



OECD Urban Policy Reviews

POLAND



OECD Urban Policy Reviews Poland

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Foreword

Urban issues have emerged as key features on national policy agendas. The importance of cities and their corresponding metropolitan areas to the national economy makes them key players in the international marketplace. This in turn leads governments to renew their support to cities. At a time of increasing globalisation and international competition for investment, urban regions have become the target of a wide range of public interventions. Throughout OECD member countries these policies encompass plans to solve traditional urban problems – urban sprawl, abandoned districts, and poverty –and newer issues such as competitiveness strategy, city marketing, environmental sustainability, and innovation.

The series on national Urban Policy Reviews (UPR) responds to a demand from member countries voiced at meetings of the Territorial Development Policy Committee and aims to analyse the role of urban areas in regional development and national performance. National reviews are a leading feature of the OECD's mandate and examine macroeconomic, educational, industrial, tax, environmental and regional development policies, in addition to other areas of interest to the Organisation. The OECD National Urban Policies Reviews seek to provide a comparative synthesis of urban policies in OECD countries, focusing on the role of central governments.

An Urban Policy Review provides a comprehensive assessment of a country's urban policies as seen through multiple lenses, including economic, social and environmental. First, the reviews focus on the policies designed and introduced by the central government that directly address urban development and regional development policies with an urban development focus. Second, the reviews analyse how national spatial planning for urban regions along with specific sectoral policies may indirectly impact urban development. Indeed, often public policies are designed in such a way that they target sectoral objectives with little or no regard for their profound impact on urban areas. Third, the reviews address issues of governance, including inter-governmental fiscal relationships and the various institutional, fiscal and policy tools aimed at fostering co-ordination on urban development among different layers of government and among different administrations at the central level. For instance, ineffectiveness in public service delivery and other policy areas have in part been related to fragmented urban government structures. From country to country the OECD National Urban Policy Reviews follow a consistent methodology that will feature cross-national comparisons and recommendations on the integration of sectoral policies into urban development policy and planning.

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Assessment and Recommendations

Poland is the most dynamic country in Europe...

Since acceding to the European Union in 2004, Poland has become its fastest growing economy. Thanks to seven straight years of rapid economic growth, Poland has been catching up with income levels elsewhere in Europe. Since EU accession, the country's per capita GDP has gone from 44 to 48% of EU average. Between 2006 and 2007, Poland grew at rates exceeding 6% and outshining most BRIICS countries. In 2009, in the midst of the recent economic crisis, Poland was the best economic performer in the OECD. Poland's economic expansion will continue to be supported by interest rates. However, tight credit conditions remain an obstacle. EU-funded investments have been key in fuelling investment and growth. It is crucial that Poland seizes this opportunity to invest in its long-term growth potential.

... thanks to its urban areas.

Eighty per cent of Poland's economic expansion between 2002 and 2007 took place in its urban labour market areas (ULMAs). Just a handful of urban centres are home to more than half of all firms, three-quarters of profits and two-thirds of employment. FDI and exports are also concentrated in urban areas. Economic growth in urban areas is in part spurred by agglomeration economies, and so as city size increases so does per-capita GDP. As a result, larger urban areas are significantly richer than rural ones. Such agglomeration economies help concentrate firms and workers, skills and knowledge and render urban areas more productive and dynamic. In Poland, human capital is particularly concentrated in large urban centres. In fact, only municipalities with over 200 000 people show educational attainment levels that are similar to the national average. This is particularly important as evidence shows that city size matters only when human capital agglomerates. However, smaller urban areas can also thrive thanks to specialisation.

The polycentric nature of Poland's urban system is a strength but poses challenges as well.

Poland has a long established urban network which has evolved towards a polycentric form. The distribution of population has shifted from rural areas and small towns to bigger cities, with no single urban agglomeration dominating national economic performance in Poland unlike, say, in Denmark where the Copenhagen metropolitan region generates almost half of Danish GDP, or in Norway, where Oslo generates over half of Norwegian GDP. In 1950, 8.8% of total urban population lived in towns of up to 10 000 people; by 2008 this

figure had declined to 5.9%. Conversely, population living in cities of over 200 000 people went from 9.7% in 1950 to almost 21% in 2008. The centre of gravity for population has shifted up the hierarchy so that now more people live in larger cities of the urban network. Having a polycentric system allows Poland to have a number of cities specialising in different activities that can complement each other. It also allows for better economic performance nationally as connecting lagging cities to high-performing ones will deliver greater growth benefits than if economic performance were concentrated in a single city. Each city also serves as a node for regional development as opposed to a single centre with few if any linkages to its rural periphery and its more distant hinterland. However, the existing state of Poland's inter-city connectivity presents challenges in ensuring that the efficiency and effectiveness of the transport infrastructure that connects the system regionally, nationally and to the rest of the world are optimised.

Polish urban areas are also where most social and economic challenges become visible.

Urban areas are also the places where most social challenges play out. Inequality is greater within ULMAs than across regions. Disparities within ULMAs are wider than any other expression of inequality in Poland (rural-urban, Warsaw-rest of the country, and east-west). Poverty is a common feature of small and medium-sized cities but the poor in larger urban centres experience it more severely. Cities are poorly inter-connected and certain neighbourhoods are often poorly connected to their wider urban community. Urban areas also face the problem of regeneration. More than half of all degraded areas are in old city centres. Demographic changes, more specifically a rapidly ageing population, are affecting demand based on dwelling size and are thus contributing to a large and growing housing deficit. Ageing will also soon affect labour market size and productivity, thus potentially reducing economic growth. Transport infrastructure has been limiting urban areas' performance through poor connectivity at the urban system level and by poor integration of neighbourhoods within urban areas.

Inequality is often greater within ULMAs...

If the EU and Poland have placed an emphasis on reducing disparities, it is because these disparities are noticeably pronounced in Poland. Indeed, disparities are most pronounced within ULMAs, which should be of particular concern. If wider regions such as ULMAs are taken into account, inequality within them is greater than the gap between counties in Poland. The largest disparities can in fact be found in the largest ULMAs, but smaller urban centres also present significant inequalities. In some of the large ULMAs – Warsaw, Katowice, Gdansk, Krakow, Lodz and Bydgoszcz, for instance – inequality is larger than the average found for OECD metro-regions. However, inequality is not only due to city size, but also to other factors such as demographic change which is reducing the size of the local labour market, making it less attractive for firms to locate in these urban areas.

... and poverty is most severe in urban areas.

Poverty and more specifically its severity increases with an urban region's size, yet as city size increases, poverty rates as a proportion of the population of the region decrease.

Over 5% of rural population live under the poverty line, but this proportion is halved for urban municipalities with up to 20 000 people and is slashed again for cities with populations over 500 000 people. Yet, the poor in urban areas are poorer than those in rural areas. Median income in rural areas and small urban centres stands at 20 to 23% of the poverty line, but the difference doubles for urban municipalities with populations between 100 000 and 200 000 and goes up to 50% of the poverty line for municipalities with more than 500 000 people.

Urban areas are being shaped by demographic changes leading to suburbanisation and sprawl.

Ageing and outmigration from many urban centres throughout Poland could be exacerbating inequality. Population growth in Poland is mainly taking place in suburban areas within ULMAs. Population data based on administrative units indicate that urban areas are losing population. However, looking at cities as functional areas (ULMAs) reveals that Poland is largely going through a suburbanisation process characterised by urban sprawl. In almost all cases population growth is stronger in areas immediately surrounding an urban core. Beyond the suburbs the rate wanes as distance from the core increases. The analysis of internal migration in Poland confirms that it is a highly localised phenomenon fuelling suburbanisation and sprawl. The strongest positive migration balances are mostly found either in or around ULMAs' cores. Large-sized ULMAs (between 1.5 and 3 million people) seem to be the only category that experienced population expansion between 1998 and 2008. However, in terms of economic performance, the most growth-limiting factor for small and medium-sized cities seems to be the extent to which they are losing population. Policies to increase housing supply and thereby facilitate rural to urban migration in addition to active local competitiveness policies can help address local attractiveness in medium-sized cities.

A rapidly ageing population will increasingly constrain the labour market and could compromise further growth.

In the past 60 years, Poland has experienced an ageing process that is similar to more aged societies as in the Netherlands or Denmark, and by 2050 Poland will be among the top OECD countries in terms of aged population. Plummeting fertility rates in Poland will lead to a doubling in elderly dependency rates by 2050. Today, for every inactive elderly person in Poland, there are three active workers in the market contributing to the social system of pensions, but in the next decade that proportion will be reduced to two, and by 2050 there will only be slightly over one active worker supporting each inactive elderly. In Poland, under-developed services in rural areas might be leading to a preference for urban areas where the elderly can get health and transport services better suited to their needs. As a result, a number of urban areas have experienced mild to high rates of aged population growth, most notably Warsaw, Lodz and Katowice. Ageing population trends in large urban areas could be largely the result of attractiveness, while smaller urban areas could be experiencing the same phenomenon due to outmigration. While large urban areas might be attractive for the elderly for the services they offer, smaller urban areas facing infrastructure and employment challenges could be losing the younger population thereby

increasing dependency rates. Competitiveness prospects for smaller and medium-sized cities could be compromised in the future by depopulation – particularly of the working aged – as well as insufficient investments in infrastructure upgrades and expansion to retain endogenous human capital while enhancing service delivery to the elderly, while larger urban areas will have to adapt services and infrastructure for an increasing aged population.

National growth potential could also be compromised by insufficient attention to the specific infrastructure and human capital needs of Poland's small and medium-size urban areas.

Economic performance of Polish medium-sized cities might be also limited by structural factors and demographic change that are particular to them. Among all OECD predominantly urban (PU) areas, medium-sized cities are growing faster than other types. Poland's ULMA, however, perform differently when it comes to medium-sized cities. A slower performance by medium-sized ULMAs in Poland than the same type in the OECD could signal a potential problem. Polish medium-sized cities might not be fully realising their own potential. Growth determinants such as physical capital – including infrastructure – human capital and innovation might be behind performance differentials. Poland's urban system could contribute even more than it already does to national economic performance and competitiveness if infrastructure investments were made according to the ULMAs' size. The most limiting factor seems to be the extent to which small and medium ULMAs are losing population.

Poland's development has been hindered by the state of its transport infrastructure...

One of the most limiting factors for Poland's development is its poorly developed transport infrastructure that fails to connect the nation's urban system and integrate neighbourhoods within urban agglomerations. Poland's transport infrastructure is in need of much investment to connect the nation's urban system. Inter-urban connections in Poland are also hampered by the lack of rail links between cities. Large urban areas need faster and more reliable roads that can connect them and link them to European markets. Urban areas playing a regional development role need to be connected to larger urban areas and their wider – rural – regions. Large urban areas need to establish proper ULMA-wide transport infrastructure that provides service to under-privileged neighbourhoods. Cities and their regions are linked by road commuting and travel patterns that characterise urban sprawl and congestion. However, as Poland still lags behind other EU countries in terms of motorways, many of the commuters reside beyond the existing routes of public transport resulting in a more chaotic urban sprawl often unconnected to major transport infrastructure. Not only do the limited supply and poorly-planned placement of road infrastructure impose obstacles to development, but so does the quality of the network itself. According to the World Economic Forum's Global Competitiveness Report, Poland's quality of road infrastructure is not only last in the OECD behind Chile, Mexico, Turkey, the Czech Republic, Hungary and the Slovak Republic, but is also inferior to non-OECD

countries such as Brazil, Argentina, China or Russia. A road quality index shows that scores in Mexican roads are twice as good as in Poland and those for Chile are three times as good. Public transportation within Polish cities is widely used. In 1999 the percentage of urban population using public transport was 76.7 and by 2007 this figure increased to 76.9. The vast majority of urban Poles use public transport on a regular basis. Yet large urban areas need to establish proper ULMA-wide transport infrastructure that provides service to under-privileged neighbourhoods. Indeed despite high use of public transport, motorisation is growing fast; the implications for congestion, infrastructure development and environment are not hard to identify. And the shift to private transport was especially marked in medium-sized cities. Moreover, road improvements lag behind car ownership rates. The existing road network carries more vehicular traffic as car ownership and car use increase. In large cities there are 500 vehicles for every 1 000 residents. As a result, road traffic also increased by 18% between 2000 and 2005. While this significant rise is bound to tail off as ownership rates reach saturation levels, the disparity between increased car use and road infrastructure will remain a problem, along with the impact of the declining quality in public transport systems which also contributes to the increase in the use of the private automobile.

... and by a sizeable housing deficit that has a number of implications.

Despite significant progress in this area, Poland still has the second lowest amount of housing stock per capita in the OECD. As a result, the housing deficit in Poland has been estimated in the range of 1.5 to 1.8 million dwellings and has not been reduced despite increasing supply. At the heart of the housing deficit issue lies Polish demography, as mentioned above. As half of the housing stock was built before 1970, there is a strong need to develop and renovate it. However, supply falls short on refurbishing and modernisation of housing due to scarce financial resources. Construction activity, while never vigorous, has experienced a recent slowdown. Land availability is also an issue. Large areas of the urban land market are abandoned, polluted or made up of assets whose right of ownership remains unclear. A well-functioning housing market needs an efficient land market, which is currently lacking in Poland. There is also a housing deficit in terms of liveable and affordable homes. Lack of affordability is exacerbated in the more prosperous cities where limited supply and pent-up demand are leading to rapidly increasing house prices. The diverse dimensions of the housing deficit have led to a pronounced lack of labour mobility – as people may find it difficult or costly to move to cities because of lack of housing opportunities and unwillingness to give up their existing housing. As a result, Poland is one of the OECD countries with the lowest levels of residential mobility. Another element that prevents labour mobility and that increases the cost of housing and its supply is the tenure structure of the country dominated by ownership: Poland's very small rental market could be further developed.

What is needed is a national urban strategy that integrates sectoral policies affecting urban development and identifies measurable objectives tailored to address challenges faced by different types of cities.

A national urban strategy is needed to set measurable objectives for urban development across Poland and to improve the coherence between national policies with urban implications. Currently, many policy documents address urban development, including the National Strategy for Regional Development, which provides a vision and policy tools for regional development, the Mid-Term National Development Strategy, which defines national development policy, the National Strategic Reference Framework 2007-2013 in support of growth and jobs, and the National Cohesion Strategy which guides EU structural fund spending. However, there does not yet exist one key document to drive a strategy for urban areas. An integrated, cross-sectoral strategy would help the national government identify policies that undermine urban policy objectives and complementary policy packages that, when implemented together, would enhance the effectiveness of each individual policy. National urban development objectives should be quantifiable to allow the national government to identify cities that are lagging behind, but flexible enough to be reached using a variety of policy tools, thereby stimulating policy innovation. These objectives would be best tailored to the challenges facing cities of different size and in different geographical regions. At the same time, a common objective for improving transportation connections among Polish cities is needed to foster network economies.

Policies to reduce cities' environmental impact further should be integrated into national urban growth priorities.

Polish cities have made great strides in overcoming the country's legacy of air, water and soil pollution. However, municipalities need national policy reform to meet environmental goals related to waste disposal, wastewater treatment, air pollution, and energy efficiency in a way that provides opportunities for growth. National policy reform granting municipalities ownership over municipal waste, recently adopted by the Council of Ministers and pending approval, will help remove the main barrier to private-sector investment in recycling and waste-to-energy projects, thereby reducing the share of waste going to greenhouse gas emissions-intensive landfills while creating new job opportunities. Fully connecting urban populations to wastewater treatment should also be considered a top urban growth priority. National energy efficiency standards for new and renovated buildings would reduce fuel costs and greenhouse gas emissions while providing opportunities for growth in the environmental technologies and services sectors. National technical and funding assistance would put municipalities and regions in a better position to assist local firms in reaching air pollution and energy-efficiency goals through incentives and "one-stop shop" business support agencies. Finally, national innovation policy could help bring coherence to local efforts to attract green technology firms by helping to identify regional strengths that could foster eco-innovation clusters.

A national-level response is needed to meet the demand for affordable, decent-quality housing.

Poland is facing an important housing shortage, which the private sector has so far been unable to meet for moderate and lower incomes. While municipalities are responsible for ensuring housing, they lack the funding and regulatory tools to attract affordable housing development. National-level intervention is needed to assist municipal governments in increasing the supply of quality affordable housing. A top priority should be setting national-level affordable housing targets for municipalities across Poland. These targets could be binding, or instead supported by incentives such as development funds. They should be accompanied by monitoring to allow the national government to identify cities that are lagging behind in their affordable housing commitments. Monitoring would be facilitated by national requirements for each municipality to include an affordable housing plan as part of their municipal development strategy. Reform of the current social rental housing (TBS) system is needed for the programme to adequately meet low and medium-income demand for below-market rental housing. In addition to affordable housing targets and policy reforms, greater national funding and technical assistance will be crucial to enabling social housing associations to help meet affordable housing demand. Finally, national regulatory reform may also be needed to allow municipalities to impose conditions on developers to support affordable housing goals.

National policy can contribute to reduce barriers to urban revitalisation.

Rehabilitation of historic urban districts, former industrial land and Communist-era large housing estates would contribute greatly to urban revitalisation, but Polish municipalities need better policy and funding tools. Municipal-level revitalisation projects lack sufficient authority over urban land redevelopment and are poorly integrated with other local spatial and sectoral plans, resulting in higher development costs compared to undeveloped suburban parcels. Municipalities are also often impeded by their lack of influence over how unused urban land is subdivided and sold and by a lack of incentives for private-sector involvement. National responses to reduce these barriers could include: i) tax incentives for urban land redevelopment and building rehabilitation, including “split-rate property tax” reform that increases the tax burden on vacant urban parcels, as well as disincentives for greenfield development; ii) property law reform to grant municipalities greater control over under-developed or vacant urban land to facilitate their purchase and consolidation by the public and private sectors; iii) guidelines and sharing of best practices to reduce the fragmented approach to revitalisation currently employed by most cities; and iv) incentive programmes that provide tax incentives and financial aid to municipal and regional governments for the cleanup and redevelopment of polluted industrial sites.

Looking ahead: a new generation of governance reforms is needed...

The implementation of an integrated, adapted, and multi-sectoral urban policy agenda, fully embedded within Poland’s broader approach to development policy, will require a new generation of governance reforms. Significant improvements have been made in the

institutional arrangements affecting urban and regional development, including a large decentralisation process, the creation of new layers of regional governments and a new balance of power between the central government and regionally elected governments. Good governance and planning conditions attached to EU project funds since Poland's accession to the European Union in 2004 have accelerated the Polish learning process providing models regarded as "good practices" within the EU. Inter-governmental relations have also been enhanced with inter-municipal collaboration of varying degrees and greater flexibility in terms of allocation of responsibilities across national ministries. However these assets have not yet been integrated into general public-sector practice. Poland is thus facing a planning paradox: elaborate strategies, plans and visions for spatial development on paper with limited, if any, impact on the ground.

Further reforms are needed to decouple the current practices, largely driven by EU funding, and to move towards the implementation of a longer term strategic vision for regional and urban development, which is currently only reflected on paper in the various policy documents. Those reforms should aim to i) enhance inter-municipal planning and service delivery within single urban functional areas; ii) ensure integrated urban planning across planning sectors; and iii) strengthen inter-ministerial co-operation, co-ordination and coherence within the central government administration. There is a rationale as well to iv) review the role of intermediate levels of governments to optimise urban policy outcomes and v) adapt the current local finance system with regard to the important infrastructure development needs that urban areas are facing, increased urban sprawl and the inequities in public services delivery both within urban functional areas and between urban regions nationally.

... that strengthens inter-municipal co-ordination...

Effective co-ordination mechanisms to ensure efficient planning and service delivery are particularly required in urban areas where city administration boundaries typically do not match functional areas. A number of pieces of legislation addressing inter-municipal co-operation have been introduced in Poland allowing municipalities to set up, on a voluntary basis, syndicates, joint agreements or associations. Today around 60% of municipalities are engaged in some kind of inter-municipal collaboration with some successful experiments in Lublin (education and day care), in Warsaw and Poznan (water and sewage) and especially in Upper Silesia in the Katowice region where an association was created between 14 municipalities that jointly co-ordinate planning, infrastructure projects and transit. There are however some limits to these successful cases as there is a lack of legal and financial platform to engage municipalities in many other burning issues such as economic development, housing or land use issues or for urban planning more generally. A main obstacle for a wider diffusion of those good practices is the lack of incentives, as typically municipalities are reluctant to collaborate. The central government has a key role to play in encouraging inter-municipal collaboration through appropriate legislation and financial incentives, just as France did with the urban and agglomeration communities whose member municipalities can benefit from an additional grant to their existing block grants entitlements, or in Canada where much of the federal infrastructure programming requires that contiguous municipalities or municipalities close together in a functional region apply jointly for major project funding. In Poland, the central government can

design an incentives programme to stimulate the establishment of voluntary associations like an upgraded Silesian model that would include a system of assessment and scoring on innovative and good practices, covering not only infrastructure programming but strategic policy planning as well as all other policy areas (economic, environment, housing, land use).

... and promotes an integrated approach to urban planning across policy sectors.

Stronger national spatial planning regulations are needed for municipal spatial planning and development decisions to achieve cross-sectoral, larger-scale objectives. National spatial planning standards for municipalities do exist in the current legislation, but they do not require that municipal spatial plans be integrated with other municipal sectoral plans, particularly economic development plans. A small share of urban land is covered by Municipal Physical Development Plans, resulting in development decisions made without considering municipal spatial development studies. In the same vein, there does exist some consultation process for planning between adjacent local municipalities or between municipalities and regional self government, but there is no hierarchy between the plans. As in many OECD countries, standards for municipalities could include common criteria for legally binding municipal strategic plans that integrate spatial, economic development, and other sectoral objectives. An important component of these legally binding plans should be criteria by which municipalities would be required to assess and justify development decisions. National-level criteria are also needed to clearly designate the types of municipal spatial decisions that would warrant regional approval due to their expected impact on regional development objectives. One solution would be to require applications for national and regional urban development and infrastructure funds to demonstrate that municipal spatial plans align with regional development goals and the plans of other municipalities in the same functional urban area. Another solution would be national regulations to support the creation of metropolitan agencies with spatial planning authority.

A number of mechanisms can help the central government improve co-ordination and thus enhance policy effectiveness...

Fostering inter-ministerial co-operation at the central level is key for the implementation of a national multi-sectoral urban policy agenda. Currently, responsibility for policies that affect urban areas is scattered throughout the central government with separate ministries administering key components of what ought to be an integrated urban policy. For instance housing, urban policy and municipal infrastructure are the responsibility of the Ministry of Infrastructure, which needs to co-ordinate with the Ministry of Internal Affairs and Administration, responsible for the self-government regions (*voivodship*) mandates and programming. Housing, urban policy and municipal infrastructure are essential elements of urban planning that simultaneously need to be co-ordinated with the regional planning and programming responsibilities of the Ministry of Regional Development. The situation can get even more complicated if environment, economy, higher education and science, or rail and road transport and communications/ITC are taken into account, as these fall under

the responsibility of distinct ministries. This makes horizontal co-ordination on urban issues within the central government challenging, yet of crucial importance to achieve urban development outcomes effectively and efficiently. While this atomisation of responsibilities is common to many OECD countries, the situation in Poland is exacerbated by the current state of inter-ministerial relations, which is characterised by insufficient linkages. Enhancing policy coherence and co-ordination of planning and programming delivery for urban development within the central government can take one or more of the following forms:

- **Mandating the Prime Minister's Office** to ensure that as a condition for a government initiative affecting Poland's urban areas being considered at Cabinet for decision, all relevant ministerial responsibility centres across the central government have been consulted, *e.g.* Ireland, Denmark, or the Office of the Deputy Prime Minister (ODPM) experience in the UK (2002-06).
- **Establish a National Council for Urban Policy** to advise the Prime Minister and key ministers on such inter-dependent urban development challenges (*e.g.* the Prime Minister's External Advisory Committee on Cities and Communities in Canada in 2003-05).
- **A standing Cabinet Committee of Ministers on Urban Development.** Membership on this committee could be made up of ministers from the key central ministries whose mandates materially affect urban development (*e.g.* the inter-ministerial steering committee on large cities in the Netherlands). In Poland, such a standing committee could be supported by the existing Co-ordinating Committee for Development Policy made of senior public servants from key relevant ministries. The Committee of Ministers could be granted statutory powers in existing or planned legislation on urban development to make policy decisions and determine implementation priorities.
- **Enshrine in legislation a lead minister for urban affairs** (*e.g.* the Netherlands over 1998-2004, Canada in the 1970s, Minister for Cities in France). In practical terms, this would be efficient if it were combined with the "urban proofing" idea – the guarantee that this minister would have to be consulted widely across the national government prior to bringing an urban development initiative to Cabinet for decision.

Any decisions on enhanced co-ordination measures should flow from extensive consultations, both between relevant responsibility centres in the government, especially between the Ministry of Regional Development and the Ministry for Housing, Infrastructure and Land-use Planning, and between the central government, the *voivodships* and representatives of local authorities across urban Poland.

... and regional governments should be strengthened to foster local co-ordination...

Strengthening the role of regions in their co-ordinating function could help foster an integrated multi-sectoral urban development approach, facilitate inter-municipal co-operation in urban functional areas and play the role of interface between regional and national policy visions through enhanced vertical strategic planning and service delivery co-ordination. Due to the supervisory role that the planning law assigns to the national government, the regions currently have hardly any authority to intervene in substantive policies affecting urban areas within their jurisdiction except on a closed list of topics, such as major regional infrastructure and specific environmental issues. As done in a number of

OECD countries that have been willing to strengthen regional development policies, the central government of Poland could broaden the existing mandate given to the regions by enshrining in the national legislation on regional development a mandate for the regions to co-ordinate all spatial development plans (local, regional, national and supra-national) on their territory. This legislation could also link the allocation of EU and national funding to the implementation of a common integrated inter-municipal strategy based on a bonusing system for “good co-ordination behaviour”. The existing regional contract between the central and regional governments in Poland (the Voivodship Contract) can provide the basis for achieving such enhanced co-ordination and coherence. Whilst at present these contractual arrangements between the regions and the central government mainly serve as the implementation tool of EU Structural Funds, their use for co-ordinating the co-financing of state funding for regional and urban development could be enhanced and enlarged to cover the broad range of spatial policy and planning issues mentioned above, beyond large infrastructure projects.

... and local finance constraints need to be addressed to respond to infrastructure, competitiveness, equity and environmental challenges alike.

The current local finance system in Poland needs to be adapted to better respond to large infrastructure needs in urban areas, whilst fostering competitiveness, equity and environmental objectives. Reforms are needed with respect to the property tax, in order to solve current infrastructure gaps and to provide cities with more buoyant funding sources. The current design of the property tax in Poland, based on surface and not on property values, limits the amount of revenues that can be collected: property tax revenues represented 1.3% of GDP in Poland in 2005 *vis-à-vis* 2.1% for EU15 countries. In addition to that, the property tax is unfriendly to firms with rates considerably higher for businesses than for residents and 12 payments per year, which constrains the ease of doing business. A reform is needed to base the property tax on property value (*ad valorem* property tax) as is the case in most OECD countries, considering that some steps concerning enforcement of such property tax have been already undertaken in Poland. Although necessary conditions for such a tax (cadastre and property registers) are already in place, registers will need to be completed and updated, and regulations on estimation of property values will have to be clarified. In addition to such a reform, access to a wider set of revenues would be needed, such as impact fees and development charges. Growing use of PPPs and funding from capital markets could be stimulated. Reform of the general grant system is also warranted, so that costs of urban service delivery are better taken into account. The current system does not compensate cities for higher unit costs of service delivery connected to higher wages and land prices, nor does it recognise the concentration of certain expenditures in cities, such as social welfare. Moreover, it does not compensate cities for the services they provide to suburban areas, *e.g.* schools and kindergartens. An important part of the general grant – the education grant – favours rural municipalities to the detriment of the urban ones. Cities could be compensated for the “free riding” of suburban municipalities via the introduction of a metropolitan fiscal equalisation scheme or by incorporation of the “centre function” of main cities in the allocation criteria of the general grant.

Chapter 1

Urban System and Challenges in Poland

This chapter examines the trends in urbanisation, shows the reader what the urban system looks like and raises the issues and main challenges of urban areas in Poland. The chapter considers different definitions of urban areas and explores those applied in Poland. It also proposes and applies a methodology to identify urban areas based on their functionality and not based on administrative boundaries. The methodology identifies groups of urban functional areas (ULMAs) in Poland based on a series of indicators as well as on population size. The chapter also shows economic performance trends among ULMAs and discusses determinants of economic growth. Four main challenges are identified for urban areas in Poland: ageing and a shrinking labour force, inequality, transport infrastructure backlogs and the housing deficit. The chapter ends with a discussion on environmental pressures and the impact urbanisation has had.

Introduction

Seven straight years of rapid economic expansion have propelled Poland towards per capita income levels of more advanced OECD countries. Its economic performance in 2006 and 2007 was second in the OECD, and growth rates exceeded 6%. Excluding China and Russia, Poland has been growing faster than the BRIICS countries.¹ Since Poland joined the European Union in 2004, GDP per capita has progressed from 44% to 48% of the pre-04 enlargement EU average. Furthermore, after nearly a decade of relative stagnation, employment has finally begun to contribute markedly to gains in living standards, rising by some 3% per year (OECD, 2008a). Even during the recent economic crisis, Poland was the best economic performer in the OECD (in 2009). The concern that Poland would experience a decline similar to other Eastern European countries – through contagion effects – also proved unfounded. Fears of massive capital outflows fuelled a significant, yet orderly, exchange-rate depreciation that has even been partly reversed (OECD, 2010a). Growth is expected to pick up steadily in the near term. However, such growth will be mainly fostered by short and medium-term conditions. Interest rates are still supportive of further investment, and tighter credit conditions remain an obstacle to further growth. The preparations for the 2012 European Football Championship present an opportunity to boost transport infrastructure and carry out urban regeneration projects that can support growth in the coming years. EU-funded investments are a key factor in fuelling investments and growth; however, Poland must seize this window of opportunity, and the funds now flowing into the country, to make investments that address its most pressing needs and support long-term growth.

Urban areas are the key to stimulating further national growth, but they must be managed and planned effectively to realise their full potential. Poland's cities hold most of the nation's population and account for the lion's share of economic activity. According to the OECD definition of urban labour market areas (ULMAs) Poland's urban population amounts to more than 70% (around 28 million people) of total population in the country and concentrates nearly 80% of national GDP. This had an analogous contribution to national economic growth: 80% of Poland's economic expansion between 2002 and 2007 occurred in ULMAs. Urban areas therefore emerge as a key driver of economic growth. A handful of urban centres in Poland concentrate more than half of firms, almost three-quarters of their profits and two-thirds of total employment. Polish exports and foreign direct investment (FDI) are also concentrated in a few cities. At the same time, a number of development issues have arisen as Poland has progressively urbanised. Cities are also the places where most social problems in Poland become visible. Inequality in general is greater within urban areas than across regions in Poland and exceeds the average for OECD metro-regions. Poverty is a common feature of small and medium cities in Poland, while the urban poor in larger cities are the farthest away from the poverty line (poverty depth). Despite recent progress, unemployment rates remain high, particularly in cities facing industrial decline and in other medium-sized cities. The educational gap is also large

across urban areas in Poland; talent (population with higher education) concentrates in medium and large cities, while smaller urban communities remain at levels comparable to those in rural areas. Cities are poorly inter-connected and certain neighbourhoods within urban areas are often poorly serviced. Urban areas also face the challenge of regeneration. More than half of all degraded areas are old city centres, while post-industrial areas account for one-fifth (Instituto Universitario de Urbanística, 2010). Demographic changes – ageing in particular – have been increasing the size of dwellings and the already large housing deficit. Substantial environmental risks are also an issue in cities, which concentrate around two-thirds of greenhouse gas (GHG) emissions and particulate matter.

Demographic changes in Poland will affect its cities and could compromise economic growth. Poland has experienced a fall in fertility rates. This profound demographic change has involved a decline in natural population growth, exacerbated by migration and the ageing of the urban population. Urban areas in particular are affected, due to the strain on infrastructure and housing. The extent to which the elderly population can migrate from rural to urban areas is constrained by the level of public service provision, especially in health care housing services. Migration has emerged as a key factor: the population of smaller towns has been moving to larger urban centres and many people have simply left the country. Rural municipalities with low population numbers (*gminas*, the smallest territorial unit in Poland) have even been experiencing negative growth rates. If urban municipalities as officially defined are taken into account, urban municipalities have been losing population since 1996 (Ministry of Regional Development, 2010a). This was due to both dented natural increase (except in 2008, when the trend reversed) and to migration. However, if the larger functional areas surrounding official urban municipalities are taken into account (i.e. ULMAs), a slightly different picture emerges. The population of smaller and medium-sized ULMAs has contracted in the last ten years. Large urban centres are not exempt from these demographic challenges. They are magnets for migrants, but in some cases tend to age at a faster rate. Migration and ageing could have profound implications for urban areas. Infrastructure, housing and the delivery of public services may suffer from migration patterns and the evolving needs of an ageing population. In smaller urban areas, housing market values may fall and infrastructure remain unoccupied. At the same time, large urban areas could experience increased congestion costs due to insufficient infrastructure, strain on public services and inflated housing prices, given the excessive demand and inflexible provision.

Future growth in urban areas can also be compromised by the level of infrastructure and by inequality. Degraded and inadequate infrastructure results in lack of connectivity in the urban system, and poorly connected neighbourhoods within urban areas. Transport costs and times are increased, discouraging investment; and a spatial mismatch between work and housing hampers employment and increases commuting times. Inequality also reduces efficiency, resulting in smaller domestic and local markets and reducing education opportunities and earning potential. Poverty can be most acute in urban centres, even though employment opportunities exist. Poland is one of the most unequal countries in the OECD in terms of per capita GDP (using the Gini index).² Its median income ranks at the bottom of the OECD tables, just ahead of Mexico and Turkey, and the average income of its poorest inhabitants (those in the bottom decile) also ranks third lowest among OECD member states. While poverty is particularly high in rural areas, small and medium-sized cities are also affected. In terms of intensity of poverty (how close they are to the poverty line), urban areas are the worst-performing Polish regions. Disparities within urban areas

are wider than any other expression of inequality in Poland (between rural and urban areas, Warsaw and the rest of the country, and between east and west). It is in urban areas that inequality can most significantly limit Poland's growth.

1.1. Urbanisation trends

Defining urban areas: from administrative to functional areas

Defining and delineating urban areas has been a difficult task, and there is no commonly agreed-upon approach (OECD, 2010b). Each country determines in its own way which areas are considered urban; the designation can refer to cities, towns, villages, conurbations or localities. A number of approaches rely on different criteria. An economic approach would be based on administrative units and would define urban areas using a threshold for the proportion of the labour force in agriculture (economically active population rates) (United Nations, 1974). A geographic approach would consider that density is the main indicator of urbanity.

Without comparable definitions of what is considered urban, international assessments of urbanisation can be problematic. For instance, a comparison of 2007 data for the administrative definition of London (City of London) and Milan and their metro-regional definition according to the *OECD Metropolitan Database* reveals wide discrepancies. Using the administrative unit as a measurement, London's population would be considered 3 million, and Milan's approaching 4 million. However, if they are defined according to the OECD methodology in terms of functional criteria – i.e. their “economic spheres of influence” – London's population would be 13.2 million and Milan's 7.8 million.³

Three different criteria can be used to define cities:

- **Administrative competence** – the geographic area classified as a single city for administrative purposes. This is the national definition of which areas are urban and their geographical limits.
- **Physical indicators** – the density of buildings, of people or of other indicators, such as the proportion of any unit of area covered by hard surfaces (e.g. concrete or asphalt)⁴ or the intensity of night light emissions. This is also often referred to as the morphological approach, and in many cases takes into account the built-up area.
- **Functional definitions** – map the behaviour of households and firms to establish the boundaries of urban territory. In urban labour market areas (ULMAs), relationships between firms and workers extend beyond the administrative unit and into adjacent areas. For example, many workers cross administrative borders when commuting to work. Firms often establish value-chain linkages for intermediate inputs and services with adjacent urban areas. The intensity and frequency of these relationships determine the functionality of an urban area. For these relationships to work properly, local governments often co-ordinate policy in the provision of infrastructure, public goods and services, thus making the functional concept all the more relevant.

Each of these methods of urban definition has its strengths and weaknesses. The most obvious advantage of using administrative definitions is that it is easier, both in terms of gathering statistics as well as politically, especially considering that policies are designed based on administrative units. After all, policy and funding for data gathering is ultimately dependent on governments. The most obvious disadvantage of using administrative and political boundaries is that they are often arbitrary and reflect outmoded patterns of life. The criteria for defining administrative units and the frequency with which they are

redefined vary widely, not only among but also within countries. Most urban residents in the OECD live in areas that are physically attached to older central cities and act as residential suburbs, or suburban neighbourhoods, of much larger metro-regions (OECD, 2010b).⁵

In Poland, the definition of urban is based on a legal and political decision that attributes the urban status to municipalities or *gminas* – the smallest territorial units and sub-national governments in Poland – based on urban planning, geographic, administrative and historical criteria (Box 1.1). The territorial institutional framework in Poland is comprised of three levels of sub-national governments (Table 1.1), including 16 regions (*voivodships*), 314 counties (*powiat*) and 2 478 municipalities (*gmina*). Among the 2 478 municipalities, 306 are urban and 65 of these are urban municipalities with county status. In addition, Poland has 597 towns within what are denominated as urban-rural municipalities. Together, the 306 urban municipalities and the 597 towns in urban-rural municipalities account for 61% of Polish population according to the official definition. However, if inhabitants living outside officially recognised urban municipalities but within a single labour-market area (ULMA) are also considered, an additional 9% of the population can be added, increasing urban-related population to 70%. As a consequence, urban labour-market areas can be mapped and the highly polycentric nature of Poland’s urban system becomes evident (Figure 1.1).

This review makes a distinction between cities and urban labour market areas (ULMAs). It can be argued that Polish cities are defined as described in Box 1.1 and constitute a polycentric urban system. According to the official definition, there are 892 urban areas in Poland that account for 61% of total Polish population. Of those municipalities, 304 are considered urban are cities with less than 5 000 people and account for only 2.4% of the population. In addition, 188 municipalities also considered urban are cities with populations between 5 000 and 9 999 inhabitants and account for only 3.5% of total population. That is, less than 6% of the population live in 55% of all urban areas of rather small size (less than 10 000 people). Next, 180 municipalities that are considered urban, accounting for 7% of total population, live in cities with 10 000 to 19 999 people, and another 134 municipalities accounting for 11% of total population live in cities with populations between 20 000 and 49 999. Forty-seven cities with populations of between 50 000 and 99 999 people account for 8.4% of total population. Twenty-two cities whose population exceeds 100 000 but is under 200 000 account for 8% of the population. The 17 largest cities, with populations of more than 200 000 people, represent almost 21% of the total population in Poland (Table 1.2). If this urban structure is compared with OECD’s

Table 1.1. Corresponding statistical and administrative units in Poland, the OECD and the EU

Polish administrative unit	Corresponding political division	OECD typology	EU typology
Voivod	State/province	TL2	NUTS-2
Sub-region	Sub-region	TL3	NUTS-3
<i>Powiat</i>	County	TL4	LAU-1
<i>Gmina</i>	Municipality	TL5	LAU-5

Source: OECD, based on Ministry of Regional Development (2010), M. Łotocka and A. Baucz (eds.), “Polish Background Report for the OECD National Urban Policy Review of Poland – Part II: Policy and Management of Urban Development in Poland”, Ministry of Regional Development, Structural Policy Co-ordination Department, Warsaw.

Box 1.1. Official definition of urban areas in Poland

The official definition of a city in Poland is understood as an isolated area having city status granted to it by way of a legal act. Such acts define the formal procedure for defining a city: a settlement having mostly concentrated housing and non-agricultural functions, possessing city rights or the status of a city according to law. Administratively, cities have the status of an individual urban municipality (*gmina*) or, as in the case of small towns, they constitute a part of urban-rural municipalities. The Council of Ministers grants city status to a municipality, defining its borders and taking into account social and technical infrastructure, as well as the urban layout and the character of buildings (in compliance with the Act on Gmina Self-Government of 8 March 1990, as amended).

The Territorial Division of the Country (TERYT), established by the Act on the Official Names of Localities and Physiographic Objects of 2003, with later amendments by the Regulation of the Council of Ministers of 1998, distinguishes among others: i) cities with *powiat* status (65 cities); ii) urban, rural and urban-rural *gminas* (306, 1 576 and 597 respectively); iii) towns and rural areas within urban-rural *gminas*. These categories define urban and rural areas according to statistical needs. Urban areas are understood as being located within the administrative borders of urban units (urban *gminas* and towns), while rural areas are defined as the remaining territory of the country (rural *gminas* and rural parts of urban-rural *gminas*).

The criteria to define the urban status of *gminas* can be summarised as follows:

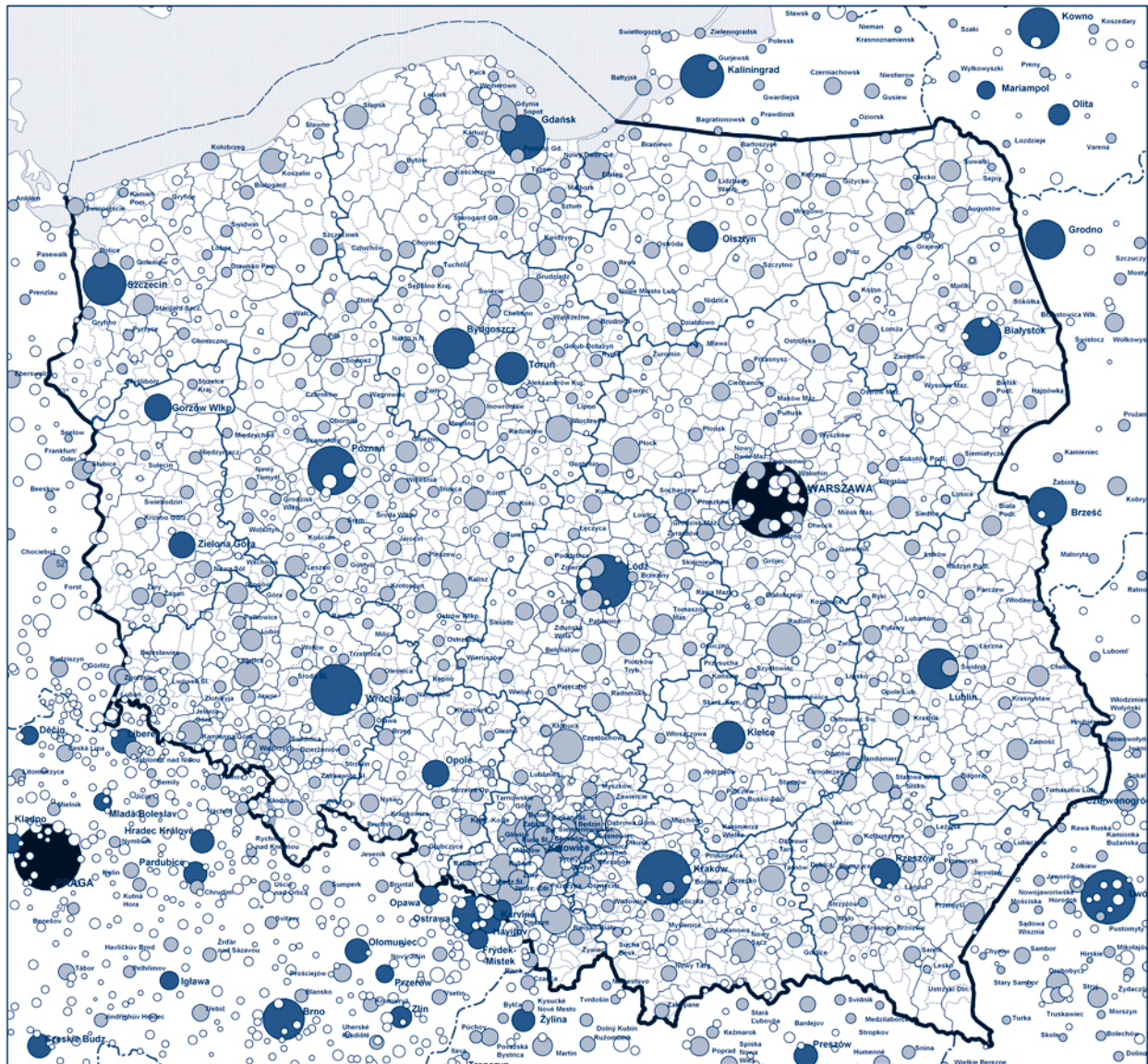
- urban planning, including the type, content and density of development, its technical condition and the existing infrastructure for municipal facilities;
- administrative, corresponding to the role and function of a municipal authority in the province or region;
- geographic, resulting from the analysis in the scale of the existing regional networks of municipalities and economic spatial links; and
- historical, taking into account whether the municipality has lost the old urban status.

Urban status is conferred through political and administrative procedures. According to the Act on Gmina Self-Government of 1990 and later amendments (Article 40), the Council of Ministers has the power to change the status of a *gmina*, to change its boundaries or to create new ones. Modifying the status of a *gmina* or locality is only possible once a year, on 1 January. In its decision, the Council of Ministers takes into account several variables/criteria: i) social and technical infrastructure; ii) urban layout; and iii) building development. The requests of *gminas* are examined by the Ministry of the Interior and Administration, which takes into consideration the functional and spatial characteristics of *gmina* (e.g. urban character of the buildings); historical and administrative issues (e.g. previous city-status, if any) demographic issues (minimal total population or number of residents whose principal economic activity is outside agriculture), and social aspects (agreement of a *gmina*'s citizens on changing its status).

Source: The Act on the Official Names of Localities and Physiographic Objects of 2003, and the Act on Gmina Self-Government of 1990.

urbanisation trends, most of the population living in urban municipalities would live in small towns. More than 95% of so-called urban municipalities are in fact areas with less than 100 000 people. The OECD *Trends in Urbanisation and Urban Policies in OECD Countries* (2010) distinguishes predominantly urban (PU) areas by size, and considers small PUs as those whose population is between 100 000 and 500 000 people (OECD, 2010b). By such

Figure 1.1. Settlement structure of Poland



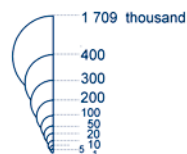
Administrative hierarchy of centres



POLAND

- I - capital city
- II - voivodeship capitals
- IIIa - cities with poviats status (borough)
- IIIb - poviat capitals
- IV - other urban areas

Number of inhabitants



This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map.

Source: Śleszyński, P. (2010), "Draft Concept of National Spatial Development", Ministry of Regional Development, Institute of Geography and Spatial Organisation of the Polish Academy of Sciences, Warsaw.

Table 1.2. **Urban areas in Poland, 2008**

Towns by number of inhabitants	Number of municipalities	Percentage of all urban municipalities	Cumulative percentage of all urban municipalities	Percentage of total population	Cumulative percentage of total population
Less than 5 000	304	34	34	2.4	2.4
5 000-9 999	188	21	55	3.5	5.9
10 000-19 999	180	20.2	75	7	12.9
20 000-49 999	134	15	90	11	23.9
50 000-99 999	47	5.3	95.6	8.4	32.3
100 000-199 999	22	2.5	98.1	8	40.3
More than 200 000	17	1.9	100	20.8	61.1
Total	892	100	100	61.1	61.1

Source: Ministry of Regional Development (2010), A. Baucz, M. Łotocka and G. Węclawowicz (eds.), "Polish Background Report for the OECD National Urban Policy Review of Poland – Part I: Diagnosis of the Condition of Polish Cities", Ministry of Regional Development, Structural Policy Co-ordination Department, Warsaw.

standards, 95.6% of all urban municipalities in Poland would not even be considered small under that definition. Although looking at urban municipalities individually can be useful, some of the urban municipalities are contiguous and comprise a single functional area, which is also a useful way of looking at urban areas.

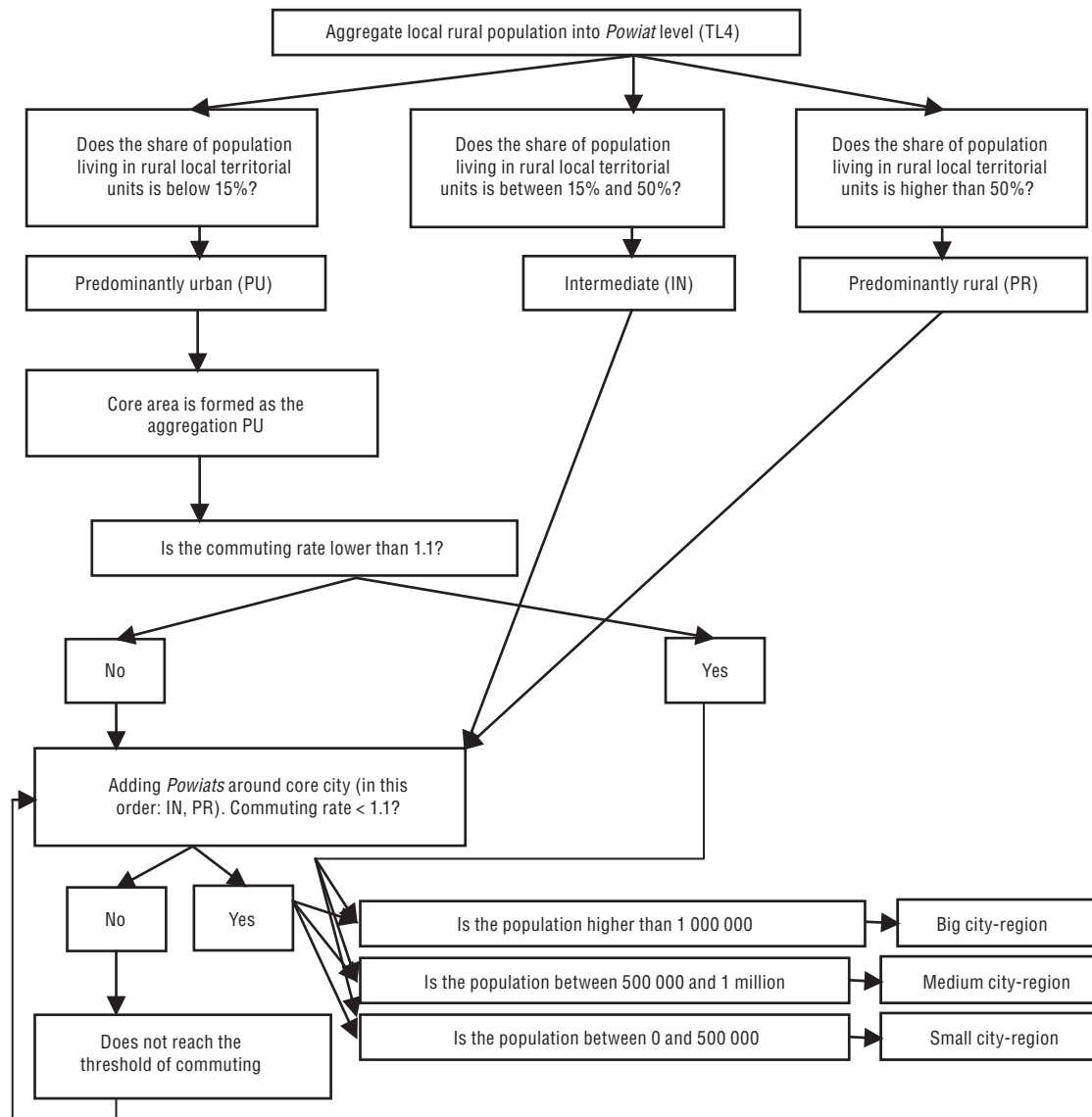
However, there are disadvantages to using administrative units when making comparisons among countries. In France there is a commonly applied physical definition of cities, the *agglomération*. This uses as its primary criterion the physical distance between buildings. In France, where planning is only somewhat restrictive, urban development is allowed to occur at the physical limit of urban areas (i.e. does not strongly preserve "green belts"), and therefore applying the concept of the *agglomération* produces well-defined patterns of physically distinct cities. If it is applied to Belgium, however, the whole country from Antwerp to Liège could be considered a single city. Equally, the *agglomération* definition does not produce comparably complete definitions of cities when applied to the UK or to the Netherlands, where land-use planning policies deliberately prevent incremental and continuous expansion of cities. In order to grow, they are forced to leap across green areas. In Poland, the advantage of using officially defined urban areas lies in the simplicity of gathering the data and the wide recognition of these areas as being urban. The drawback is that many urban policies concern a number of adjacent urban municipalities that in reality make up a single functional area. Roads run across boundaries, and it requires collaboration between Polish municipalities to connect them; public services such as waste management could be more efficiently provided within the metropolitan or functional area; housing projects in one municipality could entail congestion in a neighbouring municipality or influence the results of urban planning. Therefore, for policy purposes in many cases, it makes sense to analyse and refer to a functional area.

Urbanisation trends and analysis can also be informed using the concept of functional areas. Although the available data in Poland does not make it possible to define precise urban functional areas (UFAs), the OECD has developed a new methodology to define urban labour market areas (ULMAs) using lower territorial units and based on density and commuting data (OECD, 2010c). UFAs need to be defined using origin-destination data that is not available. However, using in and out-commuters, it is possible to identify self-contained urban areas that give a more accurate picture of the local labour market. This methodology has been applied to Poland's TL4 territorial units (LAU-1 in EU nomenclature),

i.e. *powiats* or counties (see Annex A for a detailed explanation of the methodology). More specifically, this methodology is based on a multi-criteria approach that involves two main steps (Figure 1.2 and Box 1.2): i) the definition of a core area, based on the population density of small building blocks (*gminas*, LAU2); ii) the identification of a grouping of contiguous small building blocks into counties (*powiats*) that capture an area with a significant level of commuting to the core (OECD, 2010c). Based on this regional typology, more than 70% of the national population lives in these ULMAs today (Box 1.2 and Figure 1.3).

In order to make international comparisons, the OECD has established a regional typology classifying TL3 regions as Predominantly Urban (PU), Predominantly Rural (PR) and Intermediate (IN). This typology, based on the percentage of regional population living

Figure 1.2. **OECD methodology to identify ULMAs**

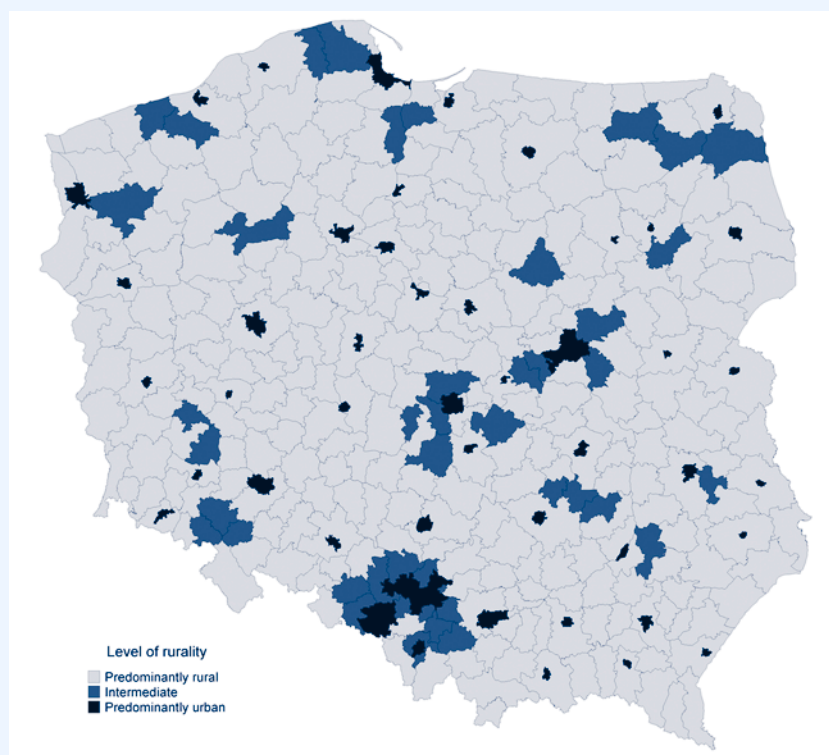


Source: Adapted from OECD (2006), *OECD Territorial Reviews: Competitive Cities in the Global Economy*, OECD Publications, Paris.

Box 1.2. Applying the OECD regional typology for urban labour market areas to Poland

In order to define the core of an ULMA, the OECD methodology first classifies local territorial units or municipalities (*gminas*, TL4 or LAU2) as either urban or rural. Urban municipalities (*gminas*) have population densities above 300 inhabitants per square kilometre; rural municipalities (*gminas*) are those below that level. TL4 regions, the counties (*powiats*), are then classified as: “predominantly urban” if rural municipalities represent less than 15% of the total county population; as “intermediate” if rural municipalities represent between 15 and 50% of total county population; or, as “predominantly rural” if the proportion exceeds 50% (see figure below). Although many single-core ULMAs were identified, polycentric areas were also found where multiple cores co-exist within the same functional area, such as Bydgoszcz-Toruń-Grudziadz or Gdańsk-Gdynia-Sopot (Figure 1.3).

Regional typology of Polish counties



This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map.

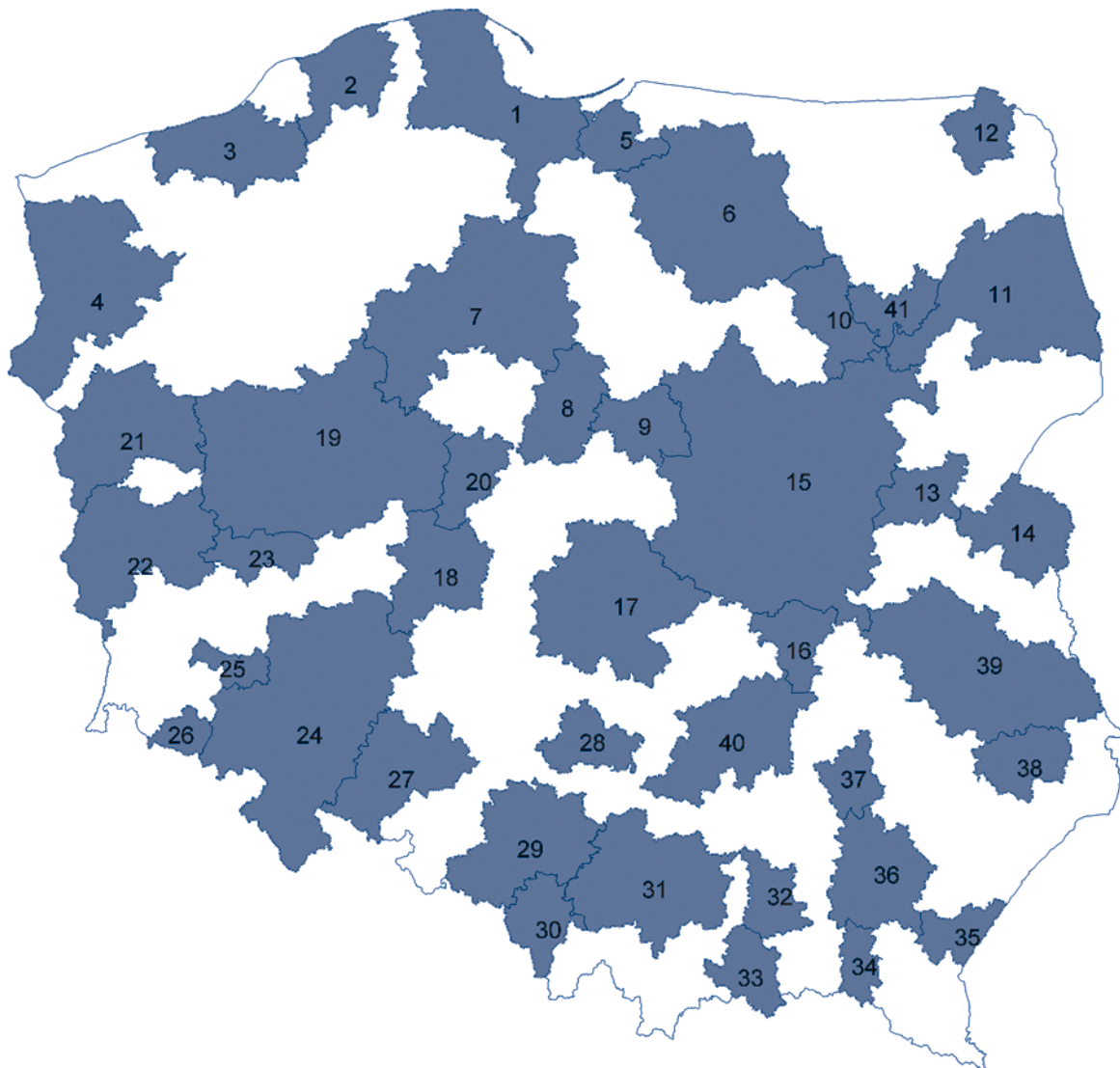
A self-contained labour market area is defined as a zone in which the bulk of resident population lives and works. Journey-to-work data for 2006 obtained from CSO, Poland’s Central Office of Statistics (2010a), were used in order to identify the group of municipalities that should be added to the functional area. A commuting rate was calculated computing the ratio between in-commuting and out-commuting. A threshold of self-containment was established at 10%. Thus, if the commuting rate of the core region identified in the previous steps was below the fixed threshold, it was considered to be self-contained. Conversely, if the commuting rate was above the threshold, then the ULMA had significant labour force exchanges with other regions. The aggregation of neighbouring regions was continued until the threshold of self-containment was achieved. It is important to note that in this methodology proposed by the OECD, a functional area only includes physically contiguous municipalities.

Source: Map reflects OECD calculations based on data from CSO (2010), “Polish Regional Data Bank Survey 2006”, Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

in rural or urban communities, enables meaningful comparisons between regions of the same type and level. According to this definition, Poland's urban population – the share of people living in PU areas – amounts to just over 20% of the total, one of the lowest levels among OECD countries, similar to those of Austria and Sweden (OECD, 2009a). It is important to note that this figure only captures sub-regions whose overall density is high enough to qualify the area as urban, which excludes many ULMAs located in rural sub-regions. The importance of establishing a regional typology for the Polish case lies in the need to build ULMAs on the basis of a PU core that aggregates other regions according to the PU, IN and PR order (see methodology in Box 1.2 and Figure 1.2).

Figure 1.3. Polish urban labour market areas

Derived from commuting and density data, 2006



This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map.

Note: 1. Gdańsk; 2. Słupsk; 3. Koszalin; 4. Szczecin; 5. Elbląg; 6. Olsztyn; 7. Bydgoszcz; 8. Włocławek; 9. Płock; 10. Ostrołęka; 11. Białystok; 12. Suwałki; 13. Siedlce; 14. Biała Podlaska; 15. Warsaw; 16. Radom; 17. Łódź; 18. Kalisz; 19. Poznań; 20. Konin; 21. Gorzów Wielkopolski; 22. Zielona Góra; 23. Leszno; 24. Wrocław; 25. Legnica; 26. Jelenia Góra; 27. Opole; 28. Częstochowa; 29. Katowice; 30. Bielsko-Biała; 31. Kraków; 32. Tarnów; 33. Nowy Sącz; 34. Krosno; 35. Przemyśl; 36. Rzeszów; 37. Tarnobrzeg; 38. Zamość; 39. Lublin; 40. Kielce; 41. Łomża.

Source: OECD calculations based on CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

By applying the regional typology for ULMAs, 182 counties are integrated into one of each of the 41 ULMAs that can be identified in Poland. Each ULMA integrates at least two counties, and they can be small, as in the cases of Białą Podlaska, Częstochowa, Elbląg, Konin, Krosno, Legnica, Łomża, Nowy Sącz, Ostrołęka, Płock, Przemyśl, Radom, Słupsk, Tarnów and Zamość, which each include only two counties, or as large as Warsaw and Katowice, with 25 counties each (Table 1.3). Taking this approach, an important part of Polish territory becomes essentially urban, with some notably large ULMAs, as in the case of Poznań, Warsaw and Wrocław (Figure 1.3). An identical number of functional urban regions has already been identified by Korcelli (1975). Although some of the OECD's ULMAs are not listed in Korcelli's definition, in a number of cases they were as wide as those identified in this review, most notably in the case of Warsaw.

A polycentric urban system

Poland has a long-established urban network that has evolved towards a polycentric form. By mid-14th century, there were over 500 towns in what is now Poland. This historical legacy remains, as over 60% of contemporary urban areas have medieval origins. This pre-industrial network consisted of relatively small towns located across the predominantly rural landscape. Urbanisation and the shape and functionality of cities and urban areas have been largely affected by the legacy of an economic system based on industrialisation during the communist era (Box 1.3). This network was and continues to be unevenly spread across the nation. It is a non-primate urban system, in which no single city dominates. However, the distribution of population has shifted from rural areas and small towns to the bigger cities. In 1950, 8.8% of the total urban population lived in towns with a population of less than 10 000; by 2008, this figure had declined to 5.9%. While only 9.7% of the urban population lived in cities with a population of more than 200 000 in 1950, by 2008 this figure had increased to 20.8%. The centre of gravity of the population has shifted, so that now more people live in the larger cities of the urban network. Regional variations reflect and embody historical differences, particularly the legacy of the period of the partitions in Poland, when what is now Poland was divided among Prussia, Austria and Russia. As a result, the network is denser in the west and south, territories formerly under the control of the Prussian and Austro-Hungarian empires, than in the east, territory formerly controlled by the Russian empire. This division of Poland's territory also entailed a decline in the relevance that towns had within the legal structure (Węclawowicz, 1996). In 2010, if all urban settlements are taken into account, official statistics recognise 903 towns and cities (CSO, 2010a).

The regional typology for functional urban areas makes it possible to identify an urban system made up of a number of ULMAs that are to a greater or lesser extent interconnected, and a lower regional system in which each ULMA is a node for rural regions' connectivity. As noted earlier, the urban spatial structure of Poland is characterised by an urban settlement composed of 41 ULMAs. For analytical purposes, ULMAs can be grouped by two different criteria:

- i) **Population size:** Different cities perform different roles nationally and regionally according to their size. Larger cities tend to be national and international hubs, while small and medium cities contribute to the development of small towns and rural

Table 1.3. **Composition of Polish ULMAs**
According to the OECD methodology to define ULMA, using *powiats*

1. Gdańsk	Powiat płocki	Powiat łódzki wschodni	Powiat jaworski	Powiat wielicki
Powiat m. Sopot	10. Ostrołęka	Powiat brzeziński	Powiat kamiennogórski	Powiat chrzanowski
Powiat m. Gdynia	Powiat m. Ostrołęka	Powiat łaski	Powiat oleśnicki	Powiat oświęcimski
Powiat m. Gdańsk	Powiat ostrołęcki	Powiat zduńskowolski	Powiat milicki	Powiat wadowicki
Powiat wejherowski	11. Białystok	Powiat Tomaszowski	Powiat wołowski	Powiat myślenicki
Powiat pucki	Powiat m. Białystok	18. Kalisz	Powiat ząbkowicki	Powiat bocheński
Powiat kartuski	Powiat białostocki	Powiat m. Kalisz	Powiat kłodzki	Powiat olkuski
Powiat gdański	Powiat zambrowski	Powiat pleszewski	25. Legnica	Powiat proszowicki
Powiat nowodworski	Powiat moniecki	Powiat ostrowski	Powiat m. Legnica	32. Tarnów
Powiat malborski	Powiat sokólski	Powiat kaliski	Powiat legnicki	Powiat m. Tarnów
Powiat tczewski	12. Suwałki	19. Poznań	26. Jelenia Góra	33. Nowy Sącz
2. Słupsk	Powiat m. Suwałki	Powiat m. Poznań	Powiat m. Jelenia Góra	Powiat m. Nowy Sącz
Powiat m. Słupsk	Powiat suwalski	Powiat poznański	Powiat jeleniogórski	Powiat nowosądecki
Powiat słupski	13. Siedlce	Powiat obornicki	27. Opole	34. Krosno
3. Koszalin	Powiat m. Siedlce	Powiat szamotulski	Powiat m. Opole	Powiat m. Krosno
Powiat m. Koszalin	Powiat siedlecki	Powiat nowotomyski	Powiat opolski	Powiat krośnieński
Powiat koszaliński	14. Biała Podlaska	Powiat grodzki	Powiat brzeski	35. Przemyśl
Powiat kołobrzeski	Powiat m. Biała Podlaska	Powiat kościański	Powiat nyski	Powiat m. Przemyśl
Powiat białogardzki	Powiat bialski	Powiat śremski	28. Częstochowa	Powiat m. Przemyśl
4. Szczecin	15. Warszawa	Powiat średzki	Powiat m. Częstochowa	36. Rzeszów
Powiat m. Szczecin	Powiat m. st. Warszawa	Powiat wrzesiński	Powiat częstochowski	Powiat m. Rzeszów
Powiat stargardzki	Powiat pruszkowski	Powiat gnieźnieński	29. Katowice	Powiat rzeszowski
Powiat goleniowski	Powiat wołomiński	Powiat wągrowiecki	Powiat m. Katowice	Powiat łańcucki
Powiat policki	Powiat otwocki	Powiat słupecki	Powiat m. Gliwice	Powiat ropczycko-sędziszowski
Powiat gryfiński	Powiat grodzki	Powiat międzychodzki	Powiat m. Dąbrowa Górnicza	Powiat strzyżowski
Powiat pyrzycki	Powiat miński	Powiat międzyzdrzyński	Powiat m. Mysłowice	Powiat kolbuszowski
5. Elbląg	Powiat piaseczyński	20. Konin	Powiat m. Piekary Śląskie	37. Tarnobrzeg
Powiat m. Elbląg	Powiat legionowski	Powiat m. Konin	Powiat m. Bytom	Powiat m. Tarnobrzeg
Powiat elbląski	Powiat warszawski zachodni	Powiat koniński	Powiat m. Zabrze	Powiat sandomierski
6. Olsztyn	Powiat sochaczewski	21. Gorzów Wielkopolski	Powiat m. Świętochłowice	Powiat tarnobrzeński
Powiat m. Olsztyn	Powiat nowodworski	Powiat m. Gorzów Wielkopolski	Powiat m. Ruda Śląska	38. Zamość
Powiat olsztyński	Powiat nowodworski	Powiat gorzowski	Powiat m. Chorzów	Powiat m. Zamość
Powiat ostródzki	Powiat pułtuski	Powiat słubicki	Powiat m. Siemianowice Śląskie	Powiat zamojski
Powiat nidzicki	Powiat wyszkowski	Powiat sulęciński	Powiat m. Tychy	39. Lublin
Powiat szczycieński	Powiat węgrowski	Powiat międzyrzeczki	Powiat m. Sosnowiec	Powiat m. Lublin
Powiat lidzbarski	Powiat grójecki	22. Zielona Góra	Powiat m. Jaworzno	Powiat świdnicki
7. Bydgoszcz	Powiat garwoliński	Powiat m. Zielona Góra	Powiat gliwicki	Powiat lubelski
Powiat m. Grudziądz	Powiat kozienicki	Powiat zielonogórski	Powiat mikołowski	Powiat łęczyński
Powiat m. Bydgoszcz	Powiat płoński	Powiat krośnieński	Powiat rybnicki	Powiat chełmski
Powiat m. Toruń	Powiat ciechanowski	Powiat nowosolski	Powiat m. Rybnik	Powiat m. Chełm
Powiat grudziądzki	Powiat m. Skierniewice	Powiat żarski	Powiat m. Żory	Powiat krasnostawski
Powiat świecki	Powiat skierniewicki	23. Leszno	Powiat wodzisławski	Powiat puławski
Powiat bydgoski	Powiat rawski	Powiat m. Leszno	Powiat m. Jastrzębie-Zdrój	Powiat lubartowski
Powiat toruński	Powiat ostrowski	Powiat leszczyński	Powiat raciborski	40. Kielce
Powiat chełmiński	Powiat białobrzeński	Powiat wschowski	Powiat tarnogórski	Powiat m. Kielce
Powiat wąbrzeski	16. Radom	24. Wrocław	Powiat będziński	Powiat kielecki
Powiat golubsko-dobrzyński	Powiat m. Radom	Powiat m. Wrocław	Powiat bieruńsko-łęczyński	Powiat skarżyski
Powiat żniński	Powiat radomski	Powiat wrocławski	30. Bielsko-Biała	Powiat starachowicki
Powiat nakielski	17. Łódź	Powiat trzebnicki	Powiat m. Bielsko-Biała	Powiat jędrzejowski
8. Włocławek	Powiat m. Łódź	Powiat średzki	Powiat bielski	41. Łomża
Powiat m. Włocławek	Powiat zgierski	Powiat oławski	Powiat pszczyński	Powiat m. Łomża
Powiat włocławski	Powiat pabianicki	Powiat strzeliński	Powiat cieszyński	Powiat łomżyński
Powiat lipnowski	Powiat bełchatowski	Powiat świdnicki	31. Kraków	
9. Płock	Powiat m. Piotrków Trybunalski	Powiat wałbrzyski	Powiat m. Kraków	
Powiat m. Płock	Powiat piotrkowski	Powiat dzierzoniowski	Powiat krakowski	

Source: OECD calculations using data from CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

Box 1.3. The urban expression of a communist legacy

The Rural in character, Poland's urbanisation actually retreated between the 16th and the 19th century due to cultural attitudes and lost wars (Węclawowicz, 1996). After World War II, the formation of an urban lifestyle vision, along with the Communist Party's support lead to a renewed urbanisation process. The communist system discriminated through a "managed urbanisation", agricultural activities in favour of urban and industrial ones. Urbanisation was then subject to industrialisation and the urban form was determined by workplace location.

Under communism, urban development was subordinated to the central axis of industrial development.

In a Soviet-type economy, the location of industrial plants was determined in accordance with the central development plan, without consideration for surrounding urban areas. Housing was built around industrial plants and transport infrastructure was conceived of to serve spatially disconnected areas, but not to support economic development. There was no urban strategy, as cities had to serve industries and accommodate migrants. Suburbanisation lacked a coherent plan. Urban areas were divided between the centre, with core administrative, cultural and service functions, and the periphery, which consisted of uniform dormitory buildings. Large empty areas emerged between the core and the periphery that were connected with public transportation, but fully disarticulated from an urban perspective (Węclawowicz, 1996).

Induced migration under central planning increased the urban population. The resulting increase in urban-rural disparities attracted migrants and furthered urbanisation, inverting the shares of population living in urban and rural areas. Just after World War II, the urban population accounted for less than one-third of total inhabitants; by 1992, the proportion had doubled to two-thirds. In part, this growth was due to faster natural population growth rates in urban areas (54%), but it was partly also due to migration from rural (41%) regions (Węclawowicz, 1996). Today, including city-regions that conform to functional urban areas, the urban population exceeds 70% (see preceding discussion of methodological aspects).

Urbanisation resulted in many benefits and modernisation, but it also raised new problems. The process of urbanisation slowed in the 1980s on the national level, although in the eastern regions, the process continued into the 1990s. This slowdown was due to a housing shortage and unemployment rates. Housing was not being provided to an adequate degree, and competition for accommodation through political means led to the formation of interest groups. In addition, economic progress was hampered by the poor quality of infrastructure during the communist period (Węclawowicz, 1996).

The internal spatial structure of Polish cities was also determined by central planning. According to Węclawowicz (1996), there were clear and important differences between western cities in Europe and those post-communist Poland:

- In Polish cities, there were low levels of income disparities within urban areas.
- As the communist regime allocated people to particular dwellings often forcing residents to live in undesirable urban environments and thereby limiting the chance of creating local communities.
- Centralisation and the force of the regime led to no representation of civil interests; mayors, elected city councils and municipal offices were subordinated to central government interests.
- The system also gave priority to housing apartment blocks resulting in massive housing construction with no service provision such as shops, schools, restaurants or post offices.
- The system also neglected environmental degradation in urban areas.
- Inflow of people to cities in communist Poland was also controlled.

Box 1.3. The urban expression of a communist legacy (cont.)

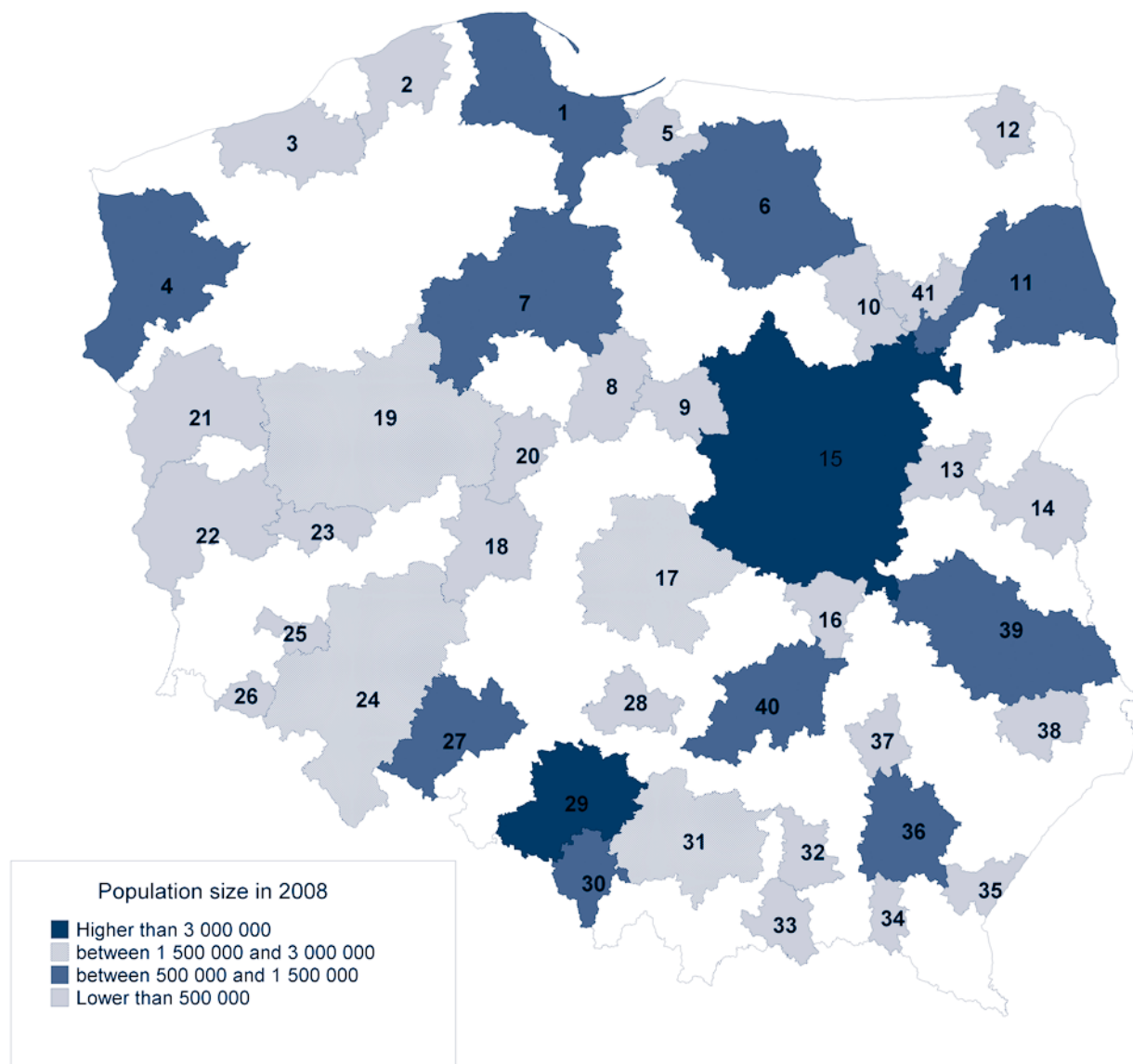
As a result, the communist and post-communist legacies have impinged on the functionality of urban areas by creating a dual system. The older part of towns was usually inhabited by older and urban people working on tertiary activities while the newer communist blocks were usually inhabited by rural immigrants working in manufacturing. New industrial towns – or parts of towns – were built in proximity to mining plants particularly for the extraction of coal, copper and sulphur. However, some differentiation in spite of egalitarian principles started to emerge in the 1970s and 1980s. The urban transformation process from communist to market-oriented systems has led to important changes in Polish cities such as:

- increasing social and spatial differentiation;
- the arrival of new actors in the housing market;
- the return of self-government;
- changing employment structure from manufacturing to services, and
- a transformation of the urban landscape.

communities, as well as articulating economic sectors (agriculture and manufacturing, for instance). Thus, the 41 ULMAs can be classified into four groups according to population size (Figure 1.4):

- **Largest ULMAs.** By 2008, the two largest ULMAs (Katowice and Warsaw) had populations of over 3 million people, one-quarter of the total population living in urban functional areas in Poland; nationally, approximately one in every five Poles live in either Warsaw or Katowice.
 - **Large ULMAs.** Four other large ULMAs with populations between 1.5 and 3 million people account for almost 26% of the total ULMA population; overall, two in every three Poles live in these six ULMAs (Warsaw, Katowice, Krakow, Poznań, Wrocław and Łódź).
 - **Medium-sized ULMAs.** Ten medium ULMAs, with populations between 0.5 million and 1.5 million people, concentrate almost 30% of the total ULMA population.
 - **Small ULMAs.** Twenty-five small ULMAs with a population of less than 500 000 account for more than 20% of the total ULMA population.
- ii) Another way of classifying ULMAs integrates a wider set of indicators. This approach allows ULMAs in Poland to be grouped into policy-relevant categories. Using cluster analysis, six different groups of Polish ULMAs can be identified (see Annex B for full analysis).⁶ This technique highlights similarity among members of particular groups in terms of a series of variables. Cluster analysis is one technique that can help policy makers identify ULMAs with similar features and challenges. The purpose of applying such techniques is to identify groups of ULMAs with similar features and challenges in Poland and take these into account when recommendations are made in other chapters. The cluster analysis carried out and described in detail in Annex B was able to compare ULMAs based on population, population growth, transport infrastructure and employment in the manufacturing and services sectors and grouped them into the categories listed below and detailed in Table 1.4.⁷

Figure 1.4. **Location and size of ULMA**
Population data, 2008



This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map.

Note: 1. Gdańsk; 2. Słupsk; 3. Koszalin; 4. Szczecin; 5. Elbląg; 6. Olsztyn; 7. Bydgoszcz; 8. Włocławek; 9. Płock; 10. Ostrołęka; 11. Białystok; 12. Suwałki; 13. Siedlce; 14. Biała Podlaska; 15. Warsaw; 16. Radom; 17. Łódź; 18. Kalisz; 19. Poznań; 20. Konin; 21. Gorzów Wielkopolski; 22. Zielona Góra; 23. Leszno; 24. Wrocław; 25. Legnica; 26. Jelenia Góra; 27. Opole; 28. Częstochowa; 29. Katowice; 30. Bielsko-Biała; 31. Krakow; 32. Tarnów; 33. Nowy Sącz; 34. Krosno; 35. Przemyśl; 36. Rzeszów; 37. Tarnobrzeg; 38. Zamość; 39. Lublin; 40. Kielce; 41. Łomża.

Source: OECD calculations based on CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

Table 1.4. Types of ULMAs in Poland
Group membership according to cluster analysis results

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Warsaw	Katowice	Kraków	Bydgoszcz	Białystok	Biała Podlaska
		Poznań	Gdańsk	Bielsko-Biała	Elbląg
		Wrocław	Łódź	Częstochowa	Konin
				Kalisz	Koszalin
				Kielce	Krosno
				Lublin	Łomża
				Nowy Sącz	Gorzów Wielkopolski
				Olsztyn	Jelenia Góra
				Opole	Legnica
				Rzeszów	Leszno
				Szczecin	Ostrołęka
				Tarnów	Płock
				Zielona Góra	Przemysł
					Radom
					Siedlce
					Słupsk
					Suwałki
					Tarnobrzeg
					Włocławek
					Zamość

Source: OECD calculations based on datasets from CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

- **Group 1: The National Champion**
 - This includes a single ULMA, Warsaw.
 - It's an ULMA with features that sets it apart from any other in Poland. Although other ULMAs may have larger employment numbers in manufacturing and services, this is the largest in Poland, with the largest population growth.
- **Group 2: The Challenged Metro**
 - This includes only the ULMA of Katowice.
 - Katowice is the second-largest ULMA, with the largest employment in manufacturing but with a contracting population. Katowice's need for restructuring sets it apart from other urban experiences in Poland.
- **Group 3: Large and Dynamic Cities**
 - This is comprised of three ULMAs: Krakow, Poznań and Wrocław.
 - These three cities are similar in terms of development and demography: large ULMAs that are growing in population.
- **Group 4: Large but with Attractiveness Challenges**
 - This is made up of three ULMAs: Bydgoszcz, Gdańsk and Łódź.
 - These are large urban areas with high levels of employment in manufacturing and services, but they face a contraction in population, possibly due to attractiveness issues.

- *Group 5: Medium-sized but Facing Depopulation*
 - This group includes 13 ULMAs, among which are Lublin, Kalisz and Kielce.
 - These ULMAs show above-average levels of infrastructure density, employment in manufacturing and services, but most of them are facing depopulation, including Zielona Góra, almost one-tenth of whose population left in one decade.
- *Group 6: Smaller ULMAs with Poor Linkages*
 - This is the largest group, with 20 of the 41 ULMAs, and includes Jelenia Góra, Konin and Suwałki, among others.
 - Although some of the ULMAs in Group 6 are growing in terms of population (e.g. Ostrołęka, Radom and Konin), they remain smaller, with poor transportation infrastructure that renders them poorly connected with other urban areas and inadequately integrated within the ULMA. All but one of the 20 city-regions with the lowest transport infrastructure densities in Poland are in Group 6.

This review will use a number of urban definitions, depending on the analytical objective and availability of data. First, administrative units officially defined as urban, urban-rural and rural municipalities by the Polish government will be used when data for ULMAs are not available. For instance, higher education population shares by municipality are not available in Poland, only the population share of all urban, urban-rural or rural *gminas*. Second, for international comparisons, the review will refer to PU, IN and PR sub-regions in OECD countries for which an ULMA definition is not yet available. Third, metro-regions as large functional areas will be used to compare ULMAs in Poland when an international benchmark is desirable, with the caveat that metro-regions and ULMAs have not been produced at the same territorial level. Fourth, most of the comparisons will be made among Polish ULMAs. Although for the most part, this approach does not allow for international comparisons, it has the advantage of being fairly precise in the Polish context. Fifth, groups of ULMAs will be used to develop policy recommendations for groups of cities. These groups can be defined according to the four main size categories or the six clusters described above.

Is urban population declining?

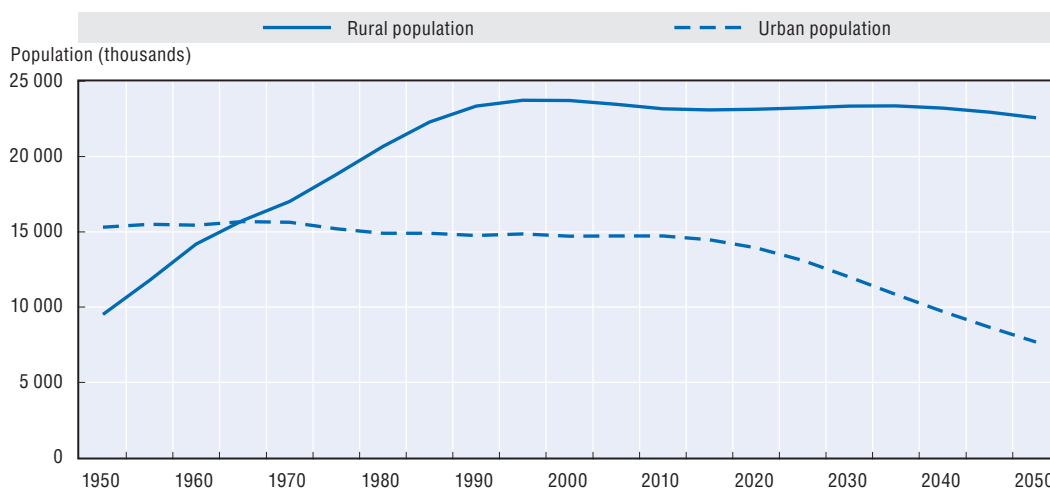
Historically, the total level of urbanisation has been lower in Poland than the rest of Europe – a function of its late industrialisation and heavier reliance on agriculture. The urban population was only 20% of the total population in the mid-19th century and remained low during the first half of the 20th century. Urbanisation levels increased from the 1950s, mainly as result of the industrial promotion policies of the communist regime. The result was large-scale rural-to-urban migration and the growth of industrial cities. A second wave of urban growth in the 1970s further increased urbanisation levels. Since the late 1980s, there has been a levelling off in urbanisation, partly as a result of more marked suburbanisation at the edges of core cities. However, as will be explained later in the section, there are regional differences in the national network, with a more pronounced levelling off in urbanisation rates in western cities and continued population growth in eastern ones.

Population is shrinking in Poland, but the urban share of the population will tend to increase. According to CSO (2010a), total population in Poland is expected to decrease over the next 25 years, shrinking more than 2 million people by 2035. In 2010, it decreased to 38.09 million people, but it is estimated that it will fall to 35.99 million

by 2035. By the mid-1960s, the urban population, based on the official national definition, had already overtaken the rural population (Figure 1.5). According to UN estimates, urban population growth in Poland was dynamic from 1950-90, while the rural population remained stable. The proportion of urban population has been increasing over the past 40 years, but in absolute terms, the trend stabilised between 1990 and 2010 and is projected to remain constant over the next 40 years (Figure 1.6). However, as rural population is estimated to decline starting from 2010, the proportion of Polish population living in urban areas will rise again from 61% in 2010 to around 73% in 2050 (Figure 1.6).

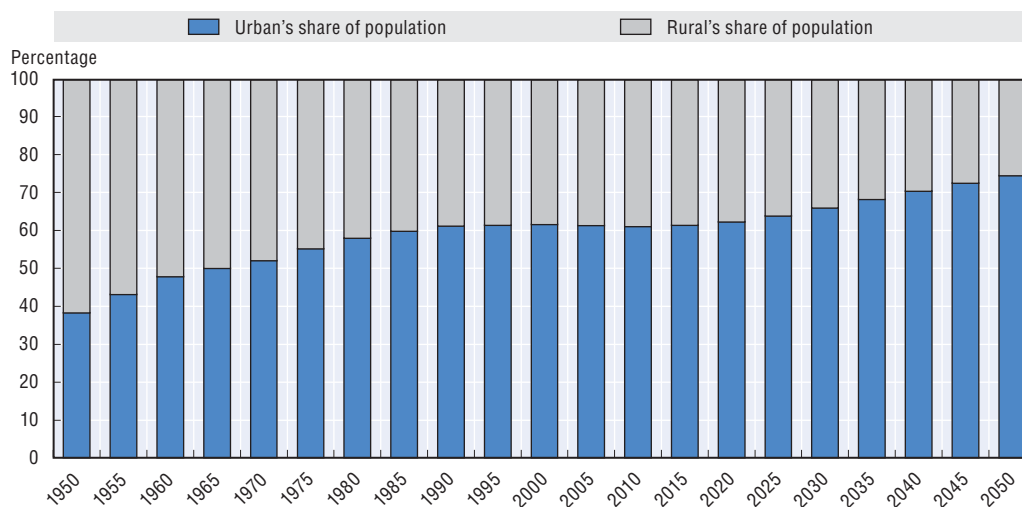
Figure 1.5. **Urban and rural population in Poland**

Absolute population numbers



Source: OECD calculations based on data from United Nations (2009), "World Urbanization Prospects: The 2007 Revision", www.un.org/esa/population/publications/wup2007/2007wup.htm, accessed September 2009.

Figure 1.6. **Share of urban and rural population in Poland, 1950-2050**



Source: OECD calculations based on data from the United Nations (2009), "World Urbanization Prospects: The 2007 Revision", www.un.org/esa/population/publications/wup2007/2007wup.htm, accessed September 2009.

Recent demographic trends in urban areas have been affected by outmigration, which has characterised Poland as a whole since its accession to the EU in 2004. Around 800 000 Poles have a temporary residence outside the country and have left for other European countries, in particular due to lower incomes and unemployment rates in certain regions. More than half of all Poles leaving the country between 2004 and 2009 came from the southern regions of Śląskie and Małopolskie, as well as the south-western regions Dolnośląskie and Opolskie (CSO, 2010a). More than 40% of all outmigrants come from rural areas, but small and medium-sized urban areas account for more than one-third. One in every four Poles leaving the country is from Śląskie, where the challenged urban area of Katowice is located. Lack of employment opportunities, given the current industrial restructuring in the region, are very likely to be at the heart of international outmigration. However, since 2008, negative population trends in Poland seem to have been reversed (Ministry of Regional Development, 2010a).

Several sources seem to indicate that Poland's urbanisation is in decline. ULMA-based data, however, show that urban population is actually on the rise and increasingly concentrated in a number of places throughout Poland's polycentric urban system. According to such a view, the decline in population is in part the result of migration out of urban areas and into rural ones. According to official government statistics, Poland's urban population share has gone down from 61.9% in 1996 to 60.8% in 2010 (Ministry of Regional Development, 2010a and CSO, 2010a). OECD analysis (2008a) also pointed out that rural population had been on the rise since 1999, partly thanks to migration from urban areas. Similarly, Kupiszewski (2005), using official statistics, shows that low wages relative to high housing prices and educational gaps were at the heart of a migration trend towards rural areas; however, Kupiszewski also notes a possible process of suburbanisation. Using ULMAs (see methodology in Box 1.2), a different picture emerges. Not only is Poland's urban population larger (70%) than the official figures would show (61%), but the areas experiencing population growth are located within these ULMAs. Such population growth within large urban centres' area of influence has reinforced the polycentric nature of the Polish urban system. Density figures at county level illustrate the number of urban areas in the country (Figure 1.7).

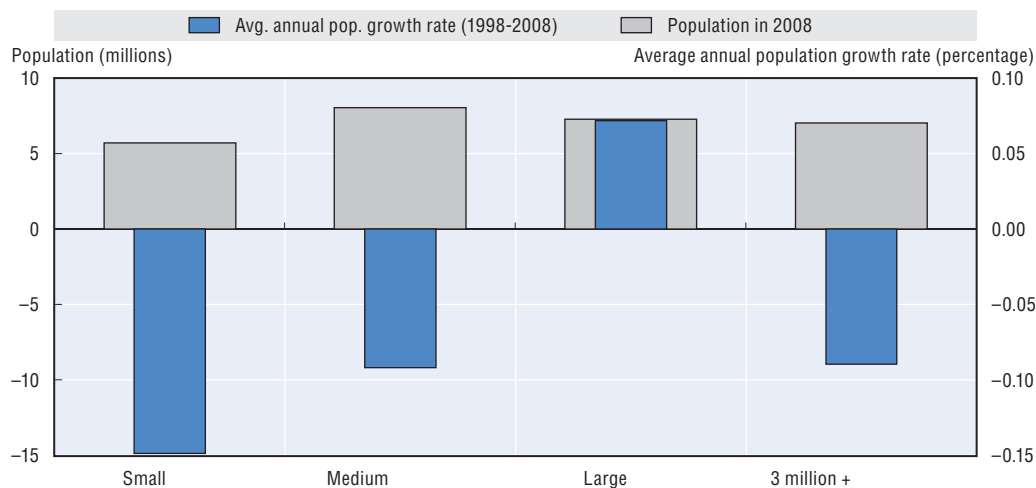
Recent urban population growth has mainly taken place in large functional areas. Large ULMAs (between 1.5 million and 3 million people) seem to be the only category that experienced population expansion between 1998 and 2008 (Figure 1.8). The link between city size and population growth can also be observed in individual ULMAs. First, except for Katowice and Łódź, population growth is a function of ULMA size; the larger the ULMA, the stronger the growth rate (Figure 1.9). Second, small-ULMA growth could be a function of connectedness, which is largely determined by transport infrastructure. The vast majority of small ULMAs have experienced zero to negative population growth (Figure 1.10). In fact, almost all the ULMAs featuring zero or negative growth rates belong to Group 6 ("smaller ULMAs with poor linkages"), which is include mainly small-sized cities.

Figure 1.7. **Population density at county level**
Inhabitants per square kilometre in 2008



Source: OECD calculations based on data from CSO (2010) "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

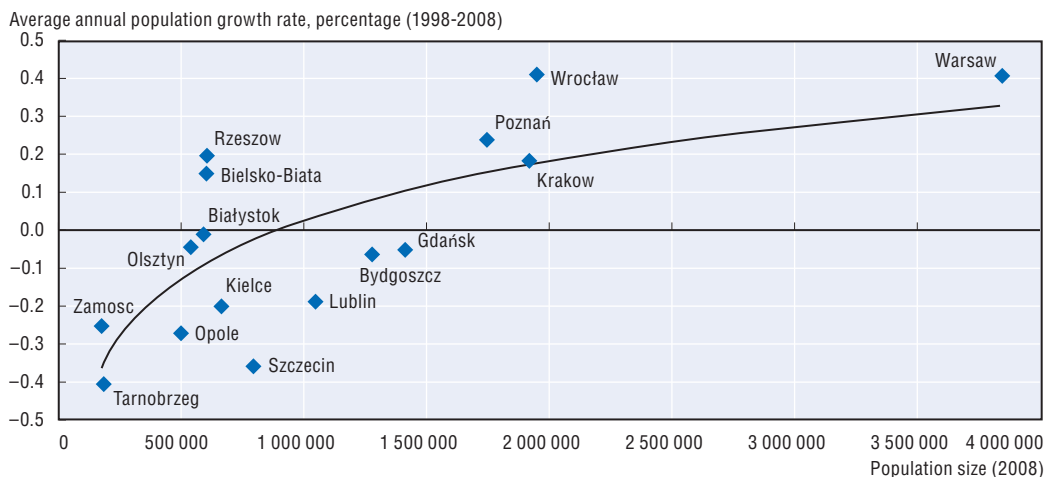
Figure 1.8. **Urbanisation and population growth in Polish ULMAs**
Urban population and growth (1998-2008) according to ULMA population size



1. This analysis was carried out using only the 41 ULMAs identified in 2006 via the OECD methodology.
2. Small ULMAs are cities with a population below 500 000. Medium-sized ULMAs are cities with a population between 500 000 and 1.5 million people. Large ULMAs are cities with population between 1.5 million and 3 million people. Mega-ULMAs are ULMAs with populations over 3 million people.

Source: OECD calculations based on CSO (2010) "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

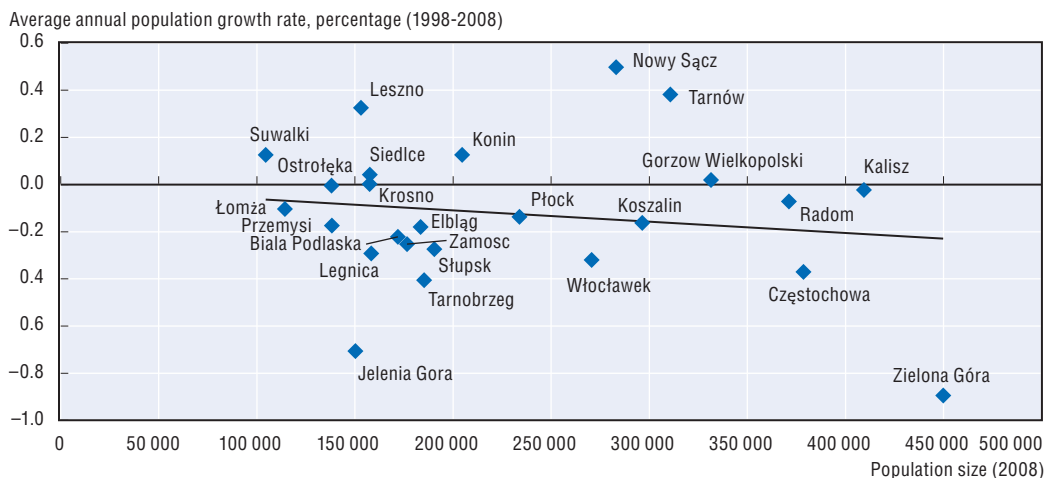
Figure 1.9. **ULMA population size and growth**
For medium, large and the largest ULMAs



Note: Katowice and Łódź have been dropped from the figure, since they are considered to be outliers. Katowice has undergone the most rapid and profound industrial decline in Poland; the consequent loss of employment has most likely led to sharp population decline greater than that in any other ULMAs in the country.

Source: OECD calculations based on CSO (2010), "Polish Regional Data Bank Survey 2006", www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

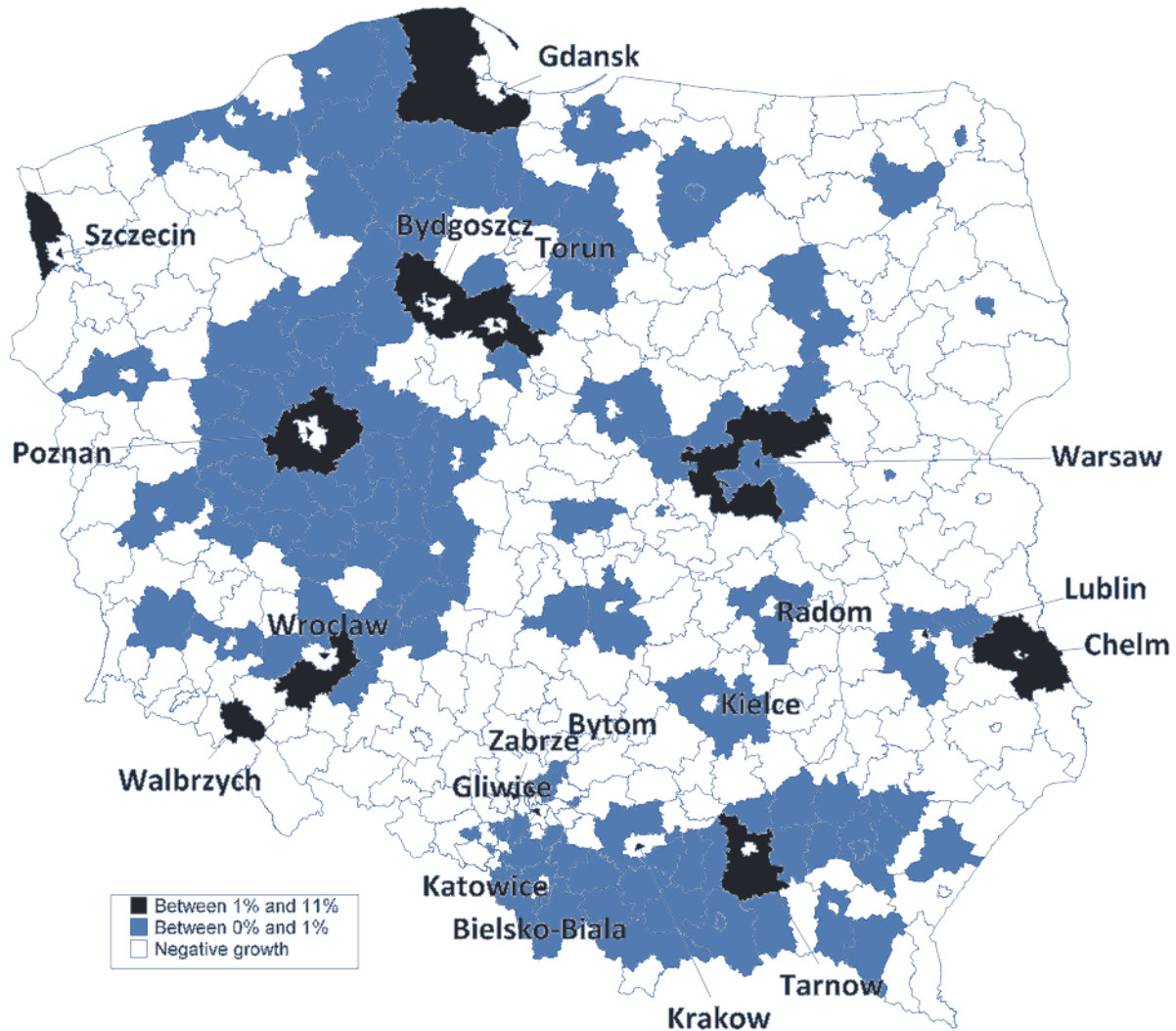
Figure 1.10. **Small ULMA population growth**



Source: OECD calculations based on CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

Population growth in Poland is mainly taking place in suburban areas, within ULMAs and not in rural areas. Population data based on administrative units indicate that urban areas are losing population. However, looking at cities as functional areas (ULMAs) reveals that Poland is largely going through a suburbanisation process characterised by urban sprawl. Thus, in almost all cases, population growth is stronger in areas immediately surrounding an urban core, and beyond the suburbs, the rate decreases as distance from the core increases (Figure 1.11). Thus, urban population growth is essentially an urban – and more precisely a suburban – process. Suburban areas close to Bydgoszcz, Gdańsk, Poznań, Szczecin, Toruń, Warsaw and Wrocław are among the ULMAs that are gaining population, and at the same time sprawling.

Figure 1.11. **Population growth in Poland**
At county level (average annual growth rates 1998-2008)

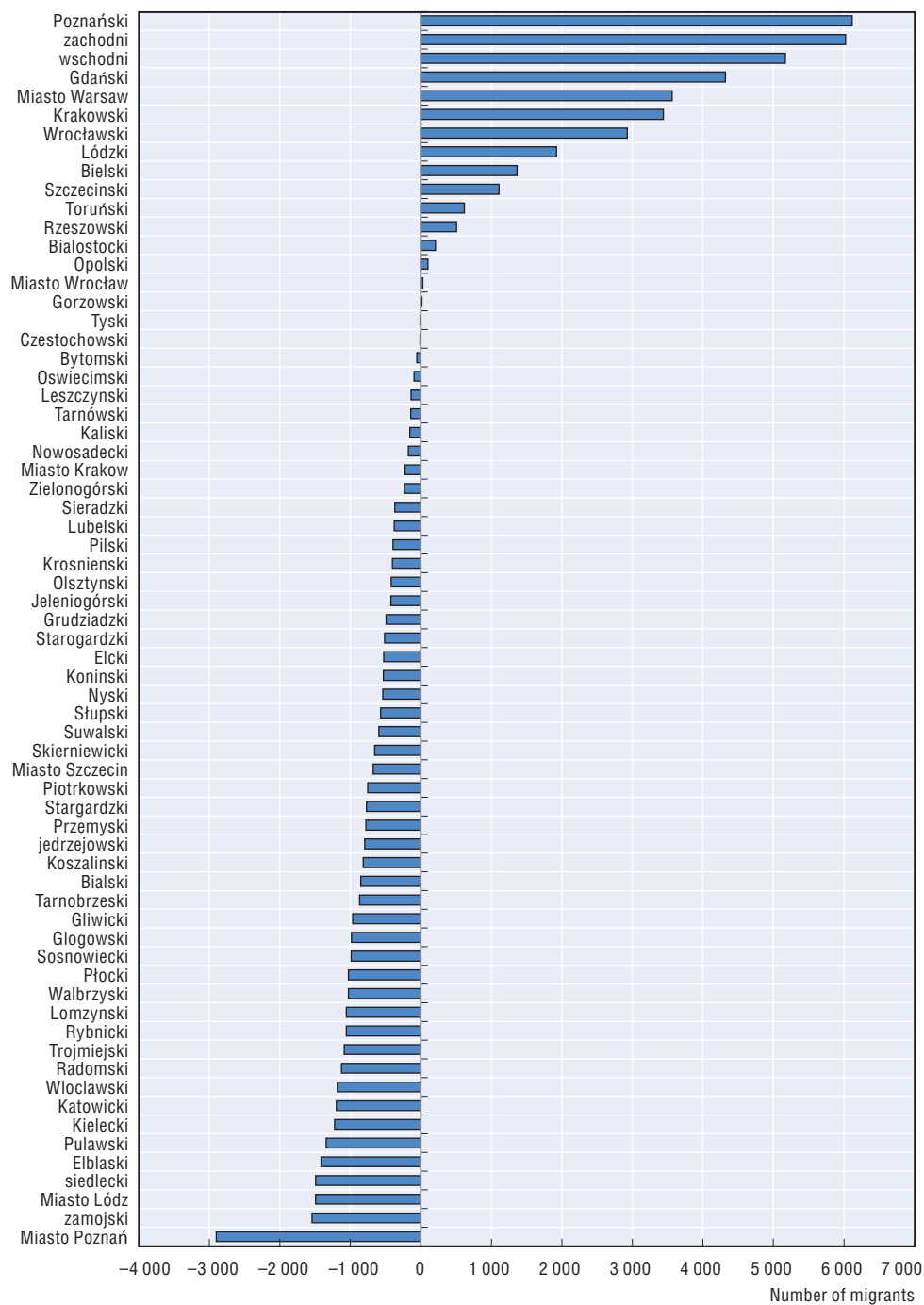


This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map.
Source: OECD calculations based on CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

An analysis of internal migration in Poland confirms that it is a highly localised phenomenon involving suburbanisation and sprawl. Whereas the vast majority of regions in Poland have negative migration balances, only a handful of regions are on the receiving end. Around ten sub-regions (TL3) have positive and significant migration balance numbers (Figure 1.12). The strongest positive migration balances are mostly found either in or around ULMAs' cores (Figure 1.13), which is in line with the findings on suburbanisation.

Depopulation or stagnant growth is a real challenge in Poland, and urban areas in general are not exempt, but all the regions that are growing in population are located within urban functional areas. Only 13 out of 41 urban functional areas in the country have experienced an increase in population between 1998 and 2008, mainly driven by

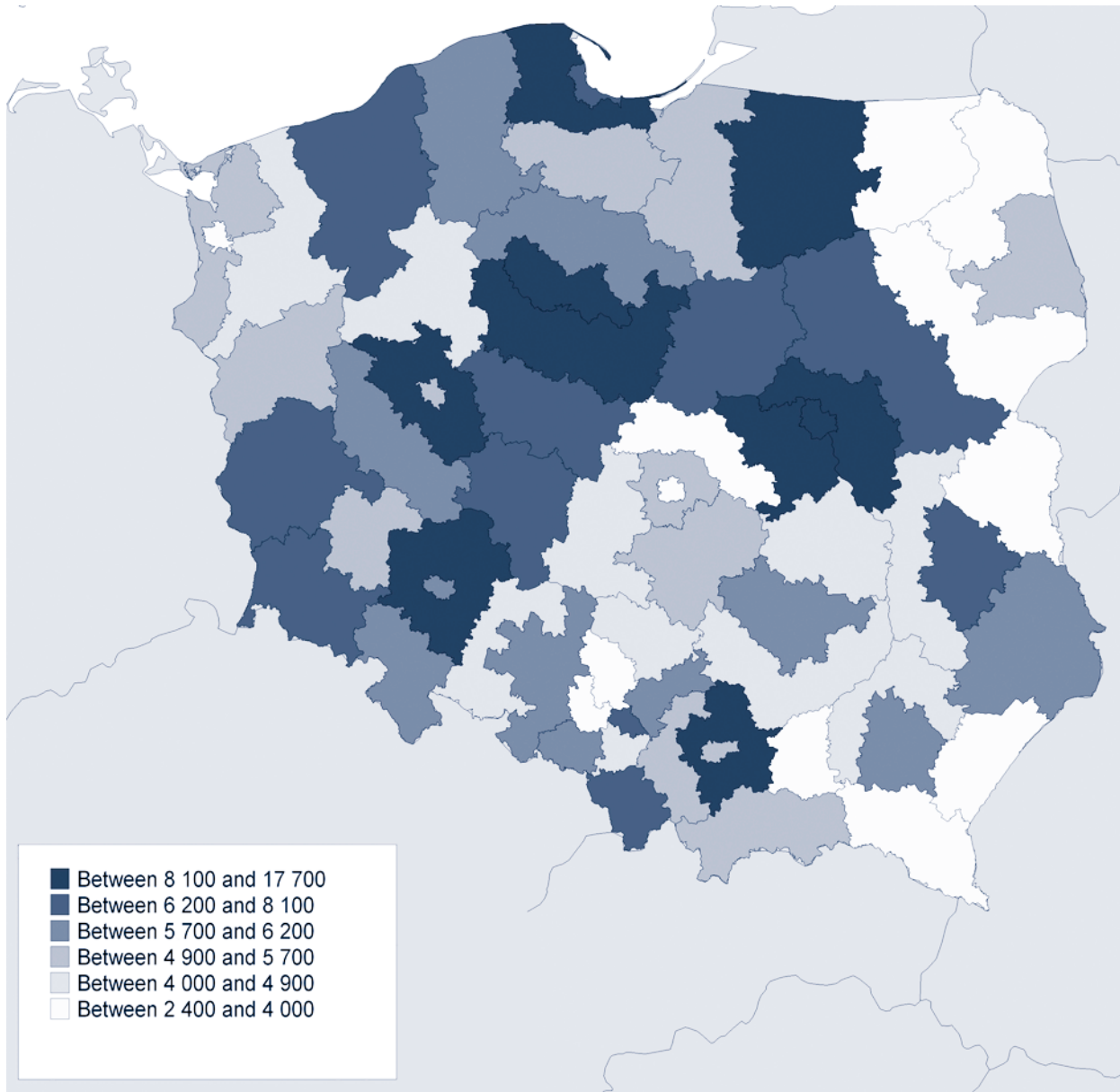
Figure 1.12. Regional migration balance at sub-regional (TL3) level



Note: TL3 data was used, as no *gmina*-level data on migration is available.

Source: OECD Regional Database, http://stats.oecd.org/Index.aspx?datasetcode=REG_DEMO_TL3, accessed March 2010.

Figure 1.13. Immigration at sub-regional level
 Number of people in-migrating by TL3 regions



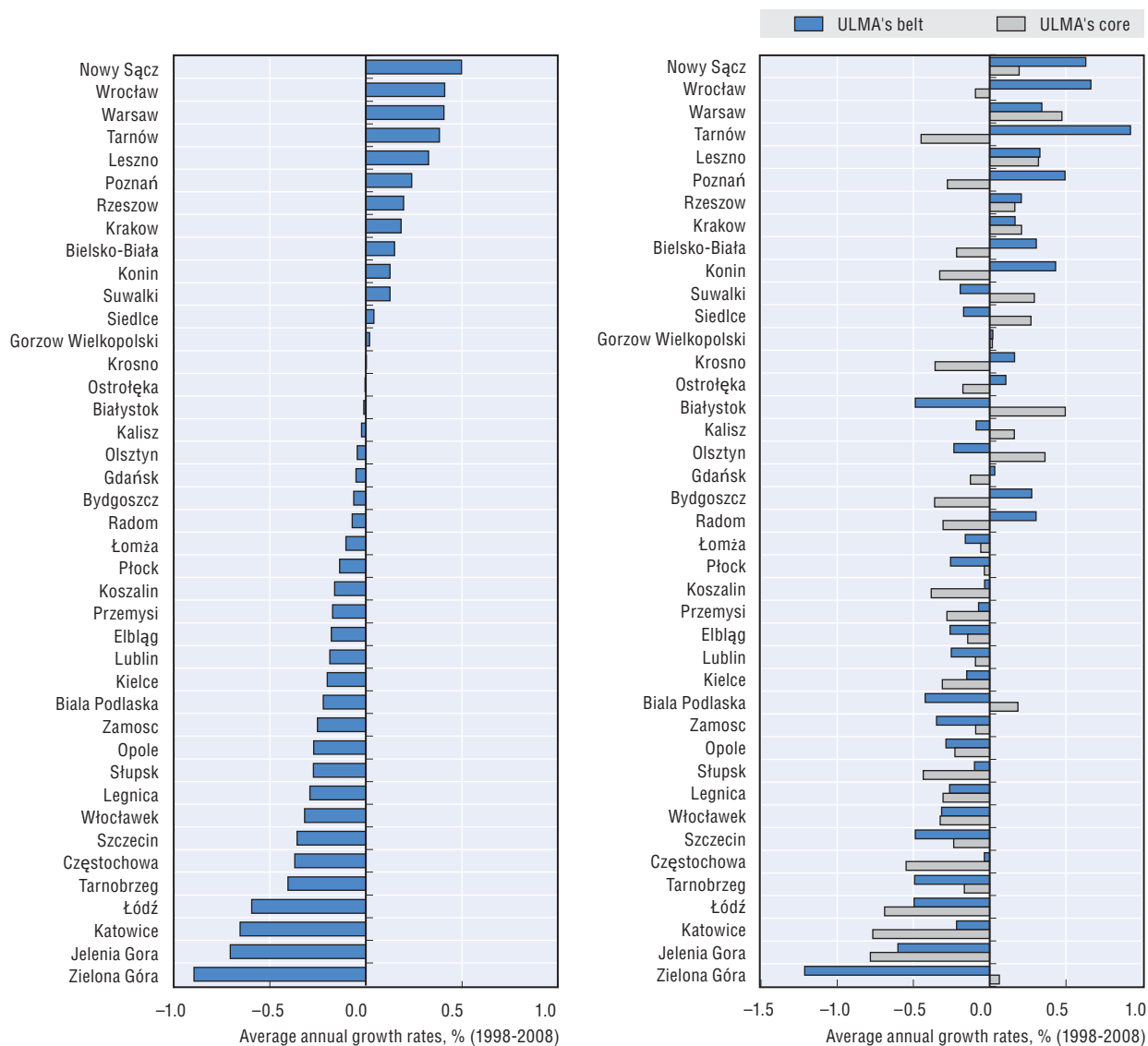
This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map.

Note: Based on data for sub-regions (TL3).

Source: OECD calculations based on OECD (2009), "Defining and Measuring World Metro-Regions: Issues and Proposed Methodology", paper presented at the 18th Session of the Working Party on Territorial Indicators, OV/TDPC/TI(2009)5, OECD, Paris.

suburbanisation and growth in some core areas (Figure 1.14). The lion's share of urban functional areas is facing negative growth rates. Although the balance of population growth is negative, there are some urban functional areas, such as Krosno, Ostrołęka, Bydgoszcz and Radom where growth in the suburban area is not enough to compensate for lost population at the core. Contrastingly, Białystok, Kalisz and Olsztyn are growing at the core but losing population at the outskirts. However, more than half of Polish ULMAs are facing negative growth rates at the core and in the suburbs. Poznań is among the ULMAs that are experiencing more rapid population growth in its belt rather than at the core. This may be related to the emergence of high density levels in the belt (Figure 1.15). Conversely, Warsaw's ULMA is experiencing growth rates higher at the core than in the belt, but relatively rapid increases in both core and belt have probably also led to high density levels in the periphery (Figure 1.16). A regional system that includes the ULMAs of Katowice,

Figure 1.14. Population growth in Polish ULMAs

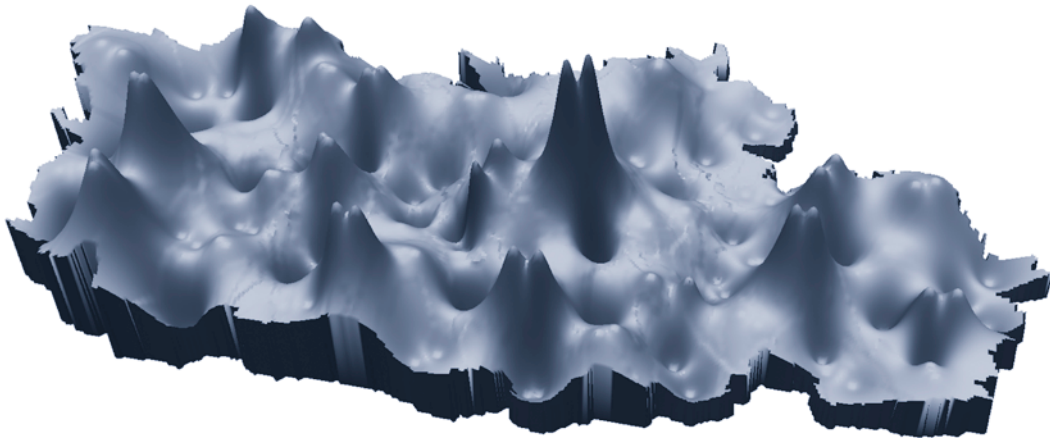


Source: OECD calculations based on CSO (2010) "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

Krakow and Bielsko-Biała experience very different trends that can be related to a unique density trend. While Katowice is experiencing depopulation in its core and belt, Krakow has similar population gains in both, and Bielsko-Biała's core is shrinking while its suburbs are expanding. As a result, moderate to high density can be observed throughout the regional system (Figure 1.17).

Figure 1.15. Density structure of Poznań's ULMA

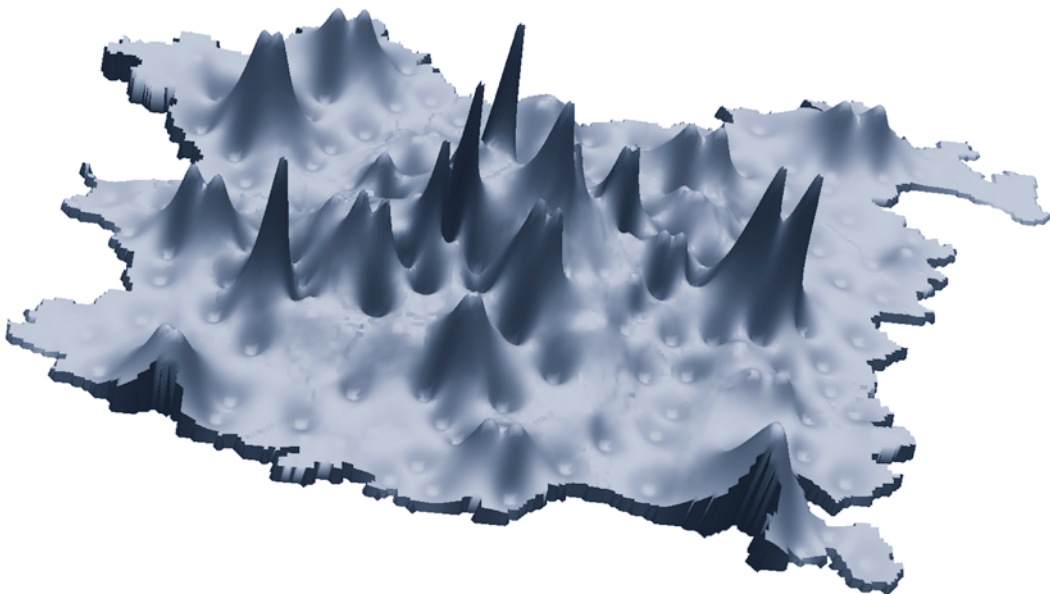
Density per square kilometre at municipal level



Source: OECD calculations based on CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

Figure 1.16. Density structure of Warsaw's ULMA

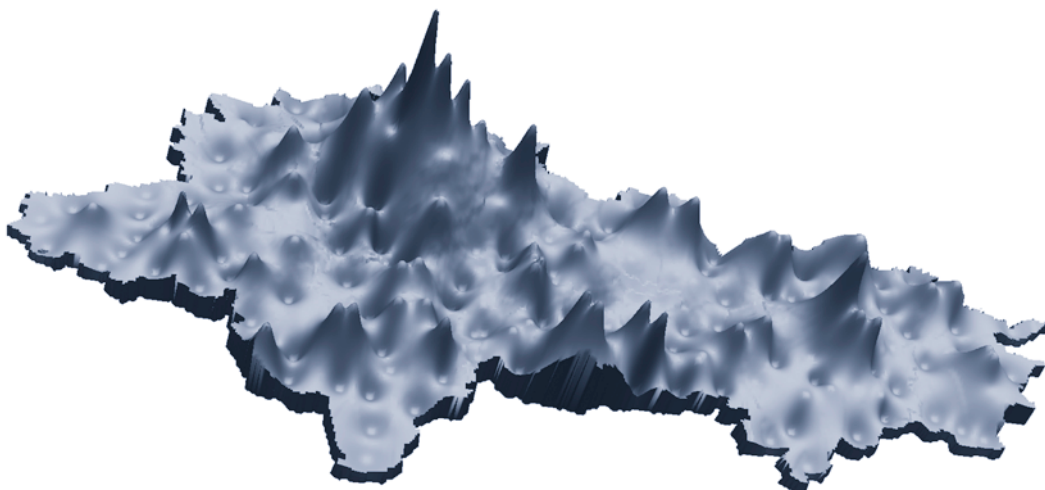
Density per square kilometre at municipal level



Source: OECD calculations based on CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

Figure 1.17. **Density structure of the ULMAs of Katowice, Krakow and Bielsko-Biala**

Density per square kilometre at municipal level



Source: OECD calculations based on CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

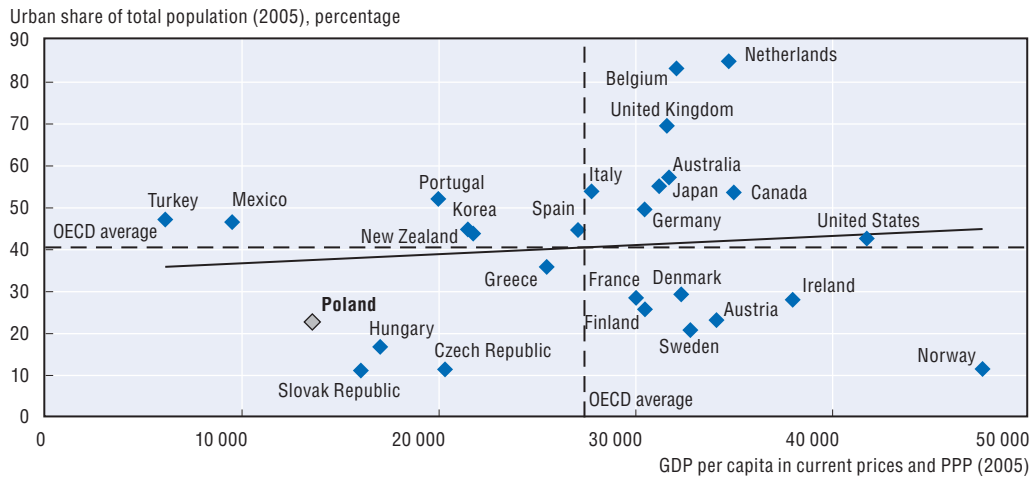
Economic performance of urban areas and drivers of growth

As in other OECD countries, urban populations in Poland tend to have higher GDP per capita than their rural counterparts. In OECD countries, higher urban population shares co-exist, in most cases, with higher GDP per capita than their national average (Figure 1.18). Looking at ULMAs in Poland, the relationship is even clearer. Linearised values of population and per capita GDP seem to have a direct relationship (Figure 1.19). As population in Polish ULMAs increases, per capita GDP tends also to increase. There is, however, one exception to this trend: Katowice, in southern Poland, is a large ULMA that has been recognised by policy makers as an urban area facing industrial decline (Box 1.4). The fall in local employment in traditional coal and steel-mining and related industries has led to lagging GDP per capita.

Size is not the only factor driving economic growth. A recent EU report found that metropolitan areas that also function as national capitals tend to have the highest GDP per capita, whereas smaller metropolitan areas and some of the second-tier metros scored lower (Dijkstra, 2009); similar findings were highlighted by the OECD (2006b). Recent estimates suggest that doubling the size of a ULMA is associated with a 3.5% to 8% increase in total factor productivity (Rice, Venables and Patacchini, 2006; Graham, 2007 and Graham and Kim, 2008). For instance, people living in US metro-regions earn 10% more than those living in smaller functional areas and over one-third more than those living outside (Glaeser and Mare, 1994). However, the cause for this discrepancy may be more complex than just the size of urban areas. Many OECD metro-regions outperform their own national levels in terms of economic growth, but many others are lagging behind. Part of the explanation for slow productivity increases in some urban areas is that city-size only matters if human capital is also agglomerating (Glaeser and Resseger, 2009). The Polish case provides additional evidence that size is not the only determinant of economic growth. While larger ULMAs, most notably Warsaw, are growing at rates over 5%, others are trailing behind smaller ULMAs. In fact, the largest growth rates are achieved by three

Figure 1.18. **Urbanisation and GDP per capita**

Urban share of total population (PU) and GDP per capita in OECD countries

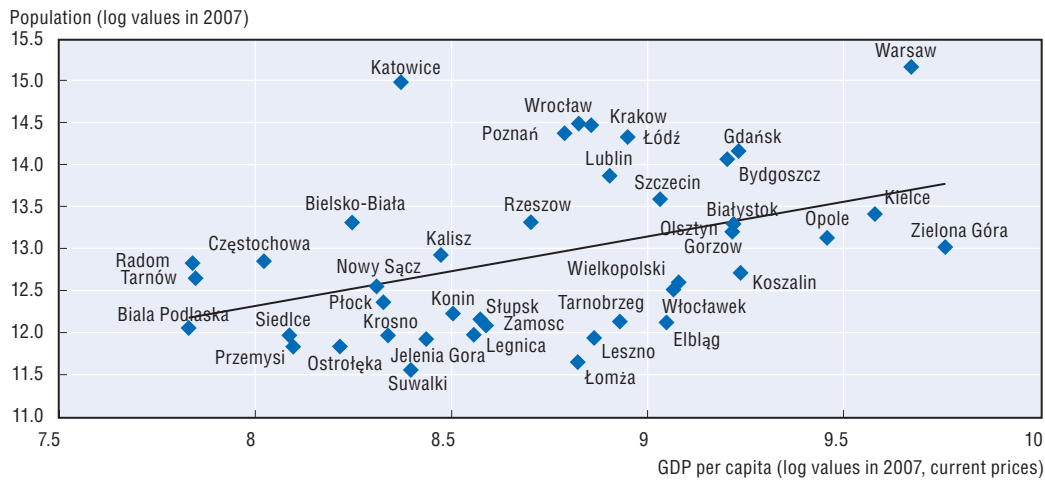


1. Urban share of total population by country refers to population in urban regions as a proportion of total population.
2. Iceland and Luxembourg were not included in the sample, as the *OECD Regional Database* does not identify predominantly urban (PU) regions in those countries.
3. Switzerland was not included, as its GDP figures at sub-national level are not available.
4. Mexico's GDP per capita data refer to 2004; New Zealand's to 2003; Turkey's to 2001.

Source: OECD (2010), *Trends in Urbanisation and Urban Policies in OECD Countries: What Lessons for China?*, OECD, Paris.

Figure 1.19. **Urban population and GDP per capita among Polish ULMAs**

Total population and per capita GDP in ULMAs (log values in 2007)



Note: GDP data at TL4 are not available for Poland. ULMA-level GDP data was estimated using a wage-based proportion of TL3 GDP. Such a proportion results from the ratio of total remunerations at TL4 to those at TL3. Assuming homogenous technologies at both levels (TL3 and TL4), ULMA GDP data is the corresponding aggregation of estimated TL4 GDP.

Source: OECD based on CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

Box 1.4. Industrial decline and restructuring in Katowice

Katowice is the second-largest urban functional area in Poland. A once successful industrial and mining urban centre, it has been under stress from industrial decline and an ongoing restructuring process of old and de-capitalised heavy industries, such as coal, steel, zinc and other minerals. In Upper Silesia, the region where Katowice is located, the restructuring of two major industrial branches has resulted in the closure of many factories and mines. In 1960, 80 mines were in operation, but by 2006 only 20 were still extracting coal. From 1990 (in less than 20 years), annual production has been halved, from 177.4 million to 87.2 million tonnes. The number of mineworkers has decreased from 415 700 to 116 400 over the same period. In the steel sector, the consequences of restructuring have been similar. Several workshops have been liquidated, and ten blast furnaces have been put out of operation. Annual steel production has declined significantly (from 20 million in 1980 to 11 million tonnes in 1994). Many sites have been forced to close down for lack of profitability and less than 20 are still in operation. To counter this trend, some of these mines came together in 2002 under the Polskie Huty Stali consortium, now owned by ArcelorMittal. Nevertheless, this has not prevented the loss of more than 100 000 jobs in the steel sector since the beginning of the restructuring.

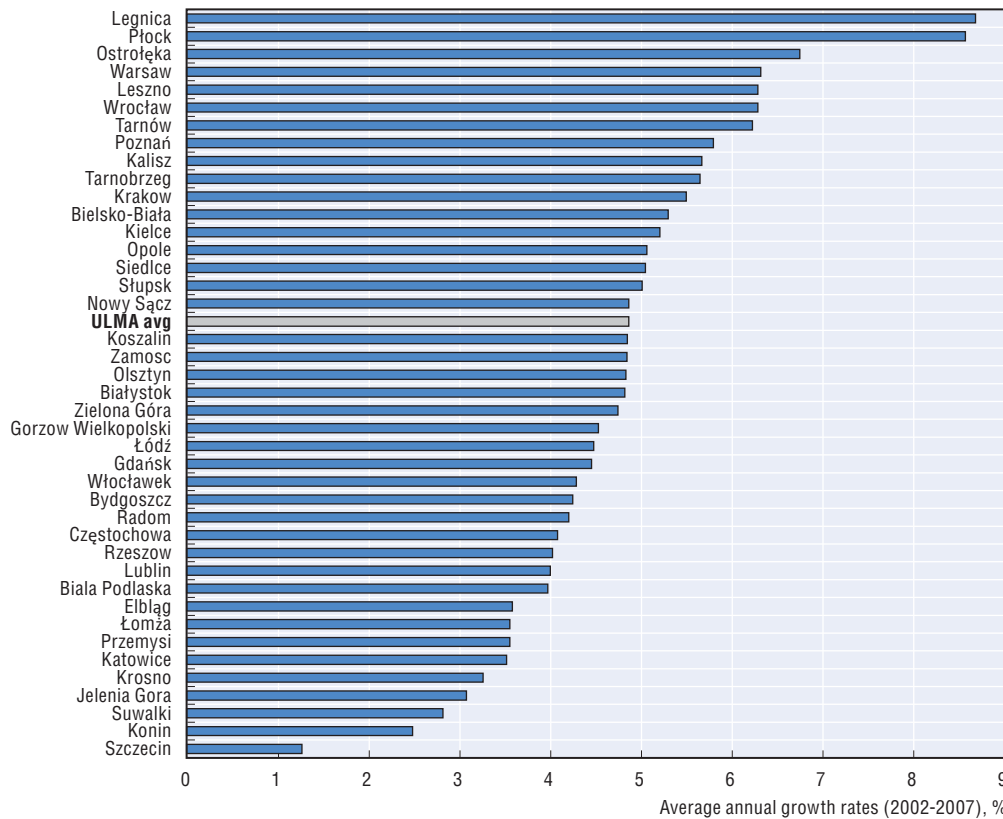
These changes have resulted in public unrest, with strikes breaking out in Upper Silesia, particularly during the winter of 1992-93. Given the difficulties in the mining sector, the government had to juggle the need to restructure the industry and the discontent of workers facing the loss of the jobs and the benefits they enjoyed under communism. Many Silesian mineworkers were allocated a card that entitled them to designated food benefits and housing at subsidised prices. This card also guaranteed benefits in terms of food. In addition, their salaries were about twice the national industrial average. However, the restructuring process shut down coal mines with a heavy loss of jobs. In 2006, only one-quarter of the mines open in 1960 were still running, and nearly 300 000 jobs have been lost in the sector in Katowice since 1990. The economic restructuring has had many negative social consequences: increased unemployment and crime (in particular petty offences), and housing problems. Often more than two generations live under the same roof because of low salaries and the lack of employment.

smaller ULMAs (Legnica, Ostrołęka and Płock) with lower initial GDP per capita (Figure 1.20). Warsaw has nevertheless been recognised as the champion in Poland in terms of economic growth (OECD, 2008c). If the larger functional area is taken into account, Warsaw still performs at more than 6% per year, but remains fourth in the urban system. Smaller economic growth rates in such key cities as Warsaw, Poznań or Katowice can be explained by the fact that progress can be asymmetrical within ULMAs. Warsaw's per capita GDP for the municipality stood at more than PLN 28 000 in 2007, while the municipalities comprising its belt showed a GDP per capita of less than PLN 4 000. Similarly, Poznań's municipality per capita GDP is more than twice that of its belt and Krakow's is almost three times richer at the core than in the suburbs. Economic growth rates for the core of each of these ULMAs outpaces that of the suburban areas by as much as 2%, as in the case of Poznań.

It is possible that the economic performance of Polish medium-sized cities may be limited by structural factors and demographic change. Among all OECD predominantly urban (PU) areas, medium-sized cities are growing faster than other types (Figure 1.21). Poland's ULMAs, however, perform differently when it comes to medium-sized cities. A

Figure 1.20. **Economic performance of Polish ULMAs**

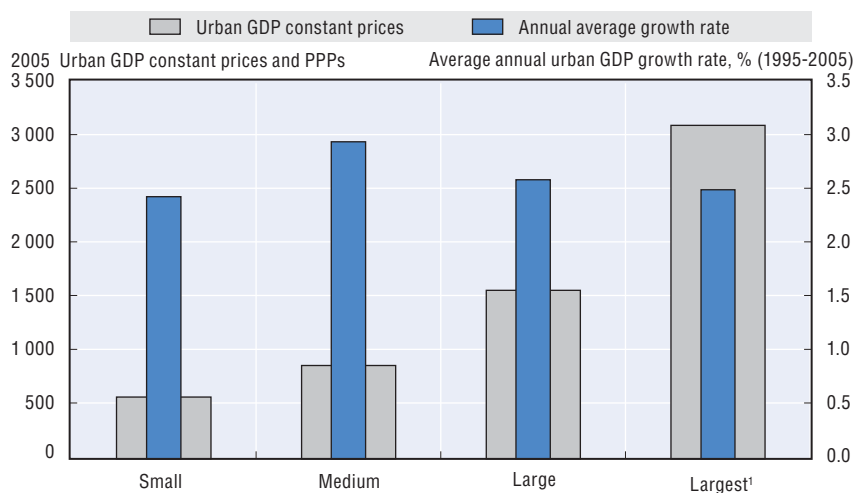
Average annual GDP per capita growth rates, 2002-07



Note: GDP data at TL4 are not available for Poland. ULMA-level GDP data were estimated using a wage-based proportion of TL3 GDP. Such a proportion results from the ratio of total remunerations at TL4 to those at TL3. Assuming homogenous technologies at both levels (TL3 and TL4), ULMA GDP data is the corresponding aggregation of estimated TL4 GDP.

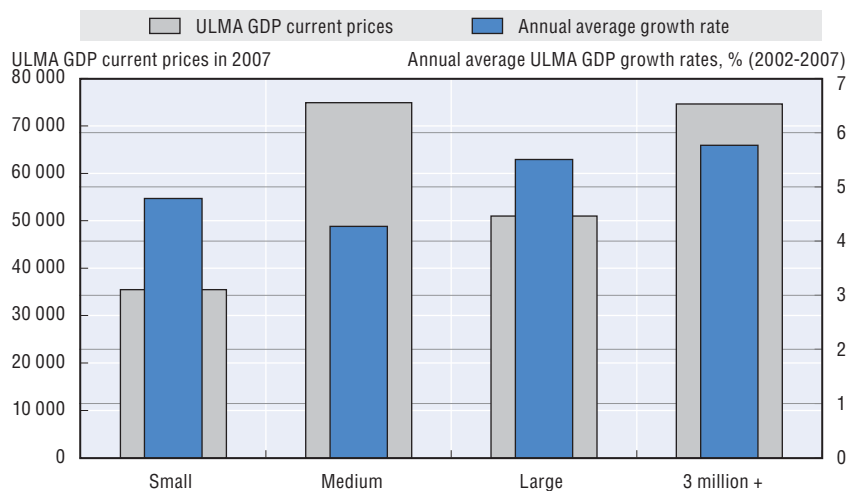
Source: OECD based on CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

slower performance by medium-sized ULMAs in Poland than the same type in the OECD (Figure 1.22) could signal a potential problem. Polish medium-sized cities might not be fully realising their own potential. Growth determinants such as physical capital, including infrastructure, human capital and innovation, might be behind performance differentials (Box 1.5). In the Polish case, cities of all sizes seem to be performing well in spite of infrastructure levels (Figure 1.23) and are probably supported by the concentration of human capital, particularly in large ULMAs. According to Gawryszewski (2002) cited by Ministry of Regional Development (2010a), population aged 13 and above with more than 11 years of education (secondary) are concentrated almost exclusively in and around most large urban municipalities (Figure 1.24). ULMAs that are notable for such concentrations are Warsaw, Krakow, Lublin, Poznań, Wrocław and Gdańsk, as well as smaller ULMAs in Group 6 ("smaller ULMAs with poor linkages") such as Biała Podlaska, Krosno, Przemysł, Siedlce and Zamość, and medium-sized ULMAs in Group 5 ("medium-sized but facing depopulation") such as Białystok, Kielce and Olsztyn. However, the urban system could have greater benefits if infrastructure investments were made in small, medium and large ULMAs. The most limiting factor seems to be the extent to which small and medium ULMAs are losing population (Figure 1.25).

Figure 1.21. **Economic performance and city size in the OECD, 1995-2005**

1. Largest refers to the urban areas of over 1.5 million people.
2. This analysis was carried out using only predominantly urban (PU) areas.
3. Small cities are PUs with population between 100 000 and 500 000 people. Medium-sized cities are PUs with population between 500 000 and 1 million people. Large cities are PUs with population between 1 million and 1.5 million people.
4. GDP expressed in PPPs.

Source: OECD calculations based on the OECD Regional Database, http://stats.oecd.org/Index.aspx?datasetcode=REG_DEMO_TL3, accessed March 2010.

Figure 1.22. **Economic performance and city size in Poland, 2002-07**

Note: GDP data at TL4 is not available in Poland. ULMA-level GDP data were estimated using a wage-based proportion of TL3 GDP. Such a proportion results from the ratio of total remunerations at TL4 to those at TL3. Assuming homogenous technologies at both levels (TL3 and TL4), ULMA GDP data are the corresponding aggregation of estimated TL4 GDP.

Source: OECD calculations based on CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

Box 1.5. What makes regions grow?

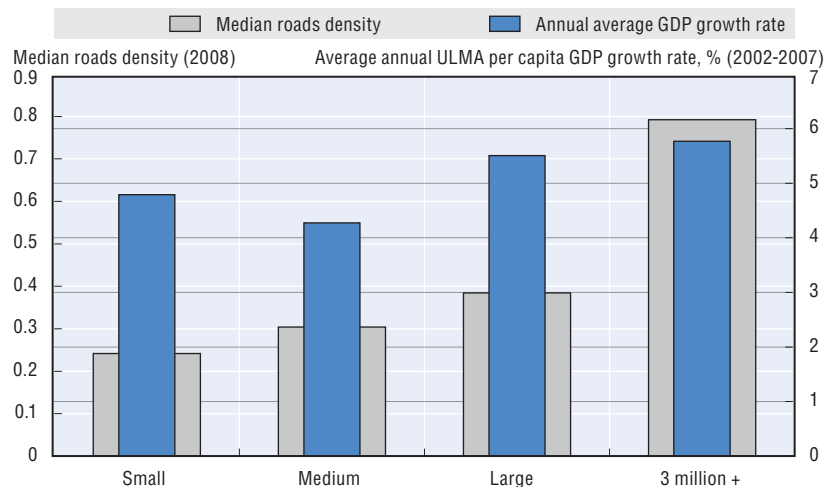
Economic growth in urban areas is driven by endogenous factors such as human capital, physical capital (including infrastructure) and innovation, but also spatial factors such as agglomeration economies and proximity to markets. Using a number of econometric techniques, the OECD has developed a regional economic growth model that takes into account endogenous factors and new economic geography elements. Among the results are:

- i) Human capital is the most robust factor – mainly in terms of tertiary educational attainments; this takes about three years to have an impact.
- ii) Infrastructure has an impact when other factors are also in place, such as human capital and innovation.
- iii) Innovation has an impact on growth, but is a longer-term process and takes between five to ten years.
- iv) Agglomerations in services (measured by a region’s specialisation index times the size in financial intermediation) has a positive impact on growth. This result can have particular implications for urban regions, since financial intermediation and knowledge-intensive services are mainly present in metropolitan areas.
- v) Accessibility to markets has a positive impact on growth, but this result is not very robust, since it is only statistically significant in one model.
- vi) Urban regions with low employment rates can generate growth if they can manage to mobilise their labour force.

Source: OECD (2009), *How Regions Grow*, OECD Publishing, Paris.

Figure 1.23. **Infrastructure and economic performance in Poland**

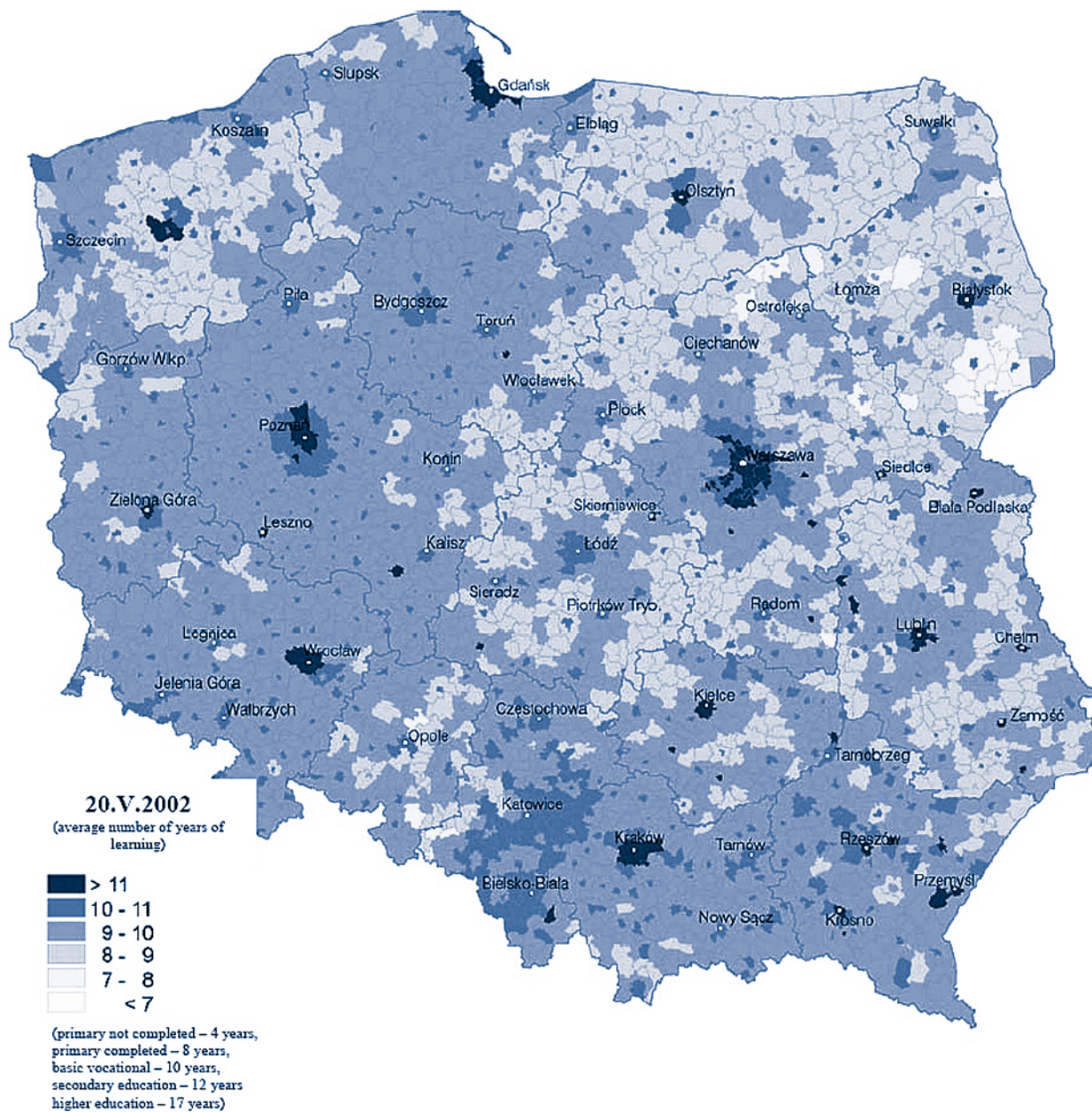
Economic performance according to infrastructure density



1. Road density refers to square kilometres of roads as a proportion of surface in square kilometres (*powiat* level in 2008).
2. GDP data at TL4 are not available in Poland. ULMA-level GDP data were estimated using a wage-based proportion of TL3 GDP. Such a proportion results from the ratio of total remunerations at TL4 to those at TL3. Assuming homogenous technologies at both levels (TL3 and TL4), ULMA GDP data is the corresponding aggregation of estimated TL4 GDP.

Source: OECD calculations based on CSO (2010), “Polish Regional Data Bank Survey 2006”, Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

Figure 1.24. **Concentration of tertiary education**
Population aged 13 or more with higher education

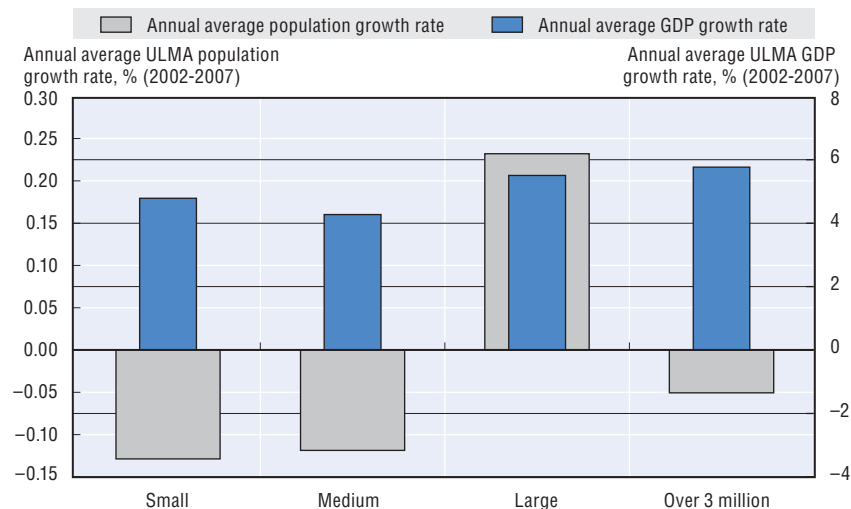


This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map.

Source: Gawryszewski, A. (2008), Institute of Geography and Spatial Organization, Polish Academy of Sciences, based on NSP (2002), "Experts' Draft of the Concept of National Spatial Development", Warsaw.

Figure 1.25. **Population growth and economic performance in Poland**

Economic performance and population growth rates by city-size



Note: GDP data at TL4 are not available in Poland. ULMA-level GDP data were estimated using a wage-based proportion of TL3 GDP. Such a proportion results from the ratio of total remunerations at TL4 to those at TL3. Assuming homogenous technologies at both levels (TL3 and TL4), ULMA GDP data is the corresponding aggregation of estimated TL4 GDP.

Source: OECD calculations based on CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

Mixed outcomes in Poland could also be associated with negative externalities linked directly to some of the most pressing urban challenges, such as housing. Agglomerations emerge as a result of the action of two countervailing forces. On the one hand, centripetal forces can be related to a pooled labour market, backward and forward linkages among firms, and agglomeration economies such as knowledge spillovers. On the other hand, centrifugal forces leading to deconcentration can be related to increased land prices, immobile factors and congestion costs. As some of the benefits of centripetal forces can be captured by private agents and some of the costs produced by centrifugal forces affect the whole urban system, it can be said that urban areas enable the privatisation of benefits and socialisation of costs (OECD, 2009b). In the case of Poland, inefficiencies in the housing market limiting supply may be hindering or increasing the cost of rural-to-urban migration, which in turn affects the size of the labour market. At the same time, inelastic housing supply in Poland may also increase land prices and could impinge on urban attractiveness for firms. A successful urban policy would ensure that urban expansion maximises the benefits of agglomeration but at the same time, minimises the impact of congestion and other negative externalities (OECD, 2010b).

1.2. Challenges ahead

An ageing and shrinking labour force

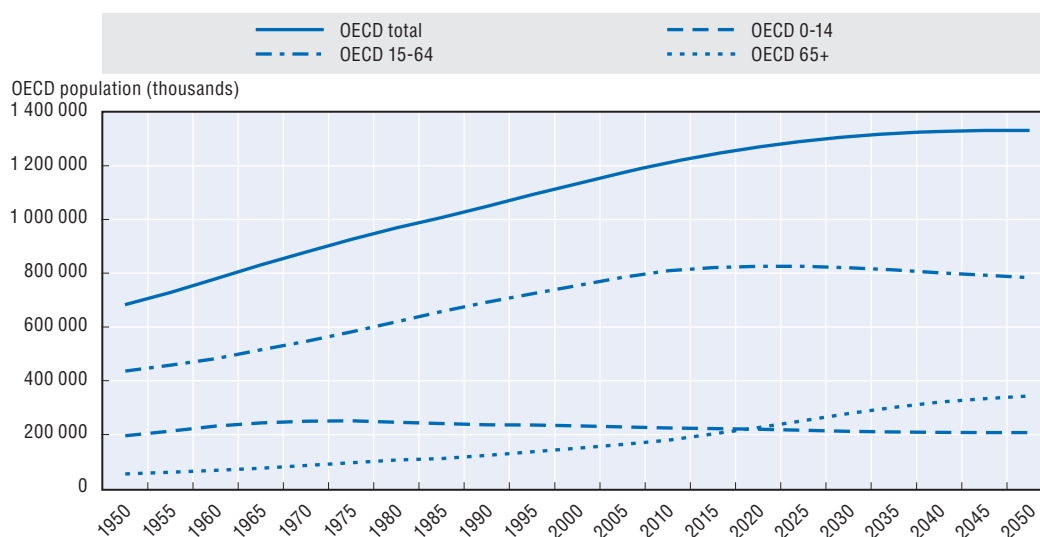
Ageing populations and other demographic changes in the 21st century will become not only a fiscal conundrum at the national level and a growing burden on taxpayers, but will also exacerbate urban challenges. Starting in 2010, the retirement of the baby boom generation will produce local labour market shortages that can only be eased by the movement of factors of production. Firms will move to cities with younger societies, and workers will migrate from rural areas (or other urban areas) or from other less developed

countries. Demographic change will affect competitiveness and will create policy dilemmas for national and local authorities alike. For instance, migration that compensates for labour market shortages caused by ageing can exacerbate urban sprawl in competitive cities. This in-migration can also lead to an under-provision of housing and public services and strains on infrastructure. In contrast, demographic change will render less attractive cities even less competitive and generate an over-provision of infrastructure and services that are not adjusted to an older population. These changes will come at a time of increased fiscal strain, due to the long-lasting effects of the financial crisis.

These demographic trends started in Western Europe in the 1970s with a fall in fertility, and were aggravated a decade later by a similar decrease in fertility rates in Eastern Europe. In 2010, the world's elderly population began to increase at a faster rate; in the OECD, the rate for elderly populations will outstrip that for the youngest group (0-14-year-olds) by 2015 (Figure 1.26). For many European countries, retirement of the baby boom generation will reach significant levels by 2015, and by 2030, high mortality rates in many European cities will create the “emptying of cities” effect in less competitive cities as in-migration fails to keep up with population outflows. In other European countries, increased labour mobility beginning in 2011 will boost migration into successful and attractive cities. This will cause sprawl, strain on public-service delivery and increase environmental degradation and carbon emissions, while demanding further infrastructure.⁸ As described above, for some countries and urban areas, this demographic change and enhanced mobility will cause imbalances in the housing market, leading to an under-provision in some cities and over-provision in others. This could have unpredictable consequences for the financial markets.

Poland will soon join the group of European countries with unprecedented ageing rates, along with Japan, Korea and even China. Today, the proportion of people aged 65 or older in China and Korea is 12-15%. In many EU countries, for example Germany, Italy, Sweden or Switzerland, the proportion of elderly population to working-age population easily exceeds 25% (Figure 1.27). Poland shows elderly dependency levels that are

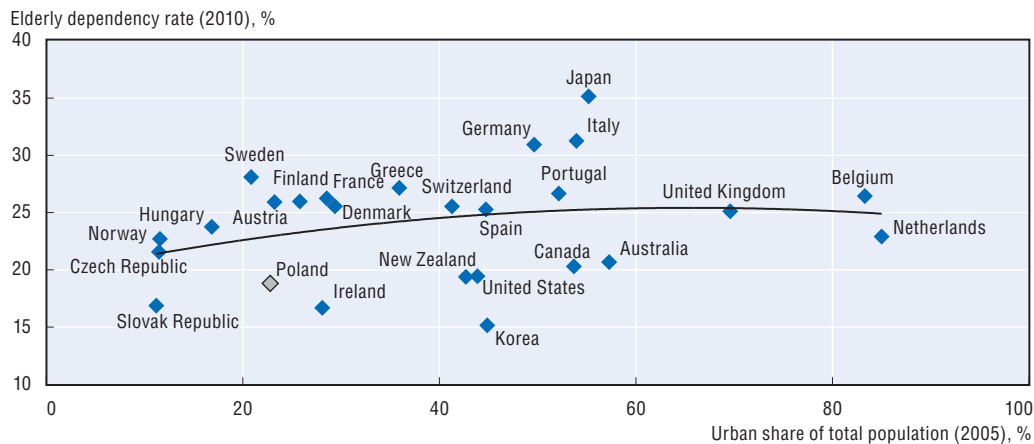
Figure 1.26. **Population by age in the OECD**
Absolute population numbers



Source: Based on data from the United Nations (2010), “World Population Prospects: The 2008 Revision”, UN Population Database, <http://esa.un.org/unpp/index.asp?panel=2>, accessed July 2010.

Figure 1.27. **Urbanisation and ageing**

Urban population shares (2005) and elderly dependency rates (2010)



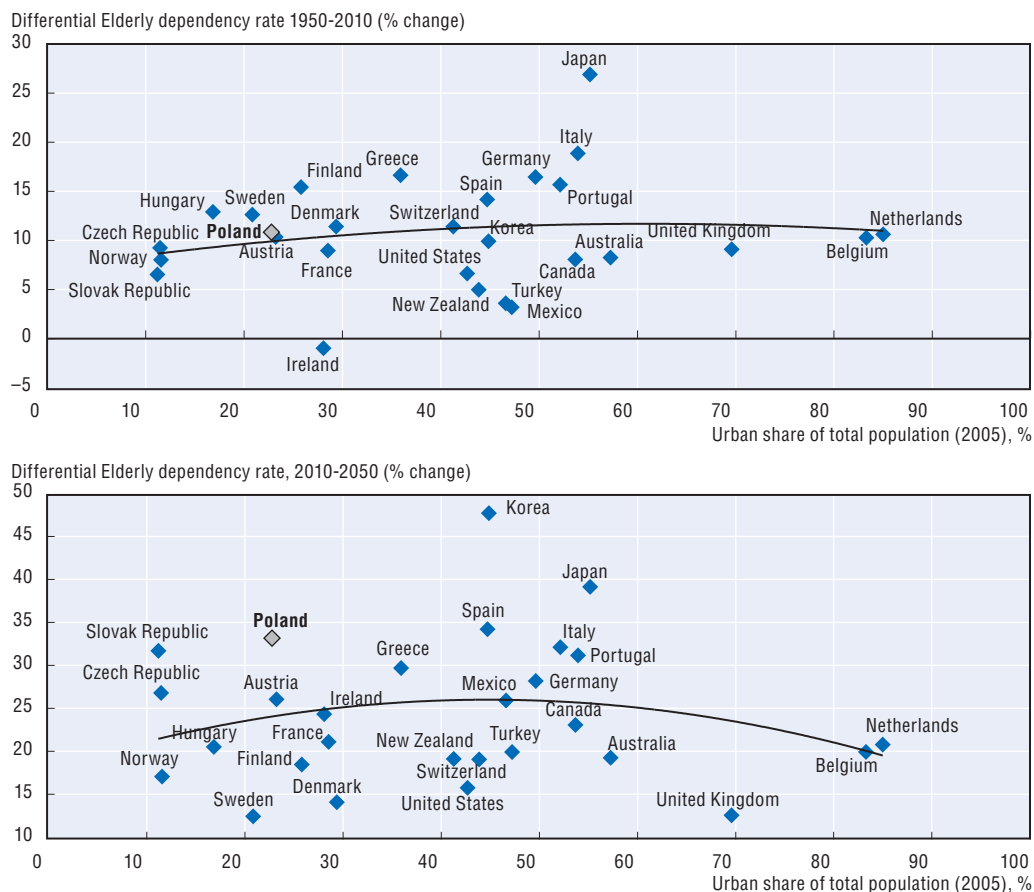
Source: OECD calculations based on data from the *OECD Regional Database*, http://stats.oecd.org/Index.aspx?datasetcode=REG_DEMO_TL3, accessed March 2010, and United Nations (2010), "World Population Prospects: The 2008 Revision", *UN Population Database*, <http://esa.un.org/unpp/index.asp?panel=2>, accessed July 2010.

comparable to countries such as Australia, New Zealand or the US that are not facing a growing ageing population (Figure 1.27). However, Poland's change in elderly dependency rates in the past 60 years compares with that of more aged societies such as the Dutch or the Danes (Figure 1.28). More importantly, by 2050, elderly dependency rates are projected to put Poland among the highest in the OECD, outstripped only by Japan, Korea and Spain (Figure 1.28). In part, the increase in the elderly population in Poland is the result of plummeting fertility rates, one of the lowest in the OECD (Figure 1.29). Poland's fertility rates (children per women aged 15 to 49) fell from 1.97 in 1980 to 1.085 in 2009 (CSO, 2010b).

The combined effect of increased life expectancy and low fertility rates is transforming population structures. Even 50 years ago, population structures were pyramidal, with a broad base of young age groups and a small apex of older people. Today, these structures are being transformed into a "top-heavy" shape with a narrower base, a bulging middle moving steadily up, and a long, tapering top (OECD, 2008b). In Poland, the broad base and substantial middle of the population structure in 2000 will give way by 2050 to a flat structure across age groups, with a hump at the top of the age scale (Figure 1.30). Possible labour shortages in urban areas will attract migrants and affect the housing markets, with smaller dwelling sizes. In addition, transport infrastructure for shorter journeys and medical services in urban areas will need to adapt to a different population structure.

Looking to 2050, aged Polish population is predicted to more than double as a proportion of the labour force. In 2000, every senior person was supported by around five people in the labour force. By 2050, the ratio will fall to one senior for every two in the labour force. The share of older to younger adults is expected to be especially high in the Mediterranean countries of Greece, Italy and Spain. In Japan, it is estimated there will be around two in the 65+ bracket for every three 15-64-year-olds. Some of the highest rates of change in this regard will be in countries like Mexico and Turkey, which now have the lowest shares of older people (OECD, 2008b). Although Poland's elderly population is still small by European standards (Figure 1.31), it already accounts for 14% of total population

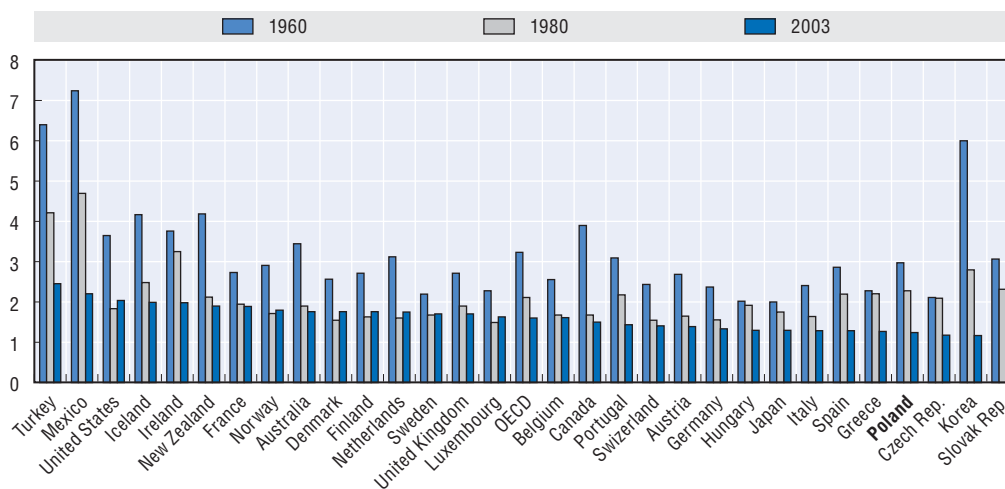
Figure 1.28. Urbanisation and changes in elderly dependency rate
Changes in elderly dependency rates for 1950-2010 and 2010-50 compared



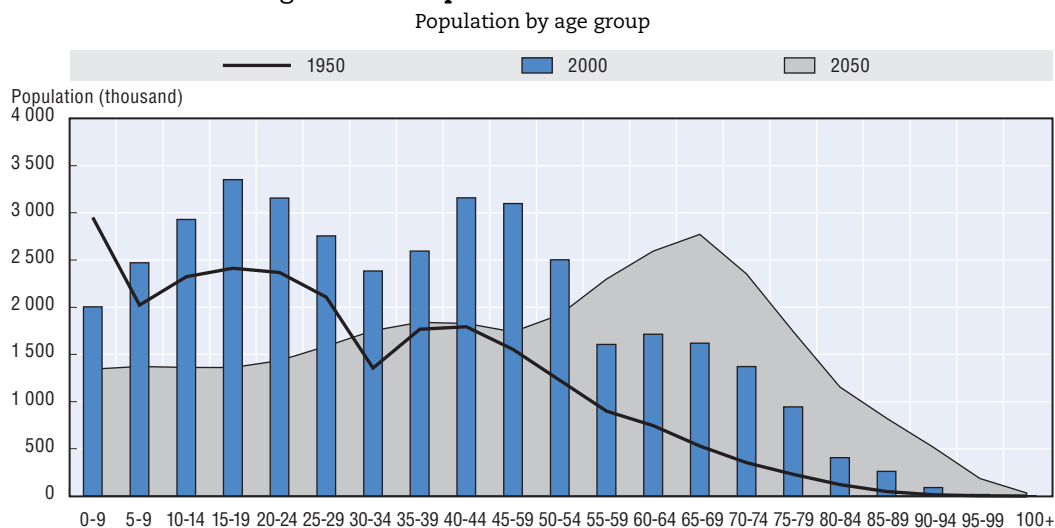
Source: OECD calculations based on data from the *OECD Regional Database*, http://stats.oecd.org/Index.aspx?datasetcode=REG_DEMO_TL3, accessed March 2010, and United Nations (2010), "World Population Prospects: The 2008 Revision", *UN Population Database*, <http://esa.un.org/unpp/index.asp?panel=2>, accessed July 2010.

Figure 1.29. Fertility rates

Total fertility rates: children per women aged 15-49, in 1960, 1980 and 2003



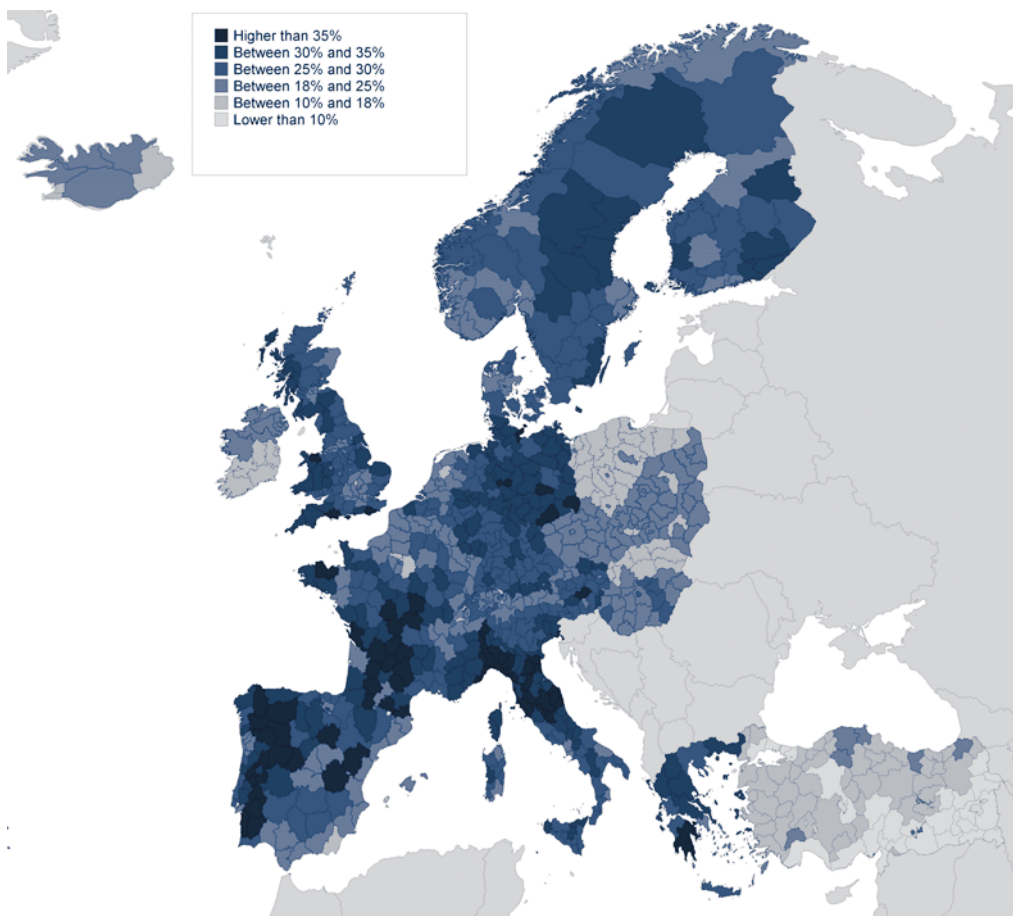
Source: OECD (2005), *Health at a Glance*, OECD Publishing, Paris; OECD (2008), *Trends Shaping Education: 2008 Edition*, OECD Publishing, Paris.

Figure 1.30. **Population structure in Poland**

Source: Based on data from the United Nations (2010), "World Population Prospects: The 2008 Revision", UN Population Database, <http://esa.un.org/unpp/index.asp?panel=2>, accessed July 2010.

Figure 1.31. **Regional elderly dependency rate in Europe**

Ratio of elderly population and working-age population by TL3 regions in 2005



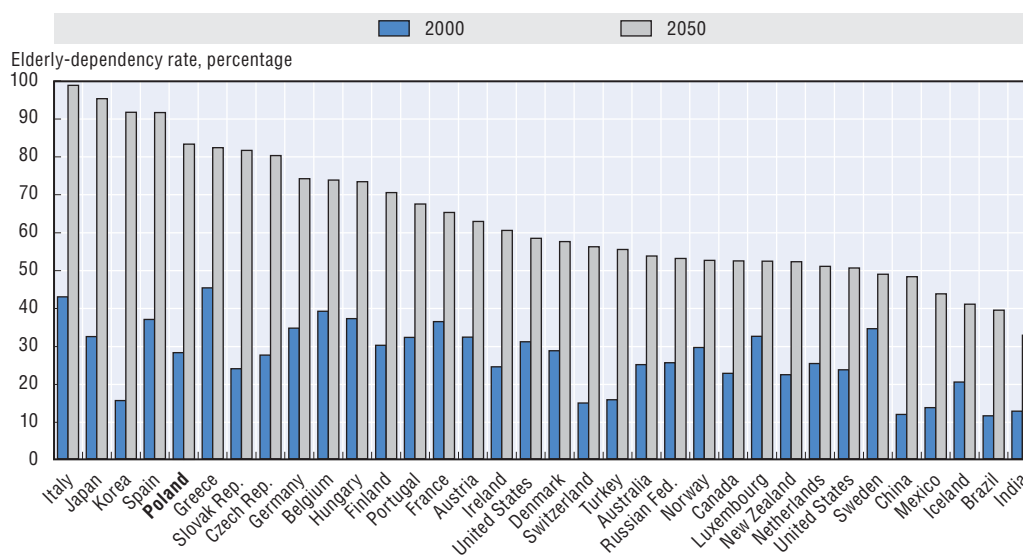
This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map.

Source: OECD Regional Database, http://stats.oecd.org/Index.aspx?datasetcode=REG_DEMO_TL3, accessed March 2010.

and will more than double by 2050. Moreover, the elderly dependency rate, which looks at the proportion of population over 65 years old as a proportion of the population active in the labour market (15-64 years old) is now more than 30%, but it will reach 83% by 2050. For every inactive elderly person in Poland today, there are three active workers in the market contributing toward the social system of pensions. In the next decade, that proportion will be slashed to almost two, and by 2050, there will be slightly more than one active worker supporting one inactive elderly. At that point, Poland's aged population as a proportion of working-age population is expected to be among the top five in the OECD (Figure 1.32).

Figure 1.32. **Elderly dependency rate into the future**

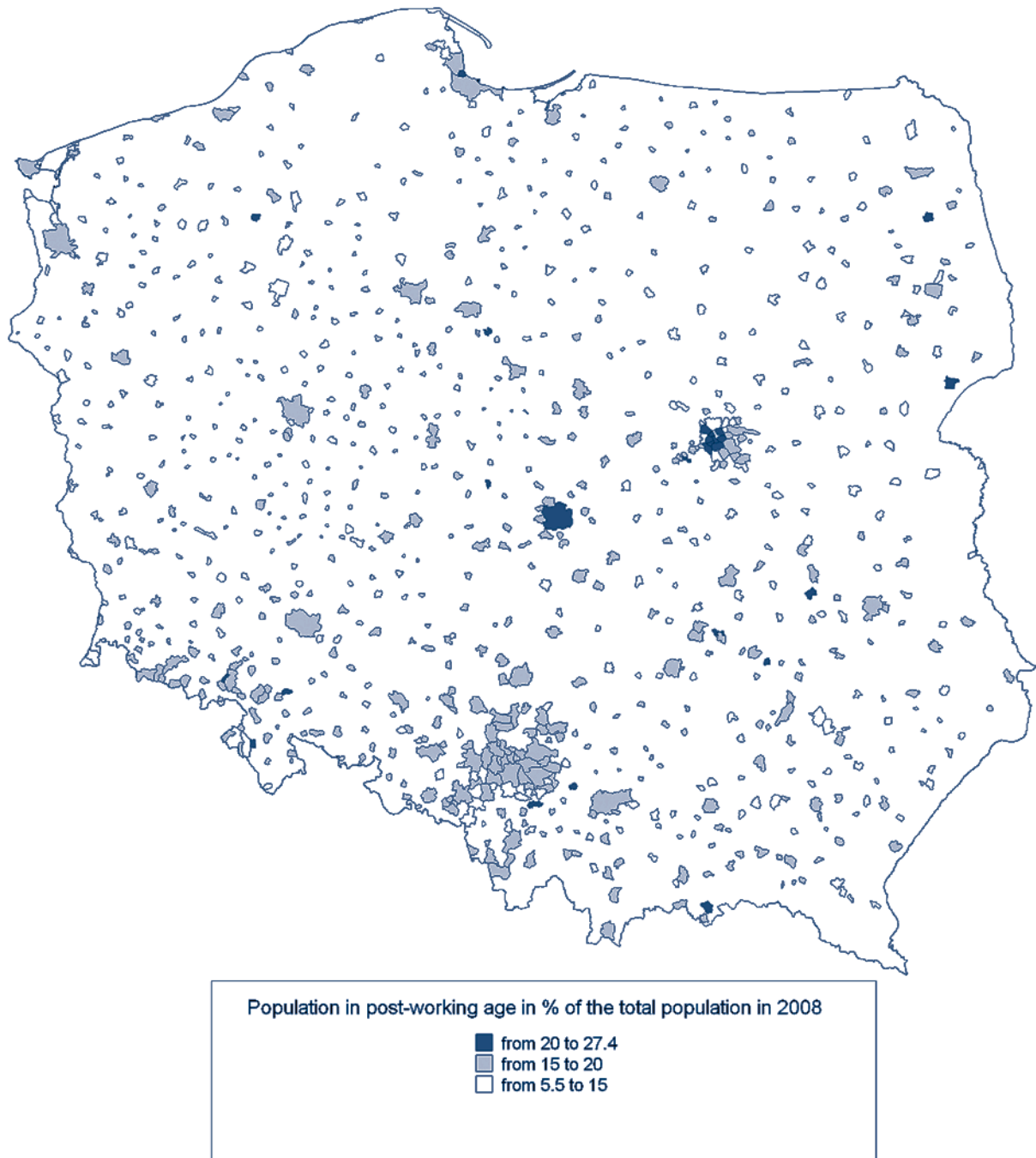
Ratio of elderly population to working-age, 2000 and 2050



Source: OECD (2008), OECD Factbook 2008: Economic, Environmental and Social Statistics, OECD Publishing, Paris.

A number of Polish urban areas are experiencing ageing at a rapid speed. In some countries like France, Ireland, Japan, Korea, New Zealand or Portugal, urban areas attract the younger population and are not the most attractive to the elderly, who choose to remain in less densely populated areas (OECD, 2009a). Conversely, in countries like Belgium, Hungary, Poland and the Slovak Republic, the share of elderly population in urban areas is higher. One explanation lies in the reluctance of people to move to urban areas for cultural reasons, as may be the case for Portugal, but it might also involve greater access to public services in rural areas in countries like France or Japan. In the case of Poland, as in many other central and Eastern European countries, services in rural areas may not be fully developed, leading to a preference for urban areas where the elderly can get health and transport services better suited to their needs. As a result, a number of urban areas, most notably Warsaw, Łódź and Katowice, have experienced mild to high rates of growth of their elderly population (Figure 1.33). At the same time, there is also an east-west divide under which higher elderly dependency rates can be found in eastern regions, regardless of urban or rural status.⁹ Dependency rates in eastern Poland and core areas in ULMAs in Poznań, Szczecin, Gdańsk, Bydgoszcz, Toruń, Wrocław and every large ULMA to the east of Katowice (including Krakow, Lublin, Łódź and Warsaw) can be as high as double those in western Poland (Figure 1.34).

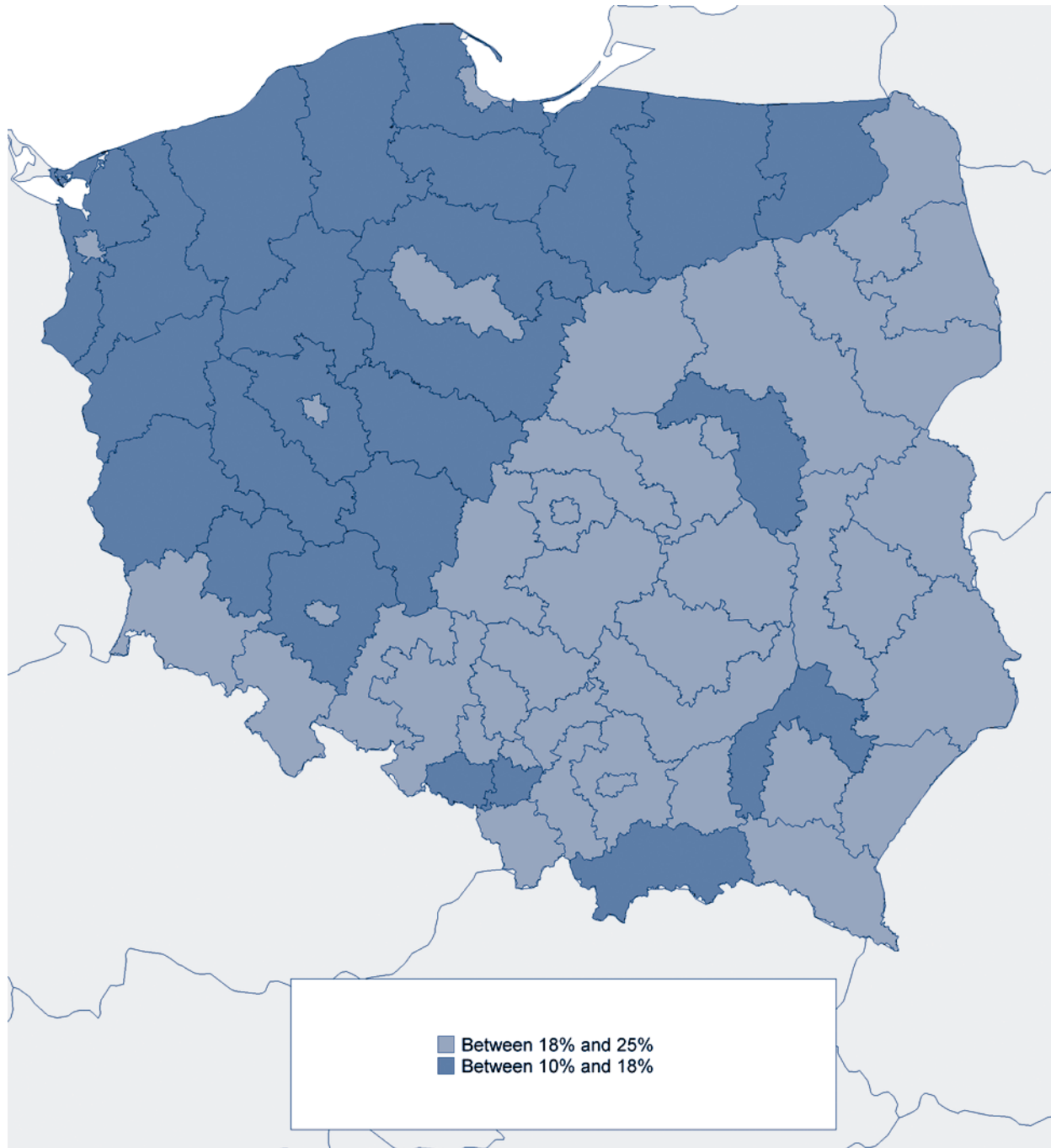
Figure 1.33. Location of elderly population in Poland
 Post-working-age population share in urban municipalities, 2008



This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map.

Source: Ministry of Regional Development (2010), A. Baucz, M. Łoćocka and G. Węćlawowicz (eds.), "Polish Background Report for the OECD National Urban Policy Review of Poland – Part I: Diagnosis of the Condition of Polish Cities", Polish Ministry of Regional Development, Structural Policy Co-ordination Department, Warsaw.

Figure 1.34. **Regional elderly dependency rates in Poland**
Ratio of elderly population and working-age population by TL3 regions in 2008



This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map.
Source: OECD Regional Database, http://stats.oecd.org/Index.aspx?datasetcode=REG_DEMO_TL3, accessed March 2010.

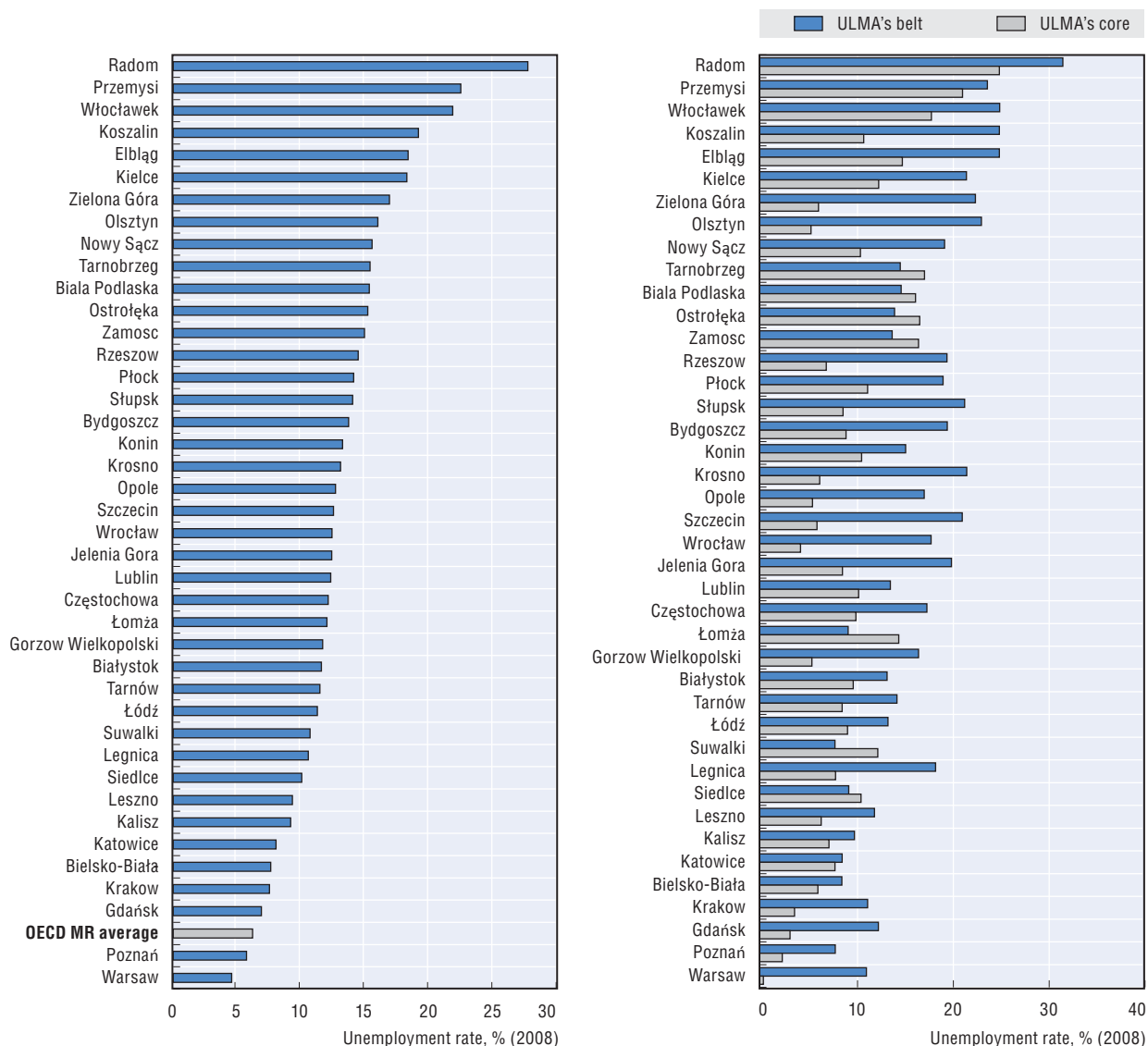
Ageing population trends in large urban areas could be largely the result of attractiveness, while smaller urban areas could be experiencing the same phenomenon due to outmigration. On the one hand, populations in larger urban areas like Warsaw, Wrocław or Katowice may be ageing by attracting older people, as both total population and aged population seem to grow simultaneously (Walford and Kurek, 2008). On the other hand, smaller urban areas facing infrastructure and employment challenges could be losing the younger population while the retired population stays, thereby increasing dependency rates. According to Walford and Kurek (2008), half of all municipalities in Poland are losing population overall while the elderly population increases. In addition, four out of ten municipalities experience growth in both the elderly group of population and the total figure. Internal migration data by age group at county (*powiat*) or municipality (*gmina*) level are not available. CSO (2010a) data shows that three voivodships (states/provinces) Śląskie, Dolnośląskie and Mazowieckie, which include Katowice, Wrocław and Warsaw respectively, are the main destinations of elder migrants (65 and over) headed to urban areas. At the same time, Krawczyk (2009) shows that these same urban areas are among those with the lowest natural population increases. It is very likely therefore that large urban areas are increasingly attracting elderly population with the services (health care and other) and infrastructure they provide. Smaller urban centres that are ageing in the east of Poland are likely to be the product of depopulation of younger workers.

The labour market may already have started to feel the effects of some of these demographic changes. Formal unemployment has been declining in urban areas. In fact, all large urban areas exhibit very low unemployment rates. Gdańsk, Bydgoszcz, Katowice, Warsaw, Poznań, Wrocław, Lublin, Krakow and Łódź all display lower unemployment rates (Figure 1.35). However, as recently as 2004, their core areas were experiencing much higher rates. Warsaw's (the core) unemployment rate stood at 6.2% in 2004 and fell to 1.9% in 2008. In that same period, Łódź (the core) reduced an extremely high unemployment rate of 18.4% to 6.8% four years later. Wrocław's ULMA core unemployment rate stood at 3.3% in 2008, around one-quarter of its 2004 level. However, a number of urban areas continue to experience high unemployment levels despite progress, such as in the case of Radom, which is still around 20% (Ministry of Regional Development, 2010a). With the exception of Warsaw and Poznań, all other ULMAs are experiencing unemployment rates above average levels in OECD metro-regions (Figure 1.35). Some ULMAs, such as Radom, Przemyśl and Włocławek, are even experiencing rates exceeding 20%. Undoubtedly, lower unemployment rates in Warsaw and Poznań are the result of outstanding economic performance in Poland in terms of growth and investment. While it is possible that outmigration and ageing have recently reduced the size of the labour force, thus bringing down unemployment rates, high unemployment rates in the rest of the urban system are also the result of higher unemployment rates in ULMA's belt rather than in the core. Krosno, Opole, Szczecin and Wrocław are have low unemployment rates in the core of their ULMA and very high unemployment rates in the belt (Figure 1.35). Unemployment therefore is a challenge that involves other municipalities in an ULMA and not just its core.

There is still potential for employment and growth expansion as long as low participation rates are addressed, particularly concerning female participation. While participation rates are high for some ULMAs, such as Warsaw (53.7%), Płock (52.2%) and Zamość (50.7%), the difference with respect to participation rates in OECD metro-regions (74.6%) is substantial. On average, OECD metro-regions have pooled labour markets that represent more than three-quarters of their working-age population, while in Poland, in

Figure 1.35. **Unemployment rates in Polish ULMAs**

Unemployed workers as a proportion of labour force, 2008

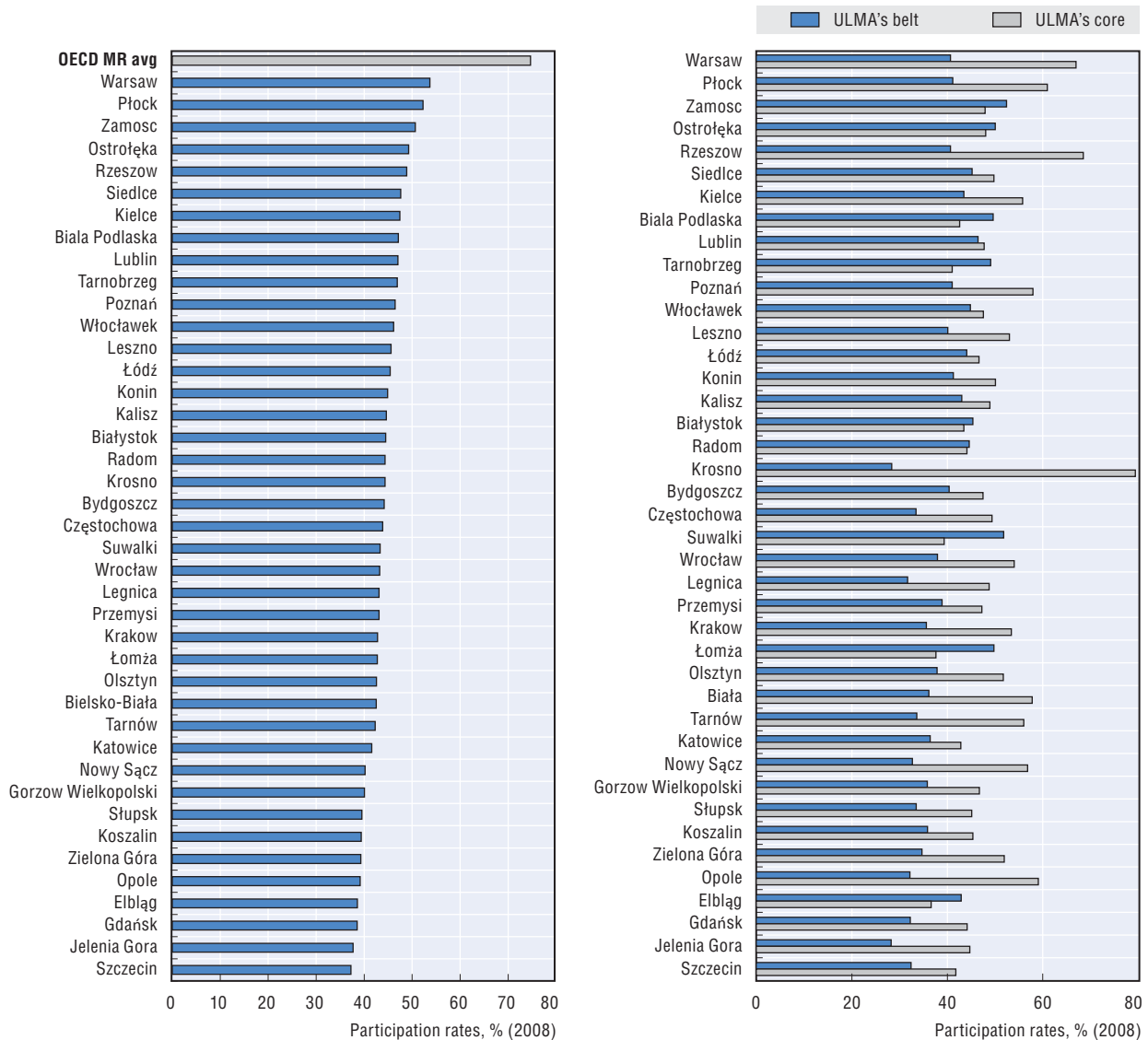


Source: OECD calculations based on CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010, and the OECD Metropolitan Database.

the best case, the size of the labour force is only half (Figure 1.36). However, participation rates in the core of ULMAs are more often than not greater than the belt. For instance, Krosno's participation rate at the core doubles that of the ULMA, while Rzeszów and Warsaw approach the OECD metro-regional average at the core of their ULMAs (Figure 1.36). Female participation rates can be improved, since they are below total rates and particularly low in suburban areas within ULMAs. Female participation rates in Krosno's ULMA are less than half of those found at the core. Other large gaps between

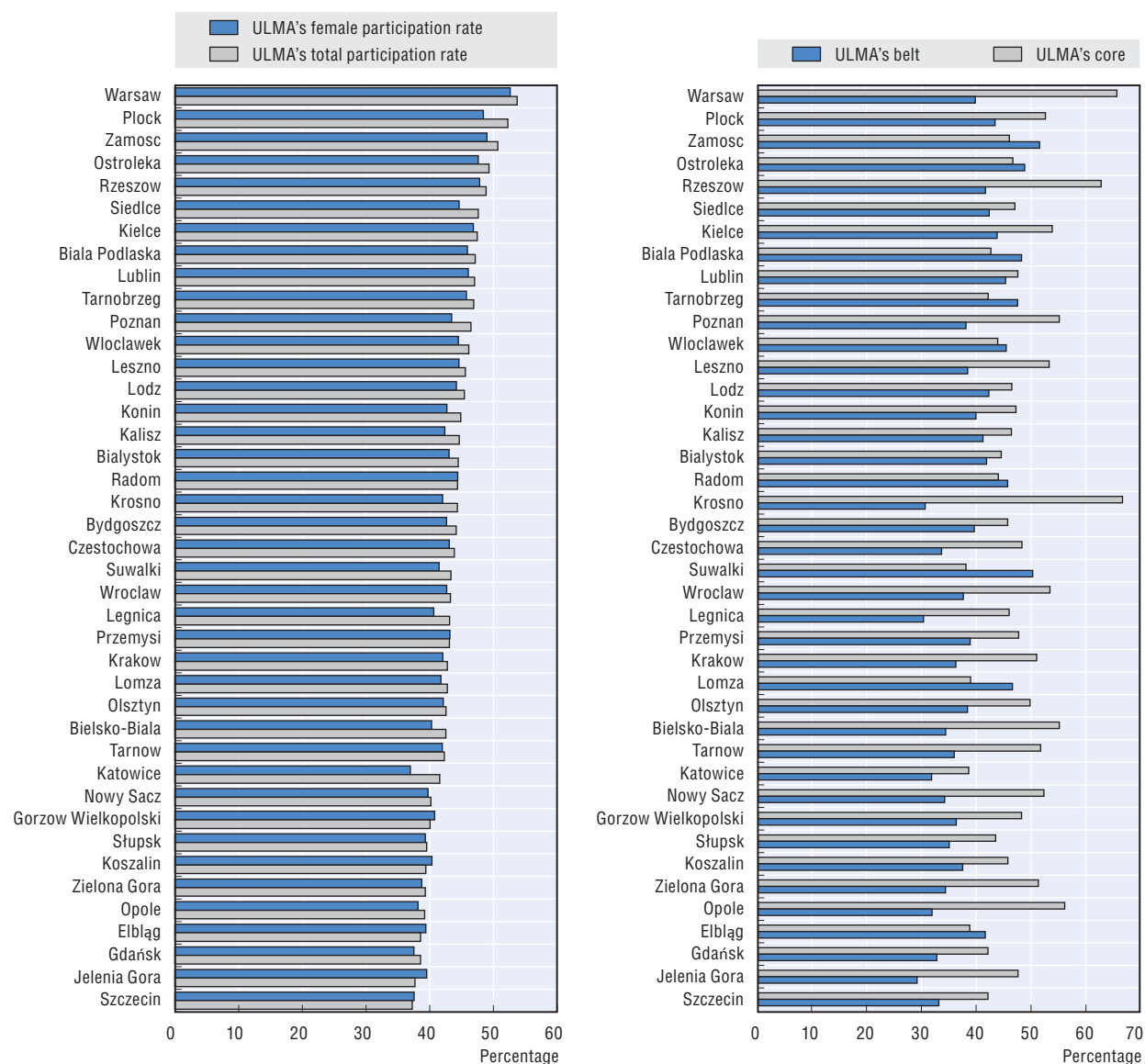
Figure 1.36. **Participation rates in Polish ULMAs**

Employment and unemployment as a proportion of working-age population in ULMAs, 2008



Source: OECD calculations based on CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010, and the OECD Metropolitan Database.

female participation rates can be found in the ULMAs of Bielsko-Biała, Legnica, Nowy Sącz, Opole, Poznań, Rzeszów, Tarnów, Warsaw, Wrocław and Zielona Góra (Figure 1.37). In addition, informal employment in Poland has been estimated at around 9.5% of all employees (Ministry of Regional Development, 2010a). The informal sector not only entails social security problems for those employed, but can also reflect a mismatch in the labour force, since typically, those working in the informal sectors are unskilled workers.

Figure 1.37. **Female participation rates in ULMAs**

Source: OECD calculations based on CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010, and the OECD Metropolitan Database, <http://stats.oecd.org/Index.aspx?datasetcode=METRO>, accessed July 2010.

Industrial restructuring

Certain urban areas in Poland are undergoing a profound change in employment structures. Some cities in Poland are becoming much more oriented towards services (Table 1.5). While some manufacturing remains in urban centres, some cities are facing industrial decline and restructuring. Employment in manufacturing decreased significantly between 1996 and 2003. Lublin lost 45% of its manufacturing employment while Krakow lost 40% (almost 50 000 jobs) in those seven years alone. A similar loss can be found in Łódź, where manufacturing employment fell from more than 100 000 to 60 000 in the same period (Ministry of Regional Development, 2010a). In the Katowice ULMA, at least 187 000 jobs were lost in the same period, which amounted to 42% of total sectoral jobs in the region. The whole Katowice ULMA, an industrial hub during communism, is challenged by

Table 1.5. Sectoral changes in Poland's urban employment profile
Sectoral variations in selected urban municipalities (100 = base year value for each city)

	Łódź (2001-05)	Wrocław (2000-05)	Poznań (2000-06)	Warsaw (2002-06)
Agriculture, hunting and forestry	90.4	70.7	69.3	66.5
Manufacturing	93.8	88.6	93.9	89.3
Construction	64.5	59.2	77	87.7
Trade and repair	99.3	113.5	104.5	104.9
Hotels and restaurants	94	103.2	114.1	112.1
Transport, storage and communications	90.3	89.8	91.17	97.9
Financial intermediation	99.7	107	101.5	106.6
Real estate and business activities	103	100.5	134.7	133.6
Public administration	100.5	121	127.2	112
Education	114.1	109.3	111.2	103.7
Health and social work	82.1	79	76.1	63.8
Community, social and personal service activities	97.9	88.9	110.3	105.3
Total	92.6	94.7	101.3	102.5

Source: Sokolowski, M., Université de Łódź (2008), "From an Industrial City to BPO Destination Centre: A Fantasy or Real Trajectory? The Case of Łódź (Poland)", www.uws.ac.uk/schoolsdepts/business/cces/documents/Sokolowicz-Lodzredevelopmenttrajectory.pdf, presented at the RSA Research Network seminar on "Regional Development and the Changing Geography of Outsourcing Business Services in an Enlarged Europe", University of the West of Scotland, Paisley, www.uws.ac.uk/schoolsdepts/business/cces/paisleyseminar_000.asp.

unemployment and a labour force with inadequate skills to attract new activities. Many of the communities in the Katowice ULMA, such as Bytom, which lost more than two-thirds of its jobs, and Zabrze, which lost half, are trying to reinvent themselves as academic or cultural centres, but the future remains uncertain. Poland's manufacturing employment has declined more than 15% between 1988 and 2002 and this decline is even sharper in all regional capital cities. Warsaw's manufacturing employment share declined almost 18% during the same period, while Katowice's decline was close to 23% (Table 1.6). Negative growth rates of

Table 1.6. Employment change in manufacturing in regional capital cities
Change in shares of employment in manufacturing 1988-2002, percentage

Regional capital city (<i>voivodship</i> cities)	Share of employment in manufacturing in 1988	Share of employment in manufacturing in 2002	Change between 1988-2002
Warsaw	37.5	19.6	-17.9
Białystok	44.2	26.1	-18.1
Bydgoszcz	49.1	31.3	-17.8
Gdańsk	42.7	27.0	-15.7
Gorzów Wielkopolski	48.2	30.6	-17.6
Katowice	54.3	31.7	-22.6
Kielce	44.8	28.4	-16.4
Kraków	46.9	25.3	-21.6
Lublin	40.8	21.3	-19.5
Łódź	53.3	31.8	-21.5
Olsztyn	32.3	24.6	-7.7
Opole	39.2	24.4	-14.8
Poznań	43.1	25.7	-17.4
Rzeszów	44.2	26.2	-18.0
Szczecin	40.4	23.9	-16.5
Toruń	48.1	32.4	-15.7
Wrocław	44.3	24.3	-20.0
Zielona Góra	43.4	25.7	-17.7
Poland	50.1	34.4	-15.7

Source: Śleszyński, P. (2009), "Development of Cities in Poland", Institute of Geography and Spatial Organisation of the Polish Academy of Sciences, Warsaw.

employment in manufacturing between 1988 and 2002 stood between 17% and 18% for Bydgoszcz, Gorzów Wielkopolskie, Poznań, Rzeszów, Zielona Góra, while milder declines were experienced in Olsztyn (-7.7%), Opole (14.8%), Toruń and Gdańsk (15.7% each).

Inequality within urban areas and social concerns

Poland can be divided between the relatively more developed west and the lagging east. With the exception of the Warsaw region, located in the centre-east of the country, which is the richest sub-region in Poland, the most developed areas are in central and western Poland (Poznań, Kraków, Gdańsk-Gdynia-Sopot, Legnica, Wrocław, Łódź, Bielsko-Biała). Historical legacies are an important factor in explaining Poland's structural territorial disparities (see Box 1.6). The east-west divide, often referred to as Poland A and Poland B, has persisted over the past decades (OECD, 2008a). Long-term inherited trends in sectoral specialisations, institutional development, educational attainment and social-capital building still affect Poland's development patterns (Gorzela, 2006 cited in OECD, 2008a; Piasecki, 2006).

Box 1.6. History and the east-west divide

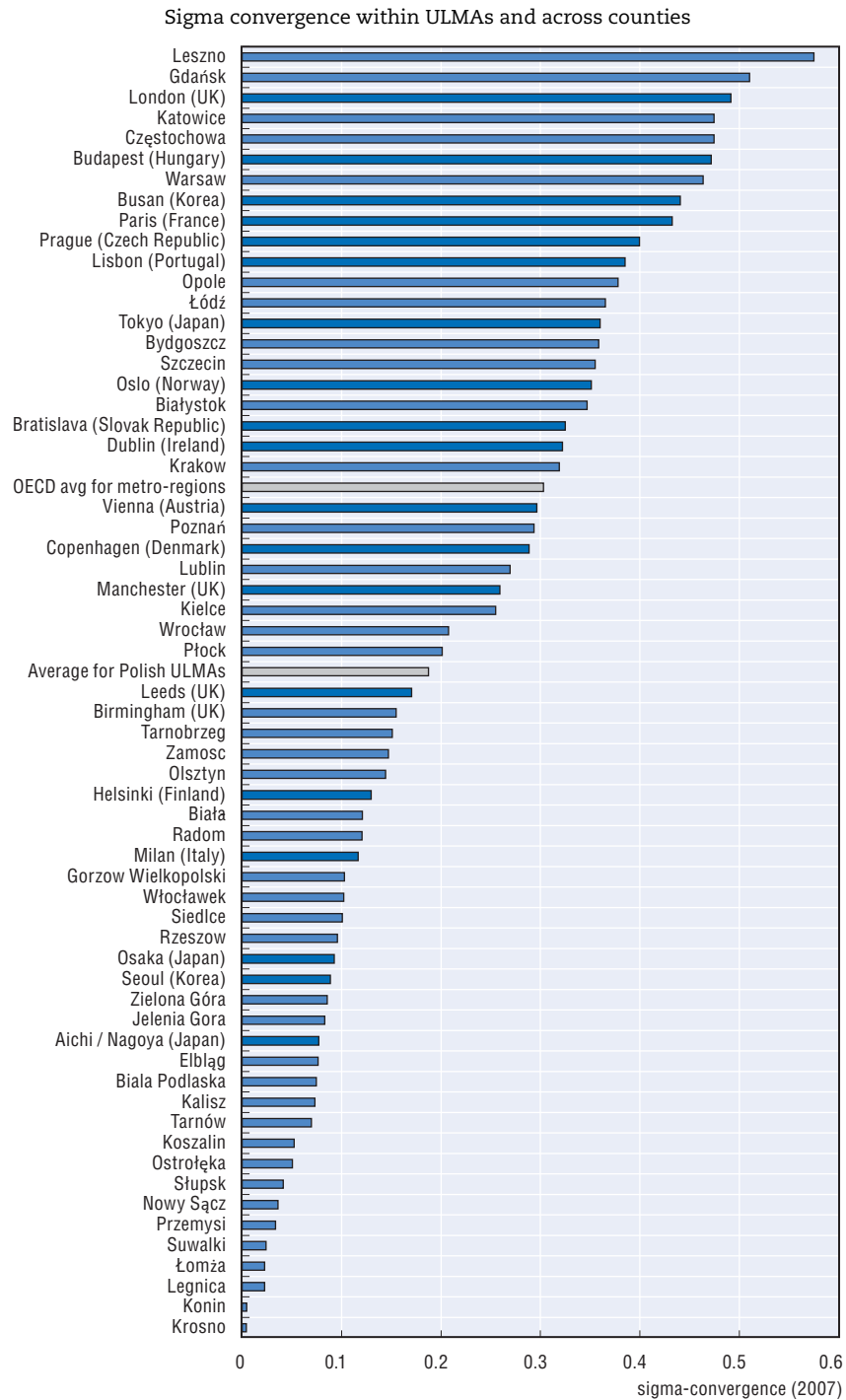
Analysis of regional development patterns in Poland needs to take into account long-term and historical factors. In the 18th century, Poland was divided between Prussia (north-west), Austria (south-east) and Russia (central-east). Current trends in terms of institutional development, educational attainment and social-capital building clearly show that this old partition still has an impact. In particular, eastern Poland lags behind in terms of institutional development and educational attainment. This legacy is known as Poland A (for western Poland) and Poland B (for Poland east of the Vistula river). After World War II, Poland's borders were shifted 200 kilometres to the west; however, this has not provided any relief to the east-west divide.

Another legacy is the national economic planning of the post-war communist period. This involved the concentration of industrial and agricultural resources in certain areas (such as the development of state farms in northern Poland), a focus on medium-sized cities for economic development, and east-west linkages rather than those connecting north and south.

The east-west divide has also not been tackled by the transition to the market economy since the early 1990s. Market competition has revealed the strong components of regional economies – mainly large cities where the activities of private investors are concentrated – and also exposed the weakest regions (Piasecki, 2006). Today, the gap between eastern and western Poland remains an important feature of the country's territorial development.

Source: OECD (2008), *OECD Territorial Reviews: Poland*, OECD Publishing, Paris.

In Poland, as in other OECD countries, territorial disparities within regions are greater than disparities across regions. It could be argued that productivity differences across urban areas and indeed between urban and rural areas are a function of two forces. First, as firms benefit from external economies (*e.g.* knowledge spillovers) they become more productive. Second individuals are sorted among cities according to their skill level or talent, and the larger the city, the more it attracts human capital (Behrens *et al.*, 2010). Sigma-convergence indicators (calculated on the basis of standard deviations in log values of GDP per capita) for counties (*powiats*) and ULMAs in Poland show interesting results.¹⁰ First, the analysis reveals that a number of ULMAs display high levels of intra-regional inequality (Figure 1.38). Although not all ULMAs scoring high in inequality are large urban areas, all the large ones (Gdańsk, Katowice,

Figure 1.38. **Disparities within ULMAs in Poland and in OECD metro-regions**

1. GDP values are estimated using a proportion of earnings ($[\text{GDP TL3}/\text{earnings TL3}] * \text{powiat earnings}$). Then GDP's at powiat level have been added to the ULMA level.
2. Earnings refer to average monthly gross wages and salaries.

Source: OECD calculations based on data from CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

Łódź, Krakow, Warsaw, Bydgoszcz, Poznań, Lublin and to a lesser extent Wrocław) are in this group. Second, in addition to the largest ULMAs, two-thirds of Group 5 ULMAs (“medium-sized but facing depopulation”) are among the top 20 most unequal ULMAs in the country. Third, that average inequality in ULMAs is greater than inequality between counties, regardless of whether they are urban or rural. Fourth, that a number of Polish ULMAs, among them Gdańsk, Katowice, Warsaw, Łódź, Bydgoszcz and Krakow, display wider intra-regional inequality gaps than the average for OECD metro-regions (Figure 1.38).

The intra-regional inequality gap within ULMAs has been changing over time, but there is no indication that city-size directly determines the level of disparity. The group of most unequal ULMAs is dominated by large cities. However, between 2002 and 2007, inequality expanded in some ULMAs and contracted in others (Figure 1.39). Some medium (Białystok, Kielce) and large ULMAs (Warsaw, Bydgoszcz, Poznań) have seen territorial inequality increase while others that are also large, such as Wrocław, Lublin and Gdańsk, have seen a reduction of the gap. Smaller ULMAs that showed regional inequality levels (\bar{A}) that were lower in 2002 than the ULMA average can be divided into two groups: i) those increasing inequality that have in addition lost population, among which are Zielona Góra, Łomża, Tarnobrzeg and Zamość; and ii) those that have managed to reduce intra-regional inequality despite population loss, among them Nowy Sącz. Based on this analysis, the level of inequality does not seem to depend on city size. Instead policies and demographic changes such as ageing and migration might be having a more direct, if varied, impact on inequality change in Poland.

Poverty in Poland is an important challenge for urban areas and is aggravated by city-size. As city-size increases, poverty rates decrease. Over 5% of people living in rural areas live below the poverty line.¹¹ This proportion is halved in urban *gminas* with less than 20 000 people and is slashed in half again in municipalities with a population over 500 000 people (Ministry of Regional Development, 2010a). However, the poor in urban areas are poorer than those in rural areas. Depth of poverty indicators can be used to demonstrate the degree of poverty in urban areas by showing how far households, in general, are below the poverty line in terms of median income percentage points. While rural areas' and smaller urban areas' median income is 20% to 23% below the poverty line, the difference doubles in urban municipalities with populations between 100 000 and 200 000 people. Larger urban areas (municipalities with more than 500 000 people) have median incomes almost 50% below the poverty line (Ministry of Regional Development, 2010a). The acuteness of poverty increases with city size.

The level of education attainment, a key indicator of future income potential, may also impact urban poverty levels. Human capital formation in smaller urban areas faces problems similar to that in rural areas and could contribute to further inequality or depopulation. Poland's tertiary educational attainment has been making steady progress and almost doubled between 1997 and 2006. Growing at 6.2% a year – ten times faster than Germany's – tertiary educational attainment in Poland will catch up with Germany's by 2011 if both countries continue with the average annual growth rates shown between 1997 and 2006. Nevertheless, tertiary attainment in Poland (17.9%) remains below the OECD average (26.8%). Polish urban areas all perform below the national

Figure 1.39. Inequality among ULMAs in Poland

Sigma convergence based on estimated GDP per capita values at *powiat* level

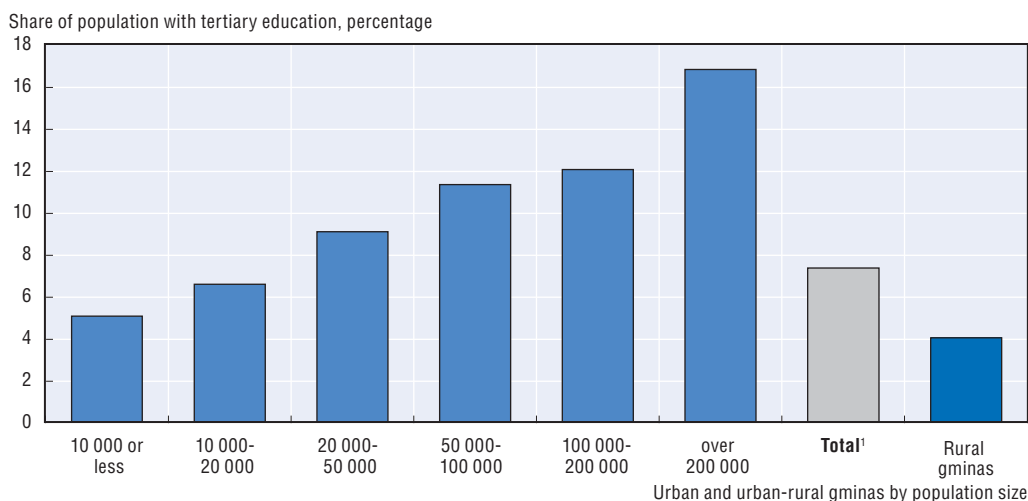
1. Vertical line crosses at 0.19727, the inequality value ($\bar{\Delta}$) that represents the average value for all ULMAs in the country in 2002.
2. Per capita GDP values were estimated by applying the *powiat*s' total remunerations paid in that period as a share of total remunerations in voivodships. The corresponding remunerations share was applied to obtain the share of voivodships' GDP that is likely to correspond to *powiat*s. This is a methodology that the OECD has used in the past for calculating metro-regional GDP when only TL2 GDP data are available (see OECD, 2006b).

Source: OECD calculations based on data from CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

average, and only urban areas with populations over 200 000 people show attainment levels similar to those of the nation as a whole (Figure 1.40). In fact, only 5% of the population in urban areas with less than 10 000 people have tertiary education, similar to the figure for rural regions. Access to education may have an impact on attainment levels. It is very likely that the young in search of education would leave smaller urban areas for larger centres and, once there, that employment prospects would prevent them from coming back.

Figure 1.40. **Share of population with tertiary education by type and size of municipality**

Using municipalities status by urban, urban-rural or rural *gminas*



1. Total refers to the share of population with tertiary education in all urban and urban-rural municipalities (*gminas*).
Source: Ministry of Regional Development (2010), A. Baucz, M. Łotocka and G. Węclawowicz (eds.), "Polish Background Report for the OECD National Urban Policy Review of Poland – Part I: Diagnosis of the Condition of Polish Cities", Ministry of Regional Development, Structural Policy Co-ordination Department, Warsaw.

Transport infrastructure backlogs

One of the most limiting factors for Poland's development is its poorly developed transport infrastructure, which fails to connect urban systems and integrate the neighbourhoods within them. On the one hand, transport infrastructure is in need of much investment to connect the urban system. Major infrastructure-related sectors (roads, railways, seaports, aviation) are either poorly developed or in very poor condition and require rapid repair, upgrading and extension (OECD, 2008d). Large urban areas need faster and more reliable roads to connect them and link them to European markets. Other urban areas playing a regional development role, need to be connected to larger urban areas and their wider, rural, region. On the other hand, urban areas need to establish proper ULMA-wide transport infrastructure, providing service to under-privileged neighbourhoods. This can help to address intra-urban inequality, connecting them to employment opportunities to boost growth. In some urban areas, infrastructure and road systems are obsolete, while public utilities and programmes have very limited capacity (UN-HABITAT, 2007). Other major obstacles related to infrastructure are: i) an insufficient number of north-south connections; ii) lack of roads enabling efficient urban and ULMA mobility (e.g. lack of ring roads); iii) low quality of infrastructure connecting ULMAs particularly to voivodship capitals (Ministry of Regional Development, 2010a).

Transport within urban areas

Public transportation is widely used across Polish cities. In 1999, the percentage of urban population using public transport was 76.7%, and by 2007, this figure increased to 76.9%. The vast majority of the urban population uses public transport on a regular basis. There are wide varieties in the usage across regions (*voivodships*). The highest percentage usage is in Śląskie (Katowice), at 93.4%, with figures of over 90% in Łódzkie in central Poland (Łódź's region), Małopolskie in the south (Krakow's region), Mazowieckie

(Warsaw) and Pomorskie in the north (Gdańsk). The more urbanised regions exhibit the greatest use of public transport. The ULMAs of Warsaw, Katowice and the tri-city of Gdańsk-Gdynia-Sopot make extensive use of their urban train system, while Krakow and Poznań are increasingly paying attention to it. Conversely, the lowest figure recorded is in the eastern region of Lubuskie at 50.4%. Urban public transport in Poland is dominated by bus, tram and trolleybus; trains are relatively limited.

Municipalities are the main actor in enabling public transportation in cities. Each working day, just over 13 million journeys are recorded by public transport authorities, 11 million using municipal transport, and 1.8 million non-municipal bus transport (Ministry of Regional Development, 2010a). There are of course, regional differences, with greater use in Warsaw of the underground system, a north-south line stretching 20 kilometres with 21 stations that was first opened in 1995. An east-west line is due for completion in 2013. The daily ridership is estimated at 520 000. Over 30 other Polish cities have tram systems, and three others have trolley bus systems.

Despite the number of passengers on public transport, motorisation is growing fast, with implications for congestion, infrastructure development and the environment. Immediately after 1989, the number of private cars and road transport rose significantly. The shift to private transport was especially marked in medium-sized cities. However, road improvements lag behind car ownership rates. The existing road network is carrying more vehicular traffic as car ownership and car use increases. From 1999 to 2007, the number of registered cars increased over 50%, from 9.3 million in 1999 to 14.5 million in 2007. In large cities, there are 500 vehicles for every 1 000 residents. As a result, road traffic increased by 18% between 2000 and 2005 (Ministry of Regional Development, 2010a). While this sharp rise is bound to tail off as ownership rates reach saturation levels, the disparity between increased car use and road infrastructure will remain a problem. More efficient inter-city road traffic requires more motorways and expressways.

Cities and their regions are linked by road commuting and travel patterns that characterise urban sprawl and congestion. By 2006, over 2.3 million people in Poland, or one out of four employed persons, worked outside their municipality (*gmina*). Currently, 58% of the country's population lives within a 60-minute road trip from regional (*voivodship*) capital cities. The highest road accessibility occurs in Łódź, Poznań, Warsaw, Katowice and Wrocław. The lowest occurs in Białystok, Gdańsk, Szczecin and Lublin. Commuting rates are highest in the eastern regions of Podkarpackie and Świętokrzyskie, the southern regions of Opolskie, Małopolskie (Krakow), and Śląskie (Katowice), as well as Wielkopolskie (Poznań to the west). The larger more economically dynamic cities such as Warsaw and Poznań attract the largest number of commuters from outside the urban core. However, many of these commuters reside beyond the existing routes of public transport. The result is a more chaotic urban sprawl often unconnected to major transport infrastructure. The rail system is slow and generally of poor quality. The local road network is overloaded with commuting traffic, given increasing car ownership and car usage, as well as limited planned improvements in the road network. With only few good rail links and increasing road congestion, especially coming into cities, accessibility within the spreading metropolitan areas is often limited. Without substantial improvements and new public transport linkages, road networks and especially ring roads, commuting and local travel into cities from surrounding areas will become increasingly problematic.

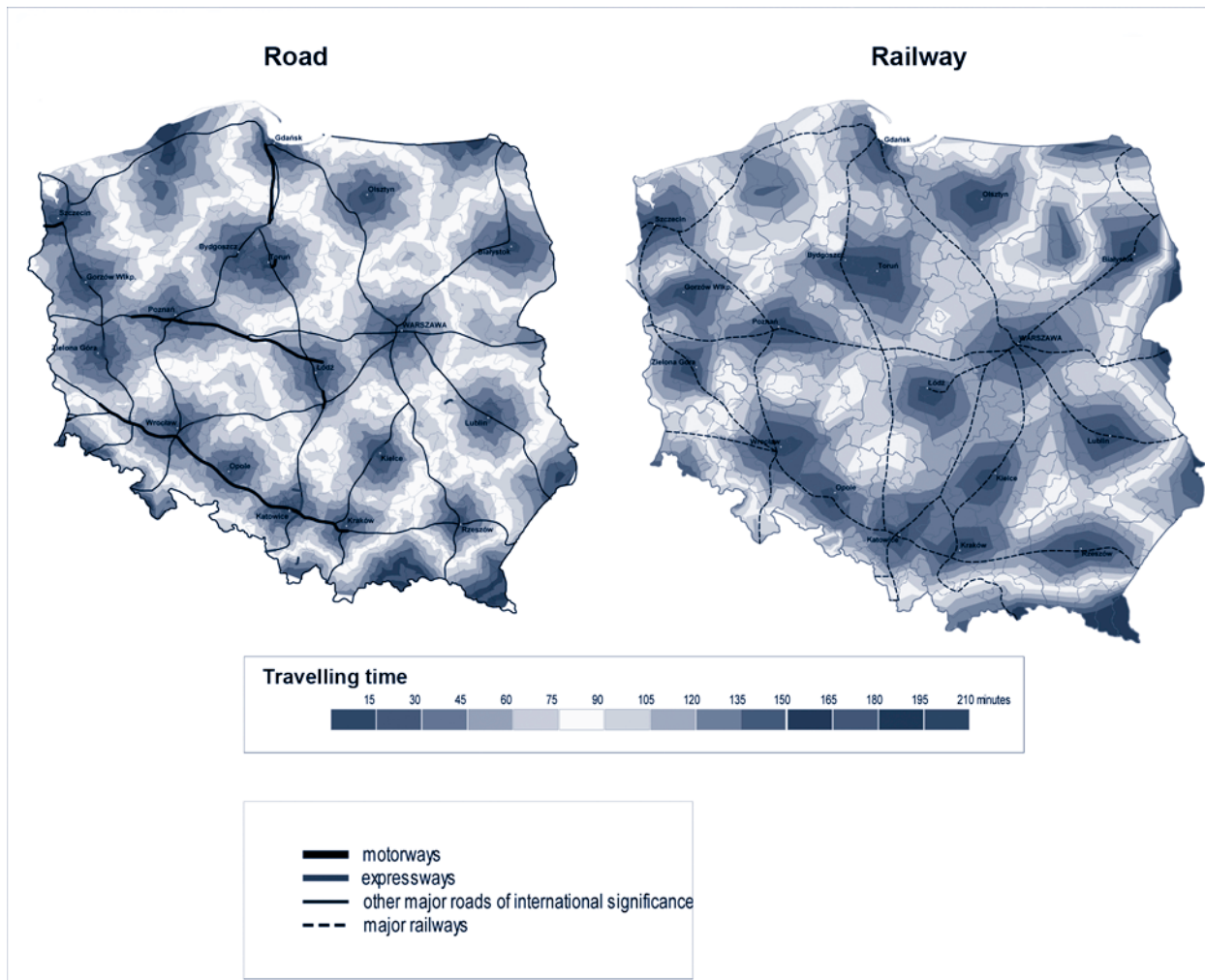
However, in recent years, the varying environmental impacts of private and public transport have been recognised, and emphasis has refocused on encouraging greater use of urban public transport. For example, in the last decade, bus routes increased by 2 841 kilometres. As road congestion increases due to increasing car usage and limited improvements in road network accessibility, urban public transport will continue to play an important and perhaps increasing role in the life of Polish cities.

Transport system linking cities

An important objective of Poland's transport policy since 2004 has been road development, since the inadequate quality and quantity of road infrastructure in Poland are clear obstacles to its economic development (OECD, 2010d). A recent business survey on the investment climate found that 80% of entrepreneurs considered the condition of Polish roads to be bad or very bad, while that share was about 30% for utilities and 25% for telecommunications (PAIiZ, 2008). Under-investment in roads in recent decades, combined with increasing transport activities, have contributed to the accelerated depreciation of the current network, congestion, the absence of a cohesive system of high-speed arteries and a dramatic decrease in traffic safety (OECD, 2010d). It has been estimated that there is a need for about 2 000 kilometres in additional motorways, which would require an investment of about 8% of GDP (Rutkowski, 2009). While the number of motorways (*i.e.* through roads with minimum speeds of 40 kilometres per hour unhampered by cross traffic), increased from 336 kilometres in 2001 to 765 kilometres, in 2008 Poland still lagged behind other EU countries. Even the expressways, which have limited cross traffic, only increased from 401 kilometres in 2001 to 452 kilometres in 2008 (OECD, 2010d). This lack of high-speed road infrastructure limits and constrains inter-city connections, since only a few road connections are in place (Figure 1.41).

The missing connections between ULMAs are important. Regional connectivity by road is very low, with only a handful of ULMAs being fairly connected. Compared to the level in the rest of Europe, motorway density is considerably low (Figure 1.42). Even the relatively denser road infrastructure in the regions of western Poland can only compare to less-connected regions in Europe, and there is hardly any region in Western Europe whose motorway density levels compare with eastern Poland's. Motorway density is high mainly in Polish ULMAs. A second tier of motorway density can be observed along two axes. The first axis seems to run east-west between Warsaw and Poznań, with Łódź located approximately in the middle. The second runs from Łódź to the Upper Silesia region (mainly to Katowice) and Krakow (Figure 1.43). There are almost no significant road connections among ULMAs outside these axes. The lowest density level can be found in the areas that could better connect the ULMAs of Gdańsk, Szczecin and Wrocław. The lowest levels of motorway density can be found in the north, highlighting the lack of a north-south connection. Very low levels of connectivity exist also between Lublin and Warsaw.

The quantity and placement of road infrastructure imposes obstacles to development, as does the quality of the network. According to the World Economic Forum's Global Competitiveness Report, Poland's quality of road infrastructure is not only last in the OECD, behind Chile, Mexico, Turkey, the Czech Republic, Hungary and the Slovak Republic, but is also inferior to that of non-OECD countries such as Brazil, Argentina, China or Russia (World Economic Forum, 2009). According to this road quality index, scores for Mexican roads are twice as good as Poland's and Chile's are three times as good (Figure 1.44).

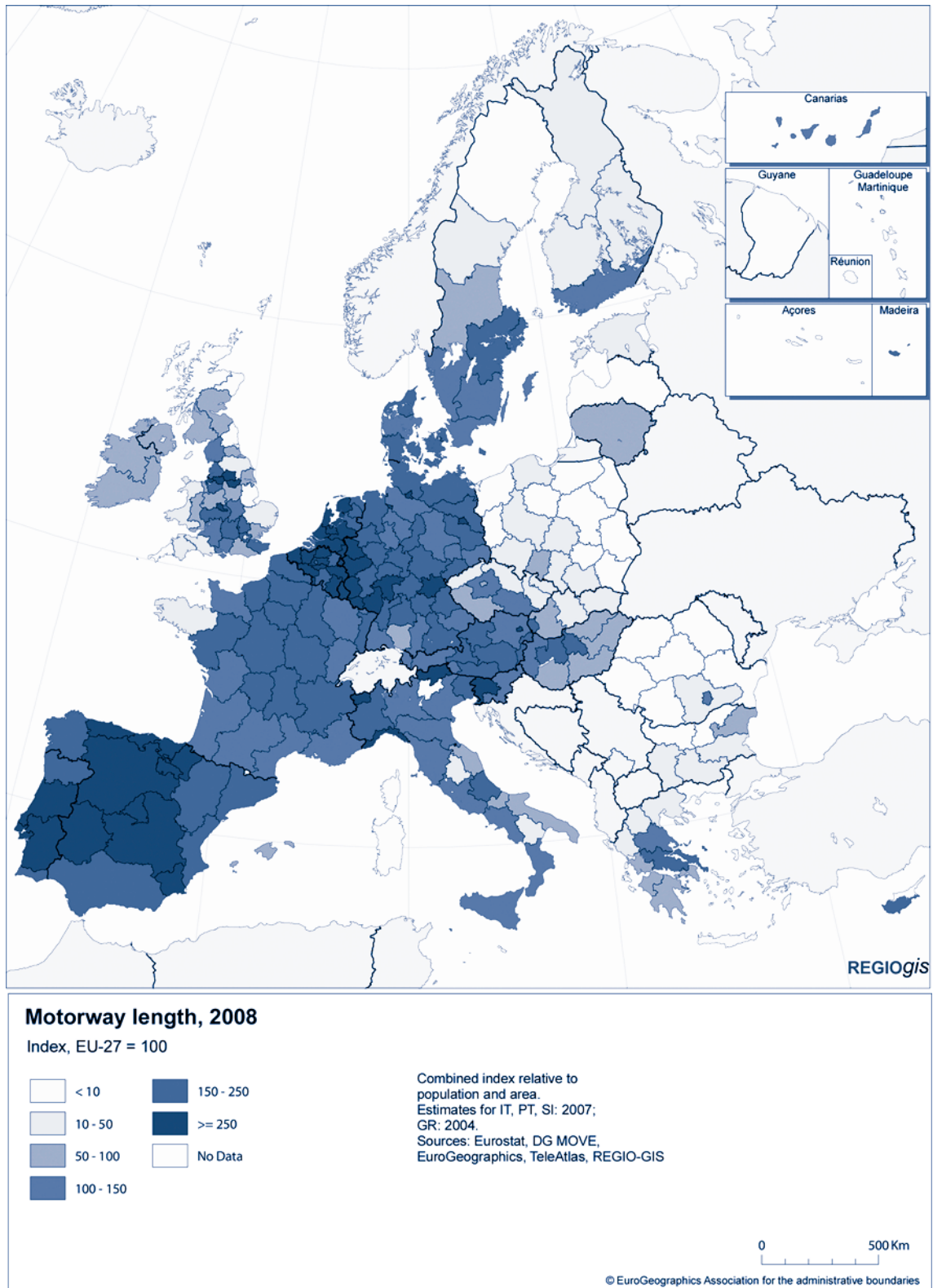
Figure 1.41. **Transport accessibility in voivodship cities, 2008**

This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map.

Source: Komornicki, T., P. Śleszyński, P. Siłka and M. Stepniak (2008), "Variant Analysis of the Availability of Land Transport", expert paper for the "Concept of National Spatial Development for 2008-33", Institute of Geography and Spatial Organization, Polish Academy of Sciences, Warsaw.

Inter-urban connections in Poland are also hampered by the lack of rail links between cities. Although at regional level and in the European context, railroad density in Poland does not seem as low as densities in motorways, the only region showing significant railroad density levels is Upper Silesia (Katowice); this level decreases further north and further east (Figure 1.45). Only 30% of the Polish rail network is considered of good quality, after years of under-investment and lack of repair and maintenance. The relatively poor infrastructure and rolling stock reduces the speed of trains between cities. The speed of trains does not rise above 100 kilometres per hour except between the capital and Upper Silesia, Krakow and Poznań. It is not possible to travel between any two Polish ULMAs in less than one hour. Only between Krakow and Upper Silesia is a rail trip less than two hours. Warsaw is the most accessible hub of the national network, while the least accessible are Szczecin and Gdańsk. The poor service and slow speed of trains has led to a decline in rail passenger use. Between 1985 and 2004, over 8 000 kilometres of railway lines were closed to passenger traffic. There is also a backlog of repairs and maintenance to track and rolling stock.

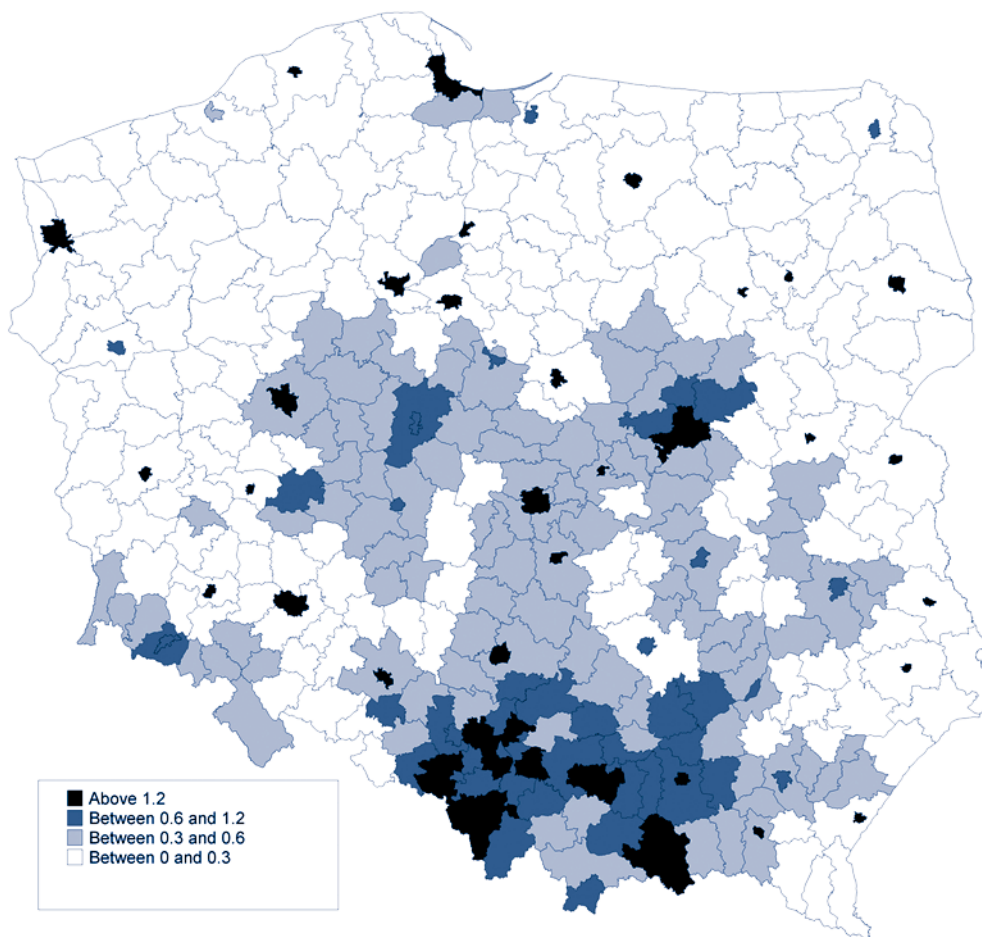
Figure 1.42. **Motorway density in Europe**
NUTS 2 regions in 2008



This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map.
Source: DG Regio (2010), European Commission, Directorate-General Regional Policy, REGIO-GIS.

Figure 1.43. Road density in Poland

Square kilometres of roads as a proportion of surface in square kilometres (county level in 2008)

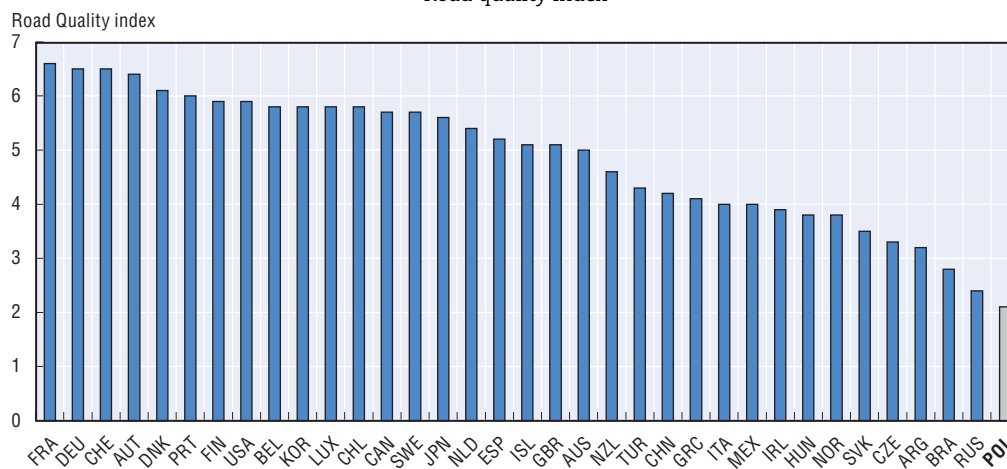


This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map.

Source: OECD calculations based on data from CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

Figure 1.44. Transport infrastructure quality

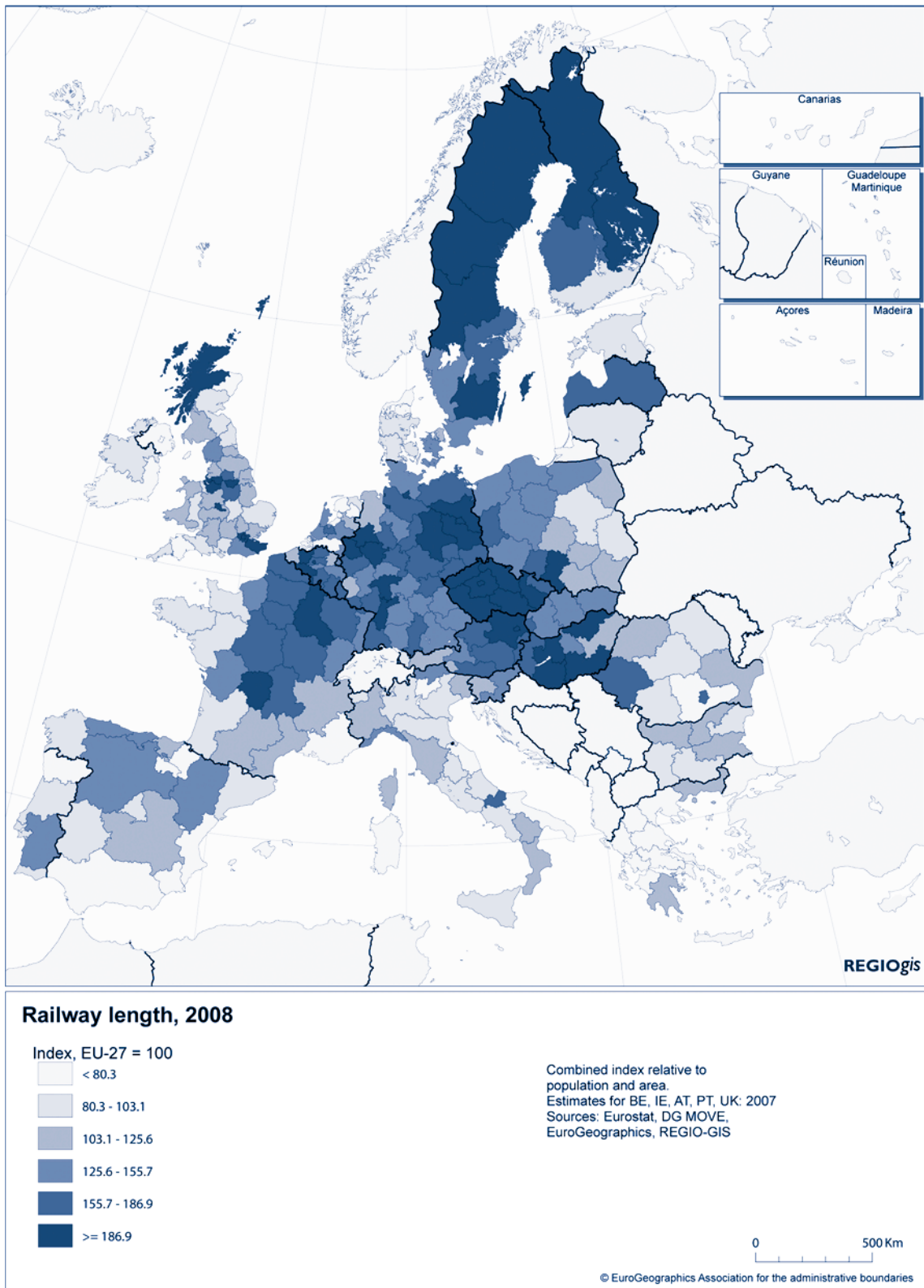
Road quality index



Note: Scale from 1 (under-developed) to 7 (as extensive and efficient as the world's best).

Source: World Economic Forum (2009), "The Global Competitiveness Report 2009-10", WEF, Davos, Switzerland.

Figure 1.45. **Railroad density in Europe**
NUTS 2 in 2008



This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map.
Source: DG Regio (2010), European Commission, Directorate-General Regional Policy, REGIO-GIS.

Housing deficit

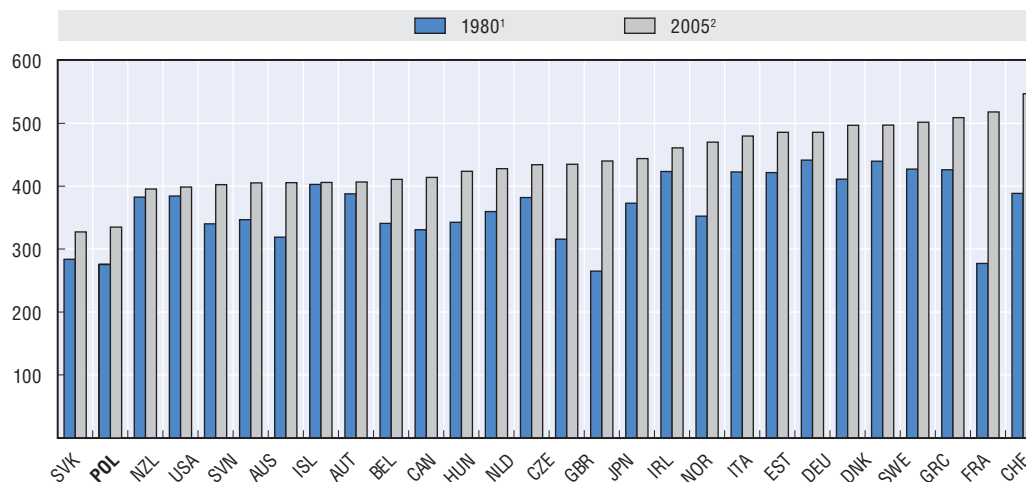
Housing is also a major social issue affecting every urban area in Poland. It is estimated that the deficit of housing in Poland ranges from 1.5 million to 1.8 million dwellings, and it has not been reduced despite increasing supply (Ministry of Regional Development, 2010a). At the heart of the increasing demand that contributes to persistent housing deficits are demographic changes in Poland. Migration to urban areas, decrease in the number of persons per household and ageing have resulted in an increased demand for single-person housing (Ministry of Regional Development, 2010a). Half of the housing stock was built before 1970 and is in acute need of development and renovation. However, scanty financial resources have hampered refurbishing and modernisation of housing. The investment required to overcome this renovation shortage has been calculated by the Polish Institute of Urban Development at almost EUR 11 billion, including EUR 3 billion for major renovations and more than EUR 7 billion for renovations and modernisation (Ministry of Regional Development, 2010a). The size of dwellings is also relatively small compared to that of other European countries. The housing shortage is particularly acute in smaller urban municipalities (*gminas*) with fewer resources to invest, although demand is probably lower there.

Poland's substantial housing deficit is concentrated in some cities. Poland's ratio of around 347 dwellings per 1 000 inhabitants places it among the lowest in the EU, where comparable figures range from 400 to 550. Although the housing stock in Poland increased by around 50 dwellings per 1 000 inhabitants between 1980 and 2005, it still has the second lowest stock in the OECD (Figure 1.46). Estimates place the net deficit between 1.5 million and 1.8 million dwellings. Some other estimates put it at well over 3 million units. However, no official figure for the size of the housing deficit is available. In urban municipalities, with 382 dwellings per 1 000 inhabitants, the housing stock is in fact greater (Figure 1.47). Many cities with county (*powiat*) status in Poland have a housing stock larger than the average for urban municipalities. Warsaw's housing stock, at 473 per 1 000 inhabitants, is similar to that shown for Germany in Figure 1.46. However, some other cities with *powiat* status, such as Radom and Zabrze, display housing stock levels below Poland's average. In addition, Polish cities also face a need to improve the condition of buildings, and the existing urban structures of several towns require remodelling and modernisation.

Recent building programmes have not succeeded in overcoming the shortage of supply, due partly to problems in the land market and to a lesser extent to stringent credit for housing. Construction activity, while never vigorous, has experienced a recent slowdown. Land availability is also an issue. Large areas of the urban land market are either abandoned, polluted or of uncertain ownership. A well-functioning housing market needs an efficient land market, and this is currently lacking. Large areas of possible land market activity are owned by municipalities. On average, urban counties owned around 26% of surface land in 2009 and in some counties, such as Katowice or Gdynia, more than 50% of the urban land is in government hands (Wierzychowski, Dudek and Vargas Tetmajer, 2010). On the demand side, the number of households is increasing, despite overall population decline, because households are getting smaller. Internal migration into ULMAs is also increasing the demand for housing. However, demand has also recently waned, because mortgages have become harder to obtain since the financial crisis.

Figure 1.46. **Housing stock in OECD countries**

Number of dwellings per 1 000 inhabitants



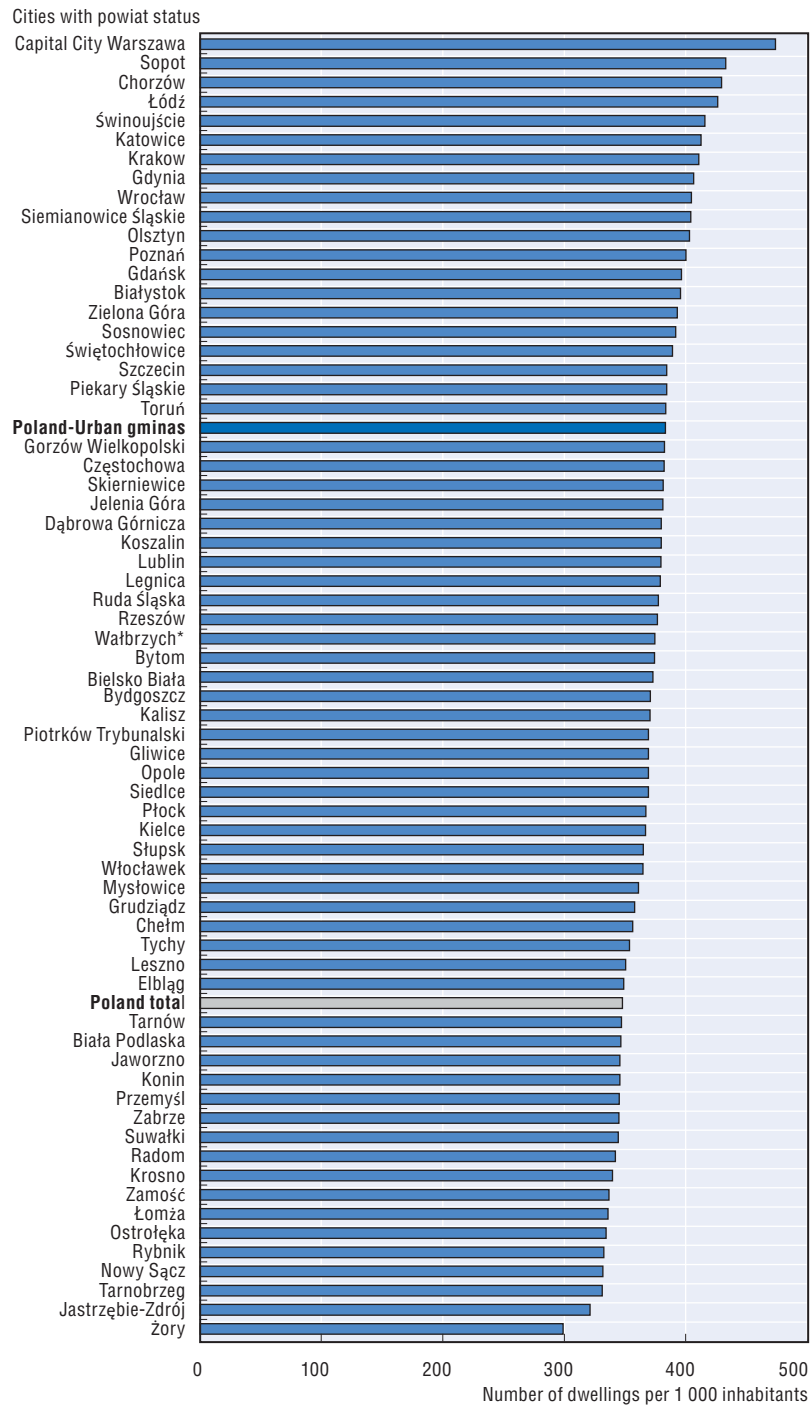
1. 1981 for Australia and Greece; 1982 for France; 1986 for Germany; 1988 for Finland; 1989 for Portugal and 1990 for Italy.
2. 2001 for Belgium, Czech Republic and Greece; 2002 for the Russian Federation; 2003 for Australia and Italy; 2004 for France and Switzerland.

Source: Andrews, D., A. Caldera-Sánchez and Å. Johansson (2011), "Housing Markets and Structural Policies in OECD Countries", *OECD Economics Department Working Papers*, No. 836, OECD Publishing, Paris.

State-owned as well as unused land could be seized to increase land availability and boost the housing market. On average, urban counties' urbanised land stood at 38% of total surface in 2009 (Figure 1.48). However, more than half of all 66 urban counties in Poland had above-average rates of urbanised land. In some cases, urbanised land surface exceeded 50% of all total surface, as in the case of Chorzów (70%), Siedlce (56%) and Warsaw (52%). The built-up area has in fact, increased in Polish urban counties from 248 995 in 2005 to 261 325 in 2009. This represents an increase in the share of total surface from 35.5% to 37% in the same period (Wierzchowski, Dudek and Vargas Tetmajer, 2010). While built-up area has increased by 1.5% of total surface between 2005 and 2009, the share of land associated with transport and communications has increased as a proportion of total surface by only 0.3%. Thus, urban infrastructure development might be lagging behind other urbanisation trends. In contrast, most of the increase in the built-up area's share of total surface has taken place in "other built-up land", which is associated with commercial and office space.¹² Like other urban areas in the OECD, urban counties are changing their profile from industrial to tertiary activities. While land used for tertiary activities has increased, industrial uses have declined in terms of their share of total surface. Although non-built urbanised areas within urban counties have declined from 7.4% of total surface in 2005 to 6.1% in 2009, the amount of land that is unused is as large as the amount of land that urban counties assign to recreational and leisure activities.

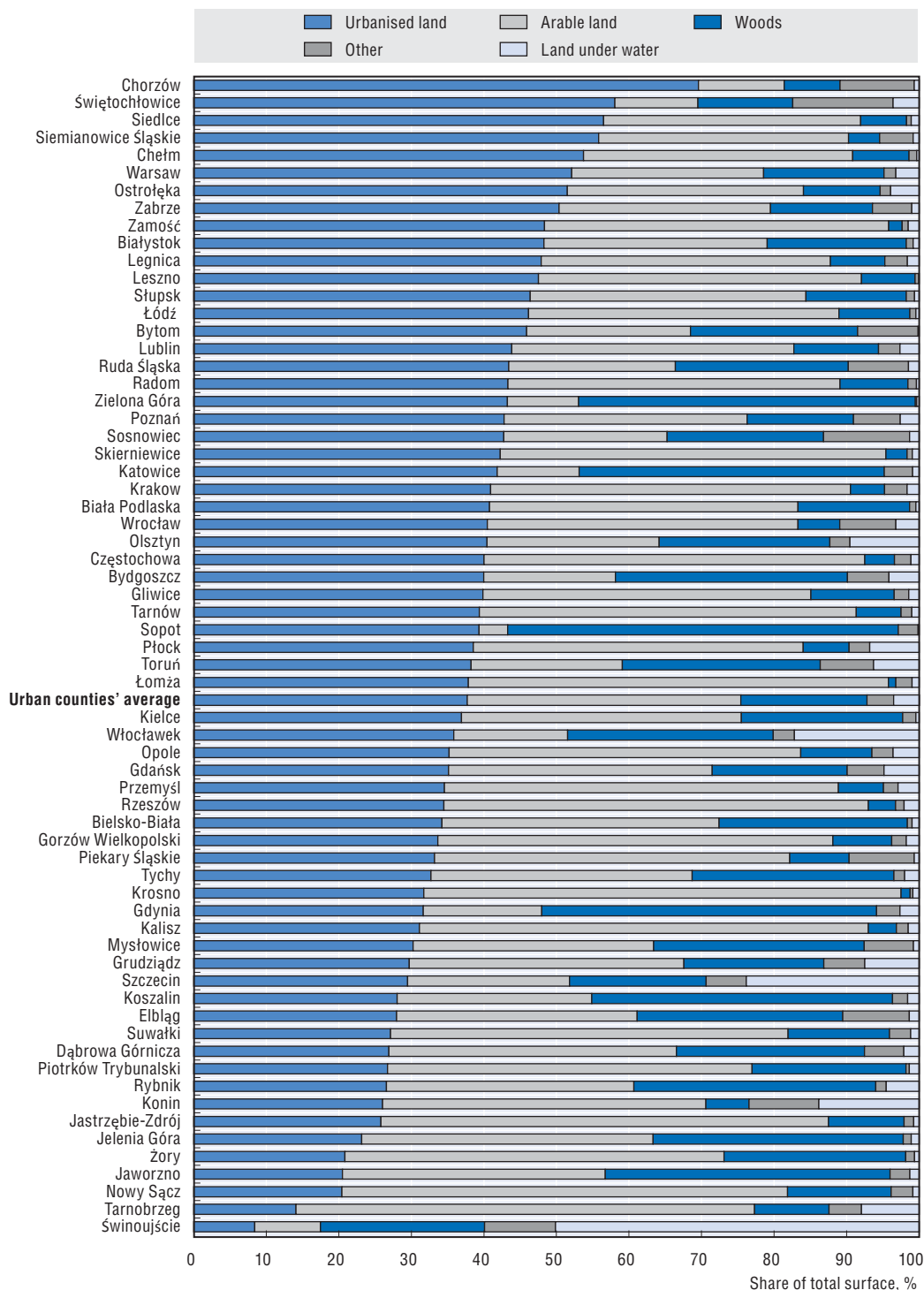
The insufficient supply of housing, coupled with mounting demand, has led to significant increases in housing costs. Between 1995 and 2005, Poland experienced one of the greatest increases in the cost of housing as a proportion of disposable income, rising from 16% in 1995 to 22% in 2005 (Figure 1.49). As a result, it has become one of the most expensive places to live, when relative income levels are taken into account. The

Figure 1.47. Housing stock in large Polish cities
 Number of dwellings per 1 000 inhabitants in cities with powiat status



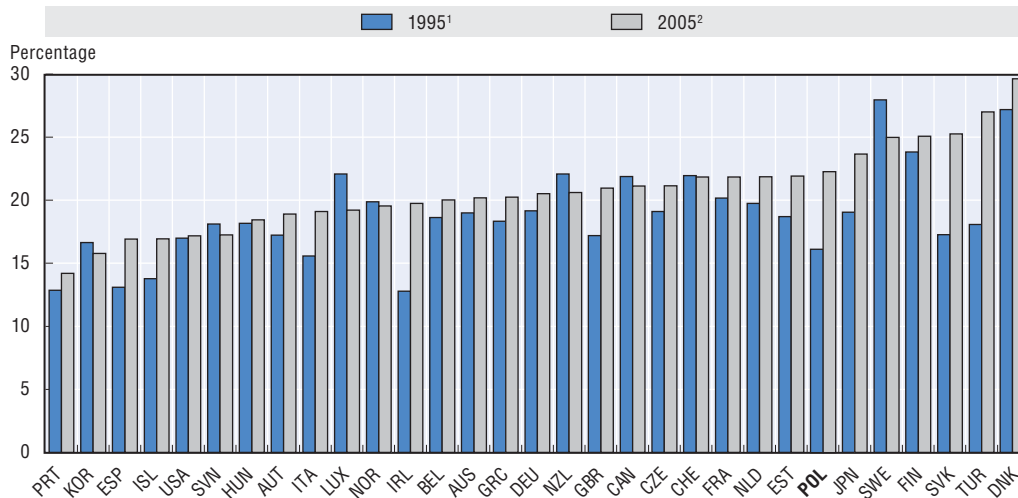
Source: OECD calculations based on CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

Figure 1.48. **Land use in Polish urban counties**
Main uses as a proportion of total surface



Source: OECD calculations based on Wierzychowski, M. W., J. Dudek and A. Vargas Tetmajer (2010), "Characteristics of Land Use in Cities with Particular Emphasis on Urban Land in the Arrangement", Department of Real Estate Markets, Institute of Urban Development, prepared for the Polish Ministry of Regional Development, Warsaw.

Figure 1.49. **Household spending on housing**
Per cent of disposable income



1. 1996 for Japan; 1998 for Turkey; 2000 for Greece, Hungary, Korea and Slovenia.

2. 2006 for Norway and Portugal.

Source: OECD National Accounts Database, accessed March 2010.

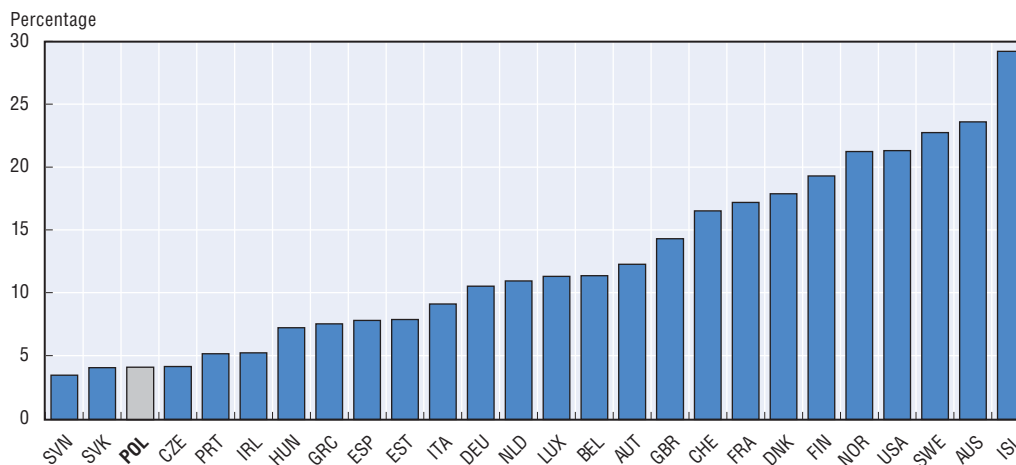
proportion of income allocated to housing in Poland is greater than many in Western European countries, such as France, Germany or the Netherlands.

There is also a housing deficit in terms of liveable and affordable homes. While improvements have been made, almost one in five Poles live in overcrowded dwellings, and more than one in ten live in housing officially classified as substandard. The declining quality of many large housing estates in Polish cities is also a cause for concern. In the larger Polish cities, the average salary can only purchase 0.5-0.6 square metres of dwelling space. In most of Western Europe, the comparable figure is 2 to 3 square metres. Private housing is expensive in relation to average wages. Lack of affordability is exacerbated in the more prosperous cities, where limited supply and pent-up demand has led to rapidly increasing house prices. The financial system has yet to develop a sophisticated mortgage system that would allow building up effective demand.

The diverse dimensions of the housing deficit have led to a pronounced lack of labour mobility. It can be difficult or costly to move into Polish cities because of the lack of housing opportunities and residents' unwillingness to give up existing housing. Poland has one of the lowest levels of residential mobility in the OECD (Figure 1.50). Its percentage of households changing residence within the last two years stands at less than 5%, whereas the rates in countries like Norway, Sweden and the US exceed 20%.

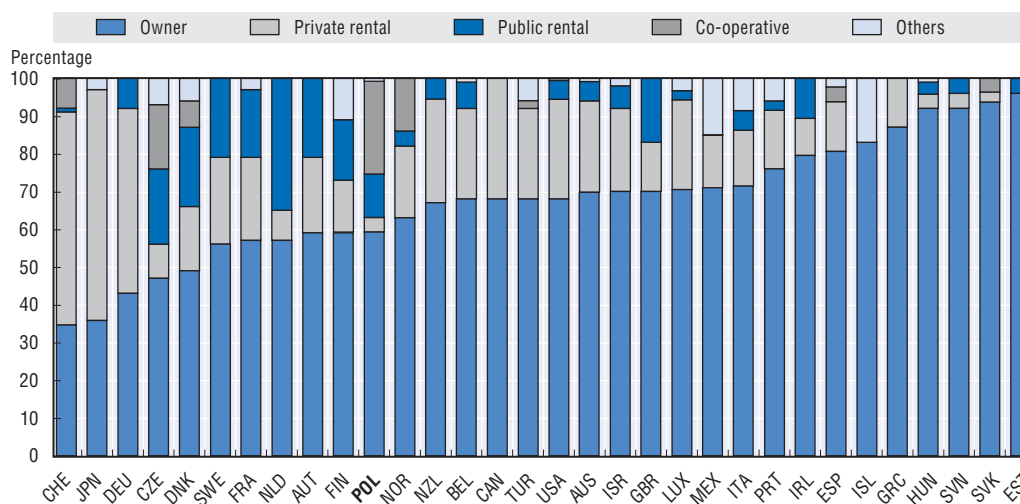
Another element that prevents labour mobility and that increases the cost of housing and its supply is the tenure structure of the country. Poland's tenure structure is dominated by ownership and public housing (co-operative or rental).¹³ Its private rental market is one of the least developed among OECD countries (Figure 1.51) even though Poland has one of the lowest rental costs in the OECD (Figure 1.52). Less than 3% of all dwellings are privately rented. While this also reflects a cultural preference for ownership and state intervention, it remains far below OECD standards. In Japan and Germany, for example, a majority of dwellings are privately rented. Many others such as Belgium, Canada, France, the

Figure 1.50. Residential mobility in OECD and candidate countries for accession
 Percentage of households that changed residence within the last two years



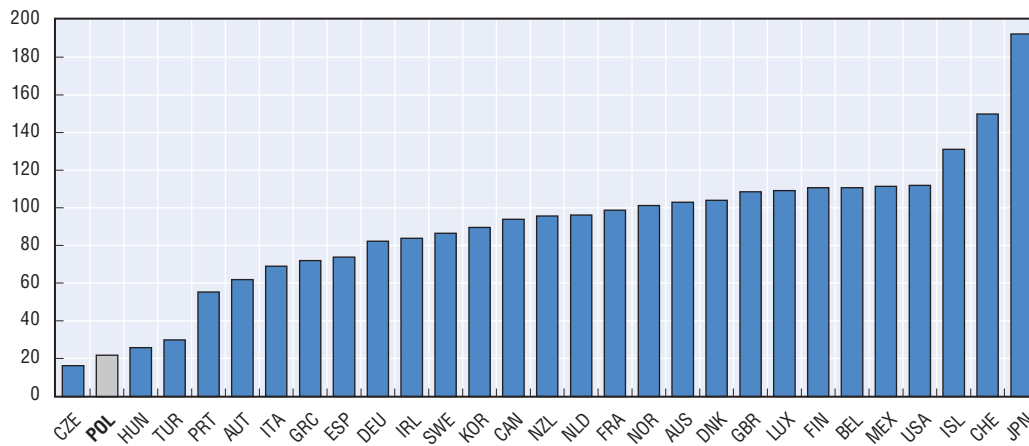
Source: Andrews, D., A. Caldera-Sánchez and Å. Johansson (2011), "Housing Markets and Structural Policies in OECD Countries", *OECD Economics Department Working Papers*, No. 836, OECD Publishing, Paris.

Figure 1.51. Tenure structure
 Per-cent of dwelling stock



Source: Andrews, D., A. Caldera-Sánchez and Å. Johansson (2011), "Housing Markets and Structural Policies in OECD Countries", *OECD Economics Department Working Papers*, No. 836, OECD Publishing, Paris.

Figure 1.52. **Comparative rent levels in PPPs**
2009



Note: Comparative rent levels are defined as the product of purchasing power parities times exchange rates. They indicate for a given level of housing the number of units of the common currency needed to buy the same volume of housing services in each country. Rent levels take into account quality differences including differences in dwelling size, number of rooms and availability of central heating.

Source: Andrews, D., A. Caldera-Sánchez and Å. Johansson (2011), "Housing Markets and Structural Policies in OECD Countries", OECD Economics Department Working Papers, No. 836, OECD Publishing, Paris.

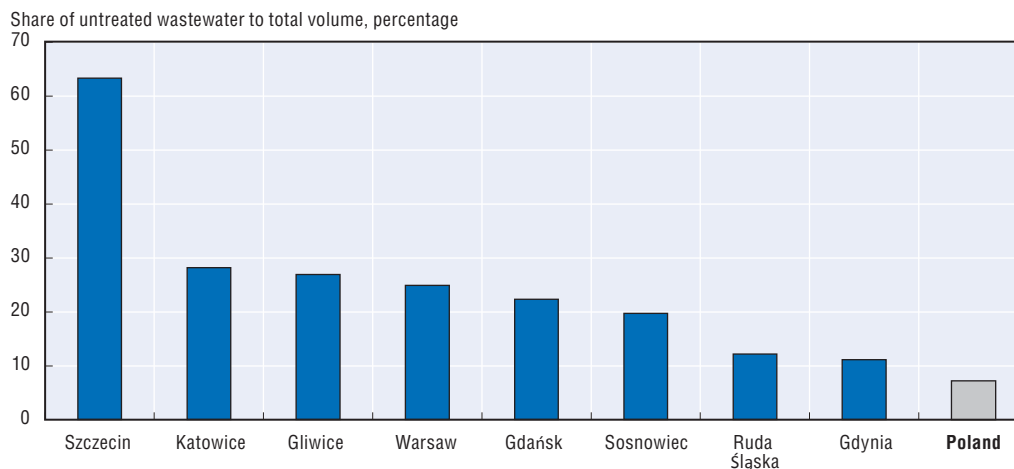
Netherlands, Sweden, Turkey and the US have sizeable rental markets that account for 20 to 30% of all dwellings.

Environmental pressures: urbanisation has increased environmental impact

Poland has made great strides in environmental quality since 1989, but important standards related to environmental infrastructure, particularly in cities, and energy production have yet to be met. While Poland has substantially invested, particularly after its accession to the EU, in wastewater, water, transport and pollution reduction technology, additional investments are needed to bring the country up to par with EU and OECD standards. While some cities have begun to promote opportunities for renewable energy and energy efficiency technologies, and per capita CO₂ emissions are lower than the OECD average, opportunities to increase production of renewable energy and energy efficiency technologies could be exploited to a much greater extent. The increase in suburbanisation and urban sprawl that Polish cities have experienced in recent years has made it all the more important to increase environmental infrastructure and reduce pollution and emissions.

A key priority for environmental infrastructure is improving the coverage and quality of wastewater treatment. While the extent of the sewage system increased by 91% over 1999-2007 (from approximately 46 800 kilometres to 89 500 kilometres), and the number of wastewater treatment plans increased by 24% over 2000-06 (from 2 475 to 3 063 plants), 13.8% of urban inhabitants are still not connected to wastewater treatment plants, compared to 7.9% of industrial and municipal wastewater nationally. Further, in five Polish urban municipalities (urban *gminas*), including Warsaw, over 20% of industrial and municipal wastewater goes untreated (Figure 1.53) (Ministry of Regional Development, 2010a). The population connected to tertiary wastewater treatment plants is also still relatively low nationally (Figure 1.54), which is in part responsible for Poland not

Figure 1.53. **Percentage of untreated industrial and municipal wastewater**
Polish urban municipalities (urban *gminas*) with rates above the national average

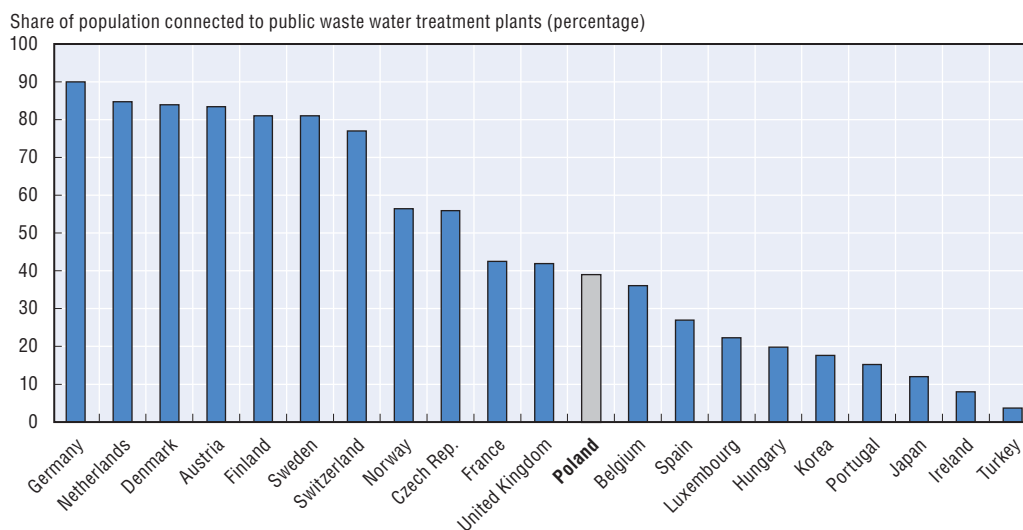


1. Percentages are of total wastewater volumes for each urban municipality (urban *gmina*). Data for all *gminas* was not available to provide ULMA figures.

Source: Ministry of Regional Development (2010), A. Baucz, M. Łotocka and G. Węclawowicz (eds.), "Polish Background Report for the OECD National Urban Policy Review of Poland – Part I: Diagnosis of the Condition of Polish Cities", Polish Ministry of Regional Development, Structural Policy Co-ordination Department, Warsaw.

Figure 1.54. **Share of national population connected to public wastewater treatment plants**

Tertiary treatment level, 2006



Note: No 2006 data available for Canada, Greece, Iceland, Italy, Mexico, New Zealand, Slovak Republic or the United States.

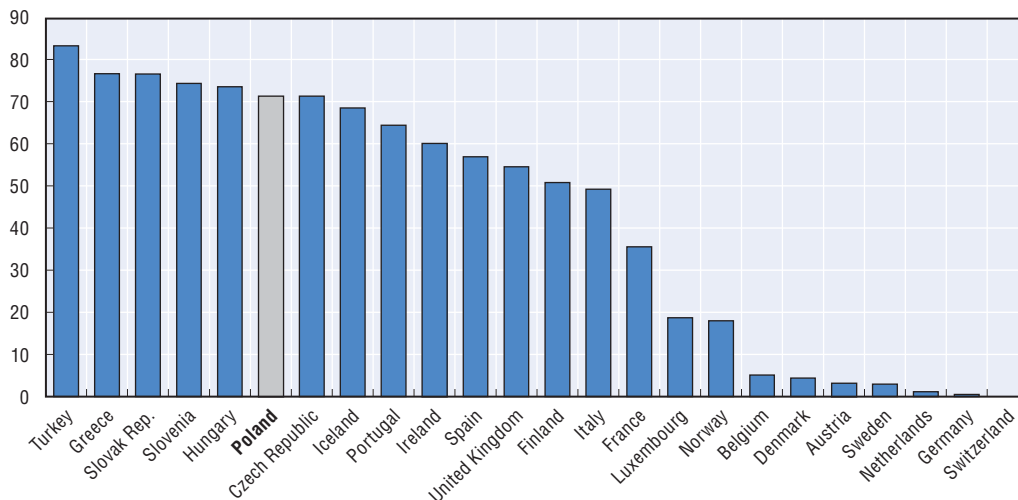
Source: OECD (2006), "Environmental Data: Inland Waters: 2006: Population Connected to Public Wastewater Treatment Plants", OECD.Stat Extracts, stats.oecd.org, OECD, Paris.

yet meeting EU water quality standards. Substandard water quality is of key importance to the nation's water supply, which, at approximately 1 655 cubic metres per capita annually, is a third of the annual per capita water supply in Western European countries (Ministry of Regional Development, 2010a).

Diverting more waste from landfills is another key urban environmental infrastructure priority. While per capita municipal waste generation is low among OECD countries (320 kilogrammes per capita/year in Poland compared to an OECD average of 560 kg per capita/year), the high rate of waste disposal in landfills is cause for concern (Figure 1.55) (OECD, 2010e). Although Poland reduced the percentage of municipal waste that is landfilled from approximately 97% in 2003 to approximately 71% in 2008, it still remained well above the average landfill rate in the EU-27, which was 40% in 2008 (Figure 1.55) (EEA, 2010a). As Poland was among the member states that landfilled more than 80% of municipal waste in 1995, the country has been granted an extension of up to four years on the EU Landfill Directive requirements, delaying until 2013 the deadline to reduce the amount of biodegradable municipal waste disposed of in landfills to 50% of 1995 levels and until 2020 to reduce them to 35% of 1995 levels (EEA, 2010b). Currently, “at source” municipal waste separation has been introduced in 94% of municipalities, but the share of waste recycled will need to increase to meet EU Landfill Directive targets (Figure 1.56). Waste incineration infrastructure is also sorely lacking. Only 0.4% of waste is incinerated nationally, compared to nearly 20% of municipal waste in the EU-27 overall (Ministry of Regional Development, 2010a; EEA, 2010a).

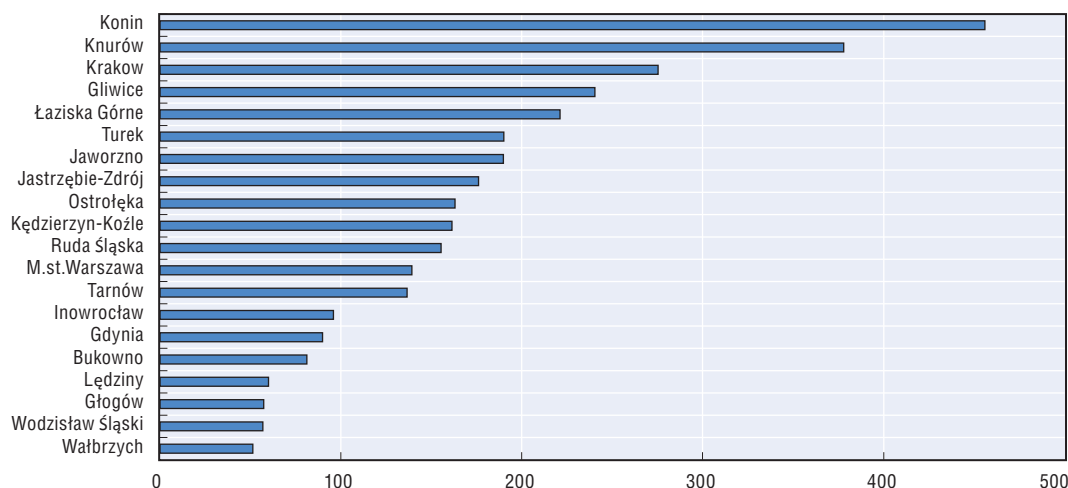
Poland has made reducing air pollution a key priority, but it remains the largest contributor in the EU-27 to a number of air pollutants. It has made dramatic reductions in tonnes of emissions over 1990-2008, particularly those linked to public electricity and heat production, household fuel combustion, and combustion in manufacturing and construction industries. This progress includes a 69% reduction in sulphur oxide emissions; a 60% reduction in lead emissions; a 54% reduction in cadmium emissions; a 53% reduction in mercury emissions; and a 25% reduction in dioxins and furans emissions. However, Poland remains the largest contributor in the EU-27 to each of these pollutants, with most notably a 35.3% share of the EU-27’s cadmium emissions and a 24% share of the EU-27’s lead emissions (EEA, 2010). Emissions of air pollutants are particularly high in certain cities (Figure 1.57).

Figure 1.55. **Percentage of municipal waste sent to landfill in select OECD countries, 2008**



Source: EEA (2010), “Figure 4.3”, in *The European Environment: State and Outlook 2010, Material Resources and Waste*, European Environment Agency, Copenhagen, www.eea.europa.eu/soer/synthesis.

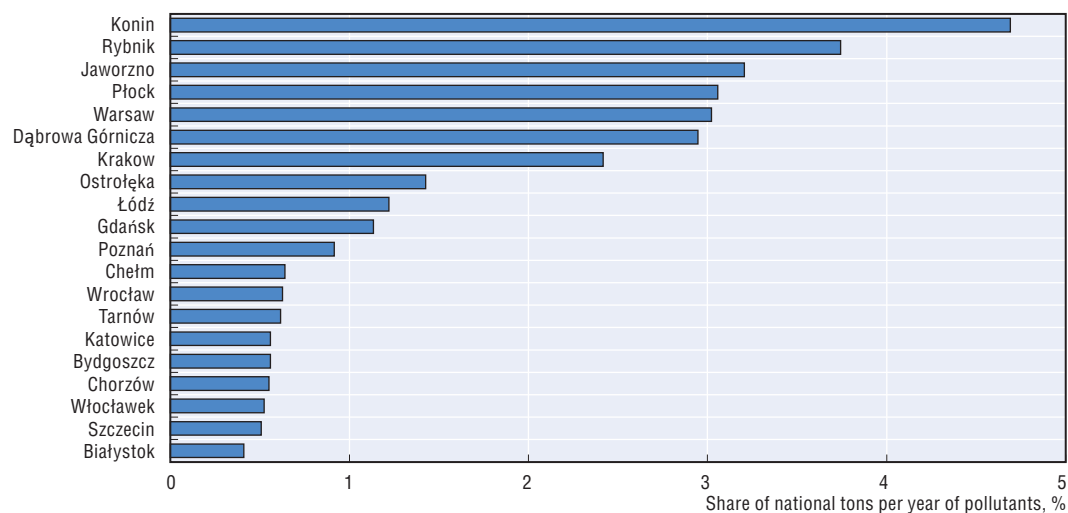
Figure 1.56. **Urban municipalities with greatest unreclaimed area devoted to landfill (by hectare)**



Source: CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

Figure 1.57. **Air pollution in some Polish cities**

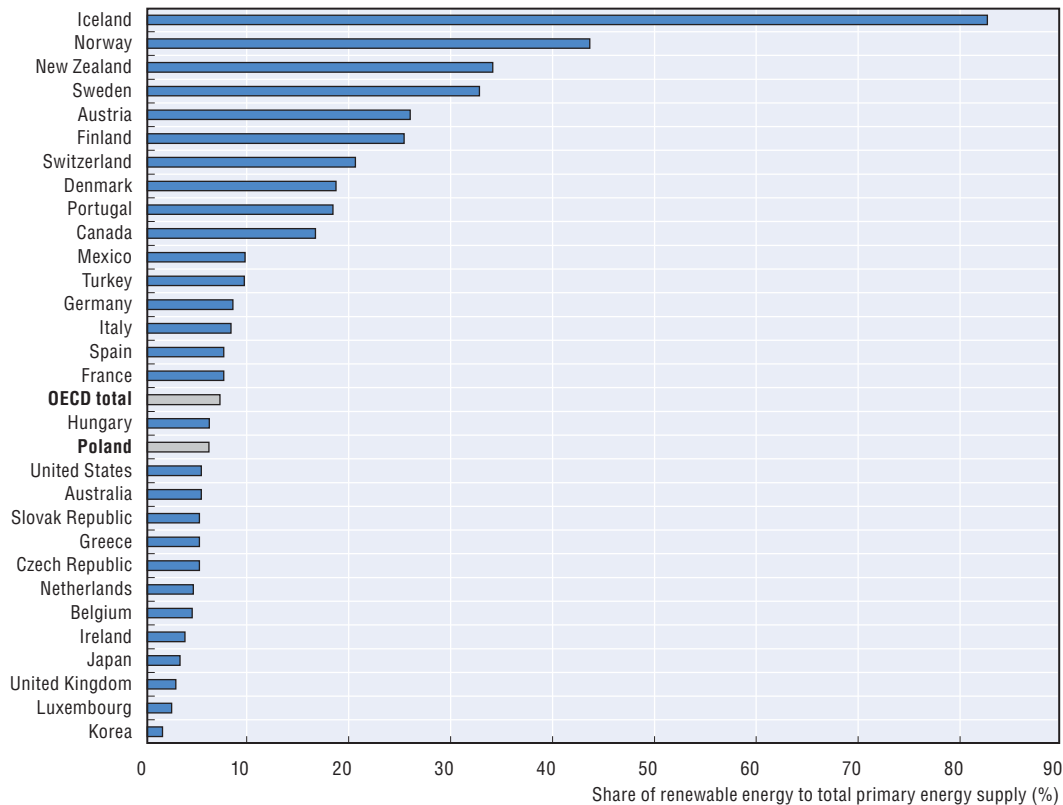
Top 10 pollutant cities in Poland (% of Poland's air pollutant emissions from plants by county in 2009)



Source: CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

While per capita CO₂ emissions are comparatively low among OECD countries, opportunities for increasing energy efficiency and increasing renewable energy generation remain under-exploited. In 2007, Poland's per capita CO₂ emissions, at 7.99 tonnes of CO₂ per capita, ranked below the OECD average of 10.97 tonnes CO₂ per capita (IEA, 2010), and are now estimated by the National Centre for Balancing and Management of Emissions at 8.61 tonnes CO₂ per capita. However, given the country's reliance on coal for most electricity generation, this low per capita emissions rate may be more a result of low energy consumption patterns, which are likely to increase with wealth and mobility. Poland is below average among OECD countries in terms of the contribution of renewables to the energy supply (Figure 1.58). Energy efficiency initiatives are also under-utilised, as much of

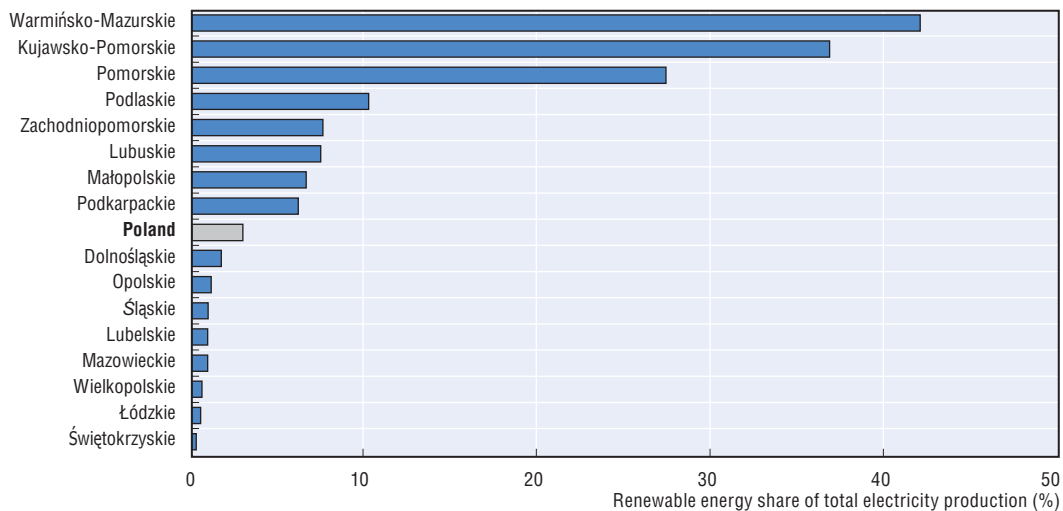
Figure 1.58. Contribution of renewables to energy supply, 2010
Percentage of total primary energy supply in OECD countries



Note: Data unavailable for Estonia, Israel and Slovenia.

Source: OECD (2010), "Contribution of Renewables to Energy Supply Data", OECD Factbook 2010: Economic, Environmental and Social Statistics, http://www.oecd-ilibrary.org/economics/oecd-factbook_18147364, OECD Publishing, Paris.

Figure 1.59. Renewable energy production by region
Regional renewable energy production as a share of total electricity produced in 2009



Source: CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

the existing housing stock is energy inefficient. Over 40% of national energy requirements is used to heat buildings, and there is huge need for energy audits of housing as well as a national programme of thermal modernisation in order to reduce costs and preserve energy security. While building retrofitting programmes to increase energy efficiency exist, the priority for building rehabilitation has been for exteriors rather than investments that could reduce buildings' energy demand.

The trend across Polish cities towards suburbanisation directly impacts environmental quality. As demonstrated by the previous urbanisation trends, analysis carried out on ULMAs in the last two decades shows significant urban sprawl. This is part of a general redistribution of the population away from central cities. Metropolitan growth predominantly takes the form of suburbanisation. The greatest growth rates are experienced in *gminas* close to large cities, including Piaseczno, Żąbki and Marki in Warsaw; Kornik, Luboń and Pobiedziska in the tri-city area of Gdańsk, Sopot and Gdynia, and Wieliczka and Niepołomice in Krakow. Rural *gminas* close to agglomerations such as Szczecin, Poznań, Warsaw, Lublin, Wrocław and Łódź also experienced heavy growth rates, as they have near smaller cities, such as Radom and Płock (see Figure 1.11 above).

Urban density and spatial organisation are key factors that influence energy consumption, especially in the transportation and building sectors. The departure of city residents to surrounding *gminas* has resulted in urban sprawl, which is characterised by low-density, segregated land uses whose outward expansion is unchecked and may “leap” over undeveloped land (Burchell *et al.*, 2002). The expansion of built-up areas through suburbanisation has been reflected across the OECD, and figures prominently among OECD metropolitan areas: 66 out of the 78 largest OECD cities experienced a faster growth of their suburban belt than their urban core over 1995-2005 (OECD, 2010f). Reversing this trend and increasing urban density could significantly reduce energy consumption in urban areas. For instance, Japan's urban areas are around five times denser than Canada's, and its consumption of electricity per capita is around 40% of Canada's. Denmark's urban areas are denser than Finland's by a factor of four, and its population consumes only 40% of the electricity that the Finns consume (OECD, 2010f).

Urban sprawl also hinders the preservation of open space and protected natural areas. Most Polish agglomerations are close to or contain significant areas of non-urban land use. There is a significant amount of urban contact with ecological corridors, protected areas and natural systems, such as river valleys, forest and mountain zones and coastline. Just over 22% of Poland's land surface is legally protected as areas of preserved landscape. However, in the growing metropolitan regions, these areas are under threat from suburban development. Most upscale growth is drawn to the more scenic areas of the metropolitan regions, precisely those areas that may need protection or greater enforcement of existing legal protections.

Notes

1. BRIICS countries include Brazil, Russia, India, Indonesia, China and South Africa.
2. The Gini index measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. The Gini index measures the area between the so called Lorenz curve and the hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line. A Gini index of zero represents perfect equality and 100 perfect inequality.

3. This problem is illustrated in Cheshire and Gornostaeva (2001) for Paris and London in 1991.
4. See for example Burchfield et al.'s (2006) measurement of urban surface in the US.
5. For instance, the core of Barcelona in Spain is divided into 28 municipalities, while the municipality of Zaragoza includes the whole physical and functional metropolitan area as well as large areas of near-desert. As a political unit, the City of London still has more autonomy than any other local or regional authority in England, but its boundaries are determined by mediaeval settlement patterns and do not extend far beyond its Roman walls. The City of Paris reflects an 18th-century settlement pattern, and most US central cities have not incorporated any of their suburban developments for a century.
6. Cluster analysis is the name given to a series of techniques that are used to classify observations. The aim of such analyses can be to develop a typology, create conceptual schemes for grouping observations, to generate hypotheses and to test them (Aldenderfer and Blashfield, 1984).
7. Ongoing research by the Association of Polish Cities in co-operation with the Association for Economic Development of Municipalities (SRGG) is developing composite indicators that can provide a clearer picture of the similarities among cities. In fact, their results would classify Gdańsk closer to cluster three cities in this review (large and dynamic) such as Krakow, Poznań and Wrocław.
8. EU enlargement of the eight former communist states in Central and Eastern Europe allowed certain countries to impose restrictions on labour movements, but they were required to gradually lift them. By 2011, all restrictions should be removed.
9. Poland exhibits at least three dimensions of income inequality. First, the lagging regions in eastern Poland are behind the more advanced in the West (the East-West divide). Second, Warsaw's GDP per capita is well above any other urban area, and the gap is expanding. Third, within urban areas, disparities are the widest compared to inter-regional disparities and across metro-regions in the OECD (OECD, 2008a).
10. Sigma convergence is a type of analysis assessing the level of inequality in an economy. The aim is to measure the income gap between the richest and poorest. Many of the studies that have employed sigma convergence indicators use the gap in per capita GDP. In order to properly use it, values need to be linearised, applying natural logs and calculating the standard deviation in the group. Some other studies have used sigma convergence to apply to employment.
11. The poverty line is generally defined as the per capita monetary requirements an individual needs to afford the purchase of a basic bundle of goods and services. The value of this basic basket of goods and services can in turn be determined in many ways.
12. Other built land includes buildings and devices related to such uses as administration, health services, commerce, worship, crafts, services, science and education.
13. Co-operatives refer to housing associations by tenants/landlords; they are sometimes also considered social housing.

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Chapter 2

National Policies for Urban Development in Poland

This chapter presents the need for a national urban policy framework in Poland and addresses the main policy challenges urban areas are facing. The chapter starts by describing the current strategic framework for regional and urban development strategies and key policy documents in national administration. It also investigates the gaps between the framework in place and urban development needs, the potential role and objectives of a national urban policy, as well as sectoral reforms that can address urban areas' main challenges. In particular, the chapter highlights urban policies that can enhance competitiveness while addressing inequality, increase the availability of affordable housing, and improve land-use planning.

Poland is facing demographic change, an acute shortage of affordable housing and challenges for increasing the competitiveness of many of its cities. The fragmented approach to urban development and spatial planning on the national, regional and local levels presents obstacles to effective national-level policy responses. A more co-ordinated national response to urban policy is needed to address these challenges. This chapter presents the gaps between the current national strategic framework and urban development needs, the potential role and objectives of a national urban policy, and national sectoral policy reforms that could better address demographic change, increase competitiveness and respond to the lack of housing. A long-term national vision is called for, which increases national-regional-local co-ordination, removes policy obstacles to the local implementation of national urban goals, and integrates spatial planning frameworks and economic development strategies.

2.1. The current strategic framework for regional and urban development strategies

Three main challenges prevent a comprehensive approach to urban development at the national, regional and local levels. First, urban policy has not been assigned a specific set of priorities on the national level, in contrast to regional and rural policy. Second, no enforceable mechanisms exist to harmonise regional and local economic development or spatial development plans. Third, municipal economic development, spatial development and sectoral plans are not integrated, resulting in a fragmented approach to local development.

The first key challenge is that urban policy is not currently considered a top national policy priority. Of the 34 sections of national government administration (currently implemented by 17 ministries), urban policy is only included as a subset of Section Ia on Construction, Spatial and Housing Management. In contrast, both a Rural Development Section (XVII) and a Regional Development Section (XVIIa) exist (Ministry of Regional Development, 2010b). Many sections contain policies that have implications for urban development, particularly the sections responsible for public administration, regional development, transport, environment, public finance and budget, culture and protection of national heritage, higher education and health. However, in the absence of a specific urban policy section, it is difficult to co-ordinate and harmonise these disparate policies.

The Polish National Development Strategy provides an opportunity for a more coherent approach to urban policy. The National Development Strategy, introduced in concept in December 2006, includes the Long-Term National Development Strategy and the Mid-Term National Development Strategy. The Long-Term National Development Strategy, currently being prepared, sets out the major trends, challenges and scenarios of the country's development for a minimum of 15 years. The Mid-Term National Development Strategy, currently applicable for 2007-15, defines the basic conditions, objectives and directions of the country's development over a four- to ten-year time period.

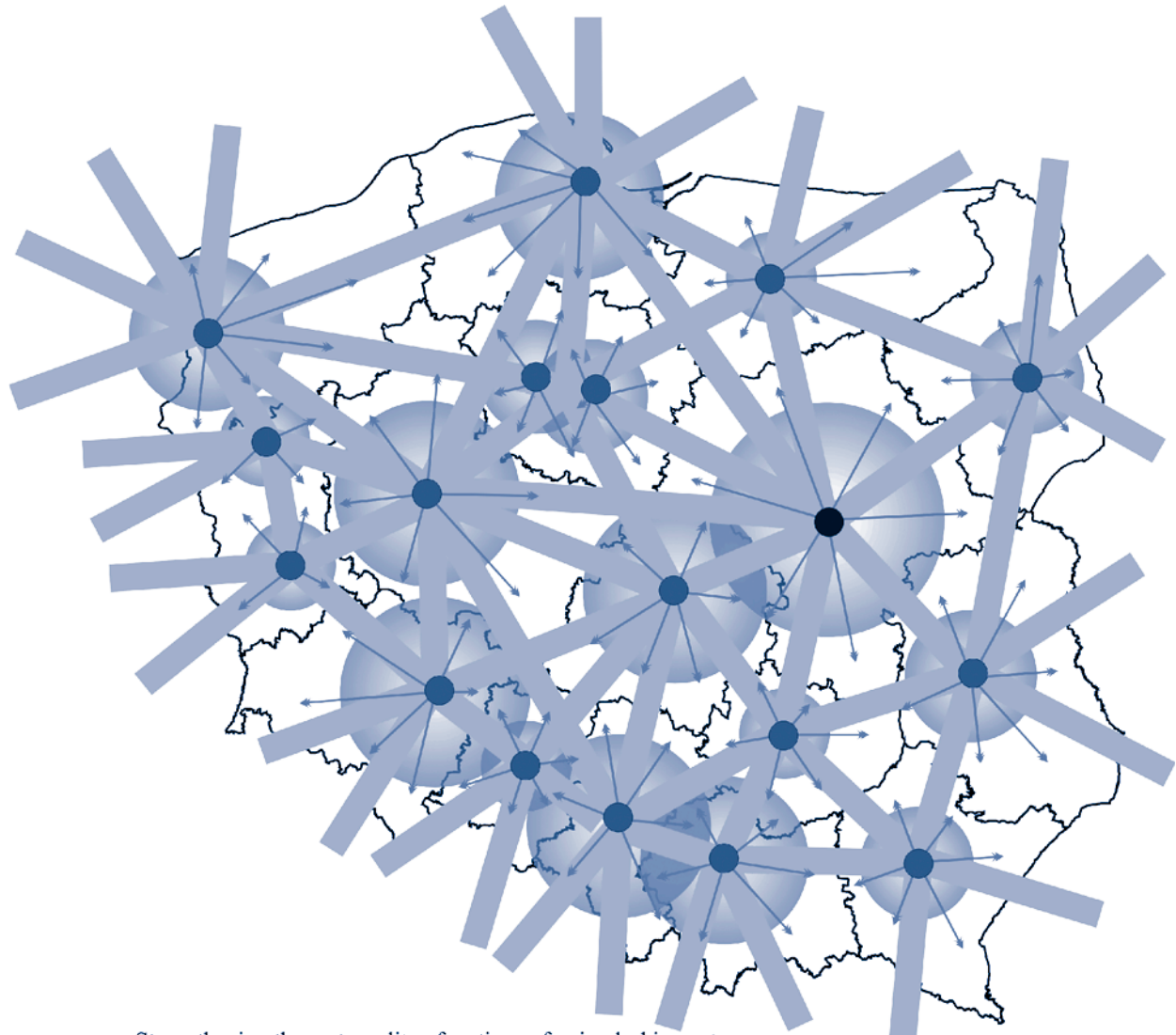
The National Development Strategy Process aims to reduce the number of national strategic documents from the current 42 documents to 9 development strategies.¹ These strategies will implement the Mid- and Long-Term National Development Strategies.

The NSRD (National Strategy for Regional Development 2010-20: Regions, Cities, Rural Areas) would go the farthest among the nine development strategies in bridging the gap between a national development strategy and urban policy implementation. The NSRD provides a vision and policy tools for regional development, including the goals of i) strengthening the metropolitan functions of regional cities and their functional urban areas; ii) establishing conditions for dissemination and absorption of the development processes; iii) supporting restructurisation and revitalisation of cities and other areas at risk of losing their socio-economic functions; and iv) supporting the spatial accessibility of the regional centres (Ministry of Regional Development, 2010b). Given these goals, the NSRD has the potential to reduce the co-ordination gap among central ministries, regions and cities, as well as among municipalities within the same functional area. It also has the potential to strengthen linkages between non-urban areas and cities on a regional level, thereby increasing regional competitiveness (Figure 2.1). In recognition of this potential, the Council of Ministers in November 2010 adopted the Action Plan for Implementation NSRD 2010-20, including a measure to create a national urban policy within the Polish development management system. This measure was appointed to Ministry of Regional Development, which will present the “Directions of National Urban Policy” in 2011.

The current Mid-Term National Development Strategy 2007-15 (Mid-Term NDS 2007-15), does have implications for urban development, but does not yet sufficiently take into account the urban dimension of national development. Among the priorities in the Mid-Term NDS 2007-15, Poland will foster competitiveness and innovation, improve infrastructure, create jobs, integrate communities, develop rural areas and pursue regional development and cohesion. Almost all of these priorities relate directly to urban areas, as they are not only the places where innovation is likely to take place, but also most in need of infrastructure, employment and social cohesion. In particular, the NDS 2007-15 aims to increase transport accessibility of cities, improving the natural environment and attractiveness of cities, enable cities’ role as development hubs, and improve public transportation in cities, as well as supporting railroads to connect urban areas. In addition, it also provides objectives for a fuller utilisation of urban areas’ endogenous potential, the development of metropolitan areas and strengthening urban-regional links (Ministry of Regional Development, 2006). The Mid-Term National Development Strategy is currently being updated to apply to new development conditions, and the time period to which it applies will be changed to 2011-20.

Another national policy strategy, the National Cohesion Strategy of the National Strategic Reference Framework (NSRF),² focused on growth and jobs, also has urban policy implications that could be better co-ordinated with other national policies that impact urban areas. The NSRF aims at: i) utilising large urban centres as the drivers of regional development; ii) strengthening urban-rural and urban-peri-urban linkages; and iii) reducing negative externalities in large urban centres. According to the NSRF, large urban centres can be hubs of knowledge and innovation through the implementation of policies targeting competitiveness, entrepreneurship, innovation, service development and human capital attraction and retention. The document also sees information and communication technologies (ICTs) and economic and cultural linkages between urban areas and the wider region as a key role for cities. Finally, the document stresses the

Figure 2.1. **Urban areas' role as regional development catalysts**
As considered in the National Strategy for Regional Development



1. Strengthening the metropolitan functions of voivodeship centres and integration of their functional areas

● Warsaw – the capital city of Poland

● Other voivodeship centres

■ Strengthening connections between urban centres in domestic and international relations

2. Establishing conditions to disseminate development processes and increase their absorption outside voivodeship cities

● In the areas of the greatest impact of voivodeship centres

→ In the whole area of a voivodeship

This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map.

Source: Ministry of Regional Development (2010), "Figure 3: Spatial Directions of Activities Under the First Objective of the NSRD", in "National Strategy for Regional Development 2010-20: Regions, Cities, Rural Areas", document adopted by the Council of Ministers, 13 July 2010, Warsaw.

importance of policies for urban regeneration, entrepreneurship promotion and local employment policies as ways to reduce negative externalities.

The second key challenge is the disconnect between regional and municipal-level development strategies. Regional Development Strategies aim to provide regional objectives within the context of national development strategy. However, co-ordination between Regional Development Strategies and Municipal Development Strategies is not enforced, and Regional Development Strategies are not binding on municipal development decisions (Table 2.1). Further Regional Development Strategies are often not sufficiently reflected in Regional Spatial Development Plans. For instance, Regional Operational Programmes, which provide the most important tool for implementing Regional Development Strategies' objectives, do not have to take regional spatial development into account. Regions also prepare Spatial Development Plans for Metropolitan Areas as a part of Regional Development Plans, but the impact of these plans is limited.

Given the lack of enforced co-ordination between regional and municipal economic and spatial development plans, municipalities have the autonomy to determine economic development and spatial policies independently from higher levels of government. Although the Studies of Conditions and Direction of Spatial Development and Land Use in Municipalities and the Municipal Physical Development Plans are expected to take into account Regional Spatial Development Plans, there is little oversight or enforcement of this alignment. As a result regional governments "have their hands excessively tied when it comes to engendering development integrated with spatial planning" (Pankau, 2009). Further, monitoring has not been included in the planning process in a systematic way and it is left up to particular regions to implement a system to improve planning.

Table 2.1. **Main documents in the field of development policy**

	National	Regional (<i>voivodship</i>)	Municipal (<i>gmina</i>)
Development policy	Long-Term National Development Strategy Mid-Term National Development Strategy National Strategy for Regional Development (NSRD) (one of nine sectoral strategies that will implement the National Development Strategy). NSRF and Operational Programmes ¹	<i>Voivodship's</i> Development Strategy Regional Operational Programmes (ROP) Sectoral Programmes ²	Local Development Strategy (not obligatory) Sectoral programmes ³
Spatial policy	<i>National Spatial Development Concept</i> (NSDC) (under discussion)	Regional Spatial Development Plan (including Spatial Development Plans for Metropolitan Areas)	Study of the Conditions and Directions of Local Spatial Development Municipal Physical Development Plans Decisions on land development and spatial development conditions

1. For the use of EU Structural Funds: Infrastructure and Environment, Human Capital, Innovative Economy, Development of Eastern Poland, European Territorial Cooperation Programmes.

2. Concerning for example environmental protection programmes, waste management plans, and employment, social, health care and tourism programmes.

3. Municipal-level decisions are also guided by sectoral programmes, including environmental protection programmes, waste management plans, energy supply plans, local revitalisation programmes, local programmes of housing stock management, strategies for addressing social problems, public safety programmes, emergency management plans and programmes of co-operation with NGOs.

Source: Adapted from Ministry of Regional Development (2010), M. Łotocka and A. Baucz (eds.), "Polish Background Report for the OECD National Urban Policy Review of Poland – Part II: Policy and Management of Urban Development in Poland", Polish Ministry of Regional Development, Structural Policy Co-ordination Department, Warsaw; and Pankau, F. (2009), "Reflections on the Relationship between National and Voivodship-Level Planning in Poland", in T. Markowski (ed.), *The Polish Spatial Development Concept versus European Visions of Spatial Development Perspectives*, Polish Academy of Sciences, Warsaw, pp. 157-191.

The third key challenge is that municipal-level planning and development tools are not integrated and often fall short of a comprehensive approach. Municipal local spatial policy is established in the Studies of Conditions and Directions of Spatial Development and Land Use in Municipalities, which incorporate the conditions on land use, planning, environment, infrastructure and other aspects, as well as the direction of future development. However, while these studies provide important guides for local spatial planning and are conducted in most municipalities, they are not legally binding for local areas and thus only have an indirect impact on physical urban development (Ministry of Regional Development, 2010b; Strzelecka, 2008). The Studies of Conditions and Direction of Spatial Development and Land Use in Municipalities are implemented by Municipal Physical Development Plans (MPDP), which incorporate land-use, zoning, investment decisions, planning methods, land-development conditions and protected area. MPDPs are required to comply with the Studies of Conditions and Direction of Spatial Development and Land Use in Municipalities under the 2003 Spatial Planning and Spatial Development Act. However, while MPDPs have the status of local law, it is up to municipal governments to decide whether to adopt the plans, which usually cover just a section of the municipality (Ministry of Regional Development, 2010b). As a result, land development and spatial development conditions, which are applied to areas where municipalities have not developed Municipal Physical Development Plans, sometimes do not comply with the Studies of Conditions and Direction of Spatial Development and Land Use in Municipalities.

An important consequence of the lack of integration between economic development, spatial development and other sectoral plans is a disconnect at the municipal level between economic growth goals and spatial realities. There is no process or mechanism to develop spatial and economic development planning in a co-ordinated manner. This dislocation results in a missed economic development opportunity to make effective use of urban land for commercial and residential activities, and to effectively deliver the public services and infrastructure needed to attract residents and firms. The fragmentation of plans thus also stands in the way of urban revitalisation.

The National Spatial Development Concept (NSDC), currently in draft form, could address the lack of multi-level governance co-ordination and fragmentation between economic and spatial development goals. The NSDC aims to provide the objectives and direction for spatial development in Poland and focuses in particular on: i) the basic elements of the urban network and pinpoints metropolitan areas; ii) environmental protection; iii) developing international and national level social infrastructure; and iv) international and national level transport infrastructure, as well as water resources and management (Ministry of Regional Development, 2010b). Although still under discussion, the NSDC could provide the objectives needed to enhance inter-sectoral co-ordination of urban development strategies and spatial planning, and promote inter-municipal co-ordination in functional urban areas. However, the scope, distribution of responsibilities and enforcement of the concept are still undetermined. Its status as a concept rather than an act potentially undermines the impact it will have on national, regional and local urban development and spatial plans.

2.2. The need for a national urban development strategy in Poland

The lack of co-ordination, clear responsibilities and common objectives on urban development and spatial planning in Poland calls for a national strategy for urban

development. A long-term, national vision for urban development is needed to increase national-regional-local co-ordination, remove policy obstacles to the local implementation of national urban goals, and integrate spatial planning frameworks with economic development strategies. While such a vision would necessarily need to focus on key policy sectors, including policies for competitiveness, land use planning and housing, it would also need to emphasise multi-sectoral linkages and opportunities to maximise policy complementarities. Even in the currently decentralised system of development and spatial planning in Poland, the central government has a role to play in providing a common framework and long-term perspective that enhances cities' competitiveness and complementarities.

A range of OECD experiences demonstrates the importance of establishing a national vision for urban development that allows for innovation in regional and local governments' development strategies. A national urban policy need not weaken local areas' competences, but rather increase policy effectiveness and reduce local negative externalities. Experiences across the OECD show that national approaches can increase effectiveness and strengthen local initiatives and the effectiveness of public resources. In France, local authorities were given more room to manoeuvre during the 1980s while the national government maintained its influence through the *Charters d'objectifs* and *Contrats de Villes* instruments (van den Berg, Braun and van der Meer, 2007). The Dutch urban policy for 2005-09 (GSB-III) involved the agreement of national and urban governments on a limited set of goals with well-defined and measurable objectives, underscoring local areas' accountability for meeting these goals (Braun, Chouly and van der Meer, 2007). A national framework can influence local areas even under the most decentralised contexts by reconciling both national and local visions. In Spain, the Constitution of 1978 mandates a decentralisation of competences to regional (autonomous) governments (the *Comunidades Autónomas*). Urban planning, public transport, environment and housing are all regional competences, yet the government has managed to establish national plans that have significant impacts on cities, such as in housing through the *Plan Nacional de Vivienda* or transport infrastructure through the *Plan Nacional de Infraestructuras de Transporte*. As a result, the national government had an impact on the liberalisation of land markets and the affordability of housing.

A key value of national urban strategy lies in the opportunity to maximise policy complementarities across urban-related policy sectors at the national level. Policies related to competitiveness and economic development, infrastructure and connectivity, and housing and land use are closely inter-linked at the local level. This inter-connectedness gives rise to opportunities for policy complementarity, that is, a benefit in the form of the return generated when one policy is enacted along with another (De Macedo and Oliveira Martins, 2006). Identifying the impact and benefits that policy sectors can have on each other is essential to designing policy packages that enhance the effectiveness of each individual policy. At the national level, a national urban strategy can provide the basis for identifying urban-related policies across ministries and sections of national government administration and determining how to enhance their combined effects.

The role of the central government in a Polish national urban strategy should optimise the central governments' ability to provide a long-term, national perspective to enable local urban development. First, national urban policy makers have a role to play in assisting cities appraise opportunities for attracting new firms and new sectors. The technical expertise and national perspective can temper the drive among many city

governments to focus on emerging sectors, such as high-value technology and financial services. At times, city governments may pay insufficient attention to which firms are actually surviving in local markets or which new firms could build on existing local specialisations and acquired knowledge. For example, Chicago's global role in commodities futures trading draws on its history as a centre for agricultural trade. It is important that the promotion of new sectors provide opportunities to strengthen demand for existing services, manufacturing and even agricultural activities in the region (Sassen in OECD, 2007a). Second, national governments are in a position to identify metropolitan regions that are not reaching their potential productivity because of a lack of appropriate public policy, and to provide guidance and technical support to adapt national urban development goals to local contexts (OECD, 2010a). Third, national leadership can enhance networking among Polish cities to share best practices and address issues of common concern, thus enhancing the network effects of Poland's inter-city co-ordination and the development of its individual urban regions (OECD, 2010a).

2.3. Policies with strong urban impact

Even when the political context or the national vision does not include an explicit national urban policy, national governments can still increase policy effectiveness and avoid negative externalities by identifying implicit sectoral policies with strong urban effects. Poland does not have an explicit national urban policy, but many policy areas over which the national government has influence have enormous urban impacts. As mentioned in Chapter 1, urban areas in Poland face many problems, including demographic change, high levels of internal inequality, barriers to further growth such as limited female participation in the labour force, insufficient innovation, lack or deterioration of transport infrastructure and an inadequate supply of housing. This section will look into some of the most pressing issues for urban areas in Poland: increasing competitiveness and socio-economic development, and providing more housing while bringing more coherence to land-use planning.

Fostering competitiveness and socio-economic development of Polish urban areas

Adapting to demographic change

The key to coping with imminent demographic change in Poland lies in a more inclusive and flexible society. Public policy in many areas will have to adapt to the ageing population, in particular by providing suitable housing, transport, health care and by enabling migration to counteract the dented labour supply. Urban areas are particularly important. There is a need to increase affordability, and to accommodate infants in nurseries and the elderly in retirement homes so that more women can enter the workforce. In addition, more housing in urban areas would attract new businesses and increase employment, more effectively linking neighbourhoods within the functional area. In general, policies to address demographic change are not contemplated in the strategic or programmatic documents in Poland at the national or regional levels. No mention of ageing, migration, female participation or housing is made in the National Development Strategy 2007-20 or the Regional Operational Programmes in each of the 16 *voivodships*.³ Instead, they are being addressed in a sectoral way. A national urban policy framework is needed that incorporates labour policies in urban areas to increase female participation rates, and public transport strategies to adapt to an ageing population.

In light of the demographic shift, one of the most pressing issues for Poland is to increase labour supply. Employees represent just over two-thirds of working-age population, compared to an EU average of more than 71%. As a result participation rates in Poland are one of the lowest among EU member countries. The gap is particularly high in the age group between 55 and 64, only one-third of whom work in Poland *versus* 47% in the euro area. The OECD (2010a) has also pointed out that Poland's workforce faces a low and decreasing supply of women. Female participation rates lag well behind those in the euro area; a 7 percentage point gap for prime-age workers and 16 percentage points for older women. While some progress was made in the area of retirement benefits at the time that programmes targeting older workers were put in place, there is room for improvement in terms of retirement age and pension system reform (OECD, 2010b).

Municipalities in functional urban areas can play an important role in increasing female participation rates to increase the labour supply. Additional nurseries and kindergartens can be created, as well as retirement homes, since in many cases women choose not to work because they must take care of infants and elderly parents. At the same time, labour policies should aim to increase part-time work for women so that they may pursue a career. A national urban policy framework can enhance municipalities' capacity to provide for retirement homes. Health care and social provision is one of the areas where allocation of competences among levels of government is unclear. Funding is provided at the national level, but health care facilities, including retirement homes, are owned by municipal governments. A policy framework that clearly defines competences and matches funding with operation will assist municipalities to increase female participation rates. As for child care, a national framework for urban policy can place a budgetary emphasis on supporting municipalities to better provide child care centres. Urban areas can also play an independent role by partnering with local firms to provide for co-financed child care, as regional governments have done with multinational enterprises in Mexico.

Immigrants are also key to solving one of the most challenging problems that urban areas are facing in Poland: depopulation. An ageing population and low fertility rates can also be addressed by opening up to migration and by introducing flexible work practices and part-time work that take into account the impact of those who do not work (infants and the elderly) on those who do. Measures aimed to promote in-migration by foreign workers and to encourage Poles to return home could also increase the supply of labour, in as much as barriers to mobility into urban areas are removed. Cross-border outmigration has been high and could represent an important channel of adjustment, but return migration has been very limited, despite Poland's relatively better economic performance in recent years. Poland has a substantial outflow of population from rural regions and small urban areas in lagging regions. Between 1946 and 2005, almost 5 million people left Poland, and in 2002, over three-quarters of a million Poles were living abroad temporarily as labour markets in the euro countries opened up. By the end of 2008, more than 2 million Polish citizens were living abroad, up from 1 million in 2004. Four out every five of these migrants were either from rural areas or from towns with less than 100 000 inhabitants. Migration is particularly evident in eastern and southern Poland. Podkarpacie, Małopolskie, Lubelskie, Podlaskie and Świętokrzyskie account for only 25% of the population, but they constitute 50% of the migrants.

However, migration is held back by housing shortages. Lack of employment opportunities in lagging regions makes the jobs available in the cities of Western Europe more attractive. As migrants tend to be younger and more economically active, migration

is essentially a loss of human capital, even if remittances filter back into the Polish economy in the short term. One policy alternative is to encourage emigrants from these lagging regions and cities to move to growing Polish cities. To some extent this may be already happening, since the recent economic downturn may have encouraged some Poles to return home. However, there are obstacles to encouraging migration to Poland's growing cities. The most significant is the cost and availability of housing and the endemic housing shortage. Relatively low wages and high accommodating costs can make internal migration a less attractive proposition than moving overseas where higher wages can offset accommodating costs. A national urban framework should help increase housing supply and make it affordable to encourage further labour mobility and accommodate not only rural but also returning and foreign immigrants.

A more efficient housing market is an important prerequisite for greater internal labour mobility and thus increased labour supply. There are also significant wage differentials for young Poles working in Polish cities compared to cities in other EU countries. Even factoring the higher costs of other EU cities, moving to a Polish city with lower Polish wages may not be an attractive option. Housing supply remains one of the main bottlenecks. While many regional governments have recognised that housing prices are an important social problem, many others overlook the economic side. For instance, the Development Strategy for the Mazowieckie Voivodship (Warsaw's region) establishes the improvement of housing conditions as one of its priorities (Mazowieckie Voivodship, 2006). However, while rightly paying attention to housing for young, handicapped and low-income people, it remains silent regarding an increase in the housing supply. A number of policy options for increasing the supply of housing, including rental units, is discussed in the following section.

Public urban spaces, such as public buildings, parks and squares, sidewalks, and public transportation should adapt to an increasingly elderly population. Transportation policy cannot overlook public transport systems and proper walking paths that are suited for short journeys, which elderly people typically make. While the bulk of infrastructure resources will go to connect urban areas and their regions through a motorway system, public transportation within urban areas remains key. It is not only important to introduce rail solutions (metro, tramways and the like) within urban areas, but also to adapt bus services that are likely to be used by the elderly to move around. With age the number of impairments increases and at the same time, reduces their mobility (*e.g.* walking, standing and climbing stairs). In addition, public transportation and urban spaces required for an ageing population need to take into account elderly people's tendency for shorter journeys. While creating public transportation and urban spaces for the elderly is not likely to require inter-municipal co-ordination, a national urban policy framework should also take into account urban areas' budgetary needs for a proper provision of public transportation and urban spaces adapted for the elderly, as Japan's national government has done (Box 2.1).

Information and communication technologies (ICT) can also help integrate elderly groups and bring key services closer to a growing number of impaired and aged population. If housing planning includes a place for ICT, services can be closer to the elderly. Requests for public services and payments can be carried out using ICTs and the Internet, reducing the need for the elderly to leave their home. It can also help to bring together the community delivering cultural and social services (OECD, 2003). Although the elderly may not always fully accept new technology, it should not be considered a replacement for social care and interaction (OECD, 2003). It is important that policy be designed to improve

Box 2.1. Japan's policies for enhancing accessibility to public areas for the elderly

In order to allow everyone to freely travel from one place to another in urban areas, Japan's Ministry of Land, Infrastructure, Transport and Tourism (MLIT) is systematically incorporating more barrier-free features into railway facilities, hospitals, welfare facilities and other buildings, as well as into the routes connecting them and in buses and taxis. Key policy instruments include:

- **Act on Making Buildings Accessible and Usable for the Elderly and Physically Disabled (Heart Building Law).** Enacted in September 1994 and revised in April 2003, this act introduced various measures to make public buildings more accessible, including building standards to reduce barriers to movement in buildings used by large numbers of people or that serve an older or mobility-impaired population. Incentives were provided for those who intend to construct specific buildings that meet the requirements for a barrier-free environment, including: floor-area-ratio bonus, exclusive right to indicate the certification, additional 10% depreciation of income tax/corporate tax for five years, low-interest loans and government subsidies for the construction cost, and a simplified process for building permits.
- **Transportation "Barrier-Free" Act.** Enacted in 2000, this act promotes the accessibility of the elderly and the disabled in public transportation facilities, including stations, trains and buses, as well as in public areas including streets and squares. It introduced the standard that transportation companies must conform in constructing new public transportation facilities, including installation of elevators, escalators and guided blocks and installation of low-floor/non-step buses.
- **New "Barrier-Free" Act of 2006.** Enacted in December 2006, this act (Act on Promotion of Smooth Transportation, etc. of Elderly Persons, Disabled Persons, etc.) integrated the two acts and promotes accessibility in public areas in a more comprehensive fashion. The standards for accessibility were enlarged to include certain streets, parks and parking facilities, with more attention to pedestrian space linking different public facilities and buildings. The act also encourages the participation of elderly and disabled people in the planning phase. The ministry is encouraging municipalities to prepare local strategies and providing financial support for their projects.

Through these comprehensive efforts, the accessibility of public areas has substantially improved. For instance, 77.2% of all the passenger facilities with more than 5 000 passengers per day (2 876 facilities in total) have achieved barrier-free features (as of March 2010).

Source: Ministry of Land, Infrastructure, Transport and Tourism (MLIT) (2008), "White Paper on Land, Infrastructure, Transport and Tourism in Japan (Outline)", Warsaw; Ministry of Land, Infrastructure, Transport and Tourism (MLIT) (2010), "Current Situation of Barrier-Free Improvement Based on the New Barrier-Free Act", press release on 1 October 2011 (*in Japanese*); Ministry of Regional Development (2006), "National Development Strategy 2007-15", Ministry of Regional Development, Warsaw.

the lives of the elderly, while recognising that the introduction of ICTs can exacerbate the digital divide between those who have access to Internet and those who do not. E-health strategies are often used to increase health services delivered at home; these include not only increasing Internet access, but also launching Internet services for health users, as in Portugal and Greece; fostering e-commerce in medicine, as in Germany; enacting regulation that requires general practitioners (GPs) to offer services online, as in Denmark, and developing national strategies for e-health, as in Sweden (Box 2.2).

Box 2.2. E-health as a strategy

The definition of “e-health” is still somewhat fluid, but Eysenbach (2001) argues that as an emerging field at the intersection of medical informatics, public health and business, it refers to health services and information delivered or enhanced by the Internet and other ICTs. It encompasses not only the development and adoption of technology, but also a state of mind and commitment to a network that helps improve health care locally, regionally and worldwide. In Europe, its use is growing. In some European countries, such as Germany and Poland, its adoption increased by more than 10% between 2005 and 2007 (Kummervold et al., 2008). On average, the percentage of population that used the Internet for health purposes increased from 42.3% in 2005 to 52.2% in 2007.

Internet health users in selected European countries

	Internet health users as a proportion of population in 2005	Internet health users as a proportion of population in 2007	Growth (%)
Denmark	61.8	71.6	9.8
Germany	44.4	56.6	12.2
Greece	23.2	32.1	8.9
Latvia	35.7	47.0	11.3
Norway	60.3	66.8	6.6
Poland	41.5	53.3	11.8
Portugal	29.2	38.3	9.1
Average	42.3	52.2	9.9
Weighted average (by population)	42.1	53.5	11.4

Source: Kummervold, E. et al. (2008), “eHealth Trends in Europe 2005-07: A Population-Based Survey”, *Journal Medical Internet Research*, Vol. 10, No. 4, e42.

In Denmark, Germany, Greece and Portugal, Kummervold et al. (2008) show that growth in the number of Internet health users is larger, relatively speaking, than growth in the number of Internet users, signalling that new Internet services for health users have been launched in these countries. Their results show a significant increase in Internet users buying medicines online in **Germany**, matched by an e-commerce market for medicine that has been steadily growing after new legislation was introduced in 2004. In **Denmark**, online communication among health professionals increased as general practitioners (GPs) began to offer services to meet the expectations of their patients and to implement these services before January 2009, when it became mandatory in Denmark for GPs to offer online services.

Sweden has established a strategy for e-health to help ensure adequate, safe, secure health care using ICTs. Internet communication offers patients fast, trouble-free access to information useful for their own care, as well as their treatment and health status. E-health can increase the time professionals have to dedicate to their patients and helps adapt the provision of care to individual needs. It can also offer elderly care professionals access to efficient, interoperable e-health solutions. Institutions responsible for care can benefit from ICTs to help follow up patient concerns and manage resource distribution. National authorities have an important role to play in co-ordination in the health care sector. Used as a strategic tool, ICT can promote safer, more accessible and efficient health and elderly care services (Ministry of Health and Social Affairs, 2008).

Source: OECD, based on Kummervold, E. et al. (2008), “eHealth Trends in Europe 2005-07: A Population-Based Survey”, *Journal Medical Internet Research*, Vol. 10, No. 4, e42; Ministry of Health and Social Affairs (2008), “Swedish Strategy for eHealth: Safe and Accessible Information in Health and Social Care – 2008 Status Report”, Ministry of Health and Social Affairs, Swedish Association of Local Authorities and Regions (SALAR) and National Board of Health and Welfare, Stockholm, Sweden.

Increasing the economic potential of urban areas

A national urban policy in Poland would need to help fostering agglomeration economies, which are at the heart of urban economic growth.⁴ National economic growth can be held back by low-performing regions. In particular, urban areas must be managed and planned effectively to realise their full potential as they represent a key element in stimulating further national growth. As demonstrated in Chapter 1, urban labour market areas (ULMA) in Poland concentrate a large share of the nation's population and account for the lion's share of economic activity. ULMAs in Poland contributed 80% of economic growth between 2002 and 2007. Yet, a number of factors are preventing ULMAs from maximising their potential: i) insufficient innovation; ii) limited business expansion, resulting in insufficient labour mobility; iii) poor transport infrastructure links integrating neighbourhoods in cities and also among ULMAs; and iv) insufficient skills and poor matches in the labour market. This approach should be adapted to the size of cities and their local attributes.

Innovation. A national urban policy framework should pay attention to fostering agglomeration economies. Density and the availability of appropriate urban spaces that foster knowledge spillovers and innovation can contribute to growth as long as they facilitate and foster interactions. Physical proximity facilitates human and social interaction and the existence of structured and routinised social events and institutions (such as cyber suds parties, and particular restaurants, coffee bars and night clubs) have become the focus for such interactions (Pratt, 2000). However, density by itself does not lead to innovation, but the spaces that urban areas provide become key to the exchange of ideas. Urban areas should not only provide technological and scientific parks as well as cultural and educational spaces, but also encourage spaces that allow for human interaction. In large Polish cities, universities and technological parks should be linked to neighbourhoods and urban spaces. In particular, this is a possibility for Warsaw (Group 1) and cities in Group 3, reinforcing the dynamism of such cities Krakow, Poznań and Wrocław. In cities with seemingly attractiveness obstacles, such as those found in Group 4 (Bydgoszcz, Gdańsk and Łódź), a more comprehensive strategy that attracts talent and investment, develops human capital and provides infrastructure should also support an urban planning strategy to provide urban spaces for the exchange of ideas to trigger knowledge spillovers. Spatial and economic development plans in these ULMAs should incorporate such urban spaces that are penchant to innovation. Katowice's ULMA (Group 2) could also benefit from such a strategy, but its industrial decline more urgently calls for retraining a generation of workers.

A national agenda for innovation in urban areas should not concentrate only on large and dense places, but also target smaller and medium-sized urban areas. The fact that patenting activity is greater with density – and size – does not preclude other types of innovation from taking place in smaller urban areas. Poland's medium-sized ULMAs (i.e. those in Group 5) such as Białystok, Bielsko-Biała, Częstochowa, Kalisz, Kielce and Lublin, among others can also provide such urban spaces or foster their creation through zoning and urban planning. The focus could be however not in breakthrough innovation but on fostering more mature technological fields in which innovations are incremental. In the US, some smaller and medium-sized metropolitan areas perform well in mature technologies in which the path of innovation is relatively predictable (Orlando and Verba, 2005). Policies to incubate firms that are incrementally innovating and related urban

spaces for exchange of ideas would be important for ULMAs in Group 5, with less of an emphasis on university and scientific parks.⁵ As these cities face depopulation, education policies and more attractive urban centres can both help retain the remaining population and build on existing expertise.

Improving the business environment to attract investment. Foreign direct investment requires a legal and regulatory framework compatible with the operation of foreign-owned companies. Some progress has been made, but serious obstacles remain to conducting activities in a business-friendly environment, and Poland's relative position as regards the ease of doing business has deteriorated since 2006 (OECD, 2010b). Government bureaucracy related to the administration, tax and legal frameworks is consistently reported as one of the most problematic factors for doing business (World Economic Forum, 2009). First, starting a business is unduly expensive and time-consuming. Poland is second only to Mexico as the OECD country with the highest administrative burden on start-ups, based on the OECD's *PMR Database*. Establishing a business still costs about three times more than in the OECD on average, and takes 32 days as against 13. Second, the license and permits system contributes to regulatory and administrative opacity. For example, no single contact point exists either for obtaining information on licenses or applying for them. Third, tax regulations are reported as the most problematic factor for doing business in Poland, according to the various recent vintages of the World Economic Forum's *Global Competitiveness Report*. A lack of transparency and consistency in the tax regulations, rather than the level of taxation, is reported as the major source of inefficiencies. This is consistent with the results of a recent survey conducted by the Polish Information and Foreign Investment Agency (PAIiIZ) on the investment climate in Poland (PAIiIZ, 2008). Finally, the legal framework presents obstacles to conducting business in Poland (OECD, 2010b).

Public intervention has nevertheless improved the efficiency of markets for investment. The PAIiIZ by helping foreign investors to better target their projects reduces asymmetry of information among investors. Typically, domestic investors are better informed about all essential administrative and legal procedures concerning investment projects. PAIiIZ provides assistance to foreign investors in order to resolve information and co-ordination issues, helping them enter the Polish market and find the best locations, as well as the most appropriate partners and suppliers. Its main task is to attract and support foreign investors, with a recent emphasis on technologically advanced sectors where local spillovers are assumed to be the largest. Targeted sectors are electronics, the automotive industry, biotechnology, aerospace and so-called Shared Service centres or Business Process Outsourcing, such as IT centres, financial and accounting services, R&D, storage and logistics. In 2008, on the basis of projects supported by PAIiIZ, 56 investments worth EUR 1.5 billion were located in Poland, generating more than 15 000 jobs.

A right balance between greater competences for regional and municipal governments needs to be struck that takes into account the need for a national urban policy approach that ensures efficiency and a regional and local one that enhances complementarities and addresses inequality. Although some particular regions are actively trying to attract FDI such as the ULMA of Poznań, FDI seems to be a national promotion strategy. Regional and urban growth would greatly benefit from development policies and urban strategies that are co-ordinated with the national PAIiIZ. Meanwhile, a national urban policy framework can help reduce inefficiencies common to regional competition for FDI. The aim of the

Polish FDI-attraction policy has not only been to maximise economic benefits, but also address regional inequality. In order to do so, Poland has established 14 Special Economic Zones (SEZ), mostly in areas of structural unemployment (Box 2.3). However as these SEZ appear to be attracting investment to places investors have already expressed interest in, doubts are raised on the real benefits. Indeed, Childlow and Young (2008) show that, except in the case of Warsaw – a city which attracts firms among other things on the basis of knowledge and skills – all other regions in Poland are competing on the basis of geographical location and labour availability and costs. One possibility is that in the absence of a SEZ policy, FDI would continue to flow to the same places due to the presence

Box 2.3. Special economic zones in Poland

In Poland, investors can benefit from incentives if they locate their activities in 14 Special Economic Zones (SEZs), each consisting of several sub-zones. SEZs were introduced in 1994 as part of regional policies to fight high structural unemployment in some peripheral areas. Benefits consist of tax holidays, assistance in handling formalities, availability of land at below-market prices and real-estate tax exemptions. Before Poland's membership in the European Union, the incentives provided in the SEZs became the source of heated debate between the Polish authorities and the European Commission, which considers that the measures amount to unfair competition. In 2001, regulations on SEZs were harmonised with EU legislation on state aid. Tax benefits were substantially reduced. The rules for granting aid for enterprises that had received authorisation before 2001 were laid out in the Treaty of Accession. In 2007, state aid in SEZs was adjusted to the 2007-13 European Commission guidelines for state regional aid. In December 2008, the Council of Ministers decided to retain the zones until 2020 and informed the European Commission.

Over time, less focus was placed on overcoming the structural difficulties in a particular location, and the nature of the approach shifted. In a number of cases, the boundaries of the SEZs were redrawn to include a site preferred by a potential international investor (Easson, 2004). With more than 150 locations enjoying a special status within the SEZs, these regional policy tools have virtually become a standard form of public aid for companies, regardless of their location (Gwosdz *et al.*, 2008). At the end of 2008, the 14 SEZs included 210 000 workers in more than 1 000 firms with cumulative investments of PLN 57 billion. Since 2001, both employment and cumulative investments in the zones have roughly doubled every three years. Although in principle the incentives apply equally to both domestic and foreign investors, in practice FDI represents 80% of the investments in SEZs.

This suggests that the incentives were effective in attracting FDI, and there is little doubt that tax competition between Hungary, Poland the Czech Republic and the Slovak Republic has been the major determinant of their incentive policies (Easson, 2004). However, effectiveness does not imply efficiency, given the induced distortions between firms inside and outside the zones, and the amount of public aid involved, especially as competition among governments might result in overbidding for investment projects. These resources might be more efficiently used to improve the overall investment climate, especially in light of the possibility that such incentives have been awarded to firms that would have invested anyway, generating deadweight losses. Co-operation among governments is the first-best solution to resolve the prisoner's dilemma nature of this problem.

Source: OECD (2010), *OECD Economic Surveys: Poland*, OECD Publishing, Paris.

of labour and cheaper labour costs. However, if regions take a more active role in the absence of national FDI-steering methods such as the SEZ, regional and urban competition for investment could become a race to the bottom.

Transforming the SEZ approach into a policy clearly focused on developing economic clusters based on innovation and linkages with local firms is likely to be more beneficial in the long term in terms of productivity and growth for urban areas. Based on a recent survey on the impact of FDI, Blomström and Kokko (2005) conclude that investment incentive packages should focus not only on policies to attract FDI but also on projects with the strongest potential for spillovers, including linkages between foreign and local firms, education, training and R&D. In such a scenario, bodies like PAIiZ can co-ordinate regional and urban efforts to avoid a national zero-sum game. However, they might overlook other urban challenges such as sprawl or public transportation. A national urban policy framework should have an instrument to influence policy targets for FDI attraction through PAIiZ and establish the corresponding planning and monitoring mechanisms that provide for co-ordination. In addition, the national urban policy framework would ensure the co-ordination of regions' FDI targets and national priorities reducing competition that reduces national benefits.

Absorption capacity implying upgrading of human capital and local firms' linkages in global value chains are ways in which the full benefits of FDI can accrue in favour of urban areas. It is often feared that relative advantages can erode when competition with countries in Eastern Europe or elsewhere increases in spite of low labour costs and abundant entrepreneurial spirit. The government's ambitious privatisation plan appears to be a direct way to attract FDI as Poland remains the OECD country where the control of the state over economic activities is the tightest, according to the OECD product market regulation (PMR) indicators (Box 2.4).⁶ An under-developed business environment or weak technological ability in the labour force could hamper the diffusion of more advanced

Box 2.4. Poland's privatisation programme, 2008-11

Poland's government set up an ambitious privatisation plan for the years 2008-11. The need for private capital had been mounting as the constraints on public finances increased the risks of structural under-investment in state-owned firms. The plan contains detailed information about which firms and on what proportion should be privatised. These enterprises included some in the financial sector and other industries already subject to privatisation, as well as to the mining, chemical and energy industries, which are considered "strategic" and remain by and large under state control. The plan includes changes in the transparency and the duration of the privatisation process and the adjustment of compensation towards market practices in the targeted companies. This is critical, as the choice of privatisation method has an important influence on the success of restructuring formerly state-owned firms (Aghion and Carlin, 1996). According to applicable law, an external advisor is selected before the privatisation process begins. The advisor's task is to analyse four main elements: an assessment of the legal status of the company's property; an assessment of its prospects for growth; an assessment of obligations under environmental law and the law on conservation of historic monuments; and a valuation of the company (OECD, 2009c). Effective privatisation also means reducing both the influence of specific interests (management, staff, unions) and the constraints on the purchaser's management of the labour force: any downsizing should be dealt with through active labour market policies (see the OECD Guidelines on Corporate Governance for State-Owned Enterprises).

Source: OECD (2010), *OECD Economic Surveys: Poland*, OECD Publishing, Paris.

foreign technology. Evidence suggests indeed that the absorptive capacity of FDI is positively related to the level of human capital (Borensztein *et al.*, 1998; Bijsterbosch and Kolasa, 2009) and R&D intensity (Kinoshita, 2001). Other determinants of the absorptive capacity that are often mentioned in the literature include infrastructure.

Network infrastructure. Agglomeration economies can foster innovation and growth at the urban level, but further benefits can be exploited if networks of transportation and communication across the urban system are also enabled. There is a broad consensus that greater provision of infrastructure is associated with higher GDP growth rates, especially in developing countries (Gupta *et al.*, 2005), since infrastructure is associated with economies of scale and network externalities and enhances competition through improved market access (OECD, 2009b). Well-developed transport and telecommunications infrastructure reduces the cost of domestic and international trade, thereby resulting in a more efficient connection among local markets and to international markets. Hence, investors, especially foreign investors consistently rank the quality of local communication and transportation infrastructure as a key determinant in their investment-location decisions. Manufacturing production in particular can be enhanced if transportation links are improved among urban centres, partly because historically, it has only thrived in relatively smaller urban centres (Henderson, 2010). In the Japanese case, Zheng (2010) shows that a transportation network introduced to connect a city to Tokyo yields greater benefits for the overall region. However, the size of the effects differ. In some Japanese regions, for example the North Kanto Region, the benefits are larger than those that can be attributed to linking the Tohoku Region (Zheng, 2010). These differentials may be the result not only of differing specialisations and complementarities, but may also show that the final outcome depends on integrated policies tackling not only infrastructure and human capital, but business environment and innovation (OECD, 2009d). National transport infrastructure policy in Poland cannot only be about linking major urban centres, but about linking smaller communities as well. Group 6 ULMAs in Poland, including Biała Podlaska, Elbląg, Ostrołęka and Radom – which are small in size and arguably cope with poor links – would greatly benefit from better network connections, but the real success of these cities would lie in connecting them, upgrading skills retain talent and develop new firms.⁷

Upgrading and matching skills. Innovation and skills are key to Poland's urban growth and competitiveness. So far, Poland's role in globalisation has been driven mainly by closer EU integration. In particular, the country has not taken full advantage of its favourable geographic position between Western Europe and the Commonwealth of Independent States countries, and its export performance in long-distant markets is weak. A combination of factors explains Polish firms' poor capacity to benefit from dynamic overseas markets, including relatively small firm size, insufficient capacity to innovate, limited access to finance, insufficient management skills and a lack of experience in conducting business over long distances (OECD, 2010a). Some of these obstacles to further growth have an urban expression. Inadequate linkages between firms and universities in urban areas explain its lacklustre performance in innovation, as well as a mismatch in the skills required by industry and local labour markets. The main challenge is to tap into international production networks by attracting sufficient flows of FDI. However, long-term growth cannot be achieved without a focus on human capital and innovation. Perhaps the best way to respond to international competition for FDI is to base comparative advantage on knowledge and innovation and later climb the technology ladder (Porter, 1990).

Poland's quality of education is an asset that can be built upon for further investment, but matching skills to industry's needs remains an issue. Labour-force skills are often seen as one of the strengths of the Polish economy. Although Poland performs below the OECD average in terms of educational attainment, it fares better than other OECD countries in Eastern Europe. Recent trends are also encouraging: the average annual growth rate in tertiary attainment levels exceeded 6% between 1998 and 2006. Poland performs quite well based on PISA scores on average, with reading scores ranking higher than those for mathematics or science (OECD, 2009e). However, only about 40% of investors consider the availability of qualified labour to be either good or very good (PAIiZ, 2008). The OECD *Review of Polish Tertiary Education* (OECD, 2007b) highlights vocational tertiary education as an area of serious weakness. The success in increasing tertiary education, however, has not been matched by available jobs, and the unemployment rate for young workers with tertiary education increased between 1998 and 2006. As outsourcing operations have continued to flow into Poland, higher unemployment rates for young skilled workers may suggest a mismatch between the type of skills required by firms and those supplied by the educational system. As education remains a competence within the competence of local urban areas, creating forums to connect demand with skilled labour could be a crucial aspect of local economic development policies. Adjusting curricula, or including practical experiences in the curriculum by involving firms in the education process, as some technological universities do in northern Mexico, could also be helpful. The German *Fachhochschulen* or Finland's AMK sectors are also good examples of vocational education.

Addressing inequality and urban revitalisation

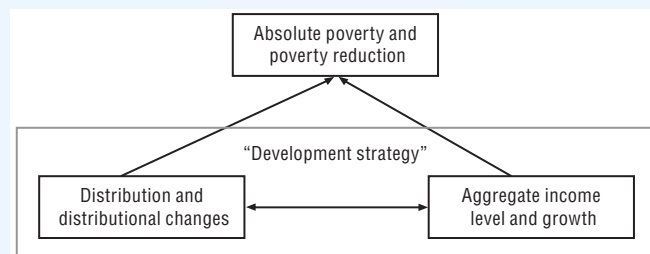
If agglomeration economies are at the heart of urban growth and this in turn helps reduce inequality, a policy to strengthen agglomeration economies in Poland should promote equity and efficiency (Box 2.5). Warsaw and Katowice, which rate among the more unequal ULMAs in Poland in terms of GDP per capita, display high inequality levels by comparison with OECD metro-regions. While Warsaw's intra-regional inequality is associated with a high performance in economic growth, Katowice's industrial restructuring process has resulted in a growth rate well below the average for Polish ULMAs. Both lack public transport linkages, which could be addressed by improved governance, but distributive policies aimed at the poor in these two urban centres are paramount to reduce inequality. It should be noted that the depth of poverty in urban areas in Poland is double that in rural ones, making poverty in urban areas a pressing issue. Such a distributive policy will only be successful if the means to find employment, travel to employment and acquire the appropriate skills are in place. Therefore, policies to better link deprived neighbourhoods in these areas will help *bring people to jobs*, which is currently not possible or costly. Local economic development policies in deprived neighbourhoods in these two ULMAs – by easing the establishment of new firms, strengthening existing ones, and developing and upgrading labour skills – will ensure that growth and inequality are addressed at the same time. In order to foster firm creation and retention, Warsaw and Katowice, but also highly unequal but smaller ULMAs such as Leszno, Gdańsk and Częstochowa can provide access to finance, reduce red tape and induce the acquiring of entrepreneurial skills (Pike, Rodriguez-Pose and Tomaney, 2006).

Combining social integration and economic development priorities has been a challenge for OECD countries. For instance, France linked policies to reduce social isolation of economically disadvantaged areas, mainly through large urban renovation projects and

Box 2.5. Equity and efficiency: trade-off or complementarities?

Although governments often consider there is a trade-off between addressing inequality/poverty and growth, this is not necessarily the case. Growth at the national level, for instance, has been shown to reduce poverty. Dollar and Kraay (2004) have found that every percentage point increase in mean income due to growth is associated with an exactly corresponding increase in income in the lowest quintile.* Similarly, Bourguignon (2004) argues that the dilemma of policy focus on growth, poverty, and/or inequality is a false one. Addressing poverty and inequality in general is a meaningful goal for development for equity reasons. But in addition, to achieve the goal of rapidly reducing absolute poverty requires strong, country-specific combinations of growth and distribution policies (Bourguignon, 2004). Poverty reduction would be according to Bourguignon (2004) the outcome of two effects. The growth, effect would reduce poverty by increasing income across the distribution of income but won't necessarily reducing inequality. The distribution effect would reduce poverty and inequality by improving income in the lowest quintile (see figure below). The OECD (2009b) has argued that a number of policy complementarities can be found if equity and efficiency objectives are pursued simultaneously. For instance, investment in network technologies, education and health all show increasing returns on adoption of policies that increase investment in those areas so that efficiency raises with greater equity in such areas.

The poverty-growth-inequality triangle



Source: Bourguignon, F. (2004), "The Poverty-Growth-Inequality Triangle", paper presented at the Indian Council for Research on International Economic Relations, 4 February 2004, New Delhi.

Equity approaches aim to reduce financial disparities between people and places (where sub-national authorities are responsible for basic public services).

Efficiency approaches aim to foster growth in places that may already be relatively wealthy. They are based on the increasing acknowledgement of agglomeration effects.

In practice, equity and efficiency policies can be complementary:

- "Increasing returns to adoption" (positive externalities associated with a growing number of users) is a characteristic of knowledge economics. This is obvious in the case of network technologies, but it also applies to education, since the acquisition of diplomas, whether within a country or abroad, increases national innovation capacity. Similarly, increasing the number of people receiving health treatment benefits the whole population. Thus, equity in public spending can increase efficiency.
- "Decreasing returns on investment", or an excessive concentration in the allocation of public spending, will constrain its capacity to produce additional results. For example, in France, a small number of students of the *Grandes Ecoles* receive disproportionately more public funds than university students, with lacklustre results overall. Again, more equity in public spending can raise efficiency.

Box 2.5. Equity and efficiency: trade-off or complementarities? (cont.)

- “Dynamic perspective” investment in wealthy regions with favourable growth potential can result in extra wealth, which can then be redistributed. Similarly, efficiency in public spending (either by limiting the cost of public policy for the same results, or by improving its outcomes) can increase the resources available for the equity objective.

* This is not necessarily the case at sub-national level. In Indonesia, growth has benefited the poor in some regions but not others, depending on market access. In fact, urban areas experience a slight increase in poverty, while poverty is reduced in most rural areas (Friedman, 2005).

Source: OECD (2009), *Regions Matter*, OECD Publishing, Paris.

those to attract economic activity to them (mainly through the “urban free zone” policy). The 1996 Urban Revival Pact aimed to address the economic disadvantages of specific urban areas through the establishment of urban “free zones” (ZFU). Reductions in taxes and social contributions were offered to businesses willing to locate in these zones and to recruit at least 20% of their personnel from residents. It should be noted that the most recent enterprises to set up in the “free zones” were concentrated in peripheral areas, given the lack of sites available in central districts. Opinion remains divided as to their value. According to one study by Ernst and Young, the average cost of tax and social exemptions for each job in a “free zone” (whether created, transferred or already existing) was between EUR 5 000 and 7 000. To date, urban policy has not markedly closed the gap in development and inequality between the urban “free zones” and the rest of the country (OECD *Territorial Review of France*, 2006a; OECD *Trends in Urbanisation*, 2010a).

Polish municipalities have placed increasing importance on urban revitalisation projects as a means to reduce social exclusion and inequality, but better tools are needed to finance and integrate these projects with national priorities. Degraded housing estates constructed during the communist era and historic urban districts are top priorities for urban revitalisation (Table 2.2). These projects typically take the form of improvements to building exteriors, provision of social services and protection of cultural heritage, including stronger design controls. However, urban revitalisation is currently the sole responsibility of municipal authorities, which have limited access to funding and have resulted in stand-alone revitalisation projects. Since 2004, when European Union funds became available through Regional Operational Programmes (ROPs), municipal investment in revitalisation projects has greatly increased. For example, in Gliwice in Upper Silesia, the administrative buildings of a closed mine were redeveloped using pre-accession funds and city financing

Table 2.2. Degraded areas that require regeneration in Polish municipalities

Type of degraded land	Share of developed land in cities by degraded land type (%)	Share of degraded land type in cities (%)	Share of urban residents living in degraded properties
Old central-city quarters	11.0	51.8	12.7
Large-panel estates	2.6	12.4	12.2
Post-industrial lands	4.2	20.0	n/a
Post-military lands	0.7	3.3	n/a
Post-railway lands	2.6	12.5	n/a
All degraded land	21.2	100.0	24.9

Source: Instituto Universitario de Urbanística (2010), “Questionnaire on Integrated Urban Regeneration Policies: Polish Response”, response prepared by Wojciech Jarczewski and Anna Baucz, Polish Ministry of Regional Development, Instituto Universitario de Urbanística, Universidad de Valladolid, Valladolid, Spain.

to create educational facilities and a business incubator (Instituto Universitario de Urbanística, 2010). In Poznań, city and EU funds were used to rehabilitate a pedestrian bridge to connect a neighbourhood in need of revitalisation to the city centre, which attracted new residents and services to the under-served area. However, ROP funds are not permanent, and local authorities' efforts to seek revitalisation funding at the national level are constrained by the lack of a national urban regeneration policy. No mechanism currently exists to co-ordinate municipal revitalisation projects with national and regional urban regeneration programmes (Instituto Universitario de Urbanística, 2010).

Lack of municipal authority over degraded lands, co-ordination with other sectoral plans and engagement with the private sector all contribute to higher costs of redeveloping degraded land rather than undeveloped land. While ROPs require municipalities to prepare Local Regeneration Programmes, and these programmes must in theory take into account the social, cultural and environmental aspect of urban renewal, in practice no mechanisms exist on the local level to co-ordinate these plans with spatial and sectoral plans (such as those concerning economic development, social integration, employment or environmental quality). Another major obstacle is lack of city control over how parcels are redeveloped and sold, resulting in the subdivision of large brownfield sites and the sale of the only the most attractive lots. The private sector is also under-utilised: there are currently no tax incentives for private investment in urban regeneration areas, and urban regeneration projects are only occasionally led by the private sector. Given these obstacles, and the typically higher costs associated with negotiating with multiple land-owners and rehabilitating land for new development, the costs of developing undeveloped or "greenfield" land on the suburban periphery tends to be much lower than the costs associated redevelopment of urban parcels (Instituto Universitario de Urbanística, 2010; OECD, 2010c).

National-level regulations, guidelines and technical assistance are needed to remove barriers to municipal investment in revitalisation projects and integrate them with local spatial and sectoral plans. Tax incentives for urban land redevelopment and building rehabilitation are needed, as well as disincentives for greenfield development. Tax reform to establish a split-rate property tax, which places proportionally higher taxes on land than on built structures, could make it more costly to hold on to vacant or under-utilised, centrally located sites (Brueckner and Kim, 2003). Reducing the total tax burdens on land-intensive development and redevelopment could also facilitate revitalisation and the replacement of obsolete buildings in older central cities. The effect is to reduce the tax burden on land-intensive uses (e.g. apartments) and increase the tax burden on land-extensive uses (e.g. parking lots) (Bengston et al., 2004). This form of tax is implemented in Sydney, Hong Kong, the US city of Pittsburgh and other cities within OECD countries such as Denmark and Finland (Box 2.6). However, because the split-rate tax also might provoke premature land conversion in outlying areas, effective regulatory mechanisms should be designed to avoid unintended consequences (OECD *Trends in Urbanisation*, 2010a). National regulations to grant municipalities greater control over degraded urban land would also be needed to facilitate land purchases and consolidation by the public and private sectors. National guidelines and sharing of best practices would further reduce the fragmented approach to revitalisation now typical in Polish cities.

When urban revitalisation programmes target polluted properties, incentive programmes and legal reforms to reduce developers' liability can facilitate their redevelopment. In the United States, where strict cleanup requirements deterred many

Box 2.6. Split-rate property taxation in Pittsburgh

The conventional property tax has been criticised for its effects on urban sprawl. Distortions created by the property tax may include inefficient spatial expansion of cities, and the tax may be one of the causes of urban sprawl (Brueckner and Kim, 2003). These effects on urban sprawl could be tackled by taxing land at a higher rate than the built structure. This is done in a split-rate or two-rate property tax structure that taxes the assessed land value of each parcel at a higher rate than that on the building assessment; it contrasts with the conventional equal-rate system, which applies the same tax rate to land and to improvements. Placing proportionally higher taxes on land makes it more costly to hold on to vacant or under-utilised, centrally located sites. Reducing the tax burdens on improvements would facilitate revitalisation and the replacement of obsolete buildings in older central cities. The two-rate tax would also discourage land speculation.

In 1980, the city of Pittsburgh revamped its property tax system by raising tax rates on land to more than five times the rate on structures. From 1913 to 1979, the tax rate on buildings had been twice the rate on land. This rate increase has proved a fertile basis for research on the effects of a split-rate property tax. The change in property tax regime at the end of the 1970s was followed a striking building boom far in excess of anything that took place in the region, and considerable research has focused on determining to what extent it was due to the tax reform. Oates and Schwab (1997) have shown that it was not only underlying favourable economic factors, resulting in low downtown office vacancy rates, that accounted for the Pittsburgh building boom. They point out that none of the other cities in the United States with similarly low office-vacancy rates experienced an equivalent expansion in commercial building activity. This suggests that the land-value taxation provides city officials with a tax instrument without damaging effects on urban development. Although this study has certain limitations (Cohen and Coughlin, 2005), other studies on split-rate property taxes have also found positive results. Banzhaf and Lavery (2008) found that the primary effect of split-rate property taxes in Pennsylvania is more housing units, suggesting that the split-rate tax is potentially a powerful tool against sprawl. A disadvantage of the split-rate property tax could be the transaction costs of valuing urban land values independently from built structures, which is necessary in order to levy the split rate (OECD, 2009f).

private developers from revitalising industrial urban lands, the Environmental Protection Agency's investment in the Brownfields Program has leveraged more than USD 6.6 billion in brownfields cleanup and redevelopment funding from private and public sector and created approximately 250 000 jobs. This was accompanied by legislation that lowered the liability risks for redevelopers of polluted sites (USEPA, 2010). In the UK, tax incentives and financial aid also reduced the financial barrier for brownfield redevelopment (OECD, 2010b; Luo et al., 2009). Urban partnerships have also been widely used in two areas to redevelop urban brownfield sites. Whether this new relationship constituted an *ad hoc* arrangement or an element of a long-term strategy, partnerships have stemmed from various rationales to create synergy effects among the partners, spread the risks of a project among several actors, gain additional financial resources, reduce open conflict and create a consensual policy climate.

Increasing competitiveness through environmental quality and green growth

Environmental quality and attractiveness are elements of urban competitiveness that have gained importance across the OECD, as cities look to green technology sectors and sustainable urban development as potential sources of economic growth (OECD, 2010c). While Poland has devoted considerable resources since 1989 to improving environmental quality, including drastically cutting emissions from the electricity and manufacturing sectors, expanding wastewater treatment, decreasing both the amount of municipal waste and the share going to landfills, and reducing energy consumption and greenhouse gas emissions, additional progress is needed on certain key targets. These include in particular pollution from manufacturing and wastewater treatment. Opportunities for stimulating growth while responding to environmental objectives are gaining attention in Poland, and key areas for concentration include measures to increase the eco-efficiency of existing industries and easing the way for private sector investments in environmental technologies.

Cities' efforts to overcome the legacy of air, water and soil damage left by communist-era industrial production should be viewed as an economic development priority. Although Poland has made great strides in reducing pollutant emissions since 1989, levels of certain air pollutants are still the highest in the European Union (see Chapter 1). These pollutants are concentrated in the sectors of manufacturing and energy production, pointing to the need to further improve the environmental performance of these sectors. One key tool that municipal and regional governments, sometimes with support from national governments, have implemented to address industrial pollution is to provide "one-stop shop" business support agencies to advise firms on the most cost-effective ways of reducing emissions. Their role consists mainly in enabling businesses to reach conservation goals at lower costs, for example through sustainability audits, or through demonstration projects for new equipment, in partnerships with manufacturers and institutions of higher learning. In Canada, programmes such as the Eco-Efficiency Partnership in British Columbia, the Eco-Efficiency Centre in Nova Scotia and the EnviroClub of Quebec are good examples of approaches to improving simultaneously the environmental performance and the competitiveness of local Small and Medium Enterprises (SMEs) (Box 2.7). The "Chicago Industrial Rebuild Program" assists facilities in securing financing to implement recommended improvements. An interest-free loan is available to participants who purchase "green" or renewable power. Nearly half of the metal casting industry in Chicago participated in the city-funded assessments. If all recommendations are implemented, it is estimated to generate over USD 5 million in cost savings, 10-25% in energy savings and reduce air pollution by 1 000 US tonnes per year (OECD, 2010d; City of Chicago, 2003).

Wastewater treatment and sewage service, still incomplete in Polish cities, influences the economic viability and attractiveness of Poland's waterways. While significant EU and Polish national funding have been devoted to increasing wastewater service and treatment, a non-negligible percentage of the urban population remains unconnected to the sewer system. Measures to limit urban sprawl and unmanaged suburban growth would contribute to reducing the length of sewage lines needed and increasing the cost-effectiveness of wastewater treatment services (Box 2.8). Denser concentrations of residents may also facilitate local financing of wastewater treatment improvements to raise the relatively low percentage of wastewater treated to the tertiary level. These measures would allow for more cost-effective spending on wastewater, such as the

Box 2.7. Canadian eco-efficiency programmes for SMEs

EnviroClub (Quebec) is an initiative between the Canadian federal government and the private sector to stimulate pollution prevention projects and improve environmental management in small and medium-size enterprises (SMEs). The programme was initiated by Environment Canada-Quebec Region, with funding from Economic Development Canada, the National Research Council of Canada and the Climate Change Action Fund. Started in 1998, within four years the initiative supported 18 pollution prevention projects at SMEs, resulting in reductions of volatile organic compounds, hazardous waste and greenhouse gas emissions.

Eco-Efficiency Centre (Nova Scotia) is a non-profit resource centre for SMEs to implement pollution prevention, waste reduction and resource conservation practices. Created through a partnership between Dalhousie University, Nova Scotia Power Inc., private corporations, government agencies and foundations, the centre offers SMEs environmental reviews, technical assistance, capacity building and sharing of best practices.

Eco-Efficiency Partnership (British Columbia) supports environmental reviews of SMEs to identify process efficiency measures that can reduce environmental impact and company costs. The partnership is formed by the Western Economic Diversification, Environment Canada, Industry Canada, Greater Vancouver Regional District, BC Hydro, Canadian National Research Council, Fraser Basin Council, Canadian Environment Industry Association and the Science Council of British Columbia. Matching funds provided by the partnership finance an environmental review of the participating SME by an outside consultant to identify changes the firm can make to reduce its use of energy, water or materials without reducing production levels. The partnership has allowed a number of British Columbia SMEs to reduce both costs and environmental impact, including annual savings of CAD 60 000 based on an investment of CAD 20 000 to reduce water consumption and wastewater discharge.

Source: Canadian Centre for Pollution Prevention (2010), "Support Programs", Canadian Centre for Pollution Prevention, Mississauga, Ontario, www.c2p2online.com/print.php?ns=155&doc=374&lang=EN, accessed 14 December 2010

Box 2.8. Reclaimed water for irrigation

Wastewater recycling can be an effective solution for treating wastewater, while also reducing overall water consumption. For example, the city of Tadotsu in Japan, which experienced a severe drought in 1999, initiated a project of recycling waste water in 2000 by co-ordinating budgetary supports from three national ministries and the local prefecture. The treated sewage water that had been previously discharged into the sea is now carefully purified by advanced treatment, and used for landscaping, agriculture and maintaining river flow. The total investments in the facilities for treatment, transport and pumping amounted to JPY 3.5 billion.

Source: Based on information from the City of Tadotsu, Japan.

EU-subsidised 2007-13 Operational Programme "Infrastructure and Environment", which has allocated EUR 3.27 billion over the programme period to equip agglomerations of more than 15 000 residents with sewerage systems and wastewater treatment plants, and 26% of which is co-financed by the Polish government (Ministry of Regional Development, 2010).

Box 2.9. Warsaw riverside development and the Copernicus Science Centre

The Copernicus Science Centre in Warsaw is the anchor for a large-scale redevelopment along the western bank of the Vistula River. Opening directly onto the river, the centre is a key focal point for improvements that have been made along the river to increase pedestrian traffic and re-integrate the river into the city. In so doing, Warsaw is replicating a model that has met with success in other OECD cities, notably in Bilbao, Spain. There, the establishment of the Guggenheim Museum along the city's riverbank brought visitors and residents back to the riverbank, and was the catalyst for regeneration of the city centre. Urban revitalisation through riverside redevelopment is not possible without first achieving a certain standard of water quality, which underscores the importance of treatment of both municipal and industrial wastewater to economic development strategies.

As improving wastewater treatment contributes to reducing the pollution level of local waterways, it can improve city attractiveness. Warsaw has followed other OECD cities such as Seoul and Paris in attracting development through rehabilitation of its once-neglected riverfront (Box 2.9) (OECD, 2005a).

Investments in green technologies and sustainable urban development can stimulate job growth, but need to be rooted in existing manufacturing strengths. A number of cities in Poland are working to attract green technology firms as part of their economic development strategies, including Lublin, which has focused on the attraction of solar voltaic firms. Urban economic development strategies that focus on green technology would do well to take into consideration historic manufacturing competences and opportunities for technology clusters. For example, a history of aerospace firms, as in Lublin, can provide a basis for attracting wind turbine manufacturers. The Roadmap for the Implementation of Environmental Technology Action Plan in Poland identifies environmental technologies as a priority for technological parks, but recognises the limitations on research and development of green technology due to lack of funding (Ministry of the Environment, 2006). This barrier can be overcome in part by partnerships between government and academia to establish eco-innovation clusters, which successfully merge excellence in education, frontier research in environmental technologies, and job creation through spin-offs, venture capital and integration of enterprises. Commercially successful regional poles in bio- or nano-technology show that each group has a distinctive genesis rooted in local industrial history or scientific and technical leadership. It is thus hard to design effective policy packages that can replicate *ex novo* the most effective innovation eco-systems. However, public policy can accelerate their development, by directed R&D, enabling infrastructure and establishing institutional platforms for collaboration (Box 2.10) (OECD, 2010d).

National-level policy reform to transfer waste ownership to local governments, now under consideration, could stimulate private sector investment in landfill alternatives. While Poland has reduced the share of waste going to landfill, to meet the EU Landfill Directive requirements, it will have to further reduce this share from 71% (in 2008) to 50% of 1995 levels by 2013. The current national act on waste management prevents cities in Poland from taking ownership of waste generated by their inhabitants and businesses. Waste is instead the property of private disposal companies, giving municipal governments no control over waste disposal methods. National waste management policy

Box 2.10. **Eco-innovation clusters**

Much of eco-innovation is concentrated in space and occurs in “green clusters”. These are not yet as common as in other industries, despite promising opportunities for market commercialisation, but relevant examples can be identified. The Lahti Cleantech cluster in Finland encouraged innovation and development of environmental technologies by bringing together small and large enterprises, educational organisations and regional authorities. As a result, 170 new jobs have been created, 20 new clean-tech companies have set up in the Lahti region and the project has attracted more than EUR 30 million in total investment. In the Rhône-Alpes Region of France, regional and national investments in R&D were instrumental in the development of the Tenerrdis competitiveness cluster, which is promoting scientific collaboration to develop clean technologies applied to construction, transport and energy production. Tenerrdis brings together 185 stakeholders who developed 226 R&D projects in the period 2005-08, for a total of EUR 440 million of investments, of which EUR 200 million came from public funding.

*Source: OECD (2010), *Cities and Climate Change*, OECD Publishing, Paris; Cooke, P. (2008), “Regional Innovation Systems, Clean Technology and Jacobian Cluster-Platform Policies”, *Regional Science Policy and Practice*, Vol. 1, No. 1, Blackwell Publishing, Oxford, UK, pp. 23-45.*

thus has till now discouraged diverting waste from landfill, as companies seeking to invest in waste-to-energy incineration or recycling projects are reluctant to contract with private firms. In November 2010, the Council of Ministers adopted changes to the national act on waste management that would give ownership of waste to municipalities. If approved, these policy changes could significantly facilitate waste reduction, recycling and the generation of energy through waste incineration. They could also contribute to Polish greenhouse gas emissions targets.

Public intervention on the local level can stimulate demand for environmental technologies and decrease energy consumption by lowering the barrier for investment in energy efficiency and renewable energy technologies. Energy demand from buildings represents a significant share of cities’ energy emissions in OECD countries. In Poland, much of the existing housing stock is in need of rehabilitation. While publicly funded renovation efforts have focused on exterior renovations to attract commercial activities to under-developed neighbourhoods, the inclusion of energy efficiency retrofitting in rehabilitation projects could greatly reduce urban energy consumption. Energy retrofitting need not be funded by public financing. The city of Berlin has pioneered a model for improving energy efficiency in buildings in which the city project-manages the retrofit of public and private buildings by contracting with energy service companies to implement efficiency retrofits, achieving an average 26% reduction of CO₂ emissions (OECD, 2010c). In Bielsko-Biala, which provides a model for Polish cities interested in reducing fossil fuel consumption through energy efficiency and renewable energy technologies, investments by the city in energy-efficiency retrofitting have led to significant energy cost savings, as well as increased demand for energy-efficiency services.

Increasing the availability of affordable housing

The shortage of housing in Poland, estimated at 1.5 million to 1.8 million dwellings, has implications for economic development, labour mobility and social equity in Polish cities (Ministry of Regional Development, 2010a). While the lack of housing availability and

affordability reflect the particular characteristics of the Polish communist system and subsequent transition to a market economy, the experience of other OECD countries facing housing affordability crises provides models for policy solutions. This section explores the roots of the current housing shortage and policies to increase housing availability and affordability.

Roots of the current housing shortage

Poland's current housing shortage stems from a combination of factors that have resulted in a lack of available, affordable housing, despite a negative natural-growth rate and significant outmigration. These factors include:

- an increase in the number of households, as average household size has shrunk;
- low-quality and inadequate housing supply left over from the communist system, including large “panel” housing estates;
- the devolution of responsibility for housing delivery from the national government to municipal governments, without adequate resources to meet housing demand;
- a general preference for ownership, which may discourage the commercial development of market-rate rental housing; and
- the Polish system of *perpetual usufruct*, which may limit municipalities' ability to redevelop and apply affordability standards to government-owned land (Box 2.11).

Box 2.11. The Polish *perpetual usufruct* system

Poland's unique *perpetual usufruct* system, while gradually being phased out, affects how national and local governments manage the residential properties they own. Generally, usufruct is a type of property right recognised mostly by civil-law systems, and in strict legal terms is defined by “the right of use and enjoyment, for a certain time, of property owned by another as one's own, subject to the obligation of preserving its substance”. In Poland, perpetual usufruct is a form of public leasehold contract that grants the lessee broader property rights than the above definition, and is regarded as falling between a long-term leasehold and full ownership (Zrobek, 2007; Dale-Johnson and Brzeski, 2001). Polish cities have considerable land holdings held under perpetual usufruct. Some of the perpetual usufruct land is in the historic city centres or nearby; the rest is on the outskirts of cities where major housing projects were built during communist times.

Usufructs are both an asset and a liability for municipalities. On the positive side, the usufruct contracts provide an additional avenue for regulating land use and development. Perpetual usufruct ground lease contracts are sometimes used as surrogates for land-use and development controls, although this use may be marginal. The existence of usufructs may facilitate urban revitalisation, as they may permit the government ground landlord to more easily assemble land parcels into large enough tracts for regeneration investments. However, this advantage is likely to be marginal, since the holders of the usufruct contracts for the buildings all have extensive rights and must each be approached individually. On the negative side, the municipality is responsible for the maintenance costs of the yard – the area not covered by buildings. Municipalities are often unable to keep up with this burden, resulting in a lower level of grounds upkeep than with privately owned buildings.

In view of the general policy favouring privatisation, municipalities (and the central government) have encouraged the conversion of usufruct contracts into private ownership. Some owners do not see the advantage, as it adds little in market price. Where

Box 2.11. The Polish perpetual usufruct system (cont.)

units are privatised, the land also falls under private ownership. Because the dominant mode of housing is multiple-unit buildings, incremental privatisation of units makes the municipality a co-owner with various private owners in a condominium-like legal structure. Maintenance costs are then shared. Since the maintenance of condominium units is notoriously difficult even where all participants are private owners (Alterman, 2010), the combination of private and public housing unit owners in the same building is bound to compromise the maintenance of building quality. Given the burden that perpetual usufruct properties can represent for municipalities, which may outweigh any increased control they may have over these properties, it would seem to be in the municipalities' interest to continue the phasing out of the perpetual usufruct system.

The high share of government-owned land in Poland influences the manner and degree of implementation of specific policy areas, including market-driven development, housing supply and housing affordability. Poland's land ownership regime is unique in its special mix of property rights, not only from a global perspective, but also compared to other post-communist countries. Among the 65 medium and large cities today (urban municipalities with county, or *powiat*, status), private land constitutes only 33% of the land area (Table 2.3). Current Polish public land ownership reflects the legacy of the communist system, which resulted in the transfer of private lands to national and municipal governments. During the transition period in 1989, the State Treasury transferred ownership of a large number of nationally owned priorities to municipalities (Zróbek, 2007, 2006). Today, the Treasury still retains about 28% of the land in the urban municipalities with *powiat* status (Table 2.3). The land transferred to the municipalities included hundreds of thousands of housing units, usually in large multi-family blocks, as well as local infrastructure and other public services. The result is that in 2009, about 20% of the land and built-up properties in medium and large cities (the 65 urban counties) was owned by the municipalities (Table 2.3) a slight increase from 2005, probably due to transfer of national land from the Treasury. In addition, another 13% is public land – both national and municipal – which has been leased out, often since the early 1960s through perpetual usufruct. The municipalities and the National Treasury together currently own about 60% of the urban land areas.

Table 2.3. Change in Polish urban ownership, 2005-09

Data for the 65 urban counties (*powiats*), representing 12.5 million people

	Surface area (in hectares)	Per cent of land in urban <i>powiats</i>	Per cent change from 2005
State Treasury	196 485	27.8	-1.9
Municipalities and communal associations	141 163	20.0	+0.9
State Treasury and municipalities under <i>perpetual usufruct</i>	92 142	13.1	-1.1
Private	232 073	32.9	+0.4
Co-operatives and housing associations	7 243	1.0	+0.4
Other	36 426	5.2	+1.3
Total	705 532	100.0	

Source: Based on Tables 27 and 28, Ministry of Regional Development (2010), M. Łotocka and A. Baucz (eds.) "Polish Background Report for the OECD National Urban Policy Review of Poland – Part II: Policy and Management of Urban Development in Poland", Ministry of Regional Development, Structural Policy Co-ordination Department, Warsaw.

Housing availability and affordability challenges and opportunities

The challenge in Polish cities is to provide an adequate supply of affordable housing of decent quality. A housing system that responds well to the market demands of different population groups is not only crucial for social well-being (in mitigating social disparities and conflicts) but a pre-condition for the economic functioning of cities and regions. An adequate housing system and underlying policies would promote worker mobility, helping households to find homes at affordable prices within reasonable access of employment. Poland is among 47 countries in the world whose constitution refers to housing rights or obligations, and it is distinguished by its particularly detailed and protective specification of housing rights.⁸ Its national housing policies nevertheless fall far short of addressing the current housing shortage.

As commercial housing development has grown, now responsible for the construction of most new housing units, the share of non-profit housing organisations has dropped markedly, resulting in a focus on higher-income homebuyers. This is due to the change in central government policy, which gradually reduced the incentives for the non-profit housing sector (Węclawowicz, 2002). Today, housing development in Poland is dominated by two market-driven sectors: individual owners who build a home or two on their own plot of land, and a growing number of commercial developers who build market-rate housing only, for as much profit as possible. Private developers tend to cater to wealthier households, and this is especially true for a transition economy such as Poland's, where the price of real estate has risen steeply, outpacing salary levels in most sectors of employment. The mortgage market, non-existent in the communist system, has been slow to develop, limiting a potential source of home financing for the middle class.

National and local policies to address the growing housing affordability gap need to reflect the current dominance of the private housing development market and empowered local governments. This reflects a trend among OECD countries facing similar affordability crises. Unable or unwilling to recreate the post-World War II policies of direct government construction of housing – which in many cases led to extensive neighbourhood problems – many countries are currently experimenting with a variety of policy instruments that try to harness the private development market and the not-for-profit sector to deliver more affordable housing (Alterman and Cars, 1991; Calavita and Mallach, 2010). Since national governments are reluctant to dedicate public money to construct or subsidise housing, they have sought out new instruments that do not rely directly on the government budget. This approach depends mainly on the power of governments – whether at the local or higher levels of government – to permit land use and development, supplemented by various tax or land incentives.

Regulation-based affordable housing instruments can be divided into four categories:

- removal of regulatory barriers to affordable housing;
- increasing the overall supply of new market-based housing;
- delivery of new affordable units; and
- preservation of the existing affordable housing stock.

Each these categories has a large set of possible instruments, some developed as bottom-up innovations by local governments (typical of the US), others developed largely through national legislation or policy, but implemented locally (as in France and Spain), and still others through a combination of local initiatives and national guidelines and

incentives (UK, Australia and recently also Israel). Given that Polish land-use planning and environmental controls are quite lax, in comparative terms, and focus mostly on the basic requirements, the removal of regulatory barriers is not relevant to the Polish housing sector, although the lack of comprehensive land-use planning may limit cities' ability to attract large-scale housing development. The remaining three categories may be relevant to the current Polish market and governance structure.

Policies to increase the overall supply of new market-based housing are intended to reduce prices by increasing supply. The land use and ownership situation in many Polish cities indicates that there is room for policy instruments of this category, including:

- **Designate ample land areas for housing.** Due to the current weakness of the local planning function and its dominant *ad hoc* attributes, most cities do not offer developers enough predictability regarding the availability of land for housing. Legally binding policies or plans that designate specific areas for housing development and specify density requirements would provide more certainty for housing developers.
- **Encourage local governments to stimulate the construction of multi-family housing.** As noted, much of the new housing construction in Poland is of single-family homes rather than multi-family units, with implications for both affordability and urban sprawl. Local and national authorities could stimulate higher-density developments by making available the large parcels of land needed for multi-family developments. City-owned former industrial brownfield sites could be rehabilitated to make them suitable for housing construction and designated for higher-density multi-family housing. The Ministry of Infrastructure could also issue benchmark targets for the percentage of new housing units in multi-family buildings, and could provide a budget bonus to local governments based on their degree of success in meeting or going beyond such targets.
- **Directly incentivise developers to construct more multi-unit housing.** Local governments, through their planning authority, could directly incentivise the construction of multi-family units by providing development rights bonuses (e.g. increases in density or developed land area) to developers who assemble multiple land plots and develop multi-family units. The national government may also consider adjusting its mortgage-support policies so as to favour the purchase of multi-family housing units.
- **Encourage market development of new rental units.** Construction of multi-family housing units for rental is very limited, in part due to the preference of Polish citizens for home ownership. However, the current high ownership rate reflects the singular historic event of the transition from a communist to market-based system, accompanied by the massive transfer of ownership of housing units to their residents. In the future, Polish cities will need a larger rental market. While taxes on rental property were reduced in 2010, the national government should consider whether further reductions or abolishment could further incentivise investment in rental properties. Fiscal treatment of rented housing can significantly affect investment. For example, as the fiscal treatment of rented housing is relatively unfavourable in the UK when compared with other countries like Germany,⁹ the current mix of rental housing in the UK is distorted relative to the share of rental housing that a neutral rental market would produce, implying an inefficient allocation of rental housing overall (Barker, 2003). Norway, whose owner-occupied sector accounts for more than 70% of the housing stock, promoted the development and rental of extra apartments attached to existing housing through

premium loans from the Norwegian State Housing Bank and favourable taxation. The increase of rental housing between 1988 and 1995 (from 256 000 to 362 000 units) was mostly a result of this system, and according to a living conditions survey in 2001, 32% of the rental housing units were owned by private persons who had utilised this system (OECD Report on Socially Sustainable Housing, 2006; OECD *Trends in Urbanisation*, 2010a).

The most intuitively recognised type of affordable housing instruments focuses on the construction of new housing units that are designed to be offered for sale or rent at below-market prices. Other OECD countries' experiences provide innovative policy instruments based either on land use regulations or on tax incentives. Those that could apply to the Polish context include:

- **Leveraging public land ownership.** Polish cities have an advantage over most cities in non-transition countries, because they still own major tracts of land, which could be used to meet affordable housing priorities. For instance, in the UK, English Partnerships has established a register of public sector land under the Section 24 of Government Accounting, which gives English Partnerships and other agencies 40 days to consider ways of maximising the use of public-sector land to meet housing policy objectives before it is offered for sale to the wider market (Barker, 2003). In Ireland, based on the 2000 Irish Planning and Development Act, local authorities may dedicate up to 20% of land zoned for residential development in their jurisdictions to ensure the availability of housing at a range of income levels, particularly for those in need of social or affordable housing (OECD *Trends in Urbanisation*, 2010a). Public land can be used as leverage for private development of affordable housing. Cities can issue a tender for the maximum price offered for the land and then deduct a subsidy from the sale price, in exchange for conditions on the development's share of rental units, quality standards and rental or sale prices (e.g. a requirement for units to remain rentals for 10-20 years before they can be sold at market prices). Local governments could also contract to buy some of the development's housing units as municipal housing for rent, thereby providing the developers with up-front financing at a *de facto* lower interest rate.
- **Leveraging planning and development permits to attach affordable housing requirements to development rights.** One of the most widely used instruments internationally, this approach makes use of government authority (mostly of "local governments") to grant development rights and conditions (Alterman and Kayden, 1988). This may take the form of preset incentives, which is widely applied in the US under the term "incentive zoning". Development rights are granted at a certain level, without conditions; but in order to get additional development rights, the developer must build a pre-set percentage of affordable housing. Alternatively, the relationship between the share of affordable housing units and increase in development rights may be negotiated based on certain predetermined criteria. This is the approach used in many OECD countries, and is highly institutionalised in the UK. This mechanism benefits from the incomplete application of local statutory land-use plans, since in most of the urban area there are no vested development rights beyond the "in line with the neighbourhood" rule, giving municipalities the discretionary authority to negotiate with developers over the conditions they may exchange for increased development rights. Giving Polish municipalities the authority to negotiate over public benefits such as affordable housing would bring them in line with the level of local government administration in many other countries.

- **Adopting inclusionary zoning policies.** Inclusionary zoning, which is increasingly applied in the US, requires or incentivises the construction of a specified proportion of affordable housing units in each market-rate development project (percentages often range between 10-15%), or the payment of a fee to offset the cost of the construction of affordable housing units proportional to the development. Best practice includes mandated percentages rather than voluntary incentives, a range of options for meeting inclusionary mandates, and in lieu fees that are set close to the cost of housing construction. While the growth in affordable housing units due to inclusionary mandates is modest, there is no evidence that they negatively impact housing supply (Mukhija *et al.*, 2010).

Affordable housing strategies often do not put enough emphasis on preserving the existing stock of affordable housing, but this should be an important priority for Polish cities, given the prevalence of degraded communist-era housing estates. As discussed above, municipalities are limited in their ability to rehabilitate publicly owned housing, due to lack of funding and co-ordination with other cities, regional or national agencies. The lack of funding is further aggravated by the inability of most public housing residents to contribute to the cost of rehabilitation of their dwellings, placing the burden of financing fully on municipalities (Istituto Universitario de Urbanistica, 2010). At the same time, the steep rise in real estate prices and the shortage of housing will likely lead private-sector housing developer to demolish degraded, non-publicly owned housing and build new market-rate units that previous tenants cannot afford. This tendency gradually corrodes the affordable stock of housing not only by direct subtraction of units, but also by raising real estate prices in the vicinity of new market housing, also known as “gentrification”. To counteract this trend, local governments can: impose or exact a fee from developers of new housing to finance housing renewal; require developers who demolish existing units to build new ones in their place; impose a special fee on developers who demolish affordable housing units, using the income to build new housing; and institute a monitoring system of the current housing stock by price, standard, tenure and occupancy. City authorities could also leverage the perpetual usufruct system on municipal land to gradually aggregate public housing units. As housing units go out of leasehold for various reasons (termination, default), municipalities might create a pool of housing units (or if they are demolished, of land) to be leased out to eligible households through a below-market usufruct contract. The contract instrument can also determine conditions for restricted resale of the housing unit (*e.g.* only to eligible households or enterprises).

Moreover, facing the rapid increase in the elderly population, Poland’s affordable housing strategies need to take into account demographic trends. This is particularly important because the income level of the elderly population tends to be low and they are more likely to be eligible for affordable housing. First, the design of affordable housing needs to adjust ageing. New affordable housing units need to be designed in an elderly-friendly manner (with corridors wide enough for nursing wheelchairs, stairs with handrails, etc.), whereas retrofitting the existing affordable housing stock is as important. National and local governments can work together to improve the quality of affordable housing stock by setting a design standard and/or design guidelines for the elderly; by providing support for retrofitting the existing housing stock, etc. Providing such services as day-care facilities within or near affordable housing development could also help improve the quality of life of the elderly. Second, the housing mismatch needs to be addressed. Among the elderly population, demand for smaller rental units is high, although the

supply is limited because private housing developers tend to provide larger dwellings intended for young families. As a result, and partly due to the inactive housing market, many elderly people live in dwellings much larger than their needs. Third, the private rental housing market also needs to adjust. In the rental market, some owners of rental housing units are not willing to rent them to elderly households for various reasons (unstable income, health problems, etc.) and set unfair rental conditions or simply refuse to rent. It could be a responsibility of government to avoid such behaviour and ensure fair rental opportunity for the increasing elderly population. Japan's Act for the Stable Living of the Elderly, enacted in 2001, sets comprehensive measures dealing with issues surrounding housing market and ageing (Box 2.12).

While municipalities are responsible for affordable housing, national government policy is needed to ensure that local responses are extensive enough to adequately respond to the affordability gap. Although the national government has pulled back from financial support for social housing, it should consider taking a role in areas of housing policy that

Box 2.12. Japan's comprehensive approach to housing for the elderly

People aged 65 and over accounted for approximately 5% of Japan's total population until 1950, but this figure had reached 20% by 2005. The ratio is forecast to exceed 30% by 2025. In response to this trend, the following measures are being taken in the housing policies in tandem with social welfare policies:

The Act for the Stable Living of the Elderly was enacted in 2001 in response to the rapid ageing of Japan's population, and was designed to create a residential environment in which elderly people can feel secure. The law aims to ensure an efficient supply of housing for the elderly through private sector initiatives and effective utilisation of the existing housing stock. It also aims to reinforce schemes for providing more broadly based information on housing that accepts elderly residents. The act establishes guidelines concerning housing design to ensure that the elderly can continue living in their dwellings even when their physical capabilities deteriorate. The measures include special loans to elderly homeowners for renovations to make their homes more accessible to those with limited mobility, guarantees of rent payment to landlords, establishment of lifetime lease contracts and registration of rental housing stock with adequate facilities for the elderly.

The Silver Housing Project is intended for those aged 60 or older who are able to live their daily lives independently. It provides public rental housing designed for the needs of the elderly, and services from life support advisors including daily life guidance, checking on the well-being and safety of the residents, and liaison in cases of emergency. The project started in 1987 in co-operation with the Ministry of Health, Labour and Welfare (MHLW), and managed 21 994 housing units on 821 housing estates as of the end of March 2007.

House-Moving Support Plan for the Elderly. A mismatch has arisen in the housing stock as a result of the fact that elderly households with fewer members often live in larger dwellings, and households with growing children in smaller dwellings. This plan encourages householders aged 50 or over who own their own homes to move to dwellings that are more suited to their needs. It then subleases their homes to households with children.

Source: Building Center of Japan (2008).

generally call for national government support or legislation, even in countries with privatisation policies. Key areas of intervention include:

- **Supporting social housing co-operatives and associations.** National government support for housing production by non-governmental organisations has been greatly reduced. Housing co-operatives today no longer serve lower-middle income households, but rather the upper-middle groups (Węclawowicz, 2002). Poland could learn from a number of OECD countries that have tried to enhance the housing supply through non-profit organisations. Whereas various measures have been introduced by governments to support non-profit organisations, policy practices indicate the importance of improving the financial arrangements with them (Box 2.13). They include for instance providing matching funds, increasing non-profit organisations' access to capital markets and setting aside a share of national housing grants for non-profit developers (OECD, 2010a).

Box 2.13. Supply of affordable housing by the non-profit sector

In the UK, while direct supply by local authorities is diminishing, the percentage of households living in social housing owned by Registered Social Landlords (RSLs) has increased significantly. RSLs are private sector, non-profit organisations that are regulated by the Housing Corporation in England, Communities Scotland in Scotland, and the Welsh Assembly in Wales. Developments by RSLs are partly subsidised by government funding, with RSLs expected to meet remaining costs. However, some RSLs with low credit ratings may experience difficulties in raising funds at favourable rates (Barker, 2003). It is necessary to enhance the ability of RSLs to add to their financial commitments (*e.g.* to increase their borrowing capacity) to promote the growth of the RSL sector as a whole.

In the Netherlands, Dutch housing associations are the principal supplier of social housing, and own over 99% of the social housing stock. The Social Rented Sector Management Decree, introduced in 1993, provides housing associations flexibility to determine their own asset management policies. Moreover, the "grossing and balancing operation", which involved cancelling all government loans against the current subsidy obligations, left the associations financially independent. This financial independence, and the associated professionalisation of the housing associations, reduced the amateurism in the Dutch social rental sector, which had been identified as undermining the sector's efficiency. As for financial arrangements for housing associations, the government ensures that housing associations have adequate access to the capital market. The guarantee fund for social housing construction, which was initially set up in the 1980s to guarantee loans for housing improvement, was expanded in the 1990s and covers all loans for housing associations (Elsinga and Hoekstra, 2005).

In the US, the HOME Investment Partnership Program was introduced by the 1990 National Affordable Housing Act. The programme requires 15% of federal block grants to be set aside for community-based non-profit organisations. The law on Low-Income Housing Tax Credit (LIHTC), which is the primary production vehicle for low-income housing in the US, also required each state to set aside at least 10% of its grant allocation for non-profit organisations (Orlebeke, 2000). Moreover, the Section 202 programme has provided direct federal grants since 1990 to non-profit developers of housing for the elderly and handicapped (Wallace, 1995). In addition to these federal plans, various measures, including housing trust funds for low- and moderate-income housing, have been introduced by state and local governments to support non-profits developing affordable housing. A problem of the plan is the complexity and cost of arranging the finance. To improve efficiency, it might be necessary, for instance, to standardise more of the elements of affordable housing finance, and reduce the number of finance sources that non-profit developers must assemble (Wallace, 1995).

Source: OECD (2010), *Trends in Urbanisation and Urban Policies in OECD Countries: What Lessons for China?*, OECD, Paris.

- **Monitoring and incentivising local governments to adopt affordable housing instruments.** To prevent large disparities in the success of local affordable housing initiatives, the national government would do well to develop policies to monitor local government programmes and provide a variety of incentives. Incentives could take the form of “positive competition” among local governments over good affordable housing practices, such as through financial rewards and publicising winning cities’ best practices. Complementary regulatory reforms could take the form of a requirement in the land-use planning law that all local governments be required to provide an affordable housing strategic component in the mandatory *Studies of Conditions and Direction of Spatial Development and Land Use in Municipalities* document that they are currently required to submit to their regional governments.
- **Reform the TBS Programme to better meet low-income housing needs.** The Polish system of social rental housing (TBS) was introduced in 1995 to meet demand for rental housing among residents whose income was too high to qualify for municipal housing and housing allowances, but could not afford homeownership. Housing units under the TBS system are operated by social housing companies, most of which are owned by municipalities, and the rest by private or public-private operators. The TBS Programme has in practice fallen short of its affordable housing goals because the below-market rental units developed under the programme have often gone to upper-middle income groups, to whom TBS operators can charge higher rents. Policy reforms for increasing social housing production in the short term could include i) more frequent reviews of tenant incomes and appropriate rent increases; and ii) municipal or TBS operator purchase of vacant units initially developed by the private sector for sale rather than purchase (Brzeski et al., 2009).
- **Establishing mandatory quotas or voluntary targets for affordable housing production.** In France, the national Solidarity and Urban Renewal (*Solidarité et renouvellement urbain*) law requires that 20% of the housing in municipalities of over 3 500 inhabitants and in agglomerations of over 50 000 inhabitants be dedicated to public social housing. Those municipalities that do not meet the requirement must pay a fee based on the number of missing affordable housing units, which is then applied to the development of social housing (Ministère de l’Équipement, des Transports et du Logement, Secrétariat d’État au Logement, 2001). In the US, the state of California requires local governments to adopt housing plans that meet existing and projected housing needs for residents of all economic levels and do not unduly constrain housing development (California Department of Housing and Community Development, 2007). Other US cities have enacted their own regulations to require a portion of new housing developments to meet affordability criteria (e.g. the 80/20 Program in the city of New York), or to provide incentives to developers who include a certain share of affordable housing units in their developments. Incentives can have unintended consequences, however. Massachusetts’ affordable housing law, known as Chapter 40B, which allows new developments with more the 20% affordable housing to bypass local zoning regulations, has been criticised for poor oversight and for encouraging urban sprawl (McConville, 2007; OECD *Trends in Urbanisation*, 2010a).
- **Legislating the missing instruments.** The variety of instruments that local governments may use to preserve and increase the supply of affordable housing may require legal anchoring within a set of procedures or rules. For example, there may be a need to legislate the authority of local governments to negotiate with developers over a variety

of public benefits may merit a special section in the planning law. Similarly, the authority to provide incentives through the reduction of local taxes may also need to be granted through national regulations.

Greater co-ordination on land-use planning

The Polish land-use system, which affects not only development, but economic competitiveness, quality of life and social cohesion, could benefit from greater coherence. Responses to urban development needs have largely taken the form of *ad hoc* land-use planning decisions that do not take into account city-wide or metropolitan area urban development strategies. The current approach to land-use planning undermines coherent responses to development needs on the level of the functional urban area. Revisions to the current national planning law, which is currently under consideration, as well as greater inter-municipal co-ordination, are needed to render the current land-use system more responsive to urban development priorities.

The Polish land-use planning system currently vests almost all planning and implementation powers with the municipalities (*gminas*), limiting the effectiveness of planning on the functional urban area or regional level. The regional and national government levels do have some powers regarding land use, but these are limited to regional and national infrastructure, such as highways.¹⁰ While the Polish Land Management Act of 1994 does oblige each region (*voivodship*) to prepare a land-use plan, this is not binding on the municipalities, except regarding distinctly regional issues such as infrastructure. Although local land-use plans must receive *voivodship* as well as Ministry of Infrastructure approval, these jurisdictions are allowed to intervene only on points of procedure and law and not on substantive issues, leaving *voivodships* without any effective supervisory role. The Polish land-use planning law also refrains from granting the Ministry of Infrastructure any direct regulatory powers over local planning beyond national roads, nature reserves and the like. While the ministry does play an important function in issuing regulations for making local plans, these tend to focus on technical rules, such as how to calculate the need for public services.

While the current planning law regards Municipal Physical Development Plans as the main instruments for regulating municipal development, their use is still not widespread and does not allow for comprehensive planning. Only a small part of the country is covered by approved Municipal Physical Development Plans that are in accordance with the 2003 Spatial Planning and Spatial Development Act, which are produced at neighbourhood scale. While the share of land covered by these plans in cities with county (*powiat*) status has increased from nearly 11% in 2006 to 17% in 2008, this leaves a significant share of city land that is not managed by Municipal Physical Development Plans (Table 2.4). Only Gdańsk is fully covered by Municipal Physical Development Plans (Śleszyński et al., 2010). In Poland, unlike many OECD countries, the law does not require the preparation of any overall citywide plan, and cities have not adopted this mode as a good practice. In most OECD countries, local governments prepare some form of overall plan or policy, which may take the form of flexible strategic plans. Although partial plans, zoning amendments and other modes of by-passing the existing local plan are quite prevalent in many cities, even in countries such as the Netherlands that are renowned for their good planning, these amendments are based on an underlying requirement (Faludi, 1987). In the procedures for preparing local plans, the law also calls upon municipalities to prepare a Study of Conditions and Direction of Spatial Development and

Table 2.4. **Polish municipal surface area covered by enforceable local plans, 2006-08**

Surface area covered by Municipal Physical Development Plans	All municipalities			Cities with <i>powiat</i> (county) status		
	2006	2007	2008	2006	2007	2008
Plans in accordance with the Spatial Planning Act of 2003	7.6	9.3	10.6	10.5	15.2	17.0
Plans in accordance with the Spatial Planning Act of 1994	14.5	15.2	15.0	17.2	16.3	17.6
Plans in accordance with either Spatial Planning Act	22.0	24.5	25.6	27.8	31.5	34.6

Source: Śleszyński, P., T. Komornicki, B. Zielińska and M. Stępnik (2010), "Report on the State and Conditions of Planning Works in Gminas at the End of 2008", prepared for the Polish Department of Spatial Development of the Ministry of Infrastructure, May 2010, Polska Akademia Nauk, Instytut Geografii i Przestrzennego Zagospodarowania, Warsaw.

Land Use in Municipalities, which does allow municipalities to develop a strategic plan for the municipality or county, as opposed to a subset of the municipality. However, while this document is approved by the municipality, it does not have a binding impact on subsequent decisions, either on local plans or on development permits.

In the absence of Municipal Physical Development Plans, many land-use decisions are made on a case-by-case basis and do not conform to the Studies of Conditions and Direction of Spatial Development and Land Use in Municipalities. The dominant regulatory instruments in Poland are these decisions or "decisions on the location of public land uses" (Gdesz, 2010). They are ostensibly similar to development permits, but they are detached from any local plans and do not have to conform to higher-order government policies or guidelines. Apart from selected areas governed either by national infrastructure decisions (often accompanied by expropriation) or nationally designated high-quality agricultural land, proposals for "decisions on development conditions" or "decisions on the location of public land uses" are bound by only one rule: local government may reject them if they do not meet the "neighbourhood rule", that is, if they differ too much from their surroundings. This notion, however, is largely discretionary, and landowners often contest rejection decisions. Cases exist where permits are requested – and at times awarded – on land designated for a road in a non-binding plan or policy document (such as the Studies of Conditions and Direction of Spatial Development and Land Use in Municipalities recommendations). This *ad hoc*, easily challenged system of land-use decision undermines the reliance and predictability of land-use plans, which is crucial to an active real estate market.

The current discussions regarding modifying national spatial planning law focuses in part on the role and efficiency of current mandatory Municipal Physical Development plans and of case-by-case conditional development decisions, when neither approach may meet current urban growth management needs. An argument may be made that the current system of Municipal Physical Development Plans is limited by their small, sub-city scale and focus on detailed, inflexible physical requirements, which can quickly become obsolete and lead to a patchwork of *ad hoc* amendments. However, an alternative solution, in the form of development conditions granted at the discretion of local planning authorities, presents its own problems. While the UK land-use system is based on "planning permissions" that do not require conforming fully to a land-use plan, British planning laws do require each local government to prepare and periodically update a document that states the overall development policy, and allow planning officials to divert from local plans and national and regional planning guidelines only when justified

(Booth, 2003, 2007). By contrast, basing a land-use system on the “development conditions” permits that characterise much of urban development in Poland today, even if reinforced by national regulations that specify planning standards, would not ensure enforcement of legally binding land-use policies and plans.

A national spatial planning policy would do well to consider requiring municipal strategic plans that are co-ordinated with other municipalities in the functional urban area. Rather than requiring plans to specify the location of specific land uses and building times, legally binding municipal strategic plans could set policies, criteria and indicators according to which the municipalities would have to assess development proposals. As a result, they would allow much room for discretion. National-level criteria for municipal strategic plans would be needed to make them comparable and complementary to other neighbouring municipalities, thereby providing the basis for increased inter-municipal co-ordination on land-use planning. The existing voluntary development strategies and mandatory Studies of Conditions and Direction of Spatial Development and Land Use in Municipalities currently present in most municipalities could provide the starting point for municipal strategic plans (Strzelecka, 2008).

Greater clarity is needed to differentiate between the planning responsibilities of the municipal, functional urban area, and regional levels. Under the current planning law, municipalities are empowered to decide on all land-use matters (except selected topics pertaining to national or regional infrastructure). This extensive authority includes the authority to approve or reject development projects whose impact goes far beyond the specific municipality or county, thus providing a challenge for metropolitan and regional development. A regulatory differentiation is needed between “matters of local interest” and “matters of functional urban area interest” or “matters of regional interest”. For example, authority to approve decisions on development applications with regional impact may best be conveyed to both the municipality and the *voivodship*. As will be developed in the next chapter, there is a need to foster inter-municipal co-ordination as well as to strengthen vertical co-ordination mechanisms, including those that do not intervene directly in matters of local land-use planning.

The need for metropolitan growth management

In Polish cities, the lack of co-ordination on spatial planning between core cities and surrounding municipalities has resulted in uncontrolled metropolitan growth, urban sprawl and inter-municipal competition, which can hurt regional competitiveness. While the Municipal Physical Development Plans are binding, they frequently do not cover the whole municipality, and they are not aligned with the spatial plans of other municipalities in the same functional urban area. As mentioned previously, while each *voivodship* is charged with reviewing Municipal Physical Development Plans to check for concordance with the *voivodship* Spatial Development Plan, the *voivodship* currently has little recourse if local plans diverge from *voivodship* priorities. This municipal autonomy in spatial planning has resulted in the development of housing in suburban municipalities designed to attract residents of larger cities, without regard to regional transportation connections or linkages between employment centres and residential developments. Because of the increase in land prices, especially around large cities, the surrounding municipalities tend to speculate on land rather than develop a strategic long-term vision on its best use (OECD *Territorial Review of Poland*, 2008c). Infrastructure development is also hampered by the lack of planning coherence. For example, in Lublin, *ad hoc* development permissions cut off the

continuity of land designated for a city bypass or ring road. This has forced cross-city traffic through the built-up areas of Lublin, increasing congestion and compromising economic competitiveness and attractiveness.

Increasing co-ordination of spatial planning and transport have often been the primary objectives of policies to create or strengthen the authority of metropolitan regions. For instance, the Metropolitan Community of Montreal was given planning authority over Montreal and the surrounding municipalities, and in France the planning function is a key feature of metropolitan organisations (see Chapter 3). A review of metropolitan governance arrangements experienced in OECD countries shows that there is no one single model for metropolitan regions, with each model containing trade-offs in terms of benefits and costs. These arrangements strongly depend on national politico-institutional framework, including the level of decentralisation, as well as local and regional context. Countries like France, Germany, Italy and eastern provinces in Canada have a tendency to rely on institution-building, and Nordic countries and the US and UK on association and co-operation arrangements. Even within countries, different solutions have emerged. In federal countries like Germany, governance models range from strong metropolitan governments in Stuttgart, Frankfurt and Hanover to purpose-oriented loose networks and state-run regional planning in Berlin, Munich and Hamburg (OECD, 2006).

A number of tools to manage urban growth can be applied at the municipal or metropolitan level. These include tax structures that discourage greenfield development, incentives that encourage brownfield redevelopment, and zoning that favours mixed-use, transit-oriented and minimum density development (Table 2.5). While many of these tools

Table 2.5. Policy instruments to manage urban sprawl

Policies for managing urban growth	Policies for protecting open space
<i>Public acquisition</i>	
Public ownership of parks, recreation areas, forests, environmentally sensitive areas, etc.	Public ownership of parks, recreation areas, forests, environmentally sensitive areas, etc.
<i>Regulation</i>	
Development moratoria, interim development regulations	Subdivision exactions
Rate of growth controls (such as building permit caps), growth-phasing regulations	Cluster zoning (incentives often provided)
Adequate public facility ordinances	Down-zoning or large-lot zoning
Up-zoning or small-lot zoning, minimum-density zoning	Exclusive agricultural or forestry zoning
Mixed-use zoning	Mitigation ordinances and banking
Transportation-oriented zoning	Non-transitional zoning
Greenbelts	Concentrating rural development
Urban growth boundaries	
Urban service boundaries	
Comprehensive planning mandates (master plans)	
<i>Incentives and fiscal policies</i>	
Development impact fees	Right-to-farm laws
Real estate transfer tax	Agricultural districts
Split-rate property tax	Transfer of development rights
Infill and redevelopment incentives	Purchase of development rights, conservation easements
Brownfield redevelopment	Use-value tax assessment
Historic rehabilitation tax credits	Circuit breaker tax relief credits
Location efficient mortgages	Capital gains tax on land sales
Priority funding for infrastructure in city centre	

Source: OECD (2010), *Cities and Climate Change*, OECD Publishing, Paris, based on Bengston, D. N. et al. (2004), "Public Policies for Managing Urban Growth and Protecting Open Space: Policy Instruments and Lessons Learned in the United States", *Landscape and Urban Planning*, Vol. 69, No. 2-3, Elsevier, Amsterdam, pp. 271-286.

can be applied in the absence of metropolitan governing bodies or other forms of co-ordination between municipalities on spatial planning, many do require national or regional policy intervention. Policies to limit sprawl must be applied carefully so as not to restrict development in a way that raises housing prices, and policies that improve the availability and quality of existing urban land can provide room for growth while limiting urban sprawl. Many cities in OECD countries have responded to urban sprawl by applying urban growth boundaries, which generally prevent the issue of development permits beyond a designated boundary, and can be applied at the city or metropolitan level. However, urban growth boundaries can also exacerbate urban sprawl by limiting developments in municipalities near urban centres, pushing new developments into outer suburbs. For example, in some urban areas in the US, urban growth controls have been linked to longer inter-city commuting times (Ogura, 2010). Other tools could target increasing urban residential densities and infill development, given that Polish cities tend to exhibit high disparities in densities within their boundaries. For example, national planning law regulations could follow the example of Israel by setting both maximum and minimum densities permitted for specific parts of cities or specific land uses.

Towards an urban policy agenda adapted to cities' different needs

As discussed in previous sections, the central government of Poland has a large impact on urban areas through a variety of programmes, policies and projects that are being implemented by a wide range of national ministerial departments. The effectiveness of those implicit urban policies might be enhanced if they were co-ordinated through a spatial vision for urban development, i.e. a national urban policy agenda that is flexible and tailored to the specific needs of different cities and urban areas, taking into account differences in city size and geographical region. In other terms, policy trade-offs need not include pitting one urban region against another. Such an approach could be made based on the following urban categories:

- i) **Warsaw merits a specific treatment in a national urban policy**, given the challenges and opportunities inherent in managing the growth of the city. As the economic engine of the country, Warsaw plays a primary role in Poland's international competitiveness. However, Warsaw's competitiveness risks being undermined by urban fragmentation. Warsaw's wealthier and more mobile residents are moving to suburban municipalities, while some central neighbourhoods' residents experience exclusion from the labour market. While the revitalisation of key commercial streets has attracted new businesses, attempts to raise taxes to finance further rehabilitation run the risk of pushing additional residents to suburban municipalities. As people flee to the suburbs, congestion increases and the costs involved rise for the city and for commuters and companies. Plans to expand and improve the quality and integration of the Warsaw's transportation city is one important solution. This has attracted co-financing from municipalities served by the system while providing a means to give under-served populations better access to local labour markets. Warsaw could benefit from a two-track strategy based on bringing not only jobs to people, but also people to jobs. Core neighbourhoods in Poland are usually better linked to public services, including transportation. For example, within Warsaw's urban core, the Praga District is well served by public transportation but suffers high unemployment, and its attractiveness for new residents or private investment is still questionable. The city's top priority for these neighbourhoods has been based on bringing jobs to people; that is, attracting

firms by revitalising the facades of many buildings. In addition, such a strategy aims to keep employed higher-income residents and avoid losing them to the suburbs. However, the city can complement its strategy by bringing people to jobs; that is, by using transportation links to help unemployed residents reach employment opportunities outside their neighbourhoods.

- ii) While Warsaw is Poland's primary city, the country also benefits from **regional capital cities**¹¹ whose roles and services could be strengthened and made more complementary, maximising the economic potential of the country's polycentric network of cities by diffusing growth throughout their region. To enhance the development potential of regional urban poles in Poland, greater co-ordination among municipalities within these urban areas is needed to strengthen their labour markets and maximise the potential of endogenous growth. Upper Silesia in southern Poland exemplifies how a metropolitan association can combine efforts to better attract investment and enhance regional complementarities to make the most of local assets. However, as further discussed in Chapter 3, this model has not been easy to apply elsewhere in the country. Finland's policy to foster innovation and growth in the eight largest city regions outside Helsinki provides an interesting model. The Regional Centres Programmes (RCP) policy is a regional policy with a balanced territorial development objective and a clear recognition that a certain degree of concentration is needed to reach a minimum critical mass. It includes, as a main objective for the allocation of funds, more collaboration (and thus economic integration) between a core city and its neighbouring municipalities (OECD *Territorial Review of Finland*, 2005b) (Box 2.14). Policies that allow growth factors to spread their benefits not only in the city but in the wider region are key to regional development in Poland, as reflected in the June 2009 report *Poland 2030*, prepared by the Polish Council of Ministers' Strategic Advisors, as well as in the NSRD.

Box 2.14. **Developing regional poles of growth by promoting innovation: the case of Finland**

In 1994, Finland introduced an urban policy to foster innovation and growth in its eight largest city-regions (excluding Helsinki). Initially called the Centre of Expertise programme (CoE), it was strengthened in the Regional Centres Programme (RCP) in 2001.

Three main motives have inspired Finnish urban policy: i) developing cities as nodal points for the creation of new jobs and the spread of economic growth; ii) promoting innovation to enhance cities' competitiveness; and iii) sustaining a large network of cities, including those of small and medium size, to ensure balanced territorial development. The main instruments to reach these objectives are the Centres of Expertise (CoE) programme launched in 1994 and the Regional Centre Programme (RCP) introduced in 2001.

The CoE programme is one of the main tools of Finnish regional innovation policy. The objective is to increase co-operation between universities and enterprises, develop top-level expertise, attract investments and talents to the region and improve regions' ability to raise R&D funding. The programme is implemented by local development companies based on the "triple helix" model, i.e., partnership between i) universities and related institutions (research institutes); ii) the local business community (companies and science parks); and iii) public authorities (municipalities, regional councils, national government). The responsibility for the management of the Centres of Expertise is often assumed by the local science and technology park company. The CoE programme is administered by the Ministry of Employment and the Economy and functions efficiently as a programme crossing administrative boundaries. It is run on a competitive basis,

Box 2.14. Developing regional poles of growth by promoting innovation: the case of Finland
(cont.)

and only the best local programmes are awarded Centre of Expertise status. The programmes also have to compete for basic state funds annually. The ministry's basic funds for the programme amounted to EUR 8 million in 2003 and EUR 9.5 million in 2004. Funds are disbursed as matching grants, and local actors, mainly cities, are required to invest an equal amount of funding (according to the so-called 50/50 principle). In 2003, total funding for the CoE projects was EUR 40 million, including various sources such as the EU (European Social Fund), private companies and national innovation organisations. The CoE, aiming to develop and consolidate international top-level knowledge within firms by fostering connections between academia and research, is widely considered a success story (Ministry of the Interior, 2003). A 2003 mid-term evaluation of the programme reported that modest public funding has successfully mobilised private resources in most of the cities involved. In 1998 and 2002, the national government extended it to new regions, so that by the end of 2006, 22 Centres of Expertise were operating in 45 branches. The programme, which initially targeted large urban areas, is progressively being extended to medium-sized city regions in accordance with the national objective to encourage a polycentric urban structure.

While the operating model of Finnish regional innovation policy has been successful, increasingly intense global competition prompted the creation of a new region-based cluster model for the period 2007-13, introducing the concept of competence clusters into the programme. Centres belonging to the same competence clusters are encouraged to strengthen their national and international co-operation.

The competence cluster gathers and makes use of currently scattered resources in the regions, creating new channels for distributing information and expertise for business and research. It is also intended to increase the critical mass needed in research and development. The national alliance of the best centres of expertise diverts attention from internal competition and emphasises international competition. The new cluster model also groups innovation policies carried out both at the national and the regional level.

The principal objective of the Regional Centre Programme (2000-06) is to ensure balanced territorial development, by establishing cities of different sizes as strong regional or local centres, with the aim of boosting the competitiveness of the regions concerned. The programme also specifically stresses the development of sub-regional co-operation by bringing together, in a joint network, municipalities, universities, research units and enterprises. On the basis of an agreement between municipalities, responsibility for the programme lies with the urban centres or the joint regional organisation of the municipalities, such as regional business development companies. The assumption is that urban regions are considered functional entities for development, on which the core city and surrounding municipalities must co-operate closely. The 34 cities that qualified for the RCP belong to the different categories identified in the typology of the Urban Network Study, with the exception of urban regions in Uusimaa, which were originally excluded from the programme. They represent a total of 264 municipalities, i.e., three-fifths of all Finnish municipalities and 63% of the total population. Ministry of the Interior funding for the programme amounted to EUR 10 million per year in 2001-2003, and total funding to EUR 20 million per year (2004-2006). In terms of policy actions, the main emphasis of the RCP is on competence and development driven by technology innovation within the functional regional area. Quality of the environment and culture are also an important focus.

In 2010, the Regional Centre Programme and two other programmes (the Rural Regional Programme and Archipelago Programme) were merged, resulting in a new Cohesion and Competitiveness programme (COCO) for the period 2010-13. The aim is to make Finnish regions attractive for enterprises and residents alike and promote broad-based innovative development to improve living environments. The objectives of the programme are to strengthen the competitiveness of the regions and improve cohesion both within and between them. The programme is conceived as a pro-active tool for improving the development of existing conditions of a region, and launching strategically significant projects. It is also intended to enhance regional development actions, such as learning, renewed networking, local participation and partnership.

Source: OECD (2005), *OECD Territorial Reviews: Finland*, OECD Publishing, Paris.

Regional capitals could also benefit from transportation connection and increased networks between them to complement rather than repeat their strengths. Train and roadway connections are uneven, and transportation connections among the *voivodships'* capital cities are generally weaker than between each of them and Warsaw. Transportation infrastructure priorities can enhance urban development. For example, German spatial planning policy has sought to link the 11 most developed European metropolitan regions in the country (*europäische Metropolregionen*) with smaller centres through secondary road networks (OECD, 2009b) (Box 2.15). Considerable attention has been paid to the construction of secondary road networks as a prerequisite of effective trans-regional motorways, providing accessibility to trunk lines.

- iii) A specific strategy should be developed for cities in eastern Poland that have a unique set of challenges. Although they anchor regions, they have historically lagged behind in terms of economic growth. The regional capitals of Lublin and Białystok need better connections with the other regional capitals and better co-ordination with surrounding

Box 2.15. Planning metropolitan regions in Germany

In 2006, the German government announced a change in its approach to spatial policy in its report *Raumentwicklung in Deutschland* ("Spatial Development in Germany", *Bundesministerium für Verkehr*). After 1949, the Bonn Republic successfully followed a policy of even development across its territory, setting such targets as minimum distances for all citizens from main modes of transport and access to education, health and other social services. The 2006 plan did not set these goals aside, but contextualised their achievement in a growth plan of 11 "European metropolitan regions". A denser network of a considerably larger number of smaller, regional centres was also envisaged, to be linked through such mechanisms as supplier networks and commuting patterns to the metropolitan regions. This represented a more concentrated approach to development than in the past, but retained the geographical equality of the former model, seeking an even distribution across the country of major and subsidiary growth poles.

The concept of *europäische Metropolregionen* (European metropolitan regions) closely resembles the OECD concept of metropolitan regions. The regions so designated are the 11 most highly developed urban regions in the country, with populations of at least one million, and function as centres of economic power (finance, media, etc.) and research and innovation capacity, as well as the motors of social, economic and cultural development. With good international connections and well served by transport infrastructures, they are linked by commuting and other networks to inner and outer areas. But each has within its reach regions that are not linked to its existing networks. These include two types of area: those that show strong signs of autonomous development and innovation and potential poles for new growth; and areas, often rural, that are less dynamic. The *Ministerkonferenz für Raumordnung* (MKRO, Ministerial Conference for Spatial Order) agreed that authorities and institutions in the metro-regions have a responsibility to work with their counterparts throughout their wider regions to develop networks and collaborative projects that include these less favoured areas in processes of innovation. The MKRO consists of ministers at federal and Land level who have responsibilities for spatial order and planning.

The policy of metropolitan regions was first developed in 1997, when the MKRO identified an initial seven regions: Berlin/Brandenburg; Hamburg; Rhein-Ruhr; Frankfurt am Main; Stuttgart; Munich; Halle/Leipzig- Sachsendreieck. In 2005, it was extended to include Nuremberg; Hanover-Brunswick-Göttingen; Rhein-Neckar; Bremen-Oldenburg. All Germany is now connected in one way or another to one or more of these regions.

Source: Ministry of Transport, Construction and Urban Development (*Bundesministerium für Verkehr, Bau und Stadtentwicklung*) (2006), *Raumentwicklung in Deutschland*, BVBS, Berlin.

municipalities. As urban municipalities in rural areas, they need to maximise agricultural and non-urban industries and natural resources. Population loss is a major factor in the region, making endogenous growth all the more urgent. With their educational and historical manufacturing assets, the eastern regions have elements that can re-attract industry, but their infrastructure, business environment and human capital need to be strengthened. In eastern cities, where the presence of a university has not prevented a “brain drain”, a strategy for improving long-term human capital could be to expand the number of adult residents making use of university or job training programmes. This would expand the pool of skilled labour among a population less likely to leave the region than university-age students.

A major asset for eastern Poland is its proximity to markets in the Ukraine and Belorussia. Just as Upper Silesia and Poznań exploited opportunities for trade with the Czech Republic and Germany, so eastern Poland can benefit from increasing exchange opportunities with its eastern neighbours, particularly the Ukraine. Lublin, for example, envisions itself as an administrative bridge with Eastern Europe. In addition to the support needed to strengthen infrastructure connecting eastern regions to neighbouring markets, a national strategy for trade with Ukraine, Belorussia and Russia is needed to maximise the potential of these linkages. This opportunity does not necessarily entail a catching-up process but promotes local growth based on local assets, including the regions’ potential to enter foreign markets to the east.

- iv) **Medium-sized cities with county (*powiat*) status and smaller cities** have distinct roles to play depending on their proximity to larger cities. They could either strengthen their functions as active members of metropolitan areas or, conversely, as service providers in rural regions. For Poland’s medium-sized, county-status cities, different roles need to be applied from the cities serving as the focal point for economic growth and public services for predominantly rural areas, and those that are part of a larger city’s functional area.
- Medium-sized and smaller cities’ role in the functional urban area of larger cities should be to strengthen metropolitan regions and provide specialised services. The Upper Silesia Metropolitan Association exemplifies this role for county-status cities, but the less formal co-ordination between Poznań and its suburban municipalities also provides a model. In the absence of regulations formalising the authority of metropolitan regions, medium and small cities that are part of functional urban areas need incentives for co-ordinating public service delivery, as well as for establishing development plans with other municipalities and the primary city in the functional urban area.
 - The function of medium-sized and smaller cities in rural areas warrants better clarification and support. Small and medium cities in rural areas have a distinct function to play compared to those in metropolitan areas in anchoring the population; supplying opportunities for economic growth; providing a market and access point for rural economies, and offering public services and educational institutions. Strengthening these regional and sub-regional centres reinforces the regional social and economic infrastructure needed to retain population and investment (OECD, 2010a). Their role could be made more explicit and support could be provided, for example in capacity-building, to act as administrative service providers and the hub for regional economic growth strategies, such as Radom in the Mazowsze region.

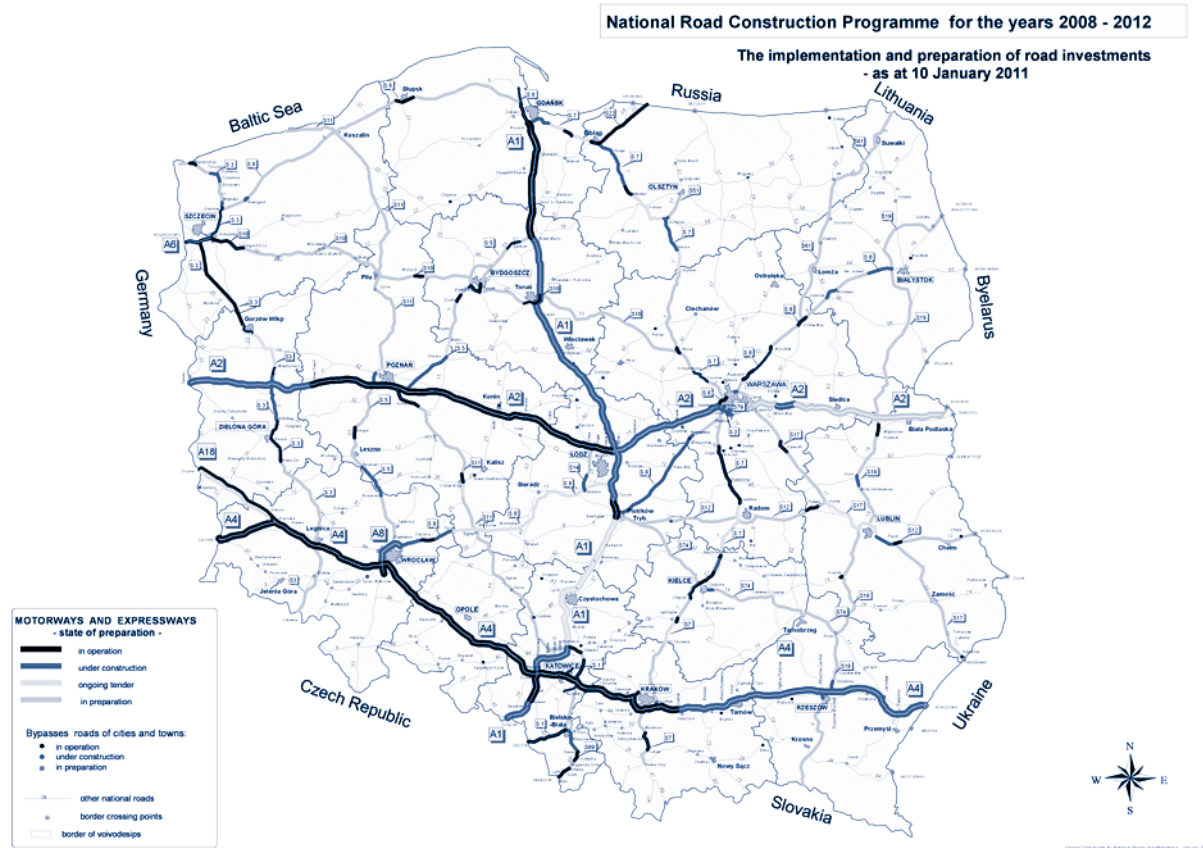
In many cases, this may mean maximising rural and agricultural industry growth opportunities.

A national urban policy agenda should also aim to foster network economies that improve the overall connectivity of the Polish urban system. This will involve substantial investment in transport infrastructure, particularly in both urban and rural areas of eastern Poland. While the inter-city network needs improvement, rural-urban linkages within regions are also important. Poland's recent economic growth has been associated with increasing disparities between west and east, between Warsaw and other cities, between urban and rural areas and between expanding and declining urban regions. Economic growth is concentrated in the west and in Warsaw more than the rest of the country, while rural areas are characterised by small farms, low productivity, lower educational attainment, limited employment opportunities, decreasing population and a declining share of national GDP.

To promote a benign cycle of combined rural and urban growth, it is essential to invest strategically in cities in lagging regions, as growth poles for enterprise and innovation. This will involve significant investments, especially in transport linking the city to the rural areas, as well as upgrading skills and fostering local development projects. Local cities can be established as centres for micro-credit for small enterprises in rural areas, and schools and universities should be encouraged to diffuse the latest technologies, management practices and production techniques appropriate for the local region. Cities can play a significant role as sites for educational improvement in rural areas, job training and retraining. The main goals of this growth pole strategy are a region-wide increase in non-agricultural jobs, improvement in educational attainment, generation of jobs, retention of local population rather than emigration, encouragement of innovation and enterprise and enhancing a region's investment appeal. Cities can become centres for the diffusion of the practices of a knowledge-based economy. Subsequent rural improvements will, in turn, increase purchasing power in the city and the region at large.

The low growth rates of lagging regions will not be an easy problem to fix. Years of under-investment and depopulation will need policies tailored to generating growth poles in urban areas that spill over into the surrounding areas and target some of the underlying economic inefficiencies. Based on the new law passed in December 2008, an electronic tolling system for buses and heavy vehicles is to be introduced in 2011. Care must also be taken not to focus on inter-city linkages to the detriment of connections between large cities and their surrounding municipalities (OECD, 2010b). The current transport infrastructure strategy is heavily based on connecting Poland along a couple of axes and in introducing some links among regional capital cities (Figure 2.2). Greater investment in regional/metropolitan roads, including ring roads, which do not exist in most cities, might generate considerable economic gains (OECD, 2008b). However, city-regional connections seem to have been somewhat overlooked. Transport linkages between cities and suburbs could also be included in regional and national development strategies. Overall, cost-benefit analyses of the proposed transport infrastructure investments seem insufficiently systematic, making it difficult to prioritise the various projects.

Figure 2.2. Motorways and expressways in Poland, 2008-12



This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map.
Source: Polish General Directorate for Motor and Expressways (2010).

Notes

1. These nine documents are: National Strategy for Regional Development; Strategy of Innovation and Economic Efficiency; Human Resources Development Strategy; Transport Development Strategy; Energy Security and Environment Strategy; Strategy for an Efficient State; Social Capital Development Strategy; Strategy for the National Security of the Republic of Poland; and Strategy for Sustainable Development of Rural Areas and Agriculture.
2. The full name of this document is *National Strategic Reference Framework 2007-13 in Support of Growth and Jobs, National Cohesion Strategy*. It was adopted by the European Commission on 7 May 2007.
3. See EU (2010a, b, c, d, e, f, g, h, I, j, k, l, m, n, o, p).
4. Regions in the OECD depend for growth not only on infrastructure and human capital but on a business environment open to innovation, and ultimately, on knowledge and ideas. Glaeser (1994) argues that the concentration of human capital in cities allows for the free exchange of ideas and transfer of knowledge.
5. Clusters of ULMA were defined in Chapter 1. Cities in Cluster 5 are typically medium-sized but facing depopulation: Białystok, Bielsko-Biała, Częstochowa, Kalisz, Kielce, Lublin, Nowy Sącz, Olsztyn, Opole, Rzeszów, Szczecin, Tarnów and Zielona Góra.
6. Privatisation directly attracts foreign capital, and privatisation-related FDI played a crucial role in the restructuring transition economies in the 1990s (Kalotay and Hunya, 2000). Beyond these direct effects, it signals a commitment to market economy principles, which can reassure foreign investors (OECD, 2010b).

7. Clusters were defined in Chapter 1 using cluster analysis. Cluster 5 includes 20 ULMAs small in size and with poor linkages: Biała Podlaska, Elbląg, Konin, Koszalin, Krosno, Łomża, Gorzów Wielkopolski, Jelenia Góra, Legnica, Leszno, Ostrołęka, Płock, Przemyśl, Radom, Siedlce, Słupsk, Suwałki, Tarnobrzeg, Włocławek and Zamość.
8. Article 75 of the *Konstytucja Rzeczypospolitej Polskiej* (Krp) (Constitution of the Republic of Poland) Dz. U. of 1997, No. 78, Item 483 (adopted 2 April 1997, amended 4 April 2001), reads: "(1) Public authorities shall pursue policies conducive to satisfying the housing needs of citizens, in particular combating homelessness, promoting the development of low-income housing and supporting activities aimed at acquisition of a home by each citizen. (2) Protection of the rights of tenants shall be established by statute."
9. While rented dwellings are subject to a tax on capital gains, and there is no form of depreciation allowance in the UK, rental housing investment is treated like other investments in Germany, in that interest, depreciation and management and maintenance costs are deductible for income tax purposes and losses may be offset against other income. Moreover, in Germany, there is no tax on capital gains for private persons holding real estate assets for more than two years (Bramley et al., 1999).
10. Other national and supranational legal frameworks impose lesser degrees of restriction on municipal land-use decisions. For example, the Ministry of Agriculture has the authority to designate agricultural land according to a scale of quality, protecting high-quality farmland and requiring ministry permission for conversion of agricultural to urban land. Membership in the EU has also obliged Poland to abide by the Natura 2000 guidelines that protect areas of special environmental sensitivity. Some such areas are located near urban areas; in such cases, they provide a boundary for development.
11. Voivodship cities: Warsaw, Białystok, Bydgoszcz, Gdańsk, Gorzów Wielkopolski, Katowice, Kielce, Kraków, Lublin, Łódź, Olsztyn, Opole, Poznań, Rzeszów, Szczecin, Toruń, Wrocław, Zielona Góra.

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Chapter 3

Adapting Governance for a National Urban Policy Agenda

This chapter discusses governance strategies for adopting a national urban policy agenda. The chapter starts by assessing the country's current governance and planning framework and pointing out particular areas of opportunity. The chapter focuses on ways of enhancing co-ordination across levels of government and strengthening inter-municipal co-ordination within urban functional areas. The chapter also makes recommendations on how to improve inter-ministry coherence and integration at the central level and strengthen the role of intermediate levels of government. The chapter ends by looking at urban fiscal capacity by describing the system's main features and making recommendations on financing infrastructure, using property taxes for business development and addressing inequality by improving public service provision.

Poland's economic competitiveness and social viability would greatly benefit from a well-crafted national urban policy. As shown in previous chapters, Poland's national approach to urban development is greatly in need of strengthening. The development and implementation of an integrated urban development strategy in Poland can better promote the competitiveness of its urban regions while addressing their negative externalities, from stressed neighbourhoods to sluggish growth to poor infrastructure development. A national urban policy agenda should address urban development using multiple lenses, including its economic, social and environmental dimensions. It should move beyond a traditional urban policy focussed solely or primarily on spatial planning and integrate any sectoral policies that may affect the development of the functional urban area addressed by the agenda. An integrated national urban strategy should be tailored to address the specific needs of different-sized urban agglomerations, the distinct industrial mix of each region, and the specific strengths and assets of each urban area. It should also be fully embedded within a broader approach to regional development. The purpose of an urban development strategy is to use a spatial lens to implement different sectoral policies in a given functional urban territory simultaneously, thus maximising the capacity to leverage linkages between sectoral policies and minimising the potential for unintended policy outcomes. At its most practical level, a spatial, multi-sectoral approach, particularly in governance, can lead to a more efficient delivery of public services across a functional urban area.

A national approach to urban development can help articulate an integrated vision for urban regions and set the stage for each urban region to define its own vision and the path the key players must follow to achieve it. It can also set the stage for the development and implementation of key policy, programmatic and regulatory instruments needed to implement the vision, by strengthening existing networks within each functional urban area and enhancing the connections among cities and between urban and rural areas.

A viable national urban policy would need a policy framework with a coherent, explicit vision for Poland's urban areas, *i.e.* what they should look like, how they should contribute to regional and national competitiveness, what quality of life they should provide their residents and the nature of their contribution to Poland's sense of itself and place in the world. To the extent that elements of this vision-based policy framework are already being articulated in the various policy documents and acts being developed by the Polish authorities, the institutional governance and capacity to implement the policy framework, however, will require some enhancements and refinements.

After reviewing the existing institutional governance structure in Poland, its main achievements since the implementation of reforms and the challenges that stem from it, this chapter will discuss three main objectives that could frame the new generation of reforms necessary for the implementation of a national urban policy agenda. They include: i) enhancing horizontal inter-municipal spatial planning capacity and service delivery co-ordination within single urban functional areas; ii) strengthening inter-ministry

co-operation, co-ordination and coherence within the central government; and iii) reviewing the role of intermediate levels of government. These innovations in territorial governance, both vertical and horizontal, should simultaneously address the imperative of policy integration and programme co-ordination and the need for greater fiscal and regulatory coherence across jurisdictions within a single functional metropolitan region. The final section on metropolitan fiscal capacity will address this important aspect of a national urban policy.

3.1. Assessment of Poland's current governance and planning framework

Poland's history has conditioned the evolution of its urbanisation and governance structures. One of the main legacies inherited by post-communist Poland is the lack of strategic planning skills related to urban policy development, along with an absence of any tradition of inter-municipal and inter-governmental co-operation. Under communism, civil servants had no responsibility to engage in policy making; the top-down process of decision making rendered the need for urban planning or spatial policy development skills redundant. No strategic spatial plans were developed at the local level, and there was no co-operation between the core of a metropolitan area and the periphery. Areas surrounding urban centres were thought of as serving the cities themselves, and these in turn were to serve the central industrial strategy, delivering basic functional services to accommodate industrial workers. The main political task was to ensure daily commuting from housing to factories; the transport system became the sole instrument of urban policy (Węclawowicz, 1996).

Today, of course, the situation has evolved, and Poland's central government has made great strides in encouraging civil servants to acquire policy development and spatial planning skills. Moreover, significant improvements have been made in inter-governmental relations generally, and the central government has encouraged both inter-municipal collaboration of varying degrees and experiments with vertical, multi-level governance initiatives across the country. Within the central government itself, the implementation of reforms since the end of the communist era has encouraged greater flexibility in terms of allocation of responsibilities across ministries.

As in most OECD countries, responsibilities for policies at the central level that affect urban areas are scattered throughout the Polish administration. This makes horizontal co-ordination within the central government challenging – and a crucial issue. As there is no explicit national urban policy in Poland, responsibility for sectoral policy making that affects urban areas is scattered throughout the government structure with separate ministries, each administering key components of what ought to be an integrated urban policy. For instance housing, urban policy and municipal infrastructure are the responsibility of the Ministry of Infrastructure. It is interesting to note that while under current administrative arrangements “urban policy” is explicitly identified as a responsibility of the Ministry of Infrastructure, it appears as the eighth competence in a list of responsibilities within the “construction, spatial and housing management” section of the ministry's mandate. It is not possible to ascertain whether this holds any legal ramifications in terms of the policy weight being accorded to urban policy, relative to that ascribed to other mandates under the ministry's responsibility. (It would be up to experts in Polish administrative law, or indeed a Polish judge or administrative tribunal, to address this issue.) That said, the appearance of “urban policy” as the eighth item in one of a series

of policy sections within the ministry's mandate could be interpreted in a way that suggests that it is of relatively minor importance to the central government.

In any event, under current arrangements, the Ministry of Infrastructure needs to co-ordinate with the Ministry of Internal Affairs and Administration, which is responsible for the regions' ("voivodships") mandates and programming. Housing, urban policy and municipal infrastructure are essential elements of urban planning that simultaneously need to be co-ordinated with the regional planning and programming responsibilities of the Ministry of Regional Development (Table 3.1). The situation can get even more complicated if environment, transport, communication and roads are taken into account, as these areas fall under the responsibility of distinct ministries. Finally, any urban policy must be based on solid empirical evidence in the form of hard data and a series of social, economic and environmental indicators to measure progress toward achieving the policy outcomes identified in the policy framework. As in many OECD countries, Poland faces a significant challenge in this area, since metropolitan level data is lacking, as are the baseline indicators that policy makers will need to measure progress in the achievement of urban development goals over time. Poland's national statistical agency should be charged with collecting and sharing such cross-cutting data and indicators on the country's urban centres.

Table 3.1. Sections and ministries' competences

Ministries involved in policy making according to the competences granted by sections of administration

Section ¹	Competences ¹	Ministries responsible
1. Public administration	<ol style="list-style-type: none"> 1. Administration, including organisation of public administration offices and administrative procedures 2. Reforms and organisation of public administration structures 3. Combined government administration in a <i>voivodship</i> 4. Administrative division of the state and names of settlement units and physiographic structures 4a. Geodesy and cartography 6. Public fund-raising 7. Running a register of entities carrying out professional lobbying activities <p>The minister competent for public administration supervises the operations of the Chief National Geodesist, the National Affranchisement Commission and, on the basis of the legality criterion, the operations of Regional Audit Chambers.</p>	Ministry of the Interior and Administration
1a. Construction, spatial and housing management	<ol style="list-style-type: none"> 1. Architecture 3. Construction 4. Architectural and building supervision 5. Spatial development 6. Support for housing 7. Real estate management, unless separate provisions provide otherwise 8. Urban policy 9. Governmental programmes for municipal infrastructure development. 	Ministry of Infrastructure
2. Budget	<ol style="list-style-type: none"> 1. National budget preparation, implementation and realization 2. Financial system <ol style="list-style-type: none"> <i>i)</i> of territorial self-governments <i>ii)</i> of the public sector <i>iii)</i> of state safety and security 3. National debt management 	Ministry of Finance
3. Public finance	<p>Covering matters of implementing revenues and expenditures of the state budget. The minister competent for public finance is responsible, pursuant to the rules, within the scope and limits set forth in separate provisions, in particular, among others, for:</p> <ol style="list-style-type: none"> 1. Implementation of revenues from direct and indirect taxes, as well as other fees. 2. Co-ordination and organisation of financial, credit and payment-related co-operation with foreign countries, co-operation in processing matters related thereto and co-operation with international financial organisations. 3. Enforcement of customs provisions. 4. Financing units carrying out the tasks covered by the state budget and financing territorial self-governments. 	Ministry of Finance

Table 3.1. Sections and ministries' competences (cont.)
Ministries involved in policy making according to the competences granted by sections of administration

Section ¹	Competences ¹	Ministries responsible
4. Economy	Covers the area of economic competitiveness, including economic co-operation with foreign countries, the energy sector, certification, intellectual property, economic activity and co-operation with economic self-government organisations. The responsibilities of the minister competent for economy include: 1. Creation of conditions for taking up and running economic activities. 2. Measures to increase Poland's economic competitiveness and innovation. 5. Economic promotion, including support of export and import development, as well as Polish investments abroad and support of inflow of foreign direct investment. 7. Functioning of national energy systems, taking into account the rules of rational economy and the needs of national energy security. 8. Activity related to the use of nuclear energy to satisfy Poland's socio-economic needs.	Ministry of Economy
5. Maritime economy	1. Maritime transport and inland navigation 2. Maritime areas 3. Ports and harbors 4. Protection of the marine environment	Ministry of Infrastructure
6. Water economy	1. Development, protection and rational utilisation of water resources 2. Maintenance of inland surface waters owned by the Treasury, as well as the technical infrastructure associated with those waters, buildings and equipment, including water 3. Construction, modernisation and maintenance of inland waterways 4. Flood protection, including the construction, modernisation and maintenance of water facilities to prevent floods 5. Functioning of the national water and weather service and national hydrogeology service, excluding monitoring of groundwater water quality 6. International co-operation on maritime boundaries	Ministry of Environment
7. Financial institutions	Functioning of the financial market, including banks, insurance companies, investment funds and other institutions operating in the market. Tasks connected with transactions of securities and national policy.	Ministry of Finance
8. Membership of the Republic of Poland in the European Union	Includes, among other responsibilities: 1. Co-ordination of the implementation of the European Union law into the Polish legal system 2. Presenting opinions about projects and verifying their compatibility with EU law	Ministry of Foreign Affairs
9. Culture and national heritage	Covering matters of development and protection of material and non-material national heritage and matters of cultural activity, including the state's patronage over that activity, in particular as regards: 1. Maintaining and disseminating national and state traditions 2. Protection of historical monuments 3. Activities of museums 4. National remembrance sites, war graves and cemeteries, annihilation monuments and their protection areas 5. Creative and artistic activity, folk culture and handicrafts, and their protection 6. Publishing houses, book sales, libraries and reading 7. Cultural education 8. Art exhibitions 9. Audiovisual policy 10. Amateur art movement, regional organisations and associations and socio-cultural organisations and associations 11. Cultural exchange with foreign countries 12. Entertainment activities	Ministry of Culture and National Heritage
10. Physical culture/recreation and sport	1. Physical culture 2. Recreation and rehabilitation 3. Sport: youth education 4. Professional trainers 5. Sport for disabled persons	Ministry of Sport and Tourism
11. Communications	Telecommunications and postal issues	Ministry of Infrastructure
13. Science	Scientific matters, including research and development	Ministry of Science and Higher Education

Table 3.1. **Sections and ministries' competences** (cont.)
Ministries involved in policy making according to the competences granted by sections of administration

Section ¹	Competences ¹	Ministries responsible
15. Education	<ol style="list-style-type: none"> 1. Education, instruction and physical recreation of youth and children, with the exception of matters reserved for the competence of other public administration bodies 2. Children's and youth organisations, including the system of co-financing the state's tasks carried out by these organisations 3. Granting substantial assistance to children and youth 4. International co-operation of children and youth 	Ministry of National Education
16. Labour	<ol style="list-style-type: none"> 1. Employment and counteracting unemployment 2. Employment contracts and work conditions 3. Remuneration and employee benefits 4. Collective employment contracts and collective litigations 5. Trade unions and employer organisations 	Ministry of Labour and Social Policy
18. Rural development	<ol style="list-style-type: none"> 1. Shaping the state's agricultural system 2. Protection of areas intended for agricultural use 3. Land consolidation and exchange, soil classification of land and division and distribution of property in rural areas 4. Rural infrastructure, in particular: <ol style="list-style-type: none"> i) Melioration, within the scope of matters not covered by the "water management" Section, supply of rural areas and agriculture with water and wastewater and waste management ii) Provision of electricity and gas within the scope not covered by the "economy" Section and installing telephones in rural areas within the scope not covered by the "communications" Section iii) Agricultural technical works on State Treasury land 8. Development of entrepreneurship, in particular building up professional qualifications, support for non-agricultural forms of professional and economic activity of rural residents 9. Farmers' social insurance 	Ministry of Agriculture and Rural Development
18 a. Regional development	<ol style="list-style-type: none"> 1. Programming and co-ordination of development policy, in particular drafting development strategy documents 2. Programming and implementation of development policy 3. Preparation of programme documents covering socio-economic development, including those that are the basis for obtaining development-related funds from the European Union and other international sources 4. Implementation, unless otherwise specified by the act, of the commitments of the member state set forth in European Union legislation concerning Structural Funds and the Cohesion Fund 5. Preparation of analyses and forecasts concerning socio-economic development, regional and spatial development, including a report on socio-economic, regional and spatial development of the country 6. Issuing opinions concerning the compliance of government development strategies and programmes with legislation on the administration of development policy, as well as with medium-term national development strategy 7. Managing programmes co-financed under Structural Funds and the Cohesion Fund, including sectoral operational programmes, with the exception of programmes managed by <i>voivodship</i> authorities and by the Minister for Rural Development and the Minister for Fisheries 8. Concluding and monitoring the implementation and settlement of <i>voivodship</i> contracts 9. Co-operation with territorial self-government units and organisations associating these units, as well as socio-economic partners within the scope of socio-economic, regional and spatial development of the country 10. Co-ordination, preparation of regional operational programmes by <i>voivodship</i> self-governments, conclusion of regional programme agreements and monitoring and assessment of their implementation 	Ministry of Regional Development
21. Higher education	<p>Covers higher education matters including those set forth in separate provisions concerning supervision of higher education institutions and financing education in higher education institutions.</p> <p>The Minister for Higher Education co-ordinates the recognition of qualifications in regulated professions and activities and takes actions disclosing information on the recognition of these qualifications.</p>	Minister of Science and Higher Education

Table 3.1. Sections and ministries' competences (cont.)
Ministries involved in policy making according to the competences granted by sections of administration

Section ¹	Competences ¹	Ministries responsible
22. Transport	<ol style="list-style-type: none"> 1. Functioning and development of transport infrastructure, including construction, modernisation, maintenance and protection of public roads and motorways, along with railways, aerodromes and airports, as well as inland waterways 2. Road, rail and air transport as well as inland shipping transport 3. Transportation of passengers and goods by road, rail, air and inland waterways 4. Public transport 	Ministry of Infrastructure
23. Environment	<ol style="list-style-type: none"> 1. Protection and shaping of the environment and rational use of its resources 2. Landscape protection, including national and landscape parks, natural reserves, and the protection of plant and animal species, forests, wild animals and other natural elements protected by law 3. Geology 4. 4) Managing natural resources 5. 6 Controlling compliance with environmental protection requirements and analysing the condition of the environment 6. 7 Forestry 7. 8 Protection of forests and forest land 	Ministry of Environment
23 a.Family affairs	<ol style="list-style-type: none"> 1. Development and protection of the institution of marriage, children and family 2. Government programmes for supporting families, in particular families in difficult financial and social situations, as well as single-parent families and of families with a large number of children 3. Addressing pathologies and discrimination in a family 4. Demographic conditions 5. Co-ordination and organisation of co-operation between public administration bodies, non-governmental organisations and institutions with responsibility for the rights of the family, children and elderly persons requiring assistance 6. International co-operation on exercising and protecting the rights of the family, children, youth, women, men and elderly persons 	Ministry of Labour and Social Policy
24. Internal affairs	<ol style="list-style-type: none"> 1. Protecting safety, security and public order 2. Protecting the state's borders, border traffic control and foreigners, as well as co-ordination of actions relating to the state's migration policy 3. Contingency management 4. Civil protection 5) Fire protection 6. Counteracting the effects of natural disasters and events threatening general safety 7. Supervision of mountain and water rescue services 8) Citizenship 9. Population register, personal identification documents and passports 10. Registration of marital status and name changes 	Ministry of the Interior and Administration
26. Social security	<ol style="list-style-type: none"> 1. Social insurance and social security 2. Pension funds 3. Social assistance and family benefits 4. Social benefits, employment, social and professional rehabilitation of disabled persons 5. War veterans 6. Co-ordination of social security systems, except for material medical benefits 7. Public interest activity, including supervision over such activity by public interest organisations, with the exception of supervision over the activity relating to rescue and protection of persons 	Ministry of Labour and Social Policy
28. Health	<ol style="list-style-type: none"> 1. Health protection and rules for the organisation of health care 2. Supervision of pharmaceutical products, medical devices and biocidal products, as well as cosmetics, as regards human health and safety 3. Organisation and supervision over the State Emergency Medical Services 4. Medical professions 5. Sanitary conditions and sanitary supervision, with the exception of supervision of food products covered by the "agriculture" Section, co-ordination of food safety, and in particular supervision of the sanitary conditions in food production, marketing of food and materials and products intended for contact with food 6. Genetically modified organisms and the issue of permits for marketing new food and pharmaceutical products 7. Treatment at health resorts 8. Co-ordination of social security systems as regards material medical benefits 	Ministry of Health

1. Section and competences order according to the Act of 4 September 1997 on government administration sections.

Source: OECD, with data from the Ministry of Regional Development.

This atomisation of administrative mandates across a wide range of central ministries with jurisdiction over urban issues, typical in many OECD countries, is not always compatible with an effective, coherent, multi-sectoral approach to urban development. In Poland, this is exacerbated by the current state of inter-ministerial relations across the central government, which are characterised by poor linkages and a legal framework that may actually hinder co-ordination. For instance, for coastal cities, it is important to integrate maritime and terrestrial activities by making sure that infrastructure is provided to enhance complementarities between the two. For the city-region of Gdańsk for example, this interaction in spatial planning is crucial not only for sustaining the urban area's competitiveness over the long term but for residents' everyday life. Yet, in developing maritime plans, there is no legal or policy requirement to take into consideration either the National Spatial Development Plan or the regional spatial development plans. Polish law or spatial policy does not require maritime development planning to be taken into consideration when developing their terrestrial counterparts. For horizontal co-ordination, the National Spatial Development Plan would need to encompass sea and terrestrial space. Both maritime and terrestrial planning should simultaneously be developed by, or in co-operation with, the two groups of planners (Cieślak and Zaucha, 2010). In the same vein, given the increasing importance and impact of cities on the environment, co-ordination with the Ministry of Environment is crucial for issues including climate change adaptation; mitigation strategies; environmental conservation; and innovation strategies aimed at "greening" economic growth.

At the sub-national level, the current inter-governmental institutional framework can be described as follows (Table 3.2):

- At the local level, *gminas* (municipalities) are the basic and older layer of regional government. They are responsible for such competences as spatial order, infrastructure, public-service delivery, transportation, health and social services, housing and education, among other things.
- *Powiats* (counties) and *voivodships* (regions) were created in 1999. One reason for this innovation was to prepare regional governance structures to match EU standards so that EU Structural Funds and report statistics could be managed at a meaningful territorial scale, using the NUTS system. At the same time, many of the *voivodes'* attributions were transferred to self-governments, thus rebalancing power and competences between *voivodes* and the territorial self-governments (see below). Territorial self-governments became thereafter the higher regional government entity, with the mandate to foster economic growth and improve competitiveness and innovation, among other development tasks.
 - A *powiat* is a part of a larger unit within a *voivodship*, and a supplementary local government covering the territory of two or more *gminas*, and carries out tasks of a supra-regional character. However the most important cities and towns function as separate counties and are not sub-divided into *gminas*. These are also called urban counties (*powiaty grodzkie* in Polish), or more formally, "cities with the rights of a *powiat*". There are 65 such urban counties, where *gminas* are assigned tasks and competences of *powiat*s that are carried out by the councils and mayors of those cities.
 - *Powiat* status was awarded only once to cities: those agglomerations that, on 31 December 1998, had populations of more than 100 000 inhabitants. These were

the former capitals of the 49 old *voivodships*, and those cities that were awarded *powiat* status after the first administrative division of the country. As a result only some of the cities with populations of 50 000 to 100 000 were given *powiat* status, which had important consequences for the management of cities of similar size that did not benefit from the rights and responsibilities assigned to *powiats*. As a consequence, there are large urban *gminas* (cities), even larger sometimes than cities with *powiat* status, that are managed in a different way – in the way all other urban *gminas* are.

- *Powiats* have relatively limited powers, since many local and regional matters are dealt with either at the *gmina* or *voivodship* level. Some of the main areas in which *powiat* authorities have decision-making powers and competences include: education at the high school level, health care, public transport, maintenance of certain roads and land surveying.
- At the regional level, the *voivode* is the representative of the Council of Ministers in the territory of the *voivodship*, and as such the head of the combined government administration within that region. *Voivodes* have a supervisory role over territorial self-governments – elected directly by citizens – controlling the legality, efficiency and reliability of their tasks. *Voivodes* adjust policy objectives by the Council of Ministers and government detailed objectives to local conditions. They also perform the key role of ensuring co-operation among all government and self-government administration bodies.
- *Self-governments* in the regions are elected directly by their citizens and are divided into a decision-making body (the *Sejmik*) and an executive body (the *Voivodship Board*). These governments are responsible for establishing a development strategy and a spatial development plan. Co-ordination between the *voivode* and the self-government ensures that these *voivodship* plans and strategies are in line with the national strategy for development and are implemented through the *voivodship* and the regional operational programmes. The 1998 Act on *Voivodship Self-Government* provides the framework and indicates the areas of development into which tasks can be set by *voivodships*; these can fall within the scope of health, education, culture, social assistance, spatial development, environment, water, public transport and roads among others.
- Counties and municipalities' government structures are essentially identical to those of the *voivodship*, regarding the decision-making and executive bodies that constitute them. That said in 2002, municipality executive bodies were made subject to single-person direct elections. These bodies are therefore accountable to the local electorate in a way that the *powiat* or *voivodship* management boards are not. In any event, counties and municipalities with county status are commanded by the 1998 Act on *Powiat Government* to prepare a programme for crime prevention and public safety, as well as a programme to tackle unemployment and stimulate the labour market. Every urban county is an urban municipality that has been granted the county programming competences that have been described. According to the Ministry of Regional Development (2010b), the benefit of granting *powiat* status to a city of more than 100 000 people is precisely its programming capacities. However, this status was only granted to cities of such size by 1998 with no further revisions to include cities that had reached them.

Table 3.2. **Territorial organisation and allocation of responsibilities among layers of government**

State territorial administration		Sub-national governments	
<i>Main competences</i>		<i>Main competences</i>	
16 <i>voivod</i> offices (prefectures)	<ol style="list-style-type: none"> 1. Represents the Council of Ministers within the territory of the <i>voivodship</i>. 2. Heads the combined government administration within a <i>voivodship</i>. 3. Administers the combined government administration within a <i>voivodship</i>. 4. Has supervisory authority over territorial self-government bodies and their associations as regards their legality. 5. The body of government administration in a <i>voivodship</i>, whose competence stretches over all matters within the field of government administration within the <i>voivodship</i> not specified in separate acts as the responsibility of other bodies. 6. The representative of the State Treasury within the scope and pursuant to the rules set forth in separate acts. 7. <i>Voivode</i> controls the legality, efficiency and reliability of tasks carried out by territorial self-government bodies within the field of government administration, implemented by those bodies on the basis of the act or agreements concluded with government administration bodies 8. Implementation of the Council of Ministers' policies in the <i>voivodship</i>, in particular: <ul style="list-style-type: none"> – Adjusts the objectives of the Council of Ministers policies to local conditions, and within the scope and under the rules set forth in separate acts, co-ordinates and controls the implementation of tasks resulting from them. – Ensures co-operation of all government and self-government administration bodies operating within the <i>voivodship</i> and manages their activities as regards preventing threats to life, health or property of citizens and environmental hazards, state security and maintaining public order, protection of citizen rights, as well as preventing natural disasters and other exceptional dangers and counteracting and mitigating their effects, pursuant to the provisions of separate acts. – Adjusts the detailed objectives of government policies to local conditions, and within the scope and under the rules set forth in separate acts, co-ordinates and controls the implementation of tasks resulting from them. – Assesses the level of flood protection of the <i>voivodship</i>, prepares a flood protection contingency plan and declares and cancels flood emergencies and alarms. – Implements and co-ordinates tasks regarding the defence and security of the state and contingency management resulting from separate acts. – Presents to the Council of Ministers, through the Minister for Public Administration, drafts of government documents referring to <i>voivodship</i> matters. – Carries out other tasks specified in separate acts and identified by the Council of Ministers and the president of the Council of Ministers. 	16 regions (<i>voivodships</i>)	<p>Tasks related to <i>voivodship</i> matters, especially within the scope of:</p> <ol style="list-style-type: none"> 1. Public education, including higher education 2. Health promotion and protection 3. Culture and protection of its goods 4. Social assistance 5. Pro-family policies 6. Rural area modernisation 7. Spatial development 8. Environmental protection 9. Water management, flood protection, maintenance and storing of flood equipment 10. Collective transport and public roads 11. Physical culture and tourism 12. Consumer rights protection 13. Defence powers 14. Public safety 15. Counteracting unemployment and stimulating the local labour market

Table 3.2. **Territorial organisation and allocation of responsibilities among layers of government**

State territorial administration	Sub-national governments
	<p>314 counties (<i>powiats</i>)</p> <p><i>Powiats</i> fulfil public tasks of supra-regional character, including:</p> <ol style="list-style-type: none"> 1. Public education 2. Health promotion and protection 3. Social assistance 4. Pro-family policies 5. Support for disabled persons 6. Collective transport and public roads 7. Culture and protection of cultural values 8. Physical culture and tourism 9. Geodesy, cartography and cadastre 10. Real estate management 11. Architecture and construction administration 12. Water management 13. Environmental and natural protection 14. Agriculture, forestry and inland fisheries 15. Public order and safety 16. Flood protection and disaster management 17. Combating unemployment and stimulating the local labour market 18. Protection of consumer rights 19. Maintenance of public utility and administrative buildings and factories 20. Defence 21. Promotion of <i>powiats</i> 22. Co-operation with NGOs
	<p>2 478 municipalities (<i>gminas</i>)</p> <p>The scope of <i>gmina</i> responsibilities covers all public issues of local character that are not reserved for other entities, in particular:</p> <ol style="list-style-type: none"> 1. Spatial order, real estate management, environmental protection, water management 2. <i>Gminas'</i> traffic infrastructure (roads, streets, bridges, traffic management) and squares 3. Water and waste management, electricity, gas and heating 4. Public transport 5. Health protection 6. Social assistance 7. Housing in <i>gminas</i> 8. Public education 9. Culture (libraries, etc.) 10. Tourism and recreation 11. Markets and market halls 12. Green areas and forestation 13. Cemeteries 14. Local police, fire, and disaster management, including fire and flood protection 15. Maintenance of public utility and administrative buildings and facilities 16. Pro-family policies, including social, medical and legal protection for pregnant women 17. Support for and dissemination of the self-government concept 18. Promotion of <i>gminas</i> 19. Co-operation with NGOs 19. Co-operation with local and regional communities in other countries

Source: Ministry of Regional Development.

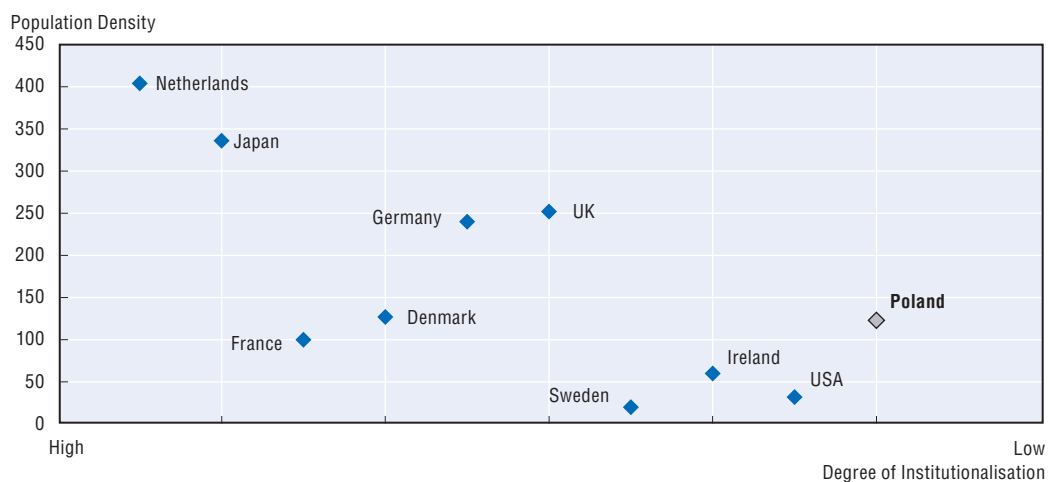
- Poland's political history over the last century has led to significant recent decentralisation, which has itself generated multi-level co-ordination challenges. The current system has a strict division of competences between the three levels of self-government described above. For instance, education in *gminas* covers kindergartens, elementary schools and gymnasiums, while the *powiat* covers high schools. The *voivodship* only covers special care schools. Similar conditions obtain in such areas of administration as health protection, welfare and public safety. Yet this process of government reform since the fall of communism has created a new balance of power between the central government and regionally elected governments.
- This can be a welcome development. In many OECD countries, the system of checks and balances instituted after the decentralisation of unitary states, or indeed, built into regionally diverse federations like the US and Canada, often generate new ideas and fresh starts. Inter-governmental tension and friction between upper and lower houses of assembly (based on popular or regional representation) or between the executive and legislative branches within a single tier of government provides creative energy. In Poland, rapid decentralisation has generated a number of challenges:
- Recent legislation in many areas has given local governments generous mandates, in many cases without the concomitant financial resources to carry them out which as will be developed later requires new sources of local revenue.
 - For instance, as a result of the decentralisation process of 1998, *voivodships* were granted greater policy responsibilities but no financial tools to support them; even today, *voivodships* still have no statutory or policy-based taxing authority.
 - Although decentralisation gave municipalities (*gminas*) competences for urban planning, finding the financial resources to undertake a comprehensive revitalisation policy remains a central issue. Derelict land in inner cities and brownfield redevelopment, for example, are among the more costly urban issues. These are being tackled through financing from the European Union (EU) and central government resources and highlight the need for co-ordination between local actions and central and supranational financing.
 - There are some examples of challenges associated with the allocation of competences between sub-national governments, particularly in health and transportation. For instance, although municipalities' competences are different from those of counties, responsibilities in health care delivery and public transport are ambiguous. The two lower levels of government each have their own competences that are not circumscribed by those of the *voivodship*, although co-ordination is supposed to take place between these two levels of government. This reduces policy coherence and co-ordination in delivering programmes and services in functional metropolitan areas.
- **Horizontal co-ordination among urban municipalities** belonging to a same functional area is uncommon even when incentives are in place. For example, the lack of incentives for local governments to co-operate on transit services can also prevent them from providing effective public transport to cover their own functional area. Poland's 306 *gminas*, or urban municipalities, tend to be surrounded by adjacent rural municipalities, often with the same name, whose residents live and work within the same functional region. Yet these functional regions differ from the 597 urban-rural municipalities because their functionality is artificially divided; co-ordination on local development issues is complicated by this administrative division. The 597 urban-rural

municipalities are not as subject to such co-ordination problems, because their status more closely reflects their functional area.

From a comparative perspective, Polish national policies on urban development are less institutionalised than in other OECD countries, despite recent efforts to strengthen them. An assessment based on a study of ten OECD countries (Alterman, 2001) evaluated the degree to which these countries have developed effective governance mechanisms on the national level to design, co-ordinate and implement urban policies effectively. National planning is often thought to be necessary in areas of high population density, and countries with the highest level of national planning are often also the densest. However, Alterman (2001) concludes that density does not necessarily correlate with a country's attention to national urban policy. Some high-density countries, such as Belgium, show a low degree of institutionalisation. More significant for Poland is the finding that low density does not justify an absence of national urban policy making. France has a population density similar to Poland's (114 compared with 120 per square kilometre), yet its national planning is considerably more institutionalised (Figure 3.1). Ireland, a country with a low population density, has recently strengthened its national planning. In some ways, Poland's national urban policy making, in terms of the degree of institutionalisation, is even weaker than in the US, which is notorious for its inadequate national spatial planning and the resulting chronic sprawl and urban and ex-urban development (Kayden, 2001). Yet even in the US, an increasing number of states have developed state-level planning in recent years to combat the sprawl and urban unsustainability that arises from the excessive autonomy of local governments (Boyle and Mohamed, 2007). Because urban planning powers are conferred on municipalities and are either absent or weak at the regional and national levels, institutionalisation of urban policy is limited in Poland. At present, Poland is considering releasing a national urban policy framework through the

Figure 3.1. **Degree of institutionalisation in a selection of OECD countries**

Using population density and institutionalisation



1. Degree of institutionalisation is a relative measure based on comparative readings of country reports and consultations as presented in Alterman (2001).
2. Degree of institutionalisation was determined using criteria such as: i) formal plans reflecting national-level spatial planning; ii) comprehensiveness of such plans; iii) regulation to approve of such plans; iv) effectiveness of legal, administrative or financial powers to implement these policies.

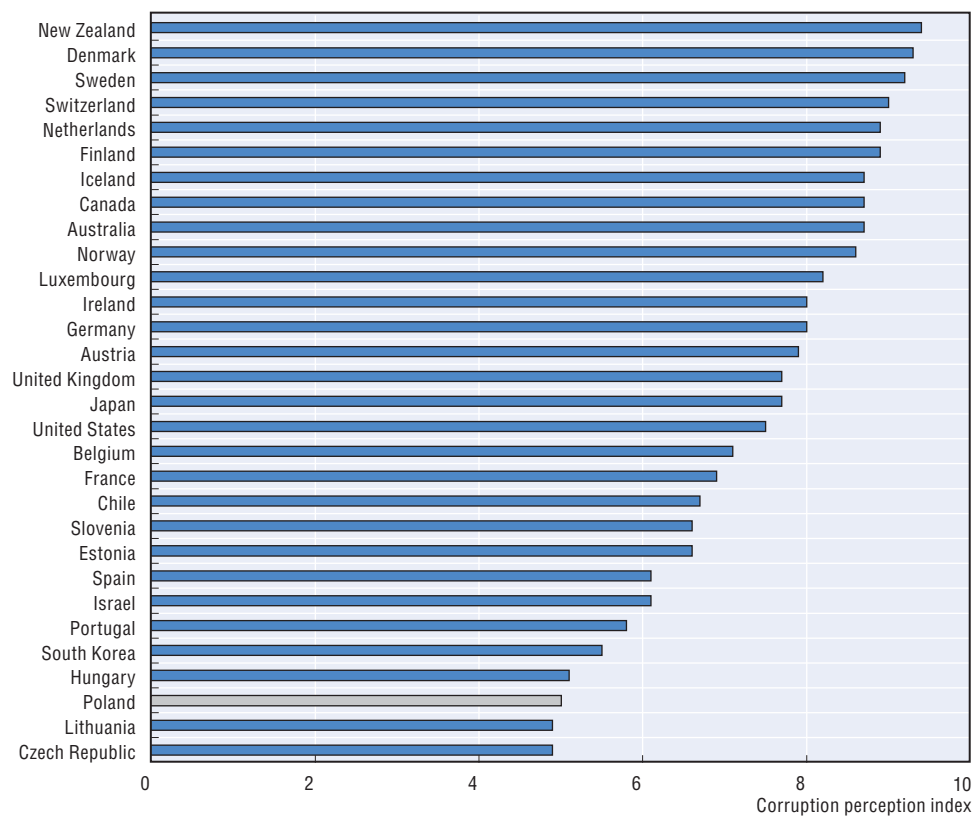
Source: Alterman, R. (2001), "National-Level Planning in Democratic Countries: A Cross-National Perspective", in R. Alterman (ed.), *National-Level Planning in Democratic Countries: An International Comparison of City and Regional Policy-Making*, Liverpool University Press, UK.

National Spatial Development Concept that could correct that. The recently adopted National Regional Development Strategy should also facilitate this process.

One strikingly positive attribute of Polish government institutions – national, regional and local – is their steep learning curve towards good governance. This trend draws on several sources of strength:

- The good governance and planning conditions attached to the EU project funds, while not yet integrated into broad practice, are an overall asset. They have accelerated the Polish learning process by providing models regarded as “good practice” in the EU. In the 1990s, some Western European countries were also confronted with similar EU requirements that did not resonate with their existing modes of national level governance. For example, in Ireland, the EU demand initially encountered an absence of national spatial policies, but then stimulated such policy making (Bannon and Russell, 2001).
- Many Polish decision makers and professionals are fast learners. One indicator is Poland’s distinct progress on the international Corruption Perception Index (CPI). Poland’s score and position is lower than most other OECD member countries on the index, but midway among the transition countries and making fast progress (Figure 3.2).¹ Of course, degree of corruption is not the only factor that distinguishes modes of governance. Not all governance regimes that are likely to be ranked as “best practices” would also score the highest on the corruption index. For example, Germany is probably regarded as exemplifying good models of governance, yet its CPI ranking was only 14th in 2009 and 15th in 2005. The converse, however, is always true. A country with a low index also has a poor governance record. Institutions without sufficiently transparent and accountable decisions and without strong norms of compliance with the law can never emulate good governance. In 2005, Poland scored 3.5 (the maximum score was 9.7 for New Zealand). Eight transition countries scored higher: Estonia, Slovenia, Hungary, Lithuania, the Czech Republic, Bulgaria, Latvia and the Slovak Republic. By 2009, Poland was already scoring 5.0 and had bypassed all but the first three countries on the above list, placing it 49th worldwide. Most importantly, Poland is on a positive gradient in this regard.

Poland, however, faces a planning paradox. Strategies, plans and visions for spatial development in Poland, along with co-ordination mechanisms, are present on paper, yet their impact is limited. The capacity to benchmark progress in policy outcomes is also hampered by a lack of metropolitan-level data and indicators. A number of national policy reports fully address planning at the national level; at least, that is their stated purpose. Their titles contain terms such as “strategic”, “framework”, “vision”, “plan”, and a combination of these appear in the “National Strategic Reference Framework” (see Chapter 2). Some of the documents take a long-range perspective, others a mid-term or short-term perspective. All deal with issues related to aspects of urban and regional policies. In addition, the state-of-the-art mechanisms for co-ordination and implementation already embodied in the law indicate a country with a sophisticated spatial planning capacity. For instance, a special law establishes responsibilities for policy making and horizontal co-ordination on the national level. The Prime Minister himself is authorised to co-ordinate the decisions of the various relevant ministries (Article 11 (1) of the Act of 6 December 2006 on the principles of development policy making). The Minister of Regional Development is specifically charged with co-ordinating and shaping

Figure 3.2. **Corruption Perception Index in a selection of OECD countries, 2009**

Source: Transparency International (2009), www.transparency.org/policy_research/surveys_indices/cpi/2009/cpi_2009_table.

development policy. The law also provides for a Co-ordinating Committee for Development Policy (CC). On paper, the committee appears to be an ideal national policy-making and co-ordinating body. It is situated at a high level, in the Chancellery of the Prime Minister, and it includes the eight most relevant ministers. The committee “aims at ensuring efficient co-ordination of development policy programming and implementation, as well as strategic monitoring and assessment of the instruments of its implementation” (Ministry of Regional Development, 2010b). Vertical co-ordination mechanisms are also provided for in the legislation.

However, an apparent disconnect exists between the highly advanced planning concepts presented in the various framework documents and the current state of spatial planning and territorial governance on the ground. This may stem from three inter-related issues in Poland’s current approach to territorial governance:

- Like other countries that have emerged from a centrally planned, top-down system of government, Poland’s governance pendulum seems to have swung from one extreme (a highly centralised administrative culture that the public did not support) to the other (a decentralised governance fraught with inconsistencies and overlapping mandates, along with significantly constrained financial resources to carry them out). When the former powers of the central government under communism were dismantled after 1989, regional self-government gained momentum. These central institutions have not yet fully redefined their role, nor do they appear to have earned a critical mass of public

support. Conversely, because of Poland's political history, regional self-government bodies appear to command more public support than the central government. The introduction of a national urban policy will need to take account of public scepticism regarding government in general if it is to be successfully implemented.

- The crafting of most of the institutional and planning documents noted above seems to have been driven more by EU funding requirements than by home-grown needs as expressed by key local, regional and national actors. Indeed, this policy development process began only after Poland entered the EU in 2004. The institutional learning curve is therefore quite recent. To be eligible for the various EU programmes, Poland, like other EU countries, had to demonstrate that it had undertaken adequate long and mid-term planning and established the proper institutions for its implementation. To date, this layer of planning, and the governance institutions associated with it, have remained superficially engaged, without being truly integrated into administrative culture and put into practice. The genuine efforts of the Polish government and the exemplary planning initiatives of the Ministry of Regional Development are as yet insufficiently embedded in the rest of Polish administrative culture and governance institutions. Furthermore, it is possible that EU funding will decline as Poland's economy improves and as other East European countries become eligible for accession to the EU.
- Transparency, accountability and civic society engagement were not hallmarks of pre-1989 Poland. While Poland's current governance institutions and political value set are gradually adopting these norms, there is some way to go before Poland can compare favourably with most of the other OECD member states.

Locally driven competition between administrative units in a single functional area can become counterproductive. As is typical in many countries experiencing decentralisation, co-ordination capacity at the local and regional levels in Poland has had to undergo substantial adjustment, and effective mechanisms of co-ordination among layers of governments are still needed. The result is highly fragmented decision making on transportation routes and services and housing (all of which are inherently urban), revitalisation plans for city centres and integrated urban economic development, as well as region-wide environmental conservation.

The co-ordination issue at the sub-national level is particularly acute in the field of planning. Poland has experienced a rapid shift of control over urban space. Local governments quickly took on responsibility for a number of policy areas previously handled by the central government, and were unprepared to deal with an increasing number of actors and interests (Węclawowicz, 2005). In addition, although planning was finally allowed at the local level, it has become a complex mix of planning and strategy-making tools, requiring effective co-ordination. "The Spatial Development Act of 1994 equipped local authorities with two legal planning tools: local spatial plans and strategic plans" (Węclawowicz, 2005). Local planners now need to develop local spatial plans, strategic plans and economic development plans. In practice, co-ordination of strategies and plans does not necessarily take place, despite the Voivodship Contracts intended to create budgetary incentives for local (*gmina*) initiatives that are aligned to regional (*voivodship* level) objectives.²

Co-ordination at the local level for managing urban and economic development initiatives is in practice difficult to achieve. A lack of binding national spatial planning policies has weakened efforts to integrate municipal planning across sectors. It is also

difficult to harmonise and to co-ordinate planning and policies with municipalities in the same functional urban area or between municipalities and regions. The current Spatial Planning and Spatial Development Act does provide a framework for the development of municipal-level spatial plans and their co-ordination with regional-level plans. However, the act does not require or provide incentives for municipalities in the same functional urban area to co-ordinate spatial planning, and its provisions for co-ordination of regional plans with municipal plans are not enforced. The resulting lack of co-ordination of spatial plans complicates economic development, public services and housing planning. In Lublin, for instance, the central municipality in the larger functional area has developed a spatial development plan, but a lack of spatial-planning co-ordination with neighbouring municipalities has led to a rash of housing construction in the suburbs, undermining Lublin's plan and increasing congestion on main axis roads.

Reforms resulting in greater decentralisation in economic development have also fallen short by failing to give sub-national governments the autonomy to engage in Foreign Direct Investment (FDI) attraction. Most importantly, they have not provided for the central government to co-ordinate FDI attraction efforts by regions. The main goal of the National Strategy for Regional Development (2001-06) was to increase regional competitiveness, yet responsibility for marketing strategies to attract FDI remained with the central government, leaving local authorities passive in terms of promoting and marketing their specific strengths and assets to attract foreign investment. For instance, Upper Silesia's Metropolitan Association in southern Poland would be interested in addressing such economic development issues as FDI attraction, economic planning and special economic zones. However, these issues are set out, planned and administered by the central authorities, depriving them of this possibility. At the same time, if regions do become more active, the central government should nevertheless play a co-ordinating role. Regions compete for FDI regardless of whether they have the necessary direct instruments, such as fiscal incentives; they are competing on the basis of land, infrastructure and local regulation mechanisms. In many cases, when such competition is not co-ordinated at the central level, a "race to the bottom" erodes some of the benefits of FDI. This is particularly the case at present, since EU state aid rules make it difficult for national governments to offer direct subsidies to firms. Regional governments are bound to play an increasingly active role in promotion, but the co-ordinating role of the central government would be key to successfully attract FDI and its benefits.

Sustaining regional co-ordination in the form of a national urban policy could also help reduce confusion over the overlapping mandates to sub-national authorities, which complicates planning and service delivery in certain policy areas. For instance, *voivodships*, counties and municipalities are all responsible for education, health, social services, transport, water and the environment. Obviously, the attributions are based on territorial boundaries. However, many of these policy areas imply the need for effective vertical and horizontal co-ordination, since all levels of government have competences over these areas in a given regional territory. National, regional and municipal roads, for example, exist across the OECD, but legal provisions for instruments to co-ordinate their administration are apparently missing in Poland. Ultimately, in an extreme case, as the result of a lack of inter-municipal co-ordination, a given municipality (*gmina*) could refrain from building or refuse to continue construction of a road that a neighbouring *gmina* had built to link the two communities.

3.2. Encouraging co-ordination across governments

Horizontal governance addresses the relations between administrative centres within the same tier of government that are operating in a given regional territory. This can mean inter-municipal co-ordination within a single functional metropolitan area, to enhance planning and service delivery to the entire population. In the metropolitan area, horizontal co-ordination across ministries within the central government can maximise the coherence of state interventions at the national level, or it can mean maximising the effectiveness of the regional tier of government by increasing intra-regional co-ordination. This section addresses each of these elements in turn.

Strengthening inter-municipal co-ordination within a functional urban area

City administrative boundaries in Poland, like those in most countries, do not correspond to functional urban areas and thus require effective co-ordination mechanisms to ensure efficient planning and service delivery to the inhabitants. One of the most successful metropolitan planning projects in Poland has been developed in Wrocław, the third largest ULMA in Poland (Box 3.1).

Large inflows of EU Structural Funds into Poland call for effective ways of co-operating between neighbouring municipalities, if only to ensure equity of treatment in a given functional area across the administrative units that receive them. Polish municipalities are the largest recipients of EU funding (they received 44% of total European funding in 2004-06). This suggests that in addition to the practical necessity of ensuring an equitable sharing of EU funds, inter-municipal co-ordination is needed to enhance the potential to achieve the region-wide policy outcome that EU structural investments aim to achieve. During the 2007-13 period, municipalities will need to learn how to co-operate efficiently in order to perform an even wider variety of tasks (including road construction; the refurbishment of historical monuments; the management of professional training programmes, and the setting up of technological clusters). So far, however, one stretch of road that was rehabilitated with EU Structural Funds stops right at the border with the neighbouring municipality (Dabrowski, 2007).

The Polish government has introduced a number of pieces of legislation to tackle the inter-governmental co-ordination issue. Sub-national governments can work together in three ways: by setting up a syndicate; by signing an agreement; and by setting up an association (OECD, 2008c). For example, syndicates mainly focus on joint service delivery, such as public transportation (as in the Upper Silesia industrial region) and water supply or waste removal (common in rural areas); associations collaborate on the construction of utility infrastructure (*e.g.* water and sewage systems). Under this legal framework, there are a number of examples of inter-municipal co-operation in urban areas in Poland, but with limited impact or which face significant implementation obstacles. For instance:

- The **city of Lublin** in eastern Poland has established links with neighbouring Ukrainian cities through technical advice to administer EU funds and through university links with Kiev, but they are still unable to agree on planning or service provision locally with neighbouring municipalities. They are also members of the Polish Network of Metropolises, the Association of Polish Cities and of the Eurocities Network. They have also established partnerships with cities in Europe such as Alcalá de Henares (Spain), Munster (Germany), Nancy (France) or Tilburg (Netherlands), and with cities in other parts of the world such as Erie, Michigan (US), Rishon le Zion (Israel) or Windsor, Ontario

Box 3.1. Wrocław's successful metropolitan planning

Wrocław is one of Poland's most dynamic cities, with a multi-cultural history and a tradition of openness. Originally a Prussian and later a German city, Wrocław was historically a centre for trade and knowledge, and the University of Wrocław was one of the most important in Germany. However, its population came at that time from eastern regions now part of Ukraine, and with such an inflow of people enlarging the labour market, Wrocław became an important industrial city, surrounded by vast coal mines.

Wrocław has become a front runner of economic development. It is now also an important transport hub at the intersection of three international routes, with two major railway stations, two river ports and an international airport. It is nearly equidistant from Berlin, Prague and Warsaw. Its favourable geographical position has attracted FDI, especially in ICTs, and its location on the A4 motorway linking Wrocław with Germany and two other major Polish metropolitan areas (Katowice and Krakow) has been crucial. Wrocław has attracted a number of leading multi-national companies (Volvo, LG, Toyota, Whirlpool, Electrolux, etc.), and some have decided to establish R&D or services facilities (Siemens, Capgemini, Hewlett-Packard, Macopharma). Around 27% of the almost 93 000 registered firms in Wrocław (2006 data) are companies with foreign capital, ranking it second after Warsaw, in terms of size of investments. It is also the second-largest centre of financial services in Poland and hosts many of the leading domestic IT firms, which further raises its attractiveness for investors. Since Poland joined the EU in 2004, Wrocław has attracted more than EUR 5 billion, and the rate of unemployment in the city has fallen from nearly 4.7% in 2007. In recent years, more than 120 000 jobs have been created.

Wrocław has set up one of the most successful metropolitan planning frameworks. At the end of the 1990s, after a fruitful public debate, a Committee for a Strategic Plan for the Wrocław Agglomeration emerged in Oleśnica, a suburb of Wrocław, and in the same year, the Group for the Strategy of the Agglomeration Development was established. Both bodies are located within Wrocław City Hall, in the Wrocław Development Office, and their creation was closely associated with Poland's accession to the EU. The major task of this office was to elaborate and finalise the Spatial Development Plan for the city of Wrocław, which was proposed in 2005 and accepted for the current programming period. The committee meets to discuss issues such as spatial planning and housing, education, public transport and communication, financial issues, labour market, tourism and recreation, health services and social policy, as well as environment protection and agriculture. Projects related to the Strategic Plan are negotiated with the Wrocław Development Office. This metropolitan organisation can be considered a success for several reasons: i) its informality privileges partnership and co-operation between different actors; and ii) according to some observers, a "common regional conscience" and a strong identity among all the participants emerges. However, the *voivodship* is not included in this co-operation framework.

(Canada). Yet locally they struggle. Lublin has signed around ten agreements with other municipalities for education and day care. However, pressing issues where inter-municipal collaboration is needed (crime, waste management, water and sewage, transport and inter-municipal transport infrastructure) are still pending. In Warsaw, the situation is not very different. The city has established co-operation agreements with surrounding municipalities for water and sewage or to develop a single metropolitan

transport ticket and to co-ordinate train schedules. Yet, urban sprawl continues, due to lack of spatial planning co-ordination at metropolitan level.

- The **city of Poznań** operates bus lines to which neighbouring municipalities contribute financially. This is also probably the only urban area that has successfully launched public-private collaboration. Water and sewage is provided by a private company in which the City of Poznań and nine neighbouring municipalities participate, and public-private partnerships (PPPs) are being used to develop infrastructure. In education and housing, co-ordination is weaker, because there is no mechanism to foster co-ordination apart from sectoral and project-based voluntary approaches. Housing and environmental protection are particularly important issues, since only local development plans can protect green areas from housing development and urban sprawl, and co-ordination mechanisms and appropriate incentives need to be explored.
- In **Upper Silesia**, a metropolitan association was created in 1992, and since 1999, a number of counties and urban municipalities in the Katowice region have joined it. The association has managed to develop co-ordinated local plans, support the creation of a single public transport card for the urban area and produce agreements for waste management. However, its 14 member municipalities account for only two-thirds of the urban functional area. It also faces financial constraints, because there is no Metropolitan Act for financing a Metro Authority. Enlargement of the association to cover other municipalities in the urban area is also held back by legislation that requires members to have county status. Financing is problematic for the Upper Silesia inter-municipal co-ordination model. Although the urban area has multi-annual projects, local government financing is annual, which complicates their administration. Even if agreements are reached at the urban functional level, municipalities are able to default with no legal consequences. Furthermore, there is currently no provision to make use of this mechanism to foster public-private co-operation, which could help address such pressing issues such as ageing, migration and industrial decline.

Although Polish legislation introduced voluntary mechanisms for inter-municipal collaboration, no specific financial incentives currently exist to encourage it. Thus, although 60% of municipalities are engaged in some kind of inter-municipal collaboration, voluntary co-operation between local self-governments in Poland remains relatively limited for the historical reasons mentioned in the previous sections (Furmankiewicz, 2002). Despite the progress made, the question remains how to improve legislation to foster co-operation at the level of functional urban areas. In addition, it is not clear that the existence of municipalities with county status (*gminas* with *powiat* status) does not entail perverse incentives. In the case of some municipalities in the Katowice functional area in southern Poland, the incentive for acquiring county status lies in greater funding from national and EU sources. While this is a legitimate objective for urban functional areas, legislation at the central level most certainly did not intend to create disparities within and between urban areas in access to finance for development.

A new Act on Metropolitan Areas under discussion will seek to strengthen co-operation among municipalities in a functional urban area. This “metropolitanisation” strategy places particular emphasis on tackling the current lack of local horizontal co-ordination that has become notorious in the urban planning of neighbouring municipalities. Vertical co-ordination with the regional self-government (*voivodship*) is also being considered as an important element, given that metropolitan areas are important

development poles for them. Among the tasks that proposed metropolitan areas would be able to perform are: programming economic development and spatial planning strategies; co-operation among municipalities; promotion of the metropolitan area; and obtaining resources. The same structure as self-government for *voivodships*, counties and municipalities has been proposed (an assembly and a board with executive competences), but metropolitan areas themselves are not envisaged to have their own self-government authority.

A number of issues or shortcomings have emerged during debate on the metropolitanisation strategy. First, there is no agreement on the criteria to identify urban agglomerations or metropolitan areas. Second, an act of this nature would intrude into the competences of local self-governments, and it is not clear how this problem could be addressed. Third, while the potential legislation introduces new programming tools, it does not specify their relationship with such tools in other layers of government.

The central government has a key role to play in encouraging voluntary modes of co-operation among adjacent municipalities. The various experiments with voluntary inter-municipal co-operation agreements governance in OECD countries show clearly that the central state has played a dominant role in the process, often through the use of fiscal or legal instruments (OECD, 2010a). This is the case with Italy's 1990 law providing for the creation of metropolitan cities (*Città Metropolitana*) or in France, with its law allowing for the creation of Urban Communities or Agglomeration Communities. Generally, in the absence of any form of incentive, the laws rarely lead to any concrete reform in practice.³ The French experiment has worked better than the Italian proposal because the related laws involved fiscal incentives for the newly created supra-municipal authorities (Box 3.2). These French laws promote voluntary co-operation by offering participating municipalities an incentive grant, in addition to their existing block grant entitlements. One of the conditions, however, is that the municipalities accept to devolve certain responsibilities (mandatory and optional) to the new supra-municipal body and to adopt a unique business tax system within the area (the business tax is the main local tax in France). In Italy, the absence of such incentives explains to a large extent why there is still no single metropolitan city today.

In general, national laws that institute or encourage the creation of a metropolitan authority are universal and inflexible, in that they envisage only one framework for metropolitan institutions. They apply identically to all urban areas, irrespective of their differentiating characteristics. Often only demographic criteria are taken into account, with minimal differences to the status or structure. However, in certain cases, institutions are created on an *ad hoc* basis, *e.g.* a specific law establishes a metropolitan institution without a nationwide policy for metropolitan areas. In Portugal, a law was passed allowing the creation of metropolitan authorities only for the cities of Porto and Lisbon. The Italian law also provides a framework for only nine metropolitan areas. Such frameworks are common in federal countries where the laws are enacted by the provincial/state government, as for example the Quebec law for city amalgamation in Montreal, Quebec and Longueuil or the state law of Baden Württemberg in Germany that established the Stuttgart Regional Association.

From an international perspective, the Upper Silesian initiative in Poland to create a voluntary metropolitan association is part of a growing trend among OECD countries. To date, the association has managed to engage the participants largely in physical

Box 3.2. Urban and agglomeration communities in France

The fragmentation of municipal organisation in France has encouraged municipalities to develop pools of certain services. This form of collaboration has always been practiced on a voluntary basis. In the late 1990s, the government decided to recognise the concept of agglomeration, to clarify the institutional framework and accommodate the proliferation of agreements and actors and established metropolitan authorities in the 150 largest urban areas. In addition, the government established a legal framework that allowed inter-municipal and inter-governmental relations in urban areas to be based on contracts.

With the introduction of three laws (the law on spatial planning and sustainable development, or LOADDT, the law on strengthening and simplifying inter-municipal co-operation, and the law on urban solidarity and development, SRU), the government developed a mechanism to encourage the voluntary implementation of public policies on a regional and contractual basis: agglomeration contracts. This is a bottom-up method based on the principle of “one territory – one project – one contract”, which is proving increasingly successful and contributing to governance based on agglomeration.

The agglomeration contract procedure brings together the central government, the region and the *communauté d’agglomération* (a public inter-municipal co-operation body for urban areas of over 5 000 inhabitants grouped around a central city with at least 15 000 inhabitants) or the *communauté urbaine* (a public inter-municipal co-operation institution for urban areas with over 500 000 inhabitants). The county council (*conseil général*) can be associated with the signature of the contract, in particular for questions related to social policies. The central government puts forward its views regarding the goals and strategic direction for the agglomeration. This procedure involves several stages:

- i) **The agglomeration project.** The basic document that contains a diagnosis of the functioning of the agglomeration. It identifies the issues, provides development policy options and an indication of the support areas for these choices, as well as the policies and measures to implement these choices, with a phased timetable and identification of priorities. The project must focus on regional development (economic, social and human development) rather than infrastructure development and improvement. The project must be based on dialogue with the municipalities and the main actors in the area. The dialogue must be organised to strengthen the impact of the project and the collective essence of the contract by mobilising non-public actors for implementation.
- ii) **The development board.** This represents a variety of economic, social, cultural and association groups and must be consulted during the preparation of the project and on final delivery of the project, prior to signature of the contract. The different groups can also be involved in the drafting of the contract.
- iii) **The agglomeration contract.** The financial and programme document on the implementation of the project, which identifies the partners, projects, pluri-annual financing and contractors.
- iv) **The regional coherence plan (SCOT).** This document is a spatial projection of the agglomeration project, which translates the project decisions into urban planning law.

This territorial project is a five-to-ten-year plan that concerns infrastructure, economic development, social housing, culture, environment, etc. at the metropolitan level. However, it is more than a plan, since it specifies the amount of funding and details all the operations to be performed to achieve the plan’s objectives. Once approved by the *communauté* council, the project is discussed with the central government. When it is approved by the central government, there is an agreement signed between it and the *communauté*, called a *contrat d’agglomération*.

Box 3.2. Urban and agglomeration communities in France (cont.)

This agreement guarantees that the central government will finance some of the actions decided in the territorial project (entailing negotiations between the central government and the *communauté* regarding government funding). In addition, the law states that the *contrat d'agglomération* must also be signed by the regional council. This means that the actions envisaged in the *contrat d'agglomération* will also be financed by the region and will be part of the *contrat de Plan*, a larger five-year agreement signed by the central government and the region. Moreover, this means that EU Structural Funds will feed into the general budget of the territorial project.

For instance, the Bordeaux *contrat d'agglomération* amounts to EUR 1.2 billion over a seven-year period. It has been signed by the *communauté urbaine* of Bordeaux (CUB), the provincial (*département*) council of Gironde, the city of Bordeaux, the regional council of Aquitaine and the central government's representative (the regional prefect). The central government contributes 17% of the total funding, while the CUB contributes 36% and the regional council 15%. Other contributors are the EU, the Department of Gironde, municipalities and national public agencies, such as the National Railways (SNCF) or the National Centre for Aerospace (CNES).

infrastructure projects financed by the EU. This type of association, however, lacks the legal and financial platform to engage in the many other pressing issues. For example, there is no co-ordination in the distribution of tax income from the economic zone initiated by two member municipalities, which happen to be well located for this enterprise. Likewise, the association has as yet been unable to co-ordinate land-use development and public and social services between neighbouring municipalities.

The central government of Poland can support inter-municipal co-operation through appropriate legislation and financial incentives. A draft bill of the National Spatial Development Concept that has been debated for about two years merits acceleration. The central government could design an incentives programme to stimulate the establishment of voluntary associations on the lines of an upgraded Silesian model. The ministries of Regional Development, Infrastructure and Finance could work together to develop a programme of incentives by linking urban governance initiatives with central government priorities. A system of assessment would report on innovative and good practices. Meritorious metropolitan associations could, for example, earn the right to receive higher priority for support from the Ministry of Finance for creating an economic zone, ahead of municipalities that have not self-organised. For example, one could envisage a kind of “race to the top” approach of providing financial bonuses could be awarded for good behaviour as defined in legislation or regulations. Municipalities in a region might form an association and ask the government responsible for codifying municipal arrangements to sanction this inter-municipal relationship in law. Alternatively, national legislation might empower the sub-national or regional government to make the metropolitan arrangement permanent. If the association defined cross-cutting policy objectives and agreed to combine programming to that end, it could be awarded more funding, tax breaks or investments.

One such example is Canada, where much of the federal infrastructure programming requires that contiguous municipalities in a functional region, either urban or rural, to

partner on joint infrastructure projects where appropriate. Each municipality, rather than ask for its own funding, pools its efforts with others to maximise investment efficiency in the functional region (for waste management or transit, for instance). Programming terms and conditions, regulations or even legislation could push this principle further, to include bonus schemes covering not only infrastructure programming but strategic policy planning for a region's long-term growth. Co-operation would be rewarded and isolationist or sectarian approaches penalised. At present, inter-municipal co-operation for infrastructure funding in Canada does not explicitly provide a bonus for a horizontal partnership, but it will not reward the absence of such partnering (Box 3.3).

Box 3.3. Inter-municipal co-operation for infrastructure funding in Canada

In Canada, municipal institutions, including their administrative boundaries and the roles and responsibilities of the public corporations that deliver municipal services within these boundaries, fall under the Constitutional purview of the provinces (Canada's sub-national order of government). In certain provinces, legislation governing municipal affairs explicitly permits municipalities to enter into co-operation agreements with other municipalities for the purpose of delivering services including for example policing, waste management or transit, covering a functional region that lies beyond the administrative boundary of a single municipality.

In 2005, the Government of Canada instituted its Gas Tax Fund (GTF) under its New Deal for Canada's Cities and Communities. This programme shares half the revenue from the federal excise tax on gasoline with 3 600 municipalities across the country for sustainable municipal infrastructure, including transit and waste systems. The funds are granted under the terms and conditions of the programme, tailored to meet the specific needs and attributes of each province. These terms and conditions are codified in a formal Memoranda of Agreement (MOA) with each province, since Canada's constitution gives provinces responsibility for municipal institutions. In many cases, the provincial Association of Municipalities is also a signatory to the MOA, thus allowing the municipalities themselves to ensure that their infrastructure priorities are reflected in the terms and conditions within the programme's national framework.

One of the general terms and conditions included in all MOAs is a requirement that municipalities apply jointly for projects where this makes sense; indeed, where there is a First Nation Reserve near a municipality, the municipality and the First Nation Band Council governing the reserve must jointly apply for an infrastructure project if appropriate. For instance, In Saskatchewan, the Yukon Territory, Alberta and other provinces, regional water filtration plants, community co-generation systems and community transit systems have been funded under the GTF in this fashion. If a municipality refuses to partner with its neighbours in these regions, the oversight committee managing the GTF in that province or territory has the power under the programme's terms and conditions to reject the request for project funds.

Strengthening inter-ministry coherence and integration within the central government

Although no explicit urban policy is currently in force in Poland, the conceptual basis and legal framework for implementing one has been evolving, largely to address the challenges associated with implementing coherent spatial planning noted in the previous sections. However, even if legislation and programmes were developed to fill the void in

terms of urban policy, it is likely that mandates to implement policies affecting urban areas would be dispersed in different ministries at central level. A national urban policy in Poland would help co-ordinate policies in different ministries to avoid unintended consequences and maximise the benefits of enhanced multi-sectoral coherence. Municipal infrastructure development, housing and building supervision among other fields are now part of the competences of the Ministry of Infrastructure. Development strategy drafts, programming and implementation of development policy, socio-economic development and EU funding are within the realm of competencies of the Ministry of Regional Development. The Ministry of Regional Development is clearly an important player in urban regions, yet more sustained co-ordination between the two ministries remains an issue. A national urban policy could in fact encourage greater co-ordination across these and other ministries in Poland. Work on new development management strategies, including the recently adopted National Strategy for Regional Development 2010-20: Regions, Cities, Rural Areas and Action Plan, which calls for the creation of an urban policy in Poland, the Long-Term National Development Strategy and the National Spatial Planning Concept, could represent a good opportunity to integrate a national urban policy into the Polish development management system as a whole.

By virtue of its multi-sectoral dimensions, implementing an urban/metropolitan policy requires a central process of co-ordination and integration of national sectoral policies between the various ministries influencing urban development policy outcomes. Most countries lack strong central authorities in charge of arbitration among different line ministries. Several experiments in creating inter-ministerial bodies have been employed in OECD countries, but it is still difficult to evaluate their effectiveness in relation to the assigned objectives.

In unitary countries, for instance, Ireland entrusted these functions to the Office of the Prime Minister to give them political weight, and Denmark created an urban commission comprised of key ministers. In the UK, various agencies and ministries are responsible for urban policy, but it is the Department of Communities and Local Government that is the leader on the issue, responsible for inter-ministerial co-ordination (called ODPM, i.e. the Office of the Deputy Prime Minister from 2002-06). France also instituted an inter-ministerial delegation for cities (*Délégation Interministérielle à la Ville, DIV*)⁴ to co-ordinate its actions, notably in the field of city housing. Meanwhile, DATAR⁵ is responsible for inter-ministerial co-ordination of major decisions on infrastructure and regional economic development and has responsibilities for the metropolitan regions. The interface between the decisions and actions of these two inter-ministerial bodies, however, has not been very effective on the ground. Between 1998 and 2004, the Netherlands had a Minister for Large Cities. This official was responsible for implementing the national policy for large cities (*Grote Steden Beleid*), created in 1994. This policy aimed to integrate different sectoral policies (economic, social and physical environment) into one framework. Within the framework of this policy, the national government agreed on performance indicators with the largest cities in the Netherlands (25 in 1995; 31 since 1999). A separate directorate for large cities was established within the Ministry of the Interior, as well as an inter-ministerial steering committee and a special budgetary framework to highlight national transfers to large cities. The national policy for large cities has successfully stimulated more cross-sectoral policies in large cities in the Netherlands. The appointment of a Minister for Large Cities focused attention on the substantial challenges cities face, but the experience has not been repeated in a new government. The national policy for large cities

has from 2010 been transformed into a programme with more limited objectives and budgets: one of the three pillars of the policy for large cities, the economic pillar, has ceased to exist, and another pillar, the urban renewal budgets *Investeringsbudget Stedelijke Vernieuwing* (ISV) will most probably be decentralised starting in 2011 and integrated into the general grants to municipalities and provinces.

In federal countries, intermediate levels of government, whose responsibilities for municipal issues are comparable to those of national governments in unitary countries, are in charge of urban development and can make changes to the mandates and structures of their municipal governments. Yet there have been periods in the history of urban development since World War II where federal governments have shown an interest in urban issues. This included structural policy issues of consequence to federal governments, including strategic infrastructure for international trade and commerce (ports, airports, road, rail and ITC networks) and serious social cohesion issues caused by economic disparities and unemployment in cities. In Canada, for example, the federal government created a federal Ministry of State for Urban Affairs in the 1970s, primarily to co-ordinate massive federal investment in housing resulting from pressures on the existing urban housing stock from the baby boom, and then abolished it in 1977. Twenty-five years later, in 2003, it created a Cities Secretariat under the aegis of the Prime Minister. This Secretariat was disbanded in 2008, but during its five-year existence, it developed a federal strategy for urban regions, Canada's New Deal for Cities and Communities, primarily to address a serious urban infrastructure deficit. It also provides a seat at the federal table for municipalities to discuss policy issues of consequence to the federal government that affect them. The strategy included the Gas Tax Fund, the federal programme that transfers half the revenue from the federal excise tax on gasoline to municipalities for green infrastructure (waste management, transit and community energy co-generation, for example). Notwithstanding the Secretariat's abolition, the GTF was subsequently made a permanent part of the federal fiscal framework.

Improved co-ordination at the level of the central administration would help increase the absorption capacity of EU investment funding on urban development projects. This is especially important for Poland in the immediate term. As noted above, Poland is one of the single largest recipients of EU Structural Funds. These funds are channelled through local governments for regional development purposes. It would be to Poland's advantage if, in addition to using the EU funds to invest in priority development projects as defined under short-term sector-specific policy frameworks, it managed these funds to advance a long-term, multi-sectoral regional development strategy. The focus could be on achieving region-wide integrated outcomes linking economic growth to social cohesion and environmental sustainability. Making EU investment decisions a function of an integrated urban development strategic framework that reconciles short-term sectoral imperatives with long-term multi-sectoral outcomes would place Poland at the forefront of best practices of governance-for-growth strategies in the EU and the OECD. This could greatly enhance the impact of EU funding on the achievement of Poland's long-term policy objectives for its regions.

EU funding represents a unique opportunity, but its full benefits depend on Poland's capacity to absorb them and align them with its existing spatial and economic development plans. Policy makers need to square the circle of exploiting the enormous opportunities offered by the access to "free money", while guarding against destabilising macroeconomic effects (Sierhej and Rosenberg, 2007). The extent to which Poland will

optimise its benefit from EU funds depends on its capacity to absorb them effectively and productively. Given the size of the transfers and the speed with which Poland is required to absorb this funding, developing this capacity is challenging indeed. Fostering absorption capacity requires an efficient public management process and a framework designed to allocate resources where they are most needed (OECD, 2010a). Efficient and effective horizontal co-ordination within the central government on the broad multi-sectoral policy objectives for Poland's urban agglomerations is a necessary condition for maximising the utility of EU regional fund investments.

The immediate issue of maximising the impact of EU regional funds in Poland should not be the only driver of the need to enhance inter-ministerial co-ordination and coherence to optimise the achievement of urban development outcomes. Indeed, the Polish "planning paradox" alludes to the possibility that national governance suffers from an excess of co-ordinative mechanisms that are largely "on the books" – i.e. which exist on paper but have a limited effect on the ground. These co-ordination mechanisms currently have only a modest influence and should be strengthened as a pre-condition for reinforcing the impact of urban policy on Poland's national economic growth and international competitive position. Various possibilities exist to achieve this objective, none of which mutually excludes another:

- **Establish a National Council for Urban Policy** to address key inter-dependent urban development challenges, including land-use policy, transit and transportation, housing, innovation strategies and human capital development. The existing Co-ordinating Committee for Development Policy makes only a modest visible contribution towards horizontal co-ordination. It probably focuses largely on projects financed by the EU. This stems partly from the absence of substantive comprehensive statutory authority over urban issues and from the disconnection from land-use law. The Polish government could consider establishing a National Urban Policy Council to deal with national-level urban policy decisions in a multi-sectoral, coherent, holistic fashion. Short-term sectoral investment decisions would be subordinated to the achievement of long-term, integrated and multi-sectoral urban policy outcomes. This council would not be granted direct legal authority over local or regional/metropolitan land-use planning, but would rather be restricted to advising the Lead Minister and the Prime Minister on matters that require national policy making and intervention. As in Canada, the council would have statutory powers to make policy and determine priorities among matters administered by a range of independent ministries. After Canada's 2003 federal election, the federal government, in setting up the Cities Secretariat, also established an External Advisory Committee on Canada's Cities and Communities, chaired by a former mayor of Vancouver and premier of British Columbia, reporting directly to the Prime Minister. The Advisory Committee's mandate was to recommend policy to the Prime Minister and the Secretariat. Much of the committee's advice found its way into the New Deal for Cities and Communities policy framework, including providing valuable counsel on the initiative to share federal gas tax revenues with municipalities for green infrastructure development. In the Netherlands, the inter-ministerial steering committee on large cities was established to provide more cross-sectoral policies for large urban areas. This committee, consisting of the most relevant ministers, was one of the obligatory steps for government proposals before proceeding to the Council of Ministers.
- **Create a standing Cabinet Committee on Urban Development.** Membership on this committee could be made up of ministers from the key central ministries whose

mandates materially affect urban development: Regional Development, Infrastructure and Housing, Environment, Industry/Innovation/the Economy, Finance/Treasury and Skills Development/Education. Under the present governance structure, the Ministry of Regional Development is a free-standing ministry with the mission of co-ordinating national urban and regional policies. This arrangement does have its positive sides – the ministry was specifically established to pursue co-ordination among projects within its realm of authority (a requirement for the channelling of EU grants). However, at the level of budgets and legal authority to implement policy, its span of activities is currently limited to the individual and largely disjointed subject matters and locations that win EU grants from time to time. As already noted, the legally enshrined co-ordinating functions of this ministry have little traction on the ground – co-ordination seems to have limited impact on real-life policy making and implementation. This is largely due to the fact that the major spheres of urban policy making on a day-to-day basis are assigned to ministries that predate the Ministry of Regional Development and have specific legal authority, budgets and entrenched mandates. Creating a Cabinet Committee could ensure effective sustained intra-governmental co-ordination to achieve integrated cross-cutting policy outcomes for Poland’s urban areas. The minister-level committee could be supported by a secretariat within the Prime Minister’s Office and a mirror committee of senior public servants/vice-ministers, as was done in Canada in the 1970s with the creation of the Ministry of State for Urban Affairs (MSUA). Canada’s experiment had limited success, since the ministry had only a co-ordination mandate and no programme resources itself, the other line ministries around the committee table began to resent being “told what to do” with their own programming resources by an outside co-ordinator. This could provide a valuable lesson for Poland. Any Cabinet Committee must include, and be chaired by, a peer group of ministers whose mandates include policy planning and programme management.

- **“Urban-proof” government decision making** by ensuring that the Prime Minister’s Office establishes that as a condition for a Cabinet-level government initiative affecting Poland’s urban areas all relevant ministerial responsibility centres across the central government have been consulted. Rather than create a standing committee of the Cabinet, the government, either in its legislation on urban policy or by regulation, could institute a sort of “co-ordination-lite” mechanism guaranteeing that any proposed urban development initiative has been subject to thorough consultations across the government. This would be the equivalent of the UK’s rural initiatives procedure. Under UK “rural proofing” rules, any government initiative brought to the Cabinet table by a line minister for decision must, as a condition for consideration, demonstrate that all relevant ministries whose mandates affect rural areas have been consulted.
- **Enshrine in legislation a Lead Minister for Urban Affairs and Urban Development.** This could be especially efficient if it is combined with the “urban proofing” idea.
- **Mandate and fund the national statistical agency to collect and share baseline data at the metropolitan level.** This will require the identification, after intra-central and inter-governmental consultation, of a key set of socio-economic and environmental indicators required to measure progress toward strategic urban policy outcomes.

Any one of these governance initiatives could enhance the co-ordination capacity on urban issues within the Polish central government. From the perspective of horizontal co-ordination, the existing division of labour among national ministries constitutes an

improvement over former arrangements: the Ministry of Infrastructure and Housing is itself an amalgamation of three major functions within a single ministry. In other countries, these functions are often found in separate government ministries. Poland's Ministry of Infrastructure is in charge of all national and much of the regional highway and transportation infrastructure, one of the most important levers for urban and regional development. It is also responsible for national housing policy and implementation. That said, the Ministry of Regional Development is an equally important player, and sustained co-ordination between the two ministries on urban policy remains an issue.

Poland has already instituted a national advisory body under its existing approach to cities, but its mandate does not address the full range of cross-sectoral issues affecting cities. Under its 27 March 2003 act, Poland's GKUA (*Główna Komisja Urbanistyczno-Architektoniczna*, or central committee on urban architecture) advises the Minister of Infrastructure on spatial planning, land development and architecture issues. The committee is made up of renowned architects, urban planners, scientists and members of the construction industry professional associations, unions and associations of territorial self-governments. However, unlike what is being proposed here and what was done in Canada or the Netherlands, this advisory body focuses on sectoral issues related to land use and architecture, not on the full range of social, economic and environmental issues of national consequence affecting Poland's urban areas and their contribution to the country's national growth and international competitiveness. Indeed, other key players materially affecting the economic, social and environmental health of cities should be at the co-ordinating table or be subject to a co-ordinating mechanism. If the overarching policy objective is to transform Polish cities so they can compete globally in a knowledge-based economy, the ministries whose instruments constitute key components of the policy tool kit need to co-ordinate cross-sectoral urban development. Such enhanced co-ordination could achieve the following:

- Ease the difficult role of co-ordination among the many ministries in charge of the various facets of urban policy.
- Facilitate the integration of spatial planning responsibilities of the Ministry of Regional Development with those of the ministry responsible for housing, infrastructure and land-use planning.
- Provide for the co-ordinative function and sustained budget of the co-ordinating mechanism. Its mandate should be twofold: developing a planning strategy for urban areas and co-ordinating programmes and finding investment to implement it. The co-ordinating mechanism's legitimacy and capacity to act would be greatly enhanced if its political authority were matched by its budget. The co-ordinating institution or minister should have the budgetary means to support urban planning strategy across other ministries through programmes, incentives and the effective co-ordination of investments. This should cover not only infrastructure but all issues related to urban economic performance, including human capital development and innovation capacity.
- Maximise the benefits of EU-stimulated good practices in long-term and middle-range strategic planning, by linking short-term sectoral investment decisions to long-term multi-sectoral regional policy outcomes.
- Provide evidence-based urban development policy with quantitative evidence in data and indicators, preferably comparable, to measure the nature and scope of urban issues and progress toward their resolution.

Strengthening the intermediate levels of government

The current role of intermediate levels of government in Poland's urban policy making provides a concrete illustration of the country's highly decentralised governance system. However, the legal context is somewhat more nuanced. Under the Land Management Acts of 1994 and 2003, the *voivodships* and the Ministers of Infrastructure and Housing have oversight authority over land-use planning. The two higher levels of government hold largely parallel powers, with little distinction between them. Local plans must be submitted for approval by both levels. However, intermediate levels of government must limit their review to legal questions only, such as the legality of the quorum that made the decision, the precision of the notification, material, the manner of hearing objections and the like. The intermediate levels of government have no authority to intervene in substantive policies, except for a closed list of topics, such as major regional infrastructure and specific environmental issues. The supervisory role that the planning law assigns to national government bodies impinges on its co-ordinative role.⁶ At issue here is whether, and if so how, to strengthen the intermediate or regional tier of government to optimise urban policy outcomes.

A number of OECD countries have created or reinforced their regional levels of government to better tailor the policy mix to territorial needs, enhance the critical mass of sub-national governments, or bring public authorities closer to citizens (Tables 3.3 and 3.4). As in many countries (*e.g.* France, Greece, Sweden), there have been some debates in Poland about the possibility of suppressing the prefectural level – often considered too small – and replacing it with elected regions or larger municipalities. One option, which Poland has followed, is to devolve central competences for regional economic development and planning to elected regional actors. This solution has been adopted by other OECD/EU countries in the past two decades (*e.g.* the Czech Republic, France, Italy). Assessment of options, however, needs to be based on territorial as well as national specificities. Decentralisation can have advantages as well as drawbacks, and needs strong governance and co-ordination mechanisms to counterbalance potential negative effects, as well as institutional capacity to carry out delegated competences and to respond to more complex performance reporting arrangements. Therefore, decentralisation should not be seen as a policy goal in itself but as a process for improving public policy outcomes.

In Poland, the existing immediate upper level – *powiats* – could have played a greater role in facilitating co-ordination, but this has not been the case so far. *Powiats* have relatively limited competences and no specific authority in terms of spatial planning. Some of the counties combine both municipal and county responsibilities with a single budget, as a result of the Counties Act (1999) which converted into counties cities with more than 100 000 inhabitants and the former regional capitals that lost their capital statute in the administrative reform.⁷ However, the current allocation of responsibilities does not allow counties to tackle the challenges linked to urban transport and housing at the functional scale. The overall efficiency of counties is currently under debate, especially regarding counties located close to municipalities having county status (Dexia, 2008). The additional problem, as mentioned previously, is the fact that only some of the cities with population from 50 000 to 100 000 have *powiat* status, which creates different management capacity in cities of similar size, leading to a difference in capacity to address similar problems in similar cities.

Table 3.3. **Regionalisation trends in OECD countries**

Types of regionalisation	Key characteristics	Country experiences
Creation of a new directly elected regional level: Czech Republic, Denmark, France, Italy, Spain, Poland; two Swedish regions since the late 1990s.	Clear competences and accountability mechanisms <i>vis-à-vis</i> citizens.	<p>In Italy, regional reforms have taken place in several waves, from the early 1970s to 2000s (“Bassanini” reforms). They are characterised by a broad allocation of competences to regions, with the possibility of designing differentiated autonomy for regions with an ordinary statute. In 2001, a constitutional reform markedly widened the competences of the regions, in particular concerning legislative powers, and abolished most state controls.</p> <p>In Denmark, a general reform of sub-national authorities was carried out in 2007. The number of municipalities was reduced from 271 to 99. At the same time, five new regions replaced 14 former counties. The main objective of the reform was to produce efficiency gains based on economies of scale and to offer better and more specialised public services. Regions do not have many instruments to encourage municipalities to co-operate in implementing a vision for the region. It remains to be seen whether regions have enough sticks and carrots to encourage municipalities in their region to help implement the regional visions.</p> <p>In France, regions were created in 1982 with a specific focus on regional growth issues.</p> <p>In Poland, regions were created in 1999 with the mandate to manage part of the EU funding and to elaborate regional development programmes.</p>
Creation of a de-concentrated regional level, not elected: Greece, Ireland, Portugal, United Kingdom; Sweden to some extent since 1989.	Responsibilities to enhance co-ordination in specific areas across the national government and local authorities.	The UK has developed a mixed option. This hybrid structure is based on a Regional Development Agency (RDA). Set up and funded by the national government, it is overseen by a board of directors from the region and led by the private sector and a regional assembly, comprising about 100 people from local government, academic institutions, business and voluntary organisations.
Creation of functional regions, with spatial planning functions: Korea.	Focuses mainly on spatial planning issues; has not led to the creation of a new layer of government.	In Korea, a strong trend toward regionalisation focuses mainly on spatial planning issues and has not led to the creation of a new layer of government. In 2008, the government announced so-called “five area-wide economic blocs” that divide Korea into five sub-economic blocs (except for two regions, the mountainous north-east area and Jeju Island). Each of these regions, with a population of more than 5 million, covers two or three provinces (or provincial cities) that share a similar historic, economic and social context. In order to guide co-operation among provinces in the same bloc, an autonomous regional headquarters, rather than a permanent supra-province body, will be installed in each region. This autonomous organisation will create a regional development plan for each bloc and promote horizontal co-operation among local governments in general.

Source: OECD (2010), *OECD Territorial Reviews: Sweden*, OECD Publishing, Paris.

Improved competences for *voivodships* are key to better co-ordinating plans and policies across levels of government and across local governments in a single functional area. Interestingly, Poland’s institutional set-up might help improve vertical co-ordination. The hierarchical model of planning may seem the appropriate answer to Poland’s limitations on land-use management and urban policies. Under this model, municipal decisions are not independent, and a regional level planning body must approve them. The regional level is charged with preparing a regional plan, which is expected to guide – and often to restrain – local-level planning decisions. A national body approves the regional plans and sets national policy, with which lower bodies must comply. This model seems to be the most promising.

The *voivodships* can play a more prominent role in fostering co-ordination among local authorities within urban areas. This co-operation happens insofar as it is a requirement of EU funds managed by the *voivodship*, but to a limited extent. A good example in which the

Table 3.4. **Examples of regionalisation reforms across OECD countries**

Type of regionalisation reforms	Country
Consolidation of existing elected regions	France (1986; 2000s) Italy (1990s) Spain (1990s-2000s)
Newly created regional levels (elected)	Poland (1999) Czech Republic (2000) Slovak Republic (2002) Denmark (2007) Sweden (pilot experience in two regions up to 2010)
Newly de-concentrated regional level	Ireland (1994) UK (1998 and 1999) Greece (1987) Netherlands (city regions)
Attempts to create new elected regional level (under discussion)	Hungary: transformation of the seven existing statistical planning regions into local governments Slovenia: creation of a second local public tier Chile: preliminary stage of discussion Sweden: 2007 Committee on Public Sector Reform UK: transformation of the eight regional development agencies into elected regional assemblies has long been under discussion
Failed attempts to create elected regional level	Portugal UK

Source: OECD (2010), *OECD Territorial Reviews: Sweden*, OECD Publishing, Paris.

co-ordination function among the municipalities is ensured by the *voivodship* Marshall's Office takes place in the tri-city area of Gdańsk in northern Poland. There, municipalities benefit from active involvement from the regional government, particularly since it is an EU funding requirement. Horizontal partnerships between city administrations in the tri-city area of Gdańsk are typical in the management of transportation infrastructure projects of significance to the metropolitan region, whether rail or road. Infrastructure investments are co-ordinated with other strategies to take into account planning objectives to revitalise stressed neighbourhoods, protect architectural heritage and achieve other socio-economic development goals.

This co-ordination function by the *voivodships* could be made more systematic. Although Marshalls' Offices at *voivodship* level are intended to i) support local development with their enhanced capacities; ii) ensure coherence between national mandates and local needs; and iii) to help co-ordinate policies, current powers assigned to the regional order of government may not be effective in promoting horizontal co-ordination at local level. As municipalities are the ultimate provider of public services under the Polish Constitution, almost every urban area in Poland requires the collaboration of contiguous municipalities to deliver services and to plan for economic and spatial development. This may not be happening as efficiently or effectively today as it otherwise could. Implementation of the *voivodship's* development and spatial strategies also depends on co-operation with the local authorities, particularly in local land-use planning/zoning decisions and in the willingness to combine local and *voivodship* financial support for infrastructure projects of local and regional significance.

One way of strengthening the regional level of government could be by incorporating the co-ordination mandate of the *voivodship* into national legislation on regional development. This legislation could also link the allocation of EU and national funding to the implementation of a common integrated inter-municipal strategy, based on a bonus system for municipalities that promote co-ordination like the one sketched out above. The

voivodship could then act as the key interlocutor with the central government on regional development issues, and play the role of interface between regional and national policy visions through enhanced vertical strategic planning and co-ordination of public services.

The existing *voivodship* contracts can also serve as the regional development policy tool for Poland's regions. These contractual arrangements between the *voivodships* and the central government provide the basis for achieving enhanced co-ordination and coherence by broadening the existing mandate given to the *voivodship* to encompass the co-ordination of all spatial development plans and all supra-national, national and regional spatial programming being disbursed in the *voivodship*. National legislation implementing the National Strategy for Regional Development (NSRD) instituted a contractual arrangement between the *voivodships* and the central government called the Voivodship Contract (VC), a civil law agreement with the *voivodship* self-government. The first edition of these contracts, for the period 2001-03, enumerated regional development projects that represented a priority for the region and that were to be financially supported by the state. The first series of these contracts was specified a long period for implementation and the largest amount of funding from the state budget. Under these contracts, *voivodships* were to co-ordinate activities of the state with those of the territorial self-government units, in pursuit of regional development objectives. The 2004 edition of these contracts contained lower amounts of state financing and were of more limited scope. Since 2004, however, the purpose of the Voivodship Contracts has changed significantly. They now serve as the implementation tool for the EU structural and regional funding in Poland's regions. The mandate to co-ordinate the national dimensions of Poland's regional development policy as these apply to the *voivodship* with the *voivodship*'s own regional development policy objectives has been reduced, if not eliminated, and has been replaced with the mandate to co-ordinate the disbursements of EU funding with that of the state in the *voivodship*. Voivodship Contracts were originally introduced to give effect to the principle of subsidiarity, when Poland established self-government at the *voivodship* level. After Polish accession to the EU, the contract became the tool to co-ordinate the co-financing of EC programmes carried out at the *voivodship* level as well as state funding for regional development in the *voivodship*. These instruments could acquire more policy coherence and investment co-ordination if new legislation (or amendments to the existing act) were to ensure that the Voivodship Contract became the unique co-ordination instrument for territorial development policy (urban, rural, regional) and programming (EU, state, regional) in the *voivodship*.

No one scenario can address the governance challenges associated with the need for vertical co-ordination and coherence in planning and service delivery that have emerged across the OECD. In some countries, particularly in federations like Canada, the US and Germany, the sub-national level of government passes legislation that requires municipal administrative structures in a given functional metropolitan area to co-ordinate planning and service delivery. If they fail to do so, they risk various sanctions, including a reduction or loss in financial transfers as well as curtailment or suspension of local legal authority. Such a regulatory framework also exists in unitary countries: the national legislature passes legislation requiring local authorities to fulfil their duty to co-operate.

More generally, vertical collaboration for urban development is necessary because a complete separation of policy responsibilities and outcomes among levels of government is not possible. The central government can use several mechanisms, from binding to "soft", whose successful application depends on, and simultaneously promotes,

communication and dialogue among levels of government; an alignment of interests and timing, and transparency and accountability (OECD, 2010a). A “soft” mechanism is the use of contracts that impose conditions on funding allocation by the central government for urban and regional development. In some cases, these contracts can include a condition for a collaboration between sub-national governments, including between the municipal and the regional level. Some countries have developed specific urban contracts. In Canada, the Urban Development Agreements (UDA) are tripartite agreements between the federal, provincial and municipal governments aimed at engaging the co-ordination of activities by addressing issues unique to each urban area. UDAs have proven to be successful mechanisms, in bringing stakeholders together and ensuring that duplication of effort is minimised. In France, in addition to the planning contract for regional development between the central government and the regions (State-Region Contract), there is also the agglomeration contract which is a bottom-up method based on “one territory – one project – one contract”, bringing together the central government, the region and the Agglomeration Community or the Urban Community (i.e. the inter-municipal body). The parties define an agglomeration project, which must focus on economic, social and human development rather than on infrastructure development and improvement. It also governs a regional coherence plan (SCOT), a spatial projection document of the agglomeration project that translates the project decisions into urban planning law (included in the above mentioned State-Region Contract).

Poland should decide how best to proceed by ensuring broad consultations both within the central government and particularly between the central authorities and the *voivodships* and local authorities. National legislation could charge the *voivodships* with the responsibility of ensuring inter-*gmina* co-operation on a wide range of issues to enhance the competitiveness and quality of life in the functional metropolitan areas. The nature and scope of the legislation is an issue to be resolved through consultation among the national and regional authorities. Such concerns would include the degree to which *voivodships* are allowed to impose responsibilities on municipalities, and whether the legislation would explicitly specify the nature and scope of local co-operation (leaving little room for autonomous creativity in this area by the *voivodship*).

This approach – national legislation following consultations – represents a classic top-down initiative to address the horizontal governance issue. Another way of approaching it would be to encourage a bottom-up approach with incentives. Either with or without national legislation or regulations, the central government could, either itself or by delegating the task (and the financial resources) to *voivodships*, provide financial incentives to local authorities in a given urban area to co-operate. The breadth of the mandate could be as narrow as zoning issues related to building roads and transit or as broad as cross-sectoral planning over a 20-year period.

Whether top-down or bottom-up (or a combination), governance reform is not an end in itself but a means to achieve certain multi-sectoral outcomes. Hence, the central government needs to ensure that its own ministries arrive at a consensus on the outcomes it wishes to achieve in urban development, then consult with the regional and local levels of government to define what is to be achieved through horizontal co-operation. Only then should the governance institutions and incentives most suited for achieving these objectives be finalised.

3.3. Enhancing urban fiscal capacity

The implementation of an integrated national urban policy agenda in Poland requires not only institutional vehicles for co-ordination but also adequate funds and appropriate financial mechanisms. The urban finance system in Poland, which is based on substantial decentralisation of responsibilities and a large share of local own revenues (in particular the property tax), presents the following challenges:

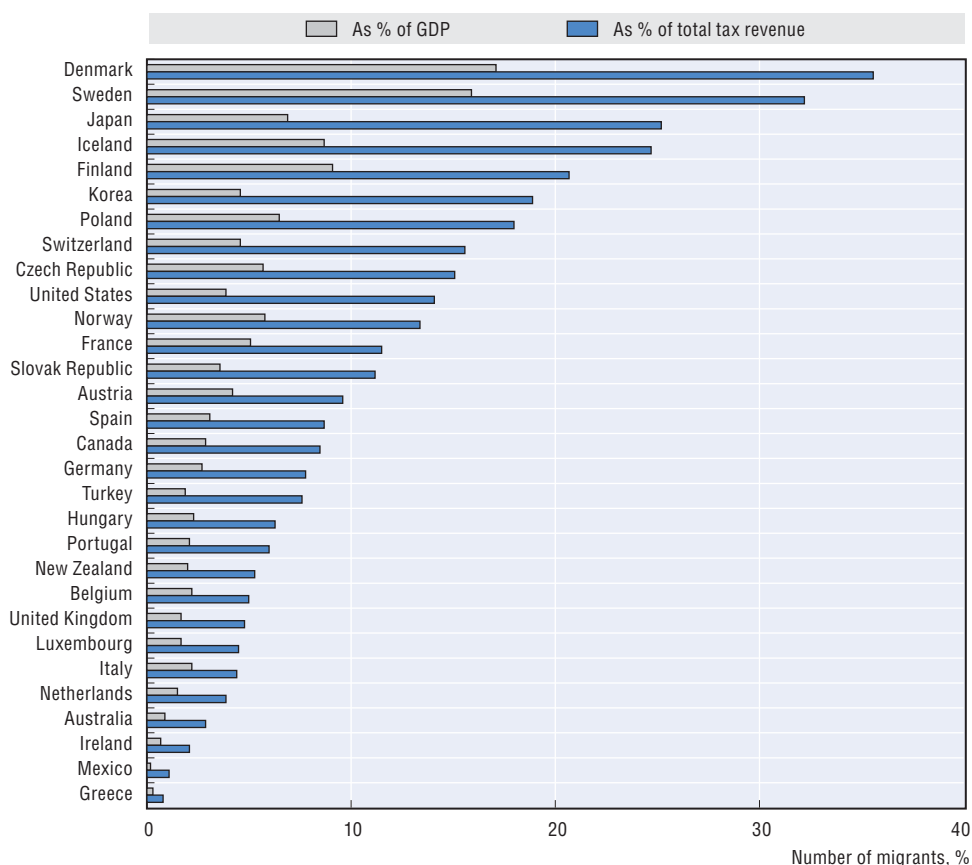
- How to finance infrastructure? Poland has still important infrastructure gaps that compromise regional economic competitiveness. Access to a variety of additional funding sources for urban infrastructure investment is called for, including wider use of land-based finance, private sector funding and the use of capital markets.
- How can local finance be adapted to achieve attractiveness objectives? An integrated urban development strategy would aim at improving the attractiveness of urban areas so that they can become globally competitive. An important aspect of this attractiveness is taxation of local businesses. Poland's main local tax resource, the property tax, appears to be skewed against urban municipalities. A reform of the property tax is warranted, including the introduction of a tax base connected to the real value of the properties.
- How can service delivery be improved in urban areas? Urban sprawl and sub-optimal planning mechanisms have allowed suburbs to free-ride on the service provision of core urban municipalities. Metropolitan fiscal equalisation schemes could compensate the core urban municipality for this.

Main characteristics of the urban finance system in Poland

After the decentralisation process in the 1990s, Poland's sub-national governments became responsible for a comparatively large share of public spending, investment and tax revenues. Sub-national investments are larger than those of the central government, representing almost 60% of total government investment in 2007 in Poland – and sub-national expenditures amount to nearly half of public spending. More than three-quarters of sub-national spending is disbursed at the municipal level, 15% by counties and a very limited amount by regions. However, regions are responsible for the implementation of Regional Operational Programmes financed from the European Regional Development Fund (ERDF), and thus have an important role in transferring EU funds. Municipal governments' chief expenses include primary education (almost half of their expenditure); local roads; urban public transport, and communal services (water, wastewater, solid waste treatment, street lighting, etc.). Counties' most important spending items include secondary education; county roads, and social welfare. The largest item of regional spending is related to transport, such as regional roads and regional railway services. These sub-national spending items are broadly in line with the functions and responsibilities as provided by the legal framework in Poland, although sub-national spending more closely follows actual functions carried out by sub-national governments than overviews of functions that sub-national governments could carry out. From an international comparative perspective, the share of public spending borne by sub-national Polish governments is in line with the OECD average and the share of local tax revenues comparatively high (Figure 3.3).

A relatively large share of urban revenues comes from local governments' own revenues. They constituted around 43% for medium-sized municipalities and 30% for the largest municipalities (those with *powiat* status) in 2001, but only a tiny fraction of county

Figure 3.3. Local tax revenues as a share of total tax revenues



Source: OECD (2008), *Revenue Statistics 1965-2007: 2008 Edition*, OECD Publishing, Paris.

(7%) and regional budgets (6%). Own revenues are relatively less important in the budget of the largest cities, due to the dominance of state grants in counties (*powiat*) revenues. Municipalities have power to decide upon rates of local taxes, but this power is limited by the fact that maximum rates result from legal acts. Sub-national governments receive both earmarked and general grants. An example of the first is the grant from the National Fund for Environmental Protection and Water Management to finance environmental protection. The general grant consists of several elements: *e.g.* education (for municipality, county and region), roads (for county and region) and separate parts labelled as equalisation parts.

As in most OECD countries, the property tax in Poland is the most important local tax; unlike other OECD countries, this tax base is not related to the value of a property, but to the type and size of the property (in square metres). User charges are usually collected by the servicing unit directly, and in many cases are not shown in the local government budget. There is, however, considerable variation in models of urban service delivery. Some cities have privatised and marketised their service provision, whereas in other cities in-house delivery units prevail. Other main urban revenue sources, in addition to own resources, are tax resources shared with the national government (personal income tax and corporate income tax), grants (both general and specific grants) and borrowing. Despite the relative stability of local tax revenues between 2000 and 2006, Polish

municipalities faced an increase in obligatory tasks stipulated by specific laws (Oulasvirta and Turala, 2009). As a consequence, local autonomy in Poland has decreased.

Financing infrastructure

In recent years, Poland has made significant efforts in terms of public investment, as also reflected in its large share of EU funds. The share of absorbed EU funds accounted for around 20% of total public investment in 2007-09, which has an important leveraging effect, thanks to the co-financing requirements. Considering that Poland still has important infrastructural needs, notably in the area of transport, access to a variety of funding sources for urban infrastructure investment remains crucial. This could be in the form of i) land-based finance; ii) private sector funding; and iii) use of capital markets.

Land-based finance

Land-based finance instruments in Poland could benefit from reform. This section introduces a discussion on the existing land-based financing mechanisms in Poland (the betterment levy and adjacency levy) and provides suggestions for reform. A discussion on another land-based financial instrument, the property tax, is developed in a later section, which will show that the current design of the property tax (based on surface, not on property value) limits the amount of local revenues that can be collected.

Poland is one of a very few OECD countries with a betterment-capture mechanism intended to capture windfalls due to planning decisions. The levy is assessed by means of a parcel-by-parcel appraisal, in order to determine the real value increase attributable to a new or revised plan. The municipalities administer the levy and keep its revenues. Another financial instrument using land values in Poland has been the “adjacency levy”, which is based on the market value increase of land due to installation of local public infrastructure, including roads, sewers, water supply and other utilities, adjacent to newly installed municipal infrastructure. The law permitted local authorities to set levy rates of up to 50% of project costs. A majority of local governments adopted the levy at some point.

In practice, it proved extremely difficult to assess the incremental land value created by local plans or public improvements, such as new infrastructure provision. Special appraisers were hired to estimate before-and-after land values, parcel by parcel, within improvement districts designated by the local government. However, the Supreme Administrative Court set aside many of the appraisers’ decisions, finding wrongful determination of land-value gains. Administrative costs were high, running as much as 30% of revenue collections (Box 3.4). A case study of Szczecin, a city in the north-west of Poland with approximately 400 000 inhabitants, found that only 26 land parcels were assessed for land-value gains and that the total amount of revenue collected was equal to 0.6% of public infrastructure investment in the areas designated as improvement districts. The betterment statute was annulled after less than a year, primarily because the controversy over land-value determination outweighed the revenue generated (Gdesz, 2005).

The disappointment over the betterment levies in Poland reflects a wider tendency worldwide to abandon betterment levies as a significant source of revenue. Countries that continue to use some sort of betterment levy, such as Colombia, have transformed it from parcel-by-parcel estimates of land value gains into a citywide bundle of public works projects, financed in part through a citywide fee that is broadly differentiated by benefit zone as well as other factors (Peterson, 2009). The instrument of a betterment levy could be

Box 3.4. Challenges of the Polish betterment levy

Although the Polish betterment levy is a potentially strong local revenue source, there are several other factors that weaken its impact. First, the Polish legislature anchored the levy in the approval of a local land-use plan, even though most development would, for the foreseeable future, be approved through other mechanisms. Currently, most development (or conservation) decisions are granted by means of *ad hoc* development permits to which the betterment levy does not apply. Second, the law provides for a discretionary rate; local governments may select between 0 and 30%. The rate may vary from plan to plan – or even within a single plan. Although few local governments have chosen to forgo the levy altogether, many choose lower levels. Thus the fairness criterion among landowners is not always met. Where the rate is lower than 30% in cities where land values are not too high, the real administrative costs may be higher than the revenues. Third, perhaps the weakest aspect of the Polish law is that it leaves possibilities of evasion for landowners. The Polish law adopts the occasion of sale of the property as the only tax collection point. The intention is good – to ensure that the landowners have the financial resources from which to pay the levy. However, the legislation stipulates a maximum number of five years after which the authority to tax expires. Since the levy applies only to transactions where freehold ownership is transferred, small landowners find it easy to escape the tax by signing some contract short of full transfer of ownership until the five-year period has elapsed. Not surprisingly, the revenues have remained small. In addition, the betterment levy is plagued by a technical appraisal question. In Poland, the parcel-specific rule of appraisal is currently an impediment that holds up collection. Unlike most OECD countries, private property rights and markets are relatively new in Poland, land registration is not yet complete, and systematic government information on real estate transactions is not yet available. Appraisers in Poland find it difficult to identify similar transactions for comparison to the parcel being assessed for the levy. On this issue, time, experience, and a good government data system may remedy these problems.

logically connected to a property tax based on regularly updated property values. If the Polish property tax moved in that direction, some of the challenges of the betterment levy would arguably be resolved.

Alternative forms of funding connected to urban development and infrastructure investment could also be considered. Several countries have fees that are related to the costs incurred by public authorities for infrastructure investment in the area, rather than a capture of expected value increases of land. As these costs can more easily be made transparent, these fees, known as impact fees in the United States and development charges in Canada, are usually less prone to controversy. As the infrastructure costs will be higher in greenfield areas and because developers incorporate these fees into the prices of houses they construct, urban sprawl is discouraged. Similar fees for developers exist in other countries, such as the UK and the Netherlands. Other land-based instruments could be considered, *e.g.* the sale of building rights in São Paulo for additional floor space on the top of existing buildings beyond normal maximal density, in locations authorised for higher-density development. Similar mechanisms can be found in the state of Maharashtra (India), where the maximum floor space index (FSI) was increased, with the extra FSI sold to developers. Both plans, which are particularly relevant for growing cities with a scarcity of land, have managed to generate additional infrastructure funding while increasing urban density.

Financial instruments like these could be used to cover the costs of urban infrastructure development and encourage compact city development, but much of their success depends on their design. For example, development charges or impact fees are in principle good instruments for compensating for the costs of sprawl, as long as they take into account real costs and as long as charges for single detached homes are considerably larger than those for apartments. Efficient use of these fees would imply charging a fee to developers that closely matches the real and full costs for building and providing the infrastructure to a particular area. Designed like this, impact fees have been shown to be more economically efficient than financing growth through a property tax, as this spreads costs over the existing population and new development (Brueckner, 1997). The effects of development charges on social equity appear ambiguous. On the one hand, low-income families might try to find affordable housing far from the city centre; internalising the costs of sprawl could raise the price of this housing so that they become unaffordable to these groups. On the other hand, development charges can include a partial subsidy to finance social housing inside the development area. Impact fees are usually highly differentiated and can help steer development to locations where it can be accommodated most efficiently.

Private sector funding

Poland has limited private sector participation in infrastructure investment, such as transport, but conditions appear to have improved with the introduction of a new Public-Private Partnership (PPP) Act in 2009. Not many infrastructure projects are funded by private funding, one of the exceptions being the A2 toll motorway linking Warsaw to Germany and Belarus.⁸ Various PPP projects have encountered major difficulties not only in relation to open and transparent tendering, but also during implementation (such as land acquisition, cost overruns, lower than expected traffic, and lack of interest from private investors) (ERBD, 2010). Since the financial crisis, the availability of long-term private funding has substantially decreased, with simultaneous pressure on national and regional budgets that limit the absorption of available EU funds.

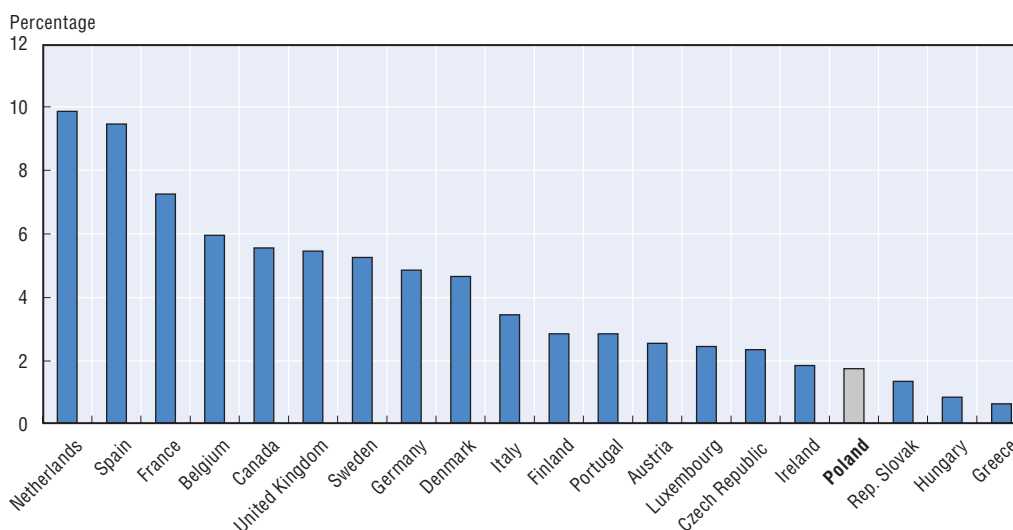
The lack of collaboration between policy makers and the private sector has been identified as a key reason for the difficulties in absorbing EU funds in the transport sector, even though there have been significant improvements in the absorption rate since 2006 (OECD, 2010a). Poland's ability to efficiently absorb EU funds in the coming years will be critical to upgrading the quality of its infrastructure, and public-private partnerships can be a good channel. As part of the EU regional policy over the period 2007-13, Poland has been allocated EUR 67.3 billion, of which about 40% is intended for developing transport infrastructure. Adding the 15% mandatory co-financing by national resources, the funds to be invested over six years exceed 20% of today's annual GDP. Such an inflow of public funds represents a unique opportunity for Poland to design a modern urban infrastructure system. However, it also represents a technical and macroeconomic challenge. The development of the motorway network could be accelerated by stimulating more PPP road initiatives. The conditions for this, in terms of the legal and institutional framework, have recently been improved with the introduction of a new PPP Act in the beginning of 2009. This act aims to provide clear and simple rules, removing the barriers of the former law and giving flexibility to parties in structuring their arrangements. The application of the PPP Act has been assessed as quite wide (EBRD, 2010), but it is too early to evaluate its

effectiveness in generating new PPPs. Wider use of PPPs to finance infrastructure in Poland could be stimulated and monitored carefully.

Capital markets

Municipal borrowing is allowed in Poland, but the size of local governments' debts is limited in several ways. The limit of individual local government debt cannot be higher than 60% of its annual revenues, and debt service must not exceed 15% of total annual budget revenues. In addition, special restrictions on borrowing were introduced in the 2003 Law on Public Finance. Although local governments have shown fiscal restraint and kept their share of public debt well below 5% – and also relatively low from an international perspective (Figure 3.4) – major cities, such as Warsaw, have engaged in larger shares of borrowing resulting in a debt-to-own-income ratio of 37% in 2005 (Ners, 2007).

Figure 3.4. **Local government debt as share of GDP, 2001**



Source: OECD National Accounts Database and Dexia (2004), *Local Finance in the Twenty-Five Countries of the European Union*, Dexia Editions, Paris.

Local governments are increasing their reliance on capital markets, but this revenue source could be used more often. The municipal bond market in Poland has developed quickly and successfully since the end of the 1990s, especially in municipalities with *powiat* status, which are the most important issuers of municipal bonds in Poland. The share of municipal bond debt in total local government debt by these cities with *powiat* status was 17.2% in 2007 (Danilowska, 2009). These new financial instruments require capacity in debt management at the local level. Analysis of the effectiveness of debt management systems in local governments in Poland shows that cities with *powiat* status are currently best prepared to systematically finance their investment projects by incurring long-term debt (Bitner and Cichocki, 2008). This advantageous position with respect to capacity could be exploited to increase funding from capital markets.

Encouraging business development through property tax reform

The main local tax revenue source, the property tax, is most likely skewed against municipalities in urban areas, but to some extent balanced by the corporate income tax,

which is mostly favourable to urban areas. Since the 1990s, property taxes have been clearly higher in urban municipalities, particularly in large cities. One of the likely explanations is the design of the Polish property tax, which takes surface and not the value of the property as its base. As demand for real estate in cities is generally larger, which drives up prices, people and businesses will accept property that is smaller than they would have been able to afford in rural areas. Higher rates in cities make up for the potential revenues that the local government could have obtained from an *ad valorem* tax (Dziemianowicz and Herbst, 2005). Counter-balancing this tendency to some extent is the design of the tax sharing arrangement of the corporate income tax, which is more favourable to urban areas, as local governments can keep a share of corporate income taxes collected in their territory, more of which is collected in urban areas where most of the firms are located.

Property tax reform is however warranted for a variety of reasons. First, the current property tax falls disproportionately heavily on business: the local property tax discriminates in favour of residential over business and industrial use. The rates as well as the ceilings for commercial buildings are several times higher than those on residential properties: e.g. the ceiling rates were PLN 18.43 and PLN 0.56 per square metre in 2006 for commercial and residential buildings in comparable land areas (De Serres, 2008). The number of payments required for this property tax (12 per year), in addition to the considerable tax load (1.25% of average profits of Polish business), helps explain Poland's low ranking on the taxation-indicator of the World Bank Doing Business study (World Bank, 2010). Second, the current design of the property tax (based on surface, not on property value) limits the amount of local revenues that can be collected. The property tax is the main local tax in OECD countries, which in most cases uses property value as the tax base. As such it is a buoyant revenue source, with the tax base expanding as the local economy expands. The property tax in Poland is not as buoyant, because the only way to increase property tax revenues is to increase rates, which are subject to ceilings. Not surprisingly, property tax revenues as share of GDP in Poland are modest in international comparisons: 1.3% in Poland, *vis-à-vis* 1.9% as average for OECD countries and 2.1% for EU15 countries in 2005.

Any reform should base the property tax on property value (*ad valorem* property tax), as is the case in most OECD countries. In many OECD countries, the actual capital value forms the basis for the valuation of the tax base, although there are some exceptions, in countries like France, Belgium and Switzerland, where the rental value forms the base for the property tax. Through regular revaluations, the tax base is brought up to date: although some countries (such as Finland) have managed to introduce an annual revaluation process, revaluations every four years are more common, as well as annual indexation (Spain, Portugal). In some countries, it is not uncommon that revaluations be postponed in order to avoid potential resistance from citizens.

The necessary conditions for such an *ad valorem* property tax (such as a cadastre and registers of property values) are mostly in place, so there are no practical constraints for its introduction, if land and building registers could be completed and regulations concerning the estimation of real property values be strengthened. Part of the property reform could be the convergence of rates for residential and business property tax; as well as the integration of the forest and agricultural tax into the property tax. Such a reform would enable broader use of the property tax, which could come to represent a larger share of tax revenues. It would also stimulate business development, in particular SMEs, whose

development has been held back by the large property tax burden. Such a reform could, in the first instance, be introduced in a revenue-neutral manner, with a transition phase in which property tax rates would increase gradually, allowing the central government to reduce transfers to local governments. As the valuation of properties might present a challenge, this responsibility could be concentrated in a central government body, *e.g.* the tax office.

Fostering equity through better public service delivery in urban areas

The current general grant system is not focused on service delivery in urban areas. It does not compensate for higher unit costs of service delivery in urban municipalities connected with higher wages and land prices, nor does it recognise that certain expenditures are concentrated in urban municipalities (*e.g.* those connected to homelessness, social welfare and public safety). Quite to the contrary: the “equalisation parts” of the grant uses revenue-related criteria for inter-jurisdictional redistribution, but not expenditure-based criteria; this is to the disadvantage of urban areas, where revenues are typically higher, as well as the costs of service delivery. In addition, a large share of the general grant is the education grant, which favours municipalities in rural areas. It is allocated through a formula with different criteria, of which one important consideration is the category of pupils: children in schools in rural areas and attending schools in towns with less than 5 000 people get a higher weight (1.38) in the allocation formula, to the detriment of schools in cities (Herbst, 2008).

The general grant also does not take into account higher spending needs in urban areas: some of the allocation criteria refer to existing services rather than spending needs. In addition, the allocation criteria take into account the population resident in the area, not who is using the services, ignoring the fact that many services are used by commuters and visitors. For instance, many children from suburban areas attend schools and kindergartens in central urban municipalities that are subsidised by central urban municipal budgets. One estimate is that municipality of Warsaw spent around PLN 34 million in 2007 to subsidise “free-riding” students from suburban municipalities⁹ (Lachowska and Swianiewicz, 2009). Reform of the general grant is warranted to take the costs of urban service delivery into account, following examples elsewhere in Europe, where the central function of cities has been effectively expressed in equalisation grant formulas (*e.g.* in the Netherlands, where the central function for surrounding municipalities is one of the criteria in the equalisation formula).

The absence of well-developed urban planning mechanisms (which could have facilitated the creation of more facilities such as kindergartens or schools in suburban municipalities) or horizontal fiscal equalisation schemes within urban areas, complicates the solution of this situation, although the draft proposal of the Act on Metropolitan Areas mentions the possibility for individual metropolitan areas to include equalisation policies in their scope of policy making. Several OECD metropolitan areas, such as Copenhagen, Tokyo and Amsterdam (Box 3.5), have such metropolitan fiscal equalisation schemes, the introduction of which could also be considered in the main urban areas in Poland.

Box 3.5. Inter-municipal equalisation in Greater Copenhagen, Amsterdam and Tokyo

The Greater **Copenhagen** area employs a purely inter-municipal equalisation system: no central government subsidies are allotted. A municipality in the area whose expenditures is larger than the estimated tax receipts receives a subsidy that is 27% of the difference between the expenditures and the tax receipts. Conversely, a municipality with a surplus contributes 27% to the equalisation scheme. The definitions of expenditure and tax receipts are comparable to those used at a national level: for the estimation of the tax revenues, the municipal tax base is used, applying an average tax rate. The expenditure estimations are made using a complex of two different indicators: demographic and socio-economic factors, which make it possible to take into account the different exogenous factors that influence local expenditures. The weights of the different socio-economic indexes are, however, different. The equalisation system for the Greater Copenhagen area transfers EUR 250 million per year from the less to the more needy municipalities within the metropolitan area of Copenhagen. Eighteen municipalities benefited from these transfers in 2008 and 16 municipalities contributed into this system. In absolute terms, the largest beneficiary of the scheme was the city of Copenhagen, which received around a third of the total money transferred.

Municipal districts in **Amsterdam** are responsible for building and maintaining public housing, maintaining public spaces, for providing most of the municipal services to their inhabitants and for several tasks within the fields of welfare, sports, education and culture. Municipal districts have considerable staff and budgets: 32% of the staff of the municipality of Amsterdam works in the municipal districts and around 45% of the budget of the municipality of Amsterdam is devolved to the municipal districts. In Amsterdam, the general grant that municipal districts receive from the central municipality is similar to the general grant that municipalities receive from the central government: they both have global objective criteria that try to correct for differences in costs between localities and that cannot be influenced by the district.

Tokyo is composed of 23 special wards, or *tokubetsuku*, which are roughly equivalent to cities in their fiscal and administrative powers. The system is funded by the sub-national property tax, the corporate share of the municipal residents' tax and the landholding tax levied inside the Tokyo metropolitan region. Tokyo prefecture gets 48% of the funds, allocated to support its provision of area-wide services such as water and sewage, fire services and the like. The remaining 52% of the funds are allocated among the 23 wards (*ku*) according to need. This need is determined by calculating 14 items of the ward level revenues and comparing the total for each ward with a calculation of standardised costs for each ward. Funds are allocated to individual wards in the event that their costs exceed their revenues. In recent years, the wards have sought to expand their scope of responsibilities and thus their share of the funds, but the metropolitan administration argues that area-wide provision of such services as sewage and fire protection offer important economies of scale.

Sources: OECD (2009), *OECD Territorial Reviews: Copenhagen, Denmark*, OECD Publishing, Paris; OECD (2007), *OECD Territorial Reviews: Randstad Holland, Netherlands*, OECD Publishing, Paris; OECD (2006), *OECD Territorial Reviews: Competitive Cities in the Global Economy*, OECD Publishing, Paris.

Notes

1. The Corruption Perceptions Index (CPI) measures the perceived level of public-sector corruption in 180 countries and territories worldwide. The index is a survey of surveys, based on 13 expert and business studies. See the website of Transparency International, www.transparency.org/policy_research/surveys_indices/cpi/2009/cpi_2009_table.
2. The Voivodship Contract is the key instrument for implementing the central government's regional policy. The Act on Principles to Support Regional Development underlying the Voivodship Contracts establishes that they are a form of a civil-law agreement between the government and the voivodship self-government. The contract specifies development programmes and projects that are important for the region and financially supported by the government. This was

introduced as a way of implementing the principle of subsidiarity, and was related to tasks to be implemented by voivodship self-governments that were commissioned and financed by the central government. After EU accession, the contract became an agreement to co-finance the implementation of EU programmes carried out at the voivodship level using funds from the state budget.

3. In Italy, metropolitan cities are now specifically mentioned in the Constitution, but in the absence of any incentives from above and in a context of political rivalries between the different sub-national tiers, no metropolitan city has been created so far (Giordano and Roller, 2003).
4. www.ville.gouv.fr/.
5. www.datar.gouv.fr/.
6. Based on an interview with Dr. Mirosław Gdesz, an administrative court judge and expert on planning law in June 2010.
7. Warsaw has a special statute since the Act on Organisation of the Capital City Warsaw was adopted in March 2002. Until then, the city was organised into 11 municipalities. It is now one city divided into 11 city districts. Under this legislation, the city also took on the status of a county (Dexia, 2008).
8. In this case a consortium of 18 Polish companies, Autostrada Wielkopolska SA (AWSA), was awarded the contract under a build-operate-transfer arrangement for a concession period of 37 years (2000-37).
9. This includes spending for kindergartens, primary and secondary schools.

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ANNEX A

The OECD has classified regions within each member country. To take account of the differences and establish meaningful comparisons between regions belonging to the same type and level, it has established a regional typology classifying regions as predominantly urban (PU), predominantly rural (PR) and intermediate (IN) using three steps (population density, degree of rurality and size of the urban centres located within a region):

- The first step consists in classifying “local units” (regions at a lower geographical level) as rural if their population density is below 150 inhabitants per square kilometre (500 inhabitants for Japan and Korea, to account for the fact that their national population density exceeds 300 inhabitants per square kilometre).
- The second step consists in aggregating this lower level (local units) into TL3 regions and classifying the latter as “predominantly urban”, “intermediate” and “predominantly rural”, using the percentage of population living in rural local units (local units with a population density below 150 inhabitants per square kilometre). TL3 regions are then classified as:
 - Predominantly Urban (PU), if the share of population living in rural local units is below 15%;
 - Intermediate (IN), if the share of population living in rural local units is between 15% and 50%;
 - Predominantly Rural (PR), if the share of population living in rural local units is higher than 50%.
- An additional criterion is based on the size of the urban centres contained in the TL3 regions (urban centres are defined by population density and size, not by functional criteria such as commuting):
 - A region classified as predominantly rural under Steps 1 and 2 becomes intermediate if it contains an urban centre of more than 200 000 inhabitants (500 000 for Japan and Korea) representing at least 25% of the regional population.

A region classified as intermediate under Steps 1 and 2 becomes predominantly urban if it contains an urban centre of more than 500 000 inhabitants (1 million for Japan and Korea) representing at least 25% of the regional population.

ANNEX B

Cluster analysis is a technique that makes it possible to identify individuals similar to each other given a range of variables. Among the different tools within cluster analysis, K-Means Clustering was chosen, as a relatively small number of clusters were desired and the researcher can use this tool when the number of clusters is known in advance. Five variables were also chosen as the parameters by which city-regions would be similar or different: population size, population growth, road density, employment in manufacturing and employment in services. All variables were standardised before the cluster analysis was performed.

Cluster analysis was applied to the 41 city-regions identified by the OECD in Annex A. The results show six different clusters. According to Table B.1, only one case in each of Clusters 1 and 2, and there were three city-regions in Clusters 3 and 4, 13 city-regions in Cluster 5, and 20 city-regions in Cluster 6. Cluster membership can be observed in Table B.2. The centres by variable and cluster of the final results can be observed in Table B.3. It is also important to note statistical significance and other statistical results in Table B.4.

Table B.1. **Number of cases**

Cluster	1	1.000
	2	1.000
	3	3.000
	4	3.000
	5	13.000
	6	20.000
Valid		41.000
Missing		.000

Source: OECD calculations based on data from CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

Table B.2. Cluster membership

Case number	City	Cluster	Distance
1	Gdańsk	4	.498
2	Słupsk	6	.076
3	Koszalin	6	.243
4	Szczecin	5	.709
5	Elbląg	6	.101
6	Olsztyn	5	.548
7	Bydgoszcz	4	.591
8	Włocławek	6	.277
9	Płock	6	.220
10	Ostrołęka	6	.186
11	Białystok	5	.379
12	Suwałki	6	.313
13	Siedlce	6	.108
14	Biała Podlaska	6	.147
15	Warsaw	1	.000
16	Radom	6	.346
17	Łódź	4	.835
18	Kalisz	5	.383
19	Poznań	3	.567
20	Konin	6	.424
21	Gorzów Wielkopolski	6	.457
22	Zielona Góra	5	.335
23	Leszno	6	.183
24	Wrocław	3	.635
25	Legnica	6	.144
26	Jelenia Góra	6	.104
27	Opole	5	.224
28	Częstochowa	5	.483
29	Katowice	2	.000
30	Bielsko-Biała	5	1.019
31	Krakow	3	1.016
32	Tarnów	5	.656
33	Nowy Sącz	5	.821
34	Krosno	6	.082
35	Przemysł	6	.237
36	Rzeszów	5	.128
37	Tarnobrzeg	6	.185
38	Zamość	6	.149
39	Lublin	5	1.214
40	Kielce	5	.218
41	Łomża	6	.296

Source: OECD calculations based on data from CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

Table B.3. **Final cluster centres**

	Cluster					
	1	2	3	4	5	6
Population	5.620214	4.646758	2.735255	2.118216	.807130	.283997
Population growth	4.140000000000E-2	-6.360000000000E-2	2.810000000000E-2	-2.316666666667E-2	-8.17692307692E-3	-1.302000000000E-2
Road density	5.550448	3.493410	2.962683	1.697377	.927270	.296072
Manufacturing	2.605665431	6.726784474	3.129597462	2.324858985	.774663386	.261677836
Services	2.427720233	5.700069054	3.501279142	2.497852750	.766995242	.245193844

Source: OECD calculations based on data from CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

Table B.4. **Statistical results for cluster analysis**

	ANOVA					
	Cluster		Error		F	Sig.
	Mean square	df	Mean square	df		
Population	11.633	5	.044	35	267.022	.000
Population growth	.002	5	.001	35	2.787	.032
Road density	9.984	5	.119	35	83.917	.000
Manufacturing	13.162	5	.051	35	259.267	.000
Services	12.346	5	.054	35	230.649	.000

Note: The F tests should be used only for descriptive purposes, because the clusters have been chosen to maximise the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal.

Source: OECD calculations based on data from CSO (2010), "Polish Regional Data Bank Survey 2006", Central Statistics Office of Poland, www.stat.gov.pl/bdren_n/app/strona.indeks, accessed March 2010.

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