

## European Metropolises. Recession and Recovery

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### Introduction

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.

This paper is based on of the study " *Seppo Laakso and Eeva Kostiainen: European Metropolises. Recession and Recovery. Statistics 2011:19. City of Helsinki Urban Facts.* ", which in turn 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 above mentioned study carried out by Seppo Laakso and Eeva Kostiainen 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.

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<sup>1</sup> in cooperation with Seppo Laakso, Eeva Kostiainen and Juha Suokas

As regards the Nordic countries and the majority of those in eastern Europe, the capital city is the only metropolis. This is also the case in most small countries of the EU. In the big EU countries the study takes in several major metropolises as well as the capitals. The study encompasses 44 urban areas<sup>2</sup>, 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).

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 cooperatively 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.

Next a comparative survey of the economy of European metropolises will be presented. The emphasis is on the comparison of cities 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.

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<sup>2</sup> 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.

## Size of the metropolises

The size distribution of the metropolises summarises an essential dimension of the European urban network. 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 shaped the urban network in Europe into its present form.

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.

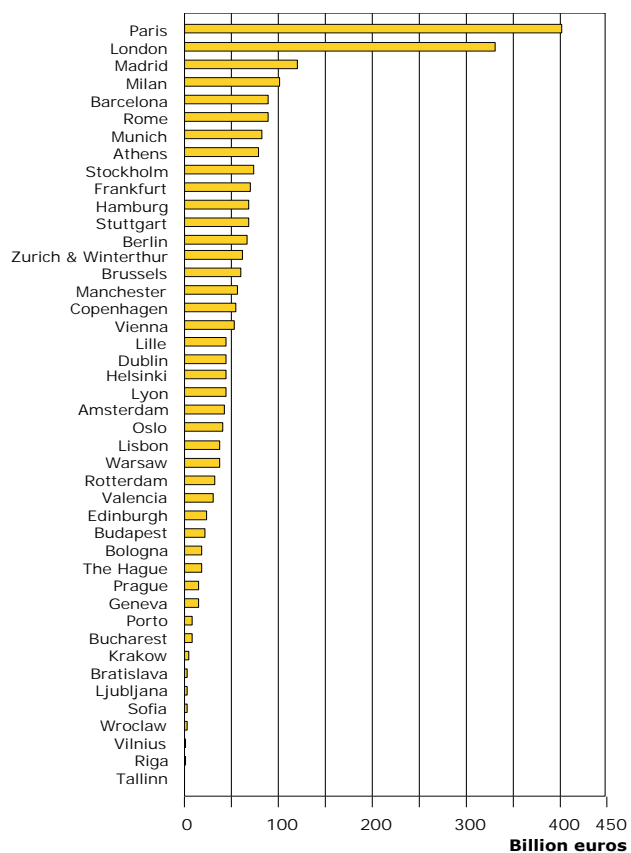
## Population

Population is the most common measure of the size of urban areas. The size of European metropolises is dealt with in the introduction.

## 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 1, 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 1: The Gross Value Added of metropolises\*\* in 2009**



Estimated value in the price level of year 2000

## Concentration of economic activity in metropolises

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<sup>3</sup>. 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. 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.

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.

## 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.

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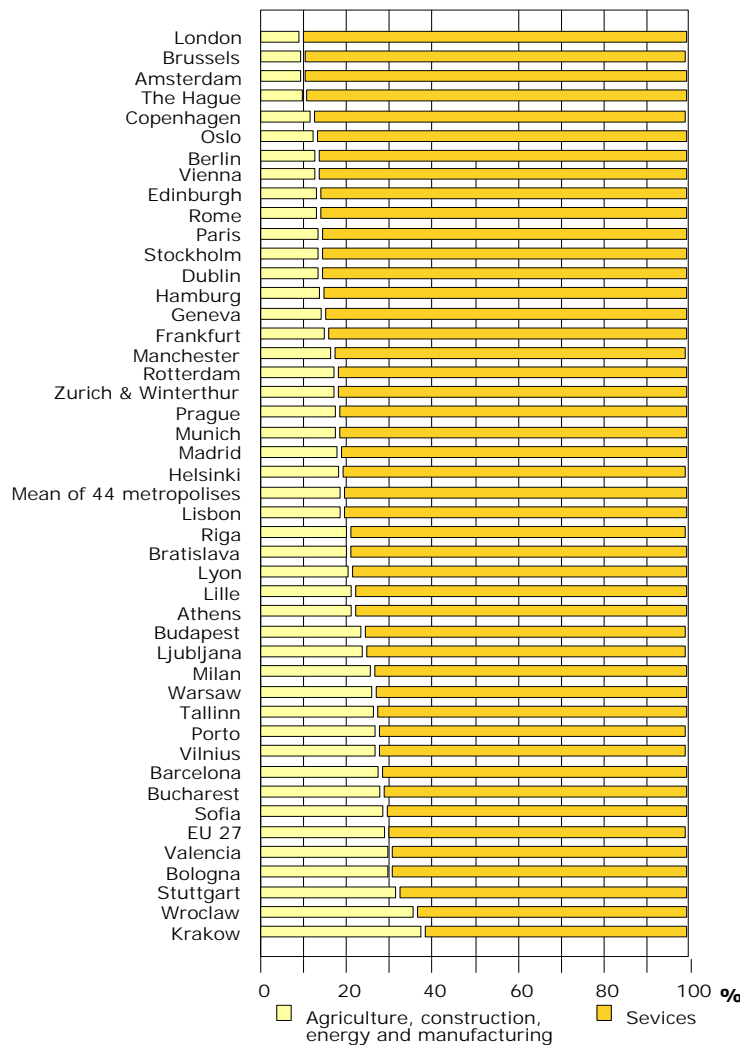
<sup>3</sup> According to UN's statistics the share of urban population in EU 27 is 74 % in 2005.

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.

### The role of manufacturing and construction

Manufacturing still 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. It is also 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.

**Figure 2: 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 unavailable

## 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.

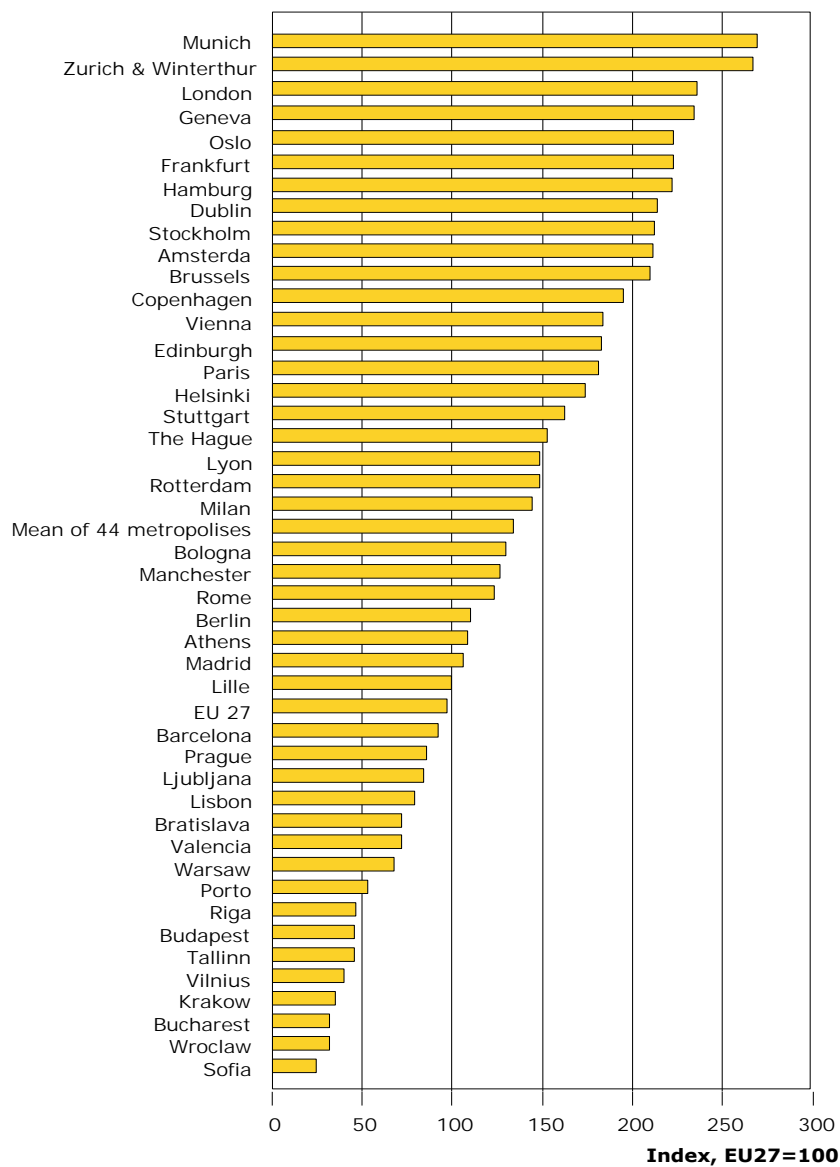
Figure 3 shows that the average GVA per capita of the metropolises is 37% higher than that of the 27 EU countries, indicating that metropolises are wealthy, and more productive areas than the 27 countries as a whole. One third of the total GVA of the 27 EU countries is generated in the metropolitan regions, even though their share of the EU population is one fourth. There are many explanations for the high productivity of the metropolises.

Major differences exist between the Baltic Sea cities with respect to GVA per capita. Oslo, Hamburg and Stockholm fall into the top quintile<sup>4</sup> 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.

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<sup>4</sup>quintile=fifth

**Figure 3: The GVA (euros) per capita of metropolises\* in 2009 (Index, EU27=100)**



\*Data for Moscow and St Petersburg unavailable

## Summary

### 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.

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.

### Employment growth

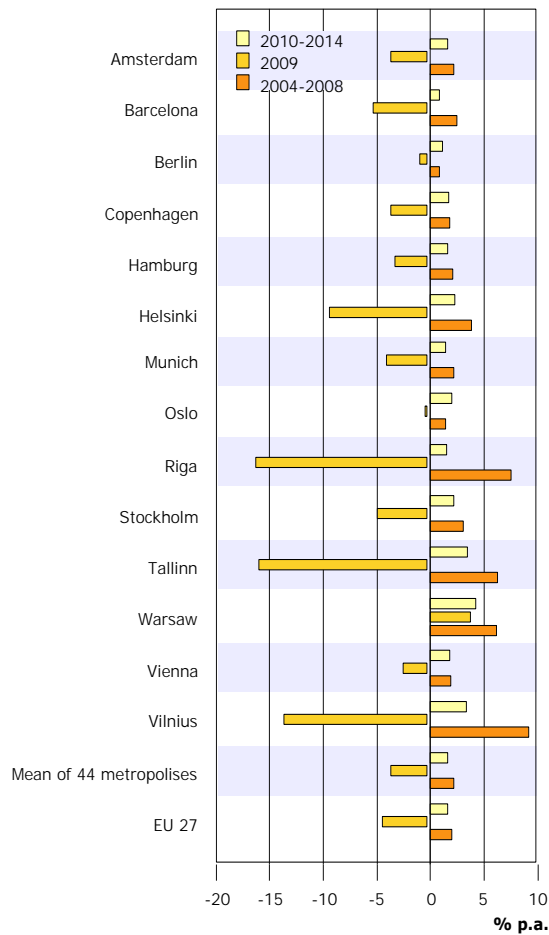
Alongside the rising metropolitan populations, employment rates also grew faster in metropolises compared with national averages. In fact, the growth rate difference exceeded that of population: employment in the 44 metropolises rose by 1.7% p.a., while the average of the 27 EU countries was 1.2% p.a.

### 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.



**Figure 4: GVA change (% p.a.) in selected metropolises in 2004–2008, 2009 and forecast 2010–2014**



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.

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.

### 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.

## Signs of Recovery

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 (see Fig. 4). 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. 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.

### 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 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. Moreover, the current global financial crisis threatens to significantly slow national economies all over.

## **SOURCES**

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