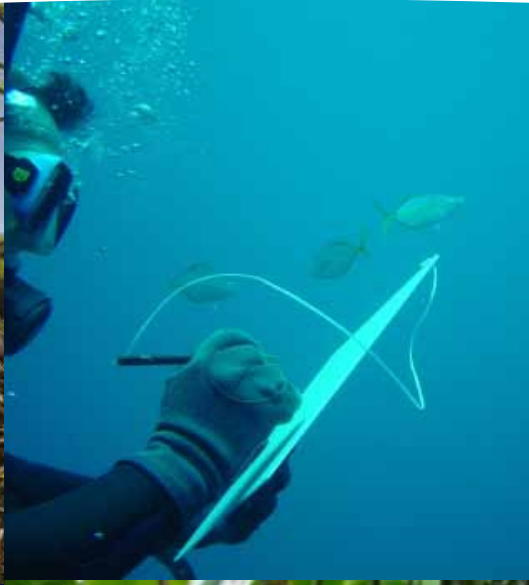




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Growth Factors in the Outermost Regions



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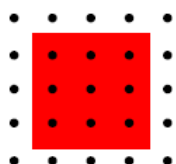
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Growth Factors in the Outermost Regions

**Final Report
Vol. I**

Version: final

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ISMERI EUROPA

In cooperation with



March 2011

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The views of this study are those of the authors and do not necessarily reflect the policies of the European Commission.

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The study team would like to thank all those individuals who have contributed their time and ideas to the successful completion of this important study. The usual disclaimer applies and possible remaining errors are the sole responsibility of the study team.

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1. Introduction: background and objectives of the study

The study of “Growth factors in the outermost regions” was launched by DG REGIO at the end of 2009 to identify opportunities for economic growth in these remote territories of the European Union.

The background of the study is given by a series of Communications (COM 2008, 2007, 2004) of the European Commission aimed at raising the issue of boosting growth opportunities in the Outermost Regions (OR). In October 2009, just before the call for this study was published, a Memorandum was signed presenting the position and priorities of the ORs in the next programming period. In particular, an agenda of events to take place in 2010 and 2011 was drawn up, leading to the presentation of a new strategy for the period 2014-2020.

Important events concerning the ORs took place in the first half of 2010. The commitment to contribute to the establishment of objectives and priorities within the framework of the Europe 2020 Strategy and for the post-2013 period (jointly agreed on in October 2009), led to the signature of a further memorandum¹ of Spain, France, Portugal and the Outermost Regions, in Las Palmas de Gran Canaria on the 7th of May 2010.

Furthermore, on the 27th-28th of May a high-level conference took place in Brussels with EU Commissioners Michel Barnier and Johannes Hahn. The two-day forum, hosted by the Spanish EU Presidency, was the first of its kind and delegates from as far as the South American continent and the Indian Ocean came to present their demands to the EU. During the conference, the political leaders from the ORs demanded tailor-made strategies and exemptions from a number of key EU policies.

The present study has been developed in parallel to the evolution of this dynamic background. Its main objectives are the following:

- Deepening the understanding of the process of economic development in the ORs; this entails:
 - o Setting up a general analytical framework (quantitative and qualitative analysis);
 - o Analysing drivers of growth over the past ten years, the role of traditional and new sectors;
 - o Analysing vulnerabilities and opportunities;
- Identifying strategies to:
 - o Improve competitiveness, job opportunities and living standards;
 - o Reduce dependence on traditional sectors in favour of new activities;
- Proposing a number of flagship projects as concrete actions to achieve the above goals.

¹ A Renewed Vision of the European Strategy for the Outermost Regions, May 2010.

As stated in the Terms of Reference, the project is structured around three main parts:

- Part I: analysis of recent socio-economic trends and drivers.
 - o A synthetic literature review on the determinants of growth for small economies taking into account the particular situation of the outermost regions such as extreme distance from the main European markets.
 - o A summary of the problems and the current challenges faced by the outermost regions in terms of main socio-economic trends as well as future challenges in relation to the impact of globalisation, demographic and environmental change.
 - o A statistical and qualitative analysis of the determinants of growth in the outermost regions over the past ten years recognising the role played by the traditional, predominant sectors such as agriculture, fisheries or tourism. This part of the study should also identify advantageous areas in the ORs taking into account the challenges and assets identified by the Commission in its Communications on the outermost regions in September 2007 and October 2008. Developing a methodology for this analysis applicable to all of the outermost regions is part of the task.
 - o A set of summary tables, setting out thematic indicators that seek to capture the essence of each region in the ORs while presenting possible commonalities in the development processes of all regions.
- Part II: regional analysis of the seven² Outermost Regions (field research).
 - o General description of the socio-economic situation.
 - o Complementary qualitative analysis. Certain aspects of the socio-economic situation of the outermost regions may not readily lend themselves to quantitative analysis (for example, institutional aspects) while being very important in explaining economic performance and prospects.
 - o Main factors underlying each region's economic performance. SWOT analysis (major strengths, weaknesses, opportunities and threats) of each region; vulnerable sectors/high potential sectors.
- Part III: concrete proposals of flagship projects.
 - o Based on the analysis of existing experience with flagship projects (successes and failures) and on Part II of this study, strategic proposals are developed for the regions concerned. Flagship projects tend to possess one or more of the following characteristics: durable contribution to regional development, high visibility, innovative nature and high added-value, encourage spin-offs etc.
 - o Finally, the study indicates how flagship projects could help the outermost regions along a path to sustainable development with higher living standards.

² When the study started the Outermost Regions were seven: Guadeloupe, Guiana, Réunion, Martinique, The Canary Islands, The Azores and Madeira.

The present Volume I of the Final Report is structured as follows.

Chapter 2 outlines the recent socio-economic trends and underlying factors as regards the outermost regions; chapter 3 discusses new patterns of growth based on unexploited potential and new sectors; chapter 4 draws conclusions.

Even though this report should be considered as the result of a collective work carried out by the study team under the direction of Enrico Wolleb, in more detail, the present Volume I was primarily drafted by Ismeri Europa (Enrico Wolleb and Andrea Ciffolilli in cooperation with Marco Pompili), while the regional analyses in Volume II were carried out as follows: Guadeloupe by Ismeri Europa, other ORs by ITD-Eu (see Vol. 2 for further details).

2. Analysis of recent socio-economic trends and underlying factors

2.1. Determinants of growth for small economies

2.1.1. Drivers of growth in the different strands of the economic theory

The economic theory on drivers of growth distinguishes among six different strands³: (1) Integration, liberalisation of trade and markets as well as financial stability; (2) Physical investment; (3) Human capital; (4) Innovation and technology; (5) Agglomeration; (6) Regional environment: socio-economic, political and institutional dimensions.

The first strand of theory emphasises the importance of economic integration, liberalisation of trade and markets and financial stability as necessary conditions for sustained regional development, a view endorsed by international organisations, which tend to stress the need for further steps in these directions⁴. This strand is very important for the ORs, which, so far, have not managed to benefit from it due to their distance from the Single Market and to a lack of export oriented productions.

Policies for economic integration are a central part of the Treaty of Rome. They were developed further with the Single European Act which launched the creation of a Single Market and were extended with the Maastricht and Amsterdam treaties that led to the European Union and a single currency.

Significant economic advantages from integration were widely expected by the participants and the high rates of economic growth in the 1950s and 1960s were partly attributed to the creation of the common market. Moreover, the economic gains of integration could manifest themselves fully only in the context of competitive markets. Integration and liberalisation policies have therefore become two major cornerstones of building the European Union.

The debate on the advantages of integration developed initially in the context of the customs union theory. The effects of integration were measured in terms of welfare gains from increased trade flows. Empirical studies, however, suggested that these static advantages of integration were small⁵. The focus of the theory then shifted to the dynamic effects⁶ of integration, which were estimated to be much stronger than the static effects⁷.

³ Ismeri Europa (2008), E. Wolleb and G. Wolleb "Cohesion policy strategy and international policy recommendations", Task 3 of WP1: Coordination, analysis and synthesis, Ex Post Evaluation of Cohesion Policy Programmes 2000-2006 financed by the European Regional Development Fund in Objective 1 and 2 Regions, with Applica.

⁴ Cecchini (1988) and Emerson (1988) reports for the Commission

⁵ Senior Nello (2005)

⁶ Increased sector specialisation, leading to a better allocation of resources in line with comparative advantages of each country or region; increased competition in all markets, bringing gains in efficiency and consequent reductions in costs and prices; the realisation of static and dynamic economies of

It was argued that these effects of integration, in line with modern theories of endogenous growth, would not only lead to a once for all increase in real income but also to a permanent rise in the rate of growth due to its effects on knowledge and human capital.

The permanence of monopolistic positions, price and cost rigidities and imperfect mobility of factors of production, however, represent obstacles to the effective realisation of these benefits. Hence, the need for a strong competition policy at Community level.

While the process of integration has gone quite far in the EU, it is widely believed that there are still potential gains to be realised from it going further. Liberalisation of network industries may have important economic effects because their products are basic inputs into most other parts of the economy. Increased liberalisation of public procurement and further liberalisation of financial services are also important (Giannetti et al., 2002, Begg and El-Agraa, 2004). Greater flexibility in the labour market and increased worker mobility are crucial as well.

Economic theorists, especially those concerned with economic development, are not unanimous that the gains from liberalisation occur always and everywhere. It has been suggested that the most favourable institutional framework for growth depends on each country's stage of development and its structural features. It is widely recognised that economic integration and liberalisation may have very different effects in different regions, which, of course, is part of the rationale for European cohesion policy.

The second strand of growth theory emphasises the role of physical investment, private and public, as an engine of growth⁸. A wide array of measures is recommended to foster business investment, especially support to SMEs, fiscal incentives to attract foreign investment, the provision of business support and advice services, the increased availability of venture capital, strict control on wages and labour costs, a business-friendly regulatory environment and support for networking and cooperation between firms.

The third strand of theory focuses on the role of human capital and policies for making fuller use of the potential work force, increasing the rate of participation of various social groups, reducing the rate of unemployment and introducing measures to raise the productivity of the work force and their skills and competences through investing in education and training⁹. Such measures are at the core of the Lisbon strategy.

The fourth strand lays stress on innovation and technology, suggesting measures for increasing both public and private investment in R&D as well as for strengthening the

scale from the increased size of markets so reducing unit costs and prices; increased bargaining power in relation to the rest of the world leading to better terms of trade; faster technological advance from the easier international flows of knowledge and skilled labour brought about by integration.

⁷ The most comprehensive studies on the dynamic advantages of integration were the Cecchini (1988) and Emerson (1988) reports for the Commission.

⁸ See for instance Solow (1956), Barro (1990).

⁹ See for example Nelson and Phelps (1966), Aghion et Cohen (2004).

links between research centres and business and the capacity of the latter to absorb and make effective use of new technology and innovations¹⁰.

The fifth strand emphasises the economic benefits of agglomeration and the advantages which stem from economic activity being concentrated in particular localities, in the form of technological and other externalities, a pooled market for labour with specific skills, and spill-over of know-how as well as a large local market¹¹. The implications for policy, however, can go in two different directions. On the one hand, the theory suggests measures to remove the constraints on the process of agglomeration in order to maximise economic growth, or, in other words, to facilitate the growth of those localities in which economic activity is already concentrated. On the other hand, it can also be interpreted as suggesting policies for exploiting the endogenous resources of deprived areas to counteract the unbalancing effect of agglomerations elsewhere and to encourage the development of new centres of economic activity. These considerations are particularly relevant for the ORs which lack large local market. Due to their geographical constraints, the ORs can counterbalance negative effects of agglomeration elsewhere by focusing on the exploitation of endogenous resources and by encouraging the development of new centres of economic activity.

The sixth strand focuses on the importance of the various aspects of the regional environment for development, including social, political and institutional dimensions as well as economic, the emphasis being on the coherence of the system as a whole rather than individual elements of it¹². Policy recommendations stemming from this view include measures to encourage cooperation between firms and the general build-up of social capital, including a widening of participation in decision-making and the development of effective administrative authorities.

Whereas the various economic theories tend to focus on one or two sets of drivers, elements of all six are evident in the development policies followed in individual countries and regions across the EU. In other terms, regions may follow several drivers simultaneously. Drivers are not mutually exclusive.

Integration and liberalisation are an important issue for the ORs where, so far and to different extents, protection, rigidities, imperfect mobility of factors and extreme remoteness have prevented the regions from benefiting fully from the Single Market and globalisation. Agglomeration is another key issue and represents mostly a weakness of the ORs which struggle to obtain a critical mass in all fields of activity.

The relatively high rate of growth of these regions (see § 2.3.1) can be hence explained by their higher catching up speed, a consequence of their economic distance from the leaders¹³, and by the intensity of physical investments, another driver of growth. In the ORs, investments are mostly public driven and subsidised by the mainland.

¹⁰ From Schumpeter (1934) and Solow (1970) to the endogenous growth models of Romer (1990), Aghion and Howitt (1992), Grossman and Helpman (1994), to the evolutionary approach such as in Dosi et al. (2005).

¹¹ See Porter (1990), Krugman (1991).

¹² See for example Sen (1999), Rodrik (2000, 2003 and 2007).

¹³ See for instance Abramovitz (1986) who demonstrates how productivity growth rates tend to vary inversely with productivity levels (*Catching up, forging ahead and falling behind*, Journal of Economic History, Vol. XLVI, No. 2., June)

These theoretical considerations are important for interpreting the growth trends described in the following paragraphs (see § 2.3.1 and the conclusions) and prompted the inclusion of indicators of access, transport and integration in the summary tables (§ 2.3.2), along with the indicators of competitiveness.

Human capital is fundamental for development but also a weakness in the ORs. The analysis of GDP is designed to highlight the contribution of productivity and labour participation to growth. Moreover, the summary tables contain indicators education attainment as well as dependency and life expectancy to take account of this important driver.

The other drivers such as technology and innovation, socio-economic, political and institutional dimension are all central issues for the ORs and are appropriately considered in the analysis and in drawing conclusions. Technology and innovation is behind productivity growth and more in general a key to increasing competitiveness. Finally the socio-economic and institutional dimension are relevant for the development of the ORs and tightly related to integration and trade, investments, human capital and the remaining drivers insofar as the coherence of the system as a whole allows to attract investments, develop human capital, influences growth etc.

In general, the discussed six strands are a theoretical basis for explaining the determinants of growth in the regions and represent a set of guidelines for selecting relevant thematic regional indicators that can be used to provide a concise portrait of ORs. However, the statistical analysis of the determinants of growth and the actual selection of thematic indicators, aimed at capturing the essence of the regions, must rely on variables available at a regional level across the ORs. Availability of coherent data across regions is an important constraint which has an impact on the chosen methodology and on the analysis. The summary tables of regional indicators presented in paragraph 2.3 are grouped under four themes (economic conditions, demography, access and environment), which reflect the main categories of data which are available and coherent¹⁴.

2.1.2. Features of small economies and the particular situation of the ORs (strengths and weaknesses)

The literature on small economies provides important insights into determinants of growth in the ORs and enables a better understanding of the general socio economic trends and vulnerability towards current as well as future challenges.

The nature and implications of the critical economic characteristics of small economies for their growth performance were reviewed, for example by Armstrong and Read (2003). The features of small economies can be summarised as follows (Worrell 1992, Witter et. al 2002, Read 2007):

- small size and thinness of the domestic market – tendency of monopolistic structures is greater
- limited domestic resource base in terms of both natural resources and labour supply
- narrow domestic output, limited diversification and import substitution possibilities
- inability to influence international prices

¹⁴ See also ANNEX A for more information on data and the analytical approach.

- limited exports and narrow export market - high import content in relation to GDP
- high degree of structural openness to trade
- higher transport and communication costs of islands or land-locked territories

Such features have important implications for the economic performance of small economies, in line with endogenous growth models which identify key variables for growth such as human capital formation, openness to trade, quality of endogenous policy etc.

The common features of small economies listed above focus on negative traits. However, the literature shows that despite their handicaps, small economies may be driven by specific local drivers based on their endogenous potential. This is clearly the case of the ORs, which, despite their extreme distance from the main European markets, have important assets. They can act as laboratories for studying and mitigating the effects of climate change, they have exceptional biodiversity and marine ecosystems, great potential for the development of renewable energies and leading-edge agro-environmental research¹⁵. Moreover, it is important to take into account the particular situation which characterises these regions:

- they belong to the European Union and benefit from the EU funds and support programmes as well as from mainland support
- they have a better skilled workforce, public services, and more advanced know-how than the other small islands of their geographical area

Empirical analysis has demonstrated that, beside sectoral structure and location, growth is also strongly influenced by appropriate domestic policy (e.g. Armstrong et. al 1998). Policy can do much for small economies also in terms of supporting the attraction of foreign direct investments. This is relevant for the ORs even though regions do not have the same macroeconomic policy autonomy as independent states, and it is worth noting that the literature on small economies often focuses on SIDS (Small Islands Developing States).

The role of FDI has been neglected for a long time due to the low absolute volume of capital inflows involved in the case of small economies and the little attention paid by mainstream economic theory to them¹⁶.

Some recent empirical findings (Read 2007) on the linkages between the features of small economies and FDI inflows suggest interesting policy implications for the ORs. For instance, while size is not found to be a significant barrier to attracting investments, income has a negative impact and openness to trade is a positive and significant determinant of FDI inflows.

¹⁵ The Outermost Regions - European regions of assets and opportunities, European Commission, May 2010.

¹⁶ In general FDI may have direct and indirect effect on economic growth. Direct effects include: employment creation and technology transfer. Indirect effects include: technology spill-over and agglomeration economies. Moreover, FDI generate knowledge economies not directly linked to technological advantages (e.g. managerial knowledge, organisational economies of scale and scope etc.). Finally, FDI may generate competition effects and make domestic firms more productive and cost efficient. In general, in the case of small economies such as islands and land-locked territories, location advantages may consist mainly in endowments of natural resources and human capital. Therefore FDI are likely to be resource- or strategic asset-seeking rather than efficiency- or market-seeking.

2.1.3. Measuring vulnerability of small economies

The literature on small islands also provides important insights into measuring their vulnerability, that is, their predisposition to suffer from the negative impact of external forces (Ismeri-wiiw 2009; Witter et al. 2002). Vulnerability of the ORs is mainly linked to exposure to economic conditions in the rest of the world, peripheral position, trade disadvantages, exposure to natural disasters and to the other factors associated with small size and insularity recalled above.

Several definitions of economic vulnerability have been proposed by the academia. Their common traits are the inclusion of indicators of: economic openness and diversification, transport costs or remoteness, dependence on imports etc. Some authors also take into account energy and environmental vulnerability (e.g. Bayon 2007; Ismeri Europa 2009¹⁷). In the case of the ORs one of the main obstacles to measuring vulnerability is data availability which limits homogeneity across regions, this means taking into account only parts of certain features and the use of some proxies in order to overcome data gaps.

As the literature highlights, however, despite the variables used, most of the indexes of vulnerability are based on basic criteria such as simplicity, ease of comprehension and suitability for comparisons, that is, variables intentionally measured in a homogeneous manner (Witter et al. 2002, Briguglio 2004).

In relation to the computation methodology, the most commonly used method is to obtain data for the components of the index, each one representing a facet of vulnerability, then to normalise and averaging the components (see Annex B). The advantages of this method are simplicity and ease of comprehension while the shortcomings are that the weights for averaging are mainly arbitrarily chosen and that the distribution of normalised variables is heavily influenced by outliers.

Another method (Atkins et al. 2000, Wells 1997) consists of a regression procedure. In this case, GDP volatility is regressed on a number of explanatory variables representing causes of vulnerability. The advantage of the method is that weights of components are not arbitrary but produced by the data themselves as coefficients of the estimated equation. There are important shortcomings as well such as the fact that the authors had to assume that GDP volatility (the dependent variable) is a proxy for vulnerability and consequently the predictive ability of the model is poor (Witter et. 2002).

¹⁷ Ismeri Europa (2009) with wiiw, Regional Challenges in the perspective of 2020, Regional disparities and future challenges, Synthesis report. The methodology used for this analysis of vulnerability is largely employed in the current study.

2.2. Summary of the challenges faced by the OR

The Treaty of Amsterdam (1997) first introduced the legal basis of the concept of Outermost Regions. This was then confirmed and strengthened by the treaty of Lisbon which maintains the need of a specific treatment of these territories. The two Communications adopted by the Commission in 2004¹⁸ also stressed the importance of recognising the special nature of the ORs and to put in place a European strategy to support them.

A summary of the problems and challenges of ORs must draw on these documents. The specific handicaps listed in the Treaty are:

- remoteness (great distance from the European markets),
- insularity,
- small size,
- difficult topography and climate,
- and economic dependence on a few products.

The first four handicaps depend on their geographical features and cannot be changed, therefore the development patterns of these regions need to adapt to their consequences. The last handicap concerning the internal market is largely a consequence of the previous handicaps as well as of the policies and development paths pursued in the past. Despite these common problems the economic development of these regions varies quite significantly as a result of policies and of different ability to integrate into the world market as well as into the EU market. The main aspect on which the policy can intervene in fact is their specialization and integration in those fields for which their economic handicaps have the least or no impact.

Because of the complexity of such policies and the persistent need for compensating the lack of competitiveness, the ORs have set up a political unity of action to establish a systematic cooperation with the European Union. This strong political and institutional effort is an element of strength since their common problems can be considered consistent and systematic challenges which must be taken in due consideration by regional and other development policies of the Union.

The challenges faced by the ORs were first addressed by the common strategy defined in 2004. This had three main strands:

- Reducing the accessibility deficit and the effects of other constraints
- Making the ORs more competitive
- Strengthening their regional integration

The items listed for complementary action with respect to the second strand of the 2004 strategy – making the ORs more competitive – are of particular interest in relation to the study:

¹⁸ COM(2004) 343, 26.5.2004 (A stronger partnership for the outermost regions); COM(2004) 543, 6.8.2004 (Communication “*sur un partenariat renforcé pour les régions ultrapériphériques: bilan et perspectives*”).

- In the field of Cohesion policy:
 - A genuine regional innovation partnership strategy: centres of excellence and competitiveness, RTD and telecommunications infrastructures
 - Human capital: reforming education and training systems and exploiting human research and innovation potential, especially in the main fields distinguished in the Commission's strategy, i.e. agriculture and environment, renewable energy, transport, telecommunication and tourism
 - Increased use of renewable energy sources
 - Inclusion of biodiversity – a major economic asset in the ORs – in development project design and encouraging sustainable economic development by measures to protect biodiversity
 - Support to modernisation and strengthening of the local production base through e.g.: eco-innovation for SMEs, adapting the skills of workers and entrepreneurs, developing entrepreneurship
 - Support to the competitiveness and sustainability of the tourism industry
 - Strengthening of financial engineering mechanisms and access to finance for SMEs
 - Strengthening of the role of local authorities to promote a flexible local economy via urban initiatives and programmes
 - Easier access to jobs and sustainable inclusion in the labour market for unemployed, inactive and disadvantaged people
- In the field of FP7:
 - Capacities programme: enhancing the research potential and research networks with non-member countries
 - Cooperation programme: specific focus on themes such as energy, natural dangers and risks related to climate change, subtropical agriculture or fishing, and aquaculture
- In the field of the Competitiveness and Innovation Programme: exploiting financing opportunities in eco-innovation, use of information technologies, generalisation of renewable energy and energy efficiency improvement
- In the field of the Lifelong Learning Programme: stimulating exchange, cooperation and mobility between the education and training systems
- Concerning the services of general economic interest: taking into account the special characteristics of the ORs, in particular the small size of the local markets and the remoteness from mainland Europe

The Communication from the Commission of September 12, 2007, "Strategy for the Outermost Regions: Achievements and Future Prospects"¹⁹ aimed to enter the next step, by taking complementary action.

In brief, the 2007 Communication for "grasping the opportunities of the 2004 strategy" identifies:

- Specific sectors which could be targeted
- Infrastructure issues mainly related to transport and energy
- Human resources and human capital issues

¹⁹ COM(2007) 507 final.

- Research, Technological Development and Innovation (RTDI) issues, including in relation to the neighbourhood of the OR

In addition, the 2007 Communication raised the issues of trade and demography:

- Trade: specific arrangements to ensure that the concerns of the ORs are incorporated in the Economic Partnership Agreements (EPAs), in order to help the ORs to exploit commercial opportunities and intensify regional trade, an issue regarded as particularly important by the four French ORs (in particular in the Caribbean);
- Demography: the special nature of the ORs in migration policy.

Finally, the 2007 Communication envisaged “future prospects” to be debated through a large consultation of partners and stakeholders:

- The challenge of climate change (which will affect in particular accessibility, competitiveness and regional integration)
- The implications of demographic change and migration
- Agriculture in the outermost regions
- The role of the ORs in the EU maritime policy (which concern in particular marine resources, R&D in aquaculture and fisheries, sustainable transport)

Through these issues or groups of issues, a preliminary definition of the determinants of growth has been established.

The consultation launched by the Communication in September 2007 was concluded by an ‘inter-institutional and partnership conference’ which took place in Brussels on May 14-15, 2008. As a result of the various contributions to the consultation²⁰ and of the conference, the 2008 Communication²¹ proposes a change in the approach, for the emergence of a renewed strategy, considering the ORs as “regions of opportunity”, rich in potential for development.

Because of their fast growth lasting over 2 decades, even if these regions are vulnerable to globalisation, climate change, demographic trends and migratory flows, they are no longer among the most vulnerable nor among the poorest regions, since the latest EU enlargements. However, the impact of the new challenges affecting ORs may hit them in a particularly severe manner since ORs “still suffer from the permanent nature and the cumulative effects of the factors restraining their development”²².

The 2008 Communication detailed the new paradigm “Making the most of the unique characteristics of the ORs” by stressing: the role of ORs as outposts of the EU in the world, and an ideal location for the experimentation of adapting and mitigating initiatives against climate change; their remarkable biodiversity and the wealth of their marine ecosystems; their potential role of ‘scientific portals’ for their geographic areas; the high quality (and originality) of their agricultural produce.

²⁰ There was a certain degree of commonalities in the contributions, but some were very specific, such as that of the *Sociedade de Desenvolvimento de Madeira* which focused on the maintenance of the Free Trade Zone of Madeira.

²¹ The Outermost Regions: An Asset for Europe” (17.10.2008)

²² COM(2007) 507 final, p.10.

These objectives which fit with the EU 2020 paradigm for policy making, may be translated into new sectors and products such as: environment-friendly technologies, eco-innovative products and materials, renewable energy, agriculture, use of natural resources, sustainable tourism. On those specializations the OR's handicaps may disappear and create in some sense a competitive advantage.

In addition to problems and challenges based on the declarations and conclusions of the EC, other study-related problems as well as current and future challenges faced by the ORs are:

- a large flow of transfers from the mainland and the EU which have sustained private consumption and disposable income;
- population needs and social standards aspirations are rising faster than domestic production.
- private and public consumption are the main determinants of growth;
- the ORs have a higher living standards in their geographic regions: a factor of attraction which may also mean higher costs;
- a productive structure based on services and on construction, while the manufacturing sector is weak and subsidized;
- only the agro-food sector can face external competition (to a different extent in the various regions);
- significant structural and long term unemployment caused by a mismatch between labour demand and supply
- insufficient private investments to specialise in competitive productions and create new jobs; very low RTDI effort;
- lack of qualified manpower and specialized skills prevents the development of knowledge intensive productions and services;
- lack of regional integration has created self-centred, protected and dependent economies;
- environmental services (water and waste disposal and treatment) are a common problem and insularity (except Guiana) increases environmental vulnerability.

Beside these structural similarities there are important differences among ORs which must be highlighted in the present study:

- different natural growth rates of population (lower in Portuguese and Spanish OR);
- much lower unemployment figures in the Canary Islands, Madeira and the Azores, especially until 2008;
- sectoral shares of employment and value added differ significantly in the agricultural (The Azores and Madeira) and construction sectors as well as in the public sector and in tourism;
- the degree of dependence on imports and infrastructure development is much higher in the French ORs, as a result of:
 - the past heritage of colonial economies and a pattern naturally oriented toward self-sufficiency;
 - a generous welfare system and social standard equalization policies, that are less pronounced in Portugal and Spain, though still relevant;

- the coverage of import with export varies from 6% in the French ORs to more than 50% in the Portuguese and Spanish ORs which also enjoy a larger tourist reception (except for the Azores);
- the degree of self-sufficiency in local food consumption in the Canary Islands, Madeira and the Azores is much larger and guarantees greater economic independence and lower prices for low income brackets;

Other substantial differences relate to the development patterns that have been pursued in these regions:

- the French ORs tried to develop an import substitution strategy which was not really successful; their tourist sector did not emerge as a driving force and as a specialization able to compete in the fast rising world market, as a result of high costs and lack of skills and quality;
- the other ORs focused on construction and tourism; Their growth has been more extensive and based on lower costs rather than on productivity growth as in the French ORs.

All these features are discussed in greater detail in the remainder of the study. However, some policy consequences of these features can be anticipated here: financial protections and subsidies cannot alone guarantee a sustainable development and this is especially the case for the French ORs, while the other regions are less dependent, even if more can still be done to leverage their endogenous potential; unless a change of paradigm is undertaken in the indicated direction, there is a risk of crystallising the “status quo” in which some economic and social groups are better off and adverse to change.

2.3. Statistical and qualitative analysis of the determinants of growth

This section provides a macro-economic analysis of regional growth trends and a set of tables summarising the present main features for each OR according to the available data.

First, the connections between economic growth, labour market dynamics and population change are examined to show the contribution to growth of the different population and labour market components. The analysis of the demographic features, both in terms of natural growth and migration, is essential given that their structure and trends differ from most other EU regions.

Second, following the approach explained in the methodological report²³, each region is provided with a set of thematic indicators concerning demography, economic conditions and competitiveness, access and the environment²⁴.

²³ See paragraphs 2.1.2 p.10 and 2.13 p.15 of the Methodological Initial Report.

²⁴ See Annex A: Methodological note on summary tables, p.71.

2.3.1. Main features of economic growth in the ORs during the last 15 years

In the sub-paragraph 2.3.1.1, total and per head GDP growth rates have been decomposed to disentangle the role of labour productivity, employment and activity rates. In the following sub-paragraph 2.3.1.2, the trends in GDP per head and its components are analysed.

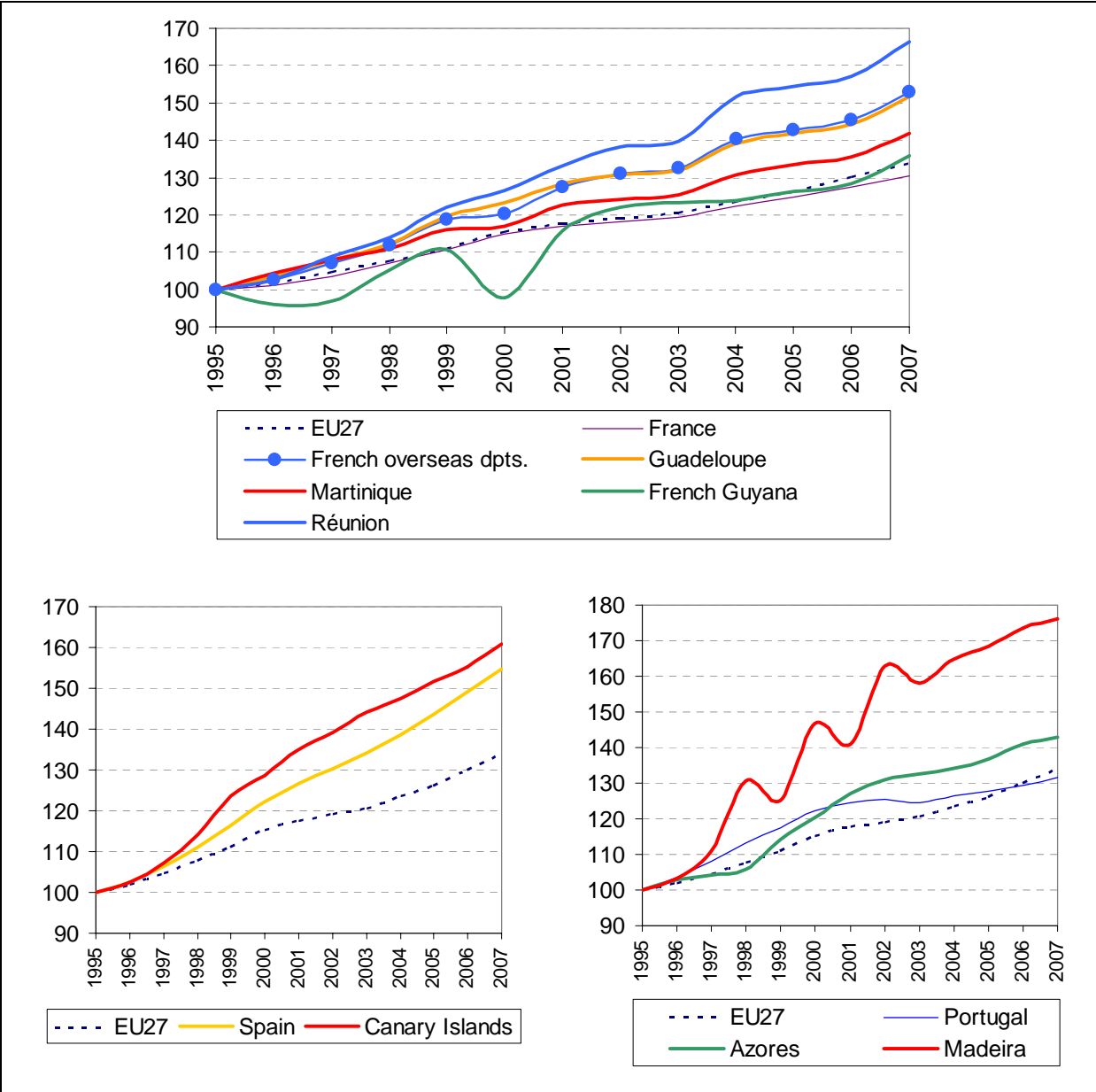
2.3.1.1. GDP growth, labour productivity, employment and population change

The Outermost Regions experienced a very positive growth dynamic during the last fifteen years. The real GDP increased constantly at a substantially higher rate than continental Europe. Only growth in Guiana was approximately in line with the French as well as with the EU27 average. Exhibit 1 shows these trends in the period 1995-2007.

Table 1 shows the average growth rates in the Outermost Regions, in their home countries as well as in the EU27 in the periods 1995-2000 and 2001-2007. The main features evidenced are the following:

- In the period 1995-2000, the ORs grow approximately 1.5% per year more than the EU. Differences with respect to EU27 vary from -3.5% in Guiana to +6.3% in Madeira which is the best performing region. With respect to homelands, growth differences vary between -3.4% in French Guiana and 4.9% in Madeira.
- The same trends hold during the period 2001-2007, except for the Canary Islands which experienced a slowdown of its catching up process with the mainland.
- In 2001-2007, the difference between the ORs and the EU27 real growth rates is slightly below one percentage point per year. Growth differences with the EU vary between -0.2% in the Azores to 1.9% in Réunion. As compared with home countries, growth differences vary between -0.5% in the Canary Islands and 3.2% in Madeira.

Exhibit 1- Real GDP growth in the ORs (base year=1995)



Source: Iseri Europa on Eurostat data

Table 1 – Average annual growth rate of real GDP

	1995-2000	2001-2007
<i>EU27</i>	3.1	2.3
<i>Spain</i>	4.5	3.7
The Canary Islands	5.7	3.2
<i>France</i>	3.0	1.9
<i>French overseas depts.</i>	4.1	3.4
Guadeloupe	4.7	3.0
Martinique	3.4	2.6
French Guiana	-0.5	2.9
Réunion	5.3	4.2
<i>Portugal</i>	4.4	1.0
The Azores	4.1	2.1
Madeira	9.4	4.2

Source: Ismeri Europa processing of Eurostat data.

Table 2 shows the annual average growth of real GDP and its components in the period 2001-2007 (years of regional data availability). Similarly to the previous table significant differences emerge among the ORs, showing the structural nature of the trends analyzed.

- in the French overseas departments, particularly in Guadeloupe and Martinique, the growth in the period 2001-2007 mostly reflects a productivity increase, in which the high salaries and the PA employment weight are the main driver, while the increase in employment was very limited. In Guiana and Réunion the determinants of growth were different and the employment increase was more substantial.
- In Madeira, both labour productivity and employment increased, with productivity increasing even more; In the Azores, on the contrary, employment growth was the largest contributor to growth.
- In the Canary Islands, the change in labour productivity was negative while the GDP growth largely reflects a fast increase in employment.

This picture is largely compatible with the existing studies²⁵ that highlight the more intensive growth of the French regions while the other regions experienced a more extensive one, based on capital accumulation in the Azores and Madeira, based on labour in the Canary Islands.

²⁵ E.g. INSEE, IEDOM, AFD (2007), "L'ultrapériphéricité définit-elle un modèle de croissance?" .

Table 2 – Real GDP growth rate and its components (annual average 2001-2007)

	GDP	Labour productivity (GDP/EMPLOY.)	Employment change	Population change	GDP per head
EU27	2.3	1.0	1.2	0.4	1.9
Spain	3.7	-0.5	4.3	1.6	1.8
The Canary Islands	3.2	-1.2	4.7	2.5	0.6
France	1.9	0.5	1.4	0.7	1.1
French overseas depts.	3.4	1.0	2.2	1.3	1.9
Guadeloupe	3.0	2.5	0.4	0.6	2.3
Martinique	2.6	1.6	0.9	0.5	2.0
French Guiana	2.9	0.3	2.5	4.2	-1.1
Réunion	4.2	0.1	4.1	1.5	2.5
Portugal	1.0	0.8	0.2	0.6	0.4
The Azores	2.1	0.5	1.5	0.4	1.6
Madeira	4.2	2.6	1.4	0.4	3.6

Source: Ismeri Europa processing of Eurostat data.

As illustrated in table 3, real GDP per head growth has been decomposed to analyse the contribution of the employment rate and of the participation rate to GDP growth. The main results are:

- GDP per head growth rate has been positive across all ORs except Guiana.
- In the French overseas departments, labour productivity and employment rates have a positive impact. In Martinique and Réunion the activity rate also contributes positively to GDP per head, while in Guadeloupe and Guiana the activity rate decreased.
- In the Portuguese outermost regions, the contribution of employment rate was negative while the growth in GDP per head was mainly driven by productivity (Madeira) or activity rate (the Azores).
- In the Canary Islands, the positive contribution of the employment rate and of labour participation counterbalance the negative contribution of labour productivity to the growth of GDP per head
- On the whole we notice that there are strong differences in productivity both among the ORs and even within the same country. Productivity differs between the Azores and Madeira and between Guadeloupe and Martinique on the one hand and Réunion and Guiana on the other. At the same time employment or activity rates increase more where productivity is lower. French Guiana is a special case due to the exceedingly high increase in population which affects

downward GDP per capita and activity rates, while employment grows faster than in all the other regions.

Table 3 – Growth of GDP per head and its components (annual average 2001-2007)

	GDP per head	Labour productivity (GDP/EMPLOY.)	Employment rate* (EMPLOY./LF)	Activity rate** (LF/POP.)
EU27	1.9	1.0	0.3	0.6
Spain	1.8	-0.5	0.4	2.0
The Canary Islands	0.6	-1.2	0.1	1.9
France	1.1	0.5	0.1	0.5
French overseas depts.	1.9	1.0	0.9	0.0
Guadeloupe	2.3	2.5	0.1	-0.3
Martinique	2.0	1.6	0.4	0.0
French Guiana	-1.1	0.3	1.6	-2.7
Réunion	2.5	0.1	1.5	0.8
Portugal	0.4	0.8	-0.7	0.3
The Azores	1.6	0.5	-0.4	1.5
Madeira	3.6	2.6	-0.7	1.7

* calculated as employment over labour forces.

** calculated as labour forces over population over 15 years old

Source: Ismeri Europa processing of Eurostat data.

2.3.1.2. Trends in GDP per head and its components across regions

In the graphs presented in the following pages, the trends in GDP per head and its components are shown for each region.

Even though all Outermost Regions except Guiana experienced a considerable growth in per capita GDP during the period considered, the underlying growth models are different.

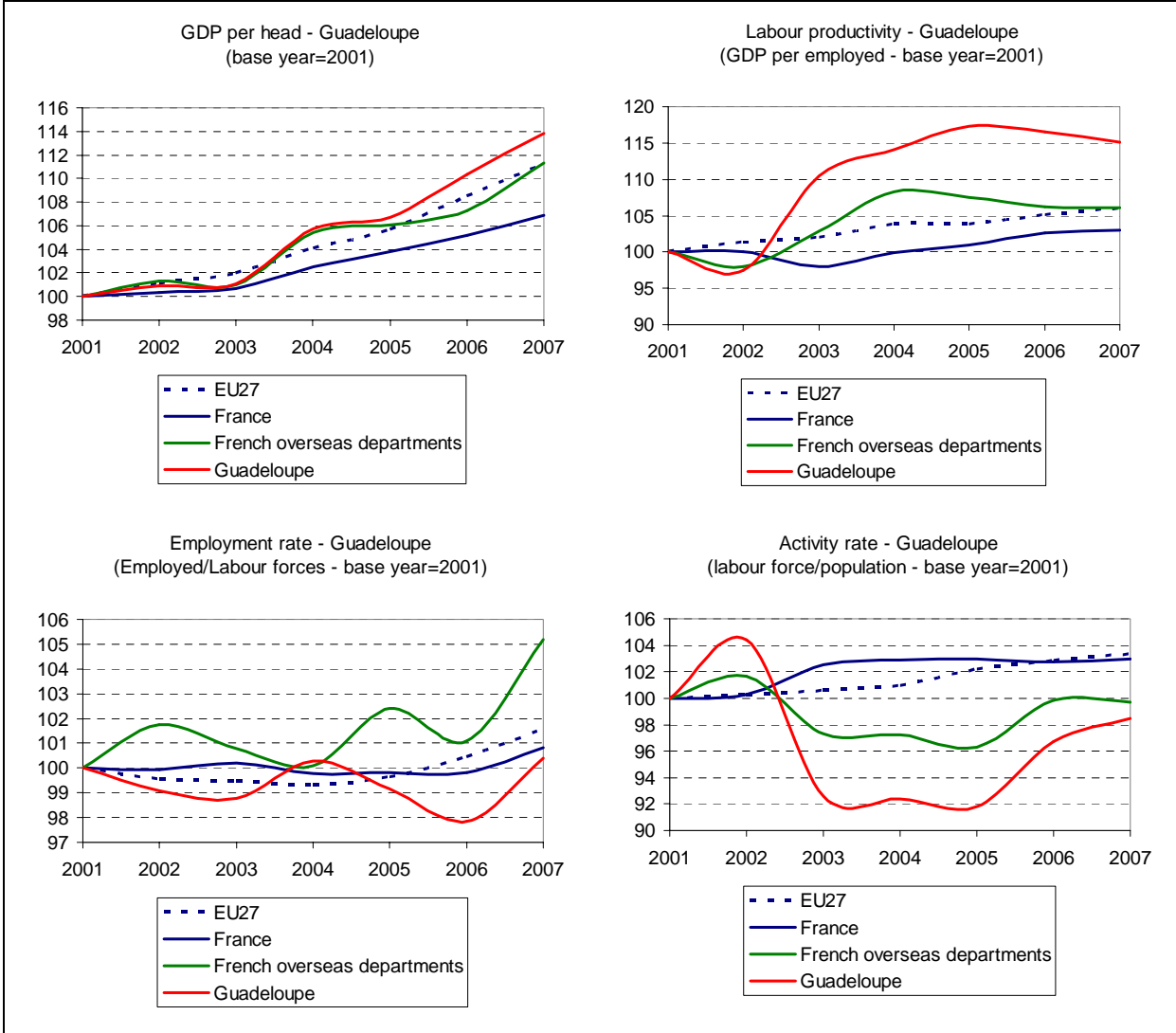
As regards the French overseas departments which experienced a growth in GDP per head, it is possible to distinguish between Guadeloupe and Martinique on the one hand and Réunion on the other. In the former, growth was driven by productivity gains which allowed compensating the negative dynamics of activity rates. In Réunion, labour productivity did not change significantly while the employment rate became the most important contributor to growth. At the same time the activity rate was also characterised by slow positive dynamics.

Similarly to Guadeloupe and Martinique, in Madeira and the Azores labour productivity was the most important contributor to growth. In these regions activity rate also increased and, together with productivity, explain the growth performance which differs from that of the mainland.

In the Canary Islands, like in Réunion, the employment rate was the most important contributor to growth. Differently from the French island, however, labour productivity decreased considerably. The population increase which characterised the period translated into more participation.

French Guiana can be considered an outlier. GDP per head decreased in real terms as a consequence of an exceedingly high growth rate of the population, driven by fertility and positive migration trends. This caused a drop in the activity rate while labour productivity remained approximately constant.

Exhibit 2 - Trends in GDP per head and its components in Guadeloupe²⁶



²⁶ The remarkable productivity increase which took place in 2003 in Guadeloupe has been determined by a sharp fall in the labour forces due to a discouragement effect, as shown by the drop in the number of people registering at the national employment agency (ANPE). For further information on this and other issues that affected regional statistics in Guadeloupe, please see INSEE (Année économique et sociale 2003 en Guadeloupe – Synthèse), available at: http://insee.fr/fr/insee_regions/guadeloupe/themes/ae_bilan/AES61/AES61ga_art01.pdf

Exhibit 3 - Trends in GDP per head and its components in Martinique

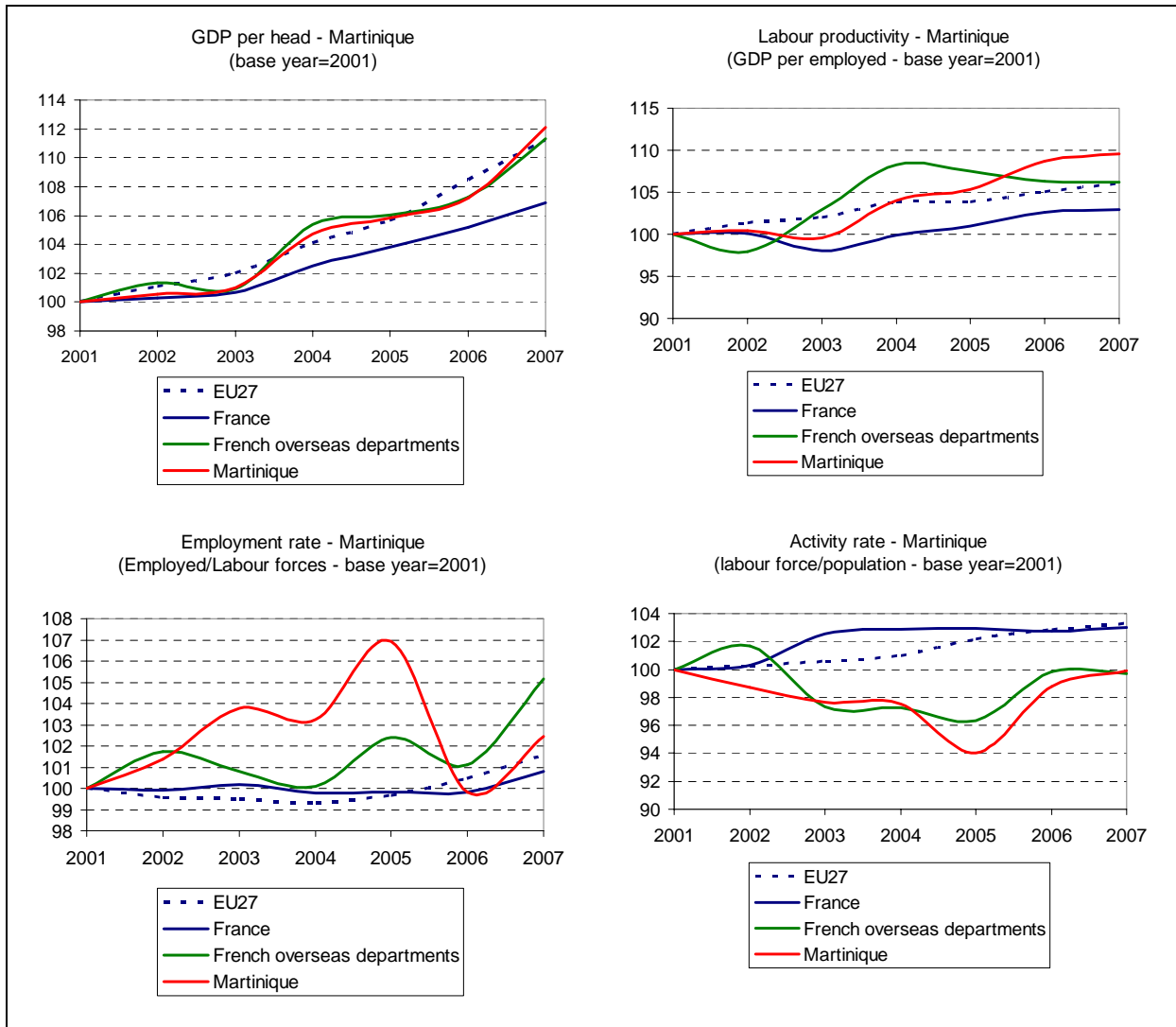
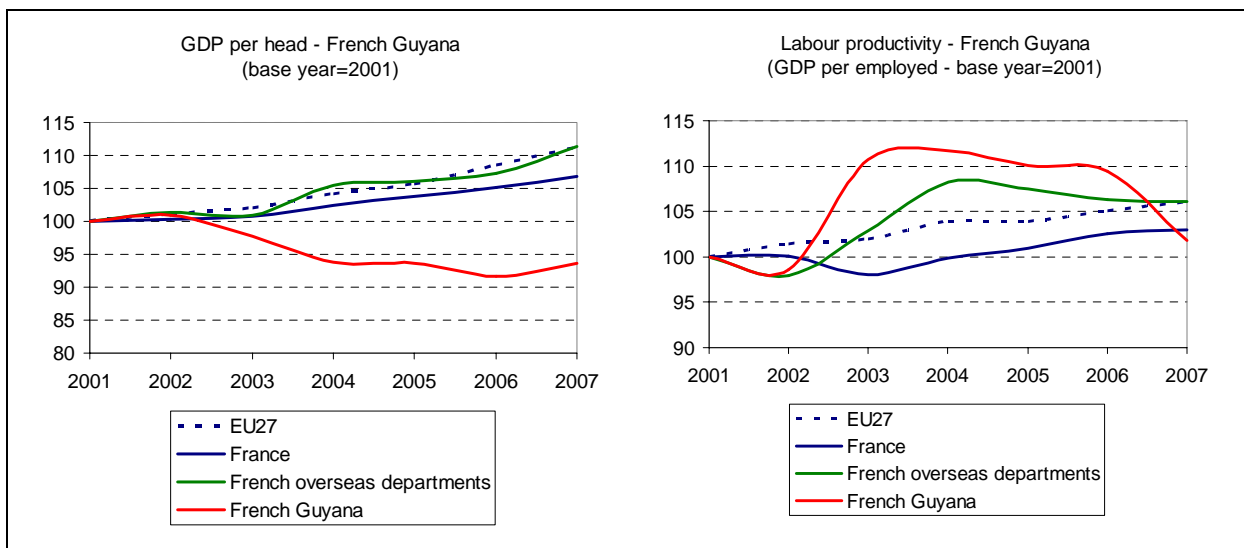


Exhibit 4 - Trends in GDP per head and its components in Guiana



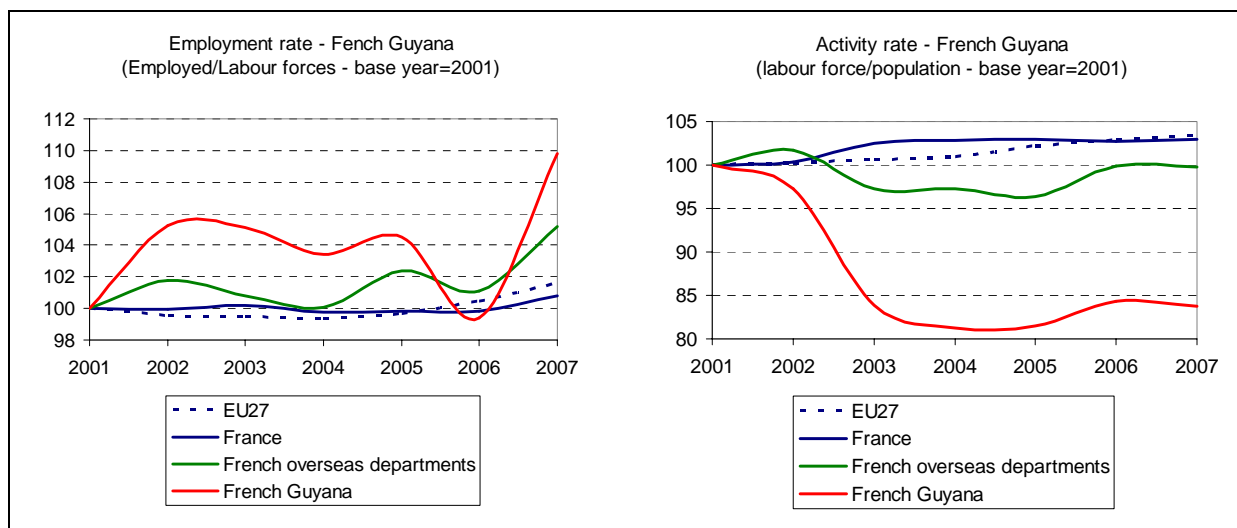


Exhibit 5 - Trends in GDP per head and its components in Réunion

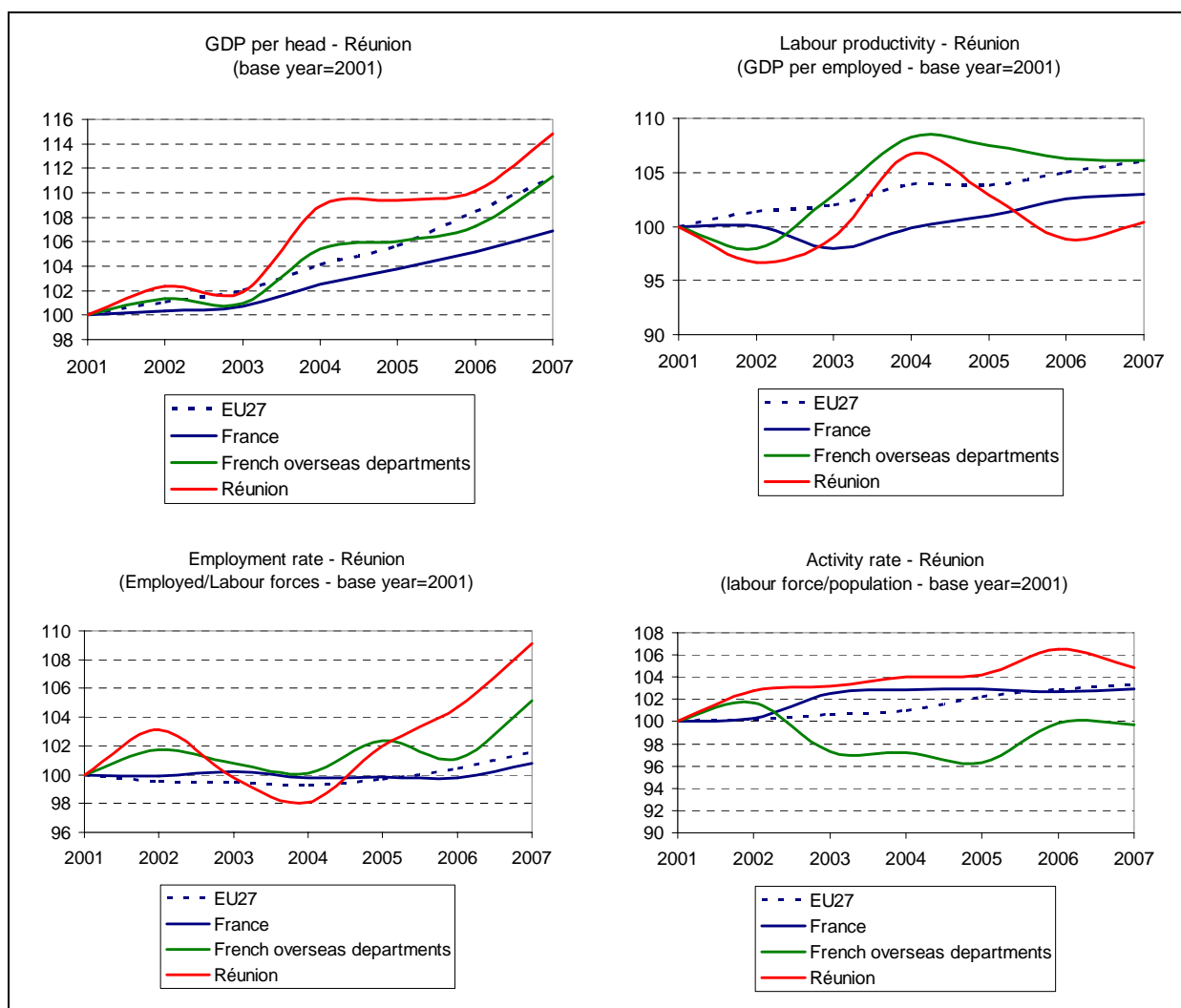


Exhibit 6 - Trends in GDP per head and its components in The Canary Islands

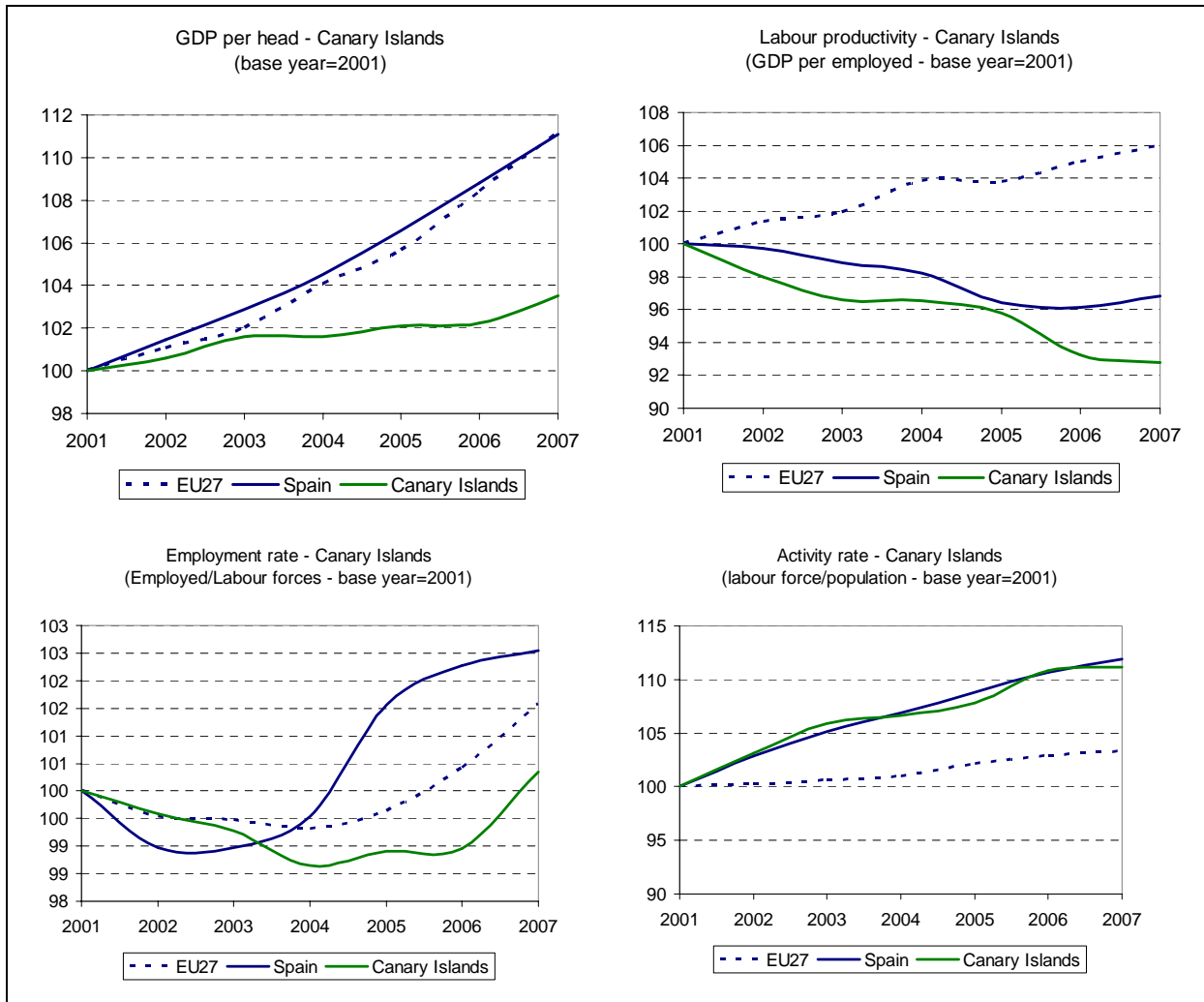
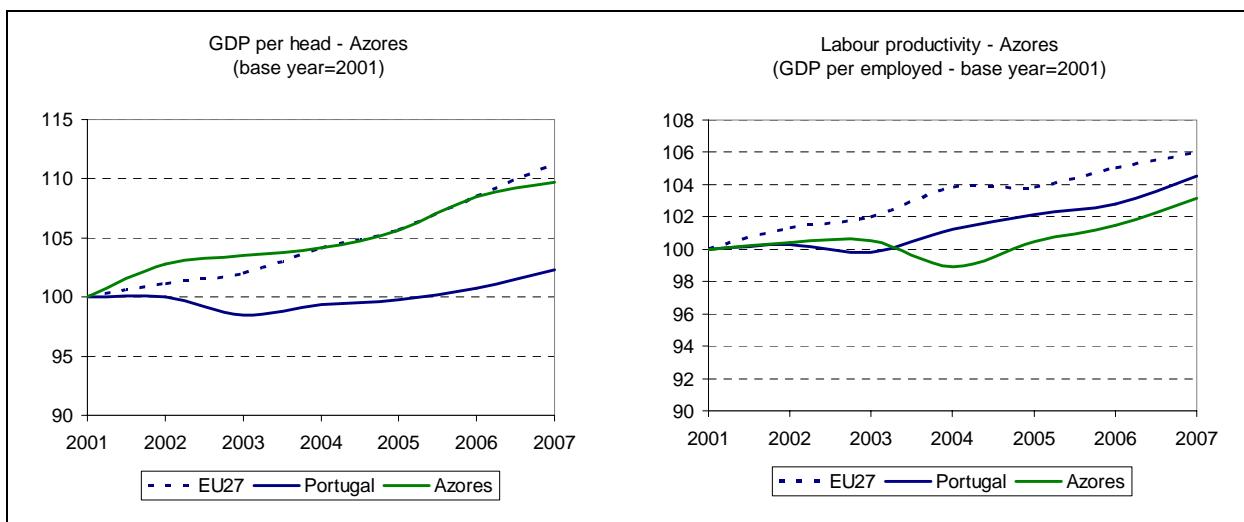


Exhibit 7 - Trends in GDP per head and its components in The Azores



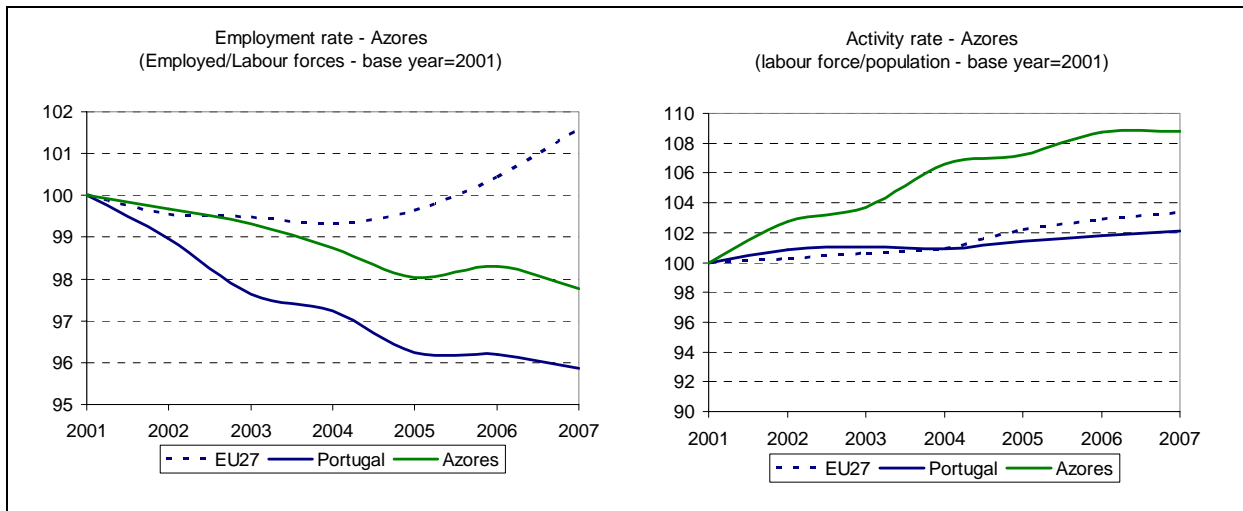
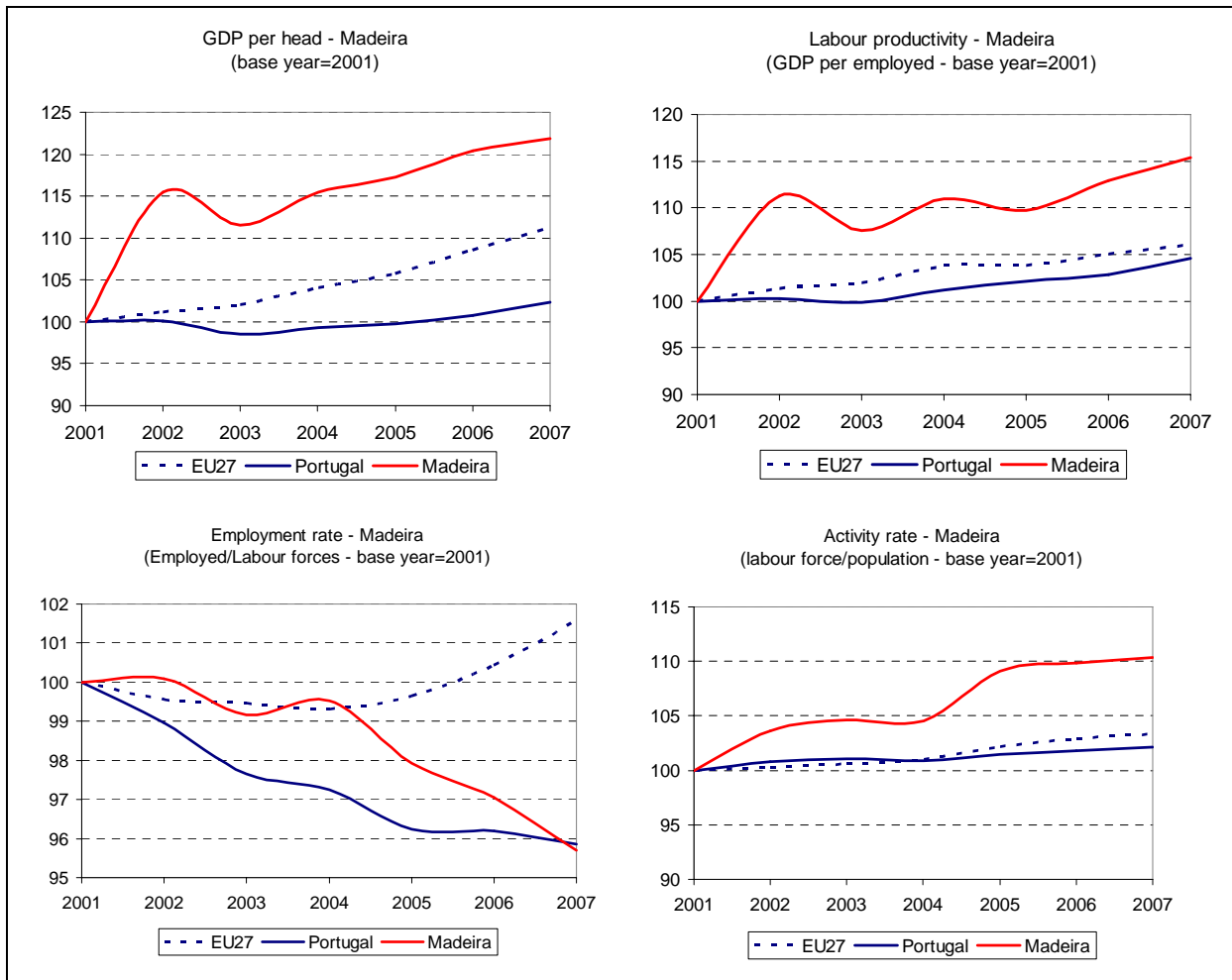


Exhibit 8 - Trends in GDP per head and its components in Madeira



BOX – Decomposition of GDP growth

A growth accounting framework to split the different GDP growth components is shown below. We can summarise the relation between output, employment and productivity by means of the so-called “fundamental identity”:

$$(1) Y = \frac{Y}{L} \times L$$

Where Y = output (GDP), L = employment and Y/L = labour productivity. This identity, for small rates of change, can be translated into:

$$\dot{Y} = \dot{\pi} + \dot{L}$$

Another useful identify allows to focus on the impact of demographic change on growth:

$$(2) Y = N \times \frac{Y}{N}$$

Where N = total resident population and Y/N = GDP per head. This can also be translated, for small rates of change into:

$$\dot{Y} = \dot{N} + \dot{y}$$

If we combine (1) and (2), we obtain a tool particularly useful to examine GDP growth rate and the contribution of productivity, employment and population change:

$$(3) \dot{Y} = \dot{\pi} + \dot{L} = \dot{N} + \dot{y}$$

A similar technique can be used to highlight the relation between GDP per head and its components. The identity (1) can be also expressed as follows:

$$\frac{Y}{N} = \frac{Y}{L} \times L \times \frac{1}{N}$$

or

$$(4) \frac{Y}{N} = \frac{Y}{L} \times \frac{L}{LF} \times \frac{LF}{N}$$

Where Y/N = output per head and LF = labour forces. L/LF is a measure of employment rate and LF/N is the activity rate. The identity, for small rates of change, can approximately be translated into:

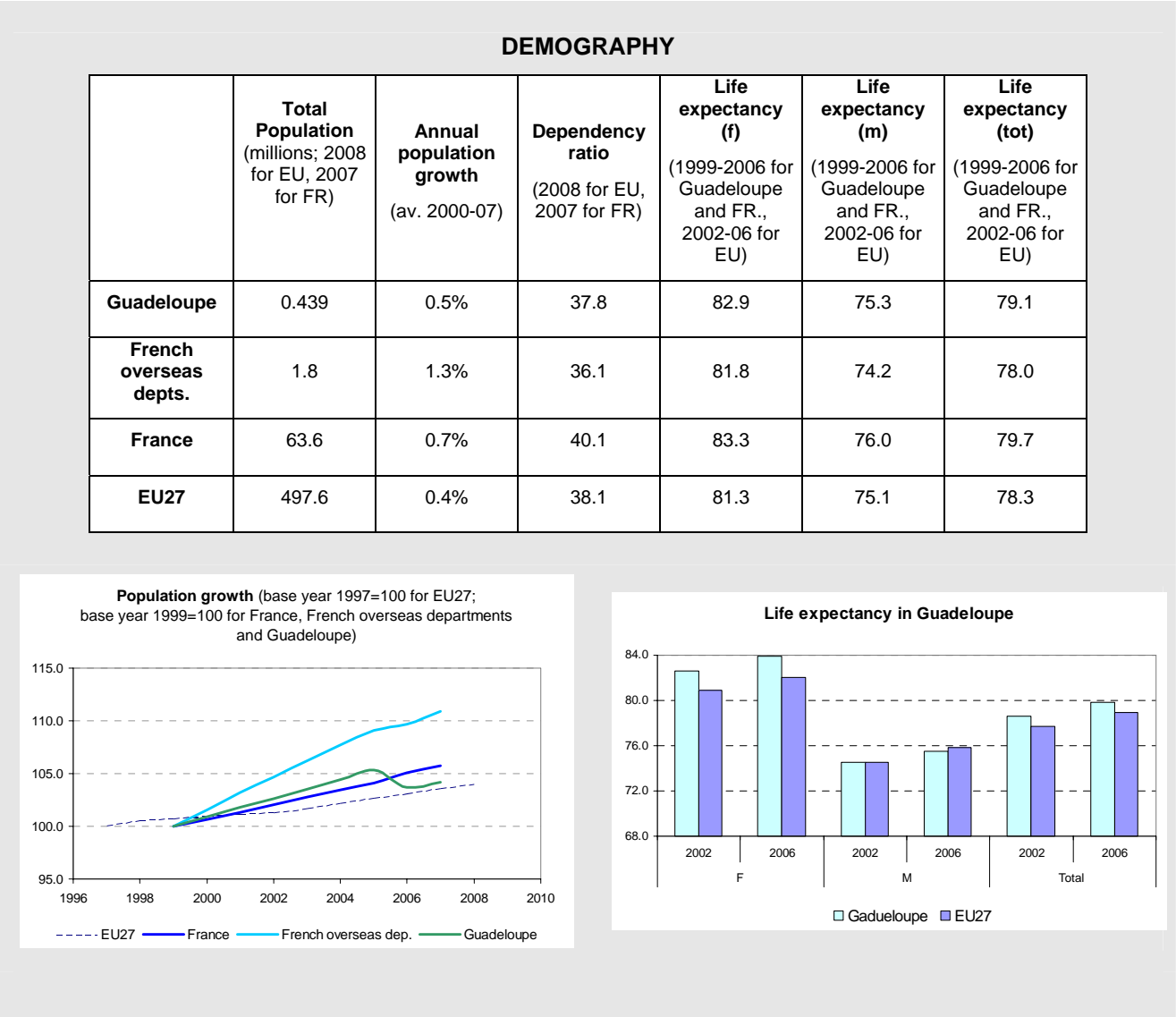
$$(5) \dot{y} = \dot{\pi} + \dot{l} + \dot{a}$$

Where \dot{y} indicates per head output growth, $\dot{\pi}$ is the productivity growth, \dot{l} indicates the change in employment rate and \dot{a} is the change in activity rate.

2.3.2. Summary tables of thematic indicators

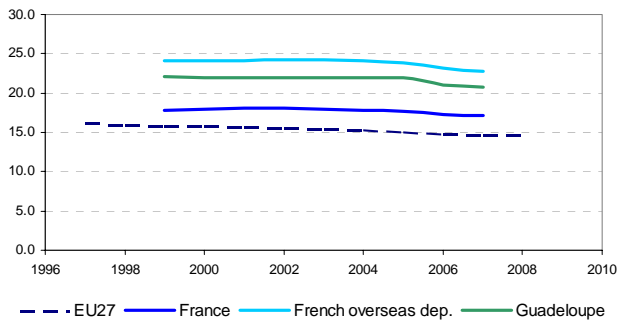
The following indicators provide a synthetic “sketch” of each region and are used to discuss the main features of growth in the ORs. Summary tables were designed by the study team to collect a set of variables to explain the ORs’ main features and their change over time. However, due to the differences in data availability and gap years some discrepancies were inevitable²⁷.

2.3.2.1. Guadeloupe

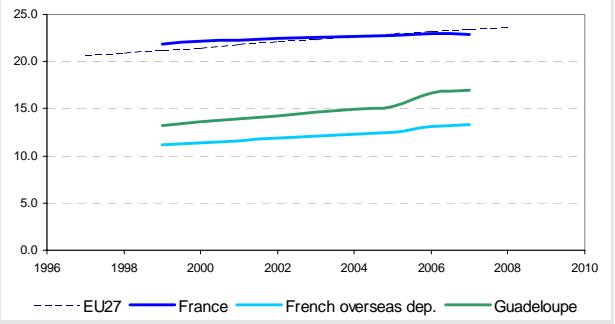


²⁷ Please see ANNEX A – Methodological note on summary tables.

Child dependency ratio in Guadeloupe



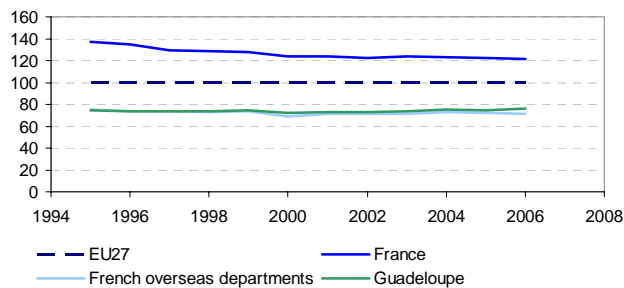
Old age dependency ratio in Guadeloupe



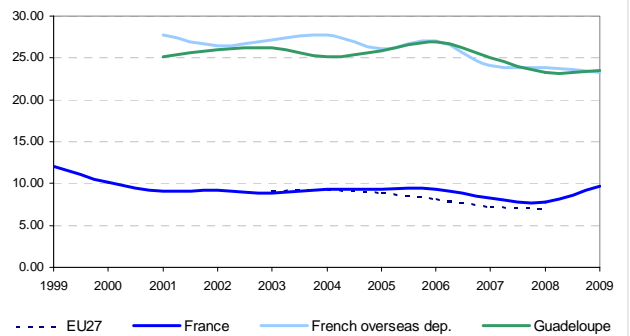
ECONOMIC CONDITIONS, COMPETITIVENESS AND WELL BEING

	GDP per head (PPP; 2007) (EU27=100)	Employment rate (EU average 2003-2008; French regio. 2001-2008)			Share of population with tertiary education (2007) (%)	Net disposable income (€ av. 1996-2000, PPS based on final consumption per head)	Touristic performance	
		f (%)	m (%)	Tot (%)			Night spent per head (French regio. Av. 2005-08; EU 96-2008)	Bed-places per head (French regio. Av. 98-2009; EU 96-2007)
Guadeloupe	69	41.5	51.1	46.0	18.6	7566.8	1.1	4.2
French overseas depts.	65	38.7	50.2	44.2	18.6	7721.3	0.4	2.4
France	108	57.8	69.0	63.3	18.6	11979.7	4.0	15.2
EU27	100	56.8	71.3	64.1	17.7	.	2.1	3.7

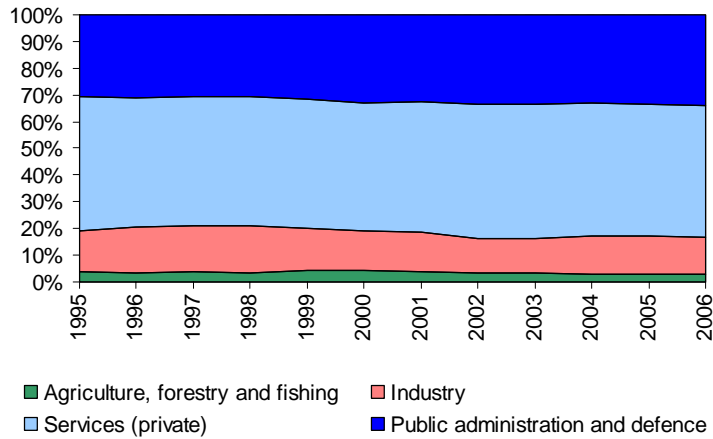
GDP per head in Guadeloupe



Unemployment rate in Guadeloupe



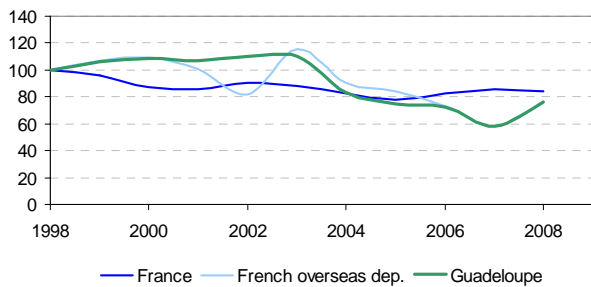
Gross value added by NACE branch in Guadeloupe



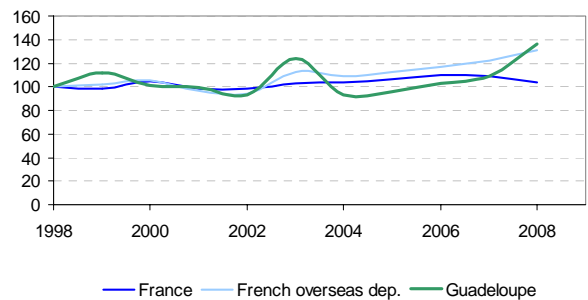
ACCESSIBILITY, TRANSPORT AND INTEGRATION

	Distance from the capital (Paris)	Maritime transport		Air transport	
	('000 of Km)	people ('000; annual av. 1998-2008)	freight ('000 of tons; annual av. 1998-2008)	people ('000; annual av. 2000-07)	freight ('000 of tons; annual av. 1998-2007)
Guadeloupe	6.8	865	3,016	1,895	16.2
France	N/A	26,363	315,815	105,791	1435.9

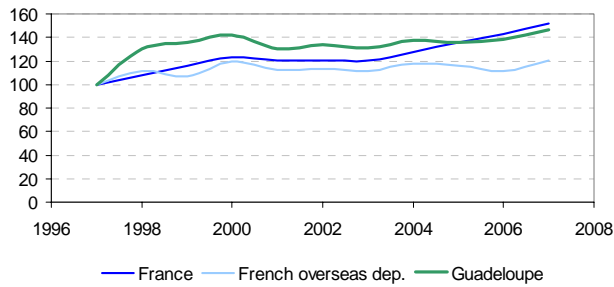
Maritime transport of people (base year 1998=100)



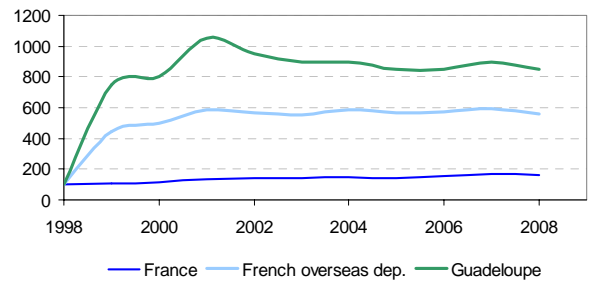
Maritime transport of freight (base year 1998=100)



Air transport of people
(base year 1997=100)



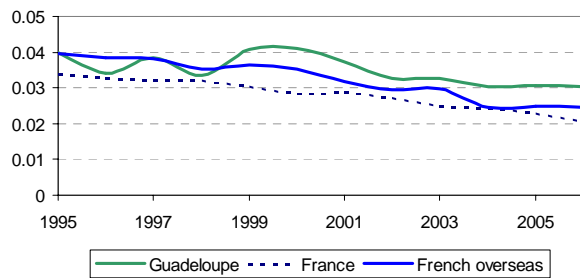
Air transport of freight
(base year 1998=100)



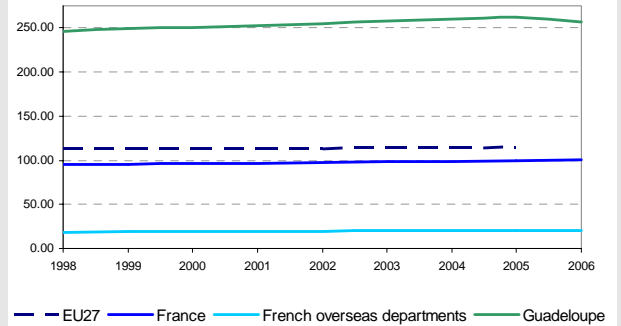
ENVIRONMENT

	Share of agriculture and fishery (2006)	Population density (2005 for EU, 2006 for FR)
Guadeloupe	3.0%	257.2
French overseas depts.	2.5%	20.6
France	2.1%	100.2
EU27	.	114.3

Share of agriculture, fishing and forestry
(% of Gross VA)



Population density in Guadeloupe

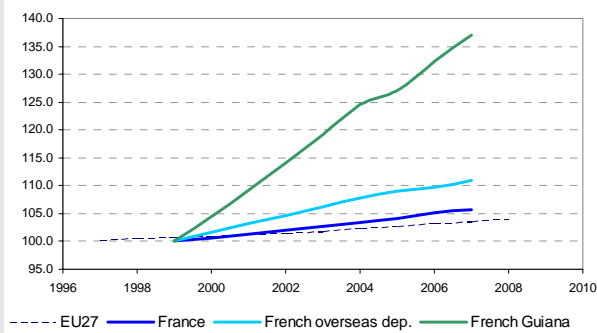


2.3.2.2. Guiana

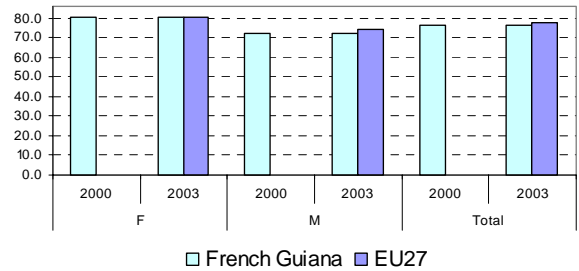
DEMOGRAPHY

	Total Population (millions; 2008 for EU, 2007 for FR)	Annual population growth (av. 2000-07)	Dependency ratio (2008 for EU, 2007 for FR)	Life expectancy (f) (1999-2003 for Fr. And Guiana, 2002-06 for EU)	Life expectancy (m) (1999-2003 for Fr. And Guiana, 2002-06 for EU)	life expectancy (tot) (1999-2003 for Fr. And Guiana, 2002-06 for EU)
Guiana	0.2	4.0%	37.6	80.4	72.8	76.3
French overseas depts.	1.8	1.3%	36.1	81.8	74.2	78.0
France	63.6	0.7%	40.1	82.9	75.4	79.2
EU27	497.6	0.4%	38.1	81.3	75.1	78.3

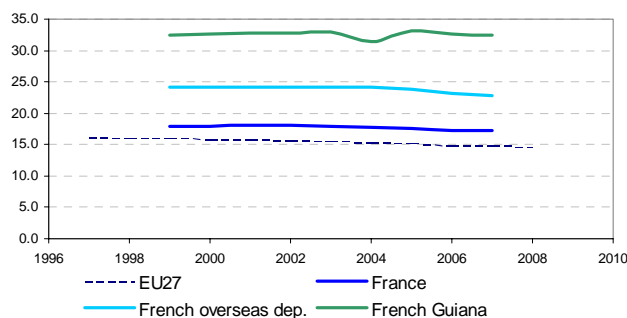
Population growth (base year 1997=100 for EU27;
base year 1999=100 for France, French overseas
departments and French Guiana)



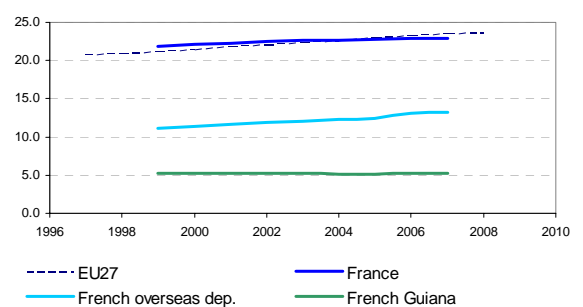
Life expectancy in French Guiana



Child dependency ratio in French Guiana



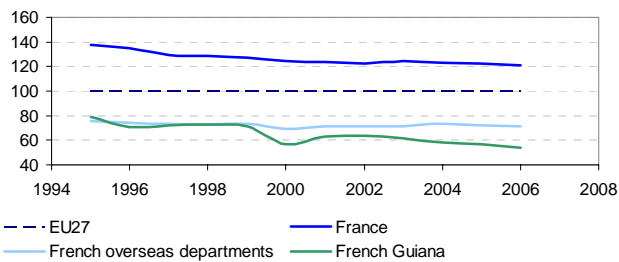
Old age dependency ratio in French Guiana



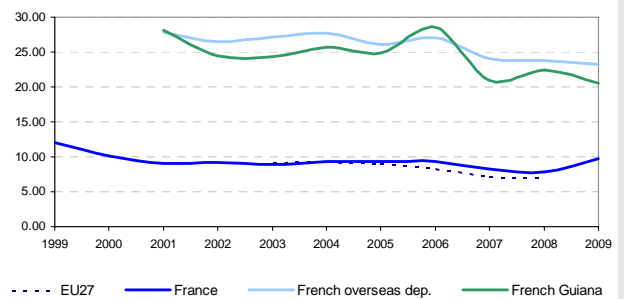
ECONOMIC CONDITIONS, COMPETITIVENESS AND WELL BEING

	GDP per head (2007) (EU27=100)	Employment rate (EU average 2003-2008; French regio. 2001-2008)			Share of population with tertiary education (2007) (%)	Net disposable income (€ av. 1996-2000, PPS based on final consumption per head)	Touristic performance	
		f (%)	m (%)	Tot (%)			Night spent per head (French regio. Av. 2005-08; EU 96-2008)	Bed-places per head (French regio. Av. 98-2009; EU 6 2007)
Guiana	49	34.9	51.4	43.0	18.6	6597.5	0.2	1.4
French overseas depts.	65	38.7	50.2	44.2	18.6	7721.3	0.4	2.
France	108	57.8	69.0	63.3	18.6	11979.7	4.0	15.2
EU27	100	56.8	71.3	64.1	17.7	.	2.1	3.7

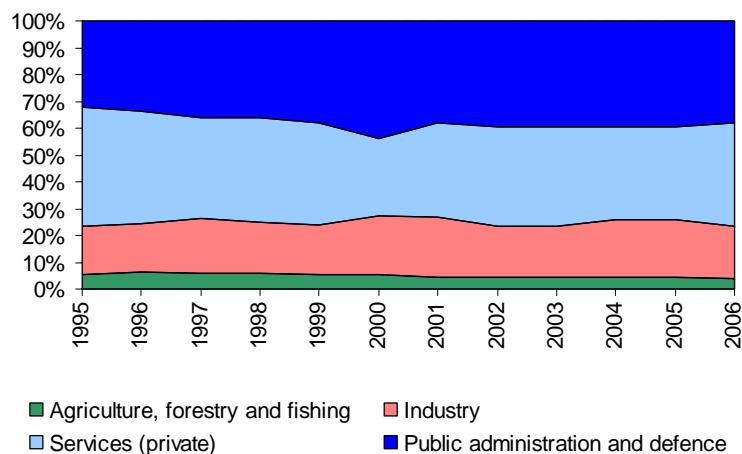
GDP per head in French Guyana (EU27=100)



Unemployment rate in French Guiana

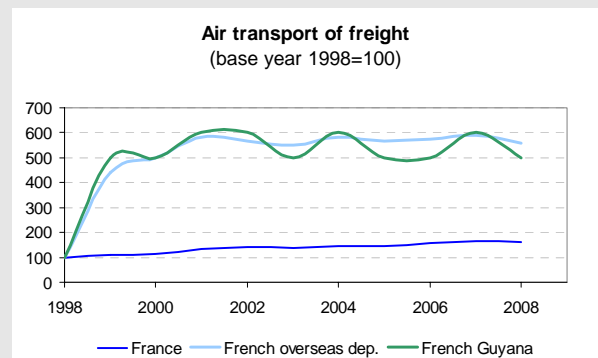
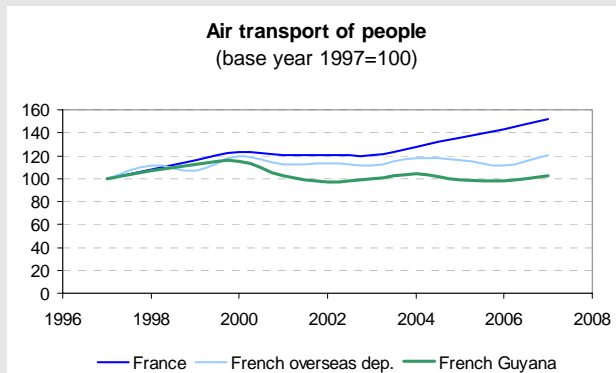


Gross value added by NACE branch in French Guiana



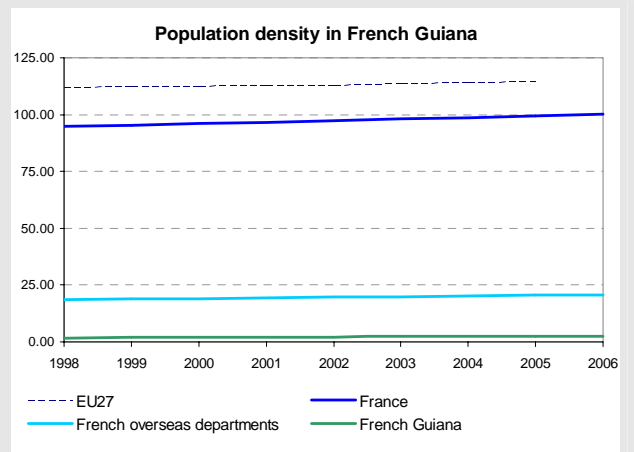
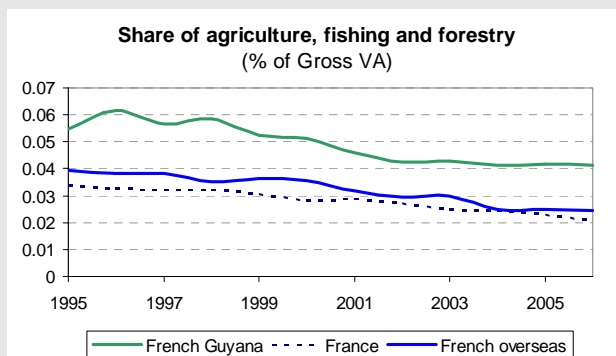
ACCESSIBILITY, TRANSPORT AND INTEGRATION

	Distance from the capital (Paris)	Maritime transport		Air transport	
	('000 of Km)	people (('000; annual av. 1998-2008)	freight (('000 of tons; annual av. 1998-2008)	people (('000; annual av. 2000-07)	freight (('000 of tons; annual av. 1998-2008)
Guiana	7.1	.	.	383	5.0
France	N/A	26,363	315,815	105,791	1435.9



ENVIRONMENT

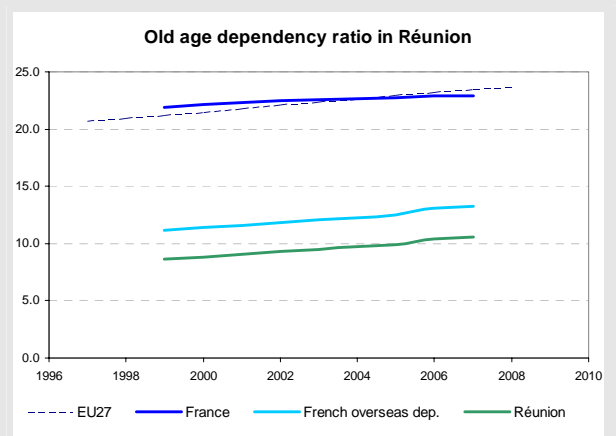
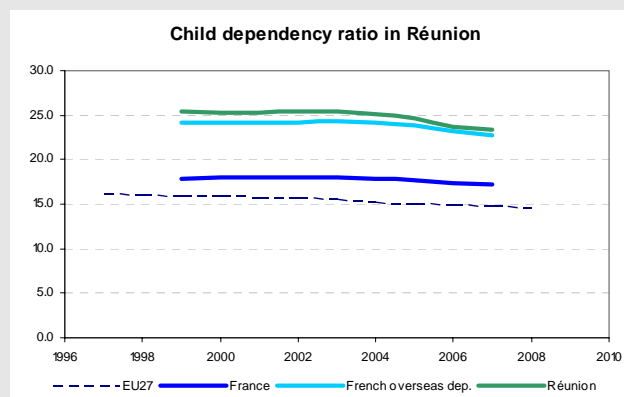
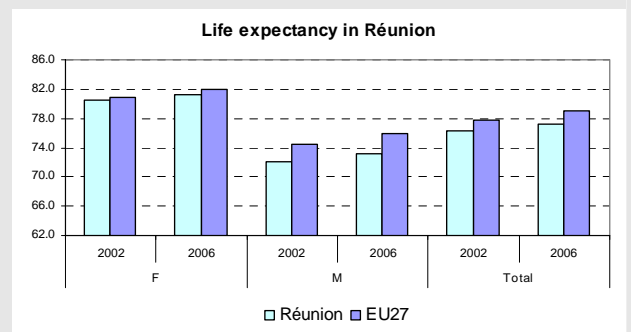
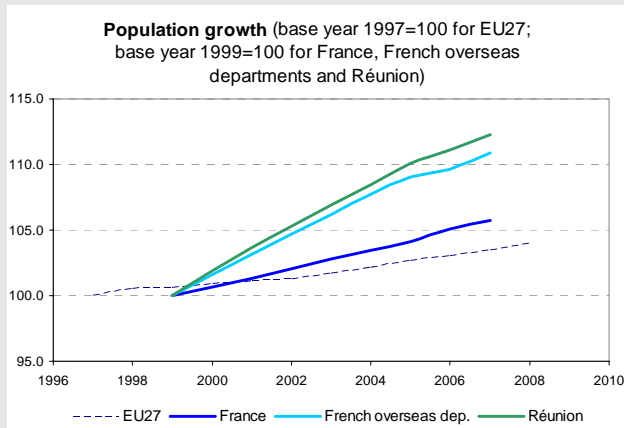
	Share of agriculture and fishery (2006)	Population density (2005 for EU, 2006 for FR)
Guiana	4.1%	2.5
French overseas depts.	2.5%	20.6
France	2.1%	100.2
EU27	.	114.3



2.3.2.3. Réunion

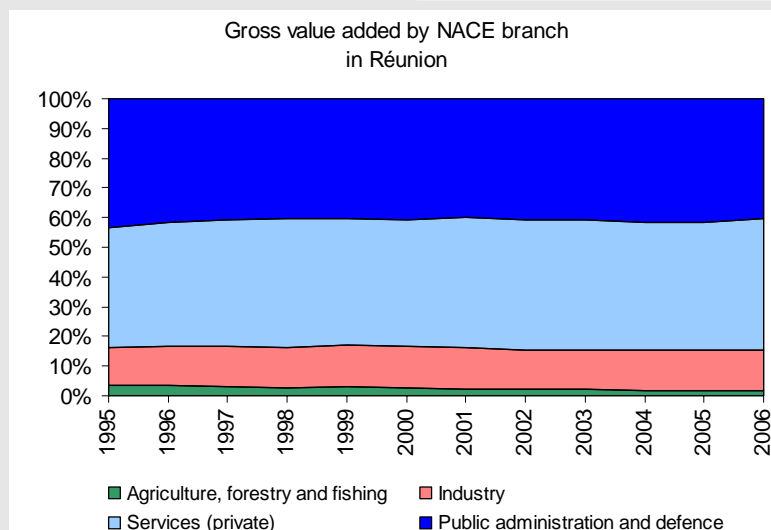
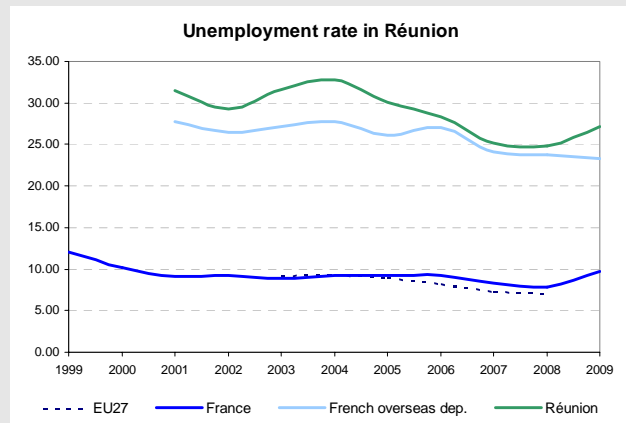
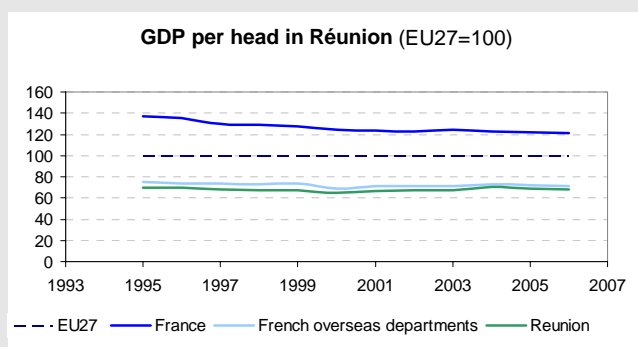
DEMOGRAPHY

	Total Population (millions; 2008 for EU, 2007 for FR)	Annual population growth (av. 2000-07)	Dependency ratio (2008 for EU, 2007 for FR)	Life expectancy (f) (1999-2006 for Réunion and FR, 2002-06 for EU)	Life expectancy (m) (1999-2006 for Réunion and FR, 2002-06 for EU)	life expectancy (tot) (1999-2006 for Réunion and FR, 2002-06 for EU)
Réunion	0.8	1.5%	33.9	80.7	72.6	76.6
French overseas dep.	1.8	1.3%	36.1	81.8	74.2	78.0
France	63.6	0.7%	40.1	83.3	76.0	79.7
EU27	497.6	0.4%	38.1	81.3	75.1	78.3



ECONOMIC CONDITIONS, COMPETITIVENESS AND WELL BEING

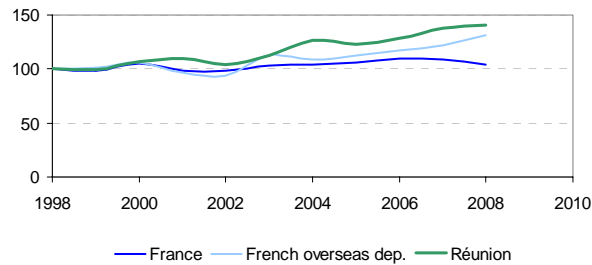
	GDP per head (PPP; 2007) (EU27=100)	Employment rate (EU average 2003-2008; French regio. 2001-2008)			Share of population with tertiary education (2007) (%)	Net disposable income (€ av. 1996-2000, PPS based on final consumption per head)	Touristic performance	
		f (%)	m (%)	Tot (%)			Night spent per head (French regio. Av. 2005-08; EU 96-2008)	Bed-places per head (French regio. Av. 98-2009; EU 96-2007)
Réunion	63	35.0	48.7	41.7	18.6	7713.8	0.1	1.0
French overseas depts.	65	38.7	50.2	44.2	18.6	7721.3	0.4	2.
France	108	57.8	69.0	63.3	18.6	11979.7	4.0	15.2
EU27	100	56.8	71.3	64.1	17.7	.	2.1	3.7



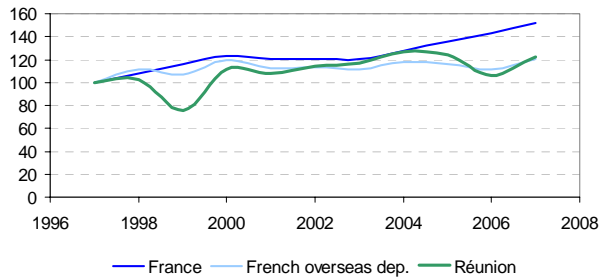
ACCESSIBILITY, TRANSPORT AND INTEGRATION

	Distance from the capital (Paris)	Maritime transport		Air transport	
	('000 of Km)	people (('000; annual av. 1998-2008)	freight (('000 of tons; annual av. 1998-2008)	people (('000; annual av. 2000-07)	freight (('000 of tons; annual av. 1998-2008)
Réunion	9.4	.	3,591	1,530	27.1
France	N/A	26,363	315,815	105,791	1435.9

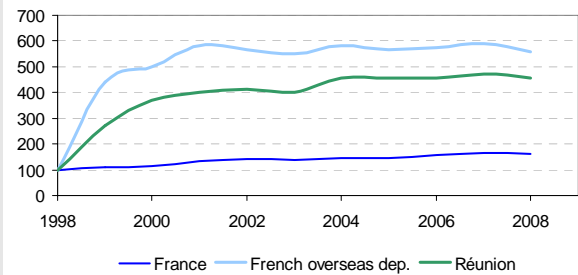
Maritime transport of freight
(base year 1998=100)



Air transport of people
(base year 1997=100)

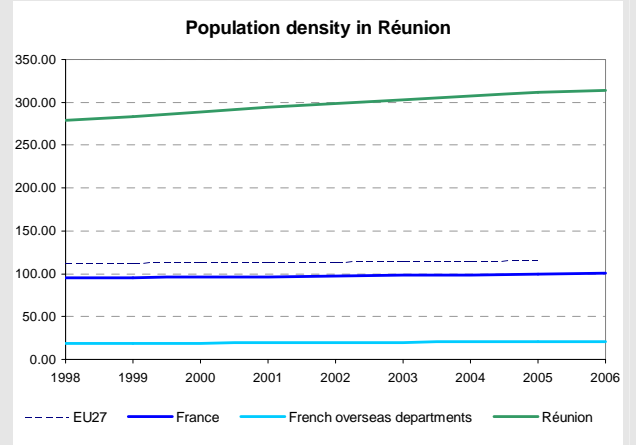
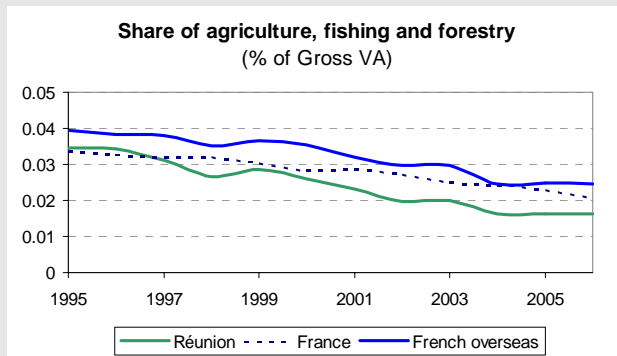


Air transport of freight
(base year 1998=100)



ENVIRONMENT

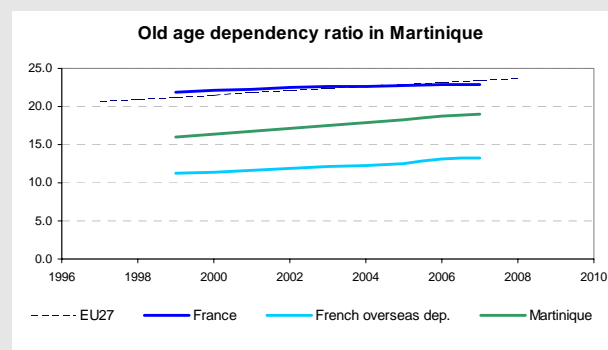
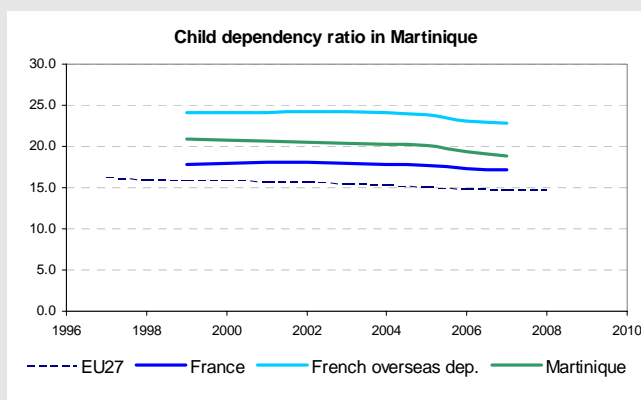
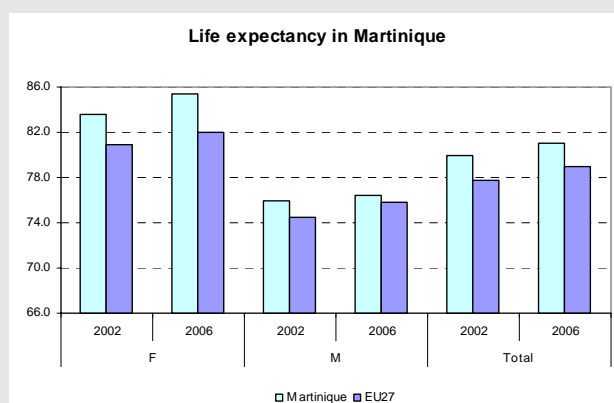
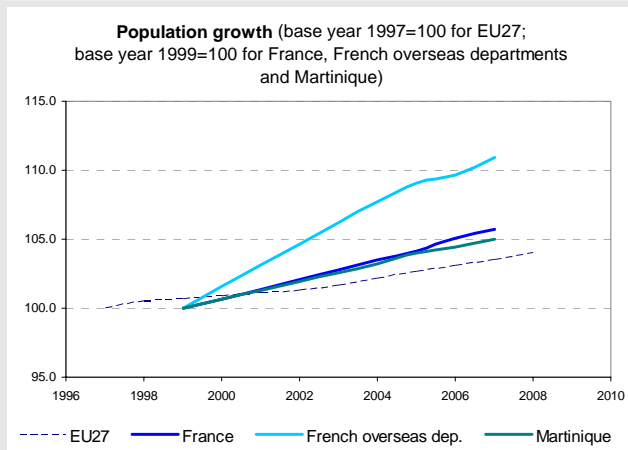
	Share of agriculture and fishery (2006)	Population density (2005 for EU, 2006 for FR)
Réunion	1.6%	314
French overseas depts.	2.5%	20.6
France	2.1%	100.2
EU27	.	114.3



2.3.2.4. Martinique

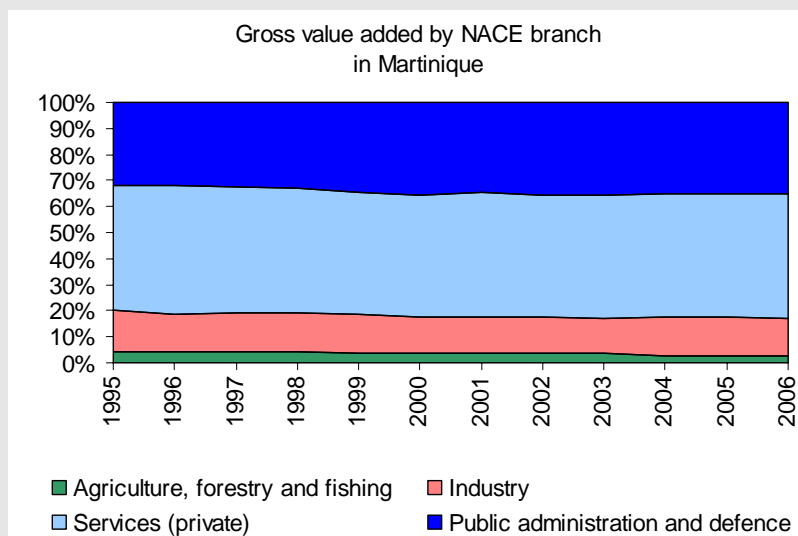
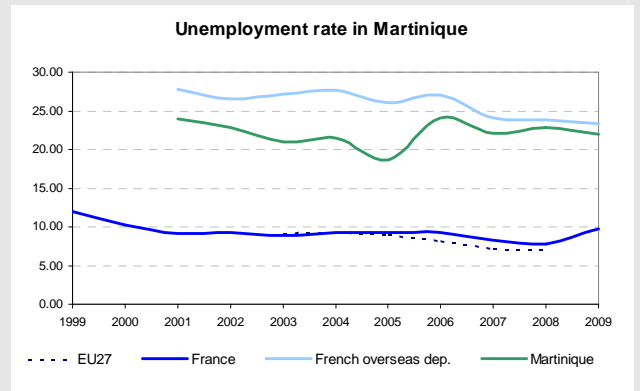
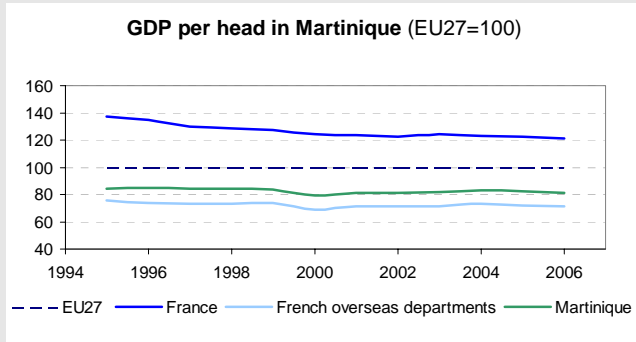
DEMOGRAPHY

	Total Population (millions; 2008 for EU, 2007 for FR)	Annual population growth (av. 2000-07)	Dependency ratio (2008 for EU, 2007 for FR)	Life expectancy (f) (1999-2006 for Martinique and FR., 2002-06 for EU)	Life expectancy (m) (1999-2006 for Martinique and FR., 2002-06 for EU)	life expectancy (tot) (1999-2006 for Martinique and FR., 2002-06 for EU)
Martinique	0.4	0.6%	37.9	83.4	76.2	79.9
French overseas dep.	1.8	1.3%	36.1	81.8	74.2	78.0
France	63.6	0.7%	40.1	83.3	76.0	79.7
EU27	497.6	0.4%	38.1	81.3	75.1	78.3



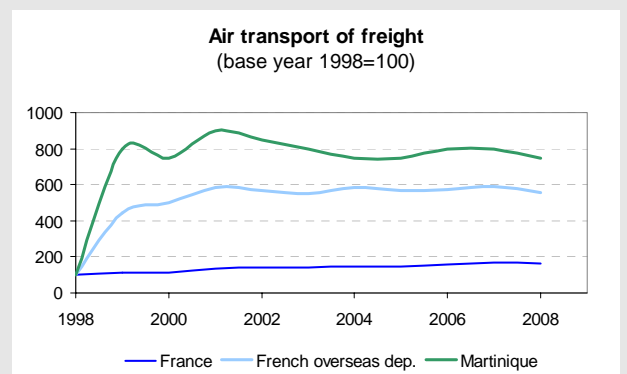
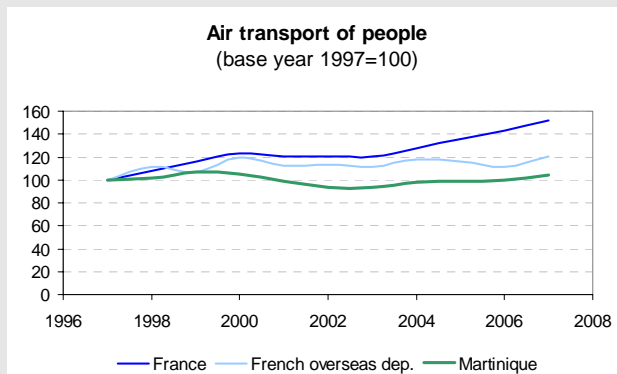
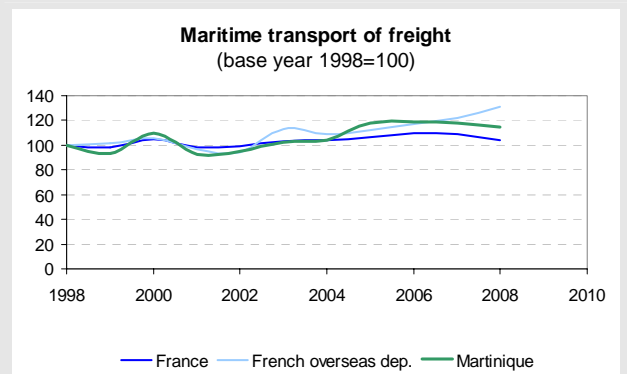
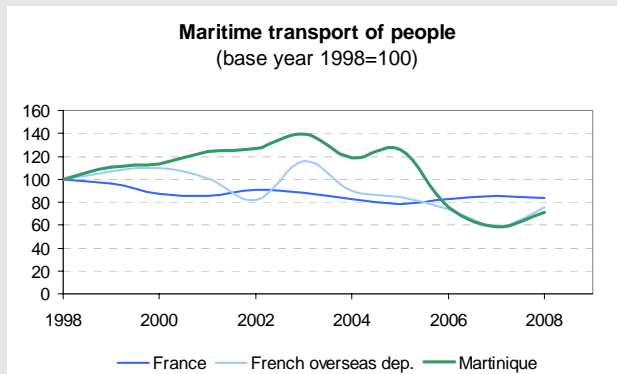
ECONOMIC CONDITIONS, COMPETITIVENESS AND WELL BEING

	GDP per head (PPP; 2007) (EU27=100)	Employment rate (EU average 2003-2008; French regio. 2001-2008)			Share of population with tertiary education (2007) (%)	Net disposable income (€ av. 1996-2000, PPS based on final consumption per head)	Touristic performance	
		f (%)	m (%)	Tot (%)			Night spent per head (French regio. Av. 2005-08; EU 96-2008)	Bed-places per head (French regio. Av. 98-2009; EU 96-2007)
Martinique	75	44.4	1.7	47.8	18.6	8376.2	0.3	3.5
French overseas dep.	65	38.7	5	44.2	18.6	7721.3	0.4	2.4
France	108	57.8	69.0	63.3	18.6	11979.7	4.0	15.2
EU27	100	56.8	71.3	64.1	17.7	.	2.1	3.7



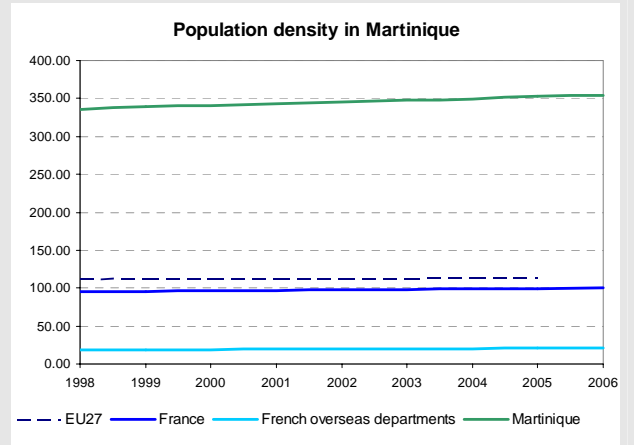
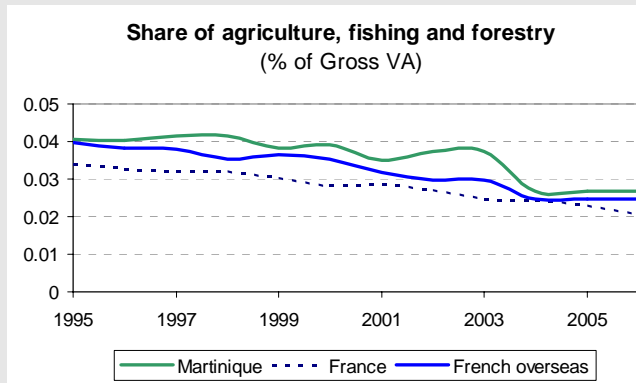
ACCESSIBILITY, TRANSPORT AND INTEGRATION

	Distance from the capital (Paris)	Maritime transport		Air transport	
	('000 of Km)	people ('000; annual av. 1998-2008)	freight ('000 of tons; annual av. 1998-2008)	people ('000; annual av. 2000-07)	freight ('000 of tons; annual av. 1998-2008)
Martinique	6.9	240	2,846	1,522	14.6
France	N/A	26,363	315,815	105,791	1435.9



ENVIRONMENT

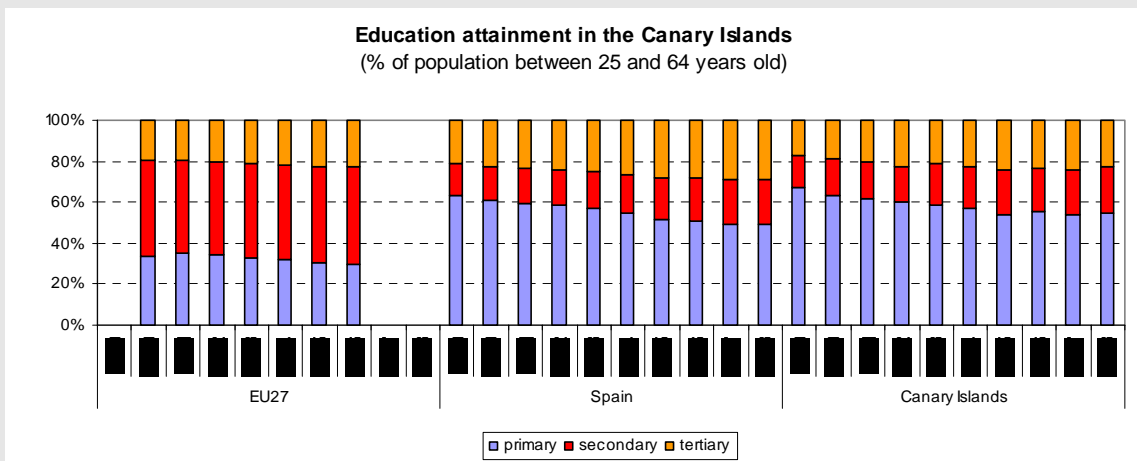
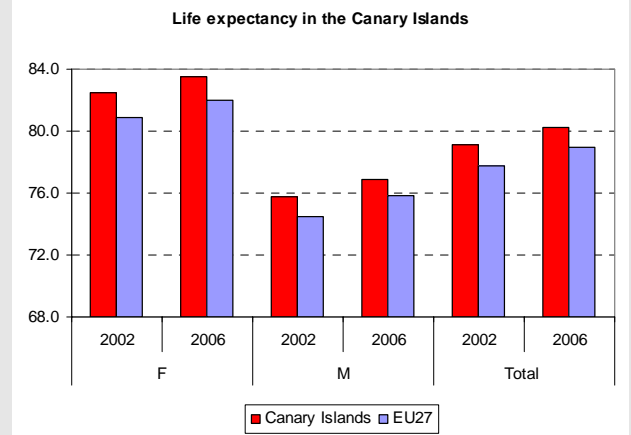
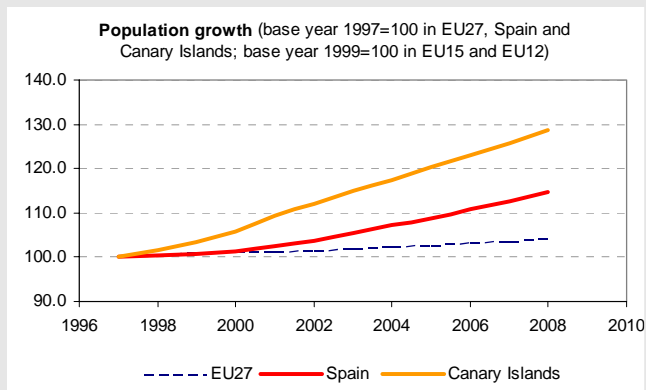
	Share of agriculture and fishery (2006)	Population density (2005 for EU, 2006 for FR)
Martinique	2.7%	353.6
French overseas depts.	2.5%	20.6
France	2.1%	100.2
EU27	.	114.3

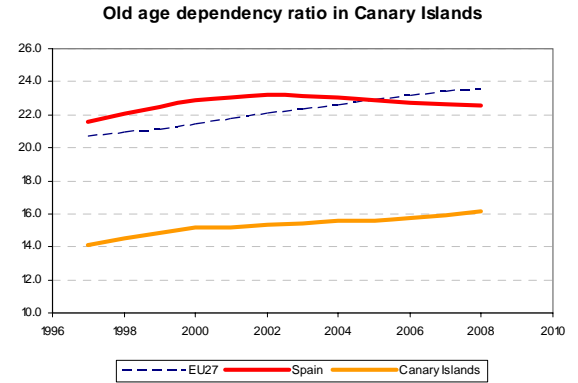
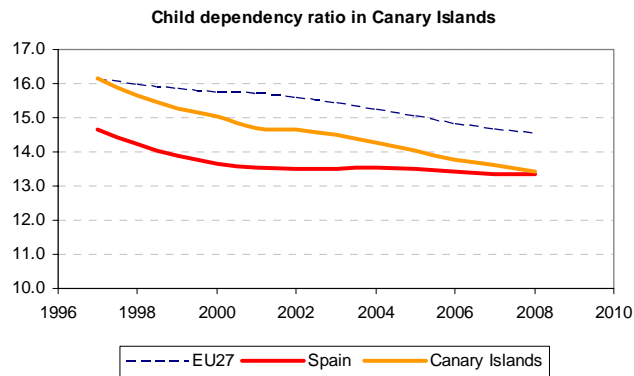


2.3.2.5. The Canary Islands

DEMOGRAPHY

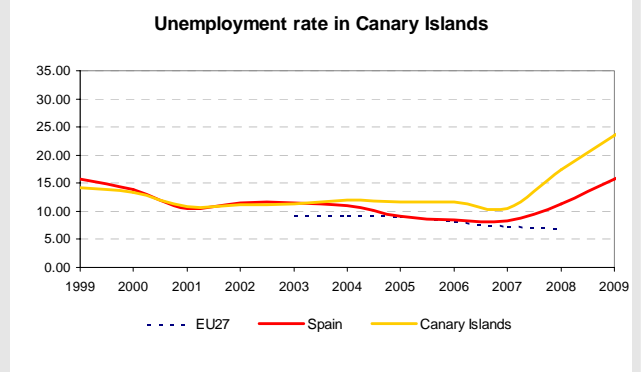
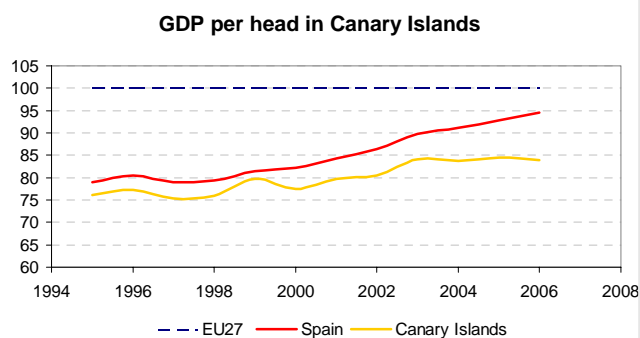
	Total Population (millions; 2008)	Annual population growth (2000-07 for EU27; 1998-2008 for the Canary Islands and ES)	Dependency ratio (2008)	Life expectancy (f) (av. 2002-06)	Life expectancy (m) (av. 2002-06)	life expectancy (tot) (av. 2002-06)
The Canary Islands	2.0	2.3%	29.6	82.8	76.2	79.4
Spain	45.3	1.2%	35.9	83.6	76.9	80.2
EU27	497.6	0.4%	38.1	81.3	75.1	78.3





ECONOMIC CONDITIONS, COMPETITIVENESS AND WELL BEING

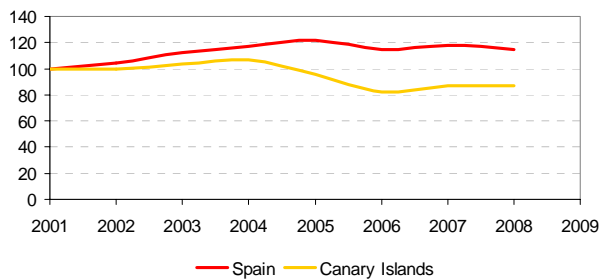
	GDP per head (PPP; 2007) (EU27=100)	Employment rate (EU average 2003-2008; 1999-2008 for PT)			Share of population with tertiary education (2007) (%)	Net disposable income (€ av. 1996-2000, PPS based on final consumption per head)	Touristic performance	
		f (%)	m (%)	Tot (%)			Night spent per head (Av. 1996-2008)	Bed-places per head (Av. 1996-2007)
The Canary Islands	93	45.9	70.2	58.2	19.5	10301.5	74.7	25.7
Spain	105	47.6	73.4	60.5	21.6	1133 .	10.5	8.2
EU27	100	56.8	71.3	64.1	17.7	.	2.1	3.7



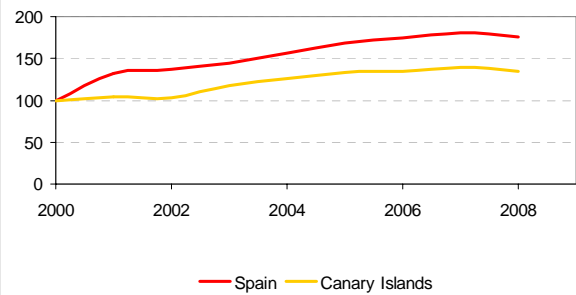
ACCESSIBILITY, TRANSPORT AND INTEGRATION

	Distance from the capital (Madrid)	Maritime transport		Air transport	
	('000 of Km)	people ('000; annual av. 2001-08)	freight ('000 of tons; (annual av. 2000-08)	people ('000; (annual av. 2000-07)	freight ('000 of tons; annual av. 1998-2008)
The Canary Islands	1.7	5,160	31,073	28,621	67.2
Spain	N/A	16,305	337,393	130,374	472.7

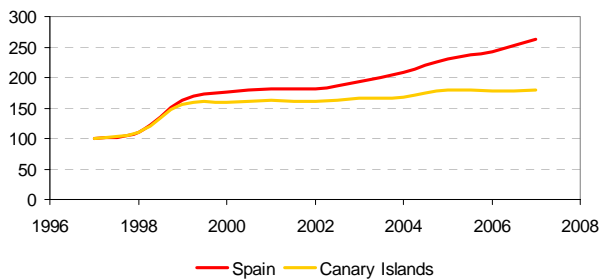
Maritime transport of people
(base year 2001=100)



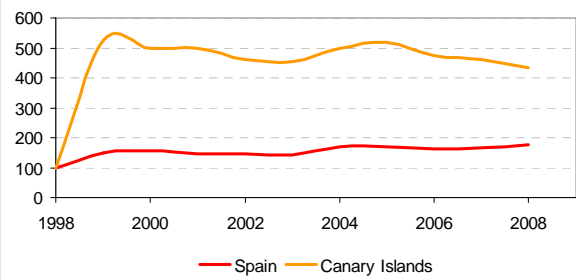
Maritime transport of freight
(base year 2000=100)



Air transport of people
(base year 1997=100)

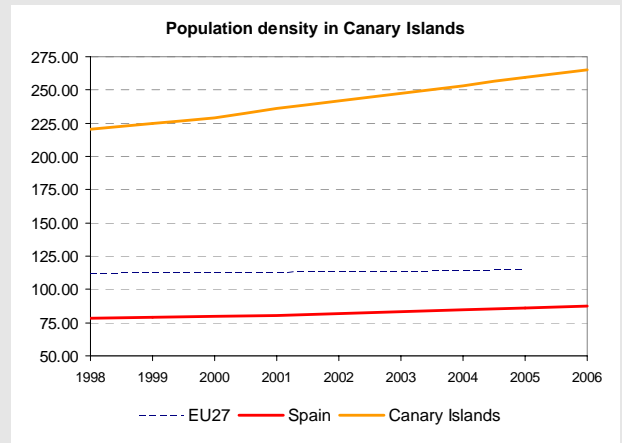
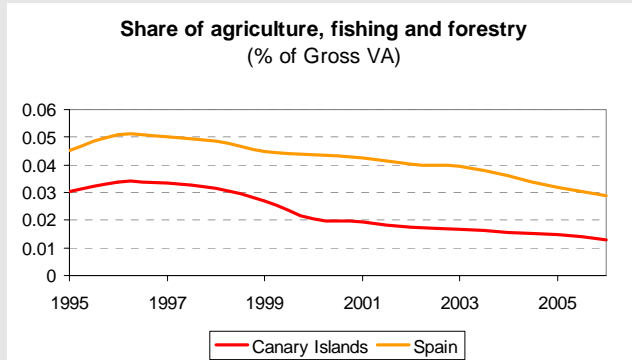


Air transport of freight
(base year 1998=100)



ENVIRONMENT

	Share of agriculture and fishery (2006)	Population density (2005 for EU, 2006 for ES)
The Canary Islands	1.3%	265.2
Spain	2.9%	87.2
EU27		114.3

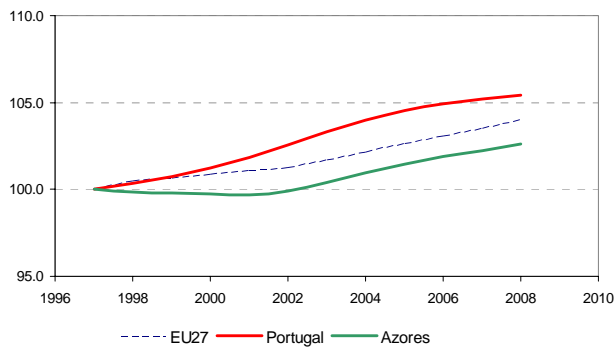


2.3.2.6. The Azores

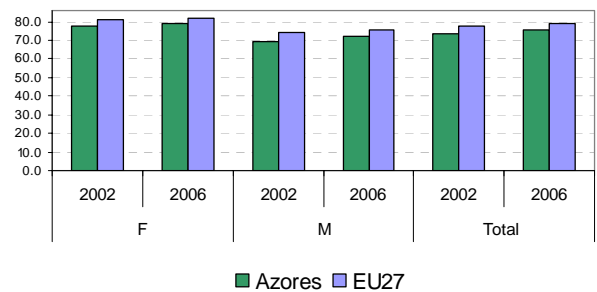
DEMOGRAPHY

	Total Population (millions; 2008)	Annual population growth (av. 1998- 2008)	Dependency ratio (2008)	Life expectancy (f) (2002-06)	Life expectancy (m) (2002-06)	life expectancy (tot) (2002-06)
The Azores	0.2	0.2%	33.4	78.3	70.6	74.4
Portugal	10.6	0.5%	38.0	81.27	74.69	78.00
EU27	497.6	0.4%	38.1	81.3	75.1	78.3

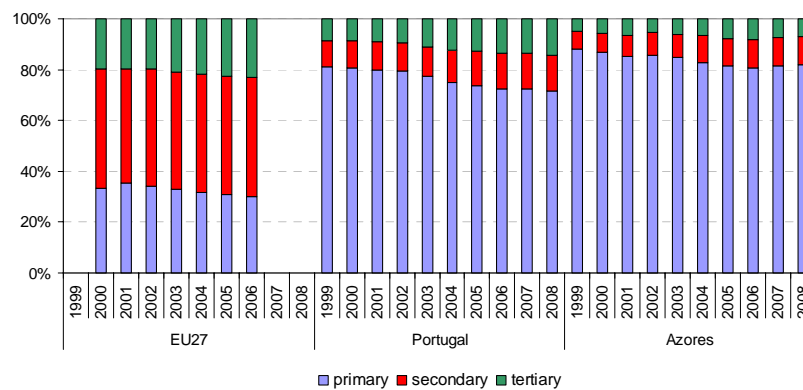
Population growth (base year 1997=100 for EU27, Portugal and Azores)



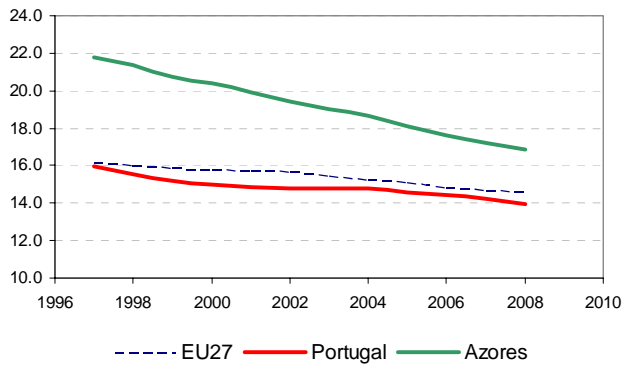
Life expectancy in Azores



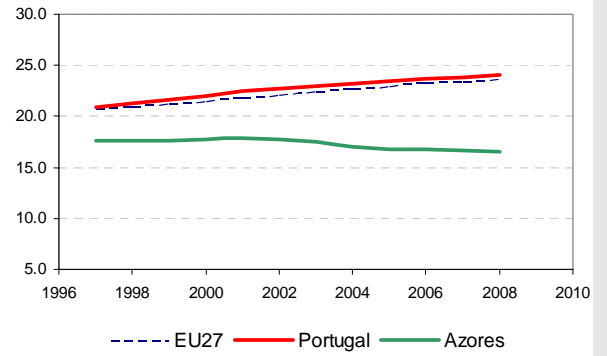
Education attainment in the Azores
(% of population between 25 and 64 years old)



Child dependency ratio in Azores



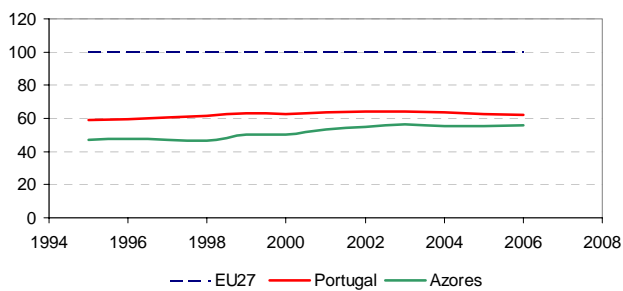
Old age dependency ratio in Azores



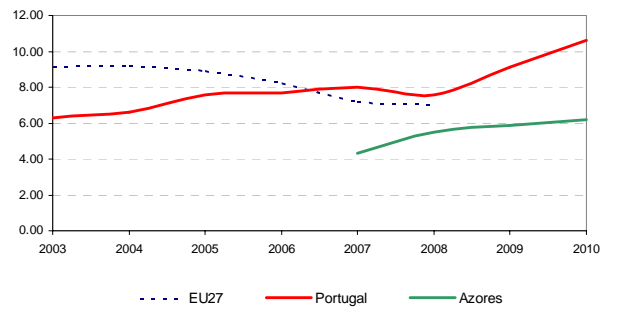
ECONOMIC CONDITIONS, COMPETITIVENESS AND WELL BEING

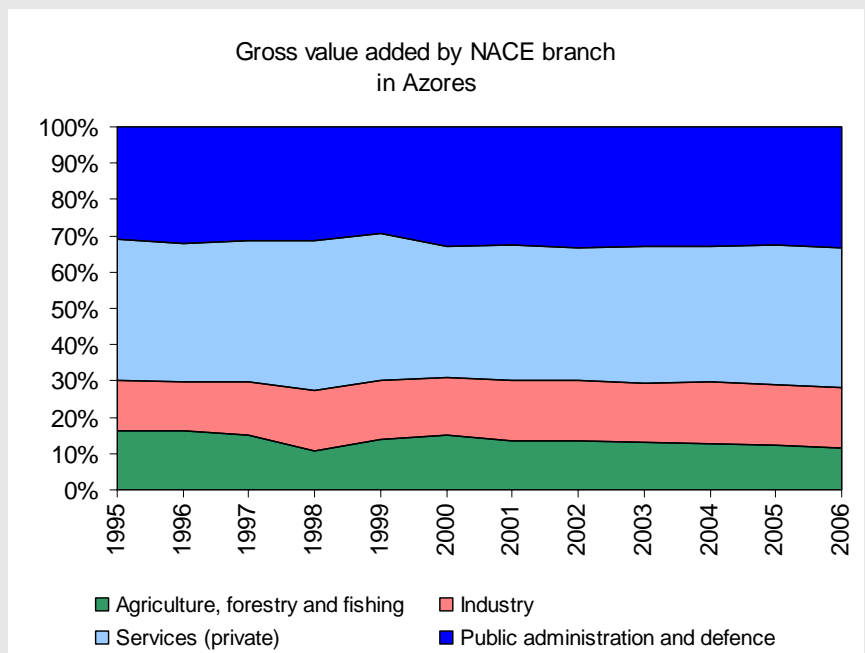
	GDP per head (PPP; 2007) (EU27=100)	Employment rate (EU average 2003-2008; 1999-2008 for PT)			Share of population with tertiary education (2007) (%)	Net disposable income (€ av. 1996-2000, PPS based on final consumption per head)	Touristic performance	
		f (%)	m (%)	Tot (%)			Night spent per head (Av. 1996-2008)	Bed-places per head (Av. 1996-2007)
The Azores	68	46.4	78.0	62.3	5.7	8394.6	2.8	2.4
Portugal	76	61.4	75.0	68.1	9.0	9059.9	5.0	6.5
EU27	100	56.8	71.3	64.1	17.7	.	2.1	3.7

GDP per head in Azores (EU27=100)



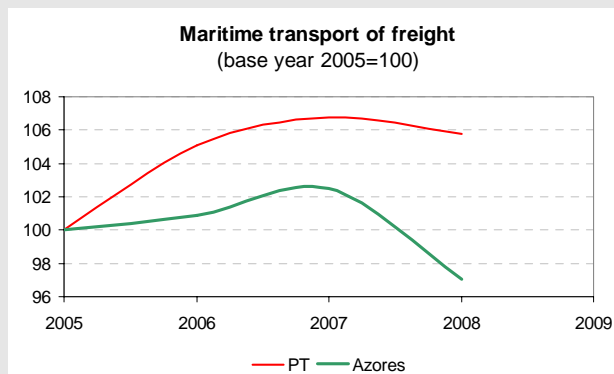
Unemployment rate in Azores

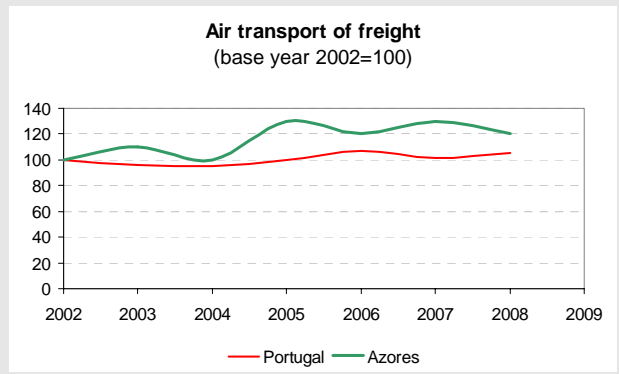
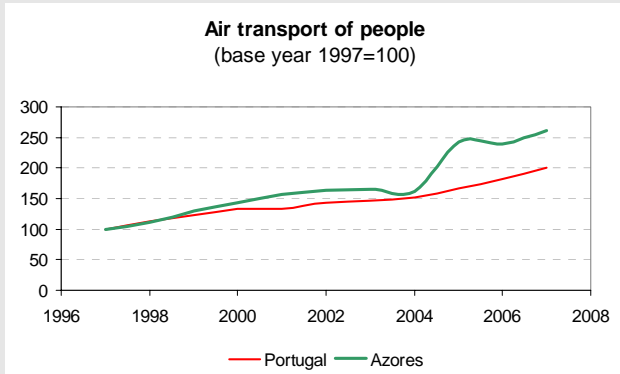




ACCESSIBILITY, TRANSPORT AND INTEGRATION

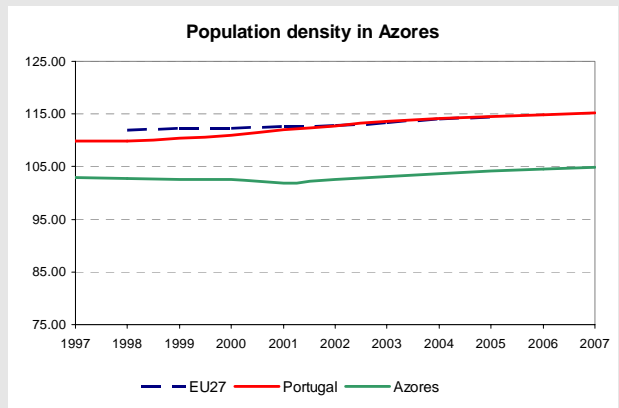
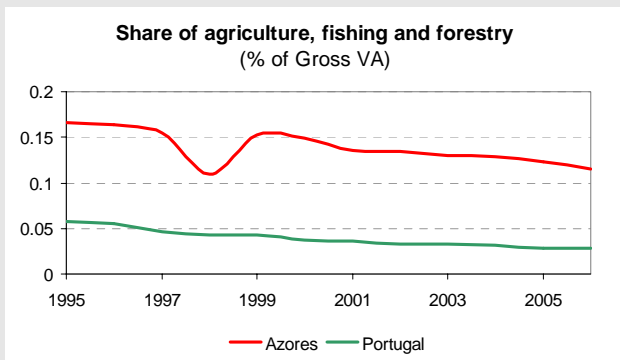
	Distance from the capital (Lisbon)	Maritime transport		Air transport	
	('000 of Km)	people ('000; annual av.)	freight ('000 of tons; annual av. 2005-08)	people ('000; annual av. 2000-07)	freight ('000 of tons; annual av. 2002-2008)
The Azores	1.4	.	1,564	1,058	11.6
Portugal	N/A	.	54,739	19,099	130.0





ENVIRONMENT

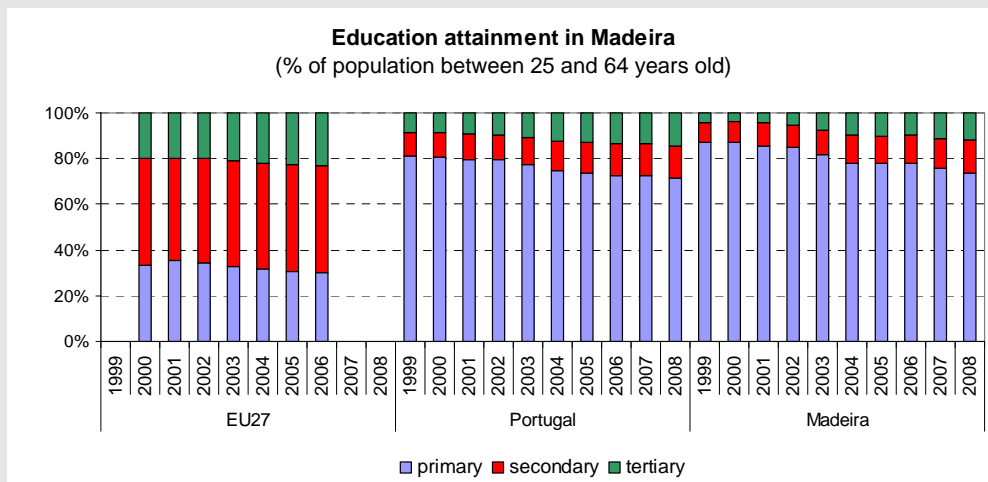
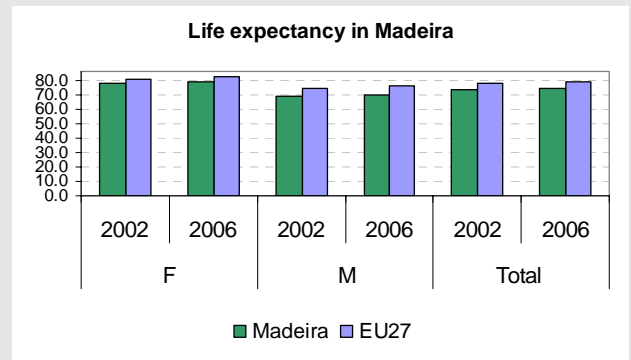
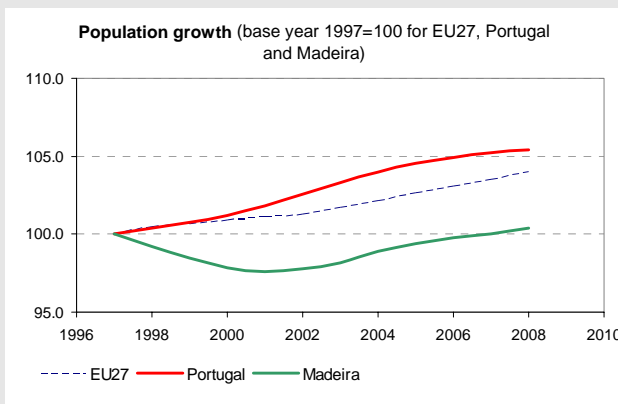
	Share of agriculture and fishery (2006)	Population density (2005 for EU, 2007 for PT)
The Azores	11.6%	104.9
Portugal	2.8%	115.2
EU27		114.3



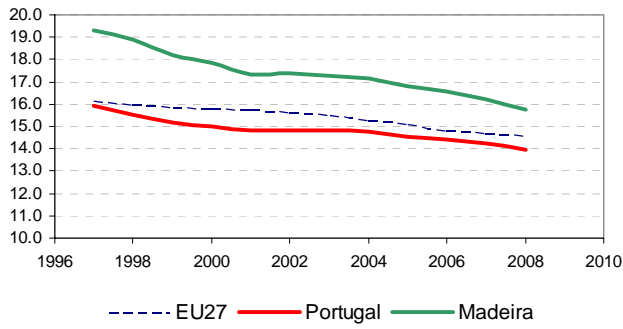
2.3.2.7. Madeira

DEMOGRAPHY

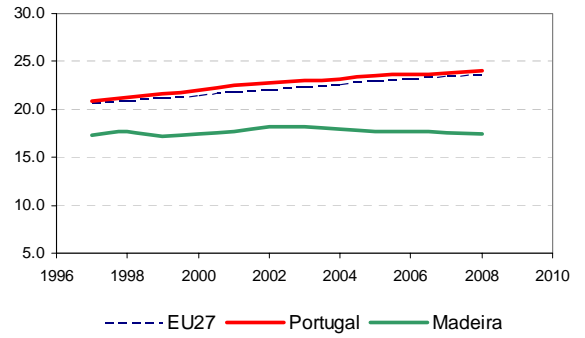
	Total Population (millions; 2008)	Annual population growth (av. 1998-2008)	Dependency ratio (2008)	Life expectancy (f) (2002-06)	Life expectancy (m) (2002-06)	life expectancy (tot) (2002-06)
Madeira	0.2	0.0%	33.2	78.0	69.0	73.6
Portugal	10.6	0.5%	38.0	81.27	74.69	78.00
EU27	497.6	0.4%	38.1	81.3	75.1	78.3



Child dependency ratio in Madeira



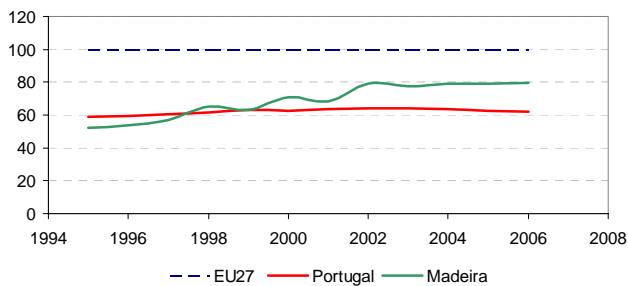
Old age dependency ratio in Madeira



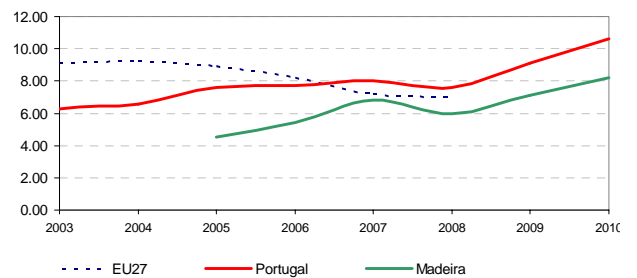
ECONOMIC CONDITIONS, COMPETITIVENESS AND WELL BEING

	GDP per head (PPP; 2007) (EU27=100)	Employment rate (EU average 2003-2008; 1999-2008 for PT)			Share of population with tertiary education (2007) (%)	Net disposable income (€ av. 1996-2000, PPS based on final consumption per head)	Touristic performance	
		f (%)	m (%)	Tot (%)			Night spent per head (Av. 1996-2008)	Bed-places per head (Av. 1996-2007)
Madeira	96	58.1	74.5	66.0	8.5	9038.9	32.2	11.9
Portugal	76	61.4	75.0	68.1	9.0	9059.9	5.0	6.5
EU27	100	56.8	71.3	64.1	17.7	.	2.1	3.7

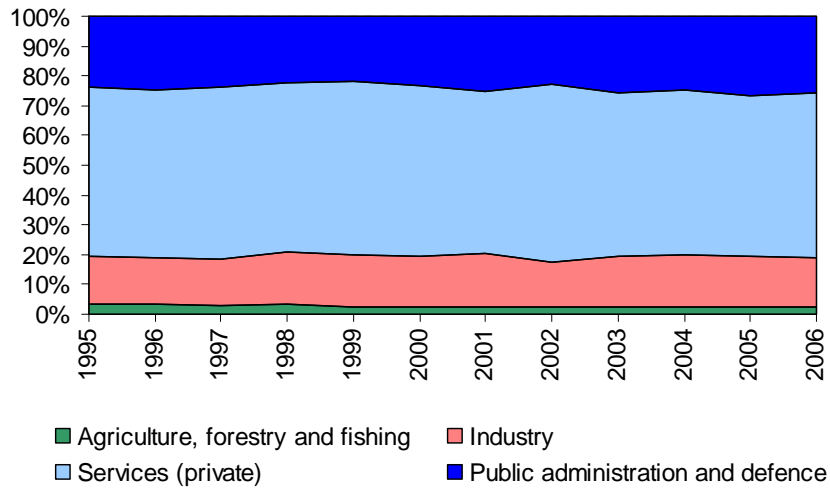
GDP per head in Madeira (EU27=100)



Unemployment rate in Madeira



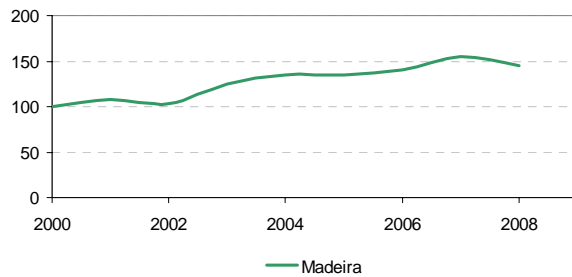
Gross value added by NACE branch
in Madeira



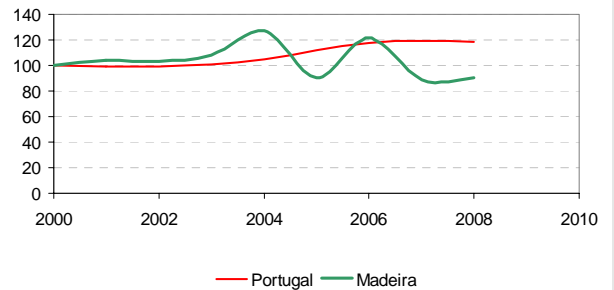
ACCESSIBILITY, TRANSPORT AND INTEGRATION

	Distance from the capital (Lisbon)	Maritime transport		Air transport	
	('000 of Km)	people ('000; annual av.)	freight ('000 of tons; annual av. 2005-08)	people ('000; annual av. 2000-07)	freight ('000 of tons; annual av. 2002-2008)
Madeira	1.0	.	1,366	1,774	9.6
Portugal	N/A	.	54,739	19,099	130.0

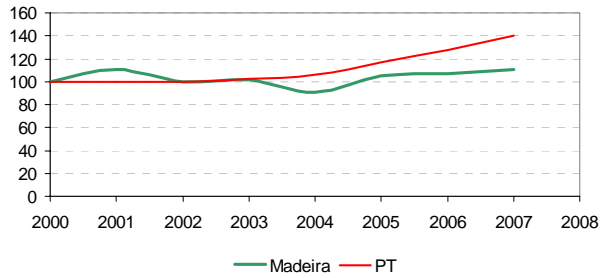
Maritime transport of people
(base year 2000=100)



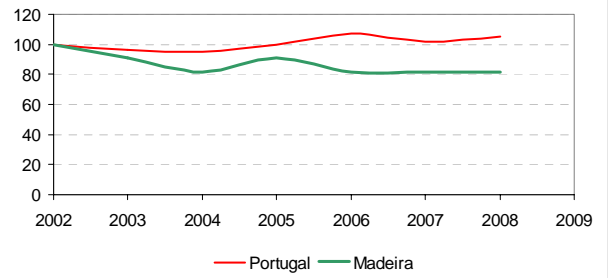
Maritime transport of freight
(base year 2000=100)



Air transport of people
(base year 2000=100)



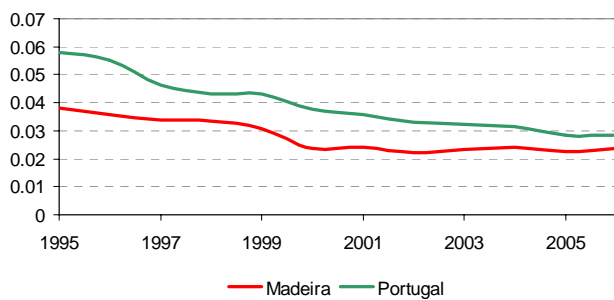
Air transport of freight
(base year 2002=100)



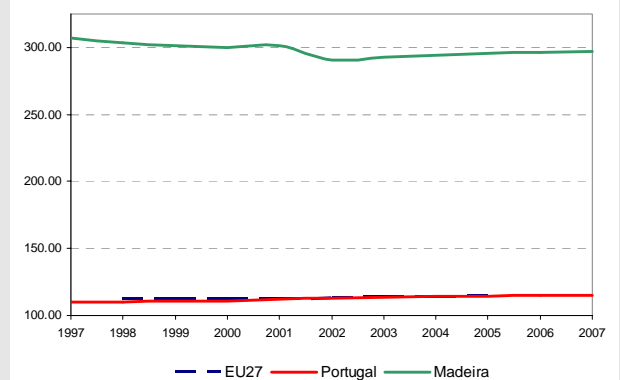
ENVIRONMENT

	Share of agriculture and fishery (2006)	Population density (2005 for EU, 2007 for PT)
Madeira	2.4%	297.4
Portugal	2.8%	115.2
EU27	.	114.3

Share of agriculture, fishing and forestry
(% of Gross VA)



Population density in Madeira



2.3.3. A measure of current and prospective vulnerability of OR

In addition to the above set of indicators a synthetic indicator of vulnerability has been produced in conformity with the methodology and included in Annex B. Vulnerability is defined as the sensitivity to suffer from the exposure to economic conditions in the rest of the world, from trade vulnerability, to natural disasters and to the other factors associated with small size and insularity.

The composite indicator summarizes complex information in a single figure and provides a measure of the ability of a region to deal with current (e.g. related to the economic crisis) as well as future challenges (e.g. related to environmental preservation and climate change). The synthetic index makes it possible to group several variables considered relevant to explain such sensitivity in a single measure which then can be used to rank and classify regions. By the same token it implies a loss of detailed information which cannot emerge within the single indicator.

Demography. We assume that a growing population with a balanced age structure (low dependency ratio) can be associated with a positive capacity to generate growth and hence can be considered less vulnerable to exposure to economic conditions in the rest of the world. The demographic variables taken into account in measuring vulnerability are the following:

- Average population growth in the period 2000-2007: it measures the endogenous capacity of a territory to generate long term growth (reduces vulnerability)
- Dependency ratio (2007): it provides the share of population outside the working age and which needs to be provided for by the working age population. Implicitly, it explains the extent to which a demographic structure may impose limitations on growth (increases vulnerability)

Economic structure and performance. It is assumed that a region with a relatively high GDP per head, dynamic labour market, with a well educated labour force is more able to compete in a globalised world and gain shares of the world markets. The economic variables taken into account are:

- GPD (PPS) per inhabitant in: it measures capacity to compete in globally integrated markets as well as to adapt and mitigate current and future challenges such as natural disasters and climate change (reduces vulnerability). This is introduced both as level (2007) and as average annual variation (2000-2007) to take into account the dynamics.
- Employment rate (2007): it is another measure of competitiveness and measures the capacity of the job market to absorb work force (reduces vulnerability).
- % of population with tertiary education (2007): it measures the human capital potential (reduces vulnerability).

Environment. A well preserved environment is a necessary condition to face climate change risks, to economic development and quality of life, to maintain a well balanced population structure, attract investments and benefit in the medium-long term from the economic advantages of globalisation. As proxy for environmental quality, population density (2007) was used. This reflects anthropogenic pressure on natural resources (increases vulnerability). Moreover, together with GDP per head, it

can be considered as a proxy for the regions' ability to deal with climate change risks. Unfortunately, it was impossible to introduce more environmental variables (e.g. regions' vulnerability to droughts, change in population affected by 100 year return river floods, share of population living in coastal areas – below 5m elevation etc.). Homogeneous indicators of this type are lacking in the ORs, differently from other EU regions.

The vulnerability index has deliberately not taken into consideration the remoteness handicap due to data limitations and because we wanted to verify if a growing population with a balanced age structure and its educational attainments can be associated with a capacity to generate growth and employment and make these regions less vulnerable to negative economic conditions in the rest of the world. The composite index summarizes some of the thematic indicators contained in the summary tables. As highlighted, beside relevance, availability of consistent data across regions was an important criterion for selecting variables. The choice of the above variables as the composite index of vulnerability must be considered as obliged by the lack of regional data on other equally pertinent²⁸ variables.

271 regions (NUTS2) were considered in the calculation. The results are shown in the map below while table 4 presents the variables used for computing vulnerability. Table 5 provides some examples of the levels of vulnerability across the European regions. The French Outermost regions appear at the top of the vulnerability list, though if they were open to regional trade this impact of remoteness would not be so severe or would even benefit from the proximity to other markets in the Caribbean or the Americas. The Portuguese regions are better off even though the Azores can still be considered very vulnerable. The Canary Islands can be considered as among the least vulnerable regions due to its positive performance in some of the indicators.

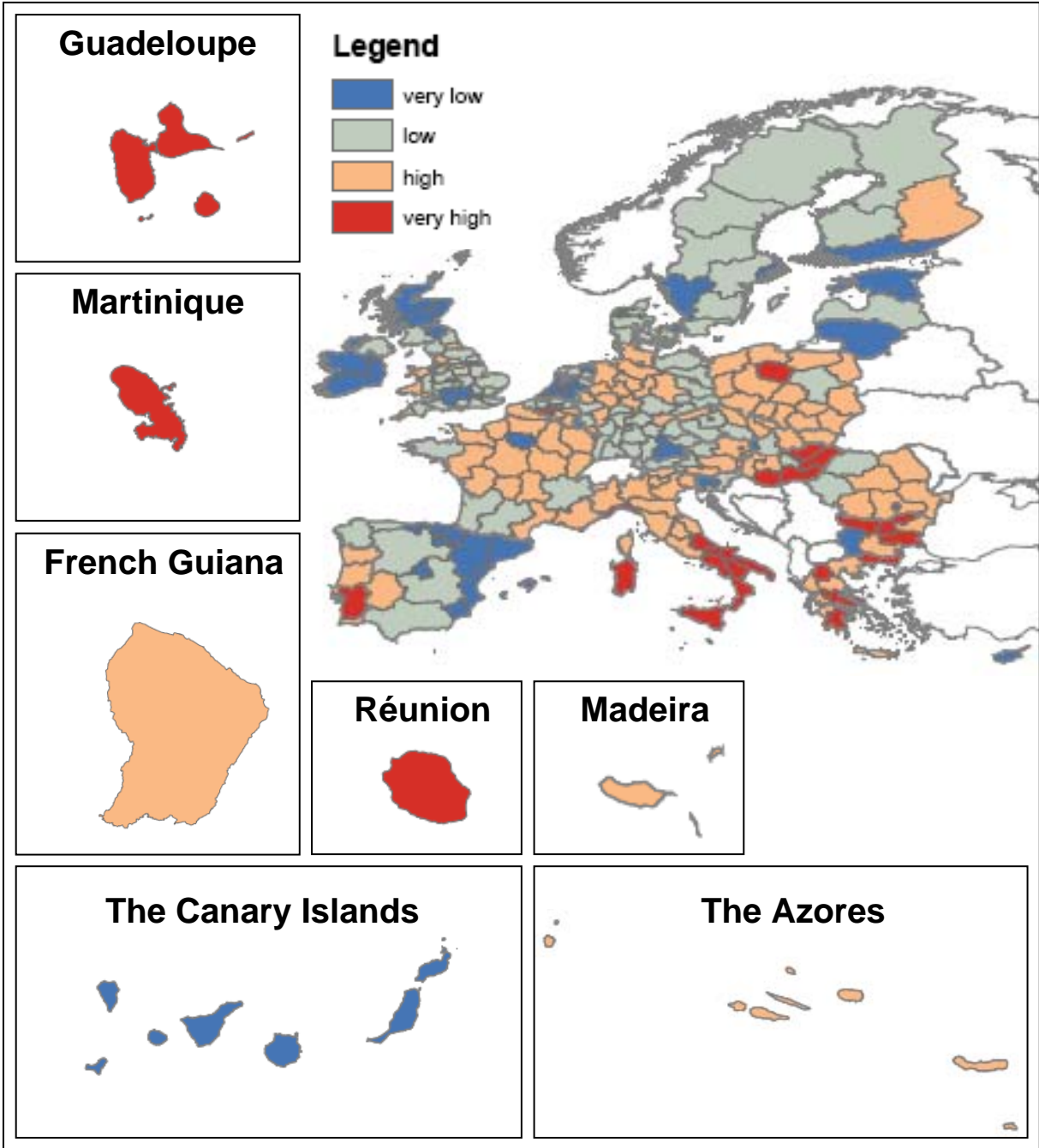
Table 4 - Indicators used for calculating vulnerability

Region	Population growth 2000-2007	Dependency ratio (2007)	GPD per inhabitant - PPS		Employment rate (% 2007)	Population density (thousands of people/km ² ; 2007)	% of pop with tertiary education (2007)	V
			thousands of € 2007	annual average variation 2000-2007 (%)				
ES70 – The Canary Islands	2.7	0.39	23.1	4.5	62.4	265.2	19.5	0.29
FR91 – Guadeloupe	0.7	0.54	17.1	4.8	48.5	262.1	18.6	0.76
FR92 – Martinique	0.5	0.53	18.7	4.7	48.1	353.4	18.6	0.75
FR93 – Guiana	4.5	0.64	12.1	2.8	44.0	2.6	18.6	0.71
FR94 – Réunion	1.6	0.51	15.6	5.1	44.0	319.4	18.6	0.73
PT20 – The Azores	0.3	0.46	16.8	5.7	63.0	104.9	5.7	0.68
PT30 – Madeira	0.3	0.45	24.0	6.1	66.1	297.4	8.5	0.56

Source: Iseri Europa

²⁸ Despite these limitations the index can be still considered as a useful estimate of regional sensitivity but cannot be regarded as a proxy for all the factors included in article 349 of the Treaty on the functioning of the European Union.

Exhibit 9 – Map of Regional Vulnerability



Source: Ismeri Europa

Table 5 – Examples of vulnerability levels across EU regions

Region - NUTS2	vulnerability index (1=max: 0=min)	vulnerability rank
ITG1 - Sicily	1.00	1
BG31 - Severozapaden	0.92	6
ES64 - Ciudad Autónoma de Melilla	0.85	11
FR91 - Guadeloupe	0.76	19
FR92 - Martinique	0.75	20
BE32 - Prov. Hainaut	0.75	22
MT00 - Malta	0.75	25
FR94 - Réunion	0.73	27
PT18 - Alentejo	0.72	30
GR25 - Peloponnisos	0.72	32
FR93 - Guiana	0.71	33
FR22 - Picardie	1.00	34
PL32 - Podkarpackie	0.70	37
PT20 - The Azores	0.68	46
FR83 - Corse	0.67	51
DE92 - Hannover	0.56	118
PT30 - Madeira	0.56	119
PT15 - Algarve	0.55	126
ES62 - Región de Murcia	0.30	235
ES70 - The Canary Islands	0.29	236
ES53 - Illes Balears	0.22	249
CY00 - Cyprus	0.17	258
UKM6 - Highlands and Islands	0.07	267

Source: Ismeri Europa

The synthetic vulnerability index shows the extreme vulnerability of the French ORs due to the combined negative impact of remoteness and accessibility which add to a low social and labour market performance. The Portuguese ORs perform relatively better, especially Madeira which is mostly penalized by its education achievements, whereas the Canary Islands have a relatively positive performance, due to the overall satisfactory economic and social parameters.

3. New patterns of growth based on unexploited potential and new sectors.

Over the last years the development policies of these regions have started to change in order to overcome the old development patterns sustained in the past.

From the field analysis it has emerged that new fields of development are being pursued, according to the potential of each region. At this initial stage of development these fields cannot counteract the structural imbalances in the short term and especially the large employment gap in relation to the labour supply which exist in most but not all OR; however they appear to be the most effective economic drivers for a less dependent and a more competitive growth pattern to the point that virtually all the ORs are following a similar path.

At this stage the scenario conditions of the new emerging sectors that stem from the analysis and the field research need to be identified, taking into consideration the official development plans as well as the opinions of the stakeholders and the progress made in their pursuit.

The new pattern of development the ORs aims at is based on a product mix of old and new sectors, in which a modern agriculture, tourism and private services progressively increase their competitiveness and become tradable on a wider regional market. In addition, they aim to develop new sectors in manufacturing and advanced services and in this respect significant public investments in research and knowledge have already been carried out.

In economic terms the concept of economic growth potential is in this case connected to untapped resources both human and/or natural which the production process of a region can rely upon, developing new technologies and skills or a new form of organization of the production factors. In our case this definition fits well with the strategy needed for exploiting the ORs' potential. The mix of endogenous resources and new technologies and factor organization can give rise to a competitive advantage in the production of a set of goods and services.

The potential growth in the ORs can be found both in restructuring the traditional sectors of Tourism and Agriculture and in new specializations which stem from the application of R&D to old and new sectors. New and high profile skills, well focused applied research market oriented and improved marketing need to sustain the process.

3.1. Traditional sectors.

The ORs' traditional sectors are agriculture, fishery and tourist services. A high proportion of the workforce of most ORs is employed in agriculture, this fact means that they also design their unique environmental and cultural landscape and to a varying degree assure an export good and a supply for the local food market. Given the accessibility and isolation of these regions, agriculture cannot be progressively dismissed if the ORs want to lessen the local dependency on imports and to preserve the landscape. Production and employment in agriculture however are declining and

can only be enhanced by differentiating and enlarging the product specialization. This can be done with the support of the ongoing RTDI and by applying the new techniques and discoveries to enlarge the variety and quality of the products and link this production to the agro-food manufacturing value chain for the local market as well as for the external markets. This strategy to develop the regional potential linked to climate, environment and local know how is pursued by most ORs with very different results and impact on the regional income. Specific opportunities in particular have emerged from alternative uses of sugar cane, production of new fruits and vegetable species, livestock, fish farming, etc. These development can be enhanced by a more focused and market oriented research and by forms of clustering and networking to link weak private sector actors. The existing trade off, within the agricultural and fishery policy, between the support of the existing production or the enhancement of the change of cultivation has to be carefully considered by the authorities.

Tourism has a relevant potential in most ORs and in some of them is a key sector for employment and external trade; in the ORs tourism is based on an exceptional natural and cultural environment. The conflict between tourism and environmental preservation of the coastal area and of the green spots need to be seriously tackled by these regions as a necessary condition for making tourist development sustainable in the long term and allow the take off of alternative tourism products. Although tourism is well developed, its products are still traditional and suffer from increasing external competition; its potential is therefore based on a product differentiation which should increase the quality, the value for money, and should allow the tourist supply of the ORs to occupy new niches of specialized tourism, at present unexploited (eco and environmental, social, cultural and health tourism). The restructuring of the tourist service supply gives an opportunity to invest in new, small and more flexible establishments for tourist reception, more sustainable from the environment viewpoint. In this respect ad hoc professional training to sustain product differentiation and upgrading is fundamental in most ORs.

3.2. New emerging sectors and specializations

A host of new sectors or products can emerge from the application of RTDI to the development of the biodiversity which characterize the ORs' natural environment, from the forest to the marine eco-systems. A list of applications are envisaged in the area of health, natural medicine as well as in cosmetics and in many other sectors like food or energy or materials for eco-construction and wood. Several developments of the green economy can be pursued to draw upon the unique natural environment and its rich land and marine biodiversity.

The development of competitive advantages in this area of the green economy is the most promising perspective for the opening up of new opportunities of growth and employment in the regional economies but is at the same time the more demanding, in terms of other conditions to fulfill, from the availability of the scientific and technological skills to the market finalization of the RTDI, and finally to the local exploitation of the findings through spin offs of the research. On the whole, at the present time these have not yet been met and the ongoing regional RTDI policies, fall short of stretching the value chain of research to link to business applications and cluster research, to create a critical mass for developing new products and services. This difficulty is however common to most of the convergence regions in the EU, and

particularly to those which do not have significant knowledge based manufacturing to lead the process. This policy is however still too young and results can be assured only in the medium term if the above conditions are met, and if the obstacles are overcome by well focused policies. As mentioned in the regional analysis in fact, the regional policies need to focus, concentrate resources (human and material) and make them more market oriented, rather than disperse them in too many potential fields with the risk of not reaching the necessary critical mass.

3.2.1. Renewable energy

The ORs have had great difficulty in guaranteeing the regular supply of fossil fuels and are penalized by their higher cost of provision, due to accessibility and distribution handicaps. During the past years, the development of renewable energies has been pursued and favorable natural and environmental conditions exist in different regions to develop different renewable sources from bio-fuels to wind, solar and photovoltaic. In addition, in some ORs there is a growing experience in research and development on renewable energies on which to draw upon for their development. The insularity and small size is a favorable factor for a wider development of small plants of renewable energies, which could aim to satisfy a much more significant share of the total energy demand, given the higher cost of traditional sources and their unreliability. At the present time a number of experimental plants and of good practices may set the conditions for a more planned and organized development of these sources at the regional level.

3.2.2. Service sectors: maritime, environmental and health.

Maritime services

In most ORs port activities can be developed in relation to both tourism, from cruise and nautical, to shipbuilding maintenance and transshipping services. To make these developments financially sustainable they need to have a significant positive impact on local products and services provision. Most of these developments draw upon the geostrategic position of the islands. However such developments need to be supported in most cases by heavy investments which, if not properly accompanied by accurate feasibility and marketing plans, are in danger of being underutilized and imposing a high opportunity cost, preventing the regions from investing in other useful infrastructures. The lack of appropriate infrastructure, if not adequately addressed, may exclude some of these regions (e.g. Réunion) from the great international maritime routes.

Environmental and health services

At this stage of development the problem of water and waste disposal has not yet been solved in any satisfactory way in most ORs. Relevant investments are needed to satisfy those needs and they would give the opportunity to create local skills and equipment which could be exported in the geographical Region where they do not exist provided that they were cost-effective.

At the same time the health and medical services, social personal services are well developed and supported by research and appropriate skills. Their potential for the development of ORs is fundamentally linked to the opportunity to export these services and the skills developed for the local market. The standard of these services in the geographical regions where the ORs are located are of a much lower standard and this creates opportunities for increasing their trade.

3.2.3. Geopolitical dimension

The geopolitical location of these regions and especially of the French ORs and of the Canary Islands allow for the development of geostrategic investments to exploit the proximity to strategic markets in the Caribbean and Latin America, In West Africa and in the Indian Ocean. These potentialities need to be developed through an initial phase of regional cooperation involving local stakeholders, firms, and private actors; once the potential cooperation gives a concrete opportunity to exploit their role of “portals” of the EU, then external policies need to take these opportunities into consideration.

The potential of these sectors and products, and the conditions for their development briefly described, leaves room for an optimistic view of the future provided that the inevitable policy choices are followed by a coherent implementation with the right balance between a radical improvement of the traditional sectors with sufficient space to develop the new products and sectors. Those new sectors are already emerging in different ways in the OR economies but it must be acknowledged that they have not yet reached any significant economic dimension and are not represented in a comprehensive “flagship” project on which the regional public and private stakeholders can invest their energies.

4. Conclusion: a cross analysis of the growth factors in the ORs

The ORs are islands or archipelagos scattered in the Caribbean Sea, in the Atlantic and Indian Ocean, except for French Guiana, which is a small enclave in the Amazon region. Some are ancient colonies with typical patterns of specialization and residual problems of social integration. Strong differences appear between the ORs due to their specific political status and administrative organization of their Member states: the Canary Islands are a Spanish Autonomous Community, the French ORs are overseas departments while the Azores and Madeira are Portuguese Autonomous Regions.

They are characterized by a much faster demographic growth than the EU, and a growing working age population with a vast young and dependent share. These regions have some features in common that hinder their development, due to their specific geographical features (topography and climate) and remoteness in relation to the economic markets of the EU which they formally belong to. They consequently suffer from disadvantages caused by their heterogeneity and lack of integration with respect to the regional markets where they are located geographically.

More than other penalizing factors, like market size or exposure to various risks from climate to extreme natural events (e.g. cyclones), or external dependence on strategic sources of energy, this displacement from their natural regional market has affected their mode of development and has up until now partially deprived these regions from exploiting their diversity with respect to mainland Europe. The displacement is not only a result of Union membership (constraints related to being part of the Single Market such as regulations and policies not suitable to the local context), which may limit or penalize their regional integration, it is also due to their much higher living standards and their costs applied to a still scarcely competitive economy, which pay for those standards with high unemployment. On the other hand, EU integration and the single market rules, inevitably connected with a different economic and social pattern of development, poorly adapt to their needs and stage of development which require more extensive and labour-intensive specialization. Thus trade integration, the most powerful driver of growth in the world economy and in the EU since the early 50ies, has not affected those regions as positively as it could have, given their strategic location. If we look at aspects such as market size, there are small or very small regions or cities or islands in the EU which do not suffer from the same problems and have enjoyed fast growth and a rising income; they were able to specialize their economies and integrate, irrespective of their size or geographical features.

These handicaps however have given rise to different features and performances which do not allow us to consider these regions as completely or even significantly homogeneous. Apart from the different social and cultural integration features which cannot be solved with generous welfare provisions alone, these regions are deeply affected by the pattern of development of the country to which they belong and even more so when they depend on investment and public consumption decisions often taken in their national capitals.

Let us briefly highlight similarities and differences of their society and economic fabric as well as of their economic performance.

The structural similarities are:

- The ORs are characterised by much higher living standards in their respective geographic regions, which has been a factor of attraction but also a source of higher costs and lack of competitiveness.
- Their productive structure is based on services and on construction whereas the manufacturing sector is weak and subsidized.
- A large flow of transfers from the mainland through public investments and consumption, and social transfers, as well as from the EU funds for social and economic development have sustained private consumption and disposable income. However the size of these transfers varies and in some ORs may well be around 30 to 40% of the regional GDP. Consequently, they suffer from a structural deficit of the trade balance only partially compensated by the non resident acquisition of tourism related services.
- Private and public consumption are the main determinant of growth.
- Significant structural low participation rate and long term unemployment caused by a mismatch of their growth patterns with the increasing labour supply, both in quantity and in their skills components. Rates of unemployment however significantly differ among the OR.
- In manufacturing, only productions in the agro-food sector can face external competition, though to a different extent in the various regions.
- Private investments are insufficient to specialize in competitive productions and create new jobs in competitive sectors. R&D investments carried out since 2000 have still to show some impact on the productive and employment side.
- The lack of qualified manpower and of specialized skills acts as a self-perpetuating mechanism to prevent the development of productions and services which need more intensive knowledge productions to counterbalance the remoteness and size handicaps. It is worth noting that in some cases (e.g. Reunion) massive investments in human capital have been undertaken in recent years to improve education, training and qualification of the population.
- The lack of regional integration has created self-centred, protected and dependent economies which cannot develop their potential unless these main socio economic and structural factors are radically changed.
- Population needs and social standards aspirations are rising faster than domestic production.
- Financial protections and subsidies, though necessary to sustain the present production pattern, cannot alone make a change in the right direction and often may risk crystallizing the “status quo” in which some economic and social groups may be better off. As a consequence the resistance to the necessary changes may be strong.

- The significant population growth is ill adapted to the typical labour-saving specialization of their mainland and of the EU, where growth is based on productivity gains, high salaries and social standards.
- Environmental services for water and waste disposal and treatment are a common problem; at the same time there has been a greater use of renewable energies, but significant room for increasing their weight and lessening their dependence remains.
- The fact that the ORs are islands (with the exception of Guiana) characterised by difficult topography (e.g. rugged relief) and exposed to violent natural events (e.g. storms, cyclones) makes them very fragile from the environmental point of view. Moreover, it is worth noting again that the topography makes infrastructure highly costly, hence representing a further constraint for development.
- The scarcity of land and the conflict over its use for different functions, from residence to production, from infrastructure to agriculture determines that all functions are concentrated in the small coastal strips and flat portions of land.
- These common environmental features require special attention to sustain the development patterns which limit the boundaries for development, and impose a careful exploitation of the endogenous resources, within strict land use regulation which at present is not adequate.

In terms of performance:

- They all enjoyed a more sustained growth during the eighties and nineties and though they have slowed down in the last decade they continue to grow at a more sustained rate than the mainland country and the EU as a whole. GDP growth rates are more closely linked to the national cycle than to their intrinsic characteristics
- This growth has allowed a significant catching up for all the ORs and in the case of Madeira the overtaking of the national average per capita income.
- Since the end of 2008 they have all been suffering from the ongoing crisis, though to a lesser extent than most of the other EU regions more exposed to external competition; however, in perspective, the flow of external transfers might have to be significantly slowed down as a result of the budgetary policy stance to reduce deficits.
- The excess weight of the public sector on total employment leaves little room to entrepreneurial spirits and social dynamics to develop new emerging sectors.

The differences among the ORs are not less relevant than their similarities; they are mainly structural and concern the degree of autonomy in external trade and their ability to develop internal specializations.

- The natural growth rates of the populations are different, lower in Portuguese and Spanish ORs; structural unemployment figures were much lower in Spanish and Portuguese regions, especially until 2008; relative employment of sectors and value added weights differ significantly in the agricultural (The Azores and Madeira) and construction sectors as well as in the public sector, employment and tourism (Madeira and the Canary Islands). The degree of

dependence on imports is much higher in the French regions than in the other ORs, as a result of the past heritage of colonial economies on the one hand and a pattern naturally oriented toward self-sufficiency on the other. The coverage of import with export varies from 6% in the French regions to more than 50% in the Portuguese and Spanish ORs which also enjoy a larger tourist reception except for the Azores.

- The degree of self-sufficiency in local food consumption in the Canary Islands, Madeira and the Azores is much larger than in the other regions and guarantees greater economic independence and lower prices for low income brackets. The Spanish and Portuguese ORs are, on the whole, less dependent and enjoy a higher degree of self-sufficiency.
- Development patterns between French regions and the other ORs differ since the former tried to develop an import substitution strategy which was not really successful, whereas the latter focused on construction and tourism to achieve more autonomy from public transfers. These developments were caused by higher productivity growth in the French regions opposed to more extensive growth and lower costs in the other OR.
- The degree of dependence on major infrastructure investments from the mainland and, in general, on public transfer is significantly more pronounced in the French regions than elsewhere; partly due to a generous welfare system and social standard equalization policies, that are less pronounced in Portugal and Spain, though still relevant.
- The development pattern based on tourism and related services and a relatively greater weight of agriculture has favoured the Canary Islands and Madeira. The Azores have a more balanced pattern of production among sectors, which show less dependence on public service employment. In the French ORs the tourist sector did not emerge as a driving force for development and as a specialization able to compete in the fast rising world tourist market, as a result of high costs and lack of skills and quality.
- Guiana is a special case since its fast development pace has attracted a large flow of migrants from the surrounding regions; a fast population increase and this flow have created an excess labour supply that the small local economy cannot possibly absorb in a short time.

In conclusion, because of their structural handicaps, the ORs suffer from their scarce integration in the EU and world market. However, through tourism and other service exports some regions managed to lessen those constraints, develop local productions and are well integrated into the international tourist market. In the Azores the economy is more balanced in sectors with a relevant residual employment in agriculture (concentrated on meat/milk).

Those regions which were less successful in developing an export oriented production, had to rely on increasing external transfers from the public sector or public development projects, which absorb an ever increasing portion of the workforce (approx. 40% in the French Antilles). The weight of the public sector remains significant also in the former better integrated or balanced ORs.

This pattern of growth is not self-sustainable in the medium long run and may even become an obstacle, structural and cultural, to a pattern of development based on

competitiveness, which may require more investments and less consumption in the short term.

These regions need to become progressively more autonomous from the public sector and increase their ability to develop their endogenous resources and their potential on the basis of private investments either local or external. The present specializations need restructuring and re-positioning and new productions in manufacturing and services need to widen the regional export basis or at least fill the external trade gap, in particular in the perspective of the EPAs (economic partnership agreements).

At present those regions enjoy some forms of protection and structural aid, though to different degrees depending on the country, which compensate for their disadvantages in costs and relative size, as well as for their displacement. The crisis is at the same time lowering the employment and income growth trends, and the tightening national budgetary policies worsen the overall scenarios of public transfers. Since financial support has now become even more urgent than before the crisis, the issue is not whether or not to continue support, but what to support and how long it will take to reach which objectives in the medium term. If the policy mix is not linked to this aspect it will not stimulate those transformations which are deemed necessary to create a self-sustained and autonomous pattern of development in the medium term; furthermore, they might make the achievement of the necessary social and economic changes more difficult.

The action in support to the ORs must continue strengthening the most important development pillars identified by the Commission. These include issues such as access deficit, competitiveness and cooperation with the other regions of Europe and integration into their area.

Furthermore, it is worth highlighting that the present situation forces all EU regions and the ORs in particular, to revise their strategy and adapt it to the new growth paradigms based on competitiveness and trade²⁹. The policy of development therefore needs to focus on these transformations in a coherent and systematic way with a clear perspective of the objectives and of the choices to make, which in most cases require profound cultural and social changes. The ORs do not seem to have fewer chances of achieving those objectives than the other lagging EU regions.

²⁹ The regional innovation strategy exercise that the French ORs had to carry out in 2009 (as all other French regions, at the request of the Commission, DG REGIO) contributed to raise awareness on this imperative. They remain to be effectively implemented in the next incoming years.

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ANNEX A – Methodological note on summary tables

Both static (e.g. annual averages, max or min values) and dynamic indicators (such as growth rates) are used to analyse the relative position of ORs with respect to each of the themes considered.

Collected data on the socio-economic situation and growth trends concern **4 main themes**:

- Economic conditions, competitiveness and well being (e.g. GDP per head and by branch, RTDI activities, data on tourism etc.)
- Demography (composition, change, density, migrations etc.)
- Accessibility, transport and integration (distances, road, maritime and air transport)
- Environment (population affected by natural risks, energy production etc.)

Following a preliminary check of available information, the main issues regarding data availability can be summarised for each of the four main themes as follows:

- Demography and migratory trends
 - Lack of net migration data
 - Lack of information on education attainment in French OR
 - % urban/rural population can be proxied only in the Canarias and Madeira
- Economic conditions, competitiveness and well being
 - Limited unemployment data in Portuguese regions
 - RTDI data missing or unreliable in French regions
- Accessibility, transport and integration
 - Only little data available
 - Gaps in La Réunion data on maritime transport
- Environment, climate change and energy
 - Only little data available
 - Lack of data for French regions (apart census and shares of agriculture and forestry)
 - Data on energy dependency are mainly national

Further investigation on these gaps has been carried out both through desk research, careful examination of national sources, and during field visits.

Dynamic indicators such as the time series of the gross value added by NACE sector allow a historical analysis of the different economic sectors in order to show the output and employment trends over the last years. This represents a useful starting point to assess future economic developments in both traditional and emerging and/or innovative sectors. Particular attention must be paid to the agricultural sector

as such. Maintaining and, where possible, developing further agriculture in the ORs is indeed one of the strategic objectives for the EU and the present study examines also possible diversification activities within the sector. It is worth noting anyway that agriculture, forestry and fishing account for a share of gross value added ranging from 1% in Canary to 4% in French Guiana (in 2006). Only in the Azores is this share substantially higher and approximately equal to 12%. In all cases, the trend has been decreasing since mid 90ies.

Exhibit 10 - Structure of summary tables

Demographic and migratory trends	
Static indicators (most recent year): <ul style="list-style-type: none"> • Total Population (millions) • Dependency ratio (child and aged) • Life expectancy by gender 	Dynamic indicators (time series or comparison between periods): <ul style="list-style-type: none"> • population growth • change in population density • change in education attainment • change in life expectancy by gender • trends in dependency ratio
Economic conditions, competitiveness and well being	
Static indicators (most recent year): <ul style="list-style-type: none"> • GDP per head • Gross value added by NACE branch • Employment and unemployment rate • Gross expenditure for R&D (per head) and R&D personnel (as % of population) where available • Night spent by non-residents per head • Number of Bed places per head 	Dynamic indicators (time series or comparison between periods): <ul style="list-style-type: none"> • GDP per capita growth • Change in gross value added by sector • Change in employment • Change in R&D expenditure (where available) • Trend of gross fixed investment • Change in disposable income per head
Accessibility, transport and integration	
Static indicators (most recent year): <ul style="list-style-type: none"> • Kilometres of road, rail and waterway per capita • Maritime transport of people (number of people) and freight (thousands of tons) per capita • Air transport of people (number of people) and freight (thousands of 	Dynamic indicators (time series or comparison between periods): <ul style="list-style-type: none"> • Change in kilometres of road, rail and waterways • Change in Maritime transport • Change in Air transport

tons) per capita	
Environment	
<p>Static indicators (most recent year):</p> <ul style="list-style-type: none"> • Population density (to account of environment deterioration, waste accumulation etc.) • Shares of agriculture, forestry and fisheries in total value added • GDP per head as a proxy for capacity to adapt to and mitigate climate change 	<p>Dynamic indicators (time series or comparison between periods):</p> <ul style="list-style-type: none"> • Change in shares of agriculture and fisheries in total added value • Other selected trends from above indicators (e.g. population density)
<p>Only for Spanish and Portuguese regions (source: Regions 2020 publication); to be checked if it is possible to extend it through national estimates:</p> <ul style="list-style-type: none"> • Population living in coastal areas (census) and population affected by river floods • Regional vulnerability to drought • Energy dependency and efficiency 	<ul style="list-style-type: none"> • Change in population affected by 100 year return river floods (IPCC A2)

Sources of data

The analysis is based mainly on existing statistical information from official sources:

- Primarily EUROSTAT, to the extent that data are available
- National statistics institutes: *INSEE* for France, *Instituto Nacional de Estadística* for Spain, *Instituto Nacional de Estatística* for Portugal
- Other specific sources (e.g. IEDOM for French OR) and regional yearbooks; for instance:
 - IEDOM annual report for each of the French outermost regions
 - IEDOM Economic statistical data for each of the French outermost regions
 - Regional statistical Yearbook for the Portuguese regions
 - DG Regional Policy – Working Papers: territories with specific geographical features (2009)
 - DG REGIO Regional Futures (2009);
 - ISMERI study on Regional Challenges in the perspective of 2020 (2009);
 - The World Bank – world development report “Reshaping economic geography” (2009).

Despite recent efforts (such as the work INSEE is doing in the French ORs), often there are gaps in statistical data, and some are not fully reliable. Various official and non-official data from other sources may be needed to complement EUROSTAT and national statistical data as far as possible.

ANNEX B – Vulnerability index: computation methodology

The regional vulnerability index has been calculated in two steps: 1) normalisation of selected indicators; 2) combination (averaging) of them. An important reference as regards identifying and developing composite indicators is provided by OECD³⁰.

Normalisation of variables

As an example, GDP per head is one of the selected variables. Regions can be ranked according to the level of their GDP per head, with the highest income region ranking 1 and the lowest income region rank last. However, this ranking in many cases does not reflect the actual distribution over the regions of the variable in question³¹. Therefore GDP per head and the other variables (X_2, \dots, X_n) that enter the index can be normalised to values from 0 to 1. The following formula, that takes into account the distribution of the variable over the regions, has been used:

$$Xn_{i,r} = \frac{X_{i,r} - \min(X_i)}{\max(X_i) - \min(X_i)}$$

with $Xn_{i,r}$ denoting the normalised value of variable X_i for a region r ; $\min(X_i)$ is the minimum value of the variable X_i over all regions (for example across the EU27 regions) and $\max(X_i)$ the maximum value. Notably this formula applies to variables that are assumed to increase the vulnerability of the regions. For variables that reduce the regions vulnerability the following formula can be used:

$$Xn_{i,r} = \frac{\max(X_i) - X_{i,r}}{\max(X_i) - \min(X_i)}$$

³⁰ OECD – 2008: Handbook on constructing composite indicators.

³¹ This is because a ranking has a fixed interval between the ranks/regions, while in reality regions might be closer together or further away than those fixed intervals. Thus, usually the distribution of a variable over the regions is more or less bell shaped, while a fixed ranking would be represented by a straight line.

Aggregation of normalised variables

A fundamental question that arises is how the individual, normalised variables are aggregated to a composite indicator. The simplest way is to add up the normalised variables so that the composite indicator I (for a region r) is:

$$I_r = \sum_i Xn_{i,r}$$

In this case all variables X_i with ($i = 1, 2, \dots, k$) would enter the indicator I with equal weights ($w = 1/k$).

This might be considered less favourable as certain variables could be assumed to exert a higher influence on the vulnerability of a region than others. Hence, a second method is to associate different weights to the variables, so that the indicator is:

$$I_r = \sum_i w_i \cdot Xn_{i,r}$$

The choice of weights is a crucial aspect, as differences in weights between variables do not only raise or lower the importance of certain variables entering the indicator, but also have a significant impact on the size of the indicator itself. Past analysis shows that relatively small changes in the weighting structure can have a non-negligible effect on the interpretation of the indicator. Thus, the choice of weights is essential and must be considered carefully.

However, one has to be aware that weights reflect the importance of a variable in any indicator. While for certain indicators or indices it is relatively easy to establish the importance (weight) of a variable (e.g. in the case of price indices where the goods prices are set according to the consumption share of the respective good), for other indicators this is more difficult. In the case of a vulnerability index, it is difficult to define a unique and logical weighting scheme. This is due to the fact that often the relative importance of variables is not known and to the existence of interrelationships between the variables (i.e. one variable affects the others), which creates an additional problem in the weighting procedure.

After having considered these issues, the study team has decided to use equal weights ($w = 1/k$) for the calculation of the vulnerability index in the present analysis.

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