Urbanisation and urban forms

The 275 metropolitan areas in OECD countries accounted for 48% of OECD population, 56% of the total gross domestic product (GDP) and 49% of employment in 2010. The concentration of population and GDP ranges from 70% in Japan to less than 30% in the Slovak Republic (Figure 1.6).

The population in metropolitan areas grew at an average annual rate of 0.9% in the period 2000-2012 (compared to the 0.6% annual growth of the OECD population). Many metropolitan areas in Japan and Germany, as well as a few in Korea and the United States, display negative population growth (Figures 1.9 and 1.10).

As a result of the different patterns of urbanisation, population density can be very different in metropolitan areas of the same size. In Denver (United States) and Daegu (Korea), each of which has a population of around 2.5 million, population density was 160 and 2 250 people per km^2, respectively. Or, metropolitan areas of different sizes can display similar urban density, like Tokyo (Japan) and Naples (Italy), where Tokyo's population is 10 times larger than that of Naples (Figure 1.7).

Definition

Metropolitan areas are defined as the functional urban areas (FUA) with population above 500 000.

The functional urban areas are defined as densely populated municipalities (urban cores) and adjacent municipalities with high levels of commuting towards the densely populated urban cores (hinterland). Functional urban areas can extend across administrative boundaries, reflecting the economic geography of where people actually live and work.

Population density is the ratio between total population and the total land area in a metropolitan area.

The urban sprawl index measures the growth in build-up area over time adjusted for the growth in population. When the population changes, the index measures the increase in the built-up area over time relative to a benchmark where the built-up area would have increased in line with population growth. The index is equal to zero when both population and the built-up area are stable over time. It is larger (smaller) than zero when the growth of the built-up area is greater (smaller) than the growth of population, i.e. the density of the metropolitan area has decreased (increased). See Annex C for details.

The form and the quality of urbanisation processes are of concern for policy makers. This is particularly important when the expansion of land for urban uses (residential and commercial buildings, major roads and railways) threatens the quality of the landscape or bio-diversity.

In the past decade, many metropolitan areas have continued increasing their built-up areas, at a pace even faster than population growth. Urban sprawl, here measured as the percentage change in the built-up area "available" per person, was 1% on average in the OECD metropolitan areas between 2000-06. The metropolitan areas in Estonia, Portugal, Ireland and Japan show the highest sprawl among OECD countries (Figure 1.8). However, it should be noted that United States metropolitan areas displayed values of the sprawl index higher than these countries before 2000. Differences in the sprawl index among metropolitan areas in a country can be large. For example, the sprawl index in Las Palmas (Spain) was 11% compared to the average Spanish value of 4%.

Source

OECD (2013), "Metropolitan areas", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00531-en*.

See Annexes A and B for data sources and country-related metadata.

See Annex C for details on definitions and data estimations.

Reference years and territorial level

2010, population, employment and GDP. 2000-06, urban sprawl; metropolitan areas.

The functional urban areas have not been identified in Australia, Iceland, Israel, New Zealand and Turkey. The FUA of Luxembourg does not appear in the figures since it has a population below 500 000 inhabitants.

Further information

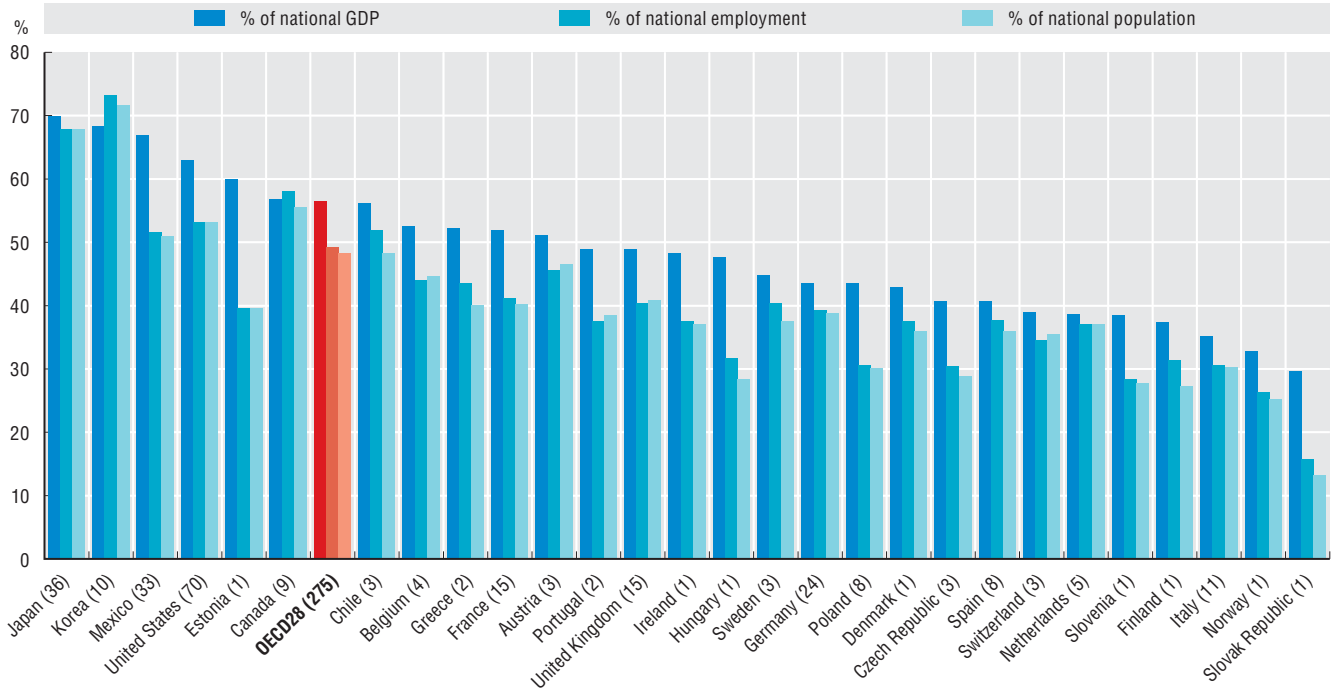
OECD (2012), *Redefining "Urban": A New Way to Measure Metropolitan Areas*, OECD Publishing, *http://dx.doi.org/10.1787/9789264174108-en*.

Interactive graphs and maps: *http://rag.oecd.org*.

Figure notes

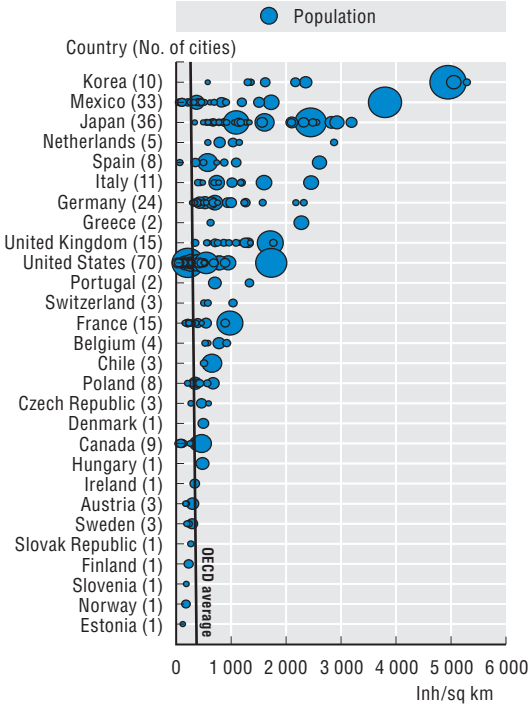
1.8: Period used for the calculation 2000-06 with the exception of Japanese urban land 1997-2006, and United States urban land 2002-06. Canada, Chile, Korea and Mexico are not included due to lack of data on urban land for two points in time.

1.6. Concentration of population, GDP and employment in OECD metropolitan areas, 2010



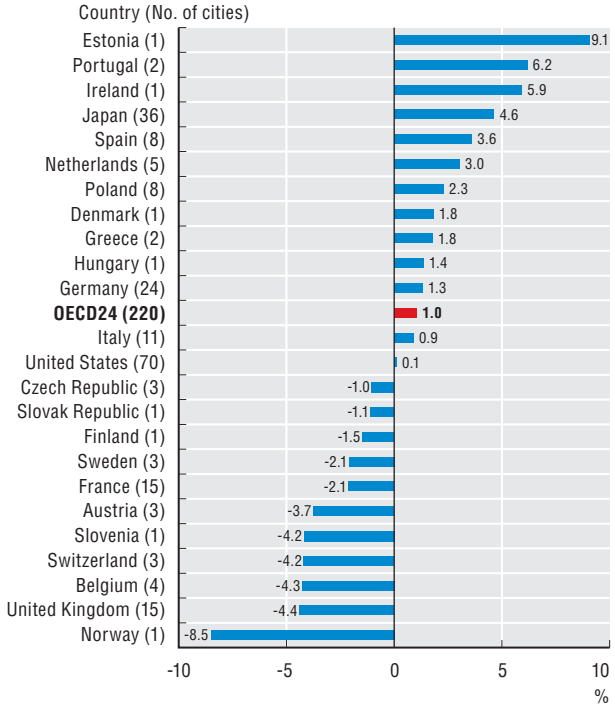
StatLink http://dx.doi.org/10.1787/888932912791

1.7. Population density and population size of metropolitan areas, 2012



StatLink http://dx.doi.org/10.1787/888932912810

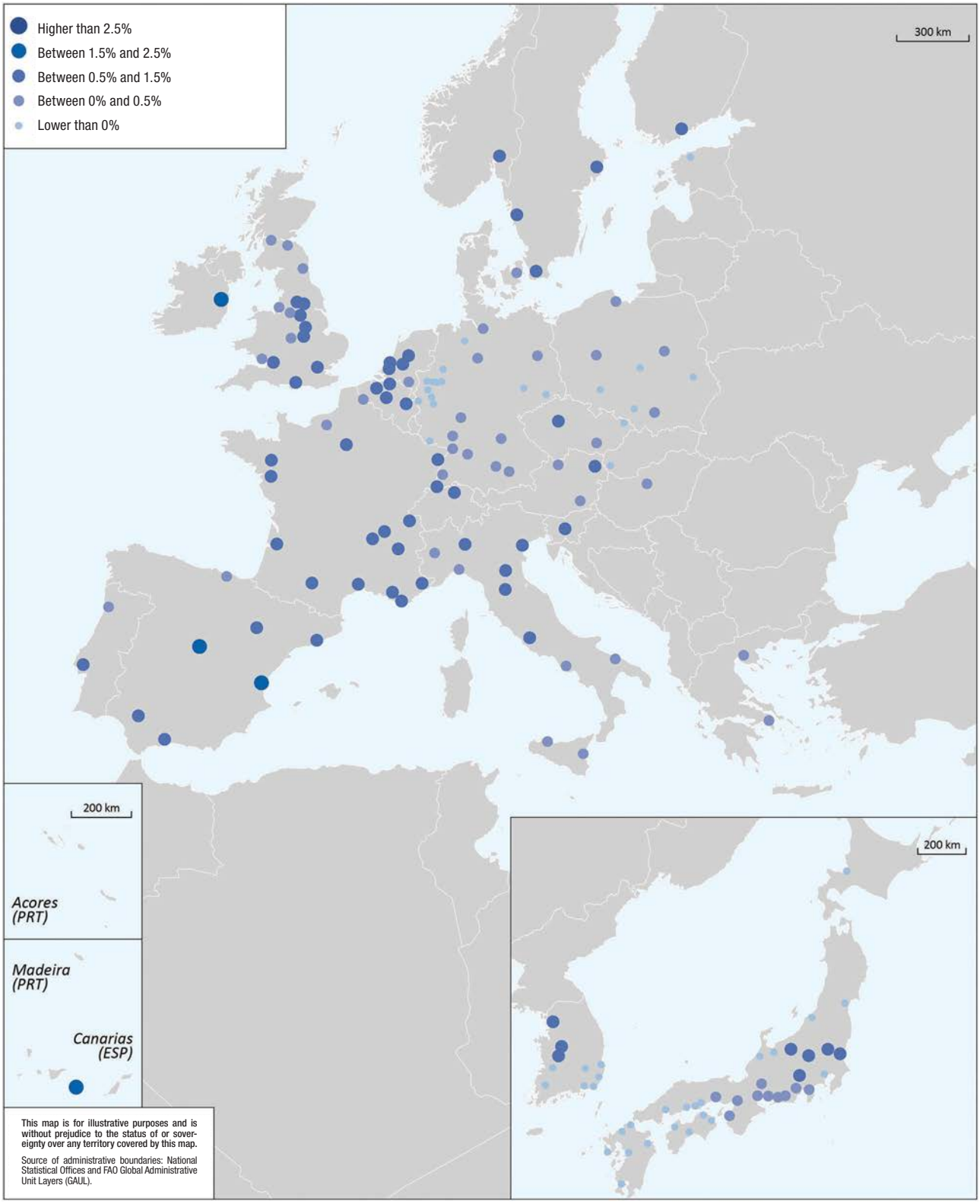
1.8. Urban sprawl index in OECD metropolitan areas, average by country, 2000-06



StatLink http://dx.doi.org/10.1787/888932912829

1.9. Metropolitan population growth: Asia, Europe and Oceania, 2000-12

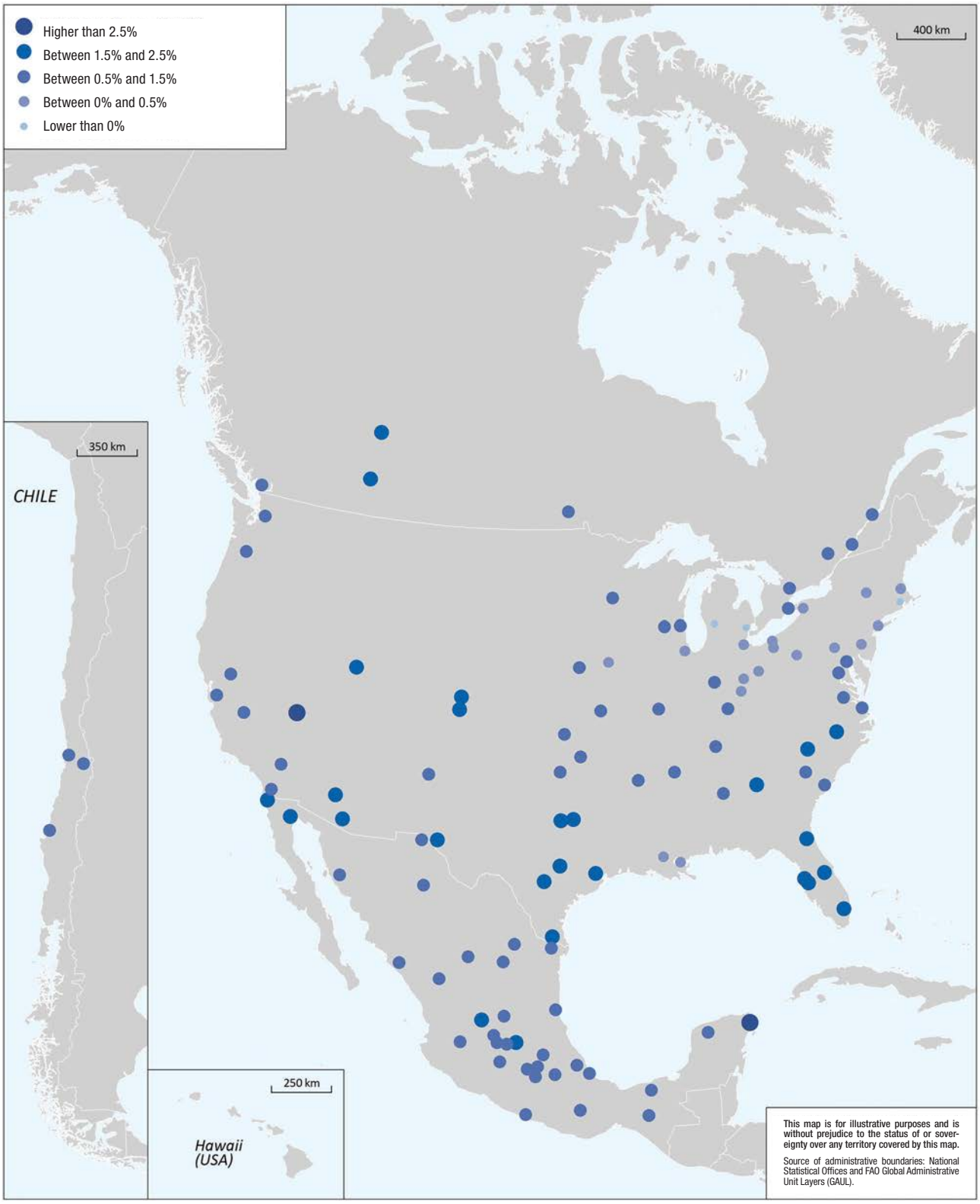
Average annual growth rate, metropolitan areas



StatLink http://dx.doi.org/10.1787/888932915337

1.10. Metropolitan population growth: Americas, 2000-12

Average annual growth rate, metropolitan areas



StatLink http://dx.doi.org/10.1787/888932915242