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Chapter 1

Why a Regional Policy in Portugal? National Growth, Regional Assets and Challenges

The encouraging return of growth in Portugal contrasts with the persistence of deep-rooted structural challenges. While the recent recovery of the euro area perked Portuguese exports, sustainable growth depends on the rapid modernisation of the economy *vis-à-vis* new EU members and other emerging players. The competitive edge lost in low-cost labour must be earned back in knowledge and innovation.[1] Such assets for competitiveness are regionally localised in Portugal as in other OECD countries.[2] A limited group of leading regions (mostly on the coast) have turned their assets into drivers of national growth, with further scope to gain international aura. Many other regions struck with specific disadvantages (mostly in the interior) have fallen behind, at the risk of underrating their own endogenous growth potential. This chapter provides a brief overview of Portugal's macroeconomic conditions, and discusses to what extent regional assets and challenges can determine national growth prospects.

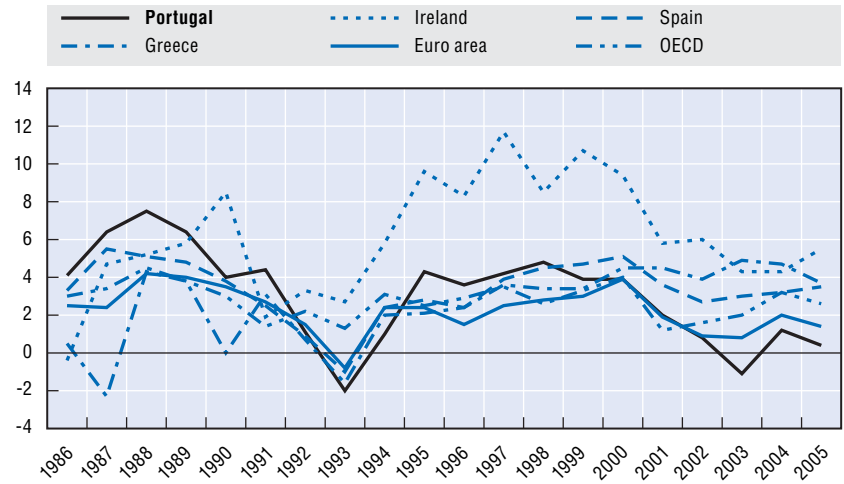
1.1. Where does Portugal stand today? The macroeconomic conditions

Portugal is progressively recovering from a prolonged period of slowdown. Since the country's EU accession (1986) and entitlement to the Structural Funds (around 50 billion EUR in 20 years), its growth often outpaced the euro area average (1986-1991 and 1995-1999) (Figure 1.1). Economic performance deteriorated markedly faster than the overall slowdown in the euro area since 2000 and the catching up process plummeted into recession in 2003. Growth picked up in most recent years and outstripped initial forecasts, mostly driven by buoyant growth of net exports rather than domestic demand (Table 1.1).

Despite recent cyclical recovery, a series of structural challenges prevails. Portugal surely needs to fuel its income and growth levels (Figure 1.2) and curb the accelerated rise of unemployment (Figure 1.3). Most importantly, it must upgrade its economy locked in a low-knowledge sectoral specialisation, modest investment in innovation, a relatively low-skilled labour force with one of the slowest paces of catching-up in the OECD area, and a high opportunity cost of tertiary education (Figure 1.4, Figure 1.5 and Figure 1.6). Such pressing challenges linger against the backdrop of fiscal austerity (following the government's efforts to bring the budget deficit back in line with the EU Stability Pact) and in anticipation of potential cutback in Portugal's allocation of Structural Funds in the enlarged EU.

Figure 1.1. **Real GDP growth rate in Portugal, Ireland, Spain, Greece, euro area and OECD (1986-2005)**

Unit: %



Source: Adapted from *OECD Factbook 2007*.

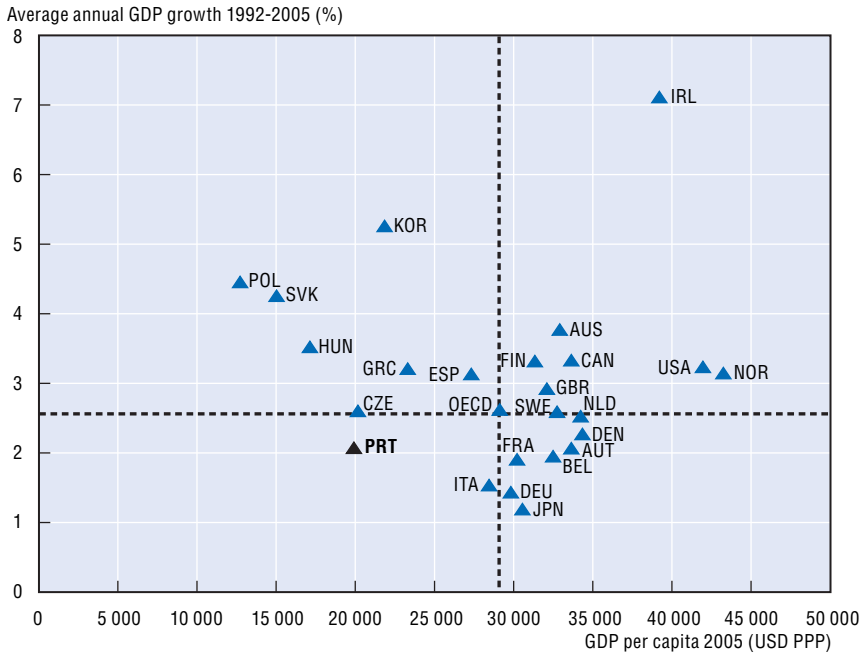
Table 1.1. **GDP and net exports in Portugal**

Change in %

	2004	2005	2006	2007	2008
GDP	1.3%	0.5%	1.3%	1.8%	2.0%
Contribution of net exports to changes in real GDP (percentage of real GDP in previous year)	–1.3%	–0.5%	1.0%	0.9%	–0.1%

Source: *OECD Economic Outlook*, No.81.

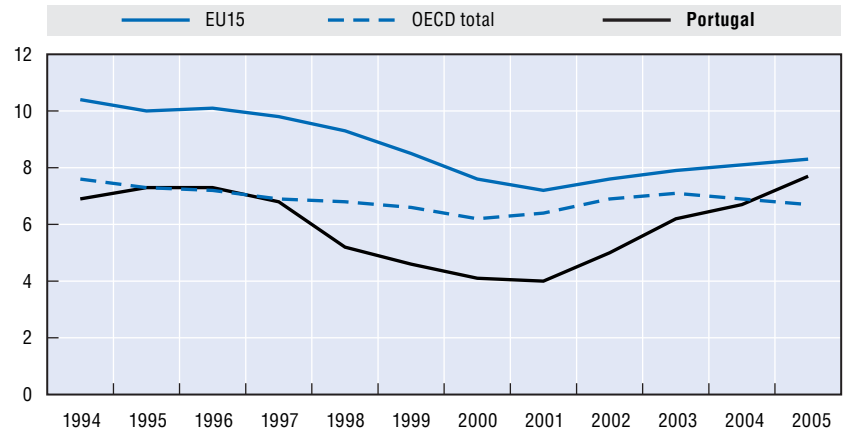
Figure 1.2. **Income and growth levels in OECD countries**



Source: Processed with data from *OECD Factbook 2007*.

Figure 1.3. **Unemployment rate in Portugal, EU15 and OECD (1994-2005)**

Unit: %



Source: *OECD Factbook 2007*.

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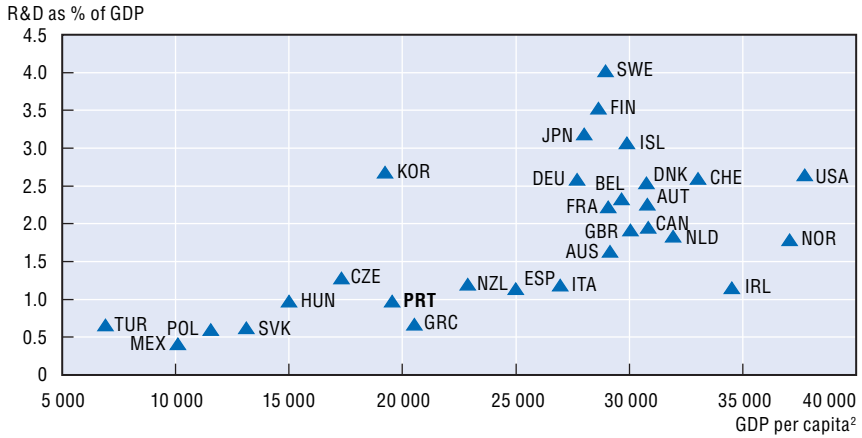
Table 1.2. **Main sectors of specialisation in Portugal**

	Share of national employment in 2003 (%)	Change in share of national employment 1999-2003 (%)	Share of national GVA (gross value added) in 2003 (%)	Change in share of national GVA (gross value added) 1995-2003 (%)
Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	16.48	4.72%	13.25	–5.95%
Agriculture, hunting and forestry	12.16	0.70%	2.91	–45.52%
Construction	11.04	3.36%	7.06	11.15%
Public administration and defence; compulsory social security	6.96	6.60%	9.30	14.72%
Real estate, renting and business services	5.74	9.75%	14.53	6.89%
Education	5.68	–2.02%	6.94	12.18%
Hotels and restaurants	5.51	4.45%	4.18	14.16%
Health and social work	5.30	6.74%	6.06	24.63%
Textile and clothing	4.84	–15.67%	2.49	–26.18%
Transport, storage and communication	3.78	3.30%	6.83	4.46%
Private households with employed persons	2.83	–2.52%	0.78	10.04%
Other community, social and personal service activities	2.76	1.36%	2.54	36.34%
Agricultural and food industries	2.30	–7.14%	2.51	3.93%

Source: INE, National Accounts (Base 2000).

Figure 1.4. **R&D spending and income levels, 2003**[1]



1. Or latest year available.
2. In USD (PPPs).

Source: OECD Economic Survey of Portugal 2006, Figure 4.5, p. 106.

Figure 1.5. **Educational attainment of the working age population in OECD and selected non-OECD countries**

Population with at least an upper-secondary qualification, % of each age group, 2003

Note: 2002 for Czech Republic, Iceland, Italy and Netherlands.

Source: OECD Labour Market Statistics Database, OECD Economic Survey of Portugal 2006, Figure 1.9.

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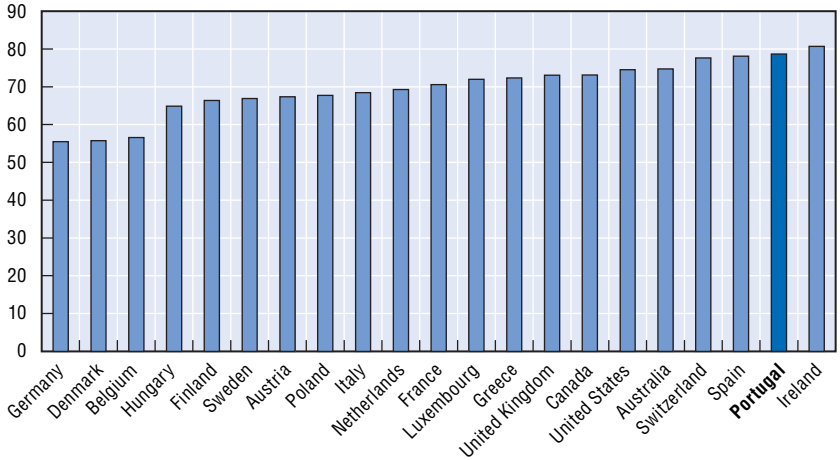
Figure 1.6. **Opportunity cost of tertiary education in OECD countries**
Foregone income while studying[1]



1. Opportunity costs were calculated as the average of net wages and unemployment benefits for an individual who participates in the labour market instead of studying, weighted by the probabilities of being employed or unemployed.

Source: Document prepared for the Working Party N°1 on Macroeconomic and Structural Policy Analysis [ECO/CPE/WP1(2007)6/ANN1] Figure 3.8.

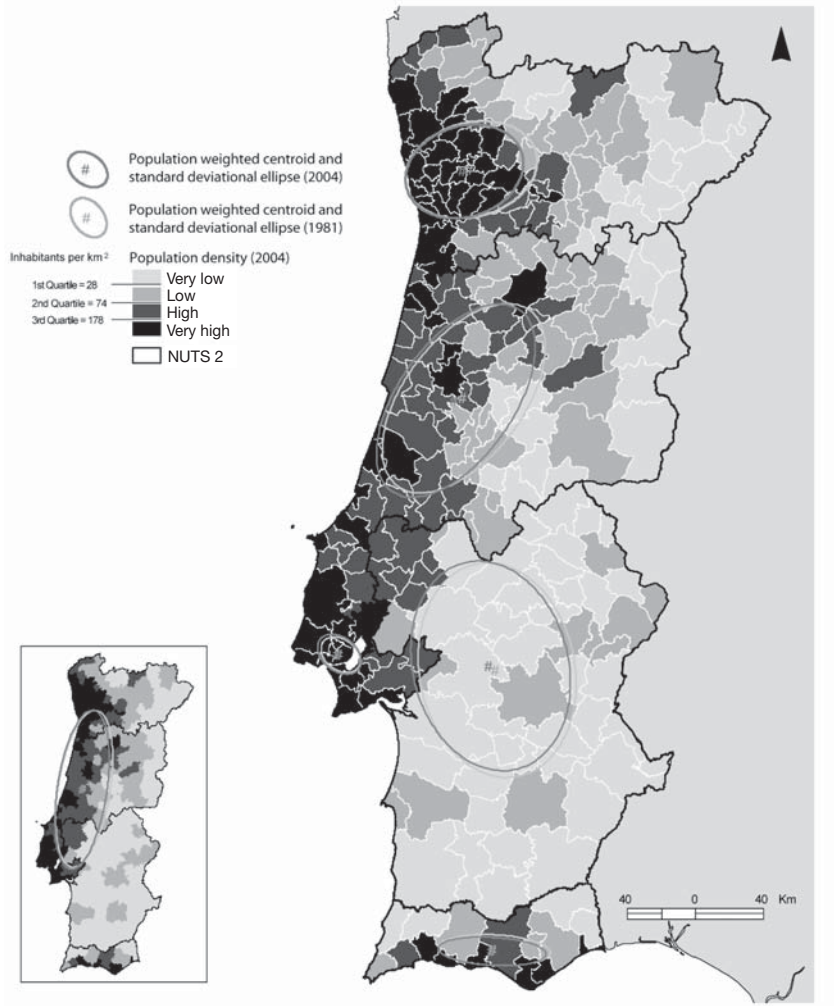
1.2. Why do regions matter in Portugal?

Portugal's structural challenges – raising income levels and breaking the economic lock-in – have a strong regional dimension. National policies have long recognised that *income levels* display regional disparities. It was pointed out more recently that *determinants of income levels* are regional and various. In Portugal as in most OECD countries, regions are not equally equipped with natural endowments (*e.g.*, natural resources, demographic trends, access to global markets) nor economic assets (*e.g.*, human capital, efficient labour market, industrial specialisation, capacity to innovate). The following section assesses regional performances in Portugal, focusing on regional disparities and regional assets for growth.

1.2.1. Regional disparities

Regional disparities in Portugal have long been perceived as a vertical dichotomy between a dense and dynamic urban coast, and a desertified, declining rural interior. Between 1995 and 2006, population density increased markedly in urban regions and in the intermediate regions located next to the urban regions[3] (Figure 1.7 and Figure 1.8). The Portuguese population share living in predominantly urban regions increased by 2 percentage points between 1991 and 2004 while OECD average remained almost unchanged, and

Figure 1.7. **Population density in Portugal, 2004**



Source: INE, Retrato Territorial de Portugal 2004, ed. 2005, p. 25.

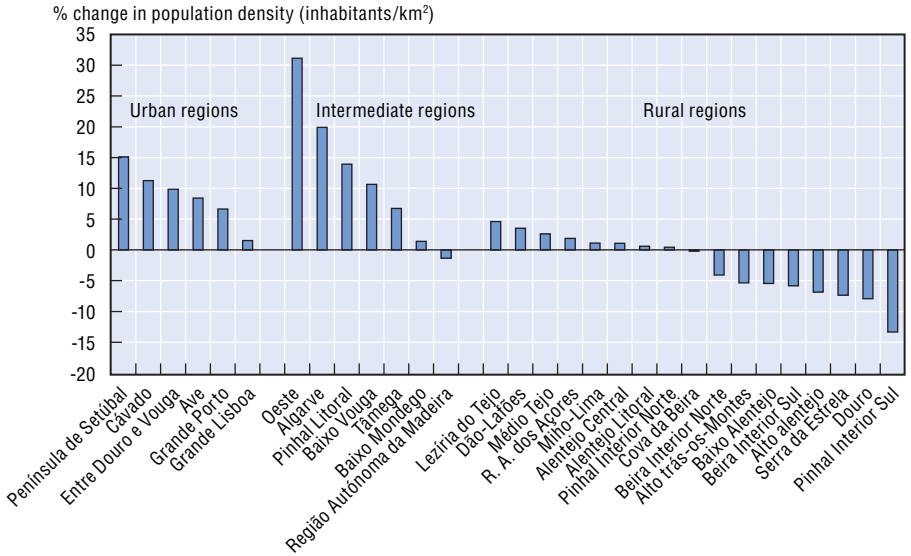
it currently exceeds OECD average (50% *versus* 47% in 2004, Figure 1.9). In contrast, the Portuguese population share living in predominantly rural regions decreased by 2 percentage points during the same period, although it remains above OECD average (26% *versus* 23% in 2004, Figure 1.10).

Albeit substantial, the magnitude of regional disparities in terms of GDP per capita in Portugal remains close to OECD average (Figure 1.11 and Figure 1.12). Regional disparities in GDP per capita in Portugal seem linked to the economic cycle. During years of robust economic growth (1995-2000), the regional dispersion increased (σ-convergence indicator); when the economy

Figure 1.8. **Change in population density in Portuguese TL3 regions between 1995 and 2006**

Unit: %

OECD typology of urban, intermediate, and rural regions



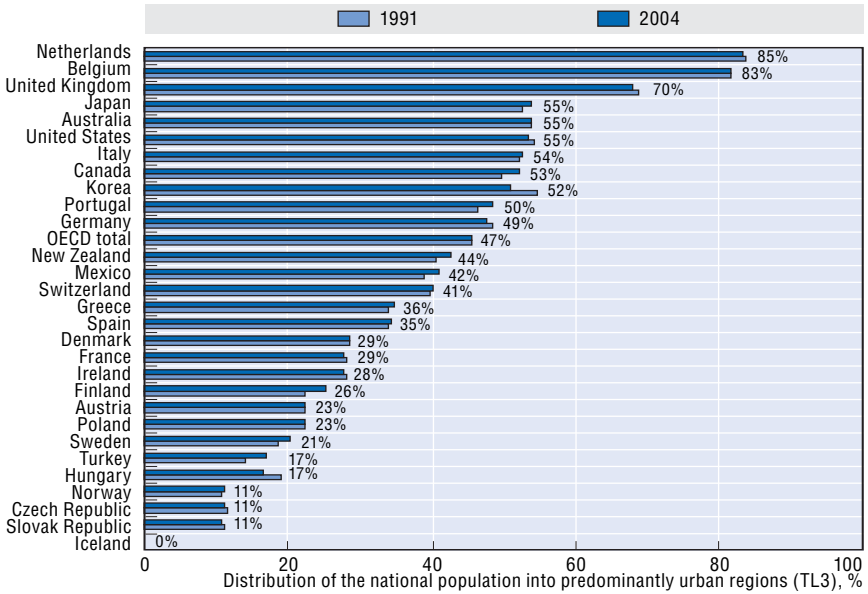
Source: INE, Estimates of Resident Population; Portuguese Geographic Institute (IGP).

slowed down, regional disparities also decreased (Figure 1.13). Due to the large contribution of Lisbon to national output, regional disparities and national growth rates are both highly sensitive to Lisbon's economic performance.

Portugal displays the fourth highest level of regional disparities in terms of GDP in the OECD (Figure 1.14). The Gini index indicating disparities in GDP between all Portuguese TL3 regions is significantly higher (0.57) than the OECD average (0.48). The two largest urban areas in Portugal, Grande Lisboa and Grande Porto, generate alone slightly less than half (43%) of national GDP[4] (Figure 1.15). Regional disparities in GDP are in turn closely linked with the pattern of regional specialisation. Not surprisingly, Portuguese urban regions devote a higher share of their total employment to service activities than rural and intermediate regions[5] (Figure 1.16).

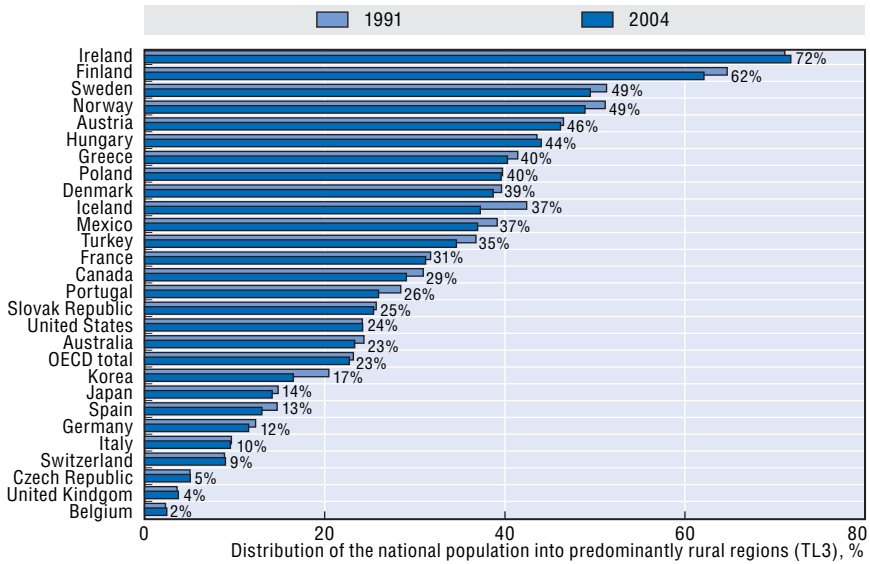
Portuguese regions have registered relatively low growth rates compared with other OECD regions. Compared with all OECD TL3 regions, Portuguese regions are small in terms of GDP size and 77% of them grew slower than OECD average (2.15% per year between 1999 and 2004) (Figure 1.17 and Figure 1.18). This performance is mostly linked with national factors. Among the only three Portuguese regions that surpass the OECD regional average in GDP size (Grande Lisboa, Grande Porto and Península de Setúbal), even the fastest growing region Lisbon remained below OECD average regional growth

Figure 1.9. **Distribution of the national population into predominantly urban regions in OECD countries**



Source: OECD Regional Database.

Figure 1.10. **Distribution of the national population into predominantly rural regions in OECD countries**



Source: OECD Regional Database.

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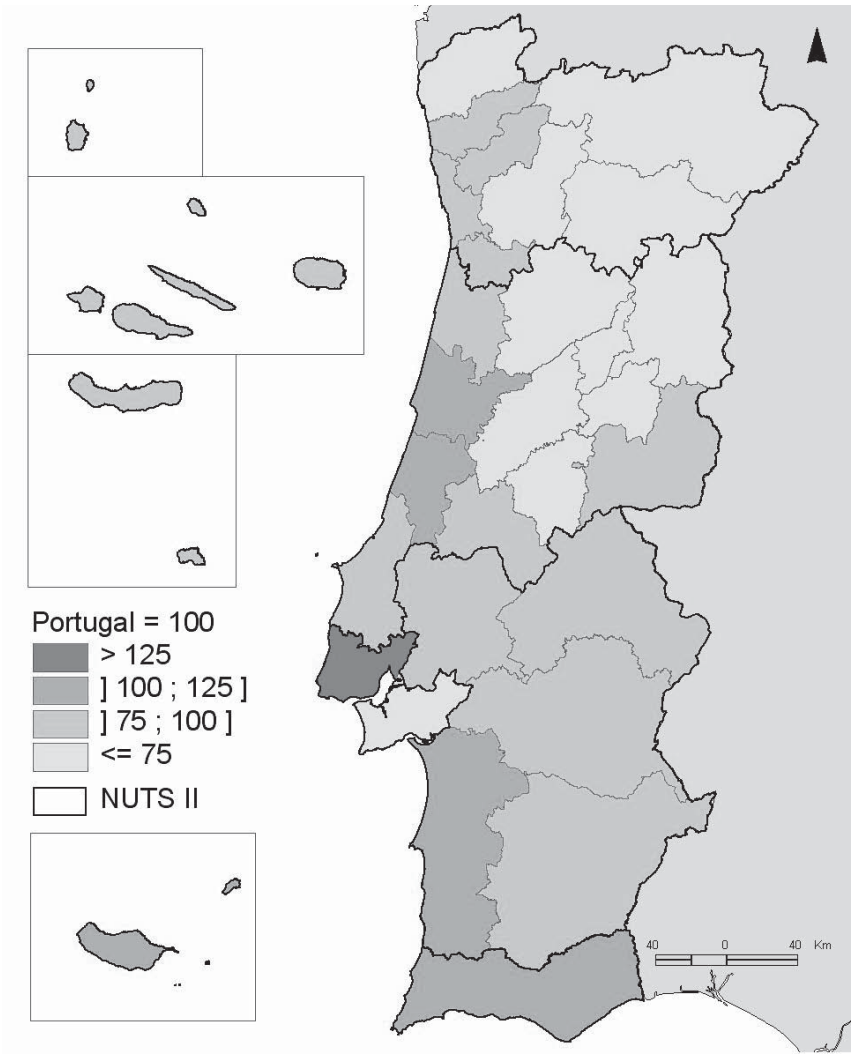
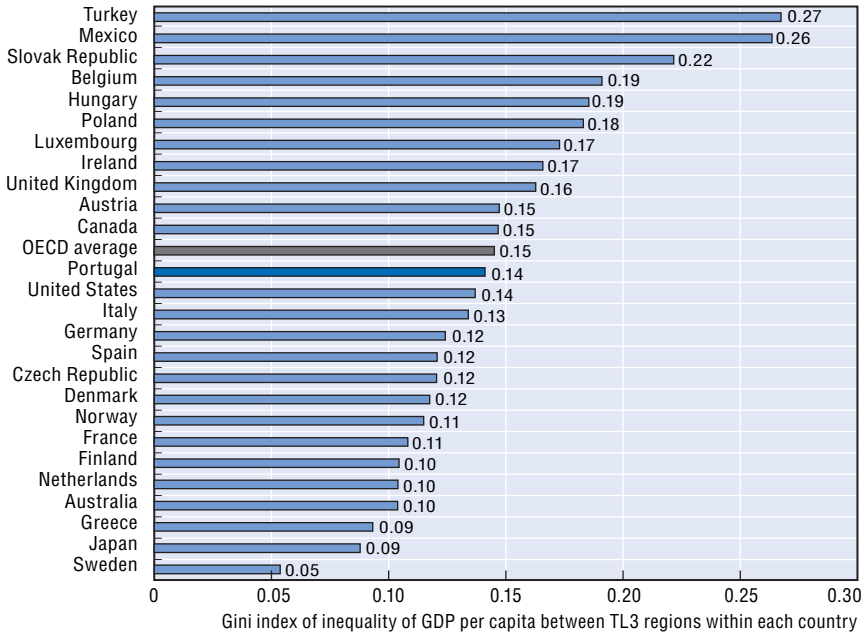
Figure 1.11. **GDP per capita by TL3, 2004**



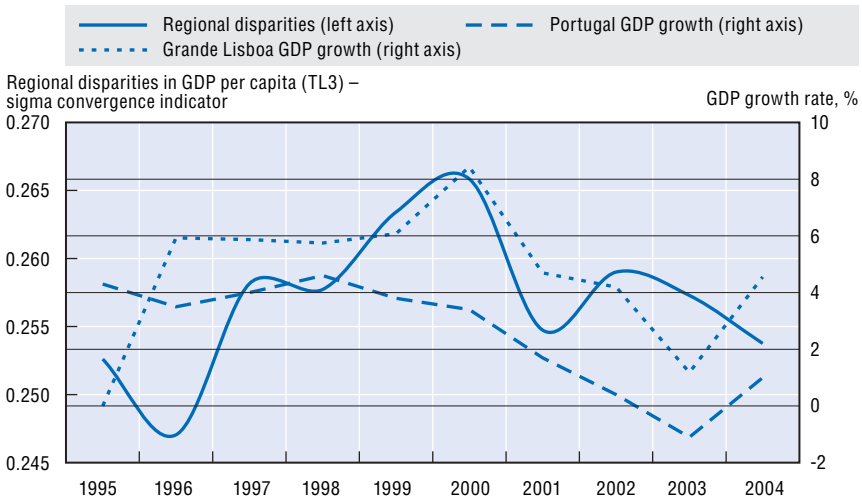
Source: INE, Retrato Territorial de Portugal 2004, ed. 2005, p. 119.

Figure 1.12. **Gini index of inequality of GDP per capita across TL3 regions in OECD countries, 2003**



Source: *OECD Factbook 2007*.

Figure 1.13. **Regional disparities in GDP per capita, national growth rate and Lisbon growth rate, 1995-2004**



Source: Calculations based on OECD Regional Database and *OECD Factbook 2007*.

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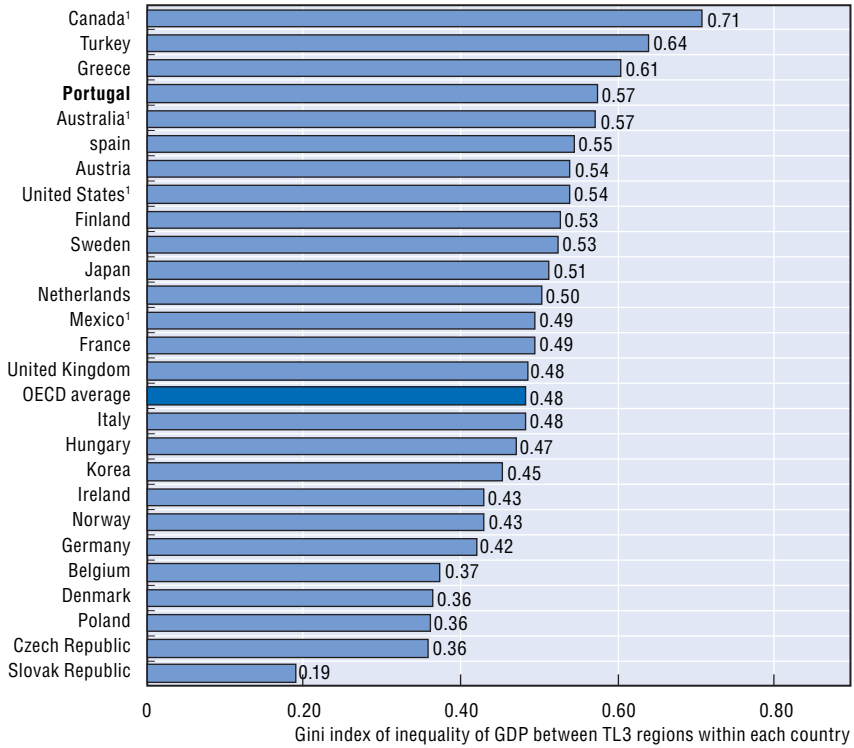
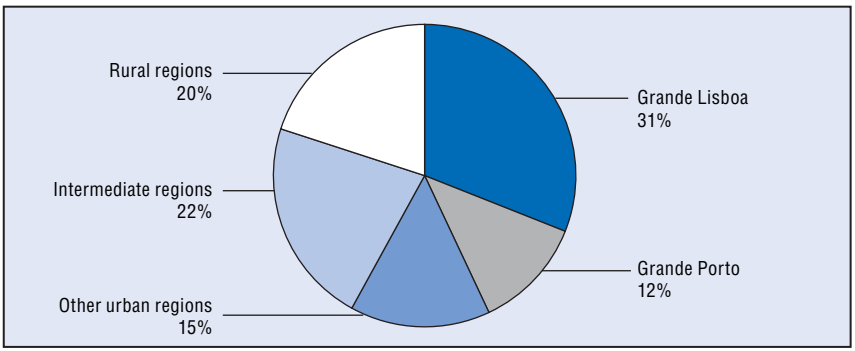
Figure 1.14. **Gini index of inequality of GDP across TL3 regions in OECD countries, 2004**



1. TL2 regions.

Source: OECD Regional Database.

Figure 1.15. **Breakdown of national GDP by type of region, 2004**

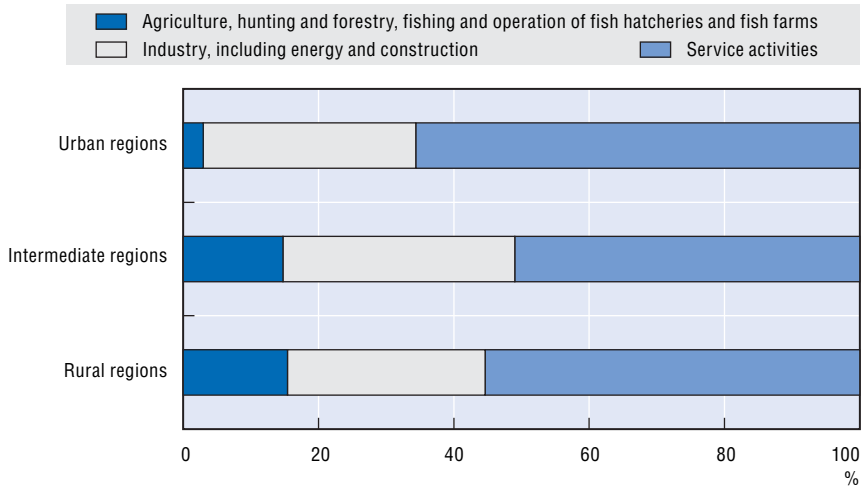


Note: Calculated on the basis of market prices. Data for 2004 are preliminary (base 2000).

Source: INE Regional Accounts.

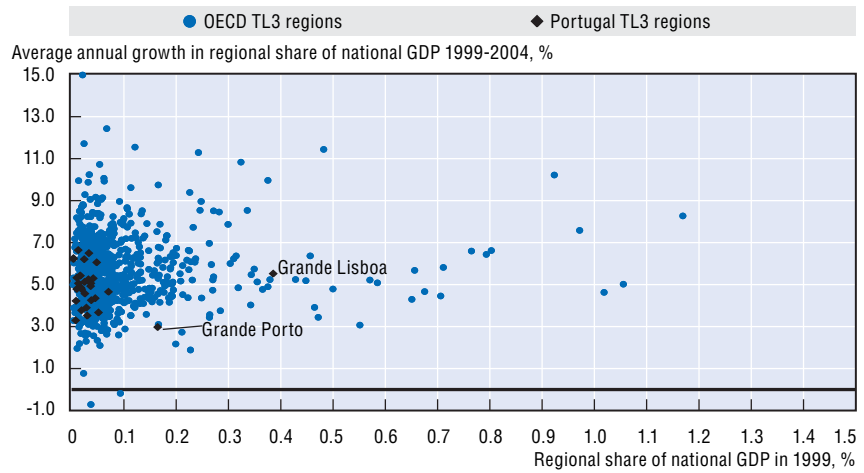
Figure 1.16. **Share of employment in agriculture, industry and services by type of region in Portugal, 2004**

Unit: %



Note: Data for 2004 are preliminary (base 2000).
Source: INE Regional Accounts.

Figure 1.17. **Growth of regional share of national GDP in Portugal and OECD countries**



Source: OECD Regional Database.

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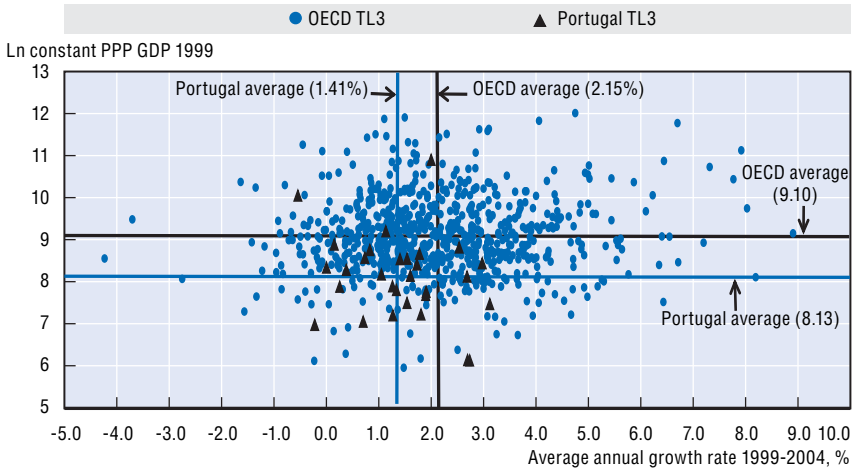
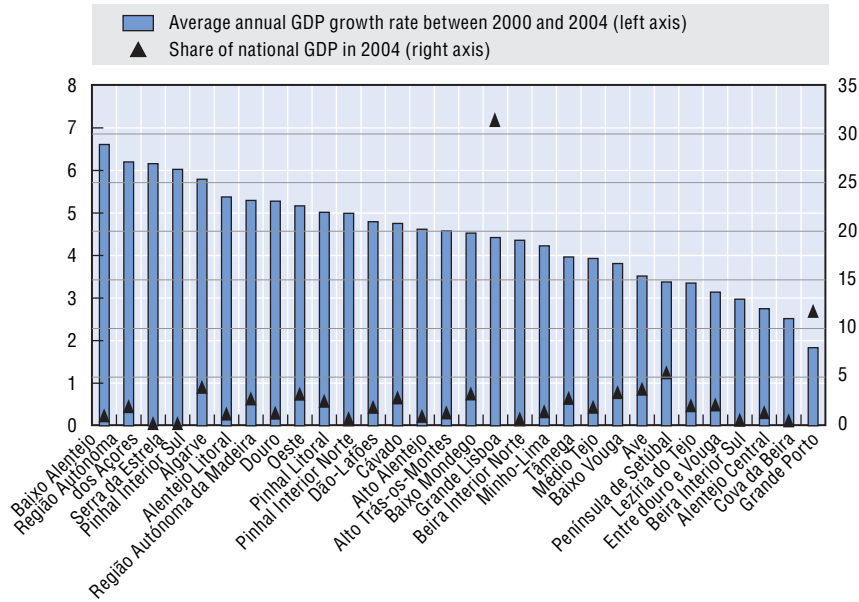
Figure 1.18. **GDP growth in TL3 regions in Portugal and OECD countries, 1999-2004**



Source: Calculations based on OECD Regional Database.

Figure 1.19. **GDP growth by TL3 region**

Unit: %



Note: Calculated on the basis of market prices. Data for 2004 are preliminary (base 2000).
Source: INE Regional Accounts.

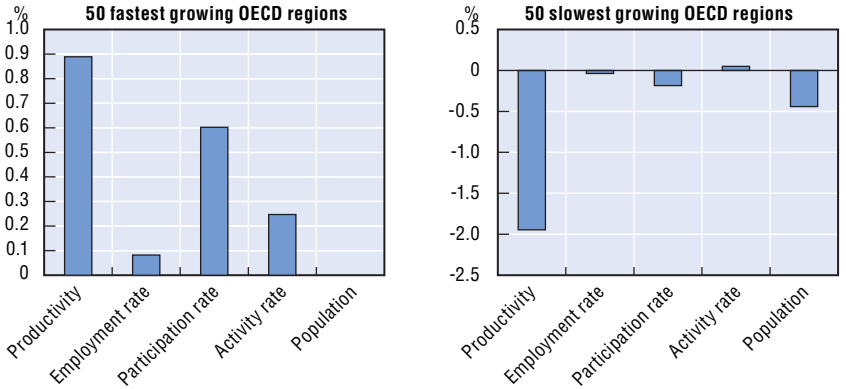
with 2.0% per year, followed by Península de Setúbal (1.13%) and Grande Porto (which actually declined by 0.54%). Among the remaining 27 Portuguese regions, only 6 regions (Algarve, Região Autónoma dos Açores, Serra de Estrela, Pinhal Interior Sul, Região Autónoma da Madeira and Baixo Alentejo) grew faster than OECD average.

In Portuguese regions as in other OECD regions, productivity accounts for the largest part of the difference in GDP growth rates between the regions and national average. According to the OECD methodology (see Annex 1.A1 for detailed explanation), differences in GDP growth between the regions of a given country and national average can be decomposed into five factors: differences in productivity, differences in employment rates, differences in participation rates, differences in age activity rates, and differences in population growth. In the 50 fastest growing regions in the OECD, the factor accounting for the largest part of the difference between regional and national GDP growth rates was productivity, and to a lesser extent, participation rate and age activity rate. In the 50 slowest growing regions in the OECD, the main factor was the decrease in productivity (Figure 1.20). When this methodology was applied to Portuguese TL3 regions (Figure 1.21), and especially to two fast growing regions and two slow growing regions of similar size (Figure 1.22), productivity stood out as the main factor of GDP growth difference. Low productivity and specialisation in low productivity sectors may be due to a combination of factors, closely linked to a region's competitive assets (both reproducible and irreproducible). The following section discusses the variety of assets for growth in Portuguese regions.

1.2.2. Regional assets for growth

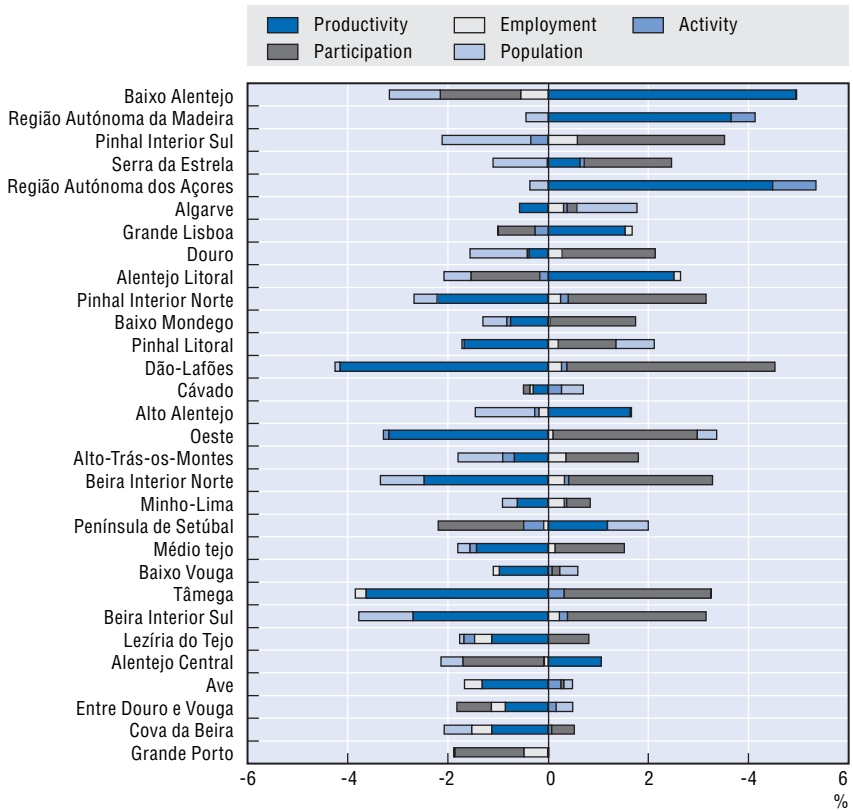
Regional disparities are closely linked with regional assets for growth. Compared with other OECD countries, Portugal exhibits an average level of regional disparities in GDP per capita, an average level of employment growth, but the third highest level of regional disparities in terms of unemployment rate (Figure 1.23 and Figure 1.24). High employment growth was therefore uneven across Portuguese regions, suggesting that employment opportunities – rather than just income levels – vary across regions. Employment opportunities are in turn largely determined by the existence of assets for growth. In Portugal as in many OECD countries, assets for growth are territorially concentrated and their nature differs across regions (*e.g.*, knowledge and innovation capacity, attractiveness). The following section underlines that: i) only a limited number of Portuguese regions have exploited their assets, and such regions could contribute even better to national growth if their weaknesses were properly addressed; ii) many other regions suffer from specific handicaps and have been unable to contribute fully to national growth despite their distinctive potential.

Figure 1.20. **Decomposition of GDP growth differences in the 50 fastest and 50 slowest growing OECD TL3 regions, 1999-2004**



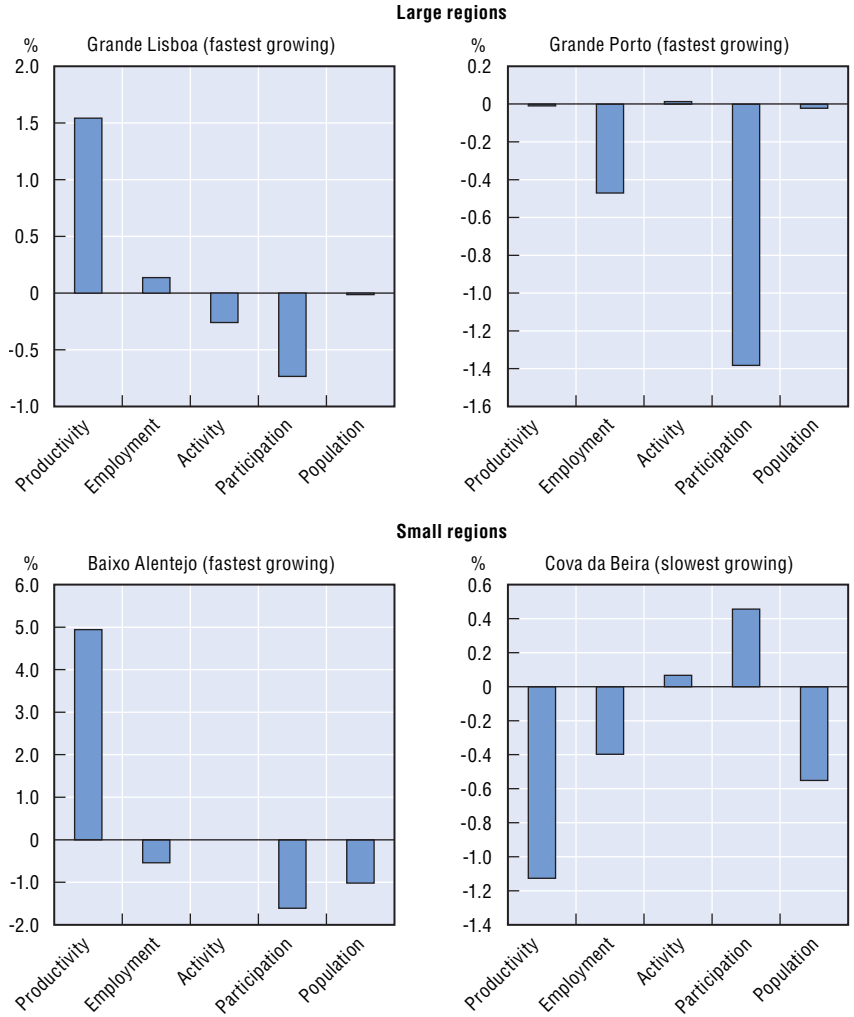
Source: Calculations based on OECD Regional Database.

Figure 1.21. **Decomposition of GDP growth differences between Portuguese TL3 regions and national average, 1999-2004**



Source: Calculations based on OECD Regional Database.

Figure 1.22. **Decomposition of GDP growth differences in Portuguese TL3 regions of similar size, 1999-2004**



Source: calculations based on OECD Regional Database.

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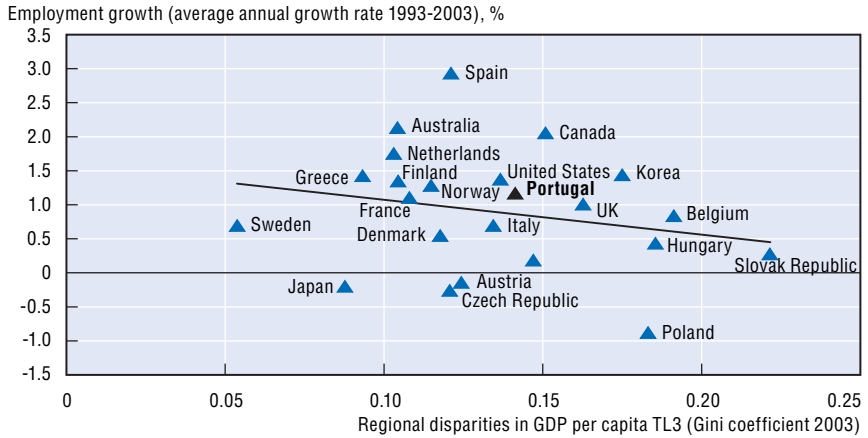
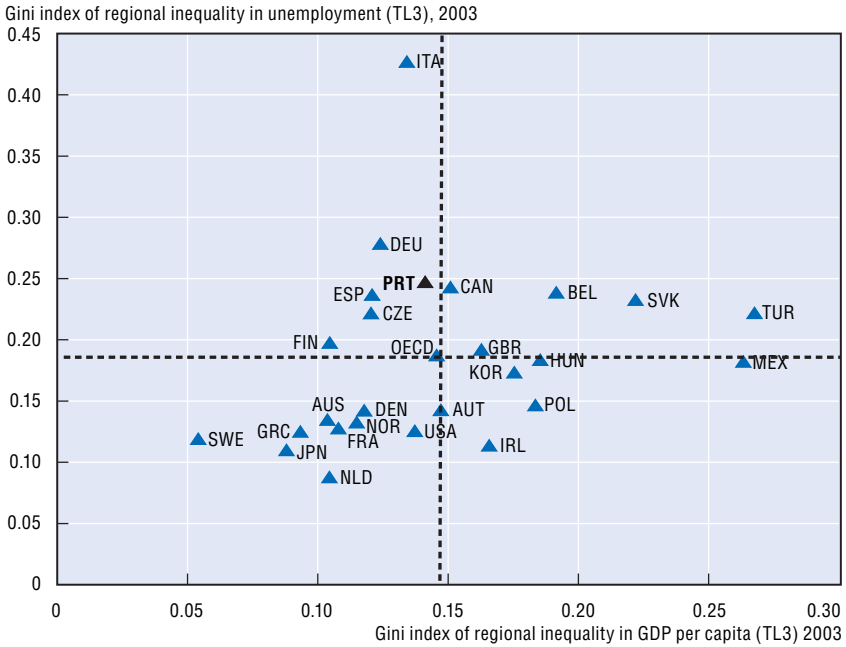
Figure 1.23. **Regional disparities in GDP per capita and national employment growth in OECD countries, 1999-2003**



1. Turkey, Mexico and Ireland were taken out of the sample as they were outliers (income too low in the first two and growth too high in the latter). No data available to include Switzerland, New Zealand and Iceland.

Source: Calculations based on OECD Regional Database.

Figure 1.24. **Regional disparities of GDP per capita and unemployment rate in OECD countries, 2003**



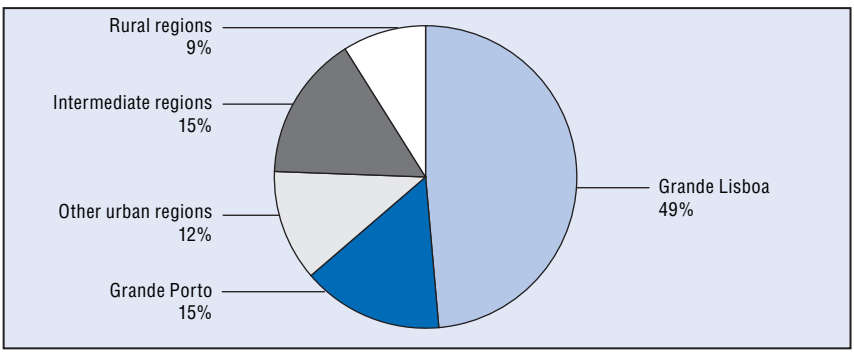
Source: Processed with data from *OECD Factbook 2007* and *OECD Regions at a Glance 2007*.

Strengths in leading regions

***a)* An excellence pole in the capital.** As in many OECD countries, the capital region leads national growth in Portugal. Lisbon (Grande Lisboa) concentrates almost a third of national GDP and was the only urban region[6] that maintained a relatively high growth rate during the 2000-2004 period (see previous Figure 1.19). It hosts the vast majority of political decision-making bodies, headquarters of the largest corporate groups, and high value-added activities (*e.g.*, real estate, financial activities, business services). Lisbon accounts for half of national R&D expenditure, which is highly concentrated in public research laboratories (Figure 1.25). The city exploited its rich historical and architectural heritage to expand quality tourism, while industrial activities thrived in the adjacent Península de Setúbal (*e.g.*, steel and chemical industries, ship repairing and engineering). Lisbon is the only mainland Portuguese region that after being eligible for EU Structural Funds for two decades, performed well enough to be upgraded into a Competitiveness and Employment region in the 2007-2013 period (Figure 1.26). At the international level, Lisbon is the only Portuguese region that figures among the 78 largest OECD metropolitan regions,[7] although it ranks among the poorest and has scope to build up its international stance (Figure 1.27).

***b)* A large polycentric industrial region.** While the capital pioneers in high-end activities, Portugal retains a number of key manufacturing industries. An export-oriented industrial reservoir expanded on the north coast around the greater metropolitan area of Porto.[8] The web of small and medium-sized cities absorbed abundant inflows of low-skilled labour, and SMEs have continued to specialise in traditional sectors (*e.g.*, textile and clothing, footwear, automobile parts, plastic moulds, leather, cork, furniture, mechanic construction and light engineering).

Figure 1.25. **Breakdown of national R&D expenditure, 2002**



Source: Ministry for Science, Technology and Higher Education – Observatory for Science and Higher Education.

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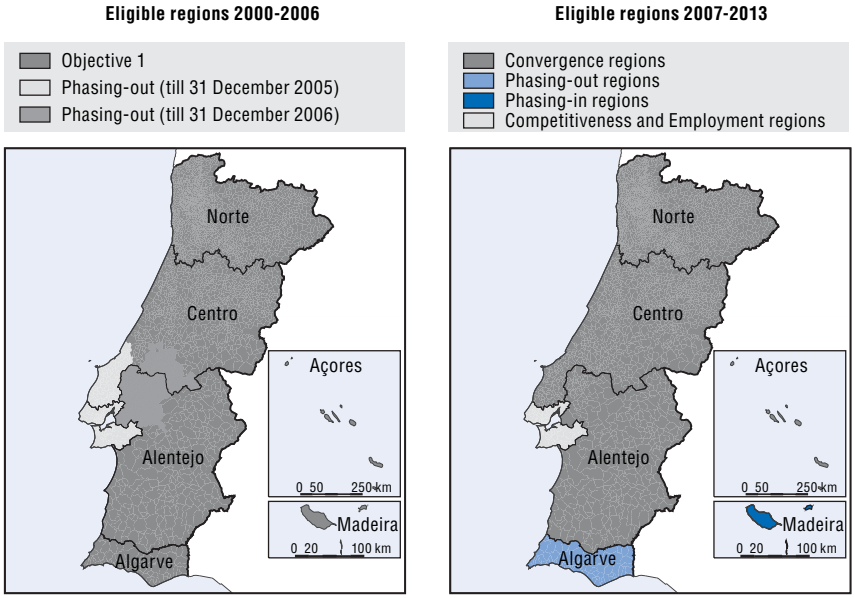
Figure 1.26. **Portuguese regions eligible for the EU Cohesion Policy, 2000-2006 and 2007-2013**



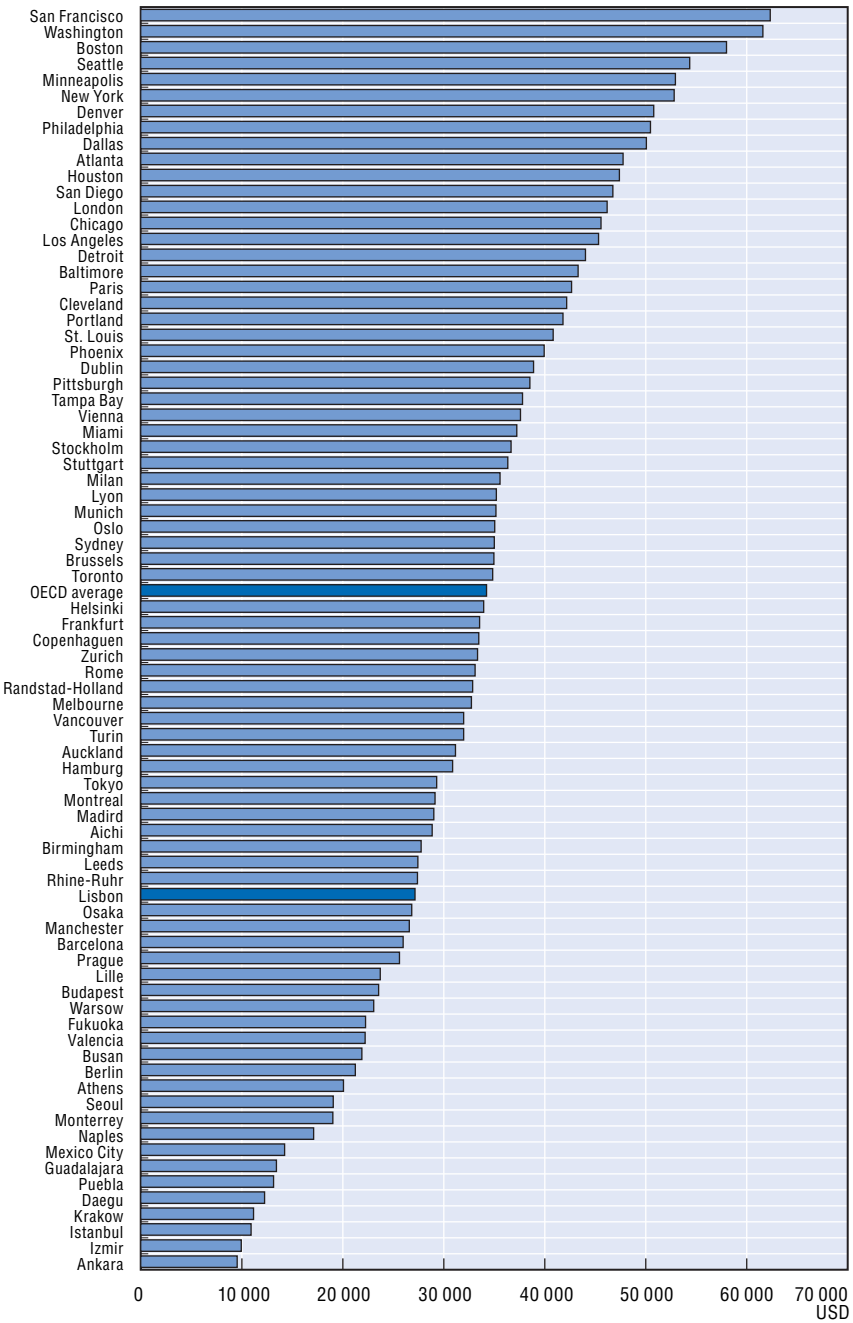
Source: EU Info Regio, Factsheet October 2006.

The nucleus of Porto offers business services, while two major commercial ports – Leixões and Viana do Castelo – supply export-import logistics. This vast industrial region enjoys high-speed railway connection to the capital Lisbon along a coastal strip of innovative cities (*e.g.*, Aveiro, Coimbra, Leiria). It is also endowed with a promising international airport (Sá Carneiro) and good highway connections.

The region's relatively low productivity and rising unemployment (Figure 1.28) raised concerns about future growth prospects. Grande Porto attracted relatively more population than Grande Lisboa in recent years and concentrates about 12% of national GDP, but it registered the lowest growth rate in Portugal over the 2000-2004 period (see previous Figure 1.19). Although the region has ridden on historical assets in terms of entrepreneurial spirit, industrial knowledge, and export functions, the surge of emerging countries is expected to further erode the cost competitiveness of manufacturing activities. Innovation capacity will therefore determine the region's resilience.

c) A dynamic tourism platform. Tourism activities prospered not only in Lisbon but also remarkably in the southern region of Algarve – one of the largest contributors to the national economy (4% of national GDP) and one of the fastest growing regions in Portugal during the 2000-2004 period. Both domestic and international markets bolstered the expansion of beach tourism and the recent

Figure 1.27. **Ranking of 78 OECD metropolitan regions by GDP per capita (PPP), 2002**



Source: OECD (2006), *Competitive Cities in the Global Economy*, Figure 1.9, p. 47.

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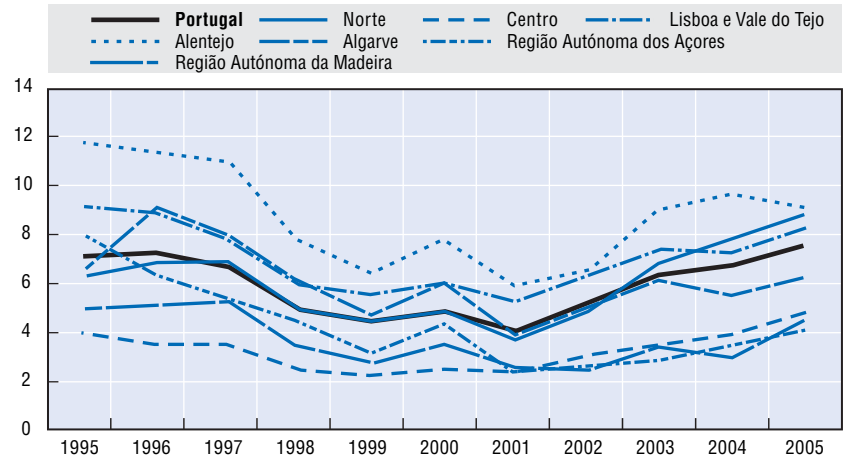
Figure 1.28. **Unemployment rates by TL2 region**

Unit: %



Note: There was a break in Labour Force Survey data in 1998.

Source: INE Labour Force Survey.

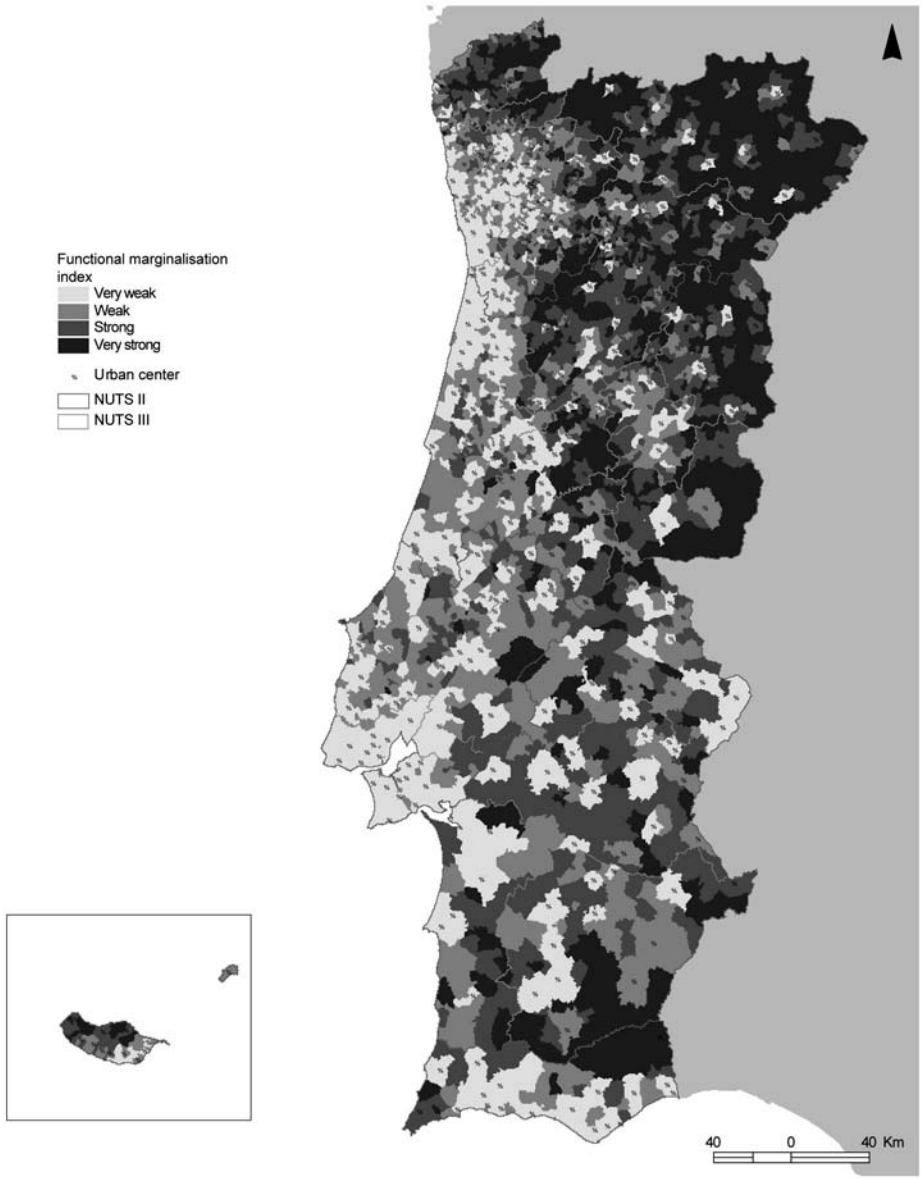
development of leisure and sport activities (such as golf). Tourism has rapidly overtaken other sectors in the region, including traditional agriculture and the processing industry (a minor part remains active in foodstuffs, beverages, tobacco products, non-metal minerals). The continued proliferation of tourism resorts and facilities provided generous employment opportunities, as construction-related jobs more than doubled between 1995 and 2003. However, the impending saturation of this growth pattern has infused uncertainty over sustainable development prospects and questioned the region's margin to devise alternative or complementary activities.

Abundant tourism amenities also account for the bulk of the regional economy in the two autonomous regions of Madeira and Azores. Such amenities constitute valuable assets for national growth; in particular, Madeira has become a national excellence pole in terms of tourism. At the same time, these regions – especially Azores – feature typical weaknesses calling for specific attention (*e.g.*, ultra-peripheral remoteness, lack of agglomeration effects to develop new activities). The pace of recent growth in the Azores suggests that tourism can partially compensate for the region's ultra-peripheral status.

Challenges in lagging regions

In contrast with urban coastal regions, most regions located in the interior of the country have struggled at length against rural exodus, population ageing, and shortage of dynamic economic activities. The lack of critical mass has often hampered public service delivery and contributed to marginalisation

Figure 1.29. **Functional marginalisation index, 2002**



Note: The functional marginalisation index takes into account the distance required to have access to a total of 117 goods and services, and the degree of specialisation of the goods and services. The classification used in the map (ranging from very weak to very strong marginalisation) is based on quartiles of *freguesias*. More detailed information is available in INE (2004) *Sistema urbano: áreas de influência e marginalidade funcional*.

Source: INE, *Sistema urbano: áreas de influência e marginalidade functional*, ed. 2004.

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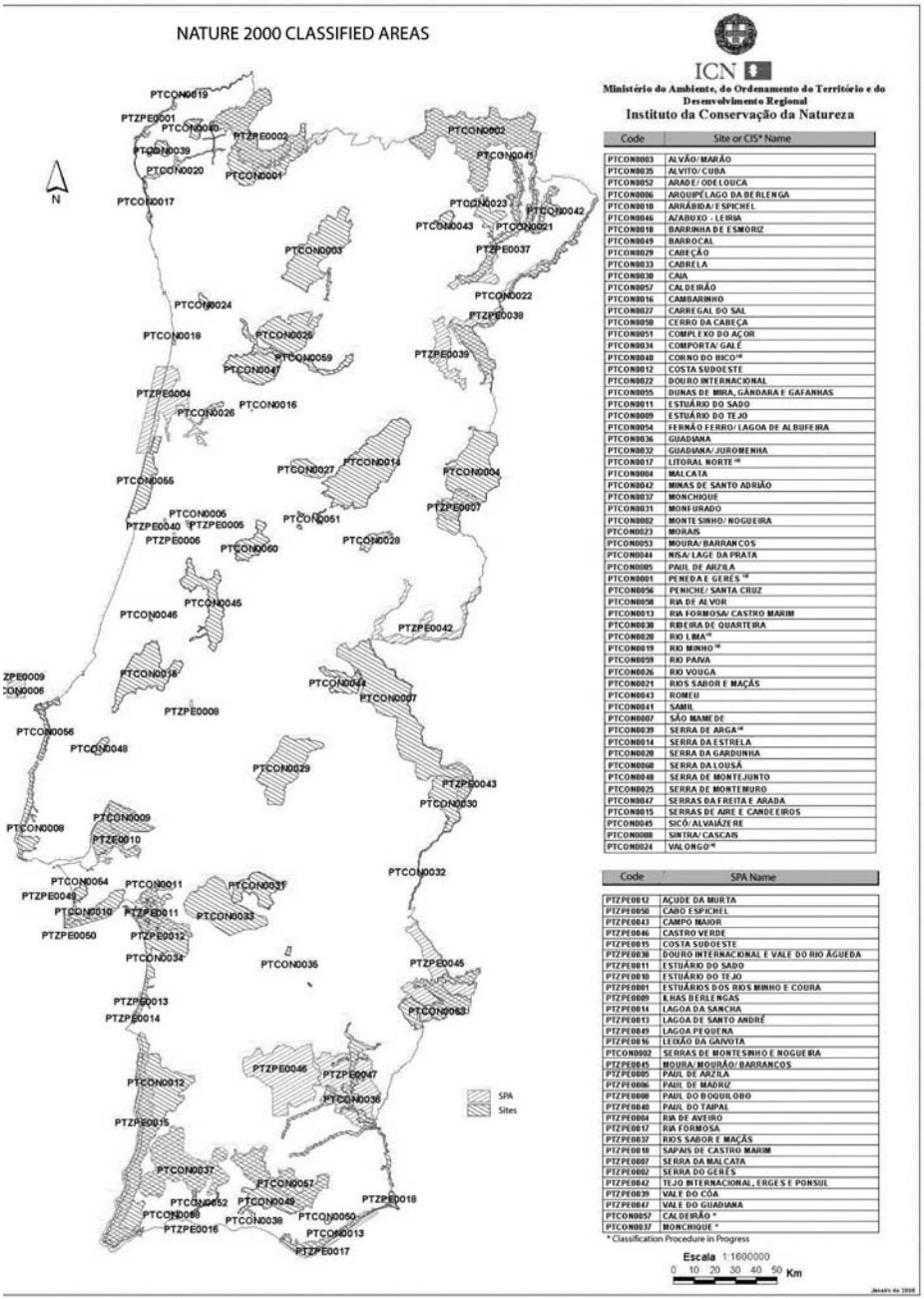
Figure 1.30. **Map of the EU Natura 2000 network in Portugal**



Code	Site or CIS* Name
PTCON0003	ALVÃO/ MARÃO
PTCON0035	ALVITO/ CUBA
PTCON0052	ARADE/ ODELOUCA
PTCON0006	ARQUIPÉLAGO DA BERLENGA
PTCON0010	ARRÁBIDA/ ESPICHEL
PTCON0046	AZABUXO - LEIRIA
PTCON0018	BARRINHA DE ESMORIZ
PTCON0049	BARROCAL
PTCON0029	CABEÇÃO
PTCON0033	CABRELA
PTCON0030	CAIA
PTCON0057	CALDEIRÃO
PTCON0016	CAMBARINHO
PTCON0027	CARREGAL DO SAL
PTCON0050	CERRO DA CABEÇA
PTCON0051	COMPLEXO DO AÇOR
PTCON0034	COMPORTA/ GALÉ
PTCON0048	CORNO DO BICO*
PTCON0012	COSTA SUDOESTE
PTCON0022	DOURO INTERNACIONAL
PTCON0055	DUNAS DE MIRA, GÂNDARA E GAFANHAS
PTCON0011	ESTUÁRIO DO SADO
PTCON0009	ESTUÁRIO DO TEJO
PTCON0054	FERNÃO FERRO/ LAGOA DE ALBUFEIRA
PTCON0036	GUADIANA
PTCON0032	GUADIANA/ JUROMENHA
PTCON0017	LITORAL NORTE*
PTCON0004	MALCATA
PTCON0042	MINAS DE SANTO ADRIÃO
PTCON0037	MONCHIQUE
PTCON0031	MONFURADO
PTCON0002	MONTESINHO/ NOGUEIRA
PTCON0023	MORAIS
PTCON0053	MOURA/ BARRANCOS
PTCON0044	NISA/ LAGE DA PRATA
PTCON0005	PAUL DE ARZILA
PTCON0001	PENEDA E GERÊS*
PTCON0056	PENICHE/ SANTA CRUZ
PTCON0058	RIA DE ALVOR
PTCON0013	RIA FORMOSA/ CASTRO MARIM
PTCON0038	RIBEIRA DE QUARTEIRA
PTCON0020	RIO LIMA*
PTCON0019	RIO MINHO*
PTCON0059	RIO PAIVA
PTCON0026	RIO VOUGA
PTCON0021	RIOS SABOR E MAÇÃS
PTCON0043	ROMEU
PTCON0041	SAMIL
PTCON0007	SÃO MAMEDE
PTCON0039	SERRA DE ARGA*
PTCON0014	SERRA DA ESTRELA
PTCON0028	SERRA DA GARDUNHA
PTCON0060	SERRA DA LOUSÃ
PTCON0040	SERRA DE MONTEJUNTO
PTCON0025	SERRA DE MONTEMURO
PTCON0047	SERRAS DA FREITA E ARADA
PTCON0015	SERRAS DE AIRE E CANDEEIROS
PTCON0045	SICÓ/ ALVAIÁZERE
PTCON0008	SINTRA/ CASCAIS
PTCON0024	VALONGO*

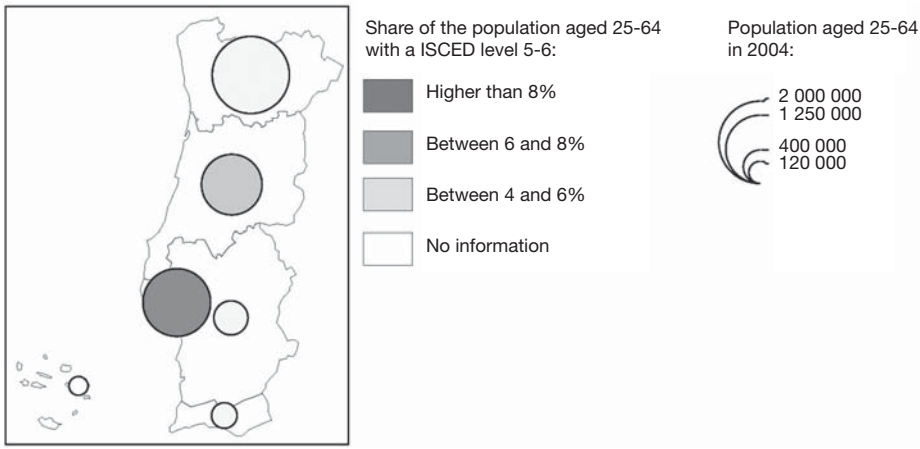
Code	SPA Name
PTZPE0012	AÇUDE DA MURTA
PTZPE0050	CABO ESPICHEL
PTZPE0043	CAMPO MAIOR
PTZPE0046	CASTRO VERDE
PTZPE0015	COSTA SUDOESTE
PTZPE0038	DOURO INTERNACIONAL E VALE DO RIO ÁGUEDA
PTZPE0011	ESTUÁRIO DO SADO
PTZPE0010	ESTUÁRIO DO TEJO
PTZPE0001	ESTUÁRIOS DOS RIOS MINHO E COURA
PTZPE0009	ILHAS BERLENGAS
PTZPE0014	LAGOA DA SANCHA
PTZPE0013	LAGOA DE SANTO ANDRÉ
PTZPE0049	LAGOA PEQUENA
PTZPE0016	LEIXÃO DA GAIVOTA
PTCON0002	SERRAS DE MONTESINHO E NOGUEIRA
PTZPE0045	MOURA/ MOURÃO/ BARRANCOS
PTZPE0005	PAUL DE ARZILA
PTZPE0006	PAUL DE MADRIZ
PTZPE0008	PAUL DO BOQUILOBO
PTZPE0040	PAUL DO TAIPAL
PTZPE0004	RIA DE AVEIRO
PTZPE0017	RIA FORMOSA
PTZPE0037	RIOS SABOR E MAÇÃS
PTZPE0018	SAPAIS DE CASTRO MARIM
PTZPE0007	SERRA DA MALCATA
PTZPE0002	SERRA DO GERÊS
PTZPE0042	TEJO INTERNACIONAL, ERGES E PONSUL
PTZPE0039	VALE DO CÔA
PTZPE0047	VALE DO GUADIANA
PTCON0057	CALDEIRÃO *
PTCON0037	MONCHIQUE *

Source: Plano Sectorial da Rede Natura 2000 (*www.icn.pt/psrn2000/conteudo_plano.htm*).

(Figure 1.29). It is acknowledged that agriculture, once a vital provider of jobs and income, is facing challenges. Rural areas that fall under the 20% of Portugal's territory protected by the EU Natura 2000 network face additional constraints related to land use; at the same time, severe environmental requirements also imply that these areas store up potential for sustainable development in the long term (Figure 1.30). Diversification of rural economies based on under-developed endogenous resources (*e.g.*, natural and cultural amenities) has become a priority, especially with regard to low levels of density that are expected to stabilise or deteriorate over the next 20-30 years.

Key factors to diversify and regenerate rural economies remain in short supply. A possible explanation could be that most of these regions are entrenched in a low value-added sectoral specialisation because their workforce is low skilled, but also because their workforce has little incentive to upgrade their educational attainments[9] (Figure 1.31, Table 1.3, and Table 1.4). Higher skilled workers have more chances to be unemployed in these regions (*e.g.*, workers with a first stage of tertiary education encounter unemployment rates of 8.0% in Norte, 8.7% in Centro, and 7.4% in Alentejo, *versus* national average of 6.6% in 2005). The odds for unemployment attached to higher education even increased between 1998 and 2005 (*e.g.*, the unemployment rate for the highest level of skills increased three times more than national average in Norte: +3.9 percentage points *versus* +1.3 percentage points). Therefore, action to break the vicious circle of decline will need to link rural diversification and human capital factors into a comprehensive strategy.

Figure 1.31. **Share of the population aged 25-64 with higher education by TL2 region, 2004**



Source: OECD Regional Database.

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Table 1.3. **Educational attainments by TL2 region, 1998 and 2006**

% of labour force over 15 years

	1998	2006		1998	2006
PORTUGAL			**Alentejo**		
Low	83.44	75.96	Low	87.91	81.08
Medium	10.39	13.97	Medium	7.17	12.32
High	6.17	10.07	High	4.92	6.59
Norte			**Algarve**		
Low	86.60	79.69	Low	85.45	75.61
Medium	8.64	12.09	Medium	9.60	15.66
High	4.76	8.23	High	4.95	8.73
Centro			**Açores**		
Low	84.58	78.52	Low	89.14	83.06
Medium	9.82	12.81	Medium	7.56	10.82
High	5.59	8.66	High	3.30	6.12
Lisboa e Vale do Tejo			**Madeira**		
Low	78.07	69.42	Low	88.34	80.35
Medium	13.29	16.82	Medium	9.05	12.19
High	8.64	13.76	High	2.61	7.46

Note: Low = from pre-primary to lower secondary education. Medium = from upper secondary to post-secondary non-tertiary education. High = tertiary education.
Source: INE Labour Force Survey.

Table 1.4. **Unemployment rate by educational attainment and by TL2 region**

Unemployment rate in 2005 (%)

	No education	Primary education	Lower secondary education	Upper secondary education	Post-secondary non-tertiary education	First stage of tertiary education	Second stage of tertiary education
TOTAL PORTUGAL	**4.6**	**7.6**	**9.1**	**7.9**	**11.4**	**6.6**	**1.5**
Norte	5.7	8.5	11.3	9.7	7.3	8.0	3.9
Centro	1.0	3.8	7.4	5.7	13.5	8.7	0.0
Lisboa e Vale do Tejo	6.7	9.7	8.8	8.1	14.5	5.3	0.5
Alentejo	11.7	9.5	10.0	6.7	11.3	7.4	4.4
Algarve	4.3	6.7	6.6	5.8	1.3	5.6	0.0
Açores	2.4	4.3	5.5	3.2	3.0	2.9	0.0
Madeira	4.7	4.4	4.0	6.5	4.9	3.9	0.0

Growth of unemployment rate between 1998 and 2005 (percentage points)

	No education	Primary education	Lower secondary education	Upper secondary education	First stage of tertiary education	Second stage of tertiary education
TOTAL PORTUGAL	**2.0**	**2.7**	**3.0**	**1.0**	**3.0**	**1.3**
Norte	3.5	3.9	4.8	1.2	3.6	3.9
Centro	0.5	1.4	4.1	0.3	6.4	0.0
Lisboa e Vale do Tejo	1.8	3.4	2.4	1.5	1.5	0.5
Alentejo	2.6	1.5	2.0	–2.3	4.3	–0.3
Algarve	0.2	0.2	–1.3	1.0	3.0	0.0
Açores	0.5	0.0	–1.9	–1.9	1.3	0.0
Madeira	3.1	0.7	0.1	1.0	2.3	0.0

Note: No data available for post-secondary non-tertiary education level in 1998.
Source: INE Labour Force Survey.

1.3. Conclusion

Portugal has a large scope to derive full advantage from EU membership and serve as Europe's gateway to Latin America and to Africa. The current economic recovery and political stability have opened a rare opportunity to build sustainable growth capacity and address chronic weaknesses (*e.g.*, education). Levers of growth and impediments are both anchored in and different across regions. Nation-wide ambitions to modernise the economy must therefore consider and exploit regional characteristics in order to bear fruit. Regional policy offers a tool to conjugate structural reforms in territories.

The implementation of a competitiveness agenda with limited public funds in Portugal calls for two types of considerations. First, competitive assets such as knowledge and attractiveness must be tapped where they are located in order to trigger spillover effects in a national positive-sum game. Second, regions suffering from individual handicaps and not yet able to play their part in national growth need targeted support to access basic public services, with a view to buttress further efforts to capture differentiated regional competitive advantages. The following chapter will explore to what extent regional policy can help translate a broad competitiveness roadmap into an effective network of growth in Portugal.

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ANNEX 1.A1

Methodology for decomposition of GDP growth differences

The share of region *i* in the total GDP of the OECD can be written as:

$$\frac{GDP_i}{GDP_{OECD}} = \frac{GDP_i}{GDP_j} * \frac{GDP_j}{GDP_{OECD}} \quad (1)$$

where *j* denotes the country of region *i*. The GDP share of region *i* in country *j* is then equal to:

$$\frac{GDP_i}{GDP_j} = \frac{GDP_i / E_i}{GDP_j / E_j} * \frac{E_i / LF_i}{E_j / LF_j} * \frac{LF_i / WA_i}{LF_j / WA_j} * \frac{WA_i / P_i}{WA_j / P_j} * \frac{P_i}{P_j} \quad (2)$$

where P, *E*, *LF* and WA stand, respectively, for population, employment, labour force and working age (15-64) population. Therefore, the GDP share of region *i* in country *j* is a function of its GDP per worker (GDPi/Ei), employment rate (Ei/LFi), participation rate (LFi/WAi), age-activity rate (WAi/Pi) and population (Pi), relative to, respectively, the GDP per worker (GDPj/Ej), employment rate (Ej/LFj), participation rate (LFj/WAj), age-activity rate (WAj/Pj) and population (Pj) of its country.

By substituting equation (2) into equation (1), taking the logarithm and differentiating it, one obtains:

$$(g_i - g_j) = (g_{p,i} - g_{p,j}) + (g_{e,i} - g_{e,j}) + (g_{lf,i} - g_{lf,j}) + (g_{wa,i} - g_{wa,j}) + (g_{p,i} - g_{p,j}) \quad (3)$$

or, equivalently:

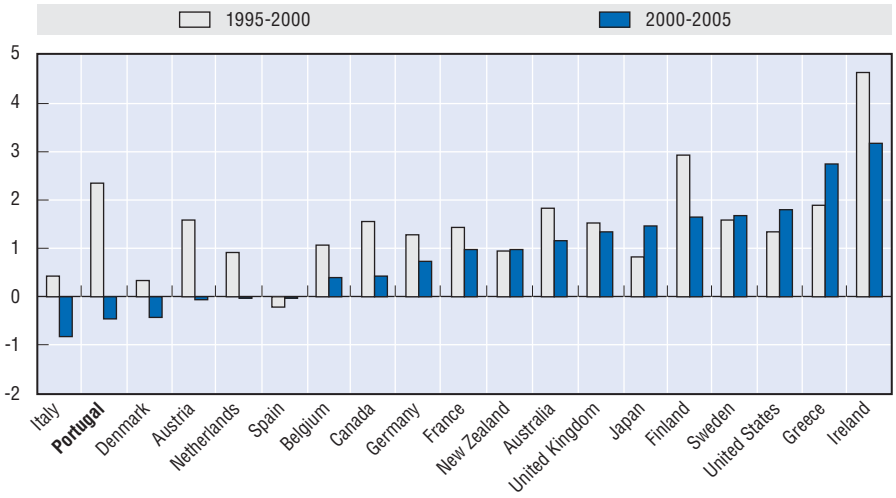
Difference in GDP growth between region *i* and the country *j*	=	Growth difference in GDP per worker between region *i* and country *j*	+	Growth difference in the employment rate between region *i* and country *j*	+	Growth difference in the participation rate between region *i* and country *j*	+	Growth difference in the age-activity rate between region *i* and country *j*	+	Growth difference in population between region *i* and country *j*

ANNEX 1.A2

National background figures

Figure 1.A2.1. **Average annual growth of multi-factor productivity in OECD countries, 1995-2000 and 2000-2005**

Unit: %



Source: OECD Factbook 2007.

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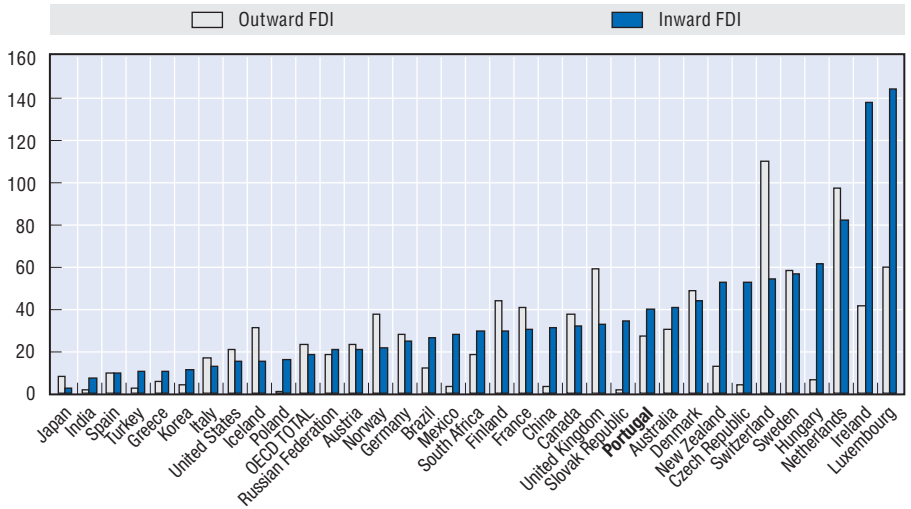
Figure 1.A2.2. **FDI stocks in OECD countries, 2004 or latest year available**

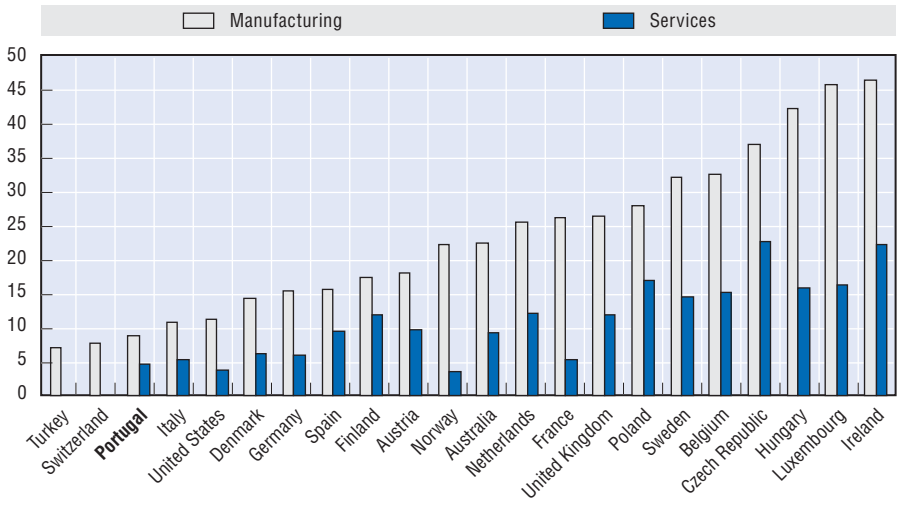
Unit: % of GDP



Source: OECD Factbook 2007.

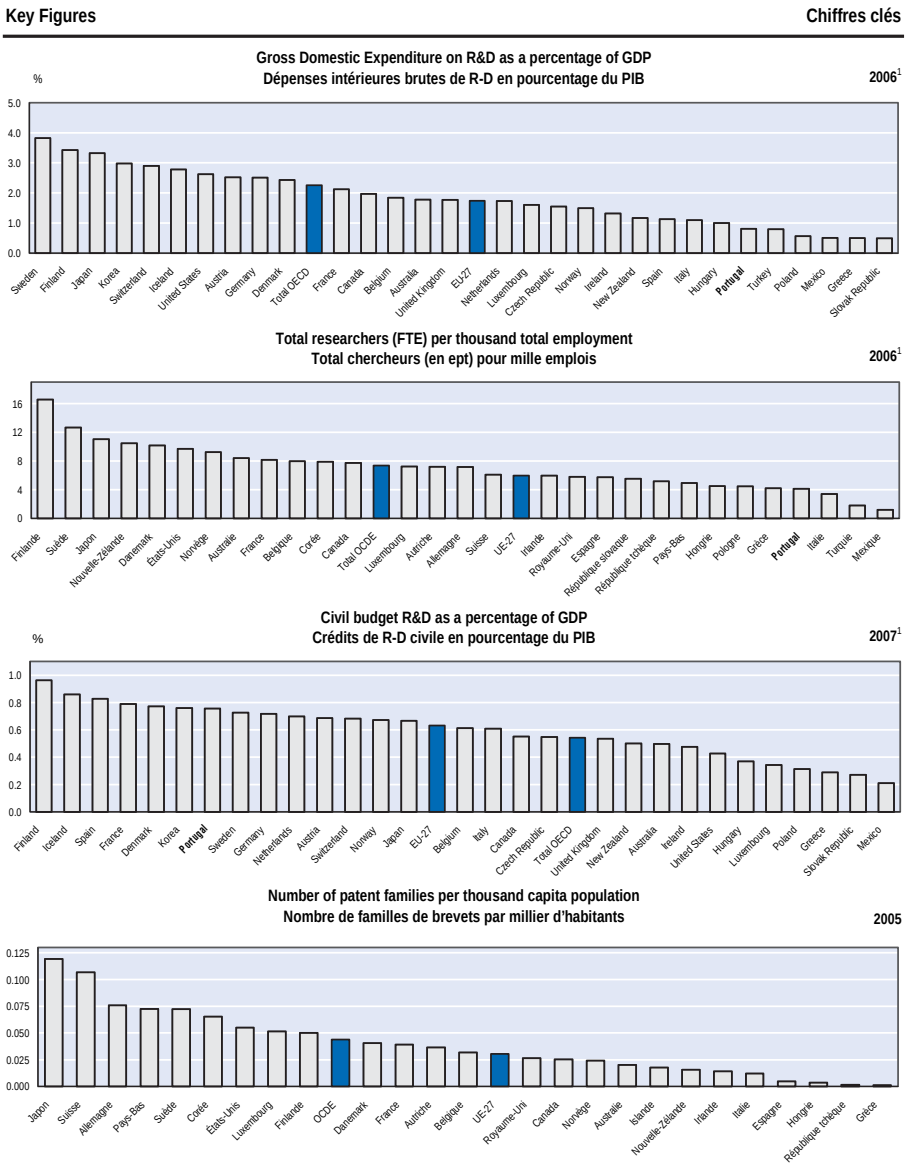
Figure 1.A2.3. **Employment in manufacturing and services in affiliates under foreign control, 2004 or latest year available**

Unit: % of total employment



Source: OECD Factbook 2007.

Figure 1.A2.4. **Indicators on R&D**



1. Or latest year.

Source: OECD Main Science and Technology Indicators 2007, p. 15.

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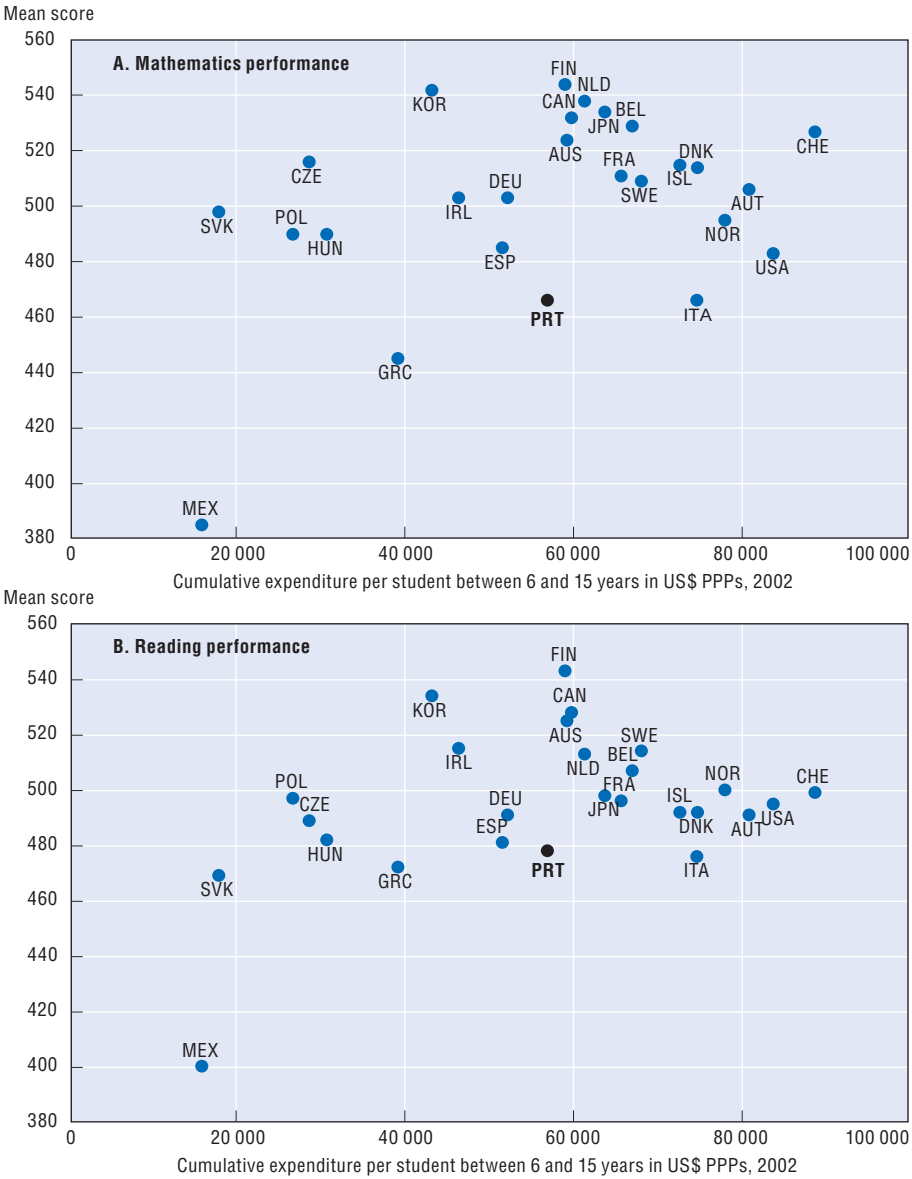
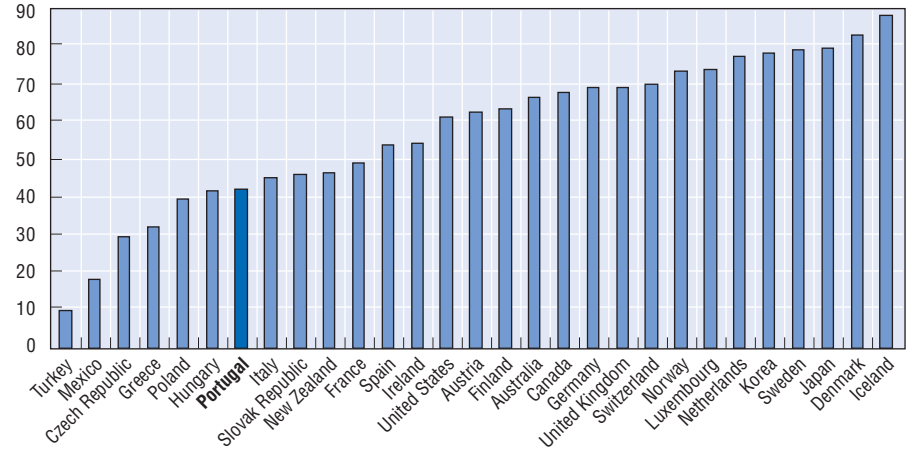
Figure 1.A2.5. **PISA results and national spending per student (up to 15 years old) in OECD countries, 2003**



Source: OECD, Learning for Tomorrow's World: First Results from PISA 2003; OECD, *Education at a Glance* (2005). *OECD Economic Survey of Portugal 2006*, Figure 3.6, p. 76.

Figure 1.A2.6. **Households with access to home computer, 2005 or latest year available**

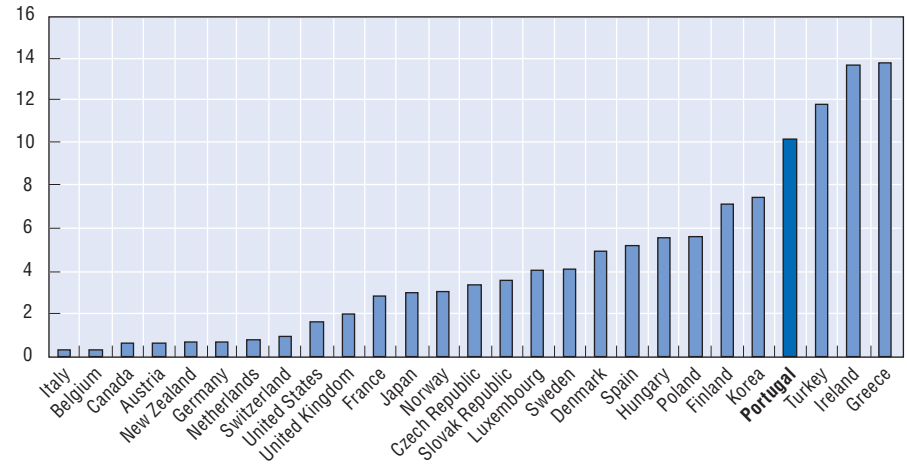
Unit: % of total number of households



Source: OECD Factbook 2007.

Figure 1.A2.7. **Average annual growth of the motorway network in OECD countries, 1992-2005**

Unit: %



Source: OECD Factbook 2007.

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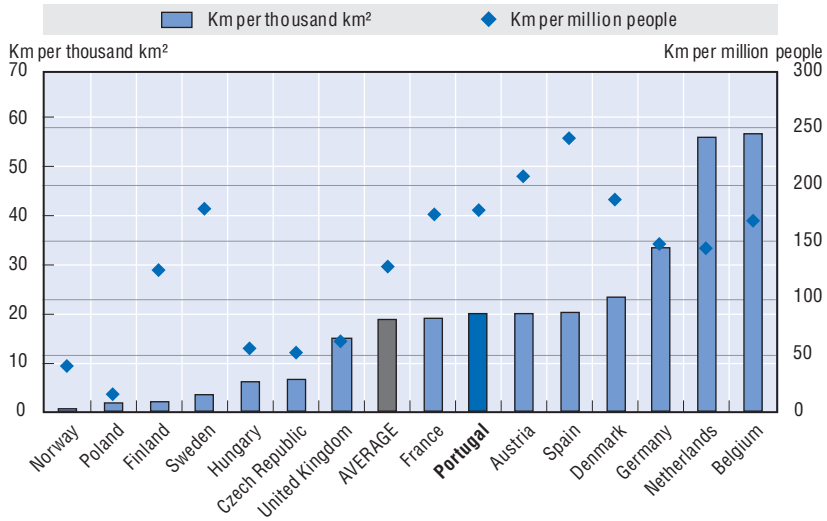
Figure 1.A2.8. **Density of the motorway network in OECD countries**



Source: Eurostat.

Notes

1. See recommendations of *OECD Economic Survey of Portugal 2006*.
2. See conclusions from the OECD High-Level Meeting on regional development in Martigny, Switzerland (2003), and OECD document "Strategic Assessment of Regional Policy: An Issues Paper" [GOV/TDPC(2007)4].
3. All urban and intermediate regions are located on the coast or nearby. Urban, intermediate, and rural regions are defined according to the OECD Regional Typology (less than 15%, between 15 and 50%, and more than 50% of their population respectively lives in rural communities). A rural community is a community with a population density below 150 inhabitants/km^2.
4. However, Grande Lisboa and Grande Porto display quite different patterns of specialisation and competitiveness.
5. Data given for the three main sectors (agriculture; industry; services).
6. Along with Cávado.
7. The Greater Metropolitan Area of Lisbon (GAML, defined by the law 10/2003 of 13 May 2003) encompasses the following municipalities (*concelhos*): Alcochete, Almada, Amadora, Barreiro, Cascais, Lisboa, Loures, Mafra, Moita, Montijo, Odivelas, Oeiras, Palmela, Sesimbra, Setúbal, Seixal, Sintra and Vila Franca de Xira.
8. The Greater Metropolitan Area of Porto (GAMP, defined by the Law 10/2003 of 13 May 2003), previously called the Metropolitan Area of Porto (AMP), encompasses the following municipalities (*concelhos*): Espinho, Gondomar, Maia, Matosinhos, Porto, Póvoa de Varzim, Valongo, Vila do Conde, Vila Nova de Gaia, and since January 2005, Arouca, Santa Maria da Feira, São João da Madeira, Santo Tirso and Trofa.
9. This paragraph presents a broad analytical hypothesis based on TL2 data; there were no data available at TL3.

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List of Acronyms

AICEP	Business Development Agency of Portugal
CCDR	Commissions for Regional Co-ordination and Development
ERDF	European Regional Development Fund
ESF	European Social Fund
GCELPT	Cabinet for the Co-ordination of the Lisbon Strategy and the Technological Plan
NSPP	National Spatial Policy Programme
NSRF	National Strategic Reference Framework
OP	Operational Programme
PIN	Projects of National Interest
PRACE	Programme for the Reform of Public Administration
PRIME	Programme of Incentives for the Modernisation of the Economy
PROT	Regional Spatial Plans
PROVERE	Programme for the Economic Valorisation of Endogenous Resources
ROP	Regional Operational Programme

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