MONITORING SYSTEM ON URBAN QUALITY OF LIFE

Technical Data

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Monitoring System on
Urban Quality of Life

PORTO

PORTO
Câmara Municipal

PORTO CITY COUNCIL – STUDIES AND PLANNING UNIT

Quality of life as a Political Objective

The Porto City Council decided to carry out a thorough study to assess the quality of life in our city in a sustainable way.

As in many other subjects, public intervention on this subject is frequent. However, most of the times there is an attempt to be politically correct rather than approaching the subject with the thoroughness it deserves. Too often, growth and development are confounded and public interest is used rather inconsistently to justify some of the distribution of the public resources.

Therein lies the importance of this work. The work was carried out by competent and engaged technicians and provides essential elements for improving the strategy that Porto tries to follow with the purpose of offering a better quality of life to the people.

The quality of life should always be the main priority in terms of political goals, since it is what human beings seek both collectively and individually. In order to reach it, decisions must be made in many areas of action, because they will determine the future quality of life.

In a society that seduces people, every day, with superficiality, this work will hopefully be another step towards putting politics once again back where it belongs, thus making it possible to make decisions based on coherent strategies and founded on carefully structured analyses.

Mayor of Porto

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Executive Summary

The present report presents the first results of a wider project that is being developed by the Studies and Planning Unit of the Porto City Council, with the cooperation of the Macroeconomic Forecasting Research Centre of the Porto University's Faculty of Economics, and which is called *Monitoring System on Urban Quality of Life*. This project, which basically corresponds to the development of a permanent information infrastructure, will deepen the knowledge of the situation in the city of Porto in terms of quality of life, as well as detect and measure evolutionary trends throughout time.

This document, which is part of the project, comprises a first integrated assessment of the living conditions in the city of Porto, carried out according to two complementary approaches. On the one hand, it presents the interpretation of a varied set of quantitative indicators. On the other hand, based on the survey of the resident population of Porto, it introduces the citizens' perception of the quality of life in the city.

The report is structured around three sections.

The first section introduces the *Monitoring System on Urban Quality of Life* project, drawing attention to the underlying conceptual and methodological framework. It gives special attention both to the discussion of the concept of quality of life itself and to the assessment issue, in its two forms: quantitative and qualitative. After defining the operating model for the analysis of the quality of life in Porto, which is the main tool used in this assessment, it explains the importance of creating an institutional network of information suppliers, whose establishment was required in order to guarantee the regular supply of the data necessary to the monitoring system. The presentation of the project also focuses on the discussion of the subjective approach to the quality of urban life and previews some of its future developments.

The second section of this report looks at the quantitative assessment of quality of life in the city of Porto. It presents the current situation and the recent trends in terms of living conditions and welfare in Porto. The interpretation that is made of the quality of life is organised according to four main fields of analysis: environmental conditions, collective material conditions, economic conditions, and society. This section also presents the contributions of experts in the four fields in order to promote reflection and integrated approaches to the different dimensions of quality of life in the city. This involvement of experts in different disciplinary areas, through commenting on the work done, has improved the assessment and is significant for the future development of the project.

The third section of the report presents the interpretation made by citizens of the situation in the city of Porto in terms of quality of life. It is only a first analysis that focuses on the major trends and on the main conclusions from the data obtained from the survey of the resident population. Alongside the characterisation of the features regarded as most significant for a city to have a good quality of life, it particularly shows the perception of the city of Porto, of the level of satisfaction shown by individuals regarding their own quality of life and, finally, of their residential area.

Following the general introduction of the structure of the present report, we must thank all those who helped to develop this project – which has been going on for quite some time. The indispensable support of the various municipal services, whether by stimulating the development of the project or by supplying the necessary information, the immediate support of a large network of entities who volunteered to supply and, in many cases, to organise specific information for this project, are worthy of our most sincere acknowledgement.

Monitoring System on Urban Quality of Life

Project Presentation

In 1998, the municipality of Porto took part with other 57 urban centres in the project URBAN AUDIT – Assessing the Quality of Life of Europe's Cities, which was promoted by the European Union. It was a pilot scheme whose central goals were a first assessment of the individual situation of each city in terms of conditions of life and welfare and, above all, the development of a comparable database that allowed the urban centres that took part in this project to position themselves in relation to the reference values and thus self-analyse their own realities.

Being a first effort to systematically collect and process statistical information on the situation of European cities, and seen as essential to support the development of strategies and new intervention policies, this project was also an important incentive for local authorities to implement their own systems to collect, process and analyse urban indicators.

In the specific case of the municipality of Porto, the participation in the Urban Audit (a second phase of the project is now underway), allowed a first estimate of the quality of life in the city and, above all, was decisive for the recognition of the need to move forward in this direction. It also showed the need to reflect more fully upon the concept itself of quality of life and upon the most adequate indicators to assess it in urban contexts. But it has also made clear the importance of setting up a permanent information infrastructure to identify and monitor evolutionary trends and of undertaking a study of the intra-urban variability of the quality of life, which is indispensable to determine intervention strategies, in the technical field, and to support decision-making.

Therefore, under the coordination of the Studies and Planning Unit and with the cooperation of the Macroeconomic Forecasting Research Centre of the Porto University's Faculty of Economics, the Porto City Council has been developing an information system to improve the understanding of the present situation of the city in terms of the quality of life that is available to its inhabitants and, also, to non-residents who use it (working population, tourists, consumers of goods and services...). The main goal is to promote the systematic monitoring of a number of dynamics in fields that, directly or indirectly, influence the conditions of life in the urban centre (income, housing, labour market, economic activity, education, environment, culture and leisure...) in an effort to support the creation of policies and intervention strategies at urban scale.

Many of the fields of quality of life monitored within this system are not directly or exclusively the responsibility of the municipality, therefore this is a potential platform for the discussion of urban problems and for the development of concerted strategies for Porto, involving the various social, economic and institutional agents and the population.

The assessment of quality of life

The quality of life concept is all-inclusive and comprises several approaches and various problems. In the field of theoretical production three essential types of analysis are often highlighted regarding quality of life. The first one has to do with the distinction between the material and immaterial aspects of quality of life. Material aspects essentially concern basic human needs, such as, for instance, housing conditions, water supply, and health system, that is, aspects of an essentially physical and infrastructural nature. Historically, and for less developed societies, these material questions were decisive or at least had greater focus. Nowadays, immaterial questions relating to the environment, to the cultural heritage, and to welfare have become more important.

The second type of analysis distinguishes between individual and collective aspects. Individual aspects relate to the economic condition, to the personal and family conditions of individuals, to personal relationships, whereas collective aspects are more directly related to basic services and public services.

A third type of analysis draws a distinction between objective and subjective aspects of quality of life. The first would be easily apprehended through the definition of quantitative indicators, whereas the latter would refer to the subjective perception individuals have of the quality of life, which differs from person to person and from social class to social class. This last aspect is extremely important: quality of life indicators have different interpretations, depending on the social and economic structure of the population and, therefore, the same indicator can be perceived differently by different social and economic classes.

These three types of analysis are not, obviously, mutually exclusive but rather mutually connected.

When setting up the monitoring system on urban quality of life, the Porto City Council tried to face some of the challenges that the assessment of quality of life poses, and thus undertook some methodological options from the outset.

In terms of delimiting the subject of the study, the choice was made to develop an operational concept of quality of life that profited from much of the theoretical production that has been disclosed and from the examination of practical cases; however, the reflection upon the specific experience of Porto was decisive for the development of the operational concept.

With respect to the nature of the assessment, the choice was made to adopt both a quantitative approach, supported by statistical indicators, and a more qualitative analysis by having recourse to field surveys to obtain the citizens' perspective.

The quantitative assessment: the model of analysis and the indicators used for characterising the quality of life in Porto

As mentioned before, the Monitoring System on Urban Quality of Life (MSUQL) implemented by the Porto City Council has two components: the first is comprised of quantitative indicators, which are used to measure concrete aspects that relate to environmental, economic or social conditions of a specific urban centre, based on statistical data. The second component comprises qualitative data, obtained from field surveys, where citizens are asked for their subjective "interpretation" of the various fields of quality of life.

With respect to the first component, a model of analysis has been developed based on four great fields and following an examination of the bibliography and the experiences of other cities but also based on a reflection on which key-areas to choose considering the reality of Porto, which involved the project team and technicians from other municipal services.

A first field, generically titled *Environmental conditions* has to do with the environment in general, referring to the natural and physical aspects of the city (air, water, green spaces, waste...). The second field, of *Collective material conditions*, refers to facilities and infrastructures that are largely used by citizens, in the fields of culture, sports, education, health, social welfare, transport, trade and services. These aspects refer, therefore, to the conditions of the city, which are common to all and which affect the way of life in those areas of the city.

The third field, *Economic conditions*, tries to characterise the city as a centre of economic activity and the inherent issues that relate to the individual conditions of life in the city: income and consumption, labour market, housing, economic dynamism. Finally, a fourth field, titled *Society*, comprises the indicators that refer to the social dimension of the city and to the relationship between people, that is, questions regarding individual choices and the participation of citizens.

For each of the fields, concrete subjects have been identified for analysis and several quantitative indicators have been selected.

Figure 1 schematises the adopted model, whereas the listing of all the indicators can be found in the appendix A1.

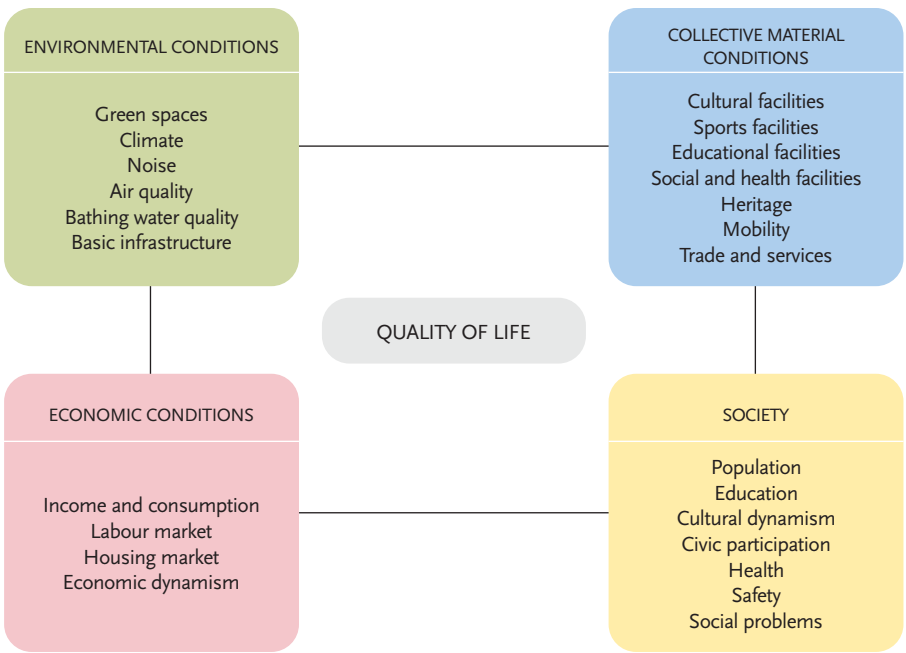


Figure 1
Fields and subject areas

The selection of the indicators was made after examining the available bibliography and taking into consideration not only the more traditional approaches in terms of the definition and assessment of quality of life but also the emerging perspectives that try to redefine the concept itself and adapt it to the transformations of modern society, and after analysing previous experiences and projects currently underway in other countries, with similar operational goals.

The goal was to obtain a number of indicators to characterise the fields considered, thus preferring more relevant and reliable indicators. Inevitably, the availability of basic information has also affected some of the options.

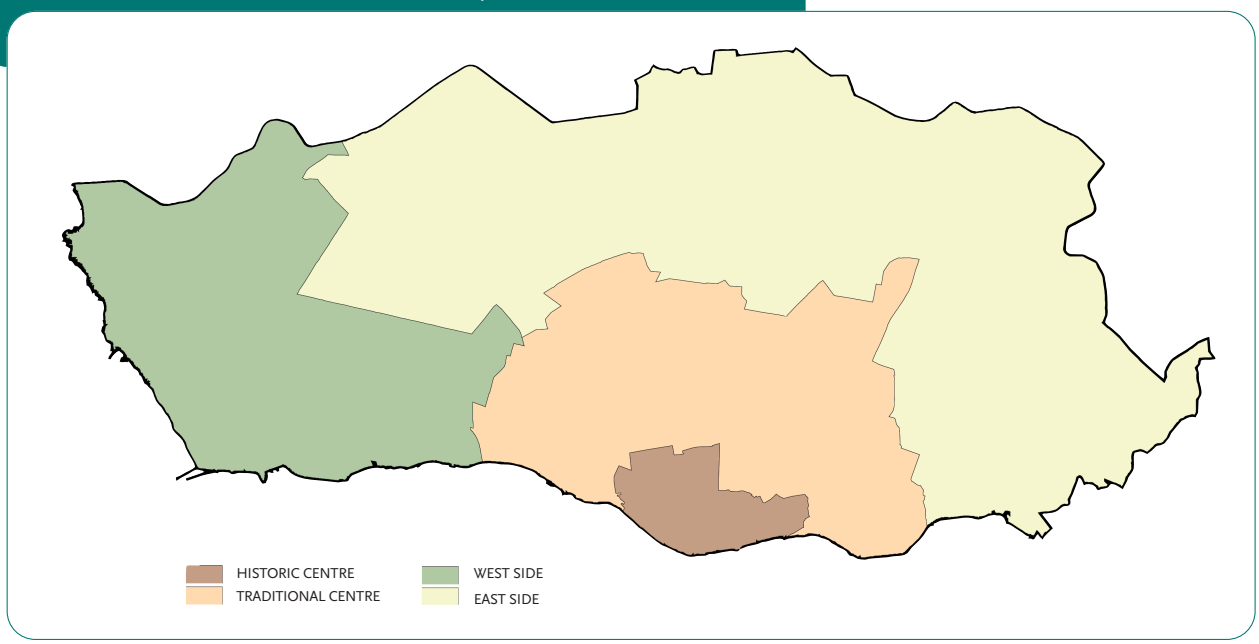
Since there is a strong interdependency between many of the subjects considered, the distribution of some indicators to specific subject areas in detriment of others, makes for an attentive cross reading of the various situations when interpreting data.

An ever-present concern as regards the chosen selection was to guarantee the maximum of comparability within and between the chosen indicators, both for other geographical areas and for projects currently underway, particularly the Urban Audit.

An undeniably relevant methodological question in the study of the quality of life in cities has to do with the scale of the analysis itself. The urban condition is characterised by a great heterogeneity in the use and management of land and by a wide functional diversity. Lands of contrasts, urban centres offer quality of life conditions that cannot be expressed by simple average values, especially when the assessment is made to support the implementation of intervention policies on the field. The analysis of the intra-urban differentiation is indispensable in this context, thus the choice was made to collect basic data with a minimum level of spatial disaggregation. Whenever possible, and for the purpose of analysis, information was collected for four areas of the city, based on relative homogeneity criteria, through the grouping of parishes:

- Historic Centre, comprising the parishes of Miragaia, São Nicolau, Sé and Vitória;
- Traditional Centre, comprising the parishes of Bonfim, Cedofeita, Massarelos and Santo Ildefonso;
- West Side, comprising the parishes of Aldoar, Foz do Douro, Lordelo do Ouro and Nevogilde;
- East Side, comprising the parishes of Campanhã, Paranhos and Ramalde.

AREAS CONSIDERED FOR THE ASSESSMENT OF QUALITY OF LIFE IN PORTO



The need not to consider urban centres as confined spaces, but rather not lose sight of their various interactions with the surrounding regions is evident in the study of urban quality of life and raises some particular questions from the point of view of analysis. One such question – that was taken into consideration when undertaking this project – concerns the need to, when interpreting results, account for concepts such as "user population" and not just "resident population." This differentiation is particularly relevant when assessing, for instance, the provision of certain facilities and services, such as hospitals and universities, which obviously serve a larger population than the resident population.

Institutional network of information suppliers

A project of this nature is, obviously, very demanding in terms of the necessary statistical information. To calculate the aforementioned indicators approximately 190 basic variables have been identified for which information for different years and geographical areas had to be collected. Besides working with comparative data relating to the Metropolitan area and to the Country, information at parish level was also collected.

For this purpose a survey was conducted within the Porto City Council to obtain data from the different Services and, therefore, choose which elements to use, and also the necessary processes and routines to ensure continuity in terms of access to the information.

In addition to the involvement of the different services of the Porto City Council, approximately 26 public and private entities took part in this project as external information suppliers, ensuring the regular supply of about 2/3 of the basic variables and whose cooperation was essential for the development of this information system. The creation of an efficient network of partnerships, allowing the acquisition of the necessary information at the appropriate time, was one of the central elements of the implemented system.

Worthy of note is the fact that some of the statistical information, which was possible to obtain, was not initially accessible and it was necessary to develop specific protocols so that the collection could be made available and, in other cases, the information could be systematically organised or registered.

A specific computer application was developed to assemble all the data, allowing for the storage, management and consultation of numerical data, both at the level of the basic variables and at the level of the indicators themselves. The application allows for the registration and consultation of the immense volume of meta-information connected to the variables of the system, as well as for the automatic generation of data reports and methodological reports.

The citizens' perception of the quality of life

The second component of the Porto City Council's monitoring system on quality of life has to do with the collection of elements concerning the citizens' perception of the quality of life in the city.

The past few years have witnessed an increase in surveys conducted in cities to obtain the individuals' opinions on their quality of life. Through such studies, it is possible to detect the "feeling" of the people about the various components of quality of life, namely those that are strongly connected to the sphere of action of public policies, and thus obtain an additional element to support decisions relating to public action fields, strategies and priorities.

By privileging individual analysis, subjective approaches to urban quality of life try to measure the satisfaction level of citizens regarding their life framework and favour a "perception" based on the personal and introspective experience of each person.

With respect to methodology, the assessment of the level of satisfaction of individuals is made based on the carrying out of interviews and surveys, which directly collect subjective opinions. Interpretations are made through a cognitive mental exercise in which each individual expresses his/her level of satisfaction or dissatisfaction with respect to references and implicit or explicit standards in terms of welfare and conditions of life.

A first survey of the resident population of the city was carried out in January 2003 and a preliminary analysis of results is presented here. The questionnaire was mostly composed of closed questions and structured around four main points: global concept of quality of life, evaluation of the situation in the city of Porto (both presently and in terms of recent evolution), quality of personal life and, finally, quality of life in the residential area.

To these central points another was added relating to the need to characterise, both socially and demographically, the individuals who answered the questionnaire.

One of the purposes of this project is to periodically repeat this type of survey to be able to follow the evolutionary tendencies regarding the opinion of citizens.

Future developments

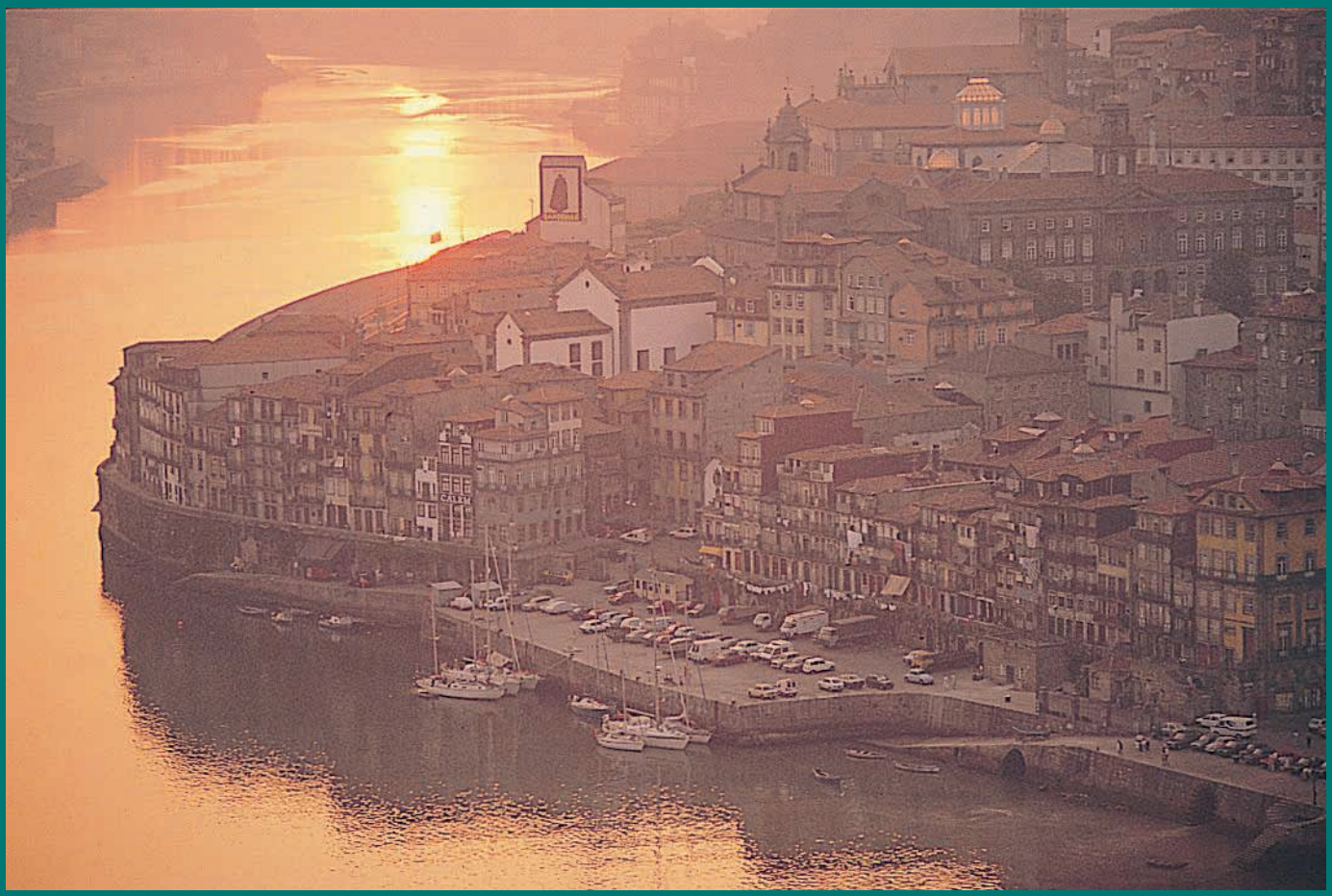
Given the nature of this project, and in view of what has been discussed above, it is not possible to consider its implementation as completed achieved. In reality, this is a project whose development is permanent and future actions have already been identified.

From the outset, it is important to consolidate the information system by routinely updating the database and filling currents gaps in basic information.

The revision and adaptation of indicators is also essential and should be a result of the identification of new fields to monitor within the quality of life, of the empirical relevance test of the initially selected indicators and, even, of the availability of new elements in terms of statistical information.

With respect to the support of city planning and management activities, one future plan refers to the establishment of quantified targets and goals for the improvement of the quality of life in the city, in light of which evolutionary dynamics can be interpreted and assessed as to their levels of convergence and divergence regarding the patterns of life that are considered desirable.

The project will be made available and open to the public through the development of an interactive Internet site, which will simultaneously give and obtain opinions on the quality of urban life to reinforce the participation of agents and citizens in the identification of priorities of intervention in the city.



1st Part

Quantitative Assessment

of Quality of Life in the City of Porto

The results that follow give us a first view of the quality of life in the city of Porto.

Grouped in the four great fields that were established for this project to assess the quality of life –"Environmental conditions," "Collective material conditions," "Economic conditions" and "Society" – and following a second ordering by specific subjects, the interpretations of the selected indicators try to describe the situation of the city and analyse intra-urban realities, whenever the data allow.

With the purpose of assessing, at a relative level, the state of the city as regards the various aspects of the quality of urban life, we have gathered – and present it here – statistical data relating to other reference experiences at national scale, in particular to the Porto Metropolitan Area and to the Country, as well as elements that allow for an international comparison by analysing the values of other European cities.

Although omissions in information did not always permit it, we have also chosen to include evolutionary data that allows us to detect the trends of the past few years and, therefore, identify the positive and negative trajectories of the city in terms of the evolution of the urban quality of life.

This first part of the report also includes the contributions of experts in the four chosen fields. Based on the selected indicators, these contributions give us additional elements for the interpretation of the dynamics that occur in the case of Porto and for the identification of challenges and problems that, in a broader way, cities face in terms of quality of life nowadays. In the methodological realm, they make suggestions and comments for the future development of this project.

1. Interpretation of the indicators and summary tables

Environmental conditions

Green Spaces

SELECTED INDICATORS

- Public green spaces per capita
- Streets with trees

INTERPRETATION OF THE SUBJECT

The existence of green spaces has great relevance to the Quality of Life of a city and of its inhabitants. These spaces contribute decisively to the sustainable development since they significantly improve the quality of the air and enhance the permeability of the urban ground. They are also essential to the population because of their recreational and leisure value.

All public green spaces (managed by the municipality) and private green spaces open to the public have been taken into account.

The past few years have seen a growing concern to create green spaces in the cities, namely parks and gardens, with the purpose of not only creating areas for the population but of trying to put a stop to the denseness of the urban landscape.

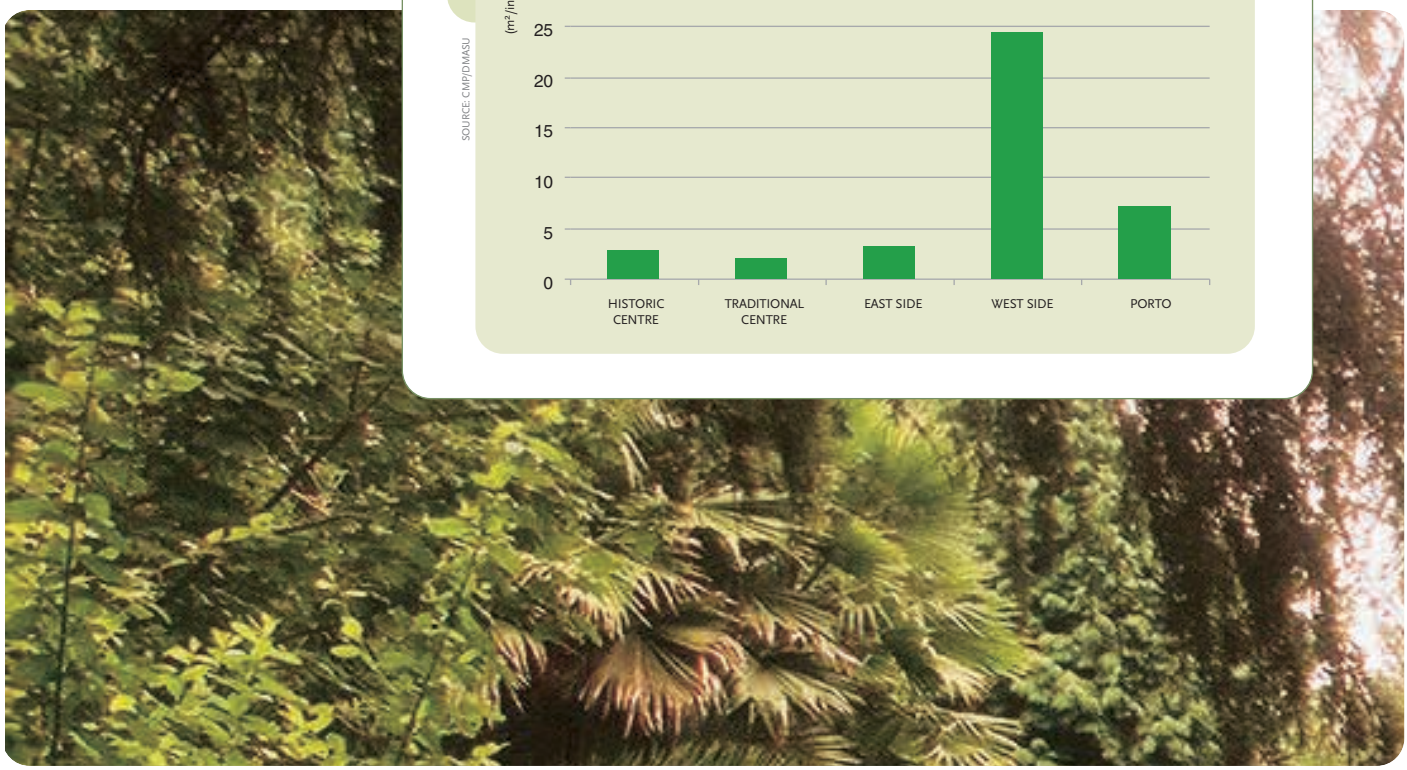
The city of Porto has a ratio of about 7m² per inhabitant, a value below the average of other European cities. However, there are relevant parks and gardens, of great metropolitan attractiveness, of high heritage, and of historic and landscape value, as is the case of Parque da Cidade, Palácio de Cristal Gardens and Jardim de Serralves.

Urban Audit I comparative data: ***Public green spaces (m² per capita) – 1996.***

Average: 42.1
Minimum: 2.4 (Seville)
Maximum: 567.1 (Graz)
Number of city cases: 37

PUBLIC GREEN SPACES PER CAPITA (2002)

SOURCE: CMP/DMASU

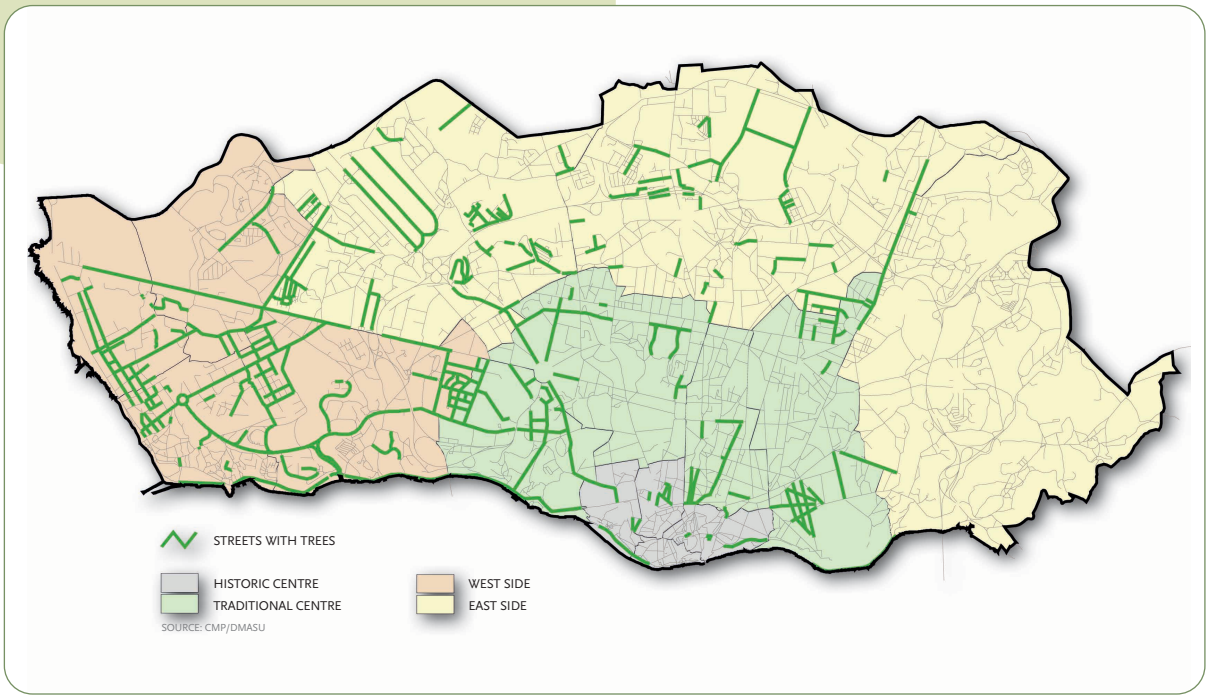


In addition to parks and gardens, streets with trees are also an asset in environmental and landscape terms, and contribute to the green structure of the city.

Porto has a total length of streets with trees of approximately 86Km, that is, only 16% of all streets are at present lined with trees.

As regards the spatial distribution of green spaces, there is a significant internal differentiation, with a greater concentration of parks, gardens and streets with trees in the West Side of the city.

STREETS WITH TREES (2002)



Climate

SELECTED INDICATORS

- Days of rainfall
- Average hours of sunlight per day

INTERPRETATION OF THE SUBJECT

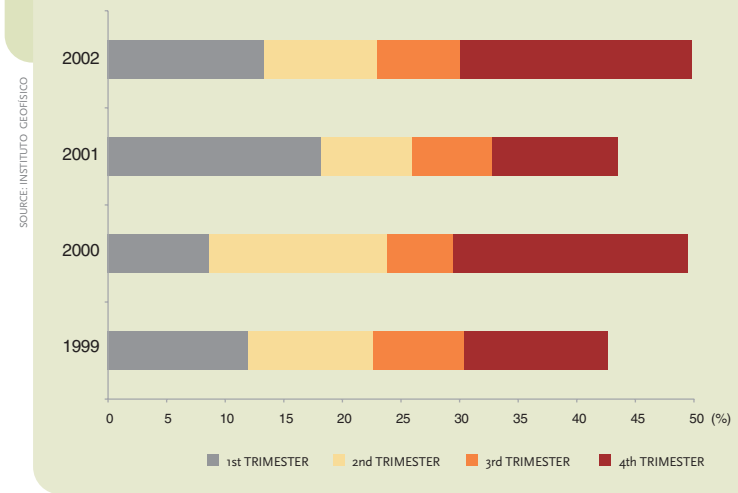
Climatic conditions are increasingly important to the quality of life of citizens and often influence the choice of location for activities and for individuals.

Precipitation and insolation data were not collected in the city of Porto but at the nearest Meteorological Station, at Serra do Pilar, in Vila Nova de Gaia.

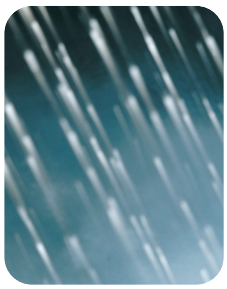
Although rainfall is important to the balance of the Earth's ecosystems, a high number of days with rainfall negatively influences the quality of life in a city, both because of its more direct and visible implications – namely, limiting the use of the urban space, the outdoor life, and even urban animation – and because of its more indirect implications, since it affects citizens psychologically.

The calculation of the indicator is based on the total accumulated daily precipitation, from which the percentage of days of rainfall is obtained, that is, days with precipitation of more than 0.0 mm (litres per m²).

DAYS OF RAINFALL



SOURCE: INSTITUTO GEOFÍSICO



Urban Audit I comparative data: ***Average days of rainfall per month – 1992-1996.***

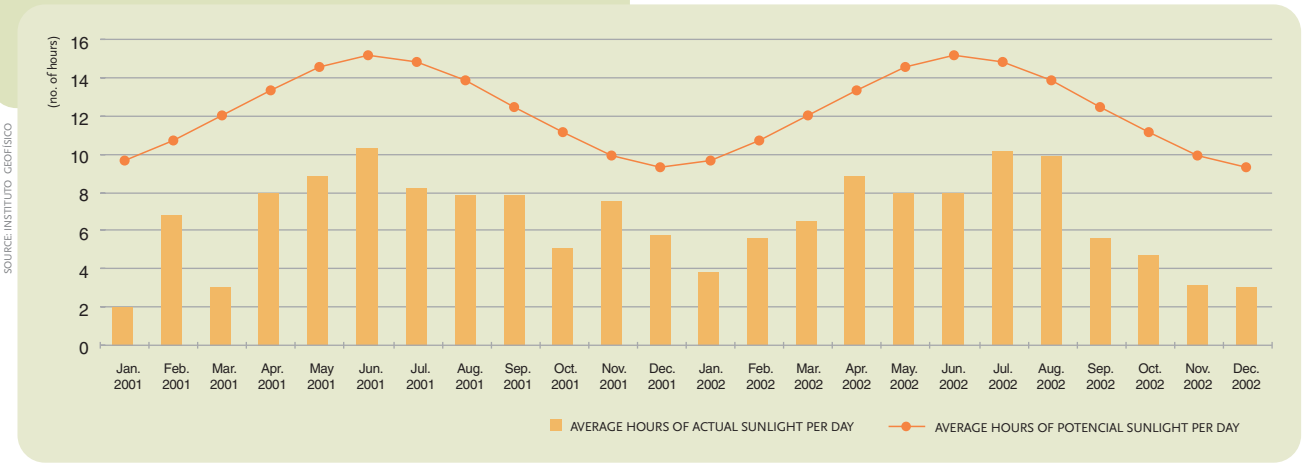
Average: 11.5
Minimum: 5.2 (Marseille)
Maximum: 18.43 (Luxembourg)
Porto: 13.6
Number of city cases: 52

Due to its littoral position and its exposure to the humid air from the Atlantic, the city of Porto has, in average – and according to the *climatological normals* for the last decades – a considerable total monthly rainfall.

After an analysis of the time series of the past four years we conclude that there was indeed a high number of days with rain. In fact rain was recorded in about half of the days of the years 2000 and 2002.

When we compare these data with the total rainfall, we conclude that those years were significantly wet. In terms of a distribution of wet days throughout the year, the few data available do not allow for the detection of a pattern, but rather show a significant irregularity in all seasons.

AVERAGE HOURS OF SUNLIGHT PER DAY



SOURCE: INSTITUTO GEOFÍSICO

Contrary to the effects of rainfall, a high average of hours of sunlight has a positive impact on the quality of life of a city and of its citizens, since it allows for a vast choice of outdoor activities, thus contributing to the psychological welfare of people.

When analysing the average hours of sunlight recorded in each month in 2001 and 2002, we find that the higher values occur, as expected, in the spring and in the summer. In the analysed series, the maximum values were recorded in June 2001 (10.36h) and July 2002 (10.12h). These values are much higher than the annual average, which was 6.8h in 2001 and 6.5h in 2002.

Notwithstanding, and having the relative insolation as reference, that is, the relation between the number of hours of actual insolation and the average number of hours of sunlight possible, we notice that the city of Porto had an annual average of about 50%, a reality that is in alignment with the occurrence of a considerable number of days of rainfall.

Urban Audit I comparative data:
Average hours of sunlight per day – 1996

Average: 5.4
Minimum: 3.7 (Cork)
Maximum: 7.9 (Seville)
Porto: 6.6
Number of city cases: 50

The calculation of the indicator is based on the insolation records, that is, the minutes of direct exposure to the sun are counted and the daily average is thus calculated.

Noise

SELECTED INDICATORS

- Noise exposure

INTERPRETATION OF THE SUBJECT

Issues concerning environmental noise, mainly in urban centres, have been increasingly regarded as extremely important by local agents, since the people's growing exposure to high noise levels contribute negatively to their Quality of Life, and may even become a public health hazard.

Noise exposure is a key indicator to evaluate the Quality of Life of a city, since it shows the percentage of the population that is affected by certain noise levels.

The main noise sources in urban centres are road, rail and air traffic and industry.

In the case of Porto, road traffic is extremely important not only due to its great density but also to the existence of great roads within the city, which gives rise to high speeds and high volumes of traffic.

Consequently, it is imperative to try to measure not only the noise levels in the main streets of the city but also to quantify the resident population who is exposed to these levels of noise, as a way of establishing intervention strategies to improve the Quality of Life of citizens.

At the present time, there is insufficient basic information, a situation that will be solved soon since the Porto City Council has start measuring noise levels to produce a Noise Map.

Air quality

SELECTED INDICATORS

- Days with a Good or Very Good Air Quality Index

INTERPRETATION OF THE SUBJECT

High indexes of atmospheric pollutants resulting from human activities have negative implications in the Quality of Life and in the health of citizens. Nowadays, air quality issues are one of the main environmental concerns, especially in the city centres of major cities where pollution reaches worrying levels.

The effects of atmospheric pollutants on the terrestrial Ecosystem are multiple and can be felt at local and global scale.

Although some of the chemical compounds that are considered pollutants nowadays could be found in nature all along, the increase in their concentration and/or the capacity to combine in the atmosphere make them toxic.

In the case of Porto, car traffic is the main responsible for the major emissions of atmospheric pollutants. However, climatic conditions do not favour gas dispersion, thus leading to a high concentration of pollutants.

The evolution of Air Quality in the city of Porto is not easy to analyse because the network of records and the measured parameters have been through some changes in the past few years. Another aspect to take into consideration is the location of some measurement stations, which do not satisfy all the required criteria, thus influencing the quality of the data obtained.

In 2002 Porto had a network of four measurement stations: Antas, Boavista, Rua dos Bragas and Rua Formosa, which contributed to the calculation of the index for the city.

The indicator measures the percentage of days in which the Air Quality Index for the city of Porto was Good or Very Good, in the total number of records.

The analysis of the data from the Air Quality Index for the city of Porto in 2002 shows a high monthly change, with values fluctuating between 6% and 37% of days with a Good or Very Good Index.

Such data has to be analysed carefully since the global index for each station and, consequently, for the city of Porto, is influenced by the worst partial index of each pollutant. Normally, PM10 particles are the pollutants that are mainly responsible for indexes below Good.

The calculation of the indicator is based on the Air Quality Index (AQI) made available every day by the Instituto do Ambiente (Environment Institute) and which is obtained from the average concentration values of the following pollutants: nitrogen dioxide (NO_2), sulphur dioxide (SO_2), ozone (O_3), carbon monoxide (CO) and inhalable particles (PM10).

DAYS WITH A GOOD OR VERY GOOD AIR QUALITY INDEX (AirQI)

SOURCE: INSTITUTO DO AMBIENTE

Bathing water quality

SELECTED INDICATORS

- Records of Good bathing water quality

INTERPRETATION OF THE SUBJECT

The bathing water quality indicator is essential to evaluate the Quality of Life of a coastal city, since beaches are privileged places for sports, recreational and leisure activities.

The calculation of the indicator took into account the classification given after the analysis of the microbiological parameters and the physico- chemical parameters in the samples from the Gondarém and Castelo do Queijo beaches.
The national classification uses the same parameters as the one from the EU (in conformity with Directive 76/160/EEC), but contemplates three classes: Good, Acceptable and Bad.

In 2002 only the analysis of samples of the water from Gondarém beach was taken into account, since the Castelo do Queijo beach was restricted due to repairs.

The population's chances of going to the beach for recreational purposes (to bath, to do water sports or to fish) or even for esthetical and landscape reasons are directly influenced by the water contamination level.

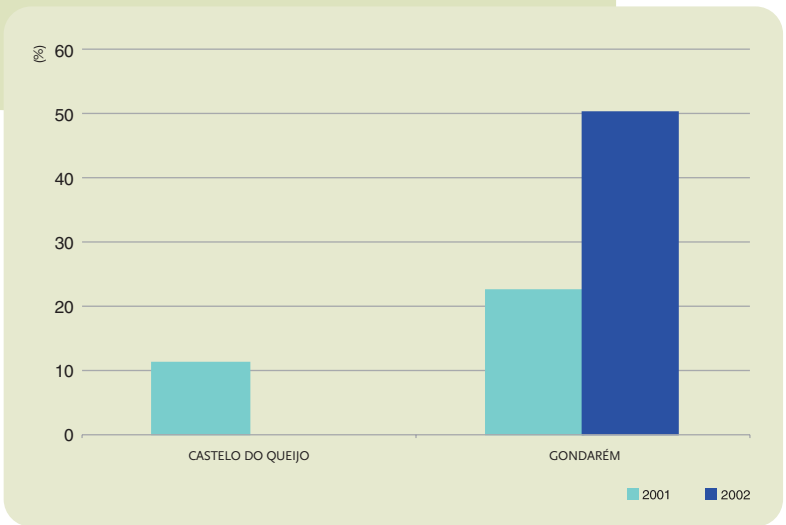
The bathing water quality is frequently threatened by the inexistence/insufficiency of wastewater treatment, which causes polluted discharges directly into water courses.

In the case of Porto, discharges are indeed the main polluting source of bathing water, although there are other sources of contamination, mainly connected with the proximity to the port of Leixões and with industrial discharges.

At the present moment, the data available is for two years only, and shows that the situation was clearly unsatisfactory in 2001. Only 11% of the analyses made at Castelo do Queijo beach and 22% of the analyses made at Gondarém beach had Good results. For 2002 there is only data for the latter, and it shows an increase to 50%.

This positive evolution was certainly influenced by the opening of the wastewater treatment plant in Freixo (August 2000). The wastewater treatment plant in Sobreiras (which opened in February 2003) is also expected to have a positive impact on the quality of the bathing water in the city of Porto.

RECORDS OF GOOG BATHING WATER QUALITY



SOURCE: INSTITUTO DO AMBIENTE

Basic infrastructure

SELECTED INDICATORS

- Treated wastewater
- Recoverable municipal solid waste

INTERPRETATION OF THE SUBJECT

The existence of a complete and efficient network of basic infrastructure, from water supply to wastewater treatment and to the recovery of municipal solid waste, is essential to the Quality of Life of a city, both for the welfare of the population and for environmental reasons.

Wastewater treatment is essential in environmental terms since it tries to solve the problem caused by discharges into water courses and the sea, which therefore become more polluted.

The situation has direct negative impact on the environment and on the Quality of Life of a coastal city, depriving the population of these natural spaces.

In the city of Porto, and during the period under analysis, there was a tendency for a gradual increase in the percentage of treated wastewaters. In 2000 (with the opening of the Freixo Wastewater Treatment Plant) only 9.3% of the wastewater was treated, whereas in 2002 the percentage increased to 20.8%.

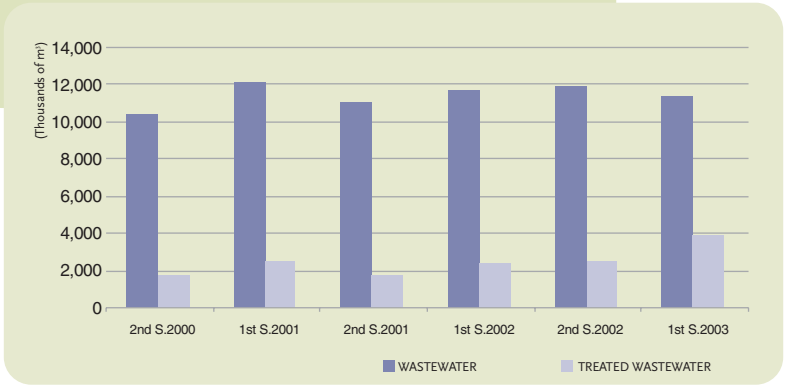
At the present moment, the wastewater treatment system is ensured by two Wastewater Treatment Plants. The Freixo WWTP opened in August 2000 and the Sobreiras WWTP in February 2003, together covering the whole of the city. In the first semester of 2003, 34.5% of the wastewater was treated, but in some months the percentage was higher than 50%.

Another decisive environmental aspect in today's society concerns the municipal solid waste production and treatment conditions, since higher production levels require proper treatment of the waste.

Traditional solutions such as landfill and composting have been abandoned in favour of separate collection and resources valorisation, which are unquestionably necessary for the sustainability of a city or region and contribute to the preservation of natural resources, to the saving of raw material and energy and to the reduction in pollution.

This indicator is an estimate of the percentage of wastewater that is treated in Wastewater Treatment Plants and is calculated based on the total volume of water billed by SMAS (Water and Sanitation Municipal Services) and on the volume of water that enters the WWTP to be treated. It is estimated that only 80% of the billed water enters the sanitation system.

TREATED WASTEWATER



SOURCE: SMAS PORTO

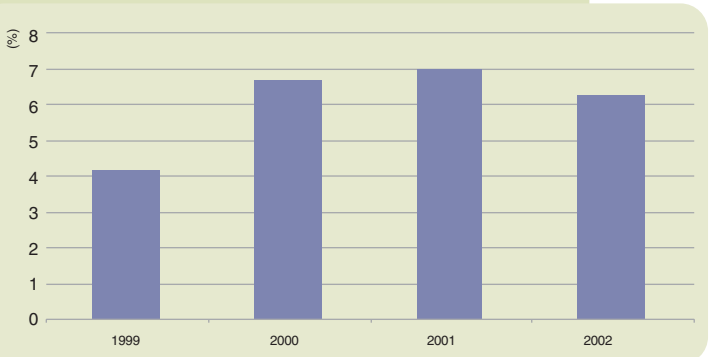
The **Recoverable Municipal Solid Waste** indicator or Recovery Index shows the relation between the totality of the material collected separately (in recycling bins and collective equipment), which is potentially recoverable, and the totality of the Municipal Solid Waste. All separately collected waste was taken into account: paper/board, glass, metal, green waste and plastics/ packaging.

MUNICIPAL SOLID WASTE PRODUCED IN PORTO (kg per capita)

	1999	2000	2001	2002
Recoverable MSW	27.5	45.0	47.7	38.1
Undifferentiated MSW	640.2	631.5	634.4	621.6
Total MSW	667.7	676.5	682.1	659.7

SOURCE: CMP-DMASU

RECOVERABLE MUNICIPAL SOLID WASTE



SOURCE: CMP-DMASU

The production of municipal solid waste (MSW), from undifferentiated or separate collection has increased in the past few years, with the exception of 2002.

The MSW ratio in the city of Porto is still higher than the average of around 550 Kg per capita in 1999 for the European cities (Eurostat).

In regards to the separate collection of waste, and according to the recent evolution, the trend is for an increase, although gradual, making citizens more willing to cooperate in this effort.

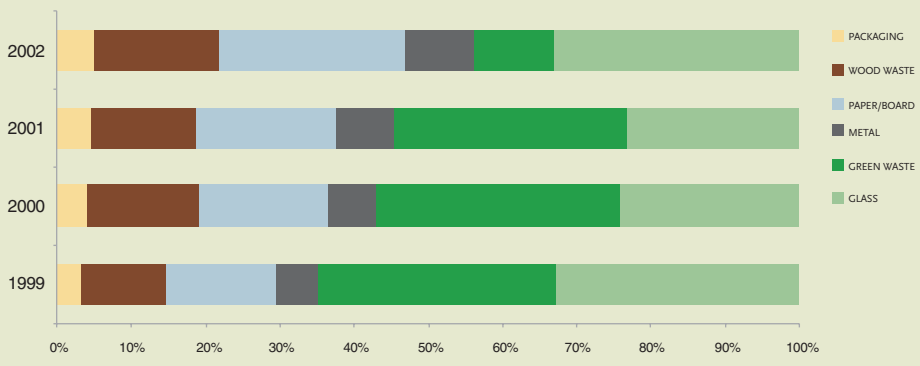
Nevertheless, the proportion of waste collected separately is still low, having stayed below 7% in the years under consideration, which, compared with the average for European cities, is manifestly inferior.

As for the type of material that is disposed separately for recycling or recovery, glass and paper/board have great weight thanks to a bigger network of disposal points, as well as green waste, that is, vegetable material resulting from the maintenance of green spaces (public and private).

Urban Audit I comparative data: ***Urban Solid waste recycled (%) – 1996.***

Average: 12.5
Minimum: 0.2 (Naples)
Maximum: 62 (Brussels)
Number of city cases: 38

RECOVERABLE SOLID WASTE



SOURCE: CMP-DMASU

Summary table

INDICATORS	UNITS	LAST VALUE/YEAR		TENDENCY/PERIOD		QOL SITUATION
GREEN SPACES						
Public green spaces per capita	m^2/inhab.	7	2002	–	–	😐
Streets with trees	km	86	2002	–	–	😐
CLIMATE						
Days of rainfall	%	50.0	2002	–	–	☹
Average hours of sunlight per day	hours	6.5	2002	–	–	😐
NOISE						
Noise exposure	–	–	–	–	–	–
AIR QUALITY						
Days with a Good or Very Good Air Quality Index	%	17.5	2002	→	2002	☹
BATHING WATER QUALITY						
Records of Good bathing water quality	%	50.0	2002	↑	2001/2002	☹
BASIC INFRASTRUCTURE						
Treated wastewater	%	20.8	2002	↑	2000/2002	☹
Recoverable municipal solid waste	%	6.2	2002	↑	1999/2002	☹

Evolutionary tendency of the indicator:

- ↑ Growth with a positive impact on the QOL
- ↓ Reduction with a positive impact on the QOL
- → Stability
- ↑ Growth with a negative impact on the QOL
- ↓ Reduction with a negative impact on the QOL

Evaluation of the present situation in terms of Quality of Life:

- ☺ Good
- 😐 Reasonable
- ☹ Bad

MSUQL

Collective Material Conditions

Cultural facilities

SELECTED INDICATORS

- Public libraries per 1,000 inhabitants
- Art galleries per 1,000 inhabitants
- Museums per 1,000 inhabitants

INTERPRETATION OF THE SUBJECT

The large supply of cultural facilities in a city contributes to the diversity of leisure and recreational activities of the population, and often means the supply of educational services outside the formal educational system.

To facilitate access to books and to culture, to spread knowledge, to advertise the various forms of artistic creation and expression and to promote events are some of the functions played by these facilities, for the use of the resident population but also of the people that come to the city, namely tourists.

The indicator was calculated by considering all municipal libraries and private libraries open to the public. Therefore, school libraries were not considered.

The role played by libraries is changing. The traditional role of libraries is to lend books, to be read in the library or taken home. However, nowadays libraries supply a number of vast resources, namely access to digital information.

In 2000, Porto had 111 public libraries, a value that corresponds to a provision of 0.42 per 1,000 inhabitants, higher than the provision of the Porto Metropolitan Area and of Portugal.

In evolutionary terms, if we compare the last data available with the situation in 1995, there is an increase of this type of facility in the city, a tendency that is also encountered in the Porto Metropolitan Area and in Portugal.

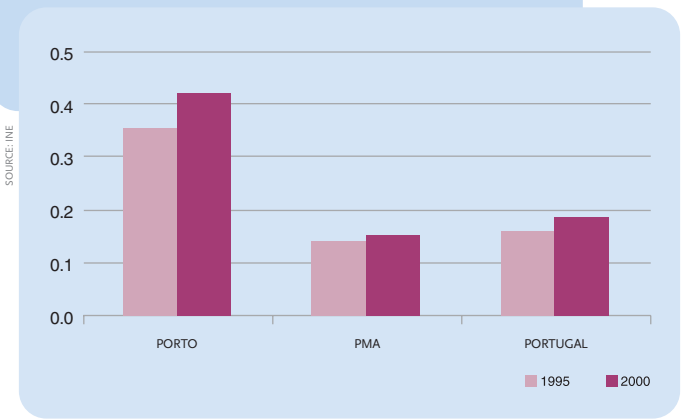
Art galleries, besides mirroring the artistic production and the cultural vitality of a territory, are also an opportunity for the population in terms of access to culture, and theirs is a more specific type of audience, which is more interested in different artistic performances (painting, photography, cartoons, sculpture). Given these characteristics, art galleries as cultural facilities reach a smaller audience than probably museums or libraries. However, and considering the diversity and the rotation of the works exhibited, the activity of galleries also leaves a mark on the cultural dynamism of the city and on its quality of life.

In the space of a decade, the number of art galleries has trebled in the city, a fact that shows the great dynamism in this level of cultural supply. In 2001, there were 39 galleries in Porto, which corresponds to a ratio of 0.15 per 1,000 inhabitants.

Urban Audit I comparative data:
Number of Public Libraries – 1996.

Average: 47.1
Minimum: 1 (Stuttgard, Dresden)
Maximum: 368 (Vienna)
Porto: 102
Number of city cases: 45

PUBLIC LIBRARIES PER 1,000 INHABITANTS



SOURCE: INE

Nowadays, the greatest concentration of art galleries is in the historic and traditional centre of the city (for example, at Rua Miguel Bombarda and surrounding streets). These places have contributed to secure an interesting local cultural dynamic connected with the activity of the galleries.

Museums are also among the cultural facilities that are closer to the population of the city, and have an important capacity to attract both national and international visitors. Due to the variety of the objects/themes exhibited and of the activities promoted, these facilities are an important vehicle for the promotion of the city's culture.

An analysis of the evolution of the number of museums in the space of a decade (1991-2001) shows a clear increase from 14 to the 26 currently existing museums.

Because of the more diversified nature of their intervention and, therefore, of their audiences, some of the museums have gained notoriety outside the city and the Country, as is the case of the Serralves Museum of Contemporary Art, which benefits from the fact that it is also a reference work of architecture.

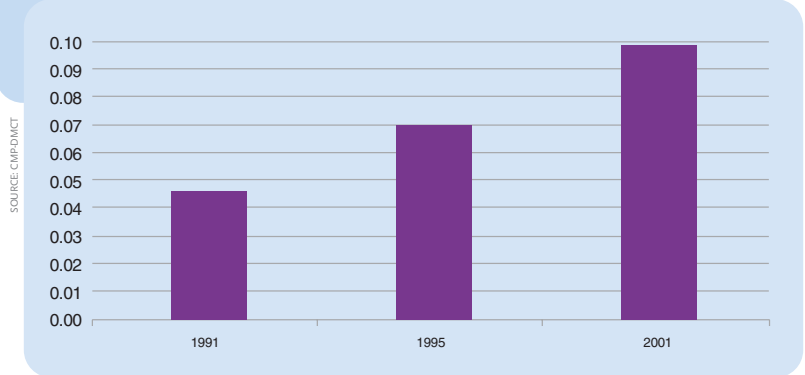
Others, because of their specificity and of their valuable heritage in terms of the works of art and/or of the history they contain, are also inevitable points of reference in the cultural scene of the city. Such is the case, for example, of the Soares dos Reis Museum, the Romantic Museum, the Tramway Museum or the Museum of Sacred Art.

This evolution means, in effect, the creation of new conditions and opportunities as regards cultural facilities, one of the areas that most contributed to spread the image of the city in the past years.

ART GALLERIES PER 1,000 INHABITANTS

SOURCE: CMP-DMCT

MUSEUMS PER 1,000 INHABITANTS



SOURCE: CMP-DMCT

Urban Audit I comparative data:
Number of Museums – 1996.

Average: 21.8
Mininum: 1 (Patras)
Maximum: 152 (Vienna)
Porto: 10 (1981)
Number of city cases: 56

Sports facilities

SELECTED INDICATORS

- Pavilions per 1,000 inhabitants
- Swimming pools per 1,000 inhabitants
- Other sports facilities per 1,000 inhabitants

INTERPRETATION OF THE SUBJECT

Sports facilities allow the practice of various sports and their proximity to the community encourages and promotes physical activity in general. In addition, a good provision of sports infrastructures allows the city to show its capability to host sports-related events, thus contributing to the leisure dynamic that it has to offer.

Included here are the sports facilities belonging to the public school system, to the local and the national authorities, to associations, to private entities and to military institutions.

As regards sports facilities, they include: big stadiums, tennis courts, athletics tracks, sports rooms and special facilities (i.e. riding schools, mini golf courses).

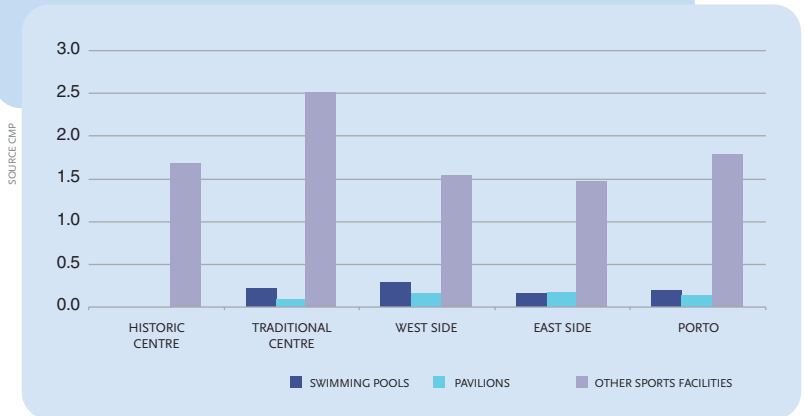
Physical activity from an early age and among adults is an excellent way to spend leisure time. It also plays an important health role and is an undeniable factor of social welfare.

In terms of sports infrastructures, the city currently has 49 swimming pools, 34 sports pavilions and 469 sports facilities. These values show a provision of 0.19, 0.13 and 1.78 per 1,000 inhabitants, respectively.

With respect to the spatial location of these sports facilities in the city, we stress that the historic centre does not have any swimming pool or pavilion, which is justified by the structure and dimension of the area.

Also worthy of note is the fact that, in every area of the city, "other sports facilities" outnumber the rest, which is understandable given that many of these facilities do not require large areas, as is the case of small sports fields and sports rooms, which are the majority.

SPORTS FACILITIES PER 1,000 INHABITANTS (2001)



Educational facilities

SELECTED INDICATORS

- Primary and secondary schools per 1,000 inhabitants
- Computers in primary and secondary schools per 100 students

INTERPRETATION OF THE SUBJECT

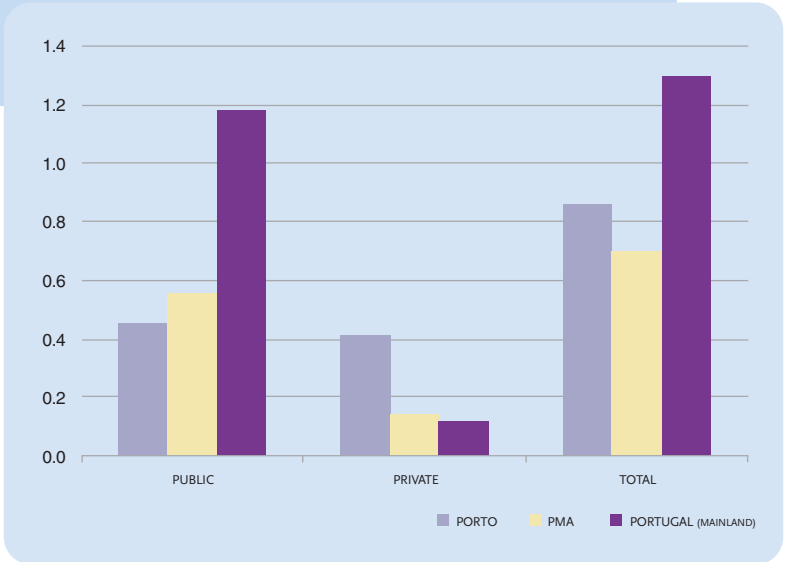
An essential component of the global performance of the educational system, the network of educational establishments must try to adjust to the demographic dynamism of the urban centre. In qualitative terms, it is unquestionable that the infrastructures connected with the educational sector must answer adequately to the demands of modernisation of education, namely by making access to new technologies easier.

In a metropolis, the management of the network of primary and secondary education facilities frequently faces contrasting situations of, on the one hand, reduction in the number of students in urban areas at loss and, on the other hand, the need to invest in the expansion and modernisation of strong growth areas.

Analysing the provision of primary and secondary education establishments per 1,000 inhabitants, Porto has a value of 0.86, with 0.45 of public education establishments per 1,000 inhabitants and 0.41 of private education establishments. This difference, which is minimal in the case of Porto, is more accentuated in the Porto Metropolitan Area, where the supply of public education predominates with 0.56 establishments per 1,000 inhabitants, while the corresponding value for private education is of 0.14 establishments per 1,000 inhabitants. This difference is bigger in the mainland with values of 1.18 and 0.12 respectively.

By the exceptional nature comparatively to other geographical areas, we must stress the fact that – regarding the relation between public and private education and as regards secondary education establishments – private education has a significant weight in Porto (20 establishments) when compared with the weight of public education (15 establishments).

PRIMARY AND SECONDARY SCHOOLS PER 1,000 INHABITANTS (1999/2000)

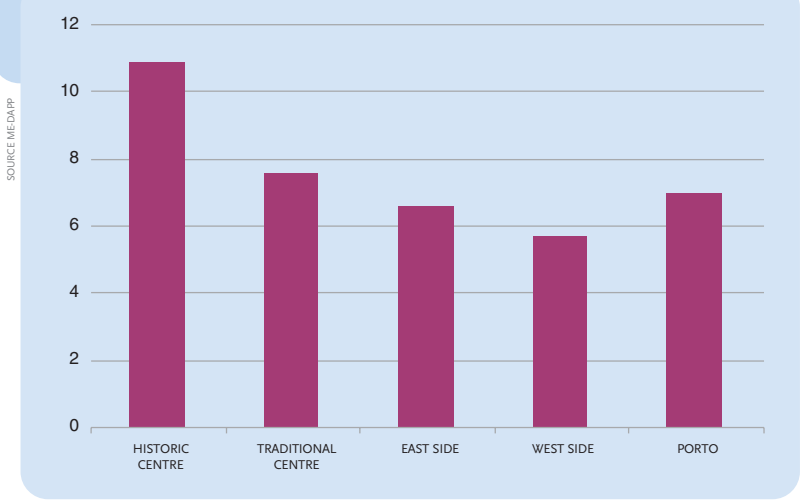


SOURCE: ME-DAPP

The number of computers in primary and secondary education is an important indicator to characterise the provision of schools in terms of access to the new information technologies. The use of the new technologies is a basic tool that enables individuals to understand the new language through which communication is achieved in today's world and, above all, prepares students for future professional challenges.

In Porto, the number of computers per 100 students is still low, and the indicator varies greatly at intra-urban scale. Presently, the relation between the number of computers and the number of students is more favourable in the case of the central area of the city – the historic and traditional centre. The aging of the population and the associated reduction in the individuals who attend these levels of education help to better explain the better provision in central Porto.

COMPUTERS PER 100 STUDENTS (2002/2003)



SOURCE: ME:DAPP

Social and Health facilities

SELECTED INDICATORS

- Day nurseries per 1,000 inhabitants
- Kindergartens per 1,000 inhabitants
- Homes for the elderly, day centres and domiciliary services per 1,000 inhabitants
- Hospital beds per 1,000 inhabitants
- Health care centres and annexes per 1,000 inhabitants
- Doctors per 1,000 inhabitants

INTERPRETATION OF THE SUBJECT

The supply of social facilities in a city, from social and educational facilities (day nurseries and kindergartens) to facilities that provide shelter for the elderly, is a very important social answer to families. The supply of facilities in the field of health, from central hospitals (open to a wider population) to proximity services in the field of medicine (for the resident population) is essential to ensure the provision of care that is indispensable to the quality of life of the individuals.

Particularly in urban areas, the progressive change in the structure of families, namely the reduction of large families and the presence of an increasing number of women in the labour market, have led to significant social and educational changes, starting with the accompanying of younger children.

With respect to day nurseries, which are facilities that welcome children between the age of 3 months and 3 years, the capacity provision of the city was of 11 places per 1,000 inhabitants in 2001, and there was a favourable evolution of this indicator in the period under analysis (1995-2001). Spatially, it is in the city centre – historic centre and traditional centre – that a more satisfactory supply is found and its evolution is most evident, considering the population loss in these areas and the slight increase in total capacity.

Contrarily, the east side of the city is the most troubled in terms of supply of this kind of facilities – the supply of places in day nurseries per 1,000 inhabitants was of 4.5 in 1995 and increased moderately to 6.8 in 2001, notwithstanding the fact that this area of the city was the one with the greatest increase in the total number of available places (45% in the east side; 12% in the whole of the city). In the west side of the city, the capacity of day nurseries in the same time period was stable.

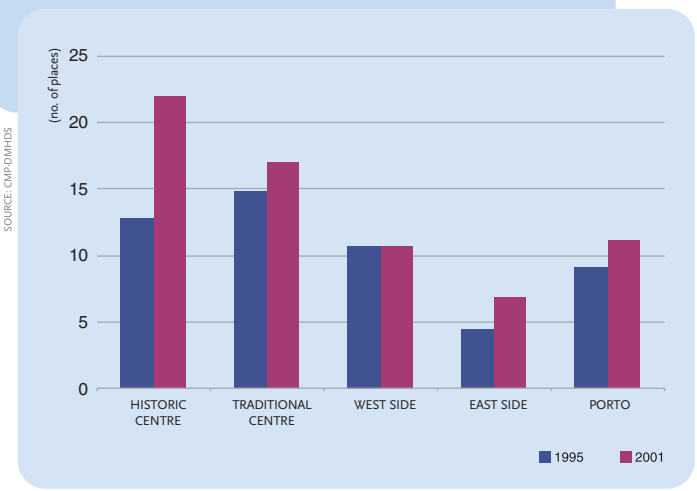
Concerning the distribution between public and private supply, in 2001, the situation is as follows: 14% of places in public day nurseries, 29% in private establishments and the remaining 57% in private social

This indicator includes public and private establishments.

Urban Audit I comparative data: ***Total number of places available in kindergartens per 1,000 inhabitants – 1996.***

Average: 21.3
Average: 0.8 (Graz)
Maximum: 58.6 (Stockholm)
Porto: 6.8
Number of city cases: 34

CAPACITY OF DAY NURSERIES PER 1,000 INHABITANTS



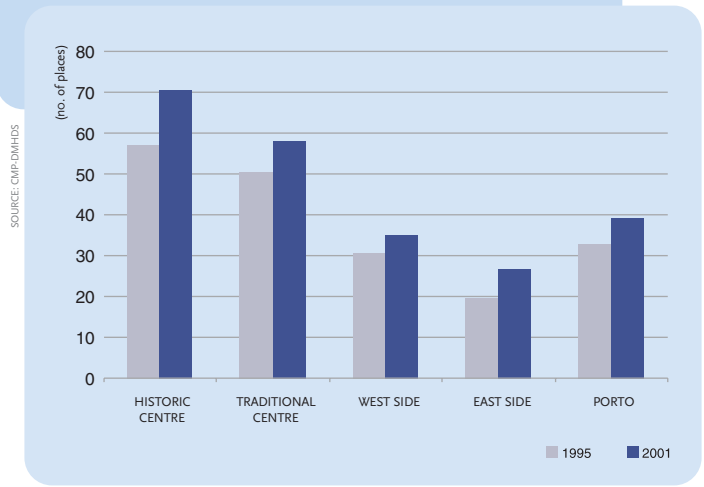
SOURCE: CMP.DMHDS

organisations. In 2001, private supply was inexistent in the historic centre and, on the contrary, there was no capacity in the public establishments in the west side.

When it comes to kindergartens, Porto's provision is clearly higher than that of day nurseries. In 2001, the capacity provision was of 39 places per 1,000 inhabitants. In terms of trend and for all areas of the city, the evolution of the supply of kindergartens is very similar to that of the supply of day nurseries, and the city's provision of this type of establishment is better.

In absolute figures, the provision of kindergartens, in the city, went from 9,415 places in 1995 to 10,318 in 2001, representing a growth of approximately 10%.

CAPACITY OF KINDERGARTENS PER 1,000 INHABITANTS



SOURCE: CMP-DMHDS

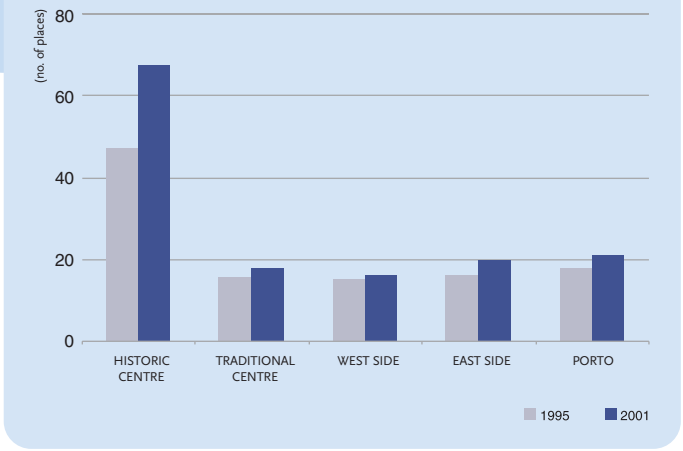
The areas of the city best served in terms of kindergartens are the historic centre and the traditional centre (the great population loss has compensated for the effective reduction in the available capacity) and, on the opposite side, the east side. With an inferior provision, the capacity of kindergartens per 1,000 inhabitants in this area, in 2001, was of 27 places (approximately 1/3 of the ratio of the historic centre), although the total increase in the number of places was significant (29% between 1995 and 2001). In the west side the increase was of 13% only.

In the present context, marked by a progressive ageing of the European population, many older people live alone. Social and demographic factors related with changes in the household – reduction of large families and increase in the number of nuclear families – have contributed to an increasingly reduced availability to look after the elderly.

Considering the demographic trends of Porto, particularly its continuing ageing (in ten years, the proportion of the population over 65 went from 15% to 20%, according to the census data), it is easy to understand the importance of facilities that ensure the care of the elderly in homes and day centres as well as through domiciliary services. If we analyse the provision in Porto of these types of establishments between 1995 and 2001, there is a slight increase in supply – the number of places per 1,000 inhabitants has increased from 17.8 in 1995 to 21.0 in 2001. This increase was notorious in the case of the historic centre, where the greatest growth in the number of places in homes for the elderly, day centres and domiciliary services occurred: from 47.2 to 67.2 per 1,000 inhabitants.

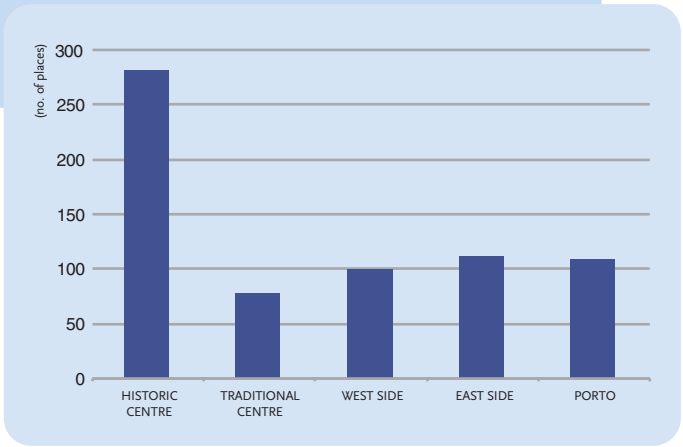
If we analyse the provision of these types of establishments as regards not the generality of the inhabitants

CAPACITY OF HOMES FOR THE ELDERLY, DAY CENTRES AND DOMICILIARY SERVICES PER 1,000 INHABITANTS



SOURCE: CMP-DMHDS

CAPACITY OF HOMES FOR THE ELDERLY, DAY CENTRES AND DOMICILIARY SERVICES PER 1,000 RESIDENTS OLDER THAN 65 YEARS IN 2001



SOURCE: CMP-DMHDS

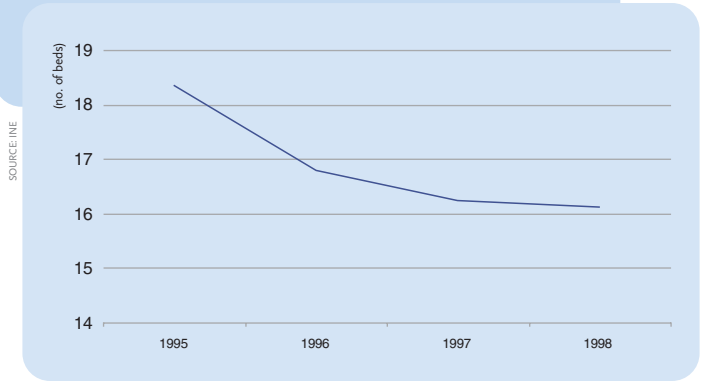
but rather the potential users (individuals over 65), we observe that the historic centre has the most favourable ratio of 281 places per 1,000 resident elderly, a provision that is clearly superior to that of the remaining areas of the city.

In regards to the health sector, it is particularly difficult to evaluate its infrastructural provision through one indicator only, since its interpretation is closely related to demographic, social and technological factors that directly interfere with the functioning of the health system.

In the last year for which data is available (1998), the city's hospitals had 16.1 beds per 1,000 inhabitants, against the 4.6 beds in the hospitals of the Porto Metropolitan Area, the 3.1 beds in the hospitals of the Northern Region or the 3.8 beds in the Country's hospitals. From this we conclude that the city of Porto has a better provision than the Porto Metropolitan Area, the Northern Region and Portugal.

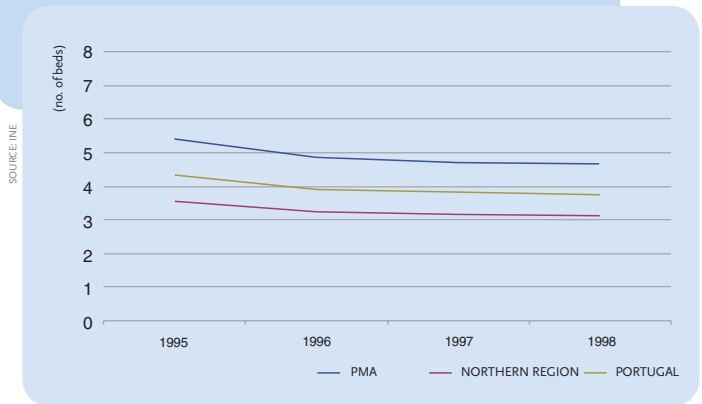
Although the hospital capacity is presently higher in Porto, which is closely connected with the role played by the city in the field of health – that of concentrating the most specialised services of the whole Northern Region – the general trend is for the reduction in the number of beds per 1,000 inhabitants in all the geographical areas. We must also stress that the highest negative growth is found in the city of Porto. Notwithstanding the decline in the resident population, this is a remarkable characteristic that was evident from 1995 to 1998.

EVOLUTION OF THE NUMBER OF HOSPITAL BEDS PER 1,000 INHABITANTS IN PORTO



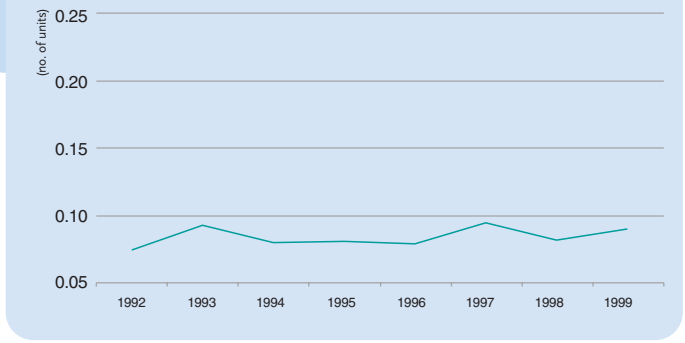
SOURCE: INE

EVOLUTION OF THE NUMBER OF HOSPITAL BEDS PER 1,000 INHABITANTS



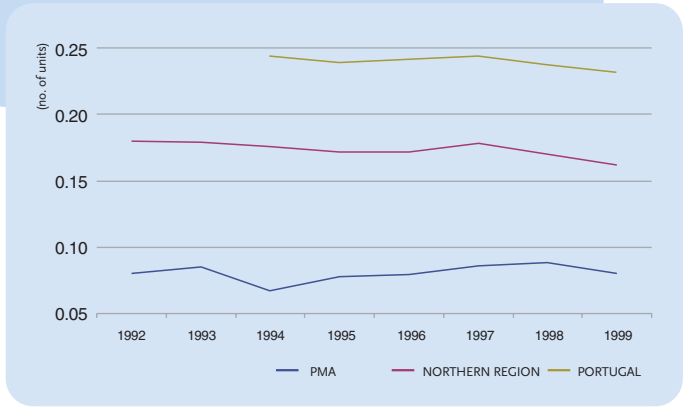
SOURCE: INE

EVOLUTION OF HEALTH CARE CENTRES AND ANNEXES PER 1,000 INHABITANTS, IN PORTO



SOURCE: INE

EVOLUTION OF HEALTH CARE CENTRES AND ANNEXES PER 1,000 INHABITANTS



SOURCE: INE

Considering the increased ageing of the population, we can anticipate an increase in the needs for health services, namely at the level of primary and continuous health care.

In opposition to the indicator "hospital beds per 1,000 inhabitants", in which the city of Porto has a better provision when compared to other geographical areas, the indicator "health care centres and annexes per 1,000 inhabitants" shows that Porto's supply, and that of the Porto Metropolitan Area, is lower than the reference values for the Northern Region and for Portugal, and has fluctuated, from 1992 to 1999, between 0.07 and 0.09 health care centres and annexes per 1,000 inhabitants.

With respect to the evolution of the trend from 1992 to 1999 in the city of Porto, data on health care centres and annexes show some fluctuations, mainly due to the successive reorganisation of the network: supply is slightly less higher in the years between 1993 and 1997, is stable between 1994 and 1996 and shows signs of recovery from 1998 onwards.

There is no data for the indicator "Doctors per 1,000 inhabitants", which is also included in the subject, given that, until now, it was not possible to gather the basic information needed.

Heritage

SELECTED INDICATORS

- Property of national and public interest
- Qualified public space

INTERPRETATION OF THE SUBJECT

Heritage is a strong component of the identity of a city and belongs to the residents of the city or to the visitors who are interested in its history. There is a tendency to evaluate heritage from multiple perspectives – architectural and urban, cultural, aesthetical and historical – and it generally evokes the history of the city.

In a national study by José Mendes (1999), titled "Where to Live in Portugal", in the indicator Heritage, the city of Porto occupied the third position on the national ranking of district capitals.

The built heritage of a metropolis is indissociable from some characteristics that we recognise in certain cities, such as their monumentality, the singularity of their landscape, or their urban way of living.

Porto has a built heritage of great value, whose rehabilitation has contributed to the urban, landscape and architectural qualification of the city. The effort to preserve the heritage of the city of Porto, particularly concentrated in its historic centre, has been accompanied by a positive evolution at the level of heritage classification in the past few years: from the 62 buildings of national and public interest, classified by IPPAR

PROPERTY OF NATIONAL AND PUBLIC INTEREST (no.)

SOURCE: CMP-DMCT

Territorial scope	2000	2001	2002
Aldoar	1	1	1
Bonfim	3	4	4
Campanhã	1	1	1
Cedofeita	1	2	2
Foz do Douro	5	6	6
Lordelo do Ouro	2	2	3
Massarelos	2	3	3
Miragaia	10	11	11
Nevogilde	1	1	1
Paranhos	0	0	0
Ramalde	2	3	3
Santo Ildefonso	4	6	7
São Nicolau	11	12	12
Sé	13	15	15
Vitória	8	10	11
Historic Centre	42	48	49
Traditional Centre	10	15	16
West side	9	10	11
East side	3	4	4
Porto	**62**	**69**	**72**

OBSERVATION: Some buildings, such as the Ferdinand Wall or the Historic Area, are located in more than one parish. Therefore, the value for each area does not obligatorily correspond to the sum of the parishes that compose it.

(Portuguese Institute for the Architectural and Archaeological Heritage) in 1991, there was an increase to 72 in 2000.

With respect to the spatial distribution of the heritage sites in the city, the weight of the historic city is obvious. The few sites of the east side of the city contrast with a profusion of sites in the historic centre and in the traditional city centre: 68% of the sites are located in the Historic Centre and 22% in the Traditional Centre.

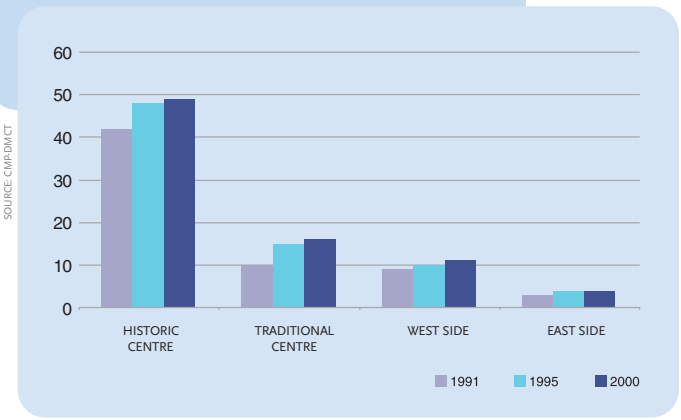
Naturally, an increase in heritage sites shows not only an effort in their preservation and subsequent valuation of the social and cultural identity, but also a strongpoint in the dynamisation of some strategic sectors for the economic and urban development of the city, such as, for example, the tourism sector, which increasingly tries to attract visitors to the city.

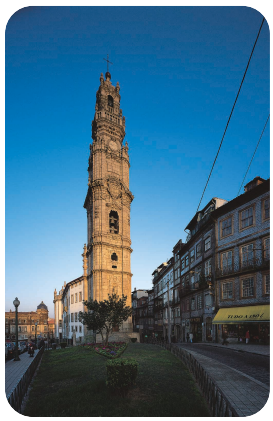
The idea that the heritage of a city is due, in great measure, to the physical component of its buildings with the potential to be recognised by IPPAR is, unquestionably, important. However, we are conscious that heritage transcends this physical dimension and includes a human component of great value.

In effect, the heritage of a city – when recovered and preserved – can be included in well-organised tourist and cultural guides, both for internal and external consumption, thus making possible the creation of wealth (greater commercial dynamism, more employment) and contributing to the quality of life in the city.

Although there are no values relating to the "qualified public space" (the gathering method and the method of analysis of the basic variables are not yet developed), this will certainly be one of the future privileged indicators. Interventions to improve public space are important to raise the quality of life in the city and create the conditions for a new appropriation of land, usually more adequate to the multiplicity of uses, of behaviours and lifestyles that characterise modern society. In effect, public space structures the relations between the urban centre and its residents and is a privileged place of collective identification.

PROPERTY OF NATIONAL AND PUBLIC INTEREST





Mobility

SELECTED INDICATORS

- Average speed of individual transport
- Average speed of public transport
- Parking places in car parks

INTERPRETATION OF THE SUBJECT

In the present context, in which the intensity and diversity of functional and economic dependencies between spaces forge new ways of land planning, the demands in terms of mobility and transport conditions increase and mark the quality of life of citizens.

Nowadays, a great part of the city faces serious traffic problems. If, on the one hand, the need to travel of individuals, goods and services, within the "flux space" that modern metropolises have become, has increased, on the other hand, there is a massive use of cars, with negative consequences in environmental terms but also in terms of traffic flow.

According to the National Travel Survey conducted in 2000, 1.16 million journeys beginning or ending in Porto take place on working days, which amounts to 36% of total journeys within the Porto Metropolitan Area. Considering the means of transportation used, we verify the importance of private transport in the course of these journeys: half the journeys beginning or ending in the city are made by car, that is, about 576,000 journeys per day. This figure shows the pressure of cars in an urban centre of 40 Km² and with a not very dense road network. As for public transport, it represents 28% of total journeys. Adding to the increase in motorised traffic and to the structural problem of the low density of the road network, insufficient flow areas contribute to the adverse traffic conditions.

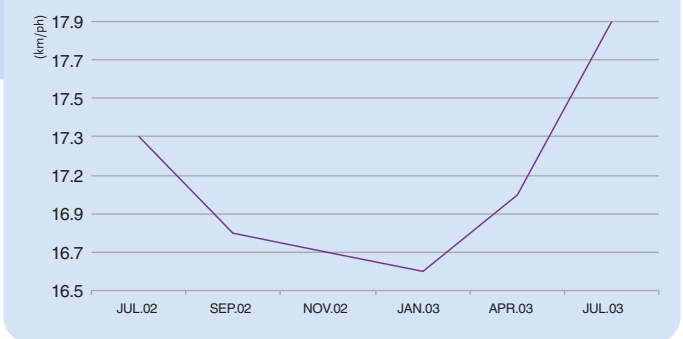
Between July 2002 and July 2003, the average car speed, in rush hour, varied between 17.3 km/ph and 17,9 km/ph. Records taken during the night period show that, in the absence of significant restrictions, the average would be of 30 km/ph.

The average speed of public transport, shown in the graphic below, is, as expected, relatively slower when compared to that of individual transport.

The analysis of the available time series shows a relative stability of the travelling speed in public transport, attaining an average of 12.9 km/ph in May 2003.

The **average speed** of the ride is obtained from the quotient between the distance travelled and the total time spent covering that distance, including here not just the time when the vehicle is moving but also when it is stopped. The total length of the network observed is of 30 Km (divided into 44 segments) and observations ocurred during the morning rush hour (between 07:30 and 10:00).

AVERAGE SPEED OF INDIVIDUAL TRANSPORT



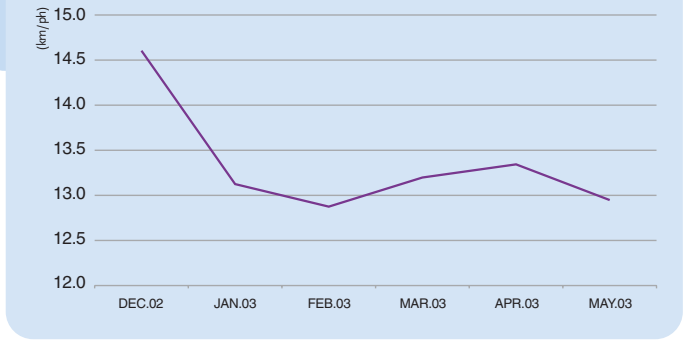
SOURCE: CMP-FEUP

To increase the capacity of underground car parks has been, until now, one of the goals of the local strategy of public intervention in the field of mobility that aims to reduce on-road parking, to ease traffic conditions and guarantee a better accessibility to certain areas, namely to the city centre.

In 2002, Porto had 10,624 parking places in official car parks. Of this total, 91% concerns the supply in the central area of the city: 65% in the traditional downtown area and 26% in the Historic Centre.

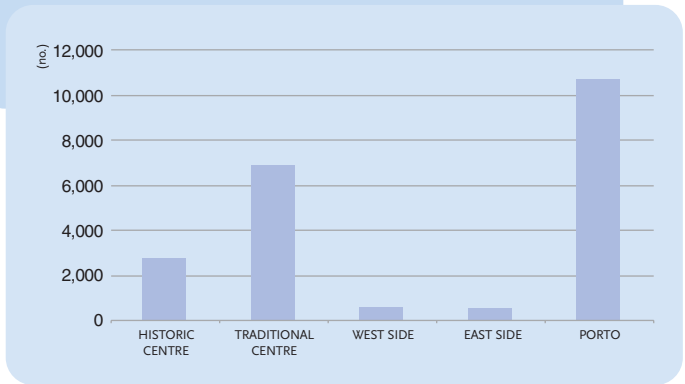
Commercial speed is calculated based on the STCP bus fleet and considering only the bus lines within the municipality of Porto. It includes stops for the entrance and exit of passengers and stops due to traffic jams. Elements concerning the operation of the Metro have been not considered.

AVERAGE SPEED OF PUBLIC TRANSPORT



SOURCE: STCP

PARKING PLACES IN CAR PARKS (2002)



SOURCE: CMP-DMVP

Trade and Services

SELECTED INDICATORS

- Retail shops per 1,000 inhabitants
- Support services to the population per 1,000 inhabitants
- Hotels and restaurants per 1,000 inhabitants

INTERPRETATION OF THE SUBJECT

Activities characteristic of the economic base of cities, trade and support services to the population are directly related to the basic needs of families. In the case of restaurant and hotel supply, target customers are not just the local population but, above all, visitors and tourists.

The level of facility and comfort of these services regulates the quality of life and the activity of the metropolises, whose economic dynamism is frequently dependent on these sectors.

Retail shops generically include: foodstuffs; drinks and tobacco; pharmaceuticals; drugs; cosmetics and hygiene products; retail shops selling other products (textiles, clothes, shoes, furniture and appliances, among others), retail shops of second hand articles.

Support services to the population include: banks, travel agencies, post offices, life and non-life insurance, car rental companies, clinical laboratory services and other services.

Retail shops selling consumer goods, often called "proximity trade," contribute to the vitality and liveliness of the central areas of the city and play an important social role, namely by ensuring the supply of essential services to the older segment of the population or to the low-income population without access to large peripheral shopping centres.

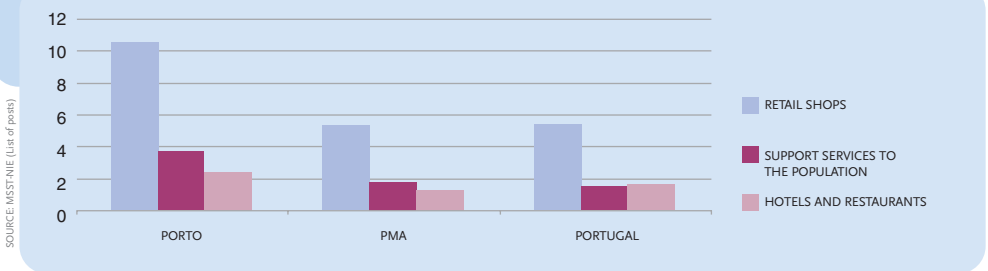
Trade in the urban fabric of Porto is remarkable. In spite of the crisis that this traditional trade sector is facing across Europe, related to the increase in new methods of distribution, trade is still strongly represented in the city. The supply of retail shops in the city was, in 1999, of 10.5 establishments per 1,000 inhabitants, a figure that almost doubles that of the combined supply of the Porto Metropolitan Area and the Country.

With respect to the support services to the population most commonly consumed, the provision of Porto is still higher than that of the Porto Metropolitan Area and of Portugal. Similarly to retail, the provision of Porto (3.7 establishments per 1,000 inhabitants) approximately doubles those of the Porto Metropolitan Area and of the Country.

Finally, with respect to hotel and restaurant supply, Porto's provision is the highest (2.4 establishments per 1,000 inhabitants) when compared to the other references, although in this context we must stress that Portugal surpasses the Porto Metropolitan Area with a provision of, respectively, 1.6 and 1.3 hotel units and restaurants per 1,000 inhabitants.

Although, in general, the figures mentioned above show a situation of relative superiority of the city of Porto in comparison with its Metropolitan Area as well as nationally, we must remember that it results from an analysis of the relation between the supply of the city and the resident population and does not take into account the daily presence of a significant number of people who do not live in the city but work or visit the city and consume this type of trade and services.

SHOPS AND SERVICES PER 1,000 INHABITANTS (1999)



SOURCE: MSST-NIE (List of posts)

Summary table

INDICATORS	UNITS	LAST VALUE	YEAR	TENDENCY	PERIOD	QOL SITUATION
CULTURAL FACILITIES						
Public libraries per 1,000 inhabitants	no./1,000 inhab	0.42	2000	↑	1995/2000	😐
Art galleries per 1,000 inhabitants	no./1,000 inhab	0.15	2001	↑	1991/2001	😐
Museums per 1,000 inhabitants	no./1,000 inhab	0.10	2001	↑	1991/2001	😐
SPORTS FACILITIES						
Pavilions per 1,000 inhabitants	no./1,000 inhab	0.13	2000	–	–	☹
Swimming pools per 1,000 inhabitants	no./1,000 inhab	0.19	2000	–	–	☹
Other sports facilities per 1,000 inhabitants	no./1,000 inhab	1.78	2000	–	–	😐
EDUCATIONAL FACILITIES						
Primary and secondary schools per 1,000 inhabitants	no./1,000 inhab	0.86	2000	–	–	☺
Computers in primary and secondary schools per 100 students	no./100 students	7	2002/2003	–	–	☹
SOCIAL AND HEALTH FACILITIES						
Kindergartens per 1,000 inhabitants	no./1,000 inhab	39	2001	↑	1995/2001	☺
Day nurseries per 1,000 inhabitants	no./1,000 inhab	11	2001	↑	1995/2001	😐
Homes for the elderly, day centres and domiciliary services per 1,000 inhabitants	no./1,000 inhab	21	2001	→	1995/2001	☹
Hospital beds per 1,000 inhabitants	no./1,000 inhab	16.1	1998	↓	1995/1998	☹
Health care centres and annexes per 1,000 inhabitants	no./1,000 inhab	0.09	1999	↓	1995/1998	☹
Doctors per 1,000 inhabitants	–	–	–	–	–	–
HERITAGE						
Property of national and public interest	no.	72	2000	↑	1991/2000	☺
Qualified public space	–	–	–	–	–	–
MOBILITY						
Average speed of individual transport	km/ph	17.9	July 2003	–	–	☹
Average speed of public transport	km/ph	12.9	May 2003	–	–	☹
Parking places in car parks	no.	10,624	2002	↑	2001/2002	☺
TRADE AND SERVICES						
Retail shops per 1,000 inhabitants	no./1,000 inhab	10.5	1999	–	–	☺
Support services to the population per 1,000 inhabitants	no./1,000 inhab	3.7	1999	–	–	☺
Hotels and restaurants per 1,000 inhabitants	no./1,000 inhab	2.4	1999	–	–	☺

Evolutionary tendency of the indicator::

- ↑ Growth with a positive impact on the QOL
- ↓ Reduction with a positive impact on the QOL
- → Stability
- ↑ Growth with a negative impact on the QOL
- ↓ Reduction with a negative impact on the QOL

Evaluation of the present situation in terms of Quality of Life:

- ☺ Good
- 😐 Reasonable
- ☹ Bad

MSUQL

Economic Conditions

Income and Consumption

SELECTED INDICATORS

- Average monthly wage (earnings)
- Quotient between the 80th and the 20th percentile of the average monthly wage (earnings)
- Disablement or survivor pensioners per 1,000 inhabitants
- Beneficiaries of the Social Income per 1,000 inhabitants
- ATM withdrawals
- Cars per 1,000 inhabitants
- Households with access to the Internet

INTERPRETATION OF THE SUBJECT

The assessment of the Quality of Life in a city in economic terms depends, namely, on an analysis of income and consumption, since they influence the life of individuals and are also essential when it comes to the interpretation of an urban centre as a network of productive activities.

The selected indicators try to analyse the levels of income and consumption of residents and users of the city in average terms, but also to detect disparities, which may show potential social or spatial cleavages within the city.

The first four selected indicators aim to assess the level and the recent evolution of income in the city of Porto.

The indicator **Average monthly wage** (earnings) is calculated based on information gathered through the Lists of Posts survey, which does not comprise the Civil Service and the Liberal Professions.

With respect to the average monthly wage (earnings) earned by employed workers in establishments within the municipality of Porto, we observe that, in average, each worker earned, in 1991, 377 euros, and 822 euros in 1999. These figures are higher than the ones relating to the Porto Metropolitan Area and to the whole Country (whose average values are practically identical): more 13% in the first year and more 17% in the second.

Urban Audit I comparative data: ***Households' average weekly wage – 1991-1997.***

Average: 347 euros
Minimum: 232 euros (Lille, 1995)
Maximum: 535 euros (Leeds, 1996)
Number of city cases: 32

AVERAGE MONTHLY WAGE (EARNINGS)

SOURCE: MSST-NIE (List of Posts)

Considering the inflation rate, we can analyse this indicator at constant prices (deflated by the consumer price index).

Even at constant prices there is a significant increase between 1991 and 1999 (particularly significant between 1997 and 1999). The average monthly wage in Porto went from 377 euros to 578 euros, which corresponds to an average annual rate of growth of 5.5%, whereas the same rate for the whole Country is 4.8%.

As a whole, the data show clearly a real gain in purchasing power in the city of Porto.

We must once again stress that the analysis was based on the Lists of Posts, not comprising therefore the totality of workers. This is particularly relevant when compared with other similar indicators, obtained through

different methodologies. To complement the information on the average monthly wage we used an indicator of wage disparity. We have thus used the quotient between the 80th and the 20th percentile of the average monthly wage.

This quotient (2.73) is higher in the city of Porto than in the other geographical areas (2.37 in the Metropolitan Area and 2.39 at national level), which shows a greater wage disparity.

This greater wage disparity that occurs in Porto and shows greater social and economic cleavages, also exists when we compare the situation of Portugal to that of the rest of Europe. As additional information and relating to the available income instead of the wages earned, the sidebar box presents the quotients between the 80th and the 20th percentile of the available income in the countries of the European Union. The disparity that occurs in Portugal is much higher than the European average, only similar to the one in Greece and, at a greater distance, Spain.

One of the most vulnerable groups in terms of income and, consequently, of consumption, is the group of disablement and survivor pensioners.

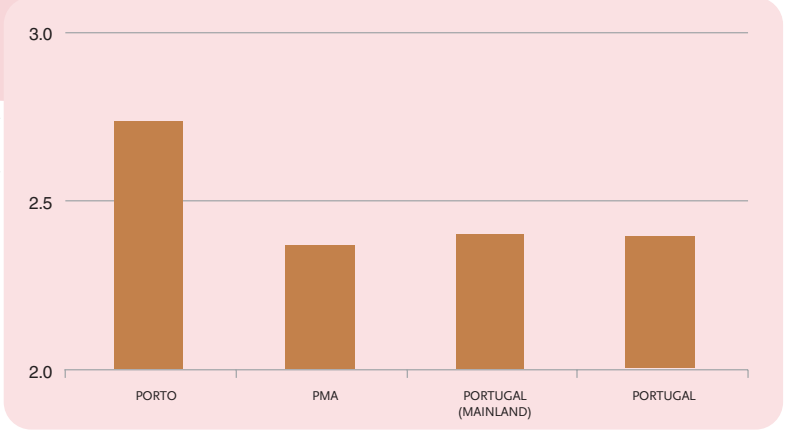
The evolution of disablement and survivor pensioners per 1,000 inhabitants in the city of Porto, in the 1990s – which accompanies the increase in the elderly population – gradually increased, going from 104 pensioners per 1,000 inhabitants in 1991 to 122 pensioners per 1,000 inhabitants in 1999. Making a

The indicator **Quotient between the 80th and the 20th percentile of the average monthly wage** measures the dispersion of wages by comparing those who earn more with those who earn less, but excluding the most extreme cases (the 20% of workers who earn more and the 20% who earn less). Therefore, the percentile corresponding to 80 is the value under which 80% of the reported wages are comprised (in the Lists of Posts) and, thus, 20% of the wages are higher than that. Equally, the percentile corresponding to 20 is the value under which 20% of the wages are lower and 80% are higher.

MONTHLY AVERAGE WAGE (EARNINGS) AT CONSTANT PRICES (BASE 91)

SOURCE: MSST-NIE (List of Posts)

QUOTIENT BETWEEN THE 80th AND THE 20th PERCENTILE OF THE AVERAGE MONTHLY WAGE (EARNINGS) (1999)



SOURCE: MSST-NIE (List of Posts)

Inequality in income distribution (quotient between the 80th and the 20th percentile) – 1999.

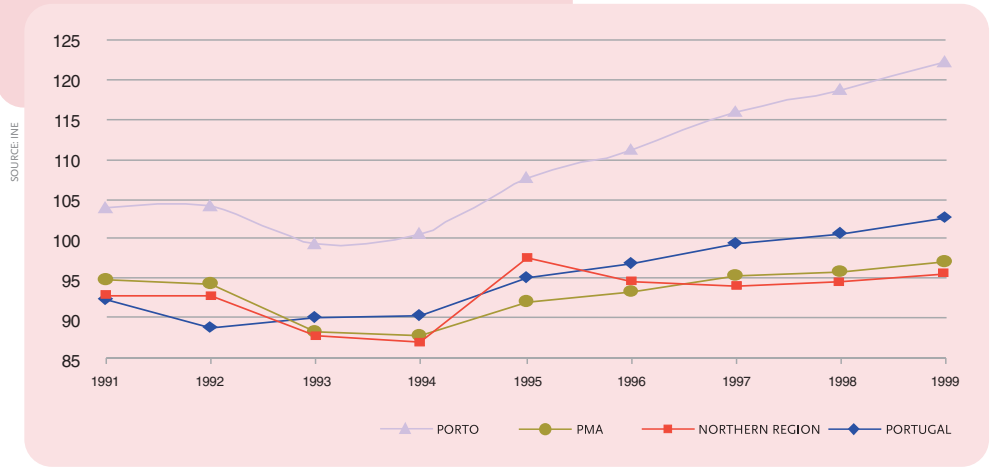
Belgium: 4.2
Denmark: 3.2
Germany: 3.6
Greece: 6.2
Spain: 5.7
France: 4.4
Ireland: 4.9
Italy: 4.9
Luxembourg: 3.9
Holland: 3.7
Austria: 3.7
Portugal: 6.4
Finland: 3.4
Sweden: 3.2
United Kingdom: 5.2
EU 15: 4.6

Source: Eurostat (General Statistics)
Observation: The data presented by Eurostat was calculated using the available total income.

comparative analysis with the other geographical areas, it is also in the city of Porto that we find the highest values for the indicator. These values are considerably higher than the ones registered in any of the other areas, thus representing a greater fragility of the social fabric in the case of Porto.

We must bear in mind, however, that since this is a per capita measure, the decrease in the population of the city influences the values of the indicator, given that, in absolute terms, the number of pensioners in those two years was practically the same, of approximately 31,500. This situation reinforces the idea that the loss in

DISABLEMENT AND SURVIVOR PENSIONERS PER 1,000 INHABITANTS

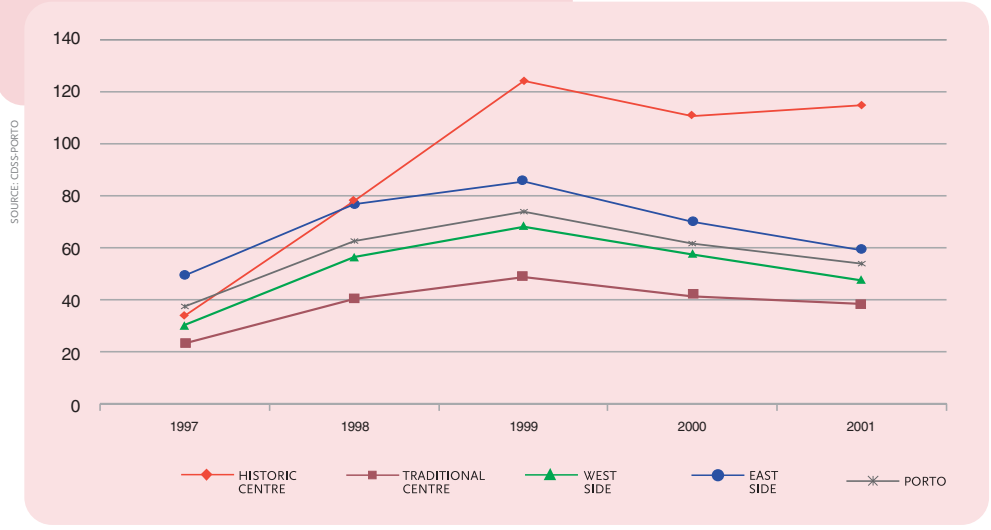


the resident population of Porto is a "selective" phenomenon from the point of view of age and contributes to the demographic ageing of the population. At national level, and in absolute terms, the number of disablement and survivor pensioners has increased during that period, from about 910,000 in 1991 to more than a million in 1999, which corresponds to an increase of 13%.

With the same purpose of analysing consumption from the point of view of the more vulnerable groups, we have used data referring to the Beneficiaries of the Social Income.

The indicator **Beneficiaries of the Social Income per 1,000 inhabitants** shows the weight of individuals who cannot, through work, obtain the necessary income for their subsistence, being, therefore, dependent on social income. It allows us to assess the number of the population who live on the threshold of poverty, that is, the population who live in an economically precarious situation and at risk of social exclusion.

BENEFICIARIES OF THE SOCIAL INCOME PER 1,000 INHABITANTS



Beneficiaries of the Social Income per 1,000 inhabitants.

	Northern Region	Country*
1998	30.85	32.10
1999	45.69	45.17
2000	48.80	47.02
2001	40.81	39.14

* Does not include the Region of Madeira

Source: Social Security
Observation: Up until 2001 the data refers to the then-called "Guaranteed Minimum Income"; thenceforth it refers to the "Social Integration Income".

Since 1997 (when the measure, at the time named Guaranteed Minimum Income, was implemented) the number of beneficiaries has increased gradually in the city, attaining the maximum value in 1999 with 73.9 beneficiaries per 1,000 inhabitants. Internally, it is in the Historic Centre that this indicator reaches its highest value (about three times that of the national average), which shows the concentration in the area of situations of social and economic precariousness.

Another element to consider when characterising the life framework of a city has to do with consumption trends, which are essential to assess the dynamism of the urban economy.

ATM withdrawals are used as a proxy for consumption. The indicator has to do with the population (resident or non-resident) that uses the city and is not, obviously, an indicator of global consumption.

In 2002 the total of ATM withdrawals in Porto reached 771 million euros, which corresponds to a little more than 5% of the total at national level, a value that corresponds approximately to the estimated weight of the population present in the city throughout the day. At constant prices, the evolution is logically less marked, and the increase is a little under 5% for the two-year period considered. In that same period, the increase at national level reached almost 30% to which contributed the greater expansion of the ATM network that took place in the Country during that period, even though this increase was already stable in Porto at the time.

ATM WITHDRAWALS IN PORTO

SOURCE: SIBS

Households with access to the Internet is an indicator that allows us to assess the increase in the number of households with access to the Internet, meaning that there is a segment of the population who has sufficient income to access this service, which is, clearly, a consumer good of the upper-middle class.

Households with access to the Internet (%).

	Portugal	EU15
1998	3.4	8.3
1999	4.0	12.0
2000	18.1	28.4
2001	26.1	37.7

Source: Eurostat
Observation: The data available are only for the country.

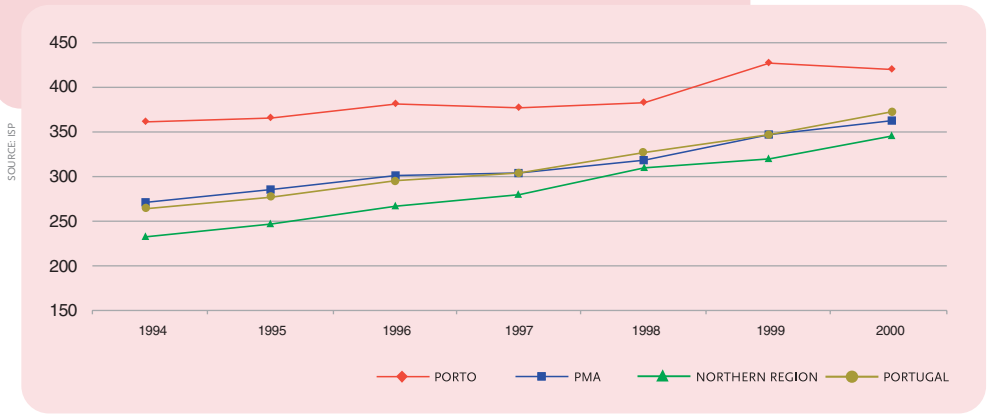
It was not possible to obtain data for the municipality of Porto on the number of households with access to the Internet, another of the selected indicators of consumption. As a reference, we provide the corresponding values at national level and for the 15 countries of the European Union, which show Portugal's tendency to approach the European average.

The indicator cars per 1,000 inhabitants is also an indicator of consumption that, although not referring to an essential good, shows a higher level of income of the population.

With 420 cars per 1,000 inhabitants in 2000, the indicator's values for Porto are clearly superior to the ones reported in any of the other geographical areas. However, the size of the public automobile system in Porto cannot be exclusively associated to the consumption of families, given the relevant weight of the enterprises based here. The evolution that took place during the period under analysis, which accompanies the aforementioned real increase in the purchasing power of the population was gradual, with significant increases in all regions, although less significant in the case of the municipality of Porto, a situation that was expected considering the high starting level.

The data now analysed refer to the number of vehicles with an insurance policy in force, so comparisons arising from other information sources, in particular those that refer to the number of registered vehicles, must be done with caution.

CARS PER 1,000 INHABITANTS



Labour market

SELECTED INDICATORS

- Jobs per 1,000 inhabitants
- Directors and workers with medium and high qualifications
- Registered unemployed

INTERPRETATION OF THE SUBJECT

The size and the characteristics of the labour market are essential factors for the analysis of the economic dynamic and performance of an urban centre. The existence of an important labour centre has positive consequences not only at the level of the quality of life of the whole city but also at the level of the quality of life of individuals.

A fundamental aspect of a city as an economic activity centre is its role as an employment centre, not only for the resident population but also for the population living in the surrounding areas.

In 2001, about 220,000 people worked in the city of Porto, which corresponds to 829 jobs per 1,000 residents. This value is significantly higher than the 484 per 1,000 in the Porto Metropolitan Area and the 449 per 1,000 in the Country.

Of these 220,000 people working in Porto only about 40% lived in the city, which means that more than 130,000 people come to Porto to work. Porto appears, therefore, as a strong employment centre, which shows the importance of its economy in regional terms, from the point of view of employment capacity.

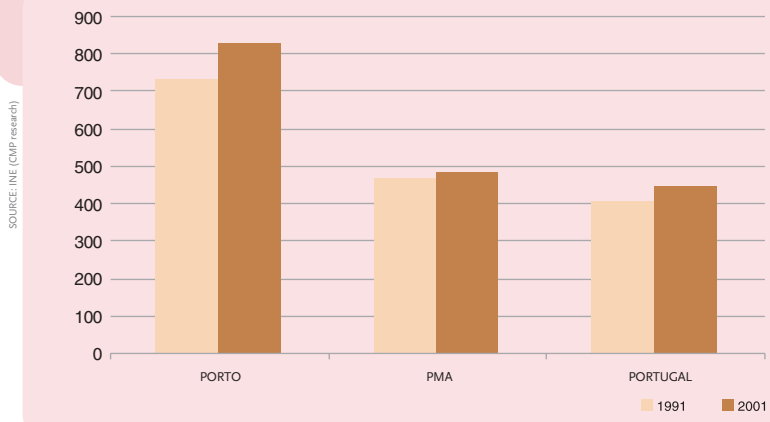
Between 1991 and 2001, employment in the city of Porto showed a slight decrease (-1.6%), contrary to the Porto Metropolitan Area and the whole Country, with increases of 11.6% and 15.9%, respectively. The marked decline in the resident population of the city of Porto during that period meant, however, a more marked increase in the indicator than in the other geographical areas.

The increasing challenges that globalisation poses to economies make qualification of human resources indispensable, so the existence of qualified workers, polyvalent and with the capacity to adapt to new situations is an important factor of competitiveness of a city. To analyse the composition of the work force, we tried to assess the weight of directors and workers with medium and high qualifications in the total number of workers.

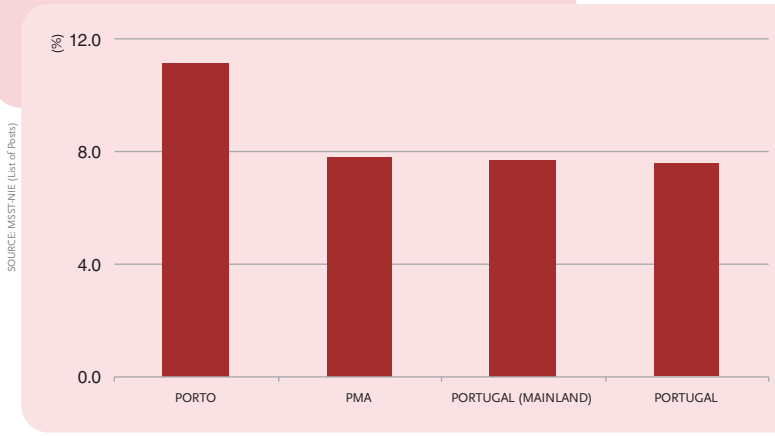
The value obtained for the municipality of Porto is higher than the ones for the other geographical areas under consideration. However, the interpretation of these data must be done with caution since the values

The numbers presented for the **jobs** that exist in each of the geographical areas were calculated from the Population Registers of 1991 and 2001.

JOBS PER 1,000 INHABITANTS



DIRECTORS AND WORKERS WITH MEDIUM AND HIGH QUALIFICATIONS



SOURCE: MSST-NIE (List of Posts)

only refer to employed workers surveyed in the scope of the Lists of Posts. Directors and medium and highly qualified workers from Civil Service and liberal professionals are, therefore, excluded.

Unemployment is negatively associated with the quality of life in the city, not only for what it means in terms of the depreciation of the city as a centre of productive activities, but also due to its negative consequences as far as the quality of life of individuals is concerned, both in economic and social terms.

For the analysis of **unemployment** we considered only the unemployed people registered in Employment Centres (in search of a new job or of a first job). The values presented correspond to the averages of the different time periods considered.

In the past three years, the annual average of unemployed people registered in the Employment Centre of Porto is relatively stable, with values close to 12,000 individuals, although there has been some fluctuation throughout the months and a growing increase in the last semester of 2002.

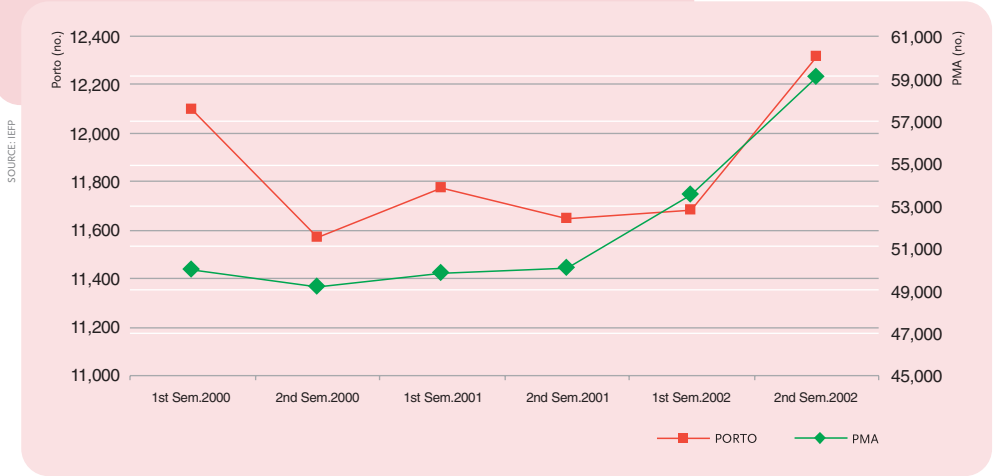
With respect to the Porto Metropolitan Area, this relative stability only occurs in the first two years. There was a significant increase in the number of unemployed people registered in Employment Centres during 2002, which corresponds to an annual increase of 13%. Therefore, by the end of that year the number of unemployed people registered in the Porto Metropolitan Area was over 59,000, as opposed to the approximately 50,000 that registered in the two preceding years.

Therefore, there was a clear increase in unemployment in the Porto Metropolitan Area in 2002, which seems to be occurring also in the municipality of Porto, although with a time difference.

Unemployment rate in 2001:

EU: 6.2%
OECD: 6.7%
Portugal: 4.3%

REGISTERED UNEMPLOYED



SOURCE: IEFP

There are also some differences worthy of particular attention between the unemployed people registered in Porto and in the Porto Metropolitan Area in 2002. There are significant differences with respect to schooling, with fewer individuals with less than six years of education (63% in the Porto Metropolitan Area against 56% in Porto) and a greater number of unemployed people with medium and higher education in Porto (12% for a little more than 7% in the Porto Metropolitan Area). This shows, from the outset, the low qualifications of the unemployed people, which makes it difficult to enter the labour market, namely in professions that require high qualifications.

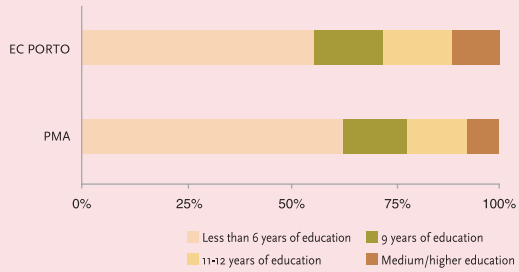
Equally disturbing are the values that refer to the length of the registration period, showing a considerable weight of the long-term unemployed. As observed, the unemployed people registered for more than 12 months lead the way, accounting for about half of the total of registered unemployed (45% in Porto).

With respect to the sex of the unemployed, there are differences between both geographical regions. The majority of unemployed people in the Porto Metropolitan Area (56%) are women, as opposed to what happens in the city of Porto.

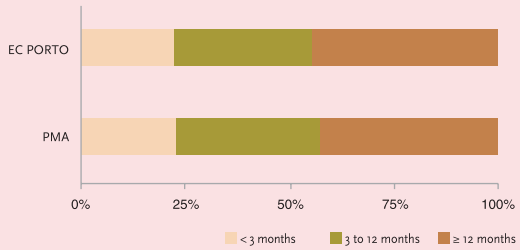
With respect to age groups, unemployed people are getting older (36% of the registered unemployed in Porto are older than 50 years), and most unemployed people are aged between 25 and 49 years.

SOURCE: IEFP

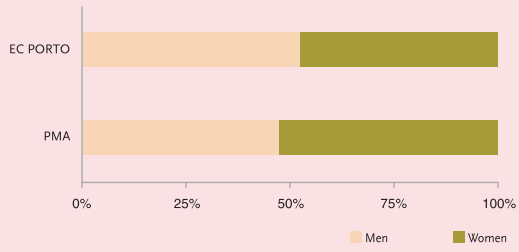
Registered unemployed by qualification – 2002



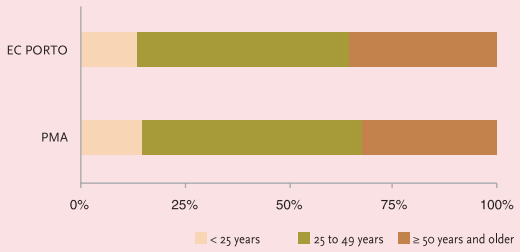
Registered unemployed by length of registration period – 2002



Registered unemployed by sex – 2002



Registered unemployed by age group – 2002



Housing market

SELECTED INDICATORS

- Average acquisition cost
- Average rent
- Issue of reconstruction permits

INTERPRETATION OF THE SUBJECT

Housing costs are summary indicators of various components of the quality of life, reflecting a number of beneficial external factors of the city, that is, a number of attractive aspects of the city that play an important role in the choice of residence of individuals.

To monitor the results in terms of reconstruction allows for an assessment of the effort carried out in the city in terms of restoration work, an effort that, in turn, serves to improve the housing stock.

The **Price Indicator System in Construction and Housing** is a project developed by the National Statistics Institute (INE) following an examination of credit institutions to obtain the values of the bank's valuation (including new and used homes).

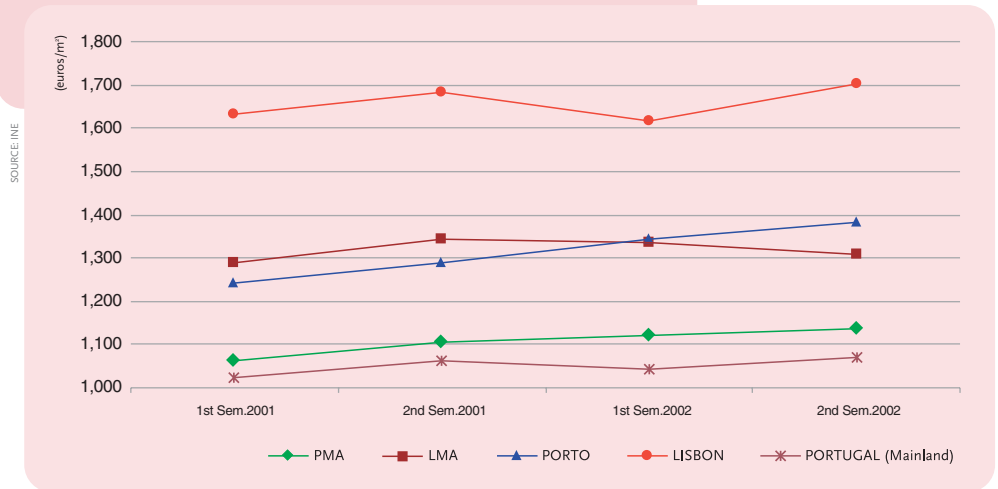
The Portuguese housing market is currently characterised by the great importance of owner-occupied houses, whereas renting is significantly less important.

In the second semester of 2002, the average acquisition cost in the city of Porto was of 1,382 euros per m², which shows a variation of about 7% when compared to the same period of the previous year, a value higher than the inflation rate for that period.

The value is clearly higher than the one for the Porto Metropolitan Area (1,137 euros/m²) and for the Mainland (1,070 euros/m²), and only lower than the one for the city of Lisbon, where the average acquisition cost for the same period reached 1,702 euros per m².

From an intra-urban point of view, the data available for the city of Porto show some disparities that are worthy of note. The average values of the West Side are significantly higher than those of the other areas, a situation that shows the occurrence of a social and territorial fragmentation phenomenon within the city.

AVERAGE ACQUISITION COST



SOURCE: INE

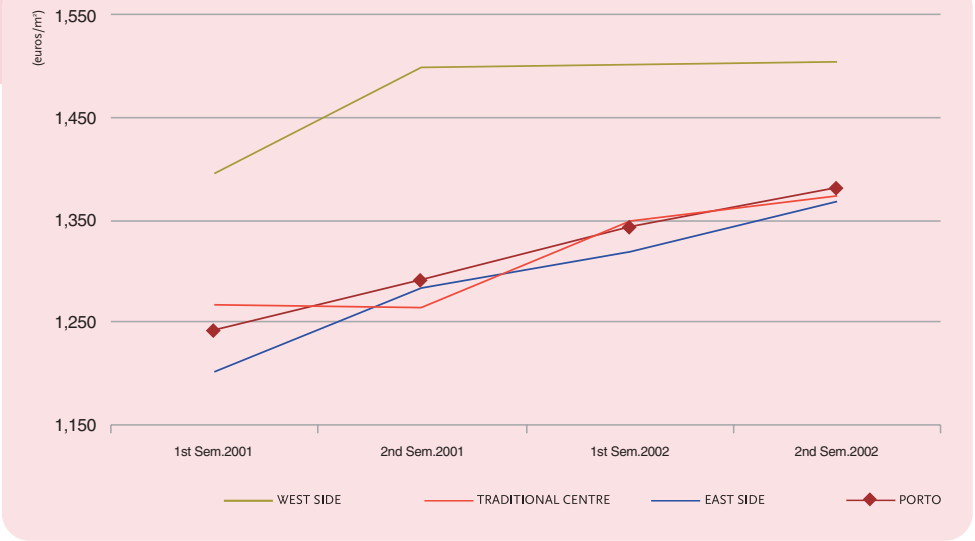
With respect to renting, there is a greater homogeneity within the various areas, with the average rent, in the second semester of 2002, between 6 and 10 euros per m² of useful floorspace in residential buildings.

Notwithstanding this relative homogeneity, the West Side is once again more attractive as a place for living

and rents are higher there. We must also point out that the values in the East Side have been growing increasingly throughout the period of time under consideration.

The analysis of the issue reconstruction permits is a complementary approach to the dynamics that refer to the housing market. The main purpose of this indicator is to assess the effort carried out in the restoration of buildings, an effort that is part of an urban restoration, a more sustainable option for housing production, especially in a consolidated urban fabric context.

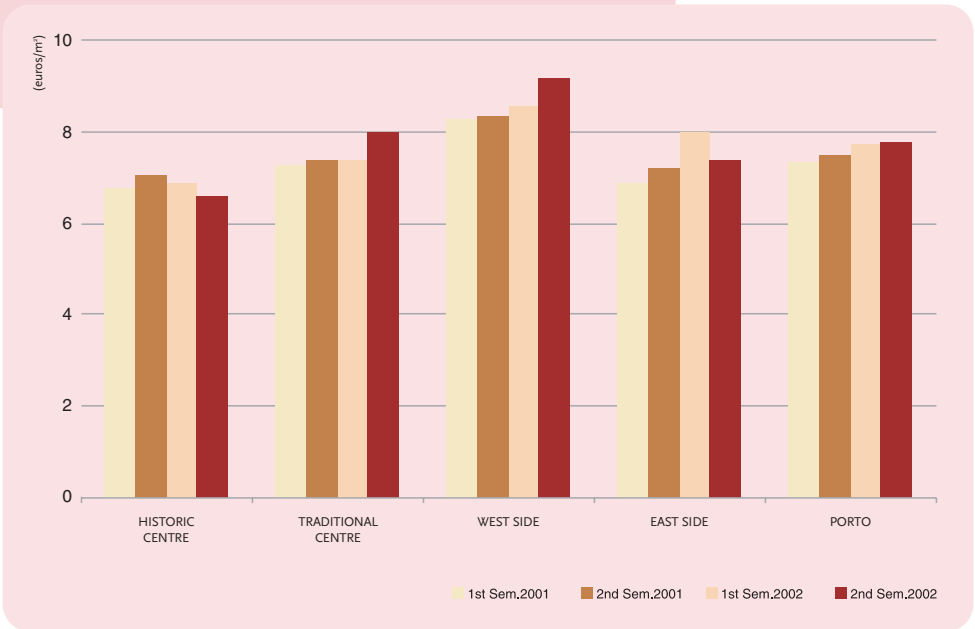
AVERAGE ACQUISITION COST



SOURCE: INE

There is no data for the Historic Centre

AVERAGE RENT



SOURCE: CONFIDENCIAL IMOBILIÁRIO

The indicator **Issue of reconstruction permits** comprises three variables:

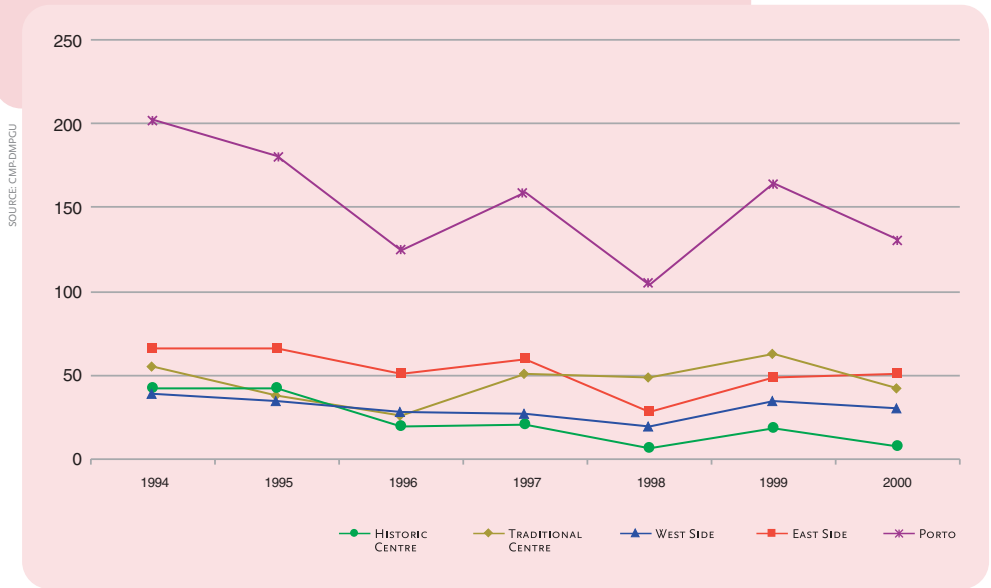
– reconstruction permits;
– alteration works permits;
– extension works permits.

Permits for residential buildings were the only ones considered.

From the approximate 200 reconstruction permits issued in 1994, we notice a decreasing trend in the values obtained, reaching 131 permits in 2000, although with some fluctuations throughout the period under consideration.

This decrease is more or less general in all areas of the city, and the recent values for the Historic Centre are practically non-existent, a troubling fact since an effort is needed to attain the necessary renewal of damaged buildings.

ISSUE OF BUILDING PERMITS



Economic dynamism

SELECTED INDICATORS

- Annual variation in the number of establishments
- Fuel sales
- Total municipal expenditure per 1,000 inhabitants
- Passengers on commercial flights

INTERPRETATION OF THE SUBJECT

In the global context of changes taking place at the level of productive structures, cities have tried to adjust and develop their respective urban economies, hence becoming economic dynamism centres, generating wealth and qualified labour.

The economic dynamism of a city tends to directly influence its Quality of Life, especially if it is associated with an increase in qualified labour and a diversification in the supply of goods and services.

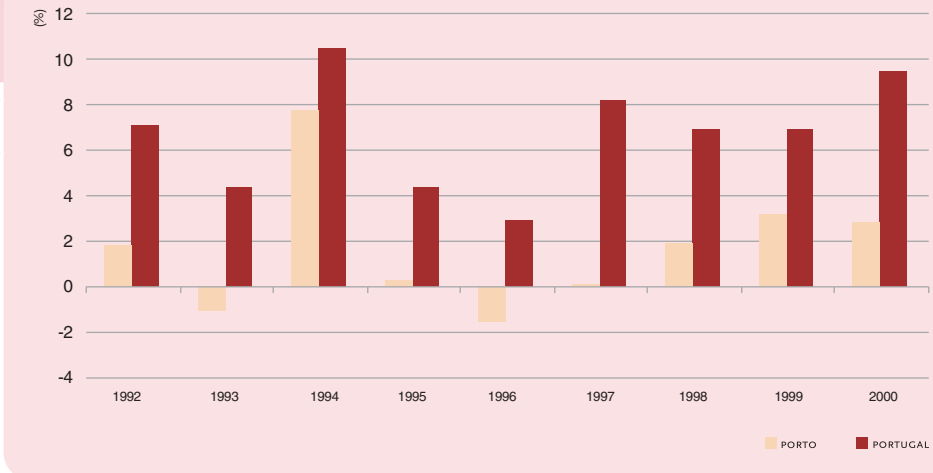
An indicator that allows the evaluation of this dynamism is the annual variation in the number of establishments.

In the last decade, the variation in the number of establishments in the city of Porto was significantly different from the one observed at national level. To the annual positive increase of the Country, corresponded, in the case of Porto, a fluctuating behaviour of the indicator, with values systematically lower and even negative in some of the years under consideration.

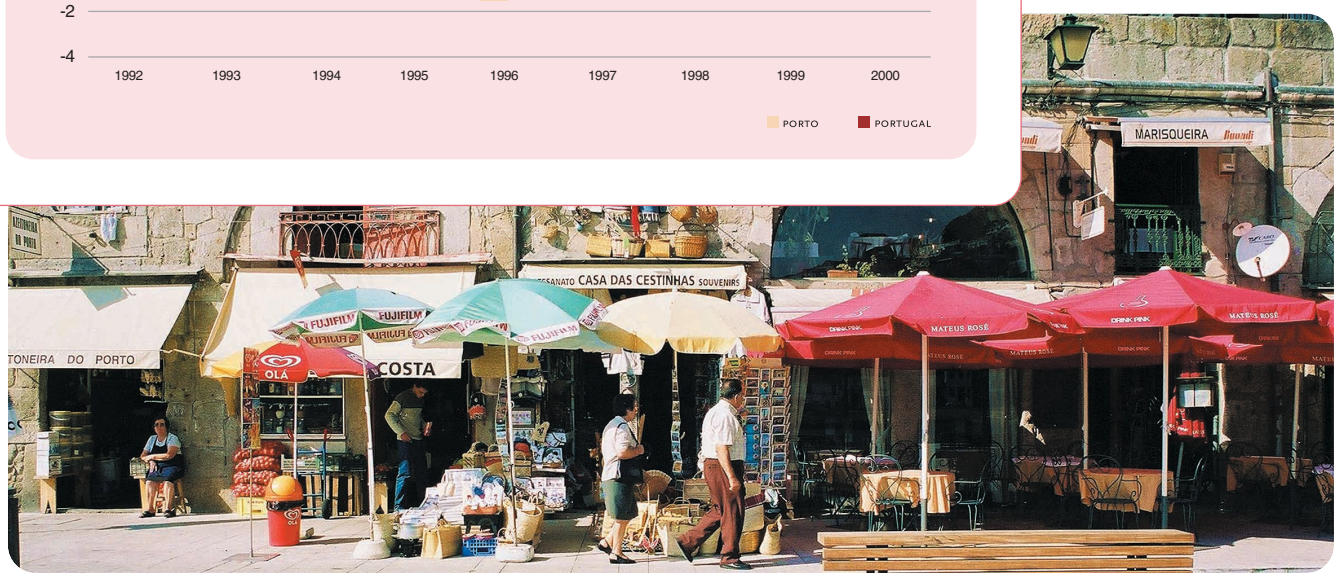
This situation is certainly related to restructuring and relocation phenomena that occur in some of the sectors that constitute the economic base of the city.

To calculate the indicator **Annual variation in the number of establishments** was considered the total number of establishments in all economic activities, based on the Lists of Posts of the Ministry for Social Security and Labour.

ANNUAL VARIATION IN THE NUMBER OF ESTABLISHMENTS



SOURCE: MSST-NIE (List of Posts)

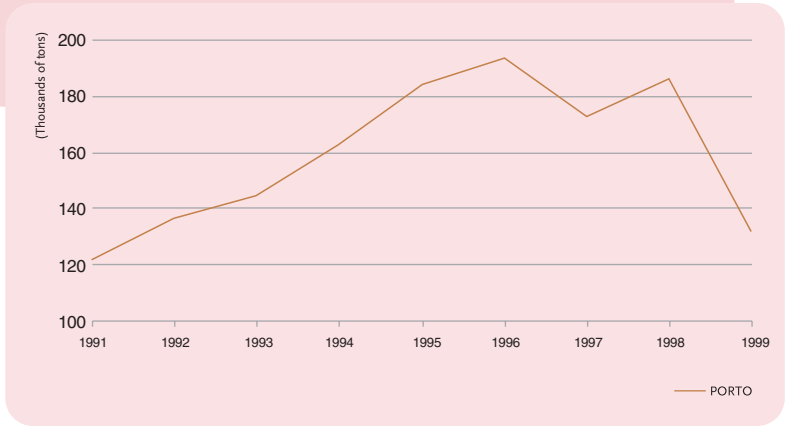


To calculate the indicator **Fuel Sales** we considered the gasoline sales (regular, super, IO95, IO98 and super plus) and the diesel sales.

Another indicator used to measure the economic dynamism refers to fuel sales.

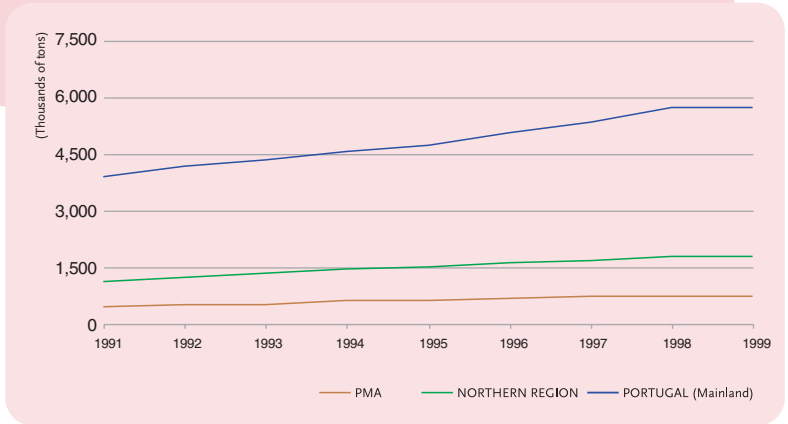
The available data for 1999 in Porto show a considerable decrease in fuel sales, although the value is slightly higher than the one for 1991: from 121,280 tons in 1991 to 131,286 tons in 1999. By analysing the time series, we observe that the indicator has seen a strong increase until 1996. After this year it kept on falling (although there was a slight increase in 1998), and quite abruptly in 1999 (with a negative growth rate of about 30%). However, this evolution can also be explained by the geographical redistribution of the fuel-selling facilities that have seen a significant increase outside the city of Porto.

FUEL SALES



SOURCE: DGE

FUEL SALES

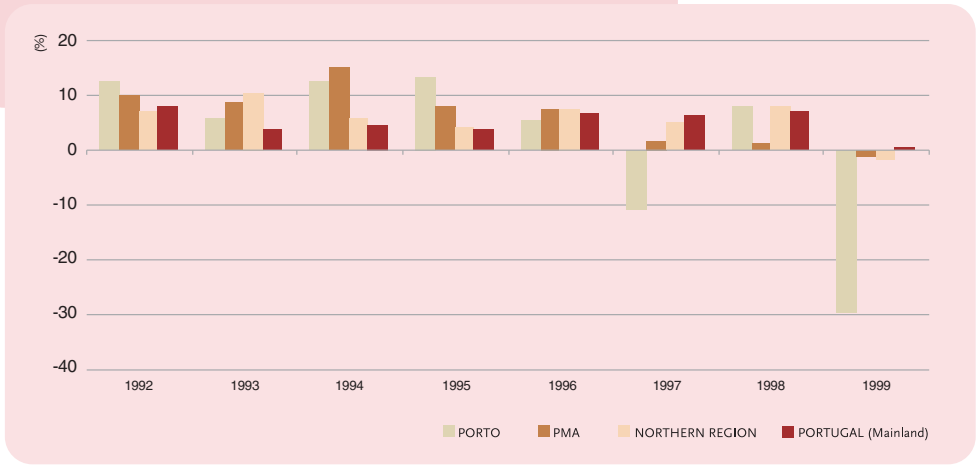


SOURCE: DGE

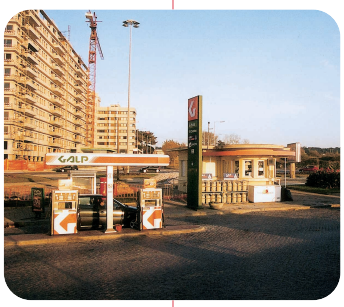
With respect to the comparison of the evolution of sales in the city and in other geographical areas, the situation is different from the one in Porto, with ever growing numbers in the Mainland and only a slight loss in 1999 in the cases of the Porto Metropolitan Area and of the Northern Region.

These evolutions are evident in the chart that shows the growth rates of fuel sales and also the pronounced fall that occurred in 1997 and in 1999 in Porto.

ANNUAL VARIATION IN FUEL SALES



SOURCE: DGE



The economic dynamism of a city is also related to the financial capacity of the local government to develop its activities, with direct implications in the possibilities of investing in various fields. The indicator used – Total municipal expenditure per 1,000 inhabitants – includes both the current expenditures and the capital expenditures.

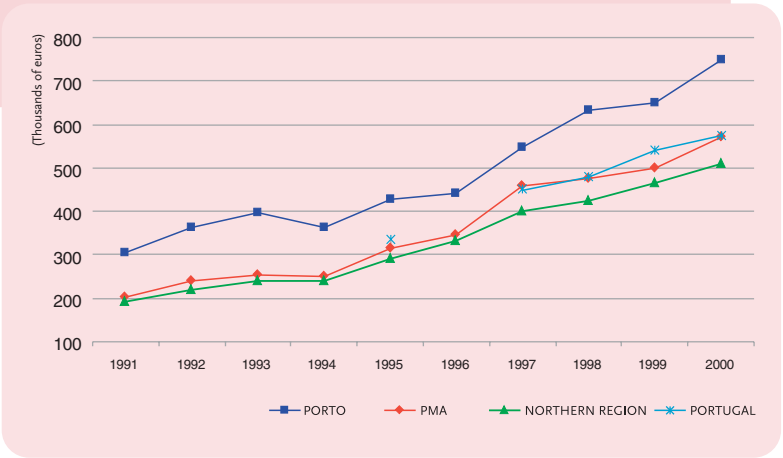
In 2000, the city of Porto had an expenditure of 748 thousand euros per 1,000 inhabitants, in contrast with the 305 thousand reported in the beginning of the decade. At constant prices – therefore including the effect of inflation – we observe that throughout the decade the total municipal expenditure has increased regularly, with the exception of the year 1994, and usually with rates much higher than the inflation rate.

Municipal expenditure in the other geographical areas is similar to Porto's, where values are always higher

Urban Audit I comparative data: ***Annual municipal expenditure: euros per capita – 1991/1998.***

Average: 2,419
Minimum: 93 (Thessaloniki, 1993)
Maximum: 9,535 (Copenhagen, 1996)
Number of city cases: 43

TOTAL MUNICIPAL EXPENDITURE PER 1,000 INHABITANTS



SOURCE: INE

than the average of those regions: in the year 2000, the values for Porto were, respectively, 30% and 50% higher than the national average and the average for the Northern Region.

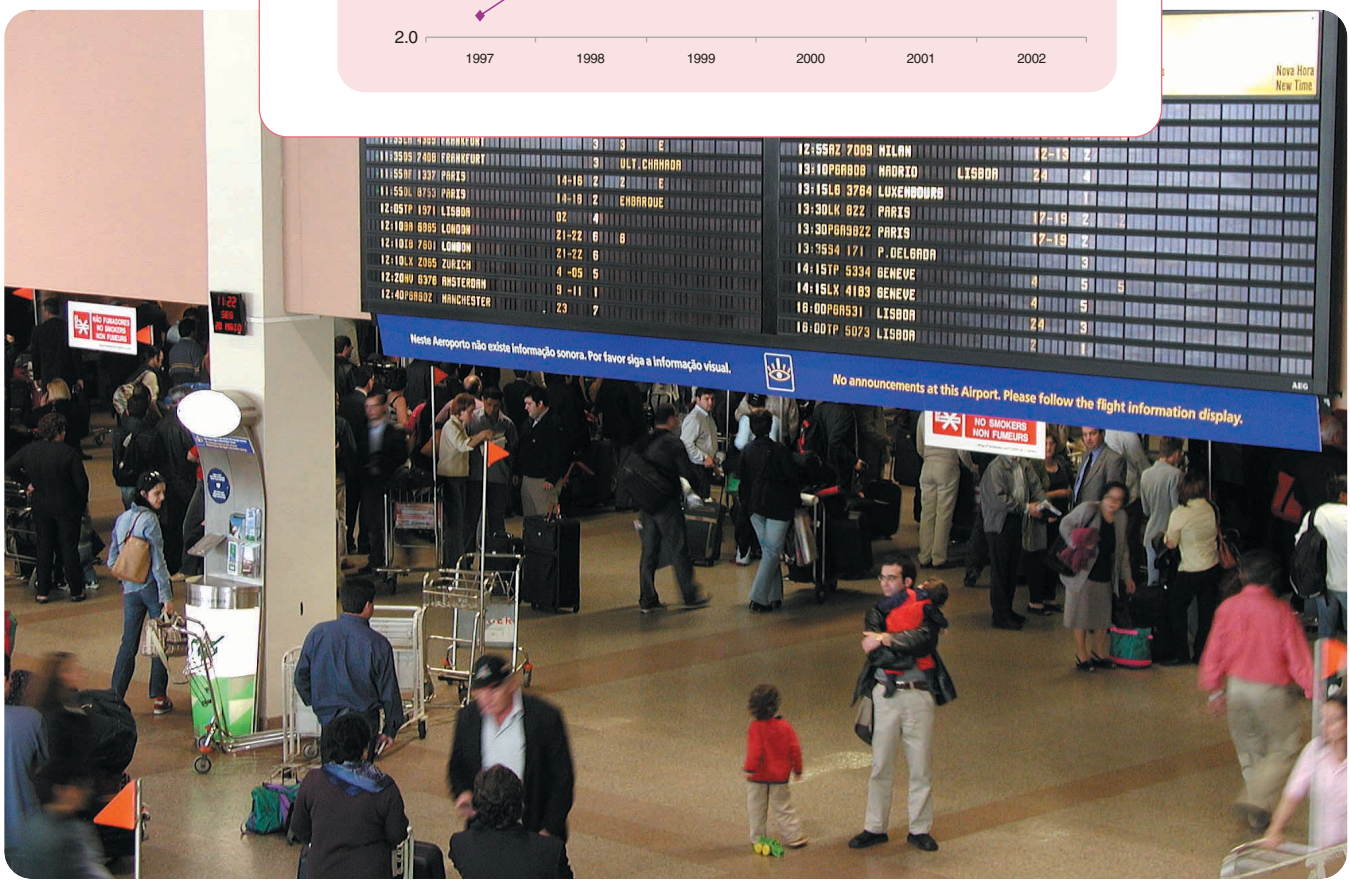
A final indicator, in the scope of this subject, concerns the number of passengers on commercial flights. The existence of an airport in a city is an important support infrastructure of the economic activity, namely with respect to the tourism sector.

The data used refer to the Francisco Sá Carneiro Airport, whose area of influence clearly surpasses the scope of the city of Porto, although the city plays an important centralising role.

The movement of passengers in the Francisco Sá Carneiro Airport went from about 2 million in 1997 to 2.6 million in 2002. There is a growing increase until 2000, and a decrease in the last two years, which reached almost 5% in 2002. This evolution was influenced by the policy of the national air carrier.

PASSENGERS ON COMMERCIAL FLIGHTS AT FRANCISCO SÁ CARNEIRO AIRPORT

SOURCE: ANA



Comparing the movement in the Francisco Sá Carneiro Airport with the movement in the Portela Airport, in Lisbon, there are similarities, although the losses of the last years are significantly less important in the latter.

Summary table

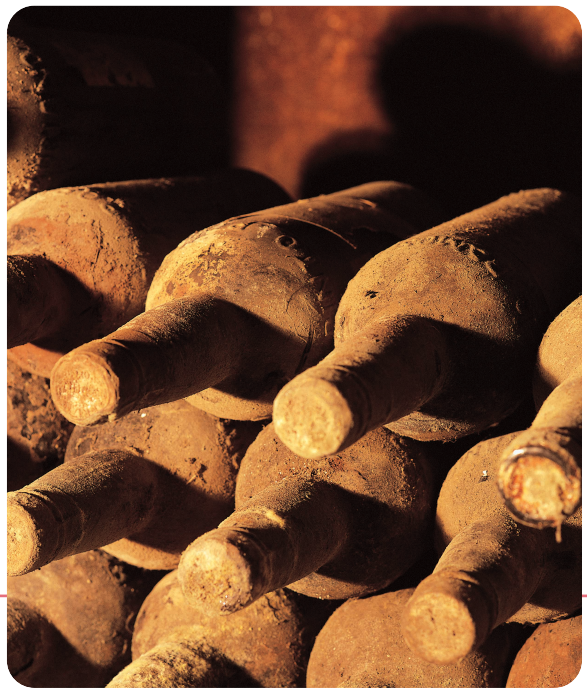
INDICATORS	UNITS	FINAL VALUE/YEAR		TENDENCY / PERIOD		QOL SITUATION
INCOME AND CONSUMPTION						
Average monthly wage	earnings €	822	1999	↑	1991/1999	😐
Quotient between the 80th and the 20th percentile of the average monthly wage	earnings €	2.73	1999	–	–	☹
Disablement and survivor pensioners per 1,000 inhabitants	no./1,000 inhab	122	1999	↑	1991/1999	☹
Beneficiaries of the Social Income per 1,000 inhabitants	no./1,000 inhab	53.8	2001	↓	1999/2001	☹
ATM withdrawals	millions €	771	2002	↑	2000/2002	😐
Cars per 1,000 inhabitants	no./1,000 inhab	420	2000	↑	1994/2000	☺
Households with access to the Internet	–	–	–	–	–	–
LABOUR MARKET						
Jobs per 1,000 inhabitants	no./1,000 inhab	829	2001	↑	1991/2001	☺
Directors and workers with medium and high qualifications	%	11.1	1999	–	–	☹
Registered unemployed	no.	12,001	2002	↑	2000/2002	☹
HOUSING MARKET						
Average acquisition cost	€/m²	1,362	2002	↑	2001/2002	😐
Average rent	€/m²	7.7	2002	↑	2001/2002	😐
Issue of reconstruction permits	no.	131	2000	↓	1994/2000	☹
ECONOMIC DYNAMISM						
Annual variation in the number of establishments	%	2.8	2000	→	1992/2000	😐
Fuel sales	tons	131,286	1999	↓	1991/1999	😐
Total municipal expenditure per 1,000 inhabitants	thousands €	748	2000	↑	1991/2000	😐
Passengers on commercial flights	millions	2.6	2002	↓	1997/2002	😐

Evolutionary tendency of the indicator:

- ↑ Growth with a positive impact on the QOL
- ↓ Reduction with a positive impact on the QOL
- → Stability
- ↑ Growth with a negative impact on the QOL
- ↓ Reduction with a negative impact on the QOL

Evaluation of the present situation in terms of Quality of Life:

- ☺ Good
- 😐 Reasonable
- ☹ Bad



MSUQL

Society

Population

SELECTED INDICATORS

- Live births per 1,000 inhabitants
- Foreign residents

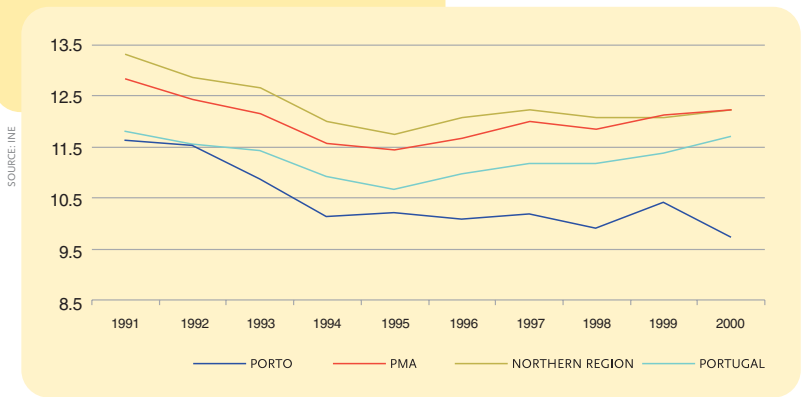
INTERPRETATION OF THE SUBJECT

Nowadays, western societies face serious demographic problems, like the ageing of the population that results from, among other factors, the increase in the average life expectancy and the decline in the fertility rate. These trends are the result of several changes in the social organisation – changes in the structure of families, the massive entrance of women into the labour market, a decline in the rate of marriage, the furthering of education, the postponement of marriage, among others. On the other hand, considering the growing globalisation, migrations are more and more essential, as well as the contact with other people and cultures, namely through the presence of other groups (with their ethnic and cultural diversity) who clearly improve the social and cultural diversity of a city.

The city of Porto has been the stage for a considerable demographic regression, which is evident in the data from the Census 2001. The number of live births in 2000 was of 2,561, that is, 9.7 per 1,000 inhabitants.

During the decade under analysis (1991-2000), the trend has been a decrease in the number of live births, only slightly contradicted in 1999. In this way, of the 11.6 live births per 1,000 inhabitants in 1991 the city went to 9.7 in 2000. During this period, there was also a decrease in the absolute values, with the number of live births going from 3,512 to the aforementioned 2,561, that is, a loss of almost 40%, which cannot but affect the demographic vitality of the city.

LIVE BIRTHS PER 1,000 INHABITANTS



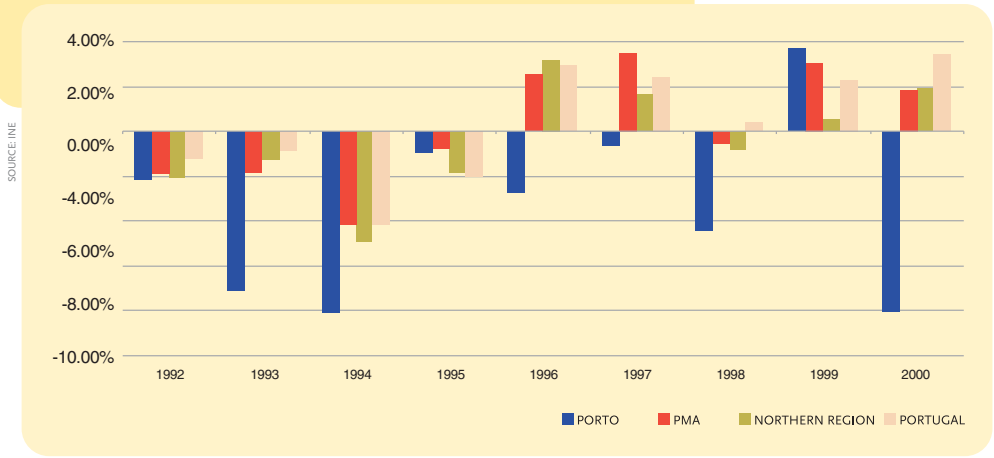
SOURCE: INE

At national level, there was also a decline until 1995 in the values of this indicator; however, in the following years there was a recovery, and the figures for 2000 (11.7 live births per 1,000 inhabitants) are practically identical to those of the beginning of the decade.

With respect to the indicator "Foreign residents", there has been, in the past few years, a significant increase in the number of foreigners living in Portugal (namely from the African continent and also from Europe) reaching almost 240,000 in 2002. Notwithstanding this striking increase of the last decade, the number of foreign residents is only a little more than 2% of the total Portuguese population. It is interesting to note that more than half of the foreigners live in the district of Lisbon, and fewer than 6% live in the district of Porto.

These data, obtained from the Serviço de Estrangeiros e Fronteiras (Services of Foreigners and Borders) and regarding the number of foreigners living in Portugal, was not available for the municipality of Porto. We

ANNUAL VARIATION IN THE NUMBER OF LIVE BIRTHS

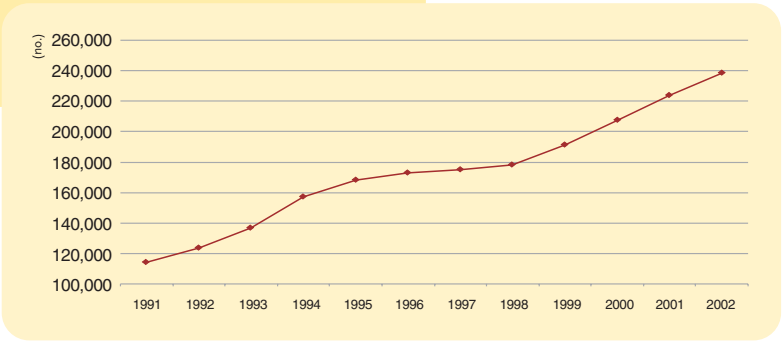


SOURCE: INE

have decided to complete this information with data obtained from the Census 2001, and so we verify that 5,216 foreigners responded to the census, indicating the city of Porto as their place of residence, which corresponds to 2% of the total population of the municipality.

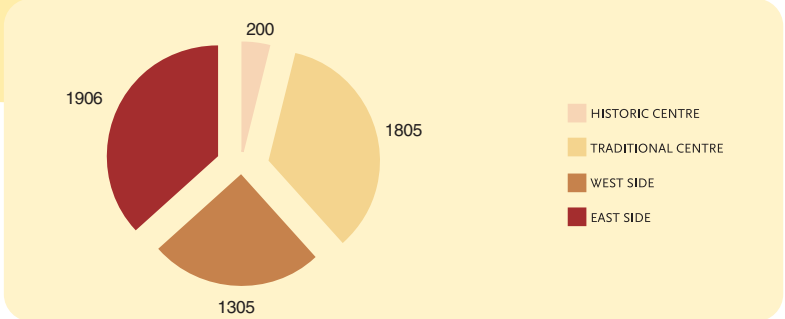
In intra-urban terms, these foreigners reside essentially in the West Side (36.5%) and in the Traditional Centre (34.6%), whereas the Historic Centre has the lowest value (only 3.8%).

FOREIGN RESIDENTS IN PORTUGAL



SOURCE: SEF

FOREIGN RESIDENTS (2001)



SOURCE: INE

Education

SELECTED INDICATORS

- Students in higher education
- Students pursuing postgraduate studies, master's degrees and doctorates
- Rate of early school leavers

INTERPRETATION OF THE SUBJECT

More and more, present societies value knowledge, skills and the capability to innovate. Education is thus closely connected with social and economic development, since a population with higher education means better-qualified citizens with a greater level of participation in society.

Education is a key-element, on a personal development level and on a global city level.

One of the selected indicators for this analysis concerns students in higher education.

In 2000, Porto had 58,276 students enrolled in higher education, that is, 221.1 students per 1,000 inhabitants. In evolutionary terms we can see that the city has not been through many fluctuations in the past few years, with values close to 60,000 students.

When compared to other geographical areas, the city's position in relation to the Porto Metropolitan Area is worthy of note. In reality, of the total students enrolled in higher education in 2000, about 80% attend

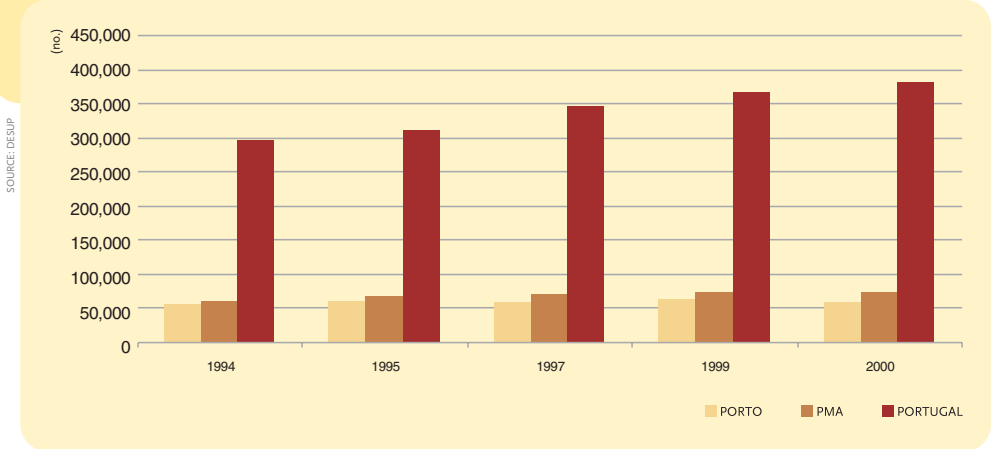
The indicator **Students in Higher Education** includes students enrolled in public and private higher education. The following degrees were considered: bachelor's degrees, specialised higher education diplomas, graduate degrees, complementary training and qualification for the exercise of other educational functions.

Urban Audit I comparative data: ***Residents with a degree corresponding to level 6 (ISCED: %) – 1996.***

Average: 8.1
Minimum: 2.4 (Essen)
Maximum: 22.8 (Frankfurt)
Porto: 7.0 (1991)
Number of city cases: 52

Observation: This indicator followed the international standard classification of education (ISCED). Level 6 corresponds to the degree of licentiate in the Portuguese Educational System.

STUDENTS IN HIGHER EDUCATION

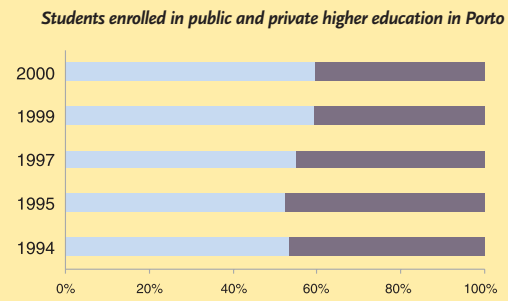


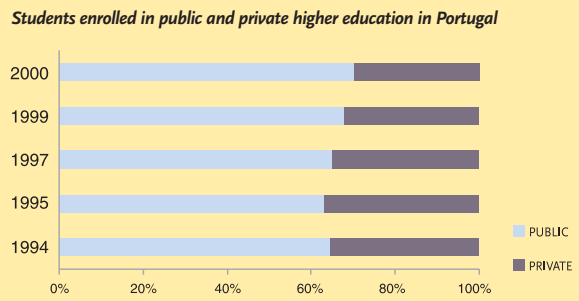
SOURCE: DESUP

classes in Porto. However, this figure has been falling, since in 1994 it represented 91%. This indicates some increase in higher education outside the city.

Also worthy of note is the importance of the private sector in higher education in Porto: although with a tendency to fall, it represents, even so, 40% of the total students enrolled, a percentage that falls to 30% when we consider the totality of the Mainland.

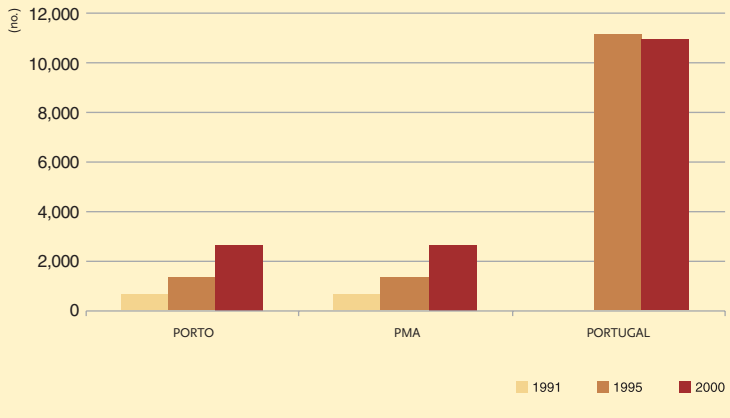
SOURCE: DESUP





STUDENTS PURSUING POSGRADUATE STUDIES, MASTER'S DEGREES AND DOCTORATES

SOURCE: DESUP



The number of students in postgraduate studies or pursuing master's degrees or doctorates shows us the level of education and schooling, in higher education, and also the dimension of a potential "body of critics," which is essential for the confirmation of the city's role as a research and knowledge centre.

In 2000, Porto had 2,600 students enrolled in the various levels of higher education. The majority was pursuing master's degrees (1,358 in public higher education and 377 in private higher education). Postgraduate studies, in turn, were most insignificant (298), fewer than the number of students pursuing doctorates (567).

In evolutionary terms, the city shows a strong increase in the value of the indicator, which practically increased fourfold between 1991 and 2000. We must remember that these levels of education are almost nonexistent in the other municipalities of the Porto Metropolitan Area, and the figures for the whole of the latter are very similar to those of Porto. Porto's value corresponds to 24% of the national total, which shows the large concentration of higher education in the city.

The rate of early school leavers lets us estimate the portion of the population who leaves school after compulsory education, that is, with a low level of education.

Urban Audit I comparative data: ***Residents with a degree corresponding to level 7 (ISCED - %) – 1996.***

Average: 2.9
Minimum: 0.2 (Braga, 1991)
Maximum: 13.6 (Berlin)
Porto: 0.5 (1991)
Number of city cases: : 33

Observation: This indicator followed the international standard classification of education (ISCED). Level 7 corresponds to postgraduate studies in the Portuguese Educational System.

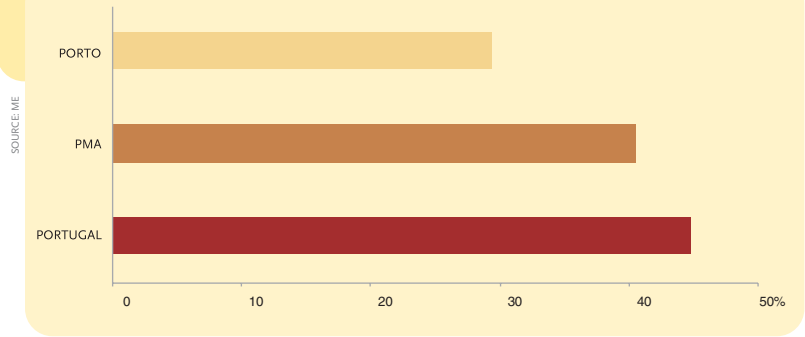
According to the study by the Ministry of Education, the rate of early school leavers in Porto, in 2001, was of 29.4%. Although the figure is high, it is, however, less worrying than that of the Porto Metropolitan Area and of the whole Country (40.5% and 44.8%, respectively). At national level, the rate of early school leavers is significantly higher for men (52%) than for women (38%). At European Union level, corresponding values are 22% and 17%, respectively.

Notwithstanding the fact that this figure is extremely high at national level – meaning that almost one in two students leaves school after completing compulsory education – it reflects a decrease, when compared to 1991, when the rate of early school leavers was 63.7%.

At European Union level, some data on this indicator have been published recently and Portugal is clearly the country with the highest rate, followed at a distance by Spain and Italy. The average value for the EU is 19%.

By **Rate of Early School Leavers** we mean the "total number of individuals, aged between 18 and 24 years old, who have not completed secondary education and are not enrolled in any school, per 100 individuals of the same age group."
The existing information was obtained from a study by the Ministry of Education on "School failure and dropout rate in Portugal," which was based on the data obtained through the Population Register of 2001 and includes all the municipalities in the country.

RATE OF EARLY SCHOOL LEAVERS (2001)



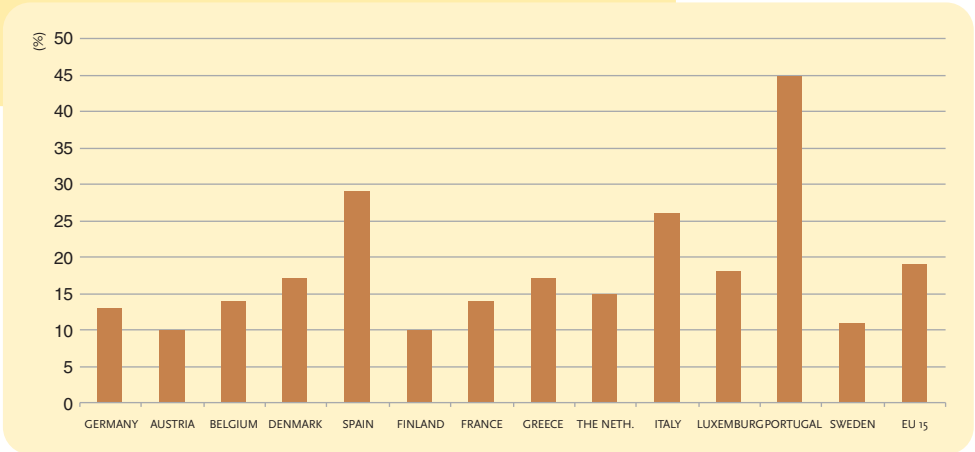
SOURCE: ME

Rate of early school leavers in 2001 (%)

Maximum: 73.9 (Lousada)
Minimum: 23.8 (Oeiras)
Lisbon: 26.3
Greater Lisbon area: 32.6

Source: Ministério da Educação

RATE OF EARLY SCHOOL LEAVERS (2001)



SOURCE: EUROSTAT

Cultural dynamism

SELECTED INDICATORS

- Cultural performances
- Users of public libraries
- Museum visitors

INTERPRETATION OF THE SUBJECT

Art and culture are fundamental for the Quality of Life of individuals – since they are an opportunity for personal enrichment – and of the city, which indisputably benefits from these amenities, namely for tourism purposes.

Art and culture are an increasingly strong bet in terms of the economic base of cities and generally reach a target audience that clearly goes beyond the resident population.

In 2000 there were 1,177 entertainment performances in Porto. Consequently, since it is impossible to work on data that support an analysis in evolutionary terms, we only present elements that require the assessment of the representativity of certain types of cultural production.

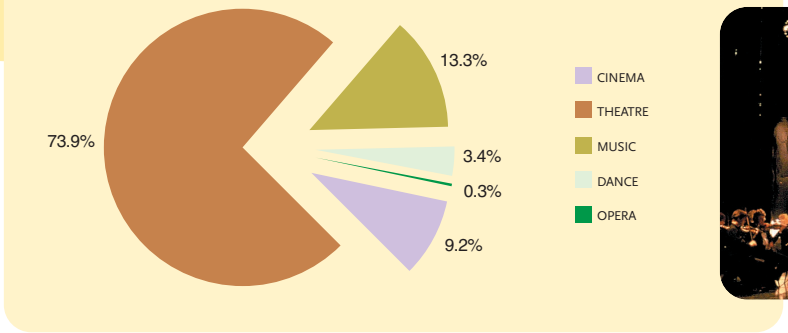
A detail analysis for each category of performance shows the importance of theatre sessions, which correspond to 74% of the total cultural performances that took place in Porto in 2000. Next, but with significantly lower values, are music shows (13%) and cinema (9%). Dance and opera performances have little relevance in the total: 3.7%.

For the definition of the indicator **Cultural Performances** three different variables were considered:

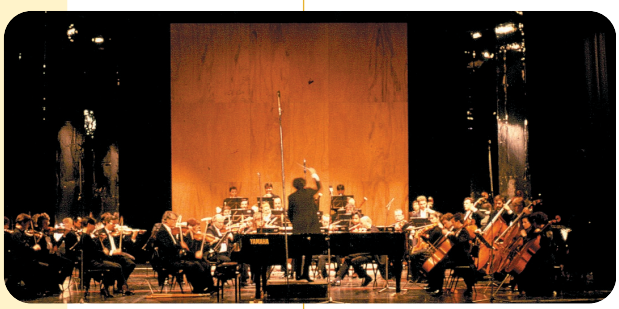
- entertainment performances by regular producers;
- festival performances;
- entertainment performances by arts support institutions.

We have only considered the performances included in the "Cultural Calendar" published by the Porto City Council. Regular commercial cinema showings were not considered.

CULTURAL PERFORMANCES IN PORTO, BY CATEGORY (2000)



SOURCE: CMP-DMCT



Still in the perspective of cultural dynamism, we tried to complement the interpretation already made in the field of collective material conditions as regards cultural facilities, by assessing the use of those facilities, that is, by focusing on the question of the audience.

As mentioned before, today libraries are not just a place where people go to borrow or consult books. In order to analyse this cultural service from the point of view of its users we must remember that the services supplied by libraries comprise a variety of activities, such as access to new technologies or even a place to conduct debates.

By analysing the data from both public libraries in Porto, we observe that the Almeida Garrett Library (BAG) was the one with the highest number of users in 2001 (almost 3.5 more than the Porto Municipal Public Library-BPMP).

The available data for public libraries (Porto Municipal Public Library - BPMP and Almeida Garrett Library - BAG) correspond to the various available services: general reading rooms, newspaper reading room, open access reading room, home reading, children's library, private reading room and library on wheels. The open access reading room of the PMPL only opened on July 1, 2001 and the Almeida Garrett Library was only inaugurated on April 2 of the same year.

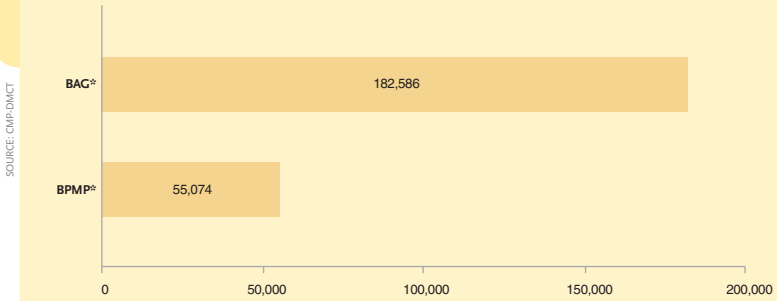
These values can be explained by two factors: on the one hand, the different ways of counting the numbers of people visiting them, given that BAG counts all those that enter the facilities whereas the BPMP only counts those that sign the visitors' book; on the other hand, the characteristics of the BAG, which is a library that offers a varied array of services, from the traditional lending and consultation of books to the possibility of using new technologies and audiovisuals. Furthermore, this library has been the stage of some important activities comprised in the Porto – European Capital of Culture 2001 event, namely at the level of seminars and conferences, which were attended by a significant number of people, thus influencing the number of users.

Museums are also an important factor in the personal development of citizens and key facilities for the cultural dynamism of the city.

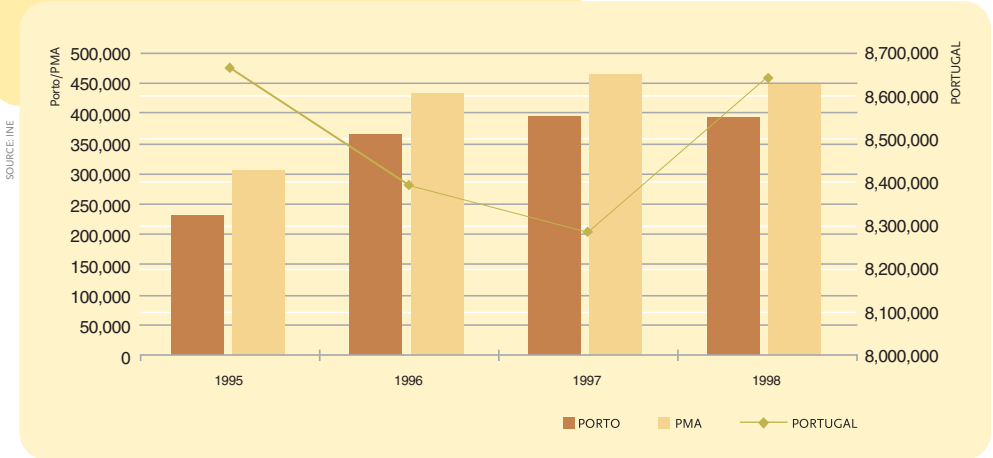
In 1998, the last year for which INE has data, Porto had 391,218 museum visitors, that is, about 1,072 visitors per day.

In the analysed years, Porto saw a considerable increase in 1996, followed by a period of stability. A similar situation occurred in the Porto Metropolitan Area. However, there is an opposite trend in the Country: between 1995 and 1997 the number of museum visitors drops conspicuously, only to grow back in 1998 (reaching a value almost identical to the one in 1995, of around 8.7 million visitors).

USERS OF PORTO'S PUBLIC LIBRARIES (2001)



MUSEUM VISITORS



Urban Audit I comparative data: ***Museum visitors per capita – 1996.***

Average: 2,2
Minimum: 0.1 (Essen; Palermo)
Maximum: 12.7 (Madrid)
Porto: 0.2 (1981)
Number of city cases: 48

Civic participation

SELECTED INDICATORS

- Voters who exercised their right to vote in the past four elections
- Women elected for municipal office
- Sports associations per 1,000 inhabitants
- Recreational and cultural associations per 1,000 inhabitants
- Voluntary associations per 1,000 inhabitants

INTERPRETATION OF THE SUBJECT

The development of cities and regions increasingly requires citizens to get involved and participate directly in the decisions that concern the future of their regions. The participation in politics and the intervention capacity of civil society are two fundamental components of civic participation.

Participation in political life (through the exercise of the right to vote, for example) is a way for citizens to actively participate in the decisions that concern them, whereas participation in civic life through the creation of associations is a way for individuals to establish social relationships with a view to a joint action in the pursuit of common goals.

In 2002, 51.2% of the citizens of Porto had exercised their right to vote in the last four elections.

The average of participation in the last four elections for different bodies counted in each year was somewhere between 51 and 55%, with a slight decrease in the last two years. There was also a general decrease at intra-urban level, and for each year it is always the Historic Centre that has the lowest values and the West Side the highest ones.

The following chart shows the various areas according to the global percentage of voters in the city of Porto in 2002. Worthy of note are the West Side for its positive results and the Historic Centre for the negative ones, clearly below (45.93%) the average, and even the Traditional Centre (although less significantly). The value for the East Side is practically identical to the one for the city.

Comparing the position of the city and of other geographical areas, we observe that the participation in elections is lower in Porto than in the Porto Metropolitan Area, the Northern Region and the Country. The values of the Porto Metropolitan Area and of the Northern Region are higher than the national average.

For the indicator **Voters who exercised their right to vote in the past four elections** four variables were considered: voters and people registered to vote in the European Parliament elections, in the Presidential elections, in the Legislative elections and in the Municipal elections. Data are collected considering the values for each of the last elections.

VOTERS WHO EXERCISED THEIR RIGHT TO VOTE IN THE LAST FOUR ELECTIONS

SOURCE: MJ/STAPE

Urban Audit I comparative data: ***Voters in the European Parliament elections – 1990-1999.***

Average: 56,9
Minimum: 23.2 (Liverpool, 1994)
Maximum: 94.4 (Luxembourg, 1994)
Porto: 40.8 (1994)
Number of city cases: 51

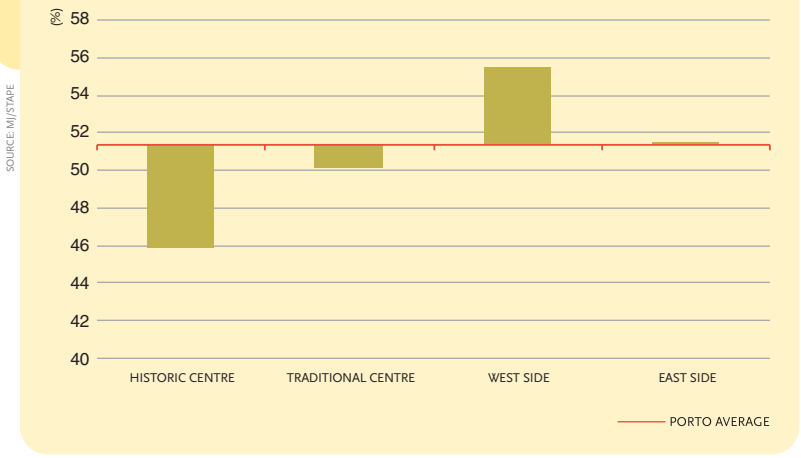
Urban Audit I comparative data: ***Voters in the Legislative elections – 1993-1998.***

Average: 74.0
Minimum: 53.4 (Marseille, 1993)
Maximum: 88.0 (Antwerp, 1995)
Porto: 68.8 (1995)
Number of city cases: 53

Urban Audit I comparative data: ***Voters in the the Municipal elections (1991-1998)***

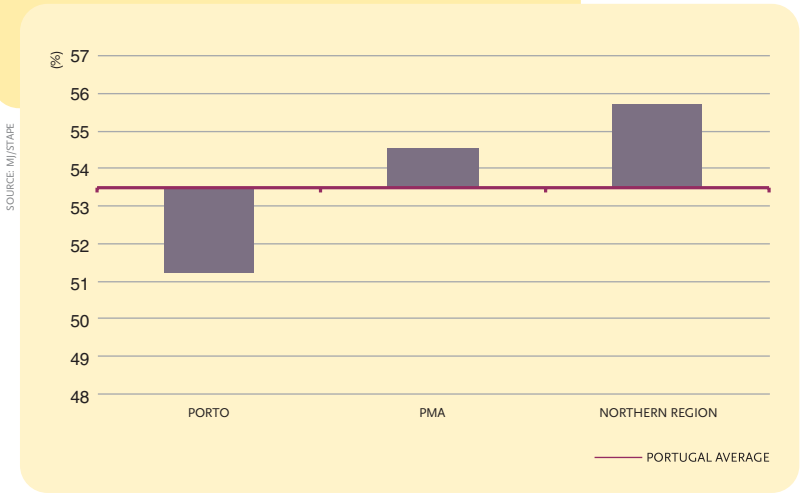
Average: 60.9
Minimum: 20.9 (Manchester, 1998)
Maximum: 93.7 (Luxembourg, 1993)
Porto: 48.1 (1997)
Number of city cases: 55

VOTERS, PER AREA (2002)



SOURCE: MJ/STAPE

VOTERS, PER GEOGRAPHICAL SCOPE (2002)



SOURCE: MJ/STAPE

Civic participation can also be assessed through the analysis of the participation of women in politics, at the level of municipal government bodies.

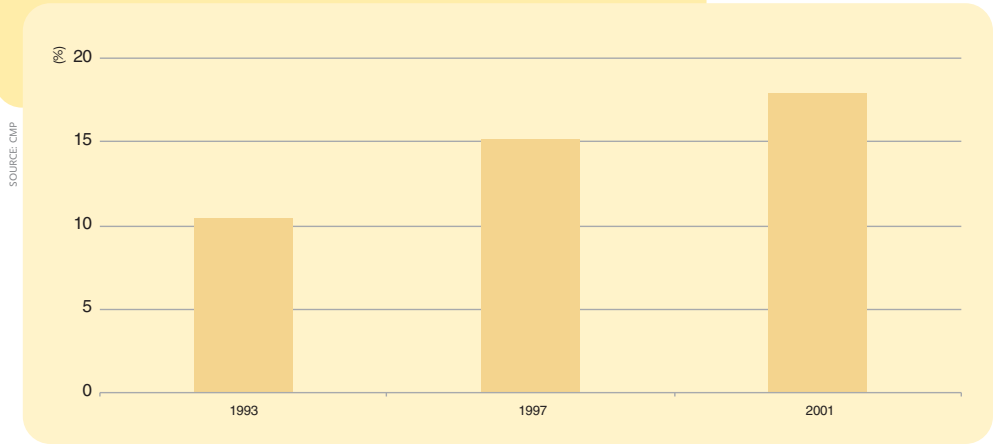
In 2001, 17.9% of the elected officials of the municipal bodies were women. Although this figure is still quite low (mainly when compared with some figures at European level – see chart), there is a tendency for growth: in seven years, the percentage of women elected as officials of the municipal bodies in the city climbed from 10.4% to 17.9%.

With respect to civic participation related to associations, in 2000 Porto had 0.68 cultural and recreational associations per 1,000 inhabitants.

Internally, the city has significant variations regarding this indicator, and the Historic Centre is the one with the highest value, with 1.61 cultural and recreational associations per 1,000 inhabitants. The East Side is the worst one, with a value of only 0.45.

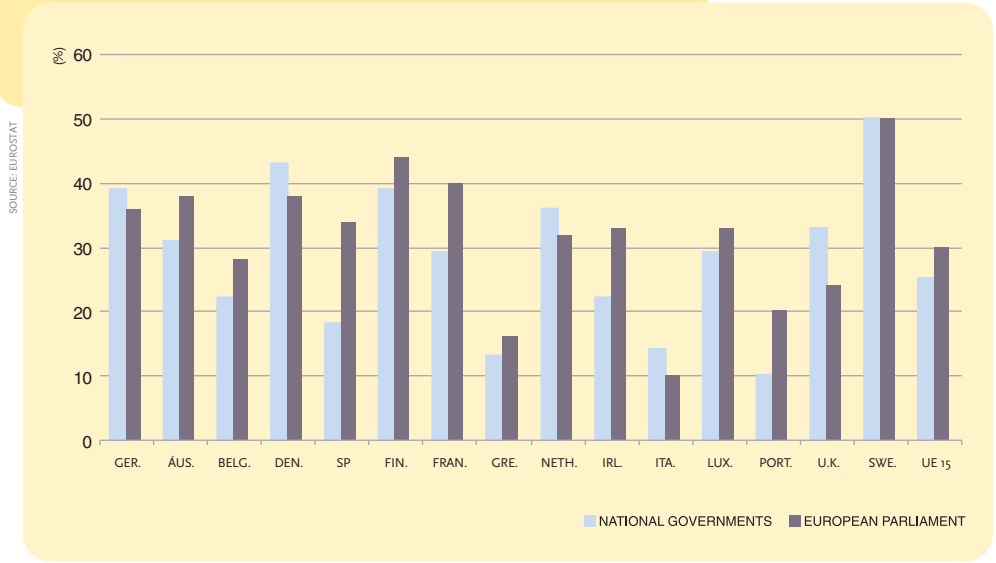
To calculate the indicator **Women elected for municipal office** we have only considered women elected for the Municipal Board and for the City Council.

WOMEN ELECTED FOR MUNICIPAL OFFICE IN PORTO



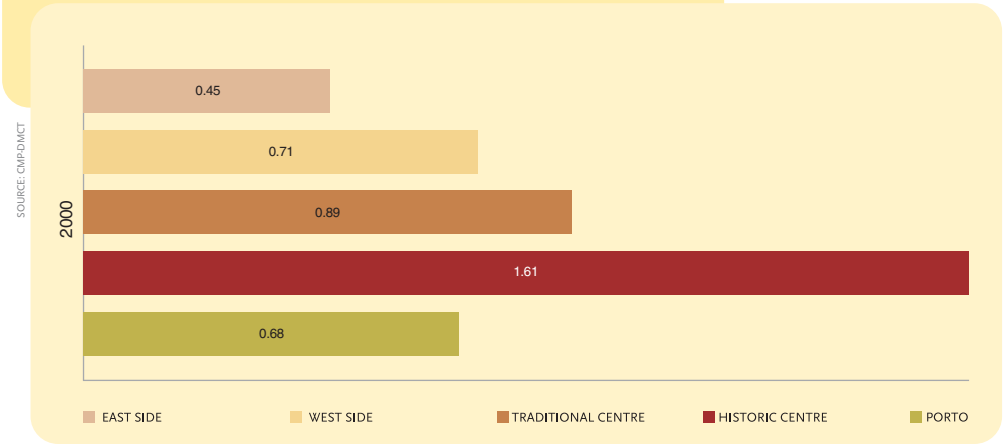
SOURCE: CMP

WOMEN IN NATIONAL GOVERNMENTS AND IN THE EUROPEAN PARLIAMENT (SPRING 2001)



SOURCE: EUROSTAT

RECREATIONAL AND CULTURAL ASSOCIATIONS PER 1,000 INHABITANTS



Data related to the indicator **Sports Associations per 1,000 inhabitants** were extracted from the Sports Charter that was drawn up by the Porto City Council. The survey considered the associations that promote sports activities (federated and non-federated). Alongside the survey that was carried out among the Federated Associations, another was carried out among the Parish Councils. Associations supported by the municipality and not examined before, were also considered.

A complementary interpretation is the one that analyses the distribution of these types of associations within the city.

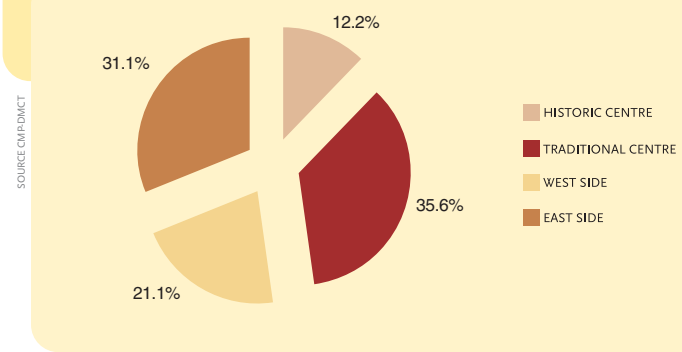
Of the total of 180 cultural and recreational associations in the city, 35.6% are located in the Traditional Centre and only 12.2% in the Historic Centre.

Still from the perspective of participation in associations, but as regards sports, the indicator Sports Associations per 1,000 inhabitants has been selected. The data obtained from the Sports Charter drawn up by the Porto City Council only allow to calculate the indicator at the level of the municipality; therefore, in 2000 there were 0.89 sports associations per 1,000 inhabitants.

Volunteerism is one of the most important forms of participation in the community and reflects the motivation and the belief that individuals can contribute actively to the resolution or the reduction of some of the problems of society.

Voluntary associations are an alternative answer to challenges and problems, which are particularly complex in urban settings. Their goal is to attain greater solidarity and social cohesion. For the moment, it was not possible to carry out a credible survey to assess this kind of participation in the city of Porto.

RECREATIONAL AND CULTURAL ASSOCIATIONS PER CITY AREA IN PORTO (2000)



Health

SELECTED INDICATORS

- Premature mortality rate

INTERPRETATION OF THE SUBJECT

With the gradual increase in the average life expectancy, the already fundamental health issues gain greater importance as regards the good quality of individual life. The modern metropolis is frequently a propitious environment for the development of diseases and pathologies that may lead to premature death.

The interpretation of the premature mortality rate cannot be dissociated from the increase in the average life expectancy. This increase is related to the improvement of sanitary conditions and even of health conditions. A high premature mortality rate may mean an increase in cardiovascular diseases, cancer and infectious diseases (for example, AIDS), among others, which often occur due to a bad quality of life in individual terms: excess of stress, polluted environments, risk behaviours, unbalanced feeding regimes, among others.

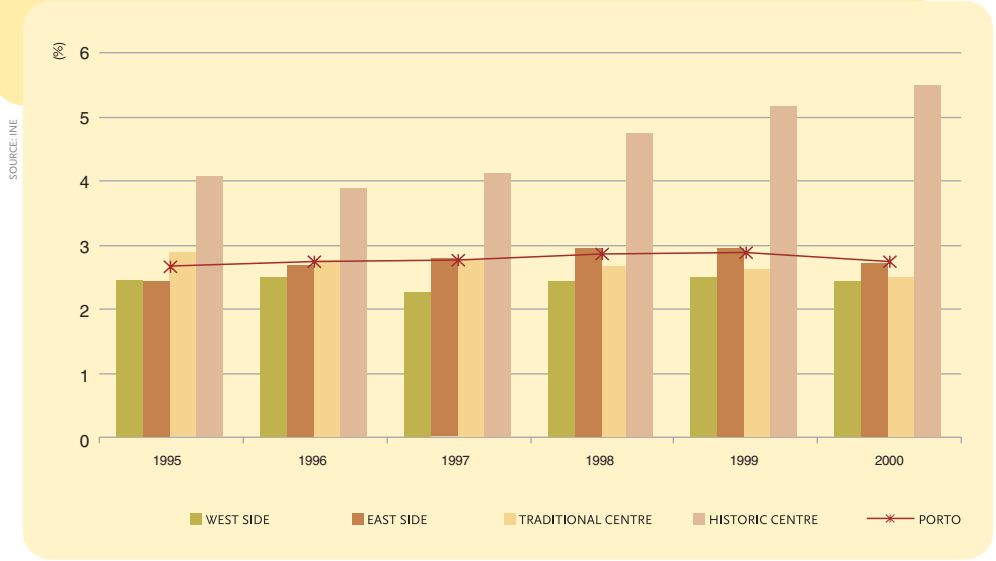
In 2000, the premature mortality rate in Porto was 2.74 deaths per 1,000 inhabitants.

In terms of the evolutionary analysis, we observe that the indicator hasn't fluctuated much during the period under analysis (1995-2000), with figures between 2.7 and 2.9%.

With respect to intra-urban variations, there are some clear differences: the Historic Centre always has the highest premature mortality rate, much higher than that of other areas, reaching 5.48% in 2000. In contrast, we have the West Side, followed closely by the Traditional Centre, in the last three years, with figures considerably lower than the municipal average. The characteristics of the areas in question contribute to these differences. The Historic Centre has the worst infrastructures and a great number of houses in poor condition and, consequently, problems of hygiene and sanitation.

The **Premature mortality rate** corresponds to the number of deaths of individuals aged 65 years and under, per 1,000 inhabitants.

PEOPLE WHO DIE BEFORE THE AGE OF 65 PER 1,000 INHABITANTS



SOURCE: INE

Urban Audit I comparative data: ***Premature mortality rate* – 1991-1996.***

Average: 0.6
Minimum: 0.1**
Maximum: 1.8 (Liverpool; Manchester, 1996)
Number of city cases: 48

* This indicator refers to the people who die before the age of 65 due to cardiac problems or respiratory illnesses

** The name of the city is not available.

Safety

SELECTED INDICATORS

- Road accidents resulting in death or serious injury per 1,000 inhabitants
- Crime rate

INTERPRETATION OF THE SUBJECT

The increasingly fast growth of urban areas has made safety a pressing issue. Being and feeling safe at home, in the community and in the city is an essential factor to the quality of personal and global life.

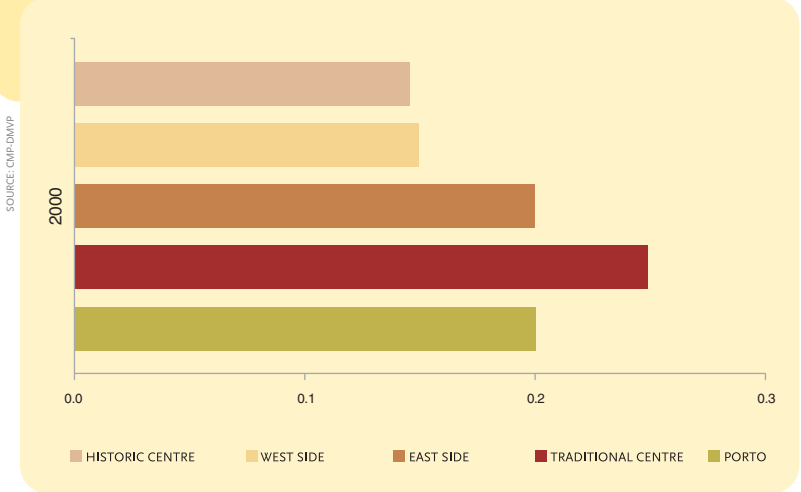
To speak of safety means bearing in mind that it comprises different areas and can be assessed in different ways: on the one hand, and in terms of mobility, it is essential that citizens are free to move about and to do so in safety; on the other hand, it is also important to guarantee the control of urban crime and fight the feeling of insecurity and uneasiness among the people.

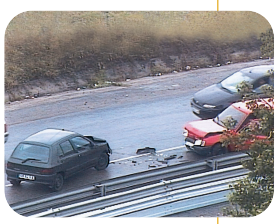
In 2000, the city of Porto had 53 accidents resulting in death or serious injury, that is, approximately an

Urban Audit I comparative data: ***Road accidents resulting in death or serious injury per 1,000 inhabitants – 1990-1998.***

Average: 2.7
Minimum: 0.1 (Thessaloniki, 1995)
Maximum: 11.6 (Florence and Milan, 1996)
Number of city cases: 44

ROAD ACCIDENTS RESULTING IN DEATH OR SERIOUS INJURY PER 1,000 INHABITANTS





average of one per week. This value corresponds to a ratio of 0.2 accidents per 1,000 inhabitants, which is very close to the minimum value of the Urban Audit.

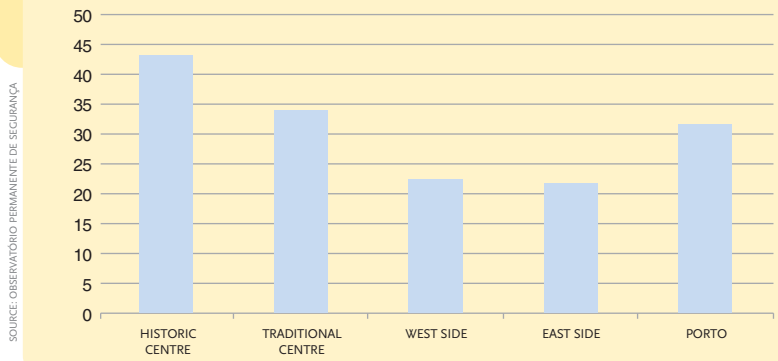
At an intra-urban scale, the values obtained for the indicator are very low, with the highest (0.3) in the Traditional Centre; the Historic Centre, given the characteristics of its geometric urban layout, is the one with the lowest value (0.1).

To analyse safety from the point of view of crime, we have gathered the data from the Permanent Security Observatory that pertain only to the first semester of 2000. It is therefore impossible to make evolutionary analyses.

In the first semester of 2000 the crime rate in the municipality was 31.6 crimes per 1,000 inhabitants.

The following variables have been considered for the calculation of the **Crime Rate**: crimes against people, crimes against property, crimes against society, and other crimes. The data were gathered from a specific project that took place in Porto (Observatório Permanente de Segurança – Permanent Security Observatory) and correspond to the data obtained by the Public Safety Police.

CRIMES PER 1,000 INHABITANTS
(1st SEMESTER of 2000)



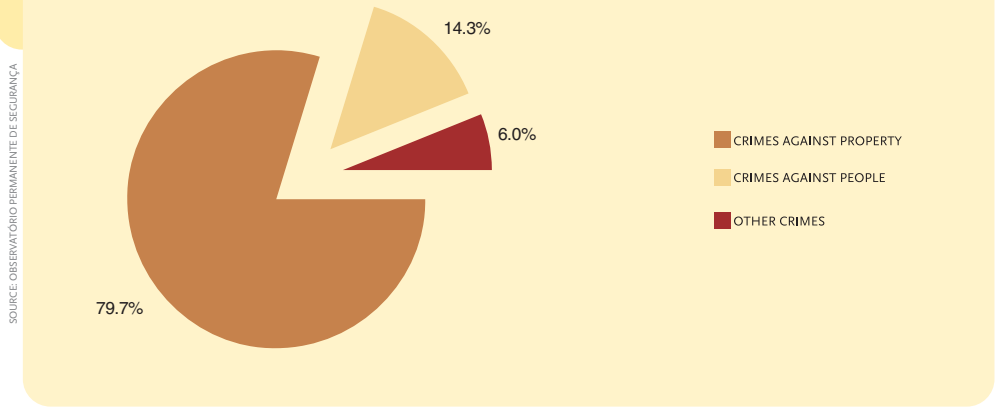
SOURCE: OBSERVATÓRIO PERMANENTE DE SEGURANÇA

The Historic Centre has the highest crime rate (43 crimes per 1,000 inhabitants), whereas the East and West Sides have the lowest values (21.8 and 22.3 crimes per 1,000 inhabitants, respectively). However, in absolute terms, the East Side is the one with the highest number of crimes, whereas the Historic Centre has the lowest.

Urban Audit I comparative data:
Total crimes per 1,000 inhabitants – 1996.

Average: 108.0
Minimum: 19.6 (Saragossa)
Maximum: 198.1 (Stockholm)
Number of city cases: 48

CRIMES, PER CATEGORY, IN THE MUNICIPALITY OF PORTO
(1st SEMESTER of 2000)



SOURCE: OBSERVATÓRIO PERMANENTE DE SEGURANÇA

Urban Audit I comparative data:
Crimes against people per 1,000 inhabitants – 1996.

Average: 9.2
Minimum: 0.6 (Saragossa)
Maximum: 24.5 (Stockholm)
Number of city cases: 47

Urban Audit I comparative data:
Crimes against property per 1,000 inhabitants – 1996.

Average: 44.2
Minimum: 4.9 (Braga, 1991)
Maximum: 141.1 (Berlin)
Number of city cases: 47

In **crimes against people** the following crimes were considered: crimes against life, against the physical integrity of the individual, against personal freedom, against sexual freedom and self-determination, against honour, against the preservation of privacy, and other crimes against people.
In **crimes against property** the following crimes were considered: crimes against property, crimes against heritage in general, crimes against heritage rights, and other crimes against heritage.
Other crimes include: crimes against society (crimes against the family, crimes of forgery, common danger crimes, crimes against the security of communications, crimes against public peace and other crimes against society); narcotics crimes, crimes against the State (against the rule of law, against public authority, against the execution of justice, committed while performing public duties, and other crimes against the State), and other crimes.

Analysing crime by categories of crime, in the municipality, we observe that almost 80% of the crimes were committed against property. Crimes against people were only 14.3% and other crimes, including crimes against society, only 6.0%.

Making a similar interpretation but by city area, we conclude that it is still crimes against property that have a higher occurrence (particularly in the Traditional Centre with 83.4%). Crimes against people are highest in the East Side (16.9%) and Other Crimes in the Historic Centre (6.5%). Notwithstanding, and generally, the analysis by category of crime and city area does not show big disparities at the intra-urban level.

CRIMES PER CATEGORY AND CITY AREA (1st SEMESTER OF 2000)

SOURCE: OBSERVATÓRIO PERMANENTE DE SEGURANÇA

Social problems

SELECTED INDICATORS

- Suicides per 1,000 inhabitants
- Active users of rehabilitation centres for drug addicts
- Requests for social housing
- Homeless population

INTERPRETATION OF THE SUBJECT

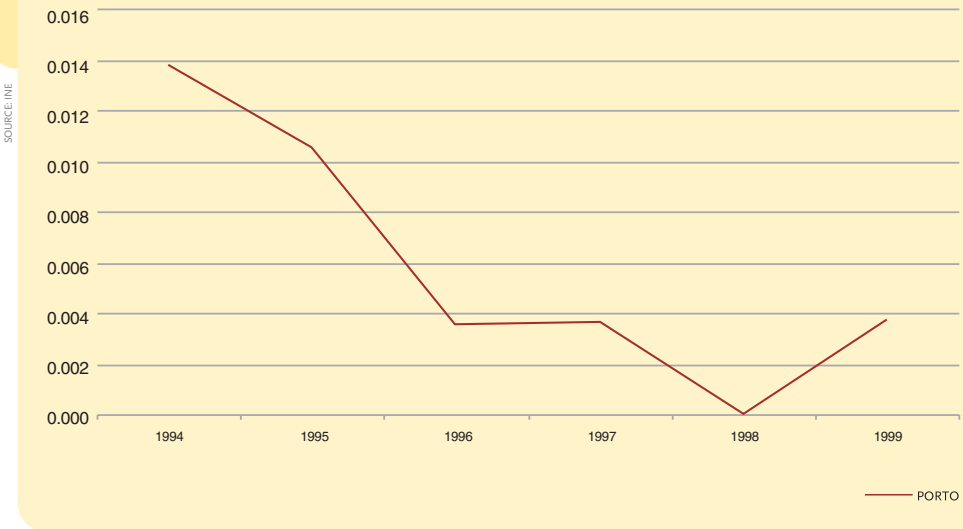
The development and the profound mutations of modern cities in the past decades have brought new challenges and social problems. Various problems affect the quality of urban life, revealing situations of inequality, growing isolation, lack of cohesion, such as poverty, drug addiction, alcoholism, racism, among others.

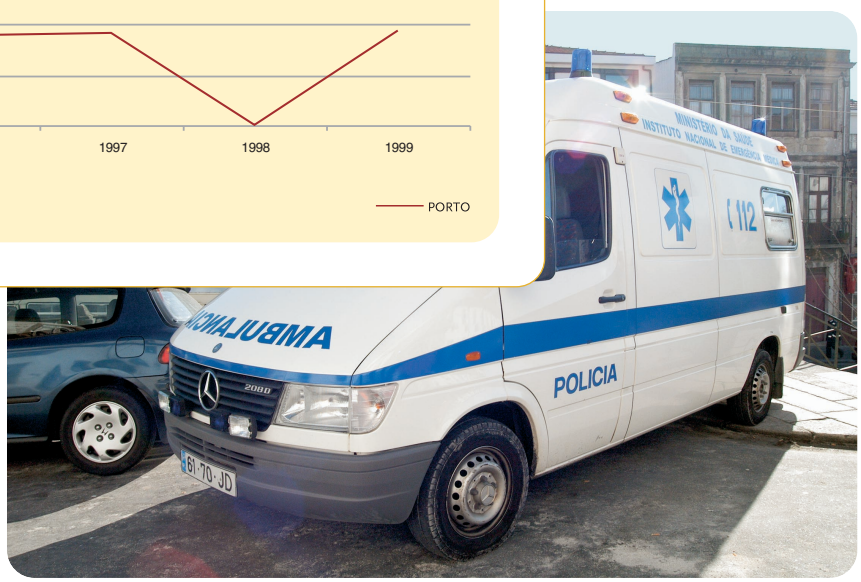
The existence of social problems leads to situations of social uneasiness and, in borderline situations, can even put the social organisation at risk.

The number of suicides in the city of Porto is practically non-existent in the past years. With a maximum value of 4 in 1994, there was one suicide per year since 1996, and none in 1998.

Once we calculate the ratio of suicides per 1,000 inhabitants, we obtain the value of 0.004 for the year 1999, a very low value and similar to the one obtained for the Porto Metropolitan Area.

SUICIDES PER 1,000 INHABITANTS



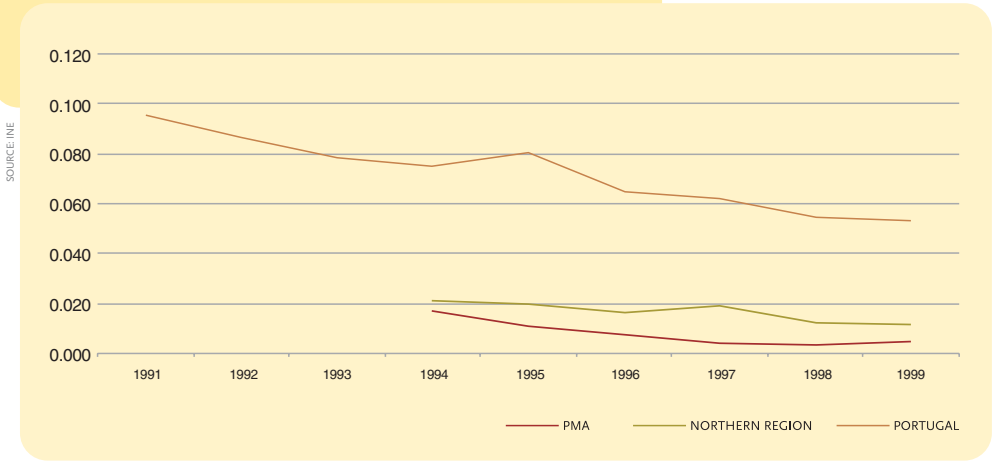


Suicides per 1,000 inhabitants

Finland: 0.23 (2001)
Luxembourg : 0.17 (2001)
Norway: 0.12 (2000)
Sweden: 0.14 (1996)

Sources: National Producers of Statistics

SUICIDES PER 1,000 INHABITANTS



In the indicator **Active Users of Rehabilitation Centres for Drug Addicts** we have only counted those that had at least attended one appointment at a Rehabilitation Centre for Drug Addicts.

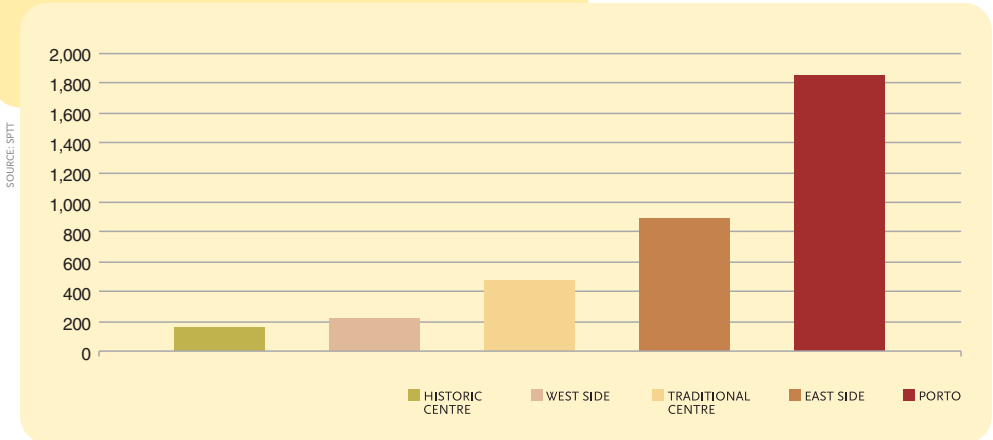
There are five Rehabilitation Centres for Drug Addicts in the city of Porto:

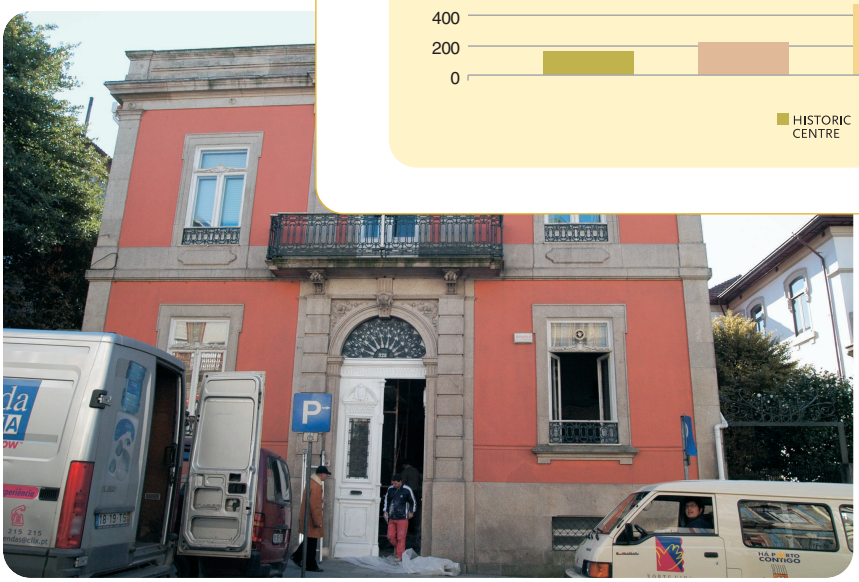
- RCDA of Cedofeita;
- RCDA of the East Side;
- RCDA of the West Side;
- RCDA of Boavista;
- RCDA of Conde.

The values for the Country, however, are clearly higher: from 0.096 suicides per 1,000 inhabitants in 1991, to 0.053 in 1999. There was, therefore, a great decrease throughout the 1990s, with a fall of almost 60% in the number of suicides, from 942 in 1991 to 541 in 1999. However, the values for the country are much lower than those in some European countries (see box).

Another social problem is drug addiction, which is particularly important given that it often appears alongside other problems, such as crime, unemployment, suicide, etcetera.

ACTIVE USERS BEING TREATED AT PORTO'S REHABILITATION CENTRES FOR DRUGS ADDICTS (2001)





In 2001, there were 1,859 active users being treated in Rehabilitation Centres for Drug Addicts in Porto, which corresponds to 5.8% of the total of the Mainland. This value refers only to the active users residing in the city and who are being treated in a Rehabilitation Centre for Drug Addicts.

An analysis at intra-urban scale shows that of the active users residing in the city, a considerable number originates from the East Side (48.1%), whereas the Historic Centre has the lowest values (8.7%). The Traditional Centre also has a high percentage in the total of active users (25.4%) and we observe that there are 6.2% of users who, although residing in the city, are not subject to any area in particular.

Requests for social housing are an indicator of need connected to problems of housing degradation and bad quality of individual life. In 2001, there were 1,626 first requests for social housing in Porto.

This indicator is particularly interesting from the point of view of temporal evolution, since it shows the increase or decrease in the living standards of the population who has great difficulty in finding an autonomous answer in the classic housing market. However, until now, the only values available are those for 2001.

Active users residing in the Municipality of Porto per RCDA in 2001

RCDA of Cedofeita: 38.8%
RCDA of the East Side: 23.6%
RCDA of the West Side: 15.4%
RCDA of Boavista: 13.8%
RCDA of Conde: 8.4%

Source: SPTT

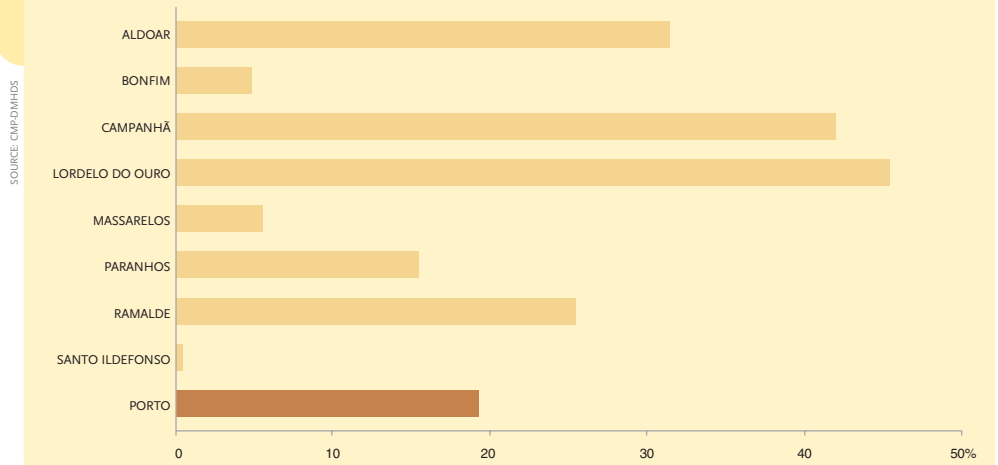
Active users:

	Northern Region	Mainland
1998	8,069	23,654
1999	8,938	27,750
2000	9,573	29,204
2001	9,881	32,064

Source: IPDT, Annual Report 2001.

Requests for social housing – the indicator concerns only the first requests for social housing that have entered the city council's housing services. Therefore, transfer applications are not included.

PROPORTION OF SOCIAL HOUSING RESIDENTS IN THE TOTAL OF POPULATION (JULY 2002)



SOURCE: CMP-DMHDS

Homeless population
Citizens with no means of subsistence, no domicile, and who spend the night on the street or on temporary alternatives (abandoned houses, vehicles or factories, railway stations, rooms in boarding houses paid for by Social Security Emergency Services, homes for the poor, etcetera.) They are also those who are losing or have lost their ties with the most important "social references:" family, work, and community.

This indicator also shows the demand and the pressure as regards social housing, which is particularly relevant in the case of the city of Porto, since a very significant percentage of the population lives in social housing. For example, let us examine the case of the parishes of Lordelo do Ouro and Campanhã where approximately 40% of the population live in social housing. The average for the city is of approximately 17.3%, corresponding to a total of about 45,000 inhabitants. Also worthy of note is the predominantly peripheral location of social housing in the city of Porto, in areas that were vacant and far from the consolidated urban fabric at the time of construction.

The presence of the so-called "homeless" in cities clearly shows the existence of situations of extreme poverty and social exclusion. The question of the homeless population is connected to housing but is a multidimensional phenomenon related to more structural factors (unemployment, work precariousness, the characteristics of the housing market) and to more individual ones (family dysfunctions, health problems, underprivileged social background, etcetera).

Given the characteristics of this population, which is quite unstable, it is more difficult to estimate with precision the number of homeless people. Until now, it was not possible to establish a credible number that reflects the situation in the city of Porto, which is also affected by this phenomenon.

Summary table

INDICATORS	UNITS	FINAL VALUE/YEAR		TENDENCY / PERIOD		QOL SITUATION
POPULATION						
Live births per 1,000 inhabitants	no./1,000 Inhab	9.7	2000	↓	1991/2000	☹
Foreign residents	no.	5,216	2001	–	–	😐
EDUCATION						
Students in higher education	no.	58,276	2000	→	1994/2000	☺
Students pursuing postgraduate studies, master's degrees and doctorates	no.	2,600	2000	↑	1991/2000	☺
Rate of early school leavers	%	29.4	2001	–	–	☹
CULTURAL DYNAMISM						
Cultural performances	no.	1,177	2000	–	–	😐
Users of public libraries	no.	237,660	2001	–	–	☹
Museum visitors	no.	391,218	1998	↑	1995/1998	😐
CIVIC PARTICIPATION						
Voters who exercised their right to vote in the past four elections	%	51.2	2002	↓	2000/2002	☹
Women elected for municipal office	%	17.9	2001	↑	1993/2001	☹
Sports associations per 1,000 inhabitants	no./1,000 inhab	0.89	2000	–	–	😐
Recreational and cultural associations per 1,000 inhab.	no./1,000 inhab	0.68	2000	–	–	😐
Voluntary associations per 1,000 inhabitants	–	–	–	–	–	–
HEALTH						
Premature mortality rate	‰	2.74	2000	→	1995/2000	☹
SAFETY						
Road accidents resulting in death or serious injury per 1,000 inhabitants	no./1,000 hab	0.2	2000	–	–	☺
Crime rate	‰	31.6	1st Sem.2000	–	–	😐
SOCIAL PROBLEMS						
Suicides per 1,000 inhabitants	no./1,000 hab	0.004	1999	↓	1994/1999	☺
Active users of rehabilitation centres for drug addicts	no.	1,859	2001	–	–	☹
Requests for social housing	no.	1,626	2001	–	–	☹
Homeless population	–	–	–	–	–	–

Evolutionary tendency of the indicator:

- ↑ Growth with a positive impact on the QOL
- ↓ Reduction with a positive impact on the QOL
- → Stability
- ↑ Growth with a negative impact on the QOL
- ↓ Reduction with a negative impact on the QOL

Evaluation of the present situation in terms of Quality of Life:

- ☺ Good
- 😐 Reasonable
- ☹ Bad

2. Contribution of Experts in the four fields

Contribution of Experts in the four fields

The Monitoring System on Urban Quality of Life that is being implemented in the city of Porto is a project in permanent evolution, as said before. In other words, to systematically follow and interpret the main dynamics of transformation of the city that influence the quality of life standards of citizens, to assess the results of intervention policies and measures and help quantify targets and performance objectives – which will hopefully and efficiently be boosted by this project – requires rigour and, above all, persistence.

Under these circumstances, the system has to be open and flexible and particular attention must be paid to two types of questions. On the one hand, to the adaptation of the battery of indicators namely by testing the validity of the initial options and adding new indicators as new databases become available, as comparisons with other places of reference are possible or even as new urban problems are identified. On the other hand, to the interpretation of the situation of the city that is obtained from these quantitative indicators by trying to make them encourage reflections and integrated approaches about the different dimensions of quality of life in the city, and whenever possible, combining disciplinary visions.

As part of this perspective, which we may call "developmental," the four texts presented here are the answer of a group of experts to the challenge that was put to them of collaborating in this project by commenting upon the first results obtained, which were introduced in the previous section of this report.

Having been prepared by experts in different disciplinary areas, who have analysed the four fields of this project, the contributions are, naturally, distinct. However, together they provide a source of data for reflection and concrete clues for the development of the project, in the methodological plan, in the interpretation of the present reality of Porto and, especially, in conceptual terms, in the problematisation of the concept of quality of life, of the relationships that are established based on it and of the challenges it raises in the present context of urban development.

Comments on the field Environmental Conditions

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Introduction

By definition, urban systems are complex and so it is only natural that the selection of indicators to characterise them and support the knowledge, the planning and the management of cities is not free of complexity. In the case of the present chapter, we are dealing with environmental indicators, which came to our attention in the 1970s when we realised that predominantly economic indicators were clearly insufficient to describe the development of society. Later, when environmental indicators first became important in the 1980s, we also realised that their isolated assessment did not suffice. Nowadays we are aware of the importance of an integrated perspective of the various subject areas of indicators and, for that reason, the concept of sustainability indicators has been introduced.

The first step that the European Union has taken regarding urban environment was the *4th Programme of Action of the European Communities on the Environment* (1987-1992). It gave rise to the *Green Paper on Urban Environment*, which was prepared in 1990 by the European Commission and points out the main problems of urban areas and defines two primary areas of action: policies regarding the physical structure of the city and policies to reduce the environmental impact of urban activities. The Green Paper also points out the need for an assessment and monitoring of the environmental conditions of the city. Ever since then, urban environment has been systematically on the agenda, and *Agenda 21* (1992), followed by the *Aalborg Charter* (1994) can be regarded as two key moments, as well as all the local work that has been done since then around Agenda 21.

The selection of a set of indicators follows specific goals and, in this case, what is in question is the quality of life in the city of Porto. We are therefore speaking of indicators at local level. The team responsible for this project has focused on six subject areas: Green spaces, Climate, Noise, Air quality, Bathing water quality and Basic infrastructure. Nine indicators were identified.

Obviously, in the present work and inherent to this selection was the knowledge of the urban system of the city of Porto and the availability of databases. The environmental system of the city is certainly not yet sufficiently known, if for no other reason than the fact that the changes that took place in the city from the 1990s onwards were enormous and varied, from the improvement of the below ground waterproofing to the decrease in the resident population. As it is understandable, for an indicator to be useful it must be followed in time and this is certainly one of the other fundamental aspects to bear in mind in this selection. On the other hand, it is not just the value that is ascribed to a given parameter that must be assessed but also the meaning of its content, which is of great importance, in the case of environmental indicators, since they are a precious help in the knowledge and interpretation of the state of health of the city and, therefore, of its citizens. For example, everyone is aware of the correlation between the occurrence of respiratory and cardiac problems and life in the city. Also recognised is the importance of cities as tourist destinations and the merits and the potential of the city of Porto in this field must not be forgotten. However, we wish to provide a clean and comfortable city. For these reasons, this subject goes beyond the primary and most immediate questions of the daily life of the city. In other words, it is a complex question!

Necessarily, there were difficulties in selecting indicators – perhaps not that much in the identification of the subject areas – but, once those difficulties were left behind, the result was a practicable and balanced starting framework. Another important aspect concerns the communication of information. It has to do with

the clarity with which this information should reach the people who want to participate in the decision making process that affects the city. It is not enough that indicators are useful at the level of political decision making. The citizen, who is becoming more and more responsible, must absorb them. In other words, it is still complex!

Having made these initial points, we now turn to a brief interpretation of the results.

Green Spaces. Public green spaces per capita and Length of streets with trees.

When compared at European level, the numbers are naturally low. The green structure of Porto was based, up until the 1980s, on the network of public spaces inherited from the late 19th century, which resulted from the creation of the first public gardens, which in turn were the result of the removal of the market grounds to areas closer to the city centre, and from the construction of the Crystal Palace. The latter is a landmark whose construction was a private initiative of the city. The successive generations of plans (or "pre-plans!") throughout the 20th century set an area aside in the west side of the city, in what is now the City Park, whose construction began in the 1980s following the acquisition of private land that was inseparable from its speculative real estate value. Therefore, investment costs were extremely high and although the park is locally important – given the scarcity of similar facilities – it also gains importance at regional level – at least at inter-municipal level – for which it is not in the least fitted. The Serralves gardens should not be regarded as a truly public space, since it is indeed a private space, although open to the public. At the same time, the farms and gardens of the city have fallen into a state of dilapidation, but this is another matter. On the occasion of the late approval of the Municipal Master Plan of Porto, the city – as was the case of Lisbon – was deprived of its National Ecological Reserve status, although initial studies suggested a possible ecological structure – already scarce – which ended up by being transformed into a disconnected demarcation of green spaces. It is therefore legitimate to ask: has there been evolution in this matter in the east side of the city? And, also, a final note: it is absolutely necessary to make an assessment of integration in the municipal ecological structure of the seafront and riverfront areas of the city of Porto, with their remarkable environmental value, which have been regaining their importance as recreational structures. In other words, this subject area can evolve by internalising the public space in its wider sense. The length of streets with trees is certainly a good indicator although it hides the quality of the planting. That is, what is there in common between the trees of Rua Guerra Junqueiro and those of Avenida da Boavista? Those is surely an indicator to keep and to "adjust."

Climate. Days of rainfall and average hours of sunlight per day.

The idea that Porto is a grey city is not exactly reinforced by the interpretation of the assessment of these two indicators. In effect, Porto is a city with a mild climate although it is also a city with microclimates and we can almost speak of a maritime and continental climate, at least as far as temperatures are concerned. As a matter of fact, there is no indicator regarding the distribution of temperature but if there was it would have to have a spatialised dimension. On the other hand, it is known that the average temperature in Europe in the past 100 years has increased about 1.2°C and projections point to a growing increase. The media has often approached this subject recently, especially as regards air quality. Porto is still a windy city, which could lead to the dispersion of pollution. However, it has its own behaviours, imposed by the density of the city, with narrow streets outnumbering large ones with proper pavements, so that trees can fit, low clearances, and with parking lanes still being preferred to new car parks.

Noise. Noise exposure.

The lack of a noise measuring and monitoring system is obvious in the city. Porto is clearly a noisy city – at least this is what the people who use it feel. Once again this phenomenon has to do with the road fabric of the city, associated with bad traffic and also, in another way, the density of the buildings. Furthermore... there are different types of noise. Whereas the occasional and episodic noises related to the popular St. John's Eve celebrations and to student and football events are tolerable, since they give Porto a typical sound, traffic noise is a nuisance due to its continued manifestation and growing intensity.

Air quality. Days with a good or very good air quality index.

The indicator used – Air Quality Index – comprises five parameters but the contribution of inhalable particles (PM10 – particle diameter less than 10Xm) stands out. Although the authors advise caution when analysing these data, they clearly declare that: "Normally, particles (PM10) are the pollutant that contributes the most to indexes below Good." In effect, the exposition to these particles is potentially the factor with the greatest impact from the point of view of health, and the European Union has already defined parameters for this indicator. The World Health Organisation has also been dealing with this problem by revealing the number of deaths of people who were exposed to such particles, although the data refers to cities whose size and characteristics greatly differ from Porto. However, it is known that the origin of the problem is unequivocally associated with the urban transport systems. The authors highlight the wide monthly variation in the city of Porto and find it important to explore the reasons for this variation and, particularly, for the registered peaks. The comments that were made on noise and climate also apply here.

Bathing Water Quality. Records of good bathing water quality.

Data are clearly scarce but, nonetheless, it is inconceivable that a city the size of Porto and with an exceptional Atlantic coast does not have a faultless – or almost faultless – solution. Apparently, up until now, investments are still not satisfactory and this matter has not been recognised as urgently in need of public measures. On the other hand, it shows a population with incipient levels of demand. But often that is how it is: there is a great difference between what is seen and what is not.

Basic infrastructure. Treated wastewater and Recoverable municipal solid waste.

Obviously, the opening of the Freixo Wastewater Treatment Plant (WWTP) in 2000 is a turning point for the assessment of this subject area, which has seen a significant improvement in the beginning of this year with the opening of the Sobreiras WWTP. Therefore, this is an indicator that will hopefully show significant improvement. With respect to the indicator regarding solid waste, the situation is quite different since Porto, from the outset, has a high ratio of Municipal Solid Waste when compared to the average of European cities, showing the habits of the population and still quite low separate collection rates. According to Europe's environment: the third assessment by the European Environment Agency (2002) the average value per inhabitant varies between 685Kg in Iceland and 105Kg in Uzbekistan, whereas 415Kg is the average European rate. The goal of the 5th Programme of action of the European Communities on the environment was to stabilise the rate in 2000 with the same values of 1985, which were of about 350Kg per capita. This target was not reached and most countries exceeded the rate. However, we

recognise the importance of the organic fraction of municipal solid waste disposed of in sanitary landfills. The directive on sanitary landfills introduces targets on the subject, which, alongside the separate collection of waste, establish new technologies to reduce this fraction, such as composting, anaerobic digestion and incineration. Therefore, a reorientation of the indicators will probably be necessary within this subject area. Also, what would be interesting, with respect to basic infrastructure, would be not to neglect water supply in order to be able to assess the reduction in consumption per capita. The issue of the reduction in water consumption has seen measures to raise costs; however, measures dealing with the transformation of consumption patterns are increasingly important, as well as with the characteristics of distribution networks, namely the reduction of losses.

As said before, the monitoring of the Quality of Urban Life based on indicators requires an integrated vision. The various subject areas have to be compared. However, we would like to make two observations regarding the development of future work: it is necessary to stress the spatial dimension of indicators from the perspective of sustainability and to broaden the experience of the Porto City Council beyond the city to, at least, the Metropolitan Area.

In 2002, the European Environment Agency published a report titled *Towards an Urban Atlas - Assessment of spatial data on 25 European cities and urban areas*. The point of departure of this report is the awareness of the fast changing pace of the uses of land in the cities and urban areas; it takes advantage of the existing technical means, namely in terms of remote sensing, to make this guideline possible for the construction of indicators of quality of urban life. It foresees four determining factors in the change of the European urban landscape: changes in the urban structure, change in the role and function of rural areas, change in transport, communication and knowledge systems and, finally, the continuing pressure on the European natural and cultural heritage. Porto is no exception and is precisely one of the urban areas covered in this Atlas (together with parts of the municipalities of Vila Nova de Gaia, Matosinhos and Maia, in a total area of about 200 Km^2). Let us consider the results of just one indicator: percentage of urban area. In 1958: 25.9%; in 1968: 36.3%; in 1989: 51.2% and in 1997: 61.5%.

Following these brief considerations and in addition to this last aspect regarding the spatialisation of indicators, there is another aspect to consider, specially due to its opportune timing. We are referring to the interiorisation of this information on the urban environmental quality when elaborating, monitoring and assessing Municipal Master Plans. The plans have largely favoured those aspects more directly connected with the distribution of networks and buildings. In general terms, a second generation of plans is being developed in Portugal. These plans must not only consider the evolution of each municipality but also must deal with the new information obtained in the meantime, be it from the point of view of basic cartography or from quantified information, as is exactly the case of environmental indicators.

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Comments on the field Collective Material Conditions

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Introduction

The following reflection tries to contextualise some of the results of the Monitoring System on Urban Quality of Life regarding 'collective material conditions', an expression that represents the collective facilities of the city (cultural, sports, educational, and social and health facilities), its built heritage, the commercial support services to families, and the mobility systems.

This is not a reflection on the indicators presented and on their descriptive potential but rather on how collective material conditions can contribute to the quality of urban life. Therefore, it is a reflection directed towards the construction of a set of relations and challenges, which, obviously, still involve the interpretation of specific indicators.

To reflect on the quality of urban life and on the collective material conditions of a city means looking for answers to such questions as: does the general distribution of collective facilities or services in a city ensure the quality of life of citizens? How important is it to be able to access collective material conditions? Which new opportunities arise from the social and economic mutations underway? What challenges are posed by the growing awareness of urban rights by local citizens? What are the challenges facing the definition of strategies of urban regeneration?

This set of questions shows some of the difficulties that arise from an interpretation of the contribution of 'collective material conditions' to the quality of urban life, since it indicates the ways of understanding the relationship between these two dimensions. Or, in other words, those questions show the relative vagueness surrounding the identification of critical factors regarding collective facilities and services that influence the welfare of urban citizens and encourage qualified ways of living[1]. They also show how important it is to understand the regeneration of the city as a *continuous* and *relational* process, which goes beyond the idea of having or not having specific levels of provision of facilities and services.

The following comments will try to clarify some of the relationships mentioned previously.

Collective facilities and services, quality of life and urban transformation dynamics: interactions

Collective facilities and services, commercial support services to families and mobility systems (services) are structuring elements of the urban framework, given the following fundamental characteristics:

a) They have a productive function of collective interest because of the type of services provided (and not because of their role as employing units of the city). In this perspective, their conditions of supply, in terms of capacity, efficiency, diversity and spatial distribution, strongly structure (by conditioning or

[1] Worthy of note is the fact that the difficulty in contextualising the aforementioned relation is also a result of the vagueness regarding the concept of quality of life itself. The interesting systematisation by Massam (2002) and Santos and Martins (2002) on the subject deserves special mention.

making possible) the patterns of consumption and daily life of the urban population, and serve as a reference to their quality of life.

b) They encourage urban development given that, by contributing to the improvement of the level of quality and of urban life, they reinforce the attraction and the establishment of qualified human resources. In a context marked by the legitimation of knowledge as a production and competitiveness factor, this specific attractiveness is crucial to the strengthening of the local economy and the promotion of a sustained urban development (in itself a source of quality of life).

c) They play a structuring role and are also responsible for the cohesion of the urban space(s), not only because of their intra-urban location but also because of the spatial interaction logic they impose or make possible. This is an important aspect since it introduces different territorial 'scales' for the assessment of its contribution to the quality of urban life.

These characteristics make it easier to understand the multiplicity of variables that can influence the relationship between the conditions of provision of an urban region, at the level of this type of facilities and services, and the improvement of the quality of urban life.

To begin with, we must draw attention to the fact that this relationship tends to be increasingly represented by the guarantee of general provision of facilities and services. It is a matter of questioning the efficiency of general distribution (or mass) phenomena of collective facilities in a city, addressed to a 'general public' (for the most part connected with the demographic dimension of the urban area and its respective 'hinterland,' where there is a preponderance of aspects relating to the population density and its age composition), and which, therefore, hardly make up the *differentiated* role of those urban amenities in the daily lives of citizens, or meet their expectations.

The relations between needs, provision, urban consumptions and ways of life are, thus, worthy of attention, as well as the definition of methods of availability adapted to different demands. It is important to bear in mind that the pressures on collective facilities and services increasingly result from the following aspects:

1. New and growing needs of the urban population, related to demographic mutations and new generational demands, *which reflect on the capability to be able to give answers to increasingly complex and diversified 'inputs.'*

Special attention must be particularly paid to the changes in the age structure, related to the progressive ageing of the urban population. The ageing phenomenon, in addition to putting pressure on specific collective facilities (such as social and health facilities), creates new needs, since it is accompanied by important behavioural changes: although we are dealing with an elderly population it is also 'rejuvenated' by its aspirations in terms of culture, recreation, etcetera, and zealous of its quality of life.

These new generational demands are also related to other situations concerning the characteristics of the urban population, such as: the presence of an increasingly autonomous younger population with specific daily practices; the occurrence of more leisure time opportunities for the working population, which encourages the constant search for recreational, cultural and sports activities.

In this context, it is worthy to mention two characteristics of the city of Porto: the progressive ageing of its resident population and the recent development in the practice of leisure-related mobility[2]. The latter results, necessarily, in a search for activity-related facilities and services.

[2] In accordance with the results of the national travel survey that took place in 2000 (see INE, 2002).

2. . New and increasing aspirations of the urban population as a result of an increase in income*, of the parallel existence of a service and consumption society, and of the exercise of* citizenship

It is a matter of attending to the growing demands that result from the expansion of social groups (as, for example, the 'middle classes') with income patterns and aspirations that make possible a more frequent and complex relation with collective facilities and services (Barreto, 2000; Silva, 2000); to whom the access to basic facilities (and their provision) is not relevant anymore but are rather concerned with their quality and diverse nature. The important expansion of indicators of income and consumption, in the last decade in the city of Porto – as shown by the specific indicators of the present monitoring system on urban quality of life – makes us consider the relevance of these types of demands.

The exercise of *citizenship* also creates growing demands regarding the quality and nature of collective facilities and services. Nowadays, users/urban citizens pay more attention to the issue of the quality of life and to the role played by urban amenities, demanding higher levels of quality and efficiency and an increasing participation in the definition of their urban daily life, and presenting new challenges to local governments[3]. The 'right to the city'[4] is a reality and the globalisation phenomenon itself is responsible for the growing diffusion and awareness of this 'right' on the part of urban citizens.

3. . Changes in the mobility practices *of the population, which result from the growing availability of cars and from the improvement of public transport and, above all, reflect the new relationships between mobility, ways of life, and general social and economic processes*

Nowadays, mobility is regarded as constitutive of society, reflecting its dynamics and transformations and its way(s) of living. According to Ascher (2000), daily social and economic relationships tend to become more pressing and less and less guided by collective devices. The multiplication of 'micro-choices' prevails, which reflects on the more varied nature of destinations, itineraries and modal choices, and on the growing intensity and irregularity of displacements.

Mobility practices are related to various motivations and show specific consumption habits; they tend to become more intense both in terms of time (including the weekend) and in terms of their relation with the life cycle: the growing mobility of the elderly population is a reality. In short, mobility is also becoming a 'habit' and, especially, a 'right' in the sense that all citizens should be guaranteed a minimum displacement capability (Ascher, 2000; Haumont, 2000).

These changes introduce a number of specific questions regarding collective urban facilities and services.

Firstly, the intensification in daily mobility and its complexity reflects different 'scales' of use of urban territory. More or less localised interactive practices are visible, like the ones between the centres and the peripheral areas of the urban agglomerations; also visible is the displacement between more distant or discontinuous regions. Both cases may show the presence of multi-property phenomena, that is, they extend the use of urban amenities, like the ones connected with collective facilities and services, to non-local citizens. This situation has a direct influence on the spatial distribution of these urban services, making possible, for example, the development of logics for territorial cooperation in terms of provision/utilisation systems.

Secondly, it is important to remember that changes in the mobility practices put into question, in a new way, the role of the public mobility systems as a 'collective service.' To ensure the right of urban citizens to mobility, it makes senses to develop 'mobility support services' that attend to the personalisation of displacement, which is a growing trend (Ascher, 2000; Bourdin, 2000); they must also attend to the relative

[3] For a general overview of this question, see Clark and Hoggart (2000).

[4] To use the interesting expression by H. Lefevre.

incompatibility between the conditions of spatial provision of public transport systems (generally marked by axial systems that introduce significant spatial asymmetries, or by a strong differentiation between the centre and the peripheral areas of urban agglomerations) and the recognition of that right.

4. Change processes as regards development *conditions and* structuring *of urban territories.*

It is a matter of attending to the questions regarding the growing complexity and fragmentation of urban territories, and the continuous generation of new location discrimination factors, resulting from urban development processes currently underway. It is also a matter of contextualising the changes connected with the role of the market in the distribution and management of urban amenities.

The main problematic issues, in terms of contextualisation and distribution of collective facilities and services (namely regarding facilities, built heritage, and trade and services), revolve around various aspects.

Therefore, the occurrence of simultaneous (and fast) phenomena of valuation and depreciation of metropolitan territories presents new spatial and social inequalities and exerts pressures on the pre-existent network of facilities and services; therefore, their adequacy in terms of availability, access and flexibility changes, both in the central city and in the surroundings.

There is, therefore, the need to balance the provision of collective facilities and services according to a more integrated perspective (sensible of spatial and social cohesion objectives at a larger scale, such as the metropolitan scale); also, it is important to equate the catalyst effect of new facilities and commercial services by following an all-embracing logic (for example, one that is aware of the crisis in traditional trade in central areas, etcetera).

It is also necessary to combine selective and globally coherent strategies that would be, for example, open to an action plan prepared around a logic of complementarity and that would make possible 'networks' of facilities at metropolitan scale, or would attend to the role of new information technologies in the promotion of new, and extended, access conditions to specific collective facilities.

From a perspective that is more connected with the fact that changes in urban development and structuring are accompanied by a progressive reduction in assistance-related logics centred in the general government in favour of market-related logics, it is important to bear in mind that the provision of collective facilities and services may involve new and multiple private agents. The question then arises as to the institutional relations as the central point in the change processes; but also as to the need to take into account the more economic context (and less social), which may regulate the provision of collective facilities and services, with possible bad effects in situations of spatial and social inequalities and, therefore, in the quality of urban life.

These reflections show that the relation between 'collective material conditions,' quality of urban life, and urban transformation dynamics involves multiple dimensions that make it more complex to approach the subject.

Some challenges

Then, how can collective facilities and services become a reference to ensure demanding patterns of quality of urban life?

Firstly, it is necessary to know how to combine minimum patterns of supply, connected with the overcoming of more deprived situations, with availability conditions adapted to new urban consumption

practices and to more diversified demands. Generalisation, diversity and efficiency questions are, thus, connected. Therefore, they influence both the provision strategies and the definition of critical indicators.

Secondly, it is important to bear in mind the various local contexts. It is a matter of recognising that what is important to the welfare of a specific urban area (the residential quarter, the parish...) may not be to another. In other words, the 'value' of collective material conditions for urban quality is spatially differentiated. This distinction leads back to the conditions of the spatial distribution of specific collective facilities and services, and to the way in which patterns of urban living combine with localised issues. It has a direct effect on the development of indicator systems.

Thirdly, we must not forget the question of the specialisation of specific facilities. It is important to contextualise the development of a 'network-like' logic of provision of facilities to a larger scale (like the 'network' of facilities at metropolitan scale), which is associated with the previous logic of proximity. This question introduces the organisation, combination, and decision-making methods within the general government (local, central, sectorial) as a central element of the development processes of urban quality, which are related to collective material aspects.

But it also introduces the need to consider, in a broader perspective, the importance of the 'institutional infrastructure' in these processes.

The role of the different types of agents (public, private, associations...) in the provision of collective material conditions is worthy of note. To the various provision mechanisms of facilities and services to which they are associated, also correspond different access logics (social, spatial). As a result, different challenges arise from the point of view of public intervention for urban regeneration, namely when what is in question is the social purposes of the conditions of provision. In a context in which public resources tend to be less abundant, these challenges are particularly critical.

Finally, let us not forget that the contribution of 'collective material conditions' to the quality of urban life is also a result of the way they are used. In other words, they cannot just be a 'property' of the land but must represent the ways of use of the city, by its citizens, and their assessment of the given situation (at different local contexts). Therefore, the contribution of 'collective material conditions' to the quality of urban life cannot be (and should not be) understood merely from the interpretation of basic indicators and their comparison with standard reference criteria, often defined in other social and territorial contexts. On the other hand, such an assessment allows to detect conflicts and to build consensus. It therefore allows to contextualise intervention practices for the creation of conditions of urban quality that are more adjusted to specific issues and less to the resolution of general problems.

As a final comment, let us note that the results of the Monitoring System on Urban Quality of Life of the city of Porto regarding 'collective material conditions' can be interpreted in many ways.

Many challenges also arise in terms of the use of indicators to solve the description, predictability and improvement problems regarding the quality of urban life.

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Comments on the field Economic Conditions

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Reference concepts

The Monitoring System on Urban Quality of Life (MSUQL) of the city of Porto comprises an assessment function of that quality, organised into four fields of independent variables – environmental conditions, collective material conditions, economic conditions and society – and we were asked to make a critical analysis of the field "Economic Conditions."

The matrix of indicators in question does not explain the support function of the assessment process, so we assume that the methodology chosen was of the kind "permanently updated board," thus allowing to overcome the known problems resulting from the construction of synthetic indicators. In other words, the discussion of the specific value and contribution of the different variables to the urban qualify of life goal is thus overcome.

However, although it has not been created with the goal of the QOL summary-indicator, the methodology has the same option as other similar indicators of comprising a welfare function in which the material welfare, assessed by economic conditions, comprises the general welfare function, in this case the QOL. Our comments should be made in this context, bearing in mind, however, that the database is not clear regarding what we consider to be an essential distinction when approaching welfare functions of this kind. The question concerns the need to distinguish between constitutive and instrumental variables of QOL. In other words, it would be necessary to define a set of variables from among the ones presented, which would be an end in itself in terms of QOL, that is, the substantive aspects of the enrichment of human life in urban spaces. It would also be necessary to identify the group of variables capable of contributing to the improvement of the QOL in a given city. This instrumental aspect is especially relevant to understand the interdependent relationships that can be established between different variables, consequently having, among other things, cumulative effects of a progressive or even regressive nature.

Comments on the field of economic conditions should be made with this question in mind, assuming that this set of variables can be understood as an instrumental condition for QOL and not necessarily as part of the constitutive matrix of this concept.

Life quality of the city or in the city

The intra-metropolitan mobility pattern, of which the city of Porto is one of the fundamental attraction points, introduces a relevant factor in the assessment of the indicators relating to economic conditions of the proposed list of variables.

The great majority of indicators presented raises the question of knowing if what is being assessed are the economic conditions of city residents or if, on the contrary, what should be analysed are the economic conditions given by the city to its working population. Both perspectives are naturally complementary, but their clarification has served to question the role that the city of Porto should have in the polycentric metropolitan project that characterises this space. What should interest us is the quality of life in the city or, on the contrary, what it can give in terms of income to those who work there? But could daily quality of life be

indifferent to those who just work there? Could it be that those cities that offer relevant jobs to non-residents are doomed to become just "drive-in" systems, organised according to the time of entrance and departure?

Some of these questions help identify some ambiguities in the indicators presented.

Income and consumption

The abovementioned ambiguities are clear in the first indicator of the subject "income and consumption," which refers to the average monthly wage of employees, calculated according to the Lists of Posts of the MSST (Ministry for Social Security and Labour), both at current and constant prices.

The comparison would be more significant if it was made between the city and the Lisbon Metropolitan Area and not just the Country. Nonetheless, even in this less significant comparative context, the comparatively high value of the average income in Porto stands out, which is eminently connected with the tertiary nature of the city and with the relevant importance of financial institutions and businesses, notwithstanding the well-known and much talked about phenomenon of loss of decision-making capability of the Porto tertiary sector.

The comparison with the cities of the Urban Audit does not give the value of the purchasing power parity, which is essential for measuring the economic material component of the QOL. The inexistence of PPP for the urban and regional realities and the limitation of information to national PPPs does not justify its non-inclusion in the comparison, and to add to this it is necessary to establish an equivalence between the households' average monthly wage and their average weekly wage.

If the information resulting from the average indicator is quite appealing from the point of view of the city's capability to ensure income to its employees, on the other hand the dispersion indicator shows dualisation phenomena that have been suggested in more specific studies as characteristic of a not completely defined social transition. That transition comprises phenomena such as ageing, the increase in the isolated population and the spatial stratification of the city in terms of social conditions and absolute poverty.

The use of a measure of dispersion of wages (not the more general one but, nonetheless, significant) is an approach to the normative aspect of the inequality in the distribution of income. Given the values observed, it can be concluded that the information supplied, in terms of material welfare, by the average annual growth rate of 5.5% of the average earnings of employees is obviously biased by the high dispersion of the earnings of employees in 1999.

Everything indicates that the numbers show signs of dualisation of economic conditions, thus leading to an inevitable question: does it make sense to speak in the city of average economic conditions favourable to the QOL or does the spatial stratification lead more and more to different patterns of quality of life? In this perspective, the comparison of indicator fields is absolutely indispensable. In fact, assuming employees with higher average wages may reside in well-defined areas, are other QOL criteria necessarily correlated, in those spaces, with economic material conditions?

The evolution of the incidence of disablement and survivor pensioners in the city is unequivocal and agrees with the previously mentioned dualisation. Although pointing out that the per capita ratio and the demographic loss of the city may negatively influence the interpretation, it can be concluded that there was no correspondence between the stabilisation of the absolute number of pensioners and the revitalising presence of new active workers.

The inexistence of more specific data on the situation of social exclusion of the city penalises the inference made, but the micro observation of the situation in the Historic Centre and in the city centre suggests that the future availability of the complementary information will point to similar conclusions, thus reinforcing the interpretation of what is being analysed.

With respect to the consumption indicators – which are apparent and not global – the potential as a proxy consumption indicator of ATM withdrawals in the city is penalised because it is an indicator that relates to the population that uses the city in general. In order to produce relevant information in terms of dynamism of urban economy, an indicator of this type would have to be related to the behaviour of other associated variables, such as retail sales and other seats of urban consumption.

The idea of a social segmentation of the conditions that generate income in the city also seems to emerge from the indicator "number of cars per 1,000 inhabitants." The high value of this indicator is another evidence of the gradual dualisation in the city in terms of generation of income. Furthermore, such an indicator confirms that, sooner or later, the city has to ponder the trade-offs of the accessibility of cars and the environmental component of preservation of the quality of air (urban environment).

Economic dynamism

This is the weakest group of variables, since we are dealing with indicators that are remote substitutes for an effective set of indicators on urban economic dynamism.

In fact, especially the selected indicators "fuel sales" and "passengers on commercial flights" show a relationship of ambiguity with the economic dynamism of the city, since they reflect dynamics of a more regional nature than the ones associated with the city in itself. Furthermore, with respect to the variable "total municipal expenditure per 1,000 inhabitants," its association to the field of economic dynamism is disputable. In our opinion, it should be regarded as a variable in the context of public intervention in the city; otherwise, it could be perfected in order to individualise the investment expenditure per 1,000 inhabitants instead of the total expenditure.

The evolutionary behaviour of fuel sales, with a gradual loss observed from 1996 onwards and without a similar behaviour in the Northern Region and in the Mainland, illustrates the difficulties of associating this evolution to a consistent explanation in terms of urban economic dynamism. The proximity of the indicator to metropolitan and regional aspects and its vulnerability to the fact that there are limits to the propagation of filling stations within the city.

Ambiguities continue in the case of the indicator regarding the number of passengers on commercial flights, which is obviously a regional indicator. This is confirmed by the place the Francisco Sá Carneiro Airport occupies, in the generality of the available strategic analyses, as the main internationalisation factor of the Porto Metropolitan Area and the urban-industrial region that surrounds it.

To sum up, given the known difficulties of measuring the product in territorial units inferior to NUTS II, the search for a summary indicator on the behaviour of total employment in the city of Porto seems to be a more promising and consistent procedure than the solution found to capture the evolutionary tendencies of economic dynamism in the city. When speaking of an indicator of total employment, we are not ignoring the subject of the labour market comprised in the field of economic conditions and obtained for the census. The aim is to stress the need to search for a consistent proxy for the conjunctural and structural behaviour of employment in the city, for which the census is not obviously sufficient.

Labour market

From the structural point of view and not as an indicator of economic dynamism, the subject "labour market" confirms, given the indicators presented, previous analyses on the profile of Porto as a strong employer city with a wide sphere of influence. Also, the comparison with the city of

Lisbon and with the Lisbon Metropolitan Area would be more explanatory than the chosen option, especially because it would allow a new representation of the profile of the city in opposition to the only territory to which it can be compared in this field.

From the point of view of the information that the indicator "job" can ensure, we think that, more than its presentation by 1,000 inhabitants, it is essential to supply data on the dynamic behaviour of employment in absolute terms, since it is considered that, given the exiguity of the available information on this field, the evolution of this variable is crucial to follow the urban economic dynamic. We consider the evolution of employment the safest proxy for the urban economic growth, especially in a context where the labour market keeps having a markedly cyclical behaviour.

The qualifications structure that the data on employees let foresee is strongly related to the behaviour of the average wage previously analysed. Once again, the comparison with the city and the Lisbon Metropolitan Area would be more appropriate. Anyway, the indicator shows a trademark of the city, although not necessarily identical from the point of view of the resident population, since the data presented supposedly refers to employees not necessarily residing in the city.

In this respect, it would be extremely relevant to assess how the evolution of the qualifications structure is linked to a process of rearrangement of the city. The available analyses of specific spatial areas of the city, for example the Porto City Centre and the West Side, suggest that the residential function is leading to intensive social regeneration processes in the city, which sooner or later will determine new contexts in terms of local and national elections. In reality, the new patterns of habitation in the city suggest that the renewal of the residential function is influencing the urban social regeneration. The higher income classes are ensuring the most relevant part of the new flows, which can be understood as a factor of urban competitiveness. However, the model of a cohesive and socially diversified city may be irreversibly wasted with enhanced risks of urban dualisation and segmentation. Also in this context, the regeneration project of the Porto City Centre seems to be a good bet, especially when analysed in light of the indicators now available.

With respect to the data on the evolution of jobs, we confirm the previously known more or less dark perspectives. The structural reality of the Porto Metropolitan Area is, in this matter, unequivocally unfavourable in the national comparative plan and the city will, sooner or later, feel it, although there is a less unfavourable context in the city in terms of the structure of the registered unemployment. The unfinished process of tertiarisation presented by the Porto Metropolitan Area, the weight of atypical and precarious jobs and the existence of clusters of hard-line industrial decline explain the greater incidence that the structural and recessive rearrangement has determined for the Porto Metropolitan Area.

With respect to the future, it would be essential to observe, in a foreseeable context of recovery, the behaviour of the registered unemployment in the city and in the PMA. Until now, labour market economists have essentially emphasised the weak significance of structural unemployment in Portugal. However, we should bear in mind that the emergence of localised clusters of this type of unemployment is admissible, especially considering the segmentation that the lack of absolute mobility in labour implies and the localised clusters of industrial decline.

Housing market

The interpretation of the indicators presented leads us to the following summary conclusion: considering that the pattern of tertiarisation of the city of Porto in terms of services of high added value does not compare to the one of Lisbon, the comparative evolution of the average housing acquisition cost in Porto must be regarded as an unfavourable factor in terms of urban competitiveness.

In other words, the evolution in the average acquisition cost, far from being a natural consequence of an intense demand for high quality real estate from services of high added value, is the result of a rent demand, without significant consequences on the tertiary structure of the city.

This is a relevant question since it agrees with the opinions that we have developed in other works and refers to the unregulated evolution of the prices of some non-transactional goods in the Portuguese economy and especially in Porto. In other words, the evolution of the housing acquisition cost in Porto reflects a structural behaviour that does not correspond to the level of economic development of the Region and to its repercussions in terms of relative prices, being a penalising factor of urban competitiveness.

Another interpretation of this value would be that there is a sufficiently representative number of families and enterprises that would be willing to bear high acquisition costs depending on the location and surrounding amenities offered by specific areas of the city. Worthy of note is the relevance of the urban management as an amplifying factor for this virtuous interpretation. However, there are examples today of urban degradation in noble areas that far from helping the virtuous interpretation, rather reinforce the most pessimistic perspective.

A final summary

The indicators presented call for a wide reflection on the constitutive and instrumental nature that should be assumed by economic conditions regarding the Quality of Urban Life.

An effort to compress the number of indicators presented would improve the perception of the range of this component of QOL, categorising them as more restricted urban indicators and as regional and metropolitan indicators.

The search for a synthetic indicator of the conjunctural and structural evolution of employment seems to be a definite priority.

The signs of dualisation and social regeneration in the city multiply and the positive impacts of such regeneration in terms of urban competitiveness are not noticeable.

Comments on the field Society

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Preliminary observations

Before commenting on the various subjects comprised in the field "Society," the following observations are in order:

Throughout these comments there is frequent mention of indicators that appear in relation to other fields and subjects in the document being evaluated. Such an option, which should not be surprising given the interrelations of components of social phenomena, will permit, as we believe, a better interpretation of the Porto "society" as a result of the monitoring system.

We cannot help but suggest, for almost every subject, complementary indicators to the ones presented in the document under analysis. Such an option – which we have tried to justify in every case – may contribute, in the future, to the attainment, without loss of operationality, of a better knowledge of the social dynamics of the city. We admit that the proposals presented may clash with the demands for restraint and summary of the monitoring systems of this nature.

Subject "Population"

The first selected indicator in the subject "Population" – "Live births per 1,000 inhabitants" – contributes to the analysis of some of the social dynamics of Porto.

In fact, with slight fluctuations occurring mainly in the late 1990s, the indicator shows low birth rates, both in the Northern Region, with relatively high values in the national context, and in the whole of the Country. This birth behaviour in Porto is, in part, a consequence of a well-documented demographic feature of the city: the tendency for a decrease in its resident population in the past decades, attributable to the regular departure of the young adult population especially to municipalities of the Metropolitan Area. Such a trend has to do with the phenomenon that has been called the "ageing base" of the age pyramid, that is, the gradual reduction of the younger strata of the population.

But the reduction in the demographic vitality of Porto is related to another process, that of the ageing of the population, which in turn corresponds to the increase in the relative weight of the top of the pyramid.

In light of the indicator "Elderly proportion" (65 years and older and/or 75 years and older), the city is characterised by significantly higher ageing values than those of the Metropolitan Area, the Northern Region and the Country. Besides, in some parishes of the city, the ageing rates are surprisingly similar to those in the more economically depressed regions of the interior.

If this characteristic is not much different from what, at this level, can be found in many developed countries (namely in Europe), it should also be taken into account that, for specific segments of the population, the combination of high ageing rates, scarcity of economic resources and lack of social facilities providing support to the elderly population may signify precarious levels of quality of life.

Therefore, attention must be drawn to the fact that it might be interesting to combine indicators of this type with those that, in the proposed monitoring system, appear in the field "Collective material conditions" and,

in particular, in the subject "Social and health facilities" (for example " Homes for the elderly, day centres and domiciliary service per 1,000 inhabitants").

Likewise, the combination of these same indicators with information regarding the morphology of families and, specifically, the "Number of unipersonal families with elderly members aged 65 years or older" (made available by INE-National Statistical Office) would enable to deepen the knowledge of the living conditions of this age group. These practices, when referring to the different areas of the city that are considered in this monitoring system, will make it possible to identify certain problems and relevant forms of intervention.

The indicator "Foreign residents" is pertinent to infer the impact of the immigration process, which, in the past few years, involved the Portuguese society and, consequently, Porto. Since it is not possible to collect this type of information at municipal level, as mentioned in the work in question, we suggest that the monitoring system should establish a closer relationship with the project «Porto de Partida – Porto de chegada», in order to specify, through the use of other indicators, the quantitative dimension of the phenomenon, as well as its implications in terms of social integration/exclusion.

Field "Education"

The indicators regarding the subject "Education" that were selected enable a good approach to the "installed capacity" in the city in terms of high level skills training – a very relevant factor today when the literature of the field considering the specificities of the so-called "society of knowledge", reflects on urban hierarchy[5].

The numbers presented show the privileged position of the city of Porto in the national context, although they also suggest that, in comparison with European urban centres with a higher education supply, this position is relatively modest.

This circumstance is certainly linked to the fact that the "Rate of early school leavers," also considered in this monitoring system, shows very high values, although lower than the ones of the Country and the Metropolitan Area. The aforementioned "Rate of early school leavers" also refers to one of the features that, when making international comparisons, have a negative effect on the Country: the relatively slow pace of the qualification of the resident and working populations in Portugal, which can be obtained from indicators considered in other fields of this monitoring system (see, for example, "Labour market").

Given the specificities of the portuguese society in terms of progression of basic education, and without forgetting what seems to us a relevant dimension of the quality of life of citizens, it would be an advantage to include in the monitoring system the indicator " analphabetism rate" and the indicator "Rate of in advance school leavers" (individuals between the ages of 18 and 24 who left school before completing compulsory education, per 100 individuals of the same age group).

According to the Census 2001, the "analphabetism rate" in the Country, although falling, remains, in light of intra-European comparisons, at a relatively high level – 9%. The Porto Metropolitan Area has a lower rate than the Country, of 5.3%, whereas the city of Porto has a rate of 4.8% in the last two Censuses.

Considering that the "Rate of in advance school leavers" attained in 2001, for the whole of the Country, the high value of 24.6%, it is obviously important to collect information on this subject in order to understand the specific situation of Porto in terms of education: many of the trajectories of social vulnerabilities and exclusion in urban areas begin, precisely, with the dropping out of the education system before completing compulsory education; on the other hand, one of the patterns of ascending mobility predominant in the portuguese society has to do with the success in school of children and youth from lower classes.

[5] See, for example, Manuel Castells – *A era da informação: economia, sociedade e cultura*, volume 1 ("A sociedade em rede"), Lisboa, Fundação Calouste Gulbenkian, 2002.

Subject "Cultural dynamism"

With respect to the subject "cultural dynamism," two preliminary observations are in order. The first one points to the need to combine the indicators selected for this subject (essentially regarding the vastness of cultural demand or of cultural audiences) with "Public libraries" and "Art galleries and museums", "per 1,000 inhabitants", which are comprised in the field "Collective material conditions"/subject "Cultural facilities" and refer, in turn, to the infrastructural conditions of cultural *supply*.

The second observation refers to the fact that, since it was decided not to include in the monitoring system the regular commercial cinema showings, the opportunity is lost to analyse one of the most mentioned phenomena in the literature of the field, which is the great return to cinema halls, namely of young people, as well as life styles very focused around a "going out culture."[6]

Of course, for known reasons, Porto has been losing its traditional cinema halls. On the contrary, the surrounding municipalities of the Metropolitan Areas occupy more favourable levels. If the number of cinemagoers who attend regular commercial cinema showings were to be counted, they would then reveal remarkable contrasts, showing specific weaknesses of the city of Porto and the emergence of clusters of cultural activity in the periphery of the city, which should not be forgotten.

Notwithstanding this weakness, Porto still is, in light of the indicators selected in this subject, a remarkable reference when compared to the reality of the Metropolitan Area and of the whole Northern Region of the Country. We even dare to say that the centrality of Porto is due, today, in great measure, to the capacity it still has in terms of cultural supply. Besides, it is a supply that is sustained by the already mentioned presence of a large higher education student population.

Subject "Civic participation"

The subject "Civic participation" collects information supplied by five indicators, which, from the outset is a significant fact, since the dimension in question is usually regarded as quite resistant to operationalisation.

Two of the indicators – "Voters who exercised their right to vote in the past four elections" and "Women elected for municipal office" – permit a good first approach to the way in which citizens relate to the established political system.

The remaining three – "Sports associations," "Recreational and cultural associations" and "Voluntary associations" per 1,000 inhabitants – refer to forms of organisation of citizens that, although distant from the formal political process, promote their participation in the civic life and in the constitution of the public space.

With respect to the relationship with the political system, we must stress, in face of the numbers presented, the relatively unfavourable position that the city and the Country occupy in the comparisons with European values in terms of the participation rate in elections. Worthy of note, however, is the fact that perhaps the values in question may be artificially deflated due to the outdated electoral registers. Nevertheless, looking at the panorama of political participation according to the large areas of the city considered, it is obvious that, both the Traditional Centre and, especially, the Historic Centre, and even, finally, the East Side, show low participation rates. Previously mentioned characteristics, such as ageing, will help explain the withdrawal of the population in question when it comes to political and electoral events.

[6] See, among many others, António Teixeira Fernandes (Coordenador) – *Estudantes do ensino superior no Porto. Representações e práticas culturais*, Porto, Edições Afrontamento/Porto 2001, 2001, chapter 5.

With respect to the participation in associations, which, according to other studies[7], shows values higher than the ones suggested in this document, it is worth mentioning the importance it can play in the contextualisation and enrichment of the daily lives of the most underprivileged social groups. In this respect, we should not ignore the importance of religious associations and organisations, which are numerous in Porto and very close to the lives of the population. Since the indicator "Voluntary associations per 1,000 inhabitants" points to a large presence of associations in the most socially fragile areas of the city, it is clear that the local associative fabric should be further supported and encouraged.

Field "Health"

In the subject "Health" only one indicator is considered: "Premature mortality rate." It is undoubtedly a measure that shows a group of social factors which influence the conditions of health of the inhabitants. As suggested by the report, factors such as housing conditions, salubrity and pollution create unequal probabilities of contracting diseases and other physical vulnerabilities, and in a city like Porto this means significant differences in premature deaths depending on the socially differentiated areas of residence.

Contrarily to common belief, the consideration of these aspects of the Porto reality is not less important because of the somewhat privileged situation of the city in the context of the Country, in terms of social facilities (see subject "Social and health facilities" of this monitoring system).

It is not because the positioning of the city is advantageous, when seen through quantitative indicators regarding health facilities, that quality medical support to the most deprived population is automatically guaranteed. Therefore, we find it interesting to include complementary indicators in this subject, such as "Doctor appointments at health care centres and annexes by practice" or "Cause of death per sex and age group by parish," which can be obtained through INE (namely in *Health Statistics*). The identification of pathologies that are most likely to show the aspects of the daily life of the population would take the analysis of their quality of life a step further.

Subject "Safety"

Given the complexity of contemporary societies and the inherent insecurity and risk factors, the subject "Safety" can hardly be treated with the help of a reduced number of indicators.

It is true that the incidence of road accidents and the crime rate are necessary to measure the safety conditions of urban populations and, therefore, it is only natural that they should be regarded as important for this system.

Whereas the first makes us face the emergence of risks resulting from technological development and from the increase in the mobility of the population (which, in the literature on "risk society," are the subject of much reflection), the second could help reveal dysfunctions and inequalities within the social structure – which, as a matter of fact, should prevent eminently ideological interpretations of the "intrinsic" *dangerousness* of certain social groups.

It is known that the existence of major inequalities in terms of access to employment and quality housing, the asymmetries in the distribution of income, and the contrasts in regional development that have resulted

[7] Cf. António Teixeira Fernandes and others – *Práticas e aspirações culturais. Os estudantes da cidade do Porto*, Porto, Edições Afrontamento/Câmara Municipal do Porto, 1998, especially Appendixes I to XV.

in large and not much integrated migrations to urban spaces, are causes of anomie and propensity to deviancy which, in turn, cannot but influence the different forms of crime.

The numbers presented lead us to believe that Porto, in this perspective, is a relatively safe city, since the crime rate per 1,000 inhabitants is substantially below the average rate of the Urban Audit. Even so, some attention must be paid, once again, to the fact that there are some significant fluctuations within the municipality.

Through the interpretation of the document, the database and the methodology used in the construction of the crime rate permit a fine analysis of the complexity of the phenomenon, by dividing crime into various relevant sub-dimensions. Therefore, it is expected that in the future, this questions will be further pursued, allowing to distinguish as clearly as possible between places where crime takes place and the geographical and social origins of its authors.

Subject "Social problems"

After reading the text regarding the subject "Social problems," we have the impression that there was the intention to reunite some of the aspects that, in contemporary societies, refer to processes of great vulnerability and social exclusion.

And the truth is that, in the literature on the subject[8], namely the one regarding the portuguese reality, there are many references to the problems comprised in this document, such as: drug addiction (here comprised in the indicator "Active users of rehabilitation centres for drug addicts") and the difficulty in accessing minimum housing conditions (here comprised in the indicators "Requests for social housing" and "Homeless population").

As was observed in various studies, by the City Council itself, on social housing and "ilhas"[9] (poor and small barrios) in Porto, there is a significant segment of the population living in contexts with specific social problems, although the situation is not homogenous. The reading of the abovementioned studies will easily lead to the identification of indicators (for example: "proportion of residents with income higher than the national minimum wage"), which would advantageously complete the information used in this subject ("Requests for social housing").

The literature on the problem of social exclusion also mentions, as relevant vulnerability factors, unemployment and access to particularly precarious sources of income.

The proposed monitoring system comprises, in the field "Economic conditions," indicators that would be useful to take into account when identifying the "Social problems" of the city. We are alluding to, more precisely, "Registered unemployed" (Subject "Labour Market") and to "Disablement and survivor pensioners per 1,000 inhabitants" (Subject "Income and consumption").

Whereas the first, especially if combined with the incidence of long-term unemployment, has to do with the relationship of individuals and families regarding work – a dimension that, in our societies, still deeply marks the objective and subjective conditions of their daily lives –, the second draws our attention to the fact that, among the elderly, there are situations of extreme lack of resources, given the low pensions they receive. Since, as we have seen, ageing is a growing feature of the resident population in Porto, it would be advantageous not to lose sight of this indicator in the section regarding "Social problems."

[8] Cf., and among many other works, João Ferreira de Almeida and others – *Exclusão social. Factores e tipos de pobreza em Portugal*, Oeiras, Celta, 1992.

[9] Cf. Manuel Pimenta and others – *Estudo socioeconómico da habitação social*, Porto, Câmara Municipal do Porto, 2001 and Manuel Pimenta and others – *As "ilhas" do Porto. Estudo socioeconómico*, Porto, Câmara Municipal do Porto, 2001.

Final comment

In our opinion, the combination of the indicators proposed by the monitoring system with those that were suggested in these comments would give a reasonably accurate global picture of the Porto's "Society."

As we have seen, this is a twice-aged city; as a matter of fact, ageing is one of its most relevant social characteristics. We have seen, throughout these comments, that the cross analysis of the indicators of demographic ageing with others more apt to restore the contextualisation and the social support to the elderly, shows us that the elderly, in Porto, are often very dependent and impoverished.

The demographic changes, mainly due to the departure of young adults, have also left a mark on the social profile of the city and especially of some of its areas. Therefore, the recurrent concerns regarding the demographic and economic revitalisation of the "City Centre" are understandable.

Non-industrialisation trends, which are not compensated by a qualified tertiarisation, impose various constraints on the city, of which unemployment is, probably, one of its most worrying features. Given that this unemployment often reaches populations affected by deficient housing conditions, which are at the origin of serious social problems, we can therefore find many complex factors in the city leading to very deficient levels of quality of life and even poverty and exclusion.

This does not prevent the city of Porto of continuing to be an important cluster at regional and country level, in terms of cultural dynamism and higher education opportunities. It also does not prevent a relatively consolidated practice of participation in associations, something to take into account when trying to promote development.

Therefore, there is no need to be pessimistic about the picture of the Porto's "Society" and especially of its future delineation. There are serious challenges ahead, but they can all be overcome.

2nd Part

The Citizens' Perception

Results of the survey of the population

As said previously, with the carrying out of a first survey of the population in the beginning of the year we have tried to confront the more objective interpretation, based on the analysis of quantitative indicators, with the perception – necessarily more subjective – that citizens have of the quality of life. As a result of this "mixed" approach, which was chosen for this project, it is possible to obtain a more complete view of the situation of the city and thus have a more varied array of data to support the technical work and the policy-making process.

Methodological note

In this phase of the MSUQL we have chosen to direct this first questionnaire exclusively to citizens residing in the municipality of Porto, and to limit the target population to individuals older than 15 years. The questionnaire was conducted in the months of January and February 2003, at the homes of the interviewees.

The questionnaire was applied to 2,400 individuals, equally distributed by four predefined areas of the city, with the purpose of making an intra-urban analysis, based on relative homogeneity criteria, through the grouping of parishes. The areas considered, which are identical to the ones that were used to quantitatively assess the quality of life in Porto and were introduced in the first part of this report, are as follows:

Historic Centre, comprising the parishes of Miragaia, São Nicolau, Sé and Vitória;
Traditional Centre, comprising Bonfim, Cedofeita, Massarelos and Santo Ildefonso;
West Side, comprising Aldoar, Foz do Douro, Lordelo do Ouro and Nevogilde;
East Side, comprising Campanhã, Paranhos and Ramalde.

The margin of error of the sample considered is 2% for the whole of the city and 4% for each area, for a confidence level of 95%.

The adopted questionnaire, composed mostly of closed questions, was structured around four main points:

Quality of life: global concept. The purpose here was to identify the aspects that are seen as fundamental for a city to have a good quality of life.

Quality of life: evaluation of the situation in the city of Porto, both presently and in terms of recent evolution. In this case, we have tried to obtain not only the general perception but also opinions about a number of predefined fields of quality of life.

Quality of personal life. The purpose was to obtain data on the level of satisfaction of individuals with their own quality of life and on the aspects they consider as most important to their personal lives.

Quality of life in the residential area. Although the questions asked here were also related to the assessment of the quality of life in the city, they referred to an interpretation centred exclusively on the residential area of the interviewees.

Results

The analysis that follows, based on the results of the survey conducted among the inhabitants of Porto, will only focus on the trends and main conclusions obtained from an initial processing of the data.

Obviously, much information has been gathered, justifying a wider examination of the available data on the perception of the quality of urban life. Therefore, there are plans to publish a second report of this project, which will contain a thorough examination of the analysis.

Quality of life: global concept

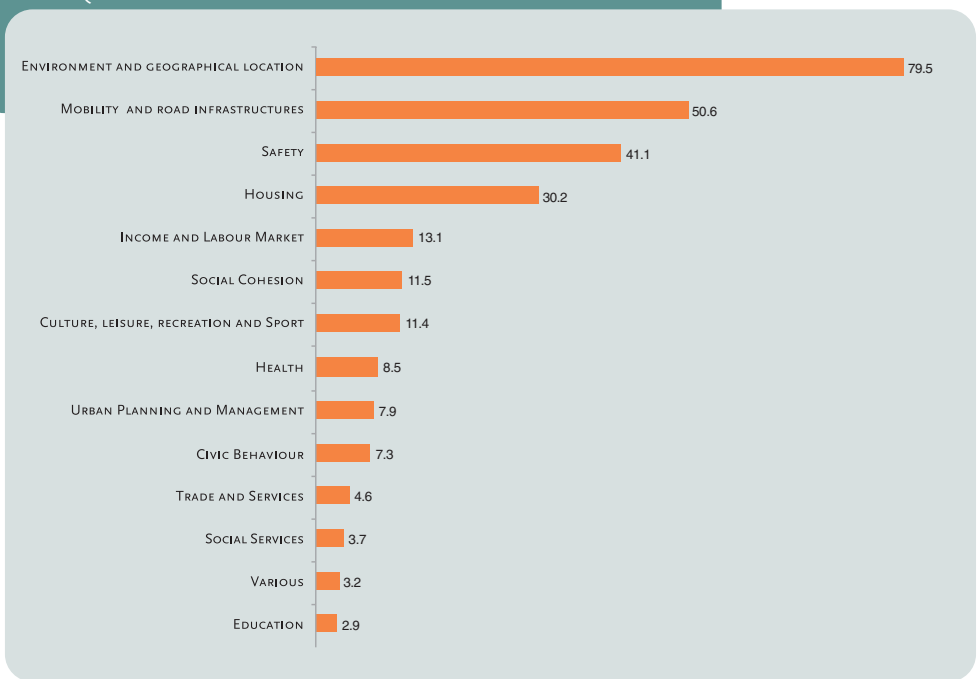
The first questions in the survey were asked with the purpose of collecting data on the meaning individuals give to the expression "Quality of Life," particularly on the aspects considered most influential and decisive for the welfare in an urban centre. There was no direct reference to the context of the city of Porto.

Given that this is an all-inclusive concept and that the empirical evidence shows that the perception that citizens have of this question varies significantly – namely depending on the age group and qualification level – the fact that there was a strong convergence of opinions on some fields is even more significant.

Consequently, when faced with an open question, which asked the interviewees to indicate the three most relevant aspects for a good quality of life in a city, a vast majority – about 80% – referred aspects relating to the *environment* and to the *geographical location* (Figure 1).

Behind this strong association of the concept of Quality of Life to environmental factors is the recognition of the value of the following aspects: availability of *green spaces*, *urban cleaning*, *absence of pollution*, *basic infrastructure* and also, although significantly less important, *climate* and *geographical location* (particularly the availability of natural resources due to the coastal location).

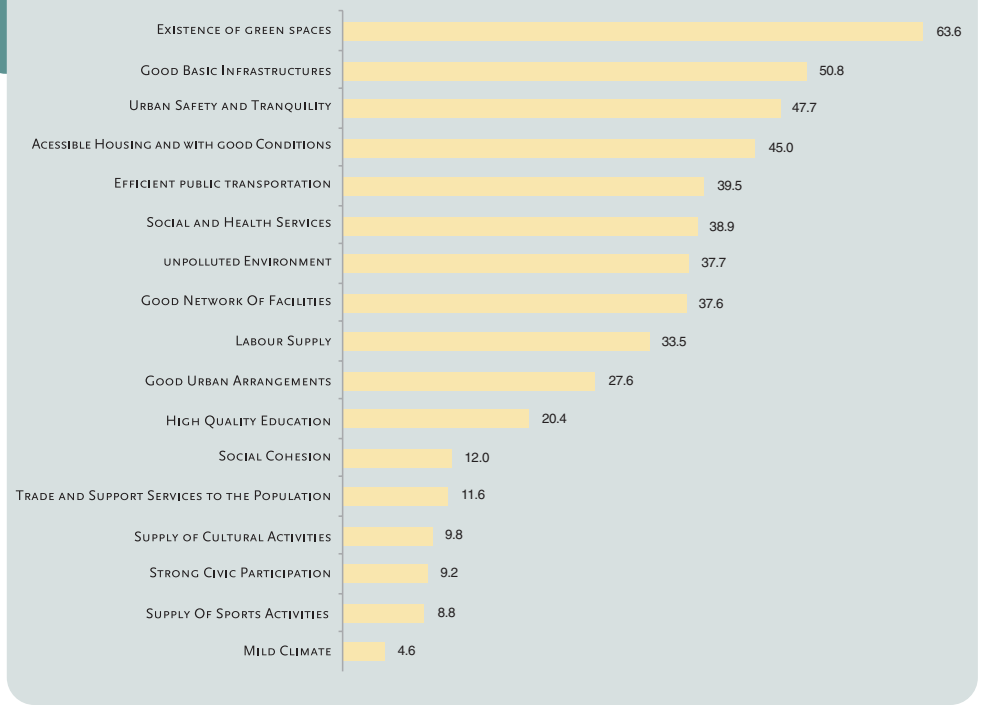
FIGURE 1: FIELDS IDENTIFIED AS BEING THE MOST IMPORTANT TO THE QUALITY OF LIFE IN A CITY



Also with respect to the identification of the most important aspects to the Quality of Urban Life, the fields of *mobility* and *road infrastructures* – mentioned by almost half of the interviewees – and *public safety* and *housing* are worthy of note.

Additionally, the second question asked interviewees to elect the five aspects they considered most important to the Quality of Life of a city but this time from a list of 17 predefined options. The results were as follows (Figure 2):

FIGURE 2: ASPECTS THAT WERE CONSIDERED TO BE IMPORTANT TO THE QUALITY OF LIFE OF A CITY



In other words, when faced with a vast array of fields relating to the concept of quality of life, interviewees generally maintain the same opinion, that is, the recognition of the value of environmental aspects, safety, housing and mobility, although other fields are also worthy of note, such as, for example, *social and health services*, which surpasses the importance given to an *unpolluted environment*.

Quality of life: evaluation of the situation in the city of Porto

After the two questions relating to an unspecified urban centre, the following questions asked for opinions specifically about Porto, to try to understand how residents view the city.

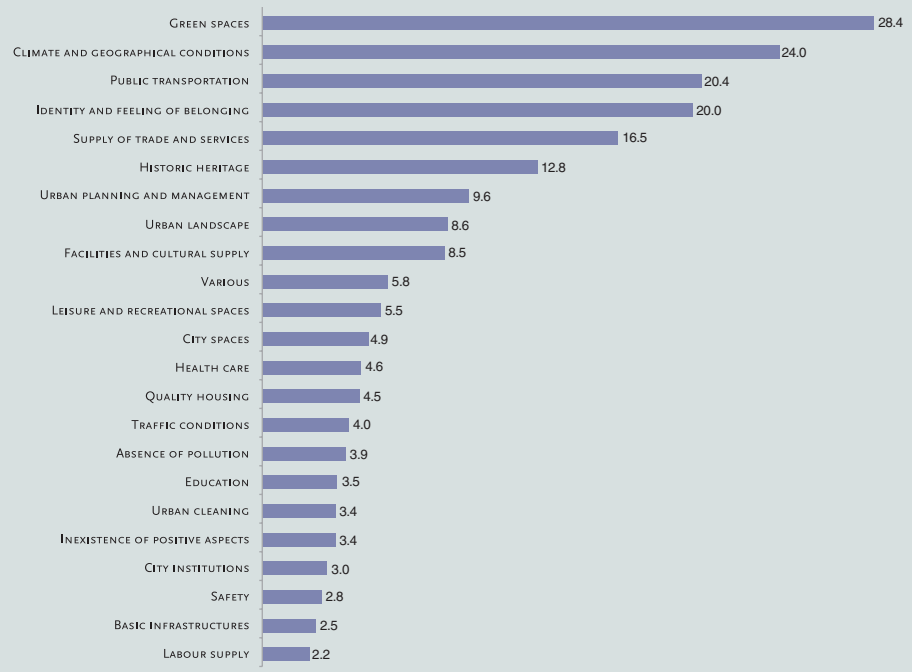
Interviewees were asked to choose, without the help of a predefined list, the three most positive and the three most negative aspects that characterise the Quality of Life in Porto, as a living and/or working place.

Considering the aspects that were identified as positive (Figure 3), results are indeed surprising.

Green spaces – the city park but especially the large and small gardens scattered throughout the urban centre – are the biggest reference. This opinion, collected across the city, is especially expressed by the inhabitants of the West Side but also by those of the East Side, who say this is the most favourable aspect (Chart 1).

The second most mentioned aspect is *climate* and *geographical conditions* of the city. It is then clear that, notwithstanding the common negative connotation surrounding the characteristic Porto weather (frequent rain, not very high temperatures) and the geographical location of the city (territorially confined, peripheral in a European context, without a competitive dimension), the perception that citizens have of these factors includes other aspects and is globally positive. Most answers mentioned realities such as the size of the city ("not too big, not too small") and its geographical location (the sea and the river, but also the fact that it is part of

FIGURE 3: MOST POSITIVE ASPECTS IN TERMS OF QUALITY OF LIFE IN THE CITY OF PORTO



Northern Portugal and its proximity to the countryside), without a great contrast between the opinions of the inhabitants of different areas of the city.

CHART 1: RANKING, BY AREA, OF THE MOST POSITIVE ASPECTS OF THE QUALITY OF LIFE IN THE CITY OF PORTO

	PORTO	HISTORIC CENTRE	TRADITIONAL CENTRE	EAST SIDE	WEST SIDE
Green spaces	1st	5th	5th	1st	1st
Climate and geographical conditions	2nd	3rd	1st	4th	2nd
Public transportation	3rd	2nd	4th	2nd	3rd
Identity and feeling of belonging	4th	1st	2nd	6th	6th
Supply of trade and services	5th	10th	3rd	3rd	4th

In the case of *public transportation*, the third positive aspect mentioned, results contradict the usual opinion that the functioning of this type of service does not correspond to the expectations of citizens. Most of the residents must have been influenced by the inauguration of the Metro, thus influencing the results (the survey was carried during the months of January and February 2003).

With more significant differences between the various areas of the city, but nonetheless mentioned often, are the strong urban *identity* and the *feeling of belonging* of the Porto inhabitants (the first positive aspect mentioned by the inhabitants of the Historic Centre) and, also, *trade and services* (most mentioned by the inhabitants of the Traditional Centre and the West Side).

On the contrary, when faced with the open question about the three most negative aspects that harm the Quality of Life in Porto, interviewees showed their dissatisfaction with, above all, *urban insecurity and crime*, which were mentioned by almost one in two of the respondents (Figure 4). This was the most mentioned aspect in all areas of the city (Chart 2).

FIGURE 4 – MOST NEGATIVE ASPECTS IN TERMS OF QUALITY OF LIFE IN THE CITY OF PORTO

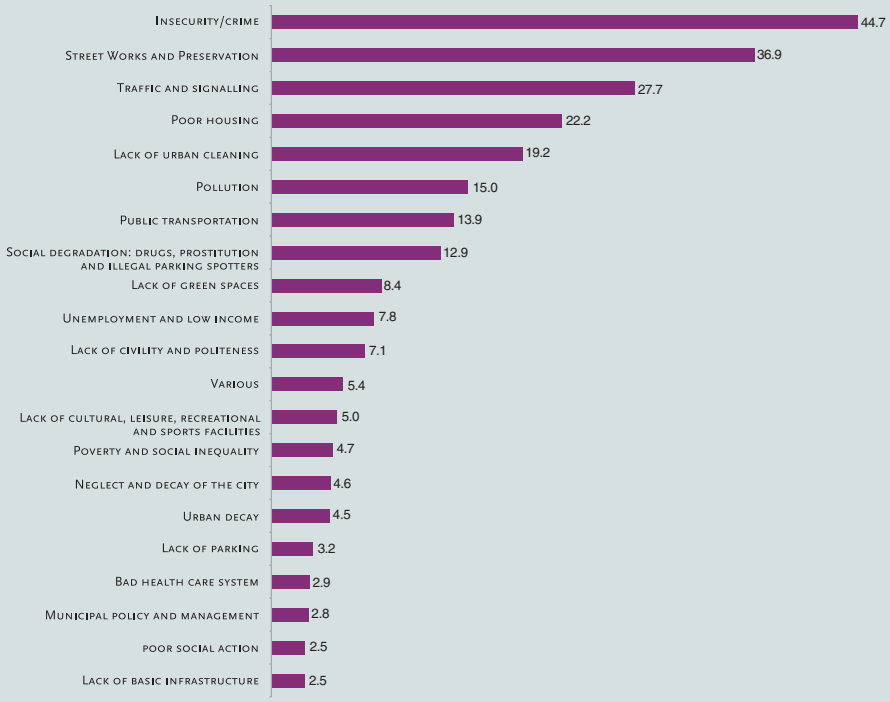


CHART 2 : RANKING, BY AREA, OF THE MOST NEGATIVE ASPECTS OF THE QUALITY OF LIFE IN THE CITY OF PORTO

	PORTO	HISTORIC CENTRE	TRADITIONAL CENTRE	EAST SIDE	WEST SIDE
Insecurity/crime	1st	1st	1st	1st	1st
Street works and preservation	2nd	3rd	3rd	2nd	2nd
Traffic and signalling	3rd	6th	2nd	3rd	3rd
Poor housing	4th	2nd	4th	7th	6th
Lack of urban cleaning	5th	4th	5th	5th	4th

Among the remaining aspects that have a negative effect in the urban life framework, also worthy of note is the concern with *mobility* in the city, most precisely regarding the increase in street works and their long duration, the bad state of the roads but also traffic jams and insufficient signalling.

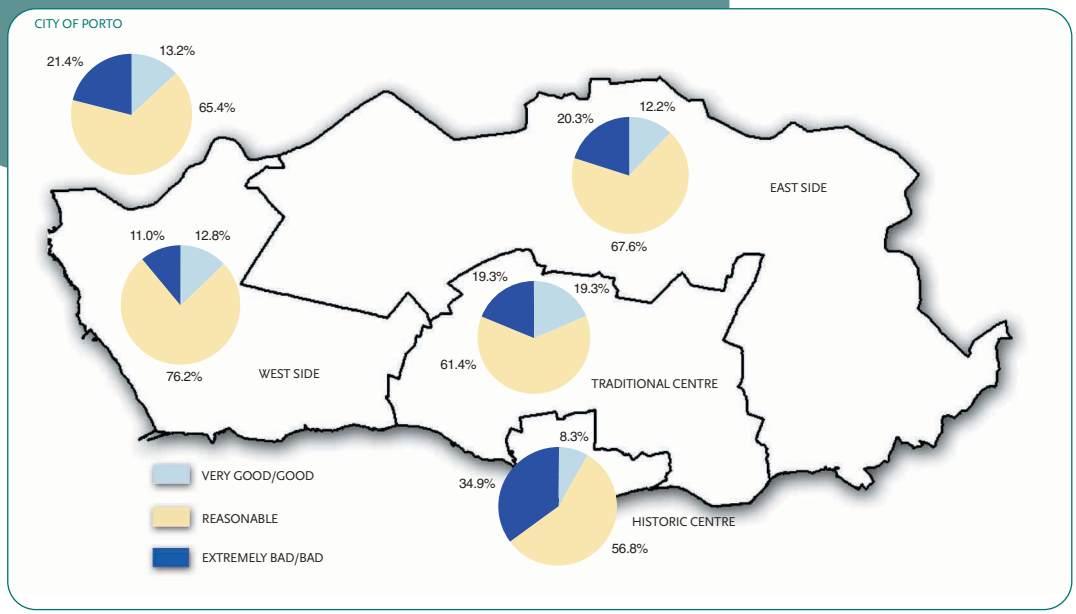
Completing the list of the five most unfavourable aspects are *poor housing* – mostly mentioned by the inhabitants of the Historic Centre – and *lack of urban cleaning*, which was chosen by a similar number of people in all areas of the city.

The following question referred to the general perception of the quality of life in the city of Porto as expressed by its residents. Interviewees were asked to choose based on a qualitative scale with five classes (extremely bad, bad, reasonable, good and very good). A vast majority of the respondents, 65%, classifies it as "reasonable" (see Figure 5). Those outside this average classification tend to characterise the situation in a more negative

(21%) than positive way (13%). Worthy of note, with respect to the classes at both extremities, is the fact that only 0.25% of the respondents classified the situation as "very good", that is, one in every 400 respondents, whereas within that same number, 18 individuals consider it to be "extremely bad."

The same question – quality of life in the city generally speaking – but referring to the area of residence of the respondents, shows some significant differences: the situation is regarded as "bad/extremely bad" by almost 35% of those that live in the Historic Centre, but only by 11% of those in the West Side. On the other hand, just a bit more than 8% of those who live in the Historic Centre classify the quality of life in the city as "good/very good," a number that rises to about 12% in the West and East sides and to 19% in the Traditional Centre. Curiously enough, the distribution is more balanced in the latter area, with the same percentage of respondents giving it a "bad/extremely bad" classification.

FIGURE 5: GENERAL EVALUATION OF THE QUALITY OF LIFE IN PORTO



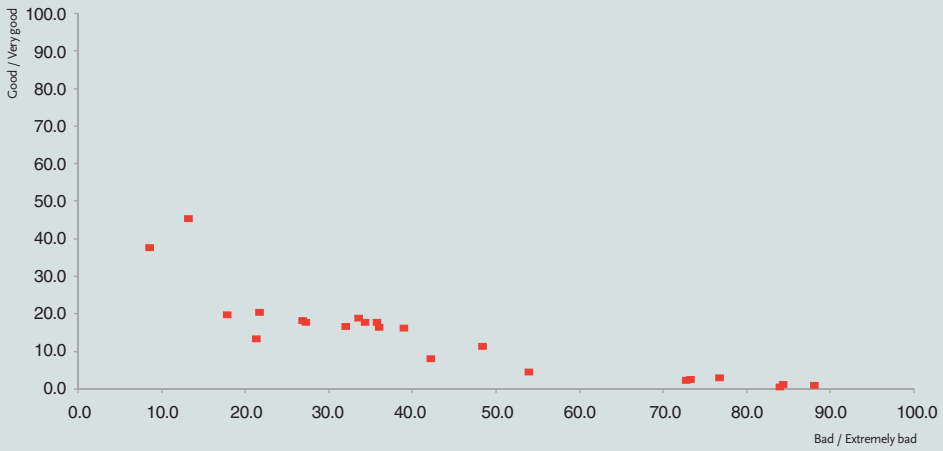
When the same type of evaluation exercise was proposed but this time with respect to 21 predefined thematic areas (see Chart 3), we came to the conclusion that people are more judgmental than before. Whereas, as we have seen, 65% of the respondents considered the general situation as "reasonable," now the percentage is clearly lower in all areas (with an average of 36% and a maximum of 52%). The general situation was considered "extremely bad" by 4.6% of the interviewees, whereas now the percentage varies between 2.5% and 40%, with an average of 14%.

Figure 6 shows the percentage of the answers regarding the situation as "bad/extremely bad" in contrast with the ones that regard it as "good/very good" for the abovementioned 21 thematic areas. As we can observe, the opinions are clearly negative; almost every area is close to the extremity that corresponds to "bad/extremely bad" opinions, whereas "good/very good" opinions rarely surpass 20%.

CHART 3: THEMATIC AREAS FOR THE ASSESSMENT OF QUALITY OF LIFE

1. Environment
1.1. Green spaces
1.2. Urban cleaning
1.3. Pollution (air, water, noise)
2. Urbanism
2.1. Occupation density
2.2. Urban and architectonic quality
3. Mobility
3.1. Traffic
3.2. Public transportation
4. Culture
4.1. Cultural facilities
4.2. Cultural recreation
5. Sports and leisure
5.1. Recreational and leisure spaces
5.2. Sports facilities
6. Education
6.1. Educational facilities – kindergartens, schools
6.2. Higher education facilities
7. Health
7.1. Hospitals (public and private), health centres, nursing stations
8. Social work services
8.1. Day nurseries, homes for the elderly, recreational centres, day centres, domiciliary service
9. Trade and services
9.1. Trade and services to the population
10. Housing
10.1. Purchase and leasing
10.2. Housing quality and condition
11. Urban safety
11.1. Crime, urban insecurity
12. Poverty and exclusion
12.1. Poverty and exclusion
13. Social and civic behaviour
13.1. Social and civic behaviour

FIGURE 6: ASSESSMENT OF THE PRESENT SITUATION OF THE CITY IN THE 21 THEMATIC AREAS (IN %)



Two groups are immediately evident. One is comprised of six areas where the situation is clearly negative, with percentages of "bad/extremely bad" answers between 70% and 90%.

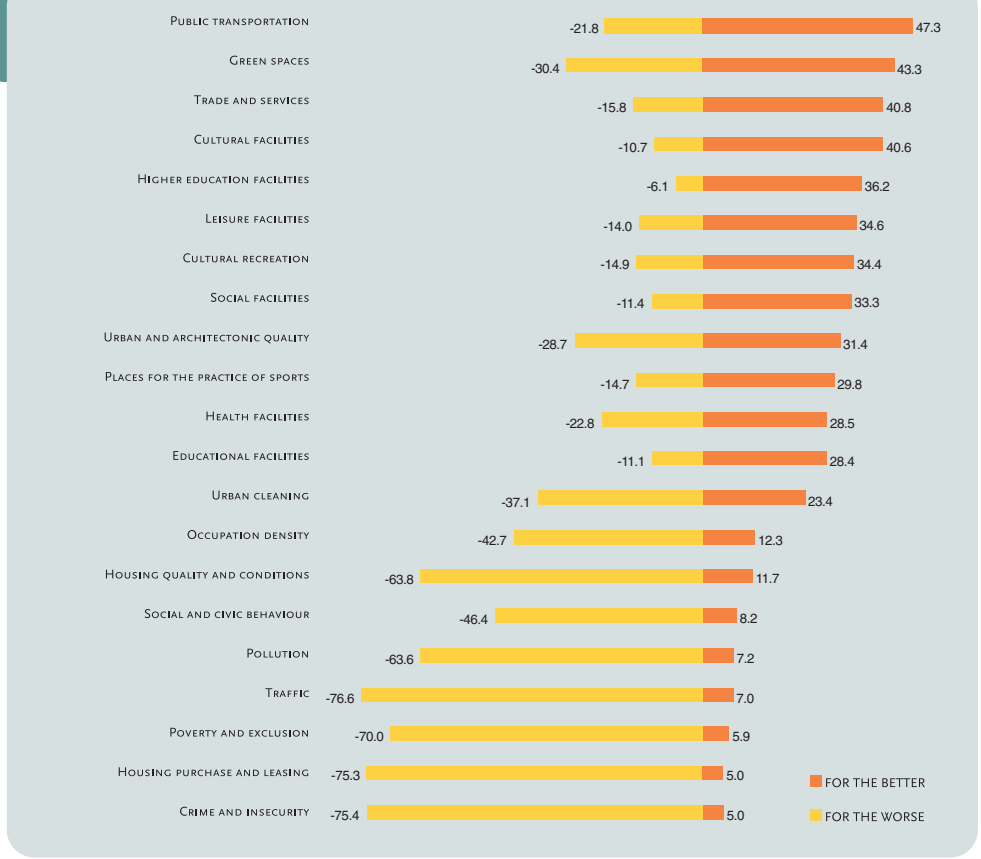
AREA	%
Traffic	88.1
Crime, urban insecurity	84.5
Poverty and exclusion	84.1
Housing purchase and leasing	76.8
Housing quality and conditions	73.4
Pollution (air, water, noise)	72.8

The other group is composed of only two areas, seen as positive, although percentages are lower than 50%:

AREA	%
Trade and services to the population	45.2
Higher education facilities	37.5

Figure 7 sums up how the evolution of the past two years was analysed, as regards these 21 areas:

FIGURE 7: ASPECTS OF QUALITY OF LIFE WITH A FAVOURABLE (+) AND AN UNFAVOURABLE (-) EVOLUTION IN THE PAST TWO YEARS



In terms of evolution, results also show a negative situation in many of the areas analysed. Particularly in the six areas identified in the chart below, the percentage of respondents who think there has been an unfavourable evolution in the past two years is higher than 60%, whereas the percentage of those who said there has been a favourable evolution is between 5 and 7%, with the exception of *housing quality and conditions* with almost 12%. Worthy of note are the extremely high percentage in such areas as *traffic*, *crime and insecurity* and *housing purchase and leasing*, where 3 in every 4 respondents regard the recent evolution as negative.

AREA	%
Traffic	76.6
Crime and insecurity	75.4
Housing purchase and leasing	75.3
Poverty and exclusion	70.0
Housing quality and conditions	63.8
Pollution	63.6

With respect to the positive assessment, only four areas had percentages higher than 40%.

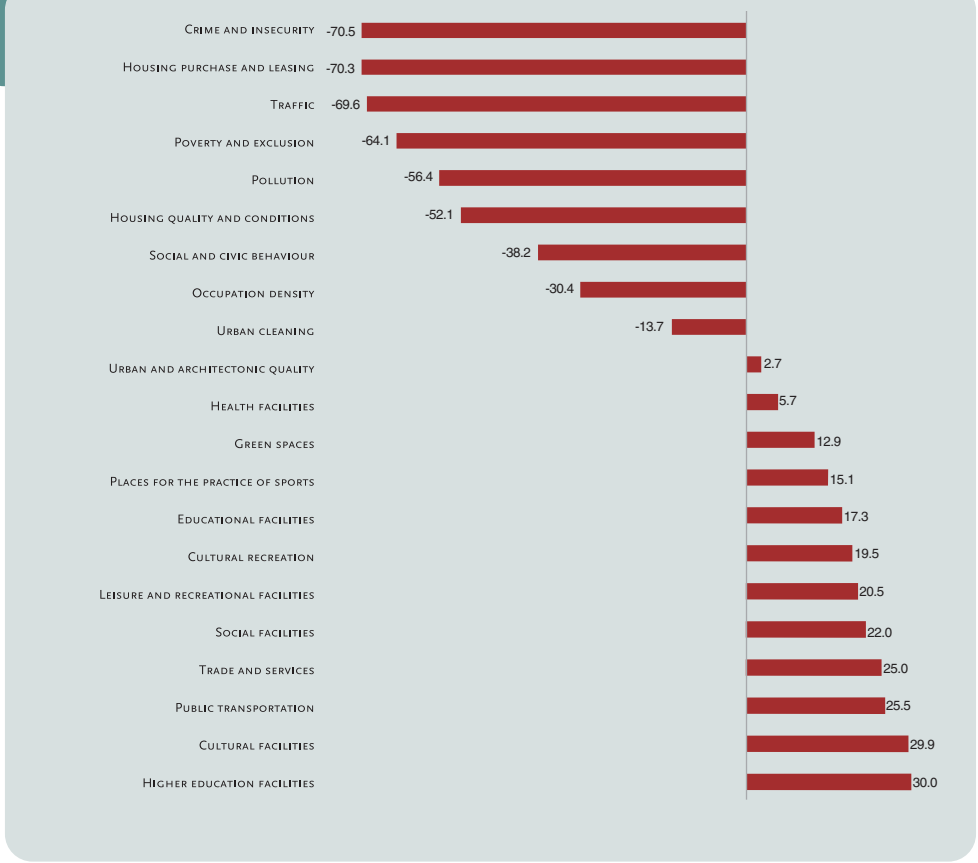
ÁREA	%
Public transportation	47.3
Green spaces	43.3
Trade and services	40.8
Cultural facilities	40.6

In addition to the small number of areas where this happens and the not very high percentages obtained, the number of answers that show an opposite opinion is also quite high, namely in the two first cases. Therefore, to the 47.3% of respondents who regard the evolution in *public transportation* as favourable, 21.8% regard it as unfavourable. With respect to *green spaces*, notwithstanding the 43.3% of favourable answers, there are 30.4% of unfavourable answers.

For a more complete analysis of the answers regarding the evolution of the past two years, we can see in figure 8 the balance between the favourable and unfavourable answers as regards the 21 areas under analysis:

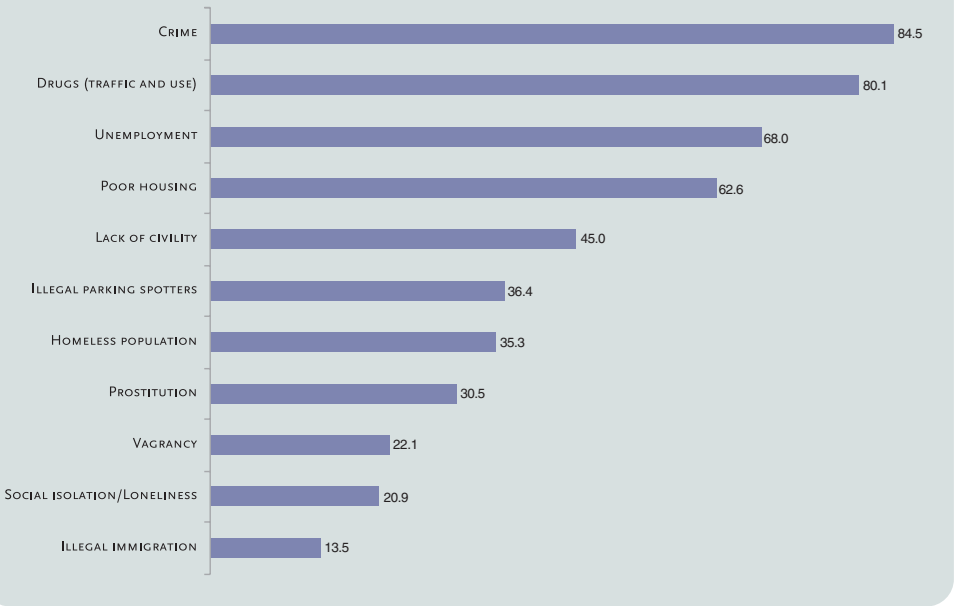
The six areas whose recent evolution has been regarded as most negative are still at the top of the scale, with quite high values, whereas the four most favourable areas have low values, namely with respect to *green spaces*, where the final balance between the positive and negative opinions is 13%.

FIGURE 8: EVOLUTION OF THE QUALITY OF LIFE IN THE CITY – DIFFERENCES BETWEEN FAVOURABLE AND UNFAVOURABLE OPINIONS



After the global assessment of the city in terms of situation and recent evolution with respect to the 21 thematic areas considered, interviewees were asked to identify, from a list of predefined social problems, the five that contributed negatively to the quality of life in the city of Porto. From the results obtained, crime and drug problems clearly stand out and are mentioned by about 4 in every 5 respondents (figure 9).

FIGURE 9: SOCIAL PROBLEMS THAT HAVE A NEGATIVE CONTRIBUTION TO THE QUALITY OF LIFE IN THE CITY



The identification of social problems is quite homogenous when we consider the answers in the four areas, with the exception of *poor housing*, which is identified as the first problem by the inhabitants of the Historic Centre and occupies the fourth place in the total questionnaires (Chart 4).

CHART 4: RANKING, BY AREA, OF THE SOCIAL PROBLEMS THAT NEGATIVELY AFFECT THE QUALITY OF LIFE IN THE CITY

	PORTO	HISTORIC CENTRE	TRADITIONAL CENTRE	EAST SIDE	WEST SIDE
Crime	1st	2nd	1st	1st	1st
Drugs (traffic and use)	2nd	3rd	2nd	2nd	2nd
Unemployment	3rd	4th	4th	3rd	3rd
Poor housing	4th	1st	3rd	4th	5th
Lack of civility	5th	6th	5th	5th	6th

Quality of personal life

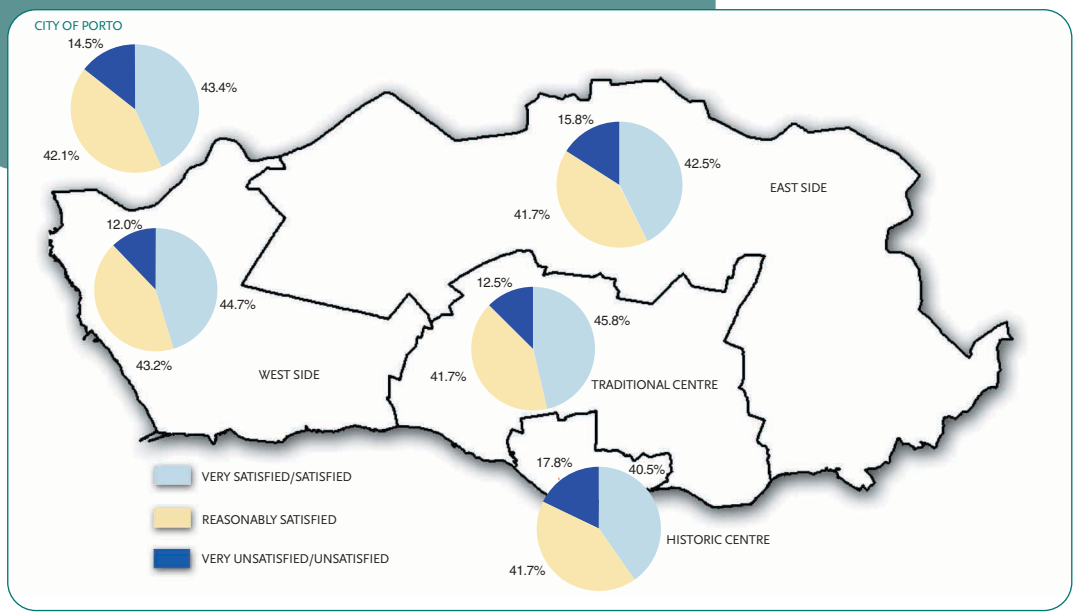
Following this group of questions that, as said before, tried to capture the general perception of residents regarding the quality of life in the city, the next questions asked about the level of satisfaction of individuals regarding their own quality of life.

The first question referred to the personal satisfaction with the quality of life in the city. About 43% of respondents are *satisfied* or *very satisfied* with their quality of life, almost the same percentage as those who say they are *reasonably satisfied* (figure 10). The percentage of those who say they are *very unsatisfied* or *unsatisfied* is less than 15%.

This opinion of the quality of life in personal terms is generalised to all the residents of the city, and the answers obtained in the four residential areas do not differ much.

Worthy of note is the fact that the results are quite different from the ones previously obtained about the general situation of the city (see Figure 5). Whereas the general situation of the city is seen as negative, in personal terms the situation is substantially more optimistic.

FIGURE 10: ASSESSMENT OF QUALITY OF PERSONAL LIFE IN THE CITY



Half of the respondents did not notice a significant change in the quality of their personal lives in the last two years. The opinions of the remaining interviewees are divided between those who say that the situation has improved and those who think it has deteriorated (figure 11).

Finally, with respect to the quality of personal life, interviewees were asked to rank, by level of importance, several aspects of their personal lives (based on a "not very important," "reasonably important" "important" and "very important" scale).

The answers obtained show the importance of *health*, regarded by the majority of respondents as "very important" and by the remaining as "important" (figure 12). *Family life* has also been chosen by a significant number of respondents as "very important," followed by *home*, *employment* and *financial situation*.

In contrast, the aspects that were regarded as "not very important" and "reasonably important" (although a minority) were *spiritual life*, *cultural life* and *neighbourhood*.

FIGURE 11: EVOLUTION OF THE QUALITY OF PERSONAL LIFE IN THE LAST TWO YEARS

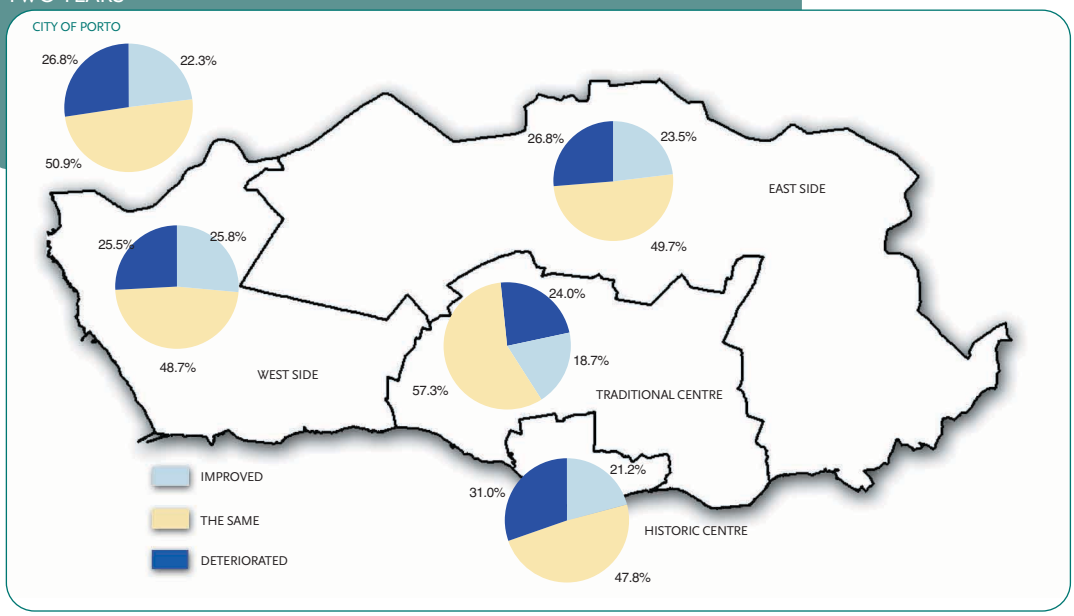
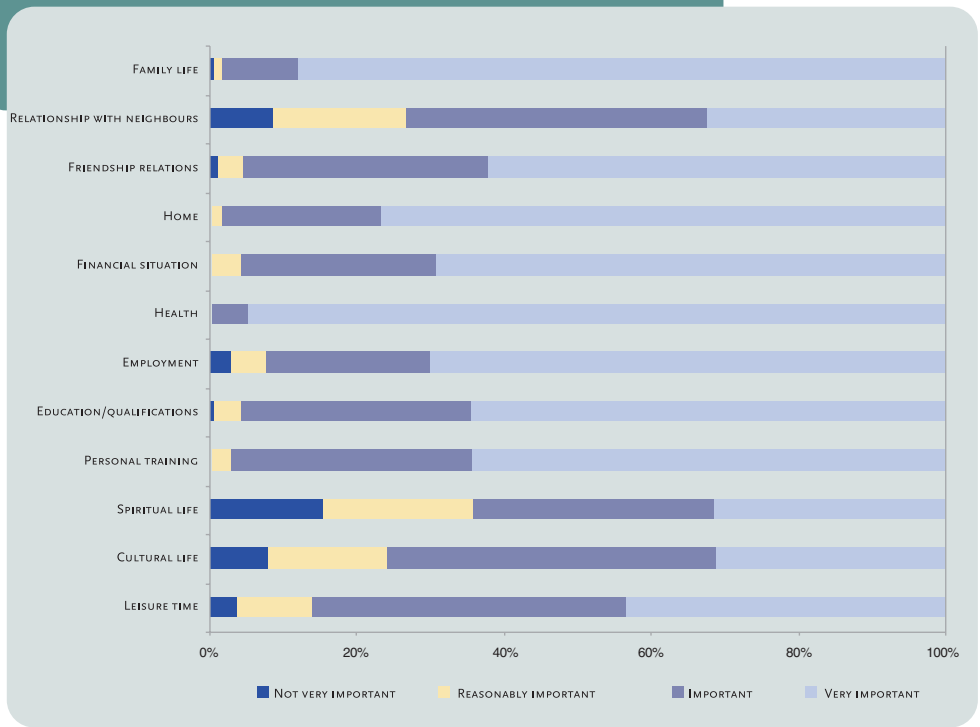


FIGURE 12: LEVEL OF IMPORTANCE GIVEN TO EACH OF THE FOLLOWING ASPECTS OF PERSONAL LIFE



Quality of life in the residential area

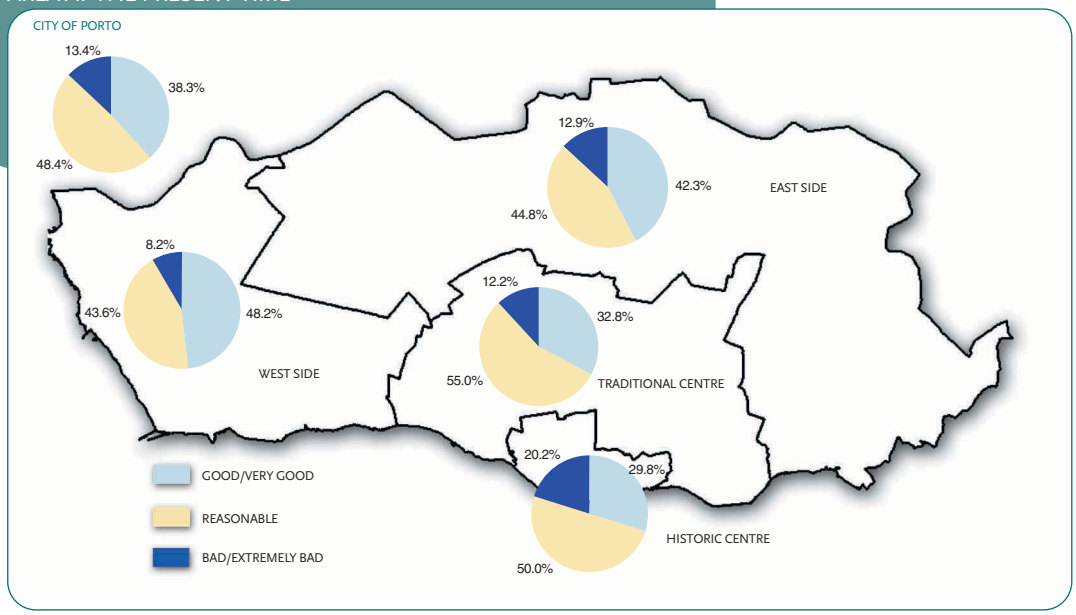
A final set of questions concerned the perception of the quality of life but this time referring to the residential area of the interviewees.

Opinions are much more optimistic than before when interviewees were asked about the general situation of the city and not of their specific place of residence (see Figure 5). Whereas 21% of respondents regarded the

general situation in Porto as "bad/extremely bad," now only 13% of them do so (figure 13). Even in the Historic Centre, where the majority of negative answers came from, the percentage is only 20%.

Only 13% of respondents regarded the general situation as "good/very good," whereas 38% have this opinion about their place of residence. Even in the Historic Centre, 30% of respondents regard the situation as "good/very good," a percentage similar to that found in the Traditional Centre, which rises to 42 and 48% in the East and West Side, respectively.

FIGURE 13: ASSESSMENT OF QUALITY OF LIFE IN THE RESIDENTIAL AREA AT THE PRESENT TIME



In a last question, interviewees were asked whether – under the right conditions (financial conditions, family conditions...) – they would change residence to improve their quality of life. Only 35% of the answers were positive, and of these about half would move to another area of the city of Porto and the remaining would move to outside the city (figure 14). Curiously enough, the lowest percentage of those who said they would not relocate was found in the East Side (56%), with the Historic Centre and the Traditional Centre representing a percentage of about 64%. In the West Side, three in every four respondents would not move at all.

The following chart shows the places in the city of Porto that were chosen as new areas of residence by those who said they were willing to relocate to improve their quality of life. The favourite place was Foz/Nevogilde, an area chosen by 1 in every 4 respondents. Also significant is the number of interviewees who chose the City Centre as an area where they would like to live.

FIGURE 14: CHANGE OF RESIDENCE TO IMPROVE THE QUALITY OF PERSONAL LIFE

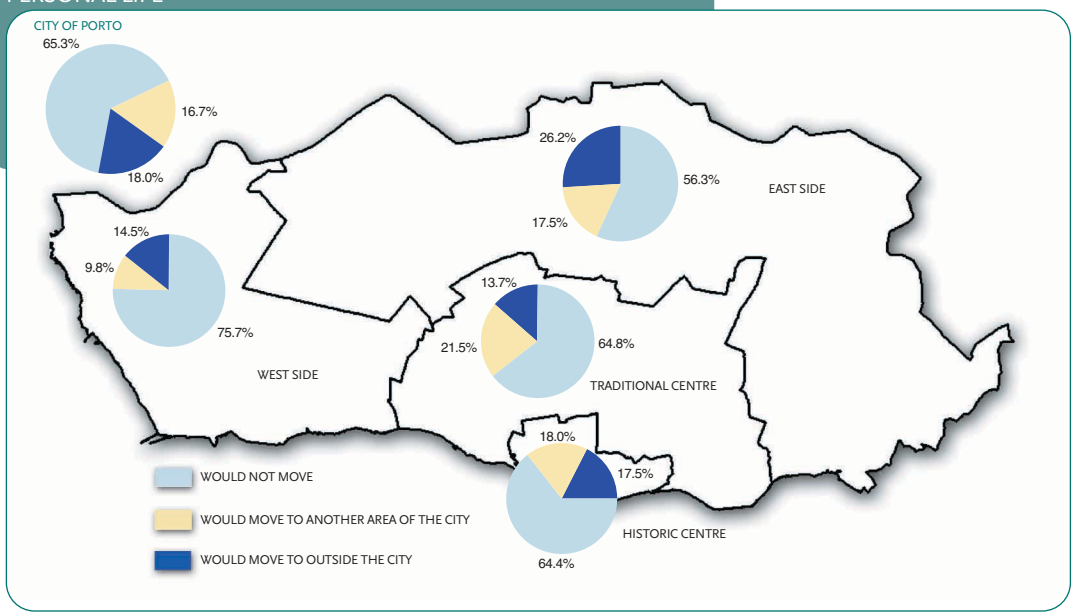


CHART 5: NEW AREA OF RESIDENCE (FROM THE % OF THOSE WHO WOULD MOVE TO ANOTHER AREA OF THE CITY)

CITY AREA	%
Foz/Nevogilde area	23.2
Not specified	21.7
City Centre	15.5
Antas/Fernão Magalhães area	10.7
Boavista area	9.5
Other East Side areas	8.7
Historic Centre	5.7
Does not know	1.7
Campo Alegre area	1.5
Other West Side areas	1.0
Constituição/Damião de Góis area	0.7

About half of those willing to move to outside the city said they would move to another municipality in the Porto Metropolitan Area. "Another country" had 10% of the answers, whereas the number of respondents who chose places in Portugal but outside the Northern Region is practically non-existent (Chart 6).

CHART 6: NEW AREA OF RESIDENCE (FROM THE % OF THOSE WHO WOULD MOVE TO OUTSIDE THE CITY)

AREA OUTSIDE THE CITY	%
Municipalites of the PMA	42.2
Countryside	17.2
Other municipalities of the Northern Region	16.5
Another country	10.0
Lisbon and Tejo Valley	3.2
Algarve	2.8
Central Region	2.3
Various	2.3
Alentejo	2.1
Does not know	1.2
Azores	0.2

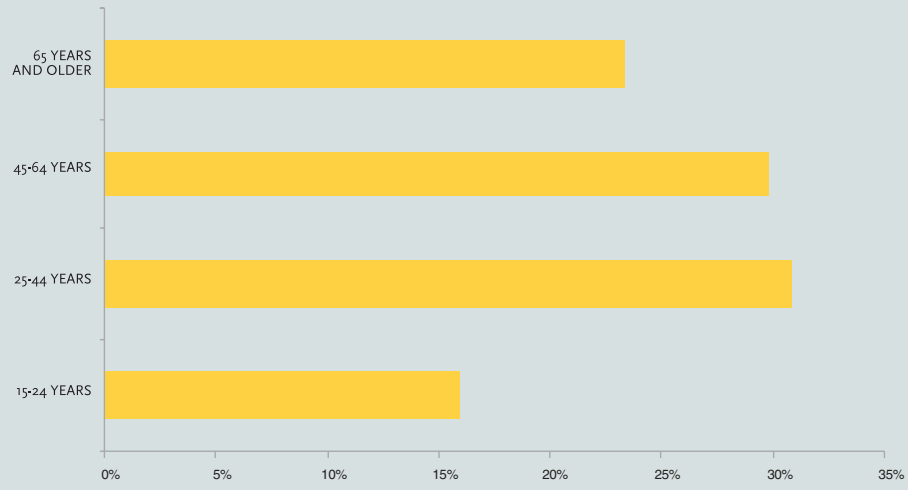
Social characterisation and demographic description of interviewees

In conclusion, we present a brief social and demographic characterisation of the sample.

Of the total 2,400 participants older than 15 years, about 45% were men and 55% women.

In terms of age groups, the two most prominent were the middle groups, that is, between 25 and 44 years and between 45 and 64 years (Figure 15), and the average age of respondents was 47 years.

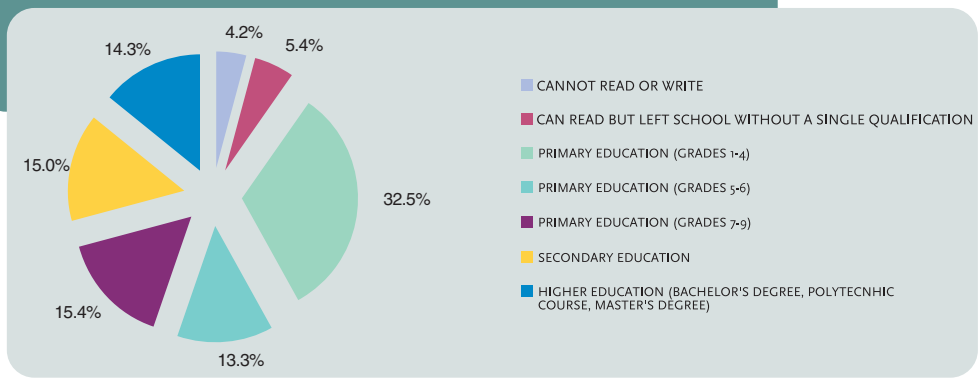
FIGURE 15: DISTRIBUTION OF RESPONDENTS BY AGE GROUPS



With respect to the profile of respondents in terms of education, the most prominent group (33%) includes individuals with the first level of basic education (grades 1 to 4). Adding to these, those residents who cannot read or write, as well as those who can read but left school without a single qualification, the proportion of respondents who only have a primary education was 42%.

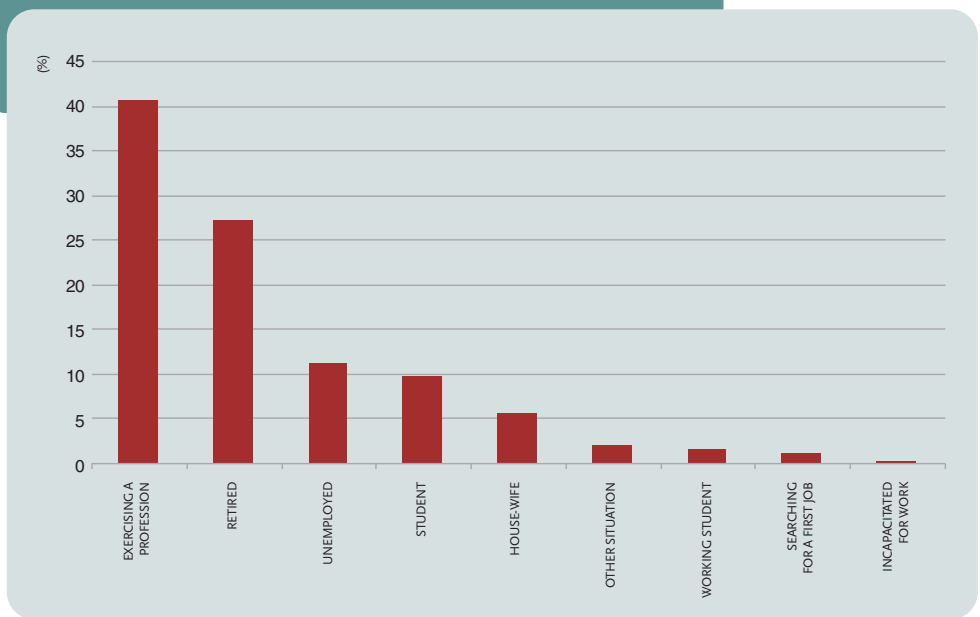
On the opposite side, that is, in terms of higher qualifications, the weight of individuals with higher education attained 14% (Figure 16).

FIGURE 16: DISTRIBUTION OF INTERVIEWEES BY LEVEL OF EDUCATION



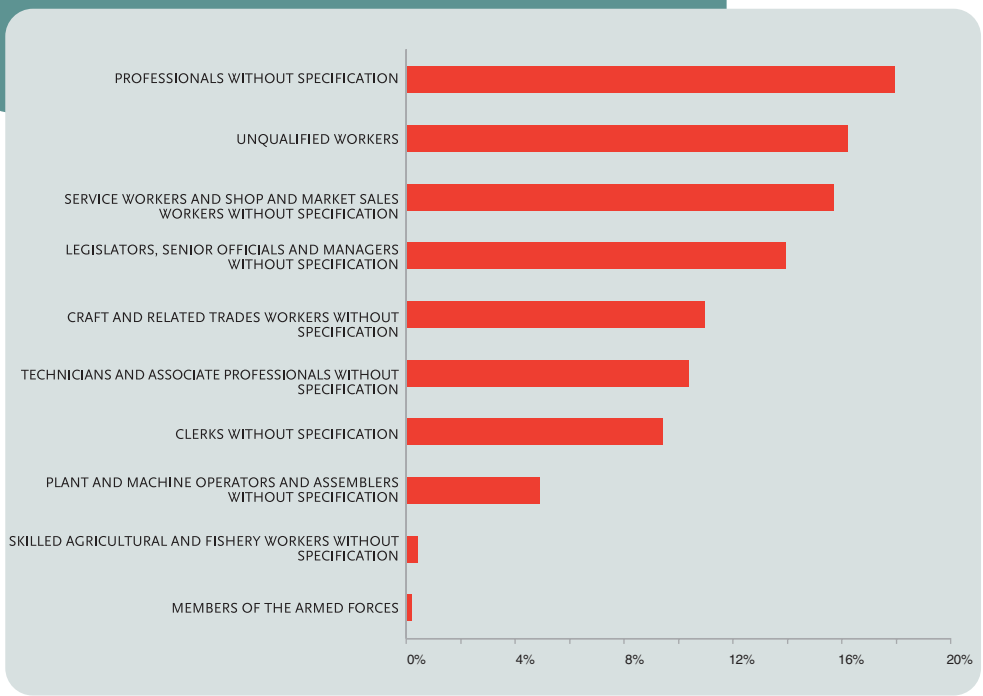
Concerning the employment situation, the working population exercising a profession is prominent (41%), closely followed by the retired – over a quarter of all respondents. As for the remaining categories, and among the most significant, we find the unemployed and students, with a percentage of about 10%. The results of other possibilities are insignificant (Figure 17).

FIGURE 17: DISTRIBUTION OF RESPONDENTS BY EMPLOYMENT SITUATION



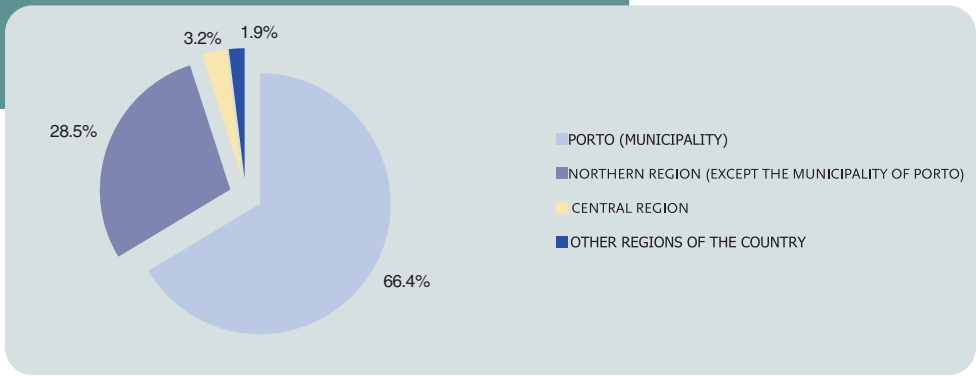
Also with respect to the characterisation of individuals regarding their employment situation – and, specifically, their professions – of those employed the most significant number of the sample was that of workers in the intellectual and scientific professions (18%), immediately followed by the unqualified workers. From the point of view of professional occupation, the sample varied considerably, as shown in the Figure 18.

FIGURE 18: INTERVIEWEES WITH A PROFESSION



Finally, reference must be made to the geographic origins of the respondents. Of the 2,400 residents who answered the survey, about two-thirds originated from the city, whereas the majority of the remaining were born in other municipalities of the Portuguese Northern Region (Figure 19).

FIGURE 19: RESPONDENTS BY MUNICIPALITY OF ORIGIN



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APPENDICES

List of indicators

Field	Subject	Indicator
Environmental conditions	Green spaces	Public green spaces per capita
		Streets with trees
	Climate	Days of rainfall
		Average hours of sunlight per day
	Noise	Noise exposure
	Air Quality	Days with a Good or Very Good Air Quality Index
	Bathing water quality	Records of Good bathing water quality
	Basic infrastructure	Treated wastewater
		Recoverable municipal solid waste
Collective material conditions	Cultural facilities	Public libraries per 1,000 inhabitants
		Art galleries per 1,000 inhabitants
		Museums per 1,000 inhabitants
	Sports facilities	Pavilions per 1,000 inhabitants
		Swimming pools per 1,000 inhabitants
		Others sports facilities per 1,000 inhabitants
	Educational facilities	Primary and secondary schools per 1,000 inhabitants
		Computers in primary and secondary schools per 100 students
	Social and Health facilities	Day nurseries per 1,000 inhabitants
		Kindergartens per 1,000 inhabitants
		Homes for the elderly, day centres and domiciliary services per 1,000 inhabitants.
		Hospital beds per 1,000 inhabitants
		Health care centres and annexes per 1,000 inhabitants
		Doctors per 1,000 inhabitants
	Heritage	Property of national and public interest
		Qualified public space
	Mobility	Average speed of individual transport
		Average speed of public transport
		Parking places in car parks
	Trade and Services	Retail shops per 1,000 inhabitants
		Support services to the population per 1,000 inhabitants
		Hotels and restaurants per 1,000 inhabitants
Economic conditions	Income and Consumption	Average monthly wage (earnings)
		Quotient between the 80th and the 20th percentile of the average monthly wage (earnings)
		Disablement and survivor pensioners per 1,000 inhabitants
		Beneficiaries of the Social Income per 1,000 inhabitants
		ATM withdrawals
		Cars per 1,000 inhabitants
		Households with access to the Internet

Field	Subject	Indicator
	Labour market	Jobs per 1,000 inhabitants
		Directors with medium and high qualifications
		Registered unemployed
	Housing market	Average acquisition cost
		Average rent
		Issue of reconstruction permits
	Economic dynamism	Annual variation in the number of establishments
		Fuel sales
		Total municipal expenditure per 1,000 inhabitants
		Passengers on commercial flights
Society	Population	Live births per 1,000 inhabitants
		Foreign residents
	Education	Students in higher education
		Students pursuing postgraduate studies, master's degrees and doctorates
		Rate of early school leavers
	Cultural dynamism	Cultural performances
		Users of public libraries
		Museum visitors
	Civic participation	Voters who exercised their right to vote in the past four elections
		Women elected for municipal office
		Sports associations per 1,000 inhabitants
		Recreational and cultural associations per 1,000 inhabitants
		Voluntary associations per 1,000 inhabitants
	Health	Premature mortality rate
	Safety	Road accidents resulting in death or serious injury per 1,000 inhabitants
		Crime rate
	Social problems	Suicides per 1,000 inhabitants
		Active users of rehabilitation centres for drug addicts
		Requests for social housing
		Homeless population

List of variables

Variable	Unit
Resident population	no.
Usual residences	no.
Area	km^2
Road network length	m
Green spaces	m^2
Streets with trees	m
Total daily rainfall	mm
Hours of sunlight per day	no.
Noise exposure	
Day-to-day Air Quality Index in Porto	Qualitative
Day-to-day Air Quality Index in Antas Station	Qualitative
Day-to-day Air Quality Index in Boavista Station	Qualitative
Day-to-day Air Quality Index in FEUP Station	Qualitative
Day-to-day Air Quality Index in Formosa Station	Qualitative
Classification of bathing water in Gondarém	Qualitative
Classification of bathing water in Castelo do Queijo	Qualitative
Length of the river and sea fronts	m
Total treated wastewater	m^3
Billed water	m^3
Separately collected paper	ton
Separately collected glass	ton
Separately collected packaging	ton
Separately collected wood waste	ton
Separately collected metal	ton
Separately collected green waste	ton
Total municipal solid waste	ton
Public libraries	no.
Art galleries	no.
Museums	no.
Pavilions	no.
Swimming pools	no.
Tennis courts	no.
Big stadiums	no.
Small stadiums	no.
Athletics tracks	no.
Sports rooms	no.
Special facilities	no.
Area classified as World Heritage	km^2
Property of National Interest	no.
Property of Public Interest	no.
Qualified public space	m^2
Public primary schools	no.
Private primary schools	no.
Public secondary schools	no.
Private secondary schools	no.

Variable	Unit
Students in public primary schools	no.
Students in private primary schools	no.
Students in public secondary schools	no.
Students in private secondary schools	no.
Computers in public primary schools	no.
Computers in private primary schools	no.
Computers in public secondary schools	no.
Computers in private secondary schools	no.
Computers connected to the Internet in public primary schools	no.
Computers connected to the Internet in private primary schools	no.
Computers connected to the Internet in public secondary schools	no.
Computers connected to the Internet in private secondary schools	no.
Capacity of public kindergartens	no.
Capacity of private kindergartens	no.
Capacity of public day nurseries	no.
Capacity of private day nurseries	no.
Capacity of homes for the elderly	no.
Capacity of day centres	no.
Capacity of domiciliary services	no.
Hospital beds	no.
Health care centres	no.
Health care centre annexes	no.
Doctors	no.
Parking places in private car parks	no.
Parking places in municipal paid car parks	no.
Parking places in municipal free car parks	no.
Parking places in Council-operated car parks	no.
Average speed of public transport	km/ph
Average speed of individual transport	km/ph
Non-specialised retail shops	no.
Non-specialised retail shops selling food, drinks and tobacco	no.
Retail shops selling pharmaceuticals, drugs, cosmetics and hygiene products	no.
Specialised retail shops selling other new products	no.
Retail shops selling second hand articles	no.
Banks	no.
Travel and tourism agencies	no.
Post offices	no.
Life insurance	no.
Non-life insurance	no.
Car rent	no.
Clinical laboratory services	no.
Other services	no.
Restaurants	no.
Hotels with restaurants	no.
Hotels without restaurants	no.
ATM withdrawals	Thousands of Euros
ATM withdrawals at constant prices	Thousands of Euros
ATM withdrawals (national)	Thousands of Euros
Average monthly wage (earnings)	Euros
Average monthly wage (earnings) at constant prices	Euros

Variable	Unit
20th percentile of the average monthly wage (earnings)	Euros
80th percentile of the average monthly wage (earnings)	Euros
Disablement pensioners	no.
Survivor pensioners	no.
Beneficiaries of the Social Income	no.
Butane gas consumption	ton
Propane gas consumption	ton
Natural gas consumption	ton
Cars	no.
Households with access to the Internet	no.
Registered unemployed	no.
Registered unemployed in search of a first job	no.
Registered unemployed men	no.
Registered unemployed women	no.
Registered unemployed younger than 25 years	no.
Registered unemployed aged between 25 and 49 years	no.
Registered unemployed older than 50 years	no.
Registered unemployed with less than 6 years of education	no.
Registered unemployed with 9 years of education	no.
Registered unemployed with 11/12 years of education	no.
Registered unemployed with medium or higher education	no.
Registered unemployed for less than 3 months	no.
Registered unemployed for 3 to 12 months	no.
Registered unemployed for more than 12 months	no.
Civil servants	no.
Directors	no.
Workers with high qualifications	no.
Workers with medium qualifications	no.
Total workers	no.
Average acquisition cost	Euros/m²
Average acquisition cost at constant prices	Euros/m²
Average rent	Euros/m²
Average rent at constant prices	Euros/m²
Reconstruction permits issued	no.
Extension works permits issued	no.
Alteration works permits issued	no.
Total rebuilding/extension/alteration permits issued	no.
Total establishments	no.
Gasoline sales	ton
Diesel fuel sales	ton
Total municipal expenditure	Thousands of Euros
Total municipal expenditure at constant prices	Thousands of Euros
Gross Domestic Product deflator	index
Consumer Price Index	index
Passengers on commercial flights	no.
Entertainment performances by regular producers	no.
Festival performances	no.
Entertainment performances by arts support services	no.
Public library users	no.
Museum visitors	no.

Variable	Unit
Students in public higher education	no.
Students in private higher education	no.
Students in postgraduate studies in public higher education	no.
Students in postgraduate studies in private higher education	no.
Students pursuing master's degrees in public higher education	no.
Students pursuing master's degrees in private higher education	no.
Doctorate students	no.
Researchers	no.
Rate of early school leavers	%
Live births	no.
Rate of natural increase	%
Foreign residents	no.
Road accidents resulting in death or serious injury	no.
Road accidents	no.
Crimes against people	no.
Crimes against property	no.
Crimes against society	no.
Other crimes	no.
Voluntary associations	no.
Recreational and cultural associations	no.
Sports associations	no.
Elected women officials of the Municipal Board	no.
Elected women officials of the City Council	no.
Total number of elected officials of the Municipal Board	no.
Total number of elected officials of the City Council	no.
Number of people registered to vote in the European Parliament elections	no.
Voters in the European Parliament elections	no.
Number of people registered to vote in the Presidential elections	no.
Voters in the Presidential elections	no.
Number of people registered to vote in the Legislative elections	no.
Voters in the Legislative elections	no.
Number of people registered to vote in the Municipal elections (City Council)	no.
Voters in the Municipal elections (City Council)	no.
Suicides	no.
Homeless population	no.
Active users of rehabilitation centres for drug addicts	no.
Women active users of rehabilitation centres for drug addicts	no.
Men active users of rehabilitation centres for drug addicts	no.
Active users of rehabilitation centres for drug addicts aged between 0 and 14 years	no.
Active users of rehabilitation centres for drug addicts aged between 15 and 24 years	no.
Active users of rehabilitation centres for drug addicts aged between 25 and 49 years	no.
Active users of rehabilitation centres for drug addicts older than 50 years	no.
Requests for social housing	no.
People who die before the age of 65	no.
Total deaths	no.

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Fax: 229 484 597
www.ana-aeroportos.pt

CI – Confidencial Imobiliário
Phone: 214123790
Fax: 214 123 799

CCDR-N – Comissão de Coordenação e Desenvolvimento Regional-Norte
Rua Formosa, 254
4000-247 Porto
Phone: 223 400 000
Fax: 223 323 795
www.dra-n.pt

CDSS-Porto – Centro Distrital de Segurança Social do Porto
Rua António Patrício, 262
4199-001 Porto
Phone: 226 088 208/226 088 100
Fax: 226 098 713/226 091 831
www.seg-social.pt

DAPP – Departamento de Avaliação Prospectiva e Planeamento
Avenida 24 de Julho, 134
1399-054 Lisboa
Phone: 213 949 200
Fax: 213 957 610
www.dapp.min-edu.pt

DESUP – Direcção Geral do Ensino Superior
Avenida Duque d'Ávila, 137
1069-016 Lisboa
Phone: 21 312 60 00
Fax: 21 312 60 01
www.desup.min-edu.pt

DGE – Direcção Geral de Energia
Avenida 5 Outubro 87
1069-039 Lisboa
Phone: 217 922 700
Fax: 217 939 540
www.dge.pt

DREN – Direcção Regional de Educação do Norte
Rua António Carneiro, 8
4349-003 Porto
Phone: 225 191 100
Fax: 225 103 151
www.dren.min-edu.pt

FEUP – Faculdade de Engenharia da Universidade do Porto
Rua Dr. Roberto Frias
4200 Porto
Phone: 225 081 400
Fax: 225 081 440
www.fe.up.pt

IA – Instituto do Ambiente
Rua da Murgueira - Bairro do Zambujal
2721-865 Amadora
Phone: 214 728 200
Fax: 214 719 074
www.iambiente.pt

IDT – Instituto da Droga e da Toxicodependência (ex-SPTT)
Avenida da Boavista, 2521
4100-135 Porto
Phone: 226 199 090
Fax: 226 102 963
www.drogas.pt

IEFP – Instituto do Emprego e Formação Profissional--Delegação Regional do Norte
Rua Eng.° Ezequiel de Campos,488
4149-004 Porto
Phone: 226 159 200
Fax: 226 159 282
www.iefp.pt

IIAE – Instituto para a Inovação na Administração do Estado
Avenida Helen Keller, 19 - A
1400-197 Lisboa
Phone: 213 642 190
www.igdap.gov.pt

IG – Instituto Geofísico
Serra do Pilar
4430 Vila Nova de Gaia

Phone: 223 709 088; 223 709 348
Fax: 223 703 388
www.fc.up.pt

INE – Instituto Nacional de Estatística
Rua de Vilar, 235-9°
4050-626 Porto
Phone: 226 072 000
Fax: 226 072 005
www.ine.pt

ISP – Instituto de Seguros de Portugal
Avenida de Berna, 19
1050-037 Lisboa
Phone: 217 903 100
Fax: 217 938 568
www.isp.pt

ME – Ministério da Educação
Avenida 5 de Outubro, 107
1069-018 Lisboa
Phone: 217 950 330
Fax: 217 933 618
www.min-edu.pt

MJ – Ministério da Justiça
Rua do Ouro, 6
1149-019 Lisboa
Phone: 213 222 300
Fax: 213 423 198
www.mj.gov.pt

MSST - NIE – Ministério da Segurança Social e do trabalho – Núcleo de Informação Estatística (ex-DETEFP do MTS)
Rua Rodrigo da Fonseca, 55
1250-190 Lisboa
Phone: 213 822 361
Fax: 213 822 401
www.detefp.pt

OPS – Observatório Permanente de Segurança
Phone: 226 104 224

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