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How Regions Grow: Trends and Analysis

Executive Summary

Differences across regions within countries are often greater than differences between countries, yet economists, policy makers and international organisations have paid less attention to regional development than national growth. Marked variations in economic performance among OECD regions reflects the regions' great diversity in income levels, employment rates, mixes of high and low productivity activities, assets, comparative advantages, stages of development and public policies.

The current debate on regional policy and development focuses on whether policies should be pro-equity or pro-efficiency, insisting that a trade-off is inevitable. This report departs from this view, emphasising instead that opportunities for growth exist in all regions. It reframes the debate, arguing that national governments should promote growth in *all* regions. And regions should promote their own growth by mobilising local assets and resources so as to capitalise on their specific competitive advantages, rather than depending on national transfers and subsidies to help them grow.

Traditional policies based only on infrastructure provision or schooling are not sufficient for this task; instead a more comprehensive policy is called for, one that integrates these two policies in a co-ordinated agenda across levels government and that foster business development and innovation. This report also shows that innovation and other growth determinants have a very strong geographic – or spatial – dimension that ultimately explains why some regions grow and not others. These efforts are not in detriment of efficiency as comparative advantage and complementarities across regions will ensure that growth in one place produces benefits elsewhere.

This report describes the general trends in regional growth and analyses its key components. It offers:

- An examination of trends in regional GDP, GDP per capita and productivity for two levels of regions within OECD countries for the period 1995-2005.
- An analysis to measure patterns of convergence and divergence that *i*) compares all OECD regions with each other (international comparison) and *ii*) compares regions within individual OECD countries (intra-national comparison).

- A development of a regional typology based on average per capita GDP levels and growth rates.
- A breakdown of regional growth into six major components to find patterns among successful and unsuccessful OECD regions.
- Four econometric models to explore trends and regional drivers of growth.

What are the general trends in regional growth?

- **The economic performance of regions varies more than for countries.** GDP, GDP per capita and labour productivity vary more widely across OECD regions than across countries. The disparity in growth among OECD regions exceeded that among countries by almost three times between 1995 and 2005. These wide differences in economic performance highlight the great heterogeneity among OECD regions as a result of differences in their comparative advantages, stages of development and public policies.
- **Rural and urban regions vary significantly in their economic performance and growth is possible in all types of regions.** Although urban regions tend to be richer, well-performing regions – in terms of economic growth – can be found among urban, intermediate and rural regions alike. Indeed, a significant number of urban regions grew faster than rural regions, but also a significant number of rural regions outperformed urban regions. This means that there is no single path to attaining sustainable growth and suggests that there are opportunities for growth in all types of regions.
- **Regional inequality increased between 1995 and 2005 in about 70% of OECD countries.** Only Belgium, France, Germany, Italy, Japan, Mexico, Spain and Turkey reduced disparities among larger regions (known as TL2 regions) and only Austria, Germany, Italy, Japan, Mexico, Spain and Turkey did so among smaller regions (known as TL3 regions). A supplementary analysis over a longer time period (1980-1995) reveals that in approximately one-third of OECD countries regional inequalities declined, in one-third they increased, and in the remaining third there was no clear trend.
- **There is no conclusive evidence that the average GDP per capita of OECD regions began to converge during 1995-2005.** Two complementary analyses reveal no absolute convergence in GDP per capita among TL2 regions between 1995 and 2005. There was some convergence among TL3 regions.
- **Regional convergence during 1995-2005 is only conditional on factors associated with growth.** Convergence among TL2 regions occurs when the

analysis accounts for key determinants of regional growth such as innovation, infrastructure and human capital.

- **Convergence is associated with the level of development (*i.e.* GDP per capita).** Richer regions from the bottom quartile of the GDP per capita distribution are growing faster than their counterparts, while poorer regions from the top three quartiles of GDP per capita distribution are growing fastest within their group. Thus, there is some convergence within this subgroup. The analysis in this report cannot differentiate the effects that regional polices (or their absence) have on convergence.
- **Regions with a larger GDP have steadier growth rates than regions with a smaller GDP.** When measured by their GDP share in the OECD, only small regions display annual growth rates above 4% and below 1%. Medium and large regions rarely display negative annual average growth rates.

What are the main components of regional growth?

The components associated with fast-growing regions

- High national growth rates tend to be associated with high regional growth rates. The direction of causation can run either way: Just as national growth can influence regional performance, high regional growth may actually boost national performance. However, national factors are a necessary but not sufficient condition for regional growth.
- High regional growth is also associated with improvements in productivity (defined as average value-added per employed person) and/or with gains in the employment to population ratio (*i.e.* the proportion of the population employed). Therefore, there appears to be no trade-off between productivity and employment among fast-growing regions.
- Labour markets are also important for fast-growing regions, especially when labour supply and labour demand increase simultaneously. Thus we find higher regional growth when the employment rate, the participation rate and the activity rate improve simultaneously.
- High population growth also appears to be common among many of the top-performing regions.

The components associated with slow-growing regions

- Localised factors (productivity, employment rates, participation rates, activity rates and population) seem to play a larger role than national factors in determining the poor performance of regions. More precisely, the 20 slowest-growing regions experienced a contraction in activity rates and loss of efficiency (productivity) rather than a decline in national factors.

- Among the localised factors, regional performance is particularly vulnerable to declines in the employment-to-population ratio, either when it occurs alone or simultaneously with declines in labour productivity. Growth is lowest when both factors decline simultaneously.
- When both labour supply (*i.e.* participation rates) and labour demand (*i.e.* employment rates) decline simultaneously growth can be significantly undermined.

The relative importance of national *versus* regional factors

Regional factors are not always correlated with national and common factors: a significant number of regions are either *i*) improving their overall position in the OECD despite a weak national performance (20 regions); or *ii*) losing their overall share despite gains in national factors (42 regions). Therefore **although national factors influence regional growth, regional factors in most cases largely determine the regions' international performance.** Among the regions that either increased or reduced their relative GDP share, in approximately half of them (in both cases) regional factors were responsible for no less than 25% of the overall change.

Components of growth associated with rural and urban regions

This report categorises regions into four groups based on average per capita GDP levels and growth rates. This typology is used to assess the key components contributing to growth in rural and urban regions.

- In urban regions productivity seems to be the main regional factor associated with growth, while labour market areas remain an area of opportunity. In urban regions gains in productivity are positively associated with GDP per capita growth rates. Participation rates declined in all categories of the typology and activity rates also declined in all categories, except in regions with lower GDP per capita and lower growth in GDP per capita. The effects of employment rates varied.
- In rural regions productivity also seems to be the main regional factor of growth and outmigration was a common threat to all rural regions. In contrast to urban regions the best performing rural regions increased their labour force. In rural regions productivity is also positively associated with GDP per capita growth rates. Population and activity rates declined in all four categories, while participation rates increased in all categories, except in regions with lower GDP per capita and lower growth in GDP per capita than the OECD average. Employment rates declined in all categories, except in regions with lower GDP per capita and lower growth in GDP per capita.

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Which policies will help to promote regional growth?

Opportunities for growth exist in all regions and national governments should promote growth accordingly. Greater growth occurs when regions are able to mobilise their own local assets and resources, rather than depending on support from the national government. Regional policies can assist in this task and in this sense regional policies are not a zero sum game. Fostering growth, even in lagging regions, is in the interest of national governments as it contributes to national output without hindering growth opportunities elsewhere. Growth is often occurring even in lagging regions, while successful regions should also be nurtured.

This report's findings can provide policy makers with a better understanding of the key determinants of regional growth, the length of time needed for these factors to generate growth and the most successful combinations of factors. It argues that governments should:

- **Provide infrastructure as part of an integrated regional approach:** The analysis suggests that infrastructure alone has no impact on regional growth, unless regions are endowed with adequate levels of human capital and innovation. In other words, infrastructure is a necessary but insufficient condition for growth. The analysis also reveals that it requires on average approximately three years to positively influence growth.
- **Invest in human capital:** Regions with insufficient human capital will not grow, while those with increased levels will reap the benefits of endogenous elements of growth. The effects of investing in tertiary education on regional growth are also positive, after a period of approximately three years. Human capital also has a strong indirect impact on regional growth by increasing the rate of patenting. Thus, regional policies which promote infrastructural development will only be successful if human capital and innovation are also present.
- **Emphasise innovation and research and development:** Investments in R&D have a positive effect on patent activity in all categories considered, as do R&D expenditures by businesses, the public sector, higher education institutions and the private non-profit sector. However, innovation is a longer-term process and only appears to have a positive influence on regional growth after five years. Our results suggest that as capital and talent agglomerate they tend to positively influence growth in neighbouring regions. However, innovation remains a highly local element.
- **Focus on integrated regional policies:** Agglomeration economies are partly responsible for regional growth. Endogenous sources of growth such as human capital and innovation are more important than a region's physical

distance from markets. Although a region with good accessibility to markets has an added advantage for its growth prospects, these also depend on the presence of human capital, innovation, infrastructure and economies of agglomeration. Proximity among the diverse local actors in a regional innovation system may well be a key ingredient. The performance of neighbouring regions is strongly correlated with a region's performance, suggesting that inter-regional trade and inter-regional linkages play an important role in regional growth.

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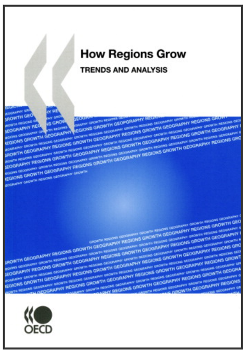

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