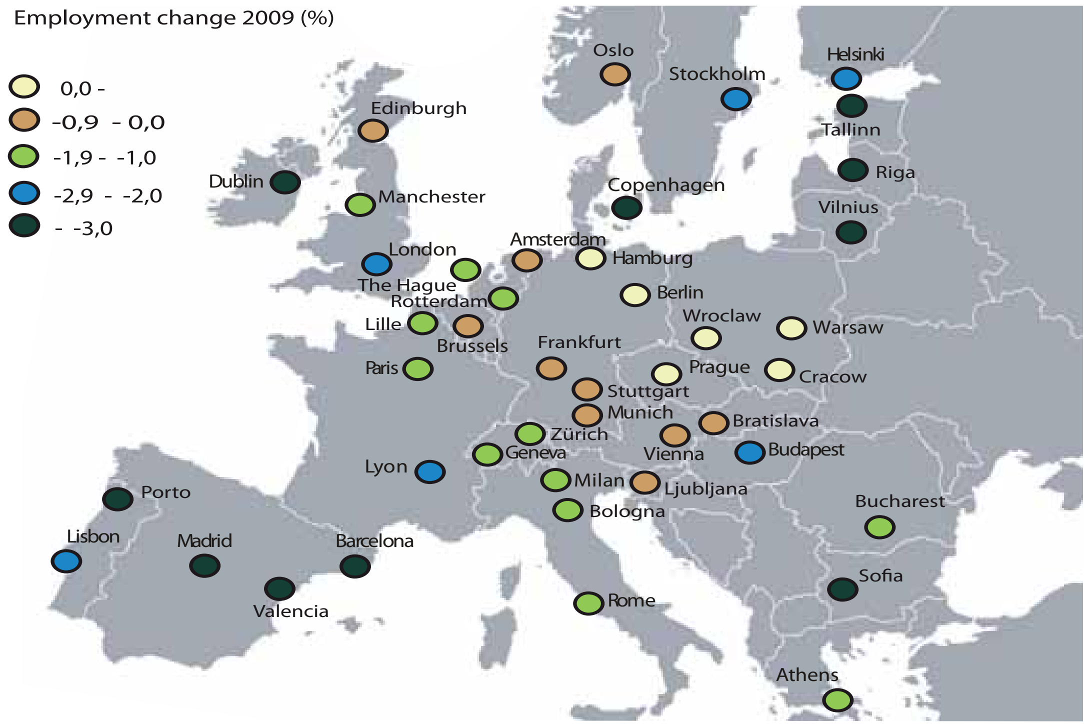

## Cities after the recession

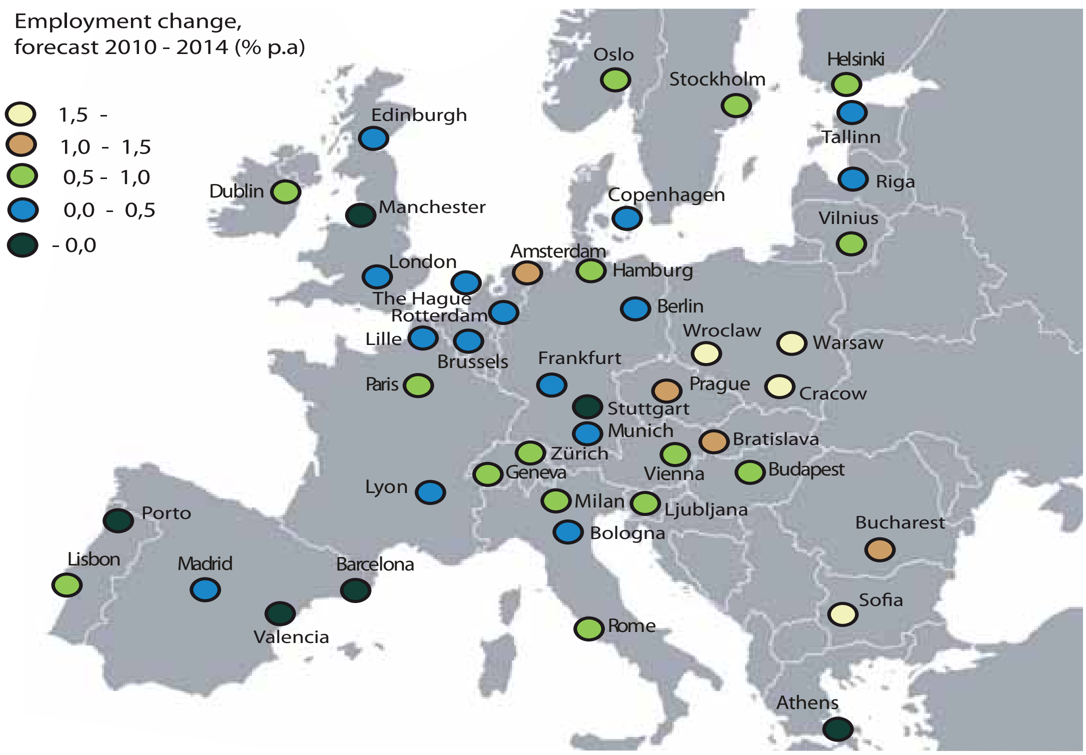
The world economy started to grow in 2010, led by China and other Asian countries importing more goods and services from Europe, and in spite of several uncertainties, it is predicted that this global recovery will continue beyond 2010. In Europe, output started to rise first in Germany and the Nordic countries. However, the challenges experienced in the euro zone, triggered by the debt problems of Greece, Ireland and Portugal, generated nervousness in the economies of all euro countries. Cuts to curb public sector spending in several countries having long term high budget deficits have depressed demand and limited rises in employment.

According to the forecast, output growth is, again, expected to be strongest in eastern Europe, the leading countries being Poland, the Czech Republic, Slovakia, Estonia and Romania. The competitiveness of some of these countries has strengthened as a result of the crisis. This is due to salary cuts and currency devaluation, the latter helping to stimulate exports. The Nordic countries are also expected to grow faster than the average of the EU, whereas the countries deepest in debt – Greece, Ireland, Portugal, Spain and Italy, and Latvia – will grow slowly for several years.

These country-level forecasts explain to a large extent the prospects for European metropolises. The previous east-west division is expected to continue in the coming years but the western side of the map has changed. The cities of Poland and other growing eastern countries are forecast to grow fastest with respect to output, likewise with respect to employment (except Tallinn). All the Nordic capitals are also predicted to grow faster than the average, but the previous growth centres of Dublin, Madrid, Barcelona and Athens will probably grow slowly due to the problems in their respective national economies.

## Map 7.1: Employment change, recession (2009) and recovery (forecast 2010–2014)



# 8 POSITION OF THE BALTIC SEA METROPOLISES AND HELSINKI IN EUROPE – A SYNTHESIS

Economic disparities among the regions of Europe have diminished considerably during the last 20 years, and the accession of eastern European countries to the EU has greatly accelerated this convergence process. The economies in most parts of eastern Europe have expanded rapidly. At the same time, growth has been fairly slow in western Europe, which has narrowed the income level gap between east and west Europe. Most metropolises in eastern Europe have been among the fastest growing areas in the whole of Europe. In western Europe, the cities in the northern, western and southern fringes have grown faster than most cities in central Europe during the last 15 years, though there has been a lot of variation.

Despite the above, major differences in GDP per capita remain. Thus, there is the rich belt in central Europe, and the large wealthy areas of Nordic Europe, and the areas around the capital cities of many fringe countries. At the other end of the scale is the poor belt in eastern Europe and some poor regions in northern and southern Europe. The east-west metropolitan divide with respect to GVA per capita is illustrated in Figure 5.1, which shows that a huge gap still exists between the productivity and value added capacity in the poorest eastern cities and that of the richest western cities. However, the eastern cities have narrowed the gap noticeably, at least relatively, during the last 15 years. In most east European countries the capital cities have been the fastest growing regions of their countries. However, while the difference between eastern and western cities has shrunk, at the same time the differences between the economic performances of the eastern capitals and that of their respective countries have increased in many cases.

The recession in 2008–2009 changed the trend in many respects. The Baltic countries – Latvia being the extreme case – were hit very hard by the financial crisis and the following depression of the real economy. The crisis has impacted particularly strongly the countries in southern Europe and Ireland. Consequently, the steady growth of Dublin, Barcelona and Athens, for instance, has halted, and probably for a long time.

## Prospects for the Baltic Sea cities

The economic contrasts are also very noticeable in the Baltic Sea area, where there are clear variations among the capitals of the Baltic states, Warsaw, St Petersburg, and the Nordic and German metropolises, with respect to both GVA per capita and economic structures. However, the structures have been undergoing major changes since the early 1990s. Hence, the energy and manufacturing industries, along with construction in Tallinn, Riga, Vilnius and St. Petersburg, have contracted, whereas market services have expanded rapidly. In turn, the economic structures in these cities are gradually converging on those of the western metropolises. Leading this development is Warsaw.

The prospects for growth until 2014 show a lot of variation between the Baltic Sea cities. As a whole, the economy of the Baltic Sea region is expected to grow at a reasonable rate. According to the forecast, Warsaw will lead growth in the Baltic Sea region in output and employment. It is followed by Vilnius, Tallinn, Helsinki, Stockholm and Oslo, with respect to output, and Oslo, Helsinki and Stockholm with respect to employment. The growth rates of output in Copenhagen and Hamburg are expected to be close to the EU average, and slightly lower in Riga and Berlin.

For the capitals of the Baltic States, especially Riga, the effects of the economic crisis were so strong that it will take several years before they return to the output and employment levels of 2007. In all the Baltic cities, the driver of the recovery will be exports, and no longer the property markets. In Tallinn, Estonia's adopting of the euro is expected to increase trust in its economy. The introduction of the euro together with Tallinn being one of the Cultural Capitals 2011 will also attract tourists. In Poland, Warsaw is forecast continue growing steadily, as a result of its competitiveness in exports and increasing domestic demand. St. Petersburg will benefit from rising oil and gas prices as well as increasing integration of the Russian economy with European markets. The Nordic capitals together with Hamburg will return to stable growth as a result of increasing exports. Berlin's development will continue on the basis of tourism and domestic demand.

## Prospects for the economy in Helsinki

The recession in Helsinki turned out to be deep but not very long. Output in Helsinki is expected to grow by more than 3 % and employment approximately by 0.5 % in 2010. From 2011 onwards, GVA and employment growth rates should remain steady at levels of 3-3.5 % and about 1.5 % respectively. The growth of output will be generated by manufacturing and market services; by contrast, employment will pick up in the market and non-market services, but probably not in manufacturing. According to the forecast for both output and employment, Helsinki’s growth rates will exceed the national rate, as was the case before the recession.

Many uncertainties exist in these forecasts, however. Finnish financial markets function fairly well and companies exporting electronics and machinery are competitive and have strong balance sheets. At the same time, there are structural problems in the industrial sectors and international competition is tough. Looking ahead, it is uncertain how international companied located in Helsinki – or elsewhere in Finland – will structure and manage their global production.

## Challenges and chances for Helsinki

The economic prospects for Helsinki are most uncertain in the short run, as is the case all over Europe. In a positive scenario, Helsinki might return fairly quickly to the path of stable growth. In the long term, however, the city faces several challenges as it wants to remain a competitive location for businesses and, simultaneously, provide adequate welfare for its citizens.

Helsinki needs to diversify its economic base by developing new, strong clusters to complement its present ICT, machinery, logistics and traditional manufacturing industries. This would greatly diminish the risks associated with the considerable volatility in the global ICT business and the modest growth prospects in traditional manufacturing. The regional economy and, consequently, also the local public sector economy of the municipalities of the region depend very much on the strong ICT cluster of the city, which has been a great wealth creator for Helsinki since the mid 1990s, but which at the same time carries with it considerable risks. In general terms, Helsinki must diversify and become more innovative if it wants to attract not only new industries but also more domestic and foreign investment. In more practical terms, the city should develop further its infrastructure and transport systems, likewise its education and local services; in addition, greater flexibility is required in the labour and housing markets. However, flexibility is in some cases constrained by the national legal framework defined by the state.

The City of Helsinki together with its neighbouring cities and regional development bodies are well aware of these challenges and much work has been accomplished during recent years. The role of the City is to provide the right preconditions and innovative urban environment to attract new firms and clusters and to support them, while leaving business and commerce to respond to market forces. Strong networks exist among the cities of the metropolitan region, the business community and the universities: they share a common strategic perspective of how to cooperate to develop and promote entrepreneurship and innovation. Several science parks have been built in Helsinki to encourage co-operation between research and business.

For more than a decade, collaborative research into urban issues has intensified among the cities of the metropolitan area, the Ministry of Education and the universities. As part of this cooperation, the cities have co-financed several professorships of urban research. For the cities, and indeed for the entire Helsinki Region, this has been a unique opportunity to advance urban research, to work together to fulfil a joint research programme, and to raise the visibility of the urban dimension in university curricula. More recently, the partnership has been extended, and new professorships created. The new structure was developed within the framework of the new national metropolitan policy. The research focuses on the specific needs of the metropolitan region, and highlights the benefits achieved when all stakeholders - the cities, universities and the state administration – work together to strengthen urban research and apply its findings and scientific knowledge. In short, the purpose is to turn research and knowledge into practice.

Another topical example of the new initiatives is the Helsinki Region Infoshare, a partnership project involving the cities of Helsinki, Espoo, Vantaa and Kauniainen, and Forum Virium Helsinki and Sitra – The Finnish Innovation Fund. The task of the project is to make publicly available to local residents, communities and other interested parties a vast amount of statistical and geographical data about the region – currently, this information is accessible only to the municipal administrations. The work includes building a web service for fast and easy access to open data sources, from which users can download information. The thinking behind the project is the vision that making public data readily available to all increases residents' knowledge and insight into their region, which in turn, improves their opportunities for civic engagement. Open access to information should also lead to new services and businesses being established in the region; it may advance research and development, too.

The design industry is also a good example of progress in thinking. The appointment of Helsinki as World Design Capital for the year 2012 will give this industry a great boost. Helsinki, together with the cities of Espoo, Vantaa, Kauniainen and Lahti, is the third designation of World Design Capital (WDC) – following Turin in 2008 and Seoul in 2010. According to the International Council of Societies of Industrial Design, which awards the title of WDC, "*Design is a factor deep-rooted in the urban lifestyle of Helsinki. Design is manifest in the everyday lives of Helsinki citizens in many ways, ranging from home furniture and items that represent old Finnish design traditions to modern urban solutions in the city and contemporary interior design. The creative sector is re-shaping Helsinki's economy and enhancing the citizens' quality of life. Design seen from a broad perspective – in city planning, architecture, industrial design and service design – plays an integral role in the development of Helsinki, city services and consumer products*."

Helsinki's theme for its World Design Capital is "Open Helsinki – Embedded Design". The City approaches design from a broad perspective, which underlies all processes that bring about social, economic and cultural improvement. Embedded design in Helsinki brings together human needs, aesthetic qualities and functionality.

Design features prominently in the educational programmes of the new Aalto University, which was created at the beginning of 2010 by the merging of the Helsinki School of Economics, the University of Art and Design Helsinki and Helsinki University of Technology.

The tourist industry of Helsinki, of course, goes hand-in-hand with the city's major cultural and sports events, and tourism will certainly benefit from Helsinki being WDC. Looking to the future, various events and projects spotlighting design will raise the international profile of Finland's capital, and enhance its image as an attractive and dynamic centre, and in turn pull in a broader spectrum of visitors. Moreover, there is now the prospect, albeit uncertain, that Helsinki may become the next city to have a Guggenheim museum. The City of Helsinki has commissioned the Solomon R. Guggenheim Foundation to undertake a feasibility study to examine the possibility of building a new Guggenheim Museum in Finland. These museums, which typically exhibit modern and contemporary art, already exist in New York, Berlin, Bilbao, and Venice. A Guggenheim will open in Abu Dhabi in 2014.

One of the challenges facing the Helsinki region is the ageing of the population, and particularly in respect of the supply of labour. To keep the region's labour markets functioning, a constant inflow of people of working age is necessary. Moreover, it is evident that in the future an increasing proportion of such newcomers will come from abroad – as has been happening during the last decade. As a result, the share of the population of foreign origin will gradually approach the level typical of most European metropolises. According to predictions, the population having foreign background will double during the next 30 years. If this occurs, it will keep the number of people of working age rising for a long time, which is indispensible for the labour supply of the city. Today, the intellectual and cultural potential of the immigrant population in Helsinki is under-utilised in many respects. The city's immigrants should have a much higher profile not only in the labour markets and as entrepreneurs but also in cultural and other societal fields. With this in mind, obstacles to integration into society should be removed. In Helsinki, as in all metropolises, immigrants make an essential contribution to the urban patchwork and innovative capacity, and Helsinki must make use of the talents of these people to enable it to become a successful multicultural city.

Helsinki now has an exceptional historical opportunity to use its city planning instruments to boost its dynamism and innovation. The construction of the Vuosaari port released the large, old, inner city port areas for redevelopment as a mix of residential and business land use. The new port also freed up extensive tracts of land in Pasila, in the northern inner city, that had been used for transporting goods to and from the inner city harbours. The construction of the new residential and business districts of Jätkäsaari and Kalasatama, in the old port areas in the heart of the city, are now underway. Beyond this, new railway and subway projects planned for many suburban areas will improve accessibility and open up new development opportunities. The Ring Rail Line, which will connect the city centre and Helsinki-Vantaa Airport in 2014, is now under construction. The rail connection between Helsinki and St. Petersburg was greatly improved by the opening, at the end of 2010, of the new rapid Allegro rail service. The journey time was cut to three hours and thirty minutes, a significant reduction on the earlier time of five hours and thirty minutes.

# SOURCES


Cambridge Econometrics (2010) European Regional Prospects. Analysis and Forecasts to 2014. Cambridge Econometrics Ltd in collaboration with a network of European research institutes.

Reshaping Economic Geography (2009) World development Report. The World Bank.

## Electronic sources

Helsinki Region Infoshare (2011) http://www.hri.fi/en/

World Design Capital Helsinki 2012 (2010) http://www.wdc2012helsinki.fi/en

# European metropolises

## Recession and Recovery

Metropolises are the motors of Europe's economic growth, providing benefits of agglomeration for businesses, and attracting the most dynamic companies and fastest growing industries. The higher productivity and greater degree of innovation within them compared with other areas explains their superior economic performance.

This study provides a comparative overview of the economy of European metropolises. The emphasis is on the comparison of Helsinki with other European metropolises with respect to size, economic structure and economic performance. Of particular interest are the roles of the metropolises in generating economic growth in their respective home countries, and their impact on Europe as a whole.

STATISTICS
2011:19

City of Helsinki
Urban Facts