

# THE EVOLUTION OF PUBLIC EXPENDITURE: PORTUGAL IN THE EURO AREA CONTEXT\*

Jorge Correia da Cunha\*\* | Cláudia Braz\*\*



## ABSTRACT

The objective of this article is to present the main aspects of the evolution of public expenditure in Portugal from 1995 to 2011. Developments in the current composition of the euro area are used as a benchmark. Primary expenditure in Portugal increased substantially up to 2010, particularly in the period 1995 - 2005. In terms of the economic classification of expenditure, social benefits in cash, mostly pension expenditure, and, to a lesser extent, social benefits in kind and intermediate consumption were the main contributors to the strong growth in spending. The total expenditure to GDP ratio, however, was, throughout the period, below the euro area average and has shown a similar pattern of evolution in the recent years, when correcting for the impact of temporary measures and special factors in Portugal. However, Portugal as a euro area member state, despite its negligible increase in GDP *per capita*, recorded one of the highest increases in public spending as a percentage of GDP in the period under analysis. In 2011, its level of total public expenditure to GDP ratio was higher than in many other euro area countries, including several ones with substantially higher GDP per capita. This relationship is also reflected in the four main types of expenditure by functional classification (defence and security and public order, health, education and social protection). Portugal converged to the euro area average functional structure. A simple evaluation of efficiency in the health sector shows a substantial improvement in health status indicators in Portugal between 1995 and 2010. In the last year of that period, expenditure was slightly below that of the countries with the best results. Regarding the education sector, in spite of the improvement in terms of participation rates and in international exams, Portugal emerged in 2009 as a country with unfavourable results in terms of its educational process and high expenditure in relative terms.

## 1. Introduction

The level of public expenditure should ideally result from the informed choice of citizens regarding the public goods and services and social benefits they desire to be provided by the budget and taxes and other charges they will have to pay to finance them. These choices are implemented in each country through a collective decision-making process, in which citizens' elected representatives play an essential role. Historically, between 1960 and 1980, public expenditure and the tax burden expanded considerably in most developed countries.<sup>1</sup> This evolution was boosted by rapid economic growth and rested on the belief that State intervention is intrinsically benign, ensuring the correction of market failures, an equitable distribution of income and economic stabilisation. The prevailing view in most countries did

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\*\* Economics and Research Department, Banco de Portugal.

<sup>1</sup> For further details see Tanzi and Schuknecht (2000).

not sufficiently take the need to adjust the level of public revenue and expenditure to the productive capacity of the economy into account in order to ensure the sustainability of the public finances, nor was the possibility of State failures resulting from limitations on information and biases of various kinds in the collective decision-making process considered (e.g. those associated with electoral cycles, inconsistencies between the goals of different levels of government and rent-seeking behaviours).

Portugal followed the general trend of developed countries, albeit with a considerable time lag largely explained by the pattern of evolution of its income. However, in the period from 1995 to 2010, the public expenditure to GDP ratio converged to the average of the euro area as its growth remained strong, while already declining in several other countries. The substantial increase in public expenditure in Portugal throughout the period made a major contribution to the expansionary stance of fiscal policy and the ensuing deterioration of the public finances. A reduction in public spending has only very recently been noted, in the context of the Economic and Financial Assistance Programme binding upon Portugal since mid 2011.

The main areas of public expenditure are the provision of services through the budget and include, *inter alia*, defence and security, justice, education and health and transfers to ensure a certain level of income in situations such as old age, disability and unemployment. It is mainly funded by mandatory contributions from other sectors of the economy, in the form of taxes and social contributions. In this regard several observations are warranted. Firstly, unlike transfers, the provision of services that can be broadly associated with public consumption and investment compete directly with the rest of the economy for resources (labour and capital). As such, its value as a GDP ratio, *per se*, a relevant item of information. Secondly, public expenditure related to the provision of non-market services, in the absence of market prices and good physical indicators, measures outputs from the cost of the inputs used. An analysis of the efficiency of these processes is complex, but particularly relevant in the design of fiscal consolidation programmes, as it enables potential savings of resources to be identified without hindering the level of services provided. Thirdly, from a social welfare perspective, the objectives encompass the promotion of human capital formation and citizens' health and not the maximisation of the services provided. Diminishing returns are observed, *i.e.* above certain spending levels new rises may not be very effective in improving economic and social indicators, which should be the ultimate goal of the workings of general government. Fourthly, it is important to make sure that transfers to cover social risks are suitably targeted and that there is consistency between social goals and their practical implementation, avoiding the wastage of resources. Finally, the proper design and subsequent stability of public revenue raising systems and government spending programmes are crucial in reducing the net costs in terms of welfare (excess burden) that they entail and the uncertainty faced by economic agents and therefore increasing the potential growth of the economy.

The objective of this article is to present the main aspects of the evolution of public expenditure in Portugal from 1995 to 2011. The analysis is based on the National Accounts for the general government sector, using both the economic and functional classifications for public expenditure. Developments in the current composition of the euro area, are used as a benchmark. Section 2 refers to several of the major limitations affecting international public spending comparison and also focuses on the difficulties inherent in assessing its efficiency and effectiveness.<sup>2</sup> Section 3 presents the evolution of total public expenditure in Portugal, in the context of the euro area. The main drivers behind the growth of public expenditure in Portugal, from an economic classification viewpoint are explained in Section 4. Section 5 provides a breakdown of general government expenditure based on its functional classification in Portugal and compares it with the situation in the euro area, emphasising efficiency/effectiveness issues in the health and education sectors. Finally, Section 6 presents the concluding remarks.

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<sup>2</sup> In the literature, the concept of efficiency is usually linked to performance based on output, while effectiveness is considered to be a broader concept also relating performance to the final outcome. As a simplification, a systematic distinction between the two concepts will not be made in the analysis carried out in this article.

## 2. Limitations in the comparative analysis of public expenditure

The analysis developed in this article is essentially based on the National Accounts for the general government sector, using the economic and functional classifications for public expenditure. In addition to developments in Portugal between 1995 and 2011 (2010 in the case of the functional classification), a comparative analysis is provided of the developments in the current composition of the euro area.

Three limitations should be underlined regarding international comparisons between different levels of spending. Firstly, the analysis is affected by the delimitation of the general government sector. Information on the extent to which goods and services in the budget are provided to citizens by entities classified within or outside the general government sector, particularly in the health and education sectors, must be provided on a country by country basis. It is important to note that in the cases in which the general government sector does not directly supply the goods and services but pays most of their cost to entities outside the sector (e.g. corporate hospitals in Portugal), a comparison between the level of spending as a whole, together with an analysis based on the functional classification, is still a valid exercise. Item by item comparability problems only emerge when the economic classification is used. There may also be other cases in which the differences in the delimitation of the sector generate different spending time patterns, affecting the yearly analysis (e.g. public-private partnerships). Secondly, differences in the taxation of social benefits and the existence of tax benefits instead of explicit expenditure may have a non-negligible impact in international comparisons between spending levels. Finally, other country-specific factors are also an important limitation in this type of analysis. For example, the recording of expenditure on the public employees' pension subsystem in Portugal in the period prior to 2005, by considering the overall amount of the State transfer aimed at ensuring the financial stability of the system as social contributions/compensation of employees, artificially increased this expenditure item.

An analysis of public expenditure is often linked to the issue of efficiency in the provision of goods and services by general government.<sup>3</sup> In general, this efficiency is measured by a comparison between the resources used and the quantity/quality of goods and services provided. It should be noted, however, that there are several difficulties with this kind of analysis for various reasons. Firstly, such analyses are very demanding in terms of data and require very detailed information. Secondly, there are often problems with the definition of the production process, particularly related with the identification of inputs and outputs, and the choice of indicators that summarise the final outcomes. Thirdly, the absence of market prices for valuing the provision of non-market services creates difficulties in output measurement. Lastly, it should be noted that there are several alternative methodologies and there is no consensus in the literature over their relative merits.

## 3. Analysis of the evolution of total public expenditure: Portugal in the euro area context

Since the mid nineteen nineties<sup>4</sup>, public spending<sup>5</sup> in Portugal, measured in nominal terms, recorded a continuous increase, only reversed in 2011 (Table 1).<sup>6</sup> This evolution is, however, affected by interest expenditure, the impact of several temporary measures - which basically reduce capital spending - and

<sup>3</sup> For a recent Banco de Portugal analysis on public expenditure efficiency see Economics and Research Department (2009), Pereira (2010) and Pereira (2011).

<sup>4</sup> Period from which the information does not have any structural breaks.

<sup>5</sup> The concept used corresponds to total general government expenditure on a National Accounts basis.

<sup>6</sup> For further details on the evolution of public expenditure in Portugal in the period 1986 - 2008 see Cunha and Braz (2009).

Table 1

PUBLIC EXPENDITURE IN PORTUGAL									
	1995	Change 1995- 2005	2005	2006	2007	2008	2009	2010	2011
<b>Total public expenditure</b>	36 792	35 098	71 890	72 701	75 006	76 933	83 810	88 941	84 441
<i>as a % of GDP</i>	41.9	4.7	46.6	45.2	44.3	44.7	49.7	51.5	49.4
Interest expenditure	4 912	-977	3 935	4 455	4 978	5 188	4 775	4 845	6 930
Temporary measures	0	202	202	0	-195	-1 853	0	-133	0
Special factors	0	0	0	0	0	0	0	4 938	1 985
<b>Primary expenditure excluding temporary measures and special factors</b>	31 879	35 873	67 753	68 246	70 224	73 597	79 035	79 290	75 526
<i>as a % of GDP</i>	36.3	7.6	43.9	42.4	41.5	42.8	46.9	45.9	44.2

Sources: National Statistical Institute and Banco de Portugal.

special factors - that in 2010 and 2011 transitorily increased several expenditure items.<sup>7,8</sup> Therefore, correcting for the effects of interest expenditure and temporary measures, nominal public spending doubled in value between 1995 and 2005. On average, during this period, primary expenditure, excluding temporary measures, increased by 3.6 billion euros per year. In 2006 this trend was mitigated and, in 2007, moderate growth recorded, albeit accelerating rapidly in 2008 and 2009. 2010 was greatly affected by one-off transactions that significantly increased expenditure. Expenditure, if adjusted to exclude these operations would have almost stabilised at a level of more than 79 billion euros in the said year. The same indicator showed a very significant reduction in 2011, albeit still remaining above pre-crisis levels. In 2012, a further decrease of around 4.5 billion euros was witnessed. The 2012 evolution is largely explained by the suspending of the payment of summer and Christmas bonuses to public sector employees and pensioners. The State Budget for 2013 envisages the partial reintroduction of these subsidies, together with various measures to reduce spending, pointing to a relative stabilisation of primary expenditure excluding temporary measures and special factors.

In addition to the analysis based on nominal values, it is important to express public spending in relative terms. Public expenditure's share of nominal GDP is the preferred indicator for time-series analyses and international comparisons. Chart 1 illustrates the annual change in the primary expenditure to GDP ratio in Portugal between 1995 and 2011, excluding temporary measures and special factors. This indicator rose every year up to 2005, by 7.6 percentage points (p.p.) in cumulative terms. The change in total spending to GDP ratio, in this period, was considerably lower, as the fiscal leeway created by the reduction in interest expenditure as a percentage of GDP (of around 3 p.p.) was greatly offset by a strong increase in primary expenditure. In 2006 and 2007, primary expenditure, excluding temporary measures and special factors as a ratio to GDP declined, returning to a strong expansionary trend in 2008 and 2009. The 4.1 p.p. increase in GDP, observed in 2009, is noteworthy on account of its magnitude. This was followed by a reversal of the upward trend of primary expenditure excluding temporary measures and special factors to GDP ratio, which decreased by around 1.0 and 2.0 p.p. of GDP in 2010 and 2011, respectively. According to available information, in 2012, it is expected to be down once again, by around 1.0 p.p. of GDP.

Public spending is also affected by cyclical developments. In general, the cyclical adjustment methodologies of the budget balance consider that this effect is limited to spending on unemployment benefits. For the

<sup>7</sup> For a detailed description of these special factors see "Chapter 3 Fiscal policy and situation", Annual Report 2011, Banco de Portugal, and "Box 3.1 Some considerations on the assessment of the fiscal policy stance", Economic Bulletin Autumn 2012, Banco de Portugal.

<sup>8</sup> Although public spending is also affected by the cyclical conditions of the economy, because the magnitude of this cyclical component is generally small, in this article it will only be considered in the presentation of the values of structural expenditure as a ratio to trend GDP.

sake of consistency, the presentation of cyclically adjusted expenditure should be as a ratio to nominal trend GDP. In this article both the cyclical component of unemployment benefits and real trend GDP are based on the cyclical adjustment methodology used by the Eurosystem.<sup>9</sup> Chart 1 also shows the change of primary expenditure, excluding the cyclical component, temporary measures and special factors as a percentage of trend GDP, between 1995 and 2011. The chart shows that the differences compared to the previous series are not very significant and that it was only in 2007 and 2010 that the conclusions based on each of the indicators were different in terms of sign. In the remaining years, though the sign was the same, its magnitude according to the two indicators may differ significantly.<sup>10</sup>

The rate of change of expenditure also gives a useful insight into the analysis of budgetary developments, particularly when measured in real terms. As prices have a very different effect on the various expenditure components, the calculation of a public expenditure deflator may involve some complexity. In this context, chart 1 (right-hand scale) shows the real rate of change of structural primary expenditure (excluding the cyclical component and temporary measures), adjusted for special factors, using the private consumption deflator. Since 1998 it has been possible to observe a deceleration profile, although up to 2005 the annual rates of change of this indicator were on average more than 2 p.p. above the change in real GDP. The period between 1995 and 2005, therefore witnessed an increase of around 60 per cent in structural primary expenditure, measured in real terms, more than twice the change in real GDP for the same period (around 28 per cent). In 2006, this expenditure indicator decreased and came close to stabilising in the following year. 2008, witnessed a return to positive growth, with a sharp acceleration to 9.5 per cent in 2009, a year of pronounced recession. The last two years of the period under review, witnessed a trend reversal in structural primary expenditure (adjusted for special factors) with declines of -1.1 and -8.0 per cent in 2010 and 2011, respectively, which continued through 2012.

Chart 2 presents the evolution of the total public expenditure to GDP ratio in Portugal and in the euro area over the period 1995 to 2011.<sup>11,12</sup> It shows that, while the euro area witnessed a reduction followed by stabilisation up to almost 2007, in Portugal there was a sharp rise in this indicator up to 2005. The increase in the public spending to GDP ratio in 2008 and 2009 was common to Portugal and the euro area as a whole, resulting from both fiscal stimulus packages aimed at alleviating the effects of the decline in activity (suggested, in particular, by international – including European – organisations) and the reduction of economic activity. The ensuing decrease resulted from the urgency of the need for fiscal consolidation made inevitable by the sovereign debt crisis in the euro area. The public spending to GDP ratio, in 2011, still remained clearly above the pre-crisis period level. It should also be noted that in the period analysed, the public spending to GDP ratio in Portugal converged to the euro area average. However, correcting for the effect of temporary measures and special factors, the public spending to GDP ratio in Portugal has been consistently below the euro area average, with a difference of 1.2 p.p. of GDP in 2011.<sup>13</sup>

Chart 3 shows the change in levels of the total public expenditure to GDP ratio in each of the euro area countries<sup>14</sup> and its relation to the variation of the respective GDP per capita, measured in purchasing

<sup>9</sup> For further details on the cyclical adjustment methodology adopted by the Eurosystem see Braz (2006).

<sup>10</sup> This result justifies that, although the use of the structural expenditure to trend GDP ratio is preferred for yearly analyses, for longer periods and assessment of trends the expenditure to GDP ratio is perfectly suited as an indicator.

<sup>11</sup> In this article, references to euro area aggregates represent weighted averages of the indicators, with the exception of situations in which explicit reference is made to the use of a simple average.

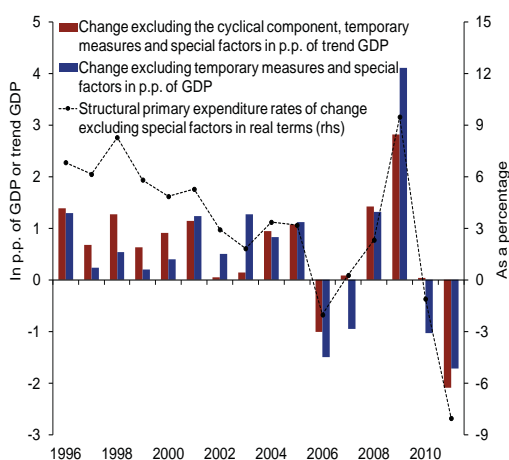
<sup>12</sup> In the charts of this article, the countries are represented by the following acronyms: Austria (AT), Belgium (BE), Cyprus (CY), Germany (DE), Estonia (EE), Greece (EL), Spain (ES), Finland (FI), France (FR), Ireland (IE), Italy (IT), Luxembourg (LU), Malta (MT), the Netherlands (NL), Portugal (PT), Slovenia (SI) and Slovakia (SK).

<sup>13</sup> If a simple average of the public expenditure to GDP ratio in the euro area countries had been used, public expenditure in Portugal would have been above the average, with the difference having totalled 0.5 p.p. in 2011.

<sup>14</sup> Luxembourg is not considered as it is clearly an outlier in this analysis.

Chart 1

## PRIMARY EXPENDITURE IN PORTUGAL

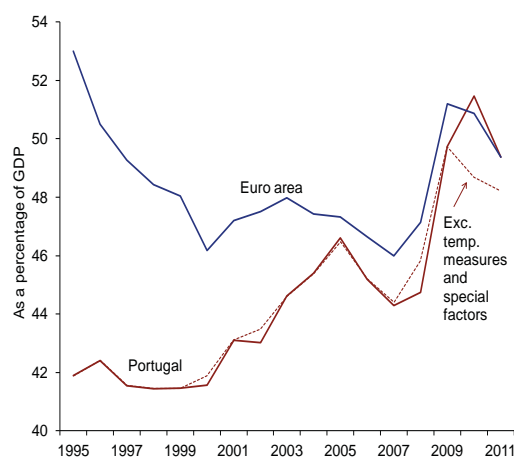


**Sources:** National Statistical Institute and Banco de Portugal.

**Notes:** The cyclical component of expenditure and real trend GDP are calculated according to the methodology of the Eurosystem. Nominal trend GDP is obtained by multiplying real trend GDP by the GDP deflator. The private consumption deflator is used to calculate primary expenditure in real terms.

Chart 2

## TOTAL PUBLIC EXPENDITURE IN PORTUGAL AND IN THE EURO AREA



**Sources:** Eurostat, National Statistical Institute and Banco de Portugal.

**Note:** Total public expenditure includes interest outlays.

power standard, between 1995 and 2011. This analysis shows that Portugal was one of the member states of the euro area that, despite the negligible increase in GDP per capita, recorded one of the highest rises in its public spending to GDP ratio.

Chart 4 provides an international comparison between the level of the public spending to GDP ratio and the level of GDP per capita, measured in purchasing power standard in 2011. It shows that Portugal's level of total public expenditure to GDP ratio is higher than that of many countries, including several with substantially higher GDP per capita.

#### 4. Breakdown of expenditure based on economic classification: Portugal

Regarding the economic classification of public expenditure in Portugal<sup>15</sup>, the two most important items are social benefits and compensation of employees, which, in 2011, represented 46 and 24 per cent of total spending, respectively (50 and 26 per cent of primary expenditure).

Between 1995 and 2011, social benefits increased by 9.6 p.p. of GDP, of which around 2/3 through the expansion of transfers to households in cash and the remainder associated with social benefits in kind (Chart 5). In the case of social benefits in cash, about 80 per cent of the observed variation in the period (corresponding to 5.2 p.p. of GDP) stems from the evolution of pension expenditure. This is undoubtedly one of the main factors accounting for the strong growth in primary spending, particularly after 2000. Underlying its evolution was the significant growth both in the number of pensioners and the average pension (excluding the annual update).<sup>16</sup> The latter developments are partly explained by the maturation of the Social Security subsystem (Chart 6). In terms of annual pensions updates, the period prior to the Social Security reform<sup>17</sup> witnessed several years of discretionary increases higher than expected inflation,

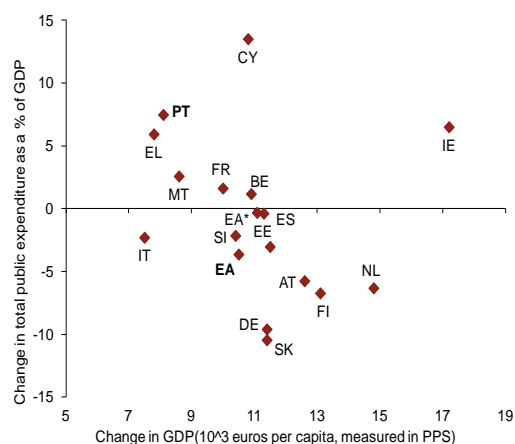
<sup>15</sup> The analysis for Portugal carried out in this section is based on expenditure values that exclude the effects of temporary measures and special factors.

<sup>16</sup> According to the authors' calculations, in 2011, the average monthly pension in the Social Security subsystem totalled around 350 euros and approximately 975 euros in the *Caixa Geral de Aposentações* subsystem.

<sup>17</sup> See Law no. 4/2007 of January 16 and Decree-law no. 187/2007 of May 10 for specific regulation.

Chart 3

CHANGE BETWEEN 1995 AND 2011 OF TOTAL PUBLIC EXPENDITURE AS A RATIO TO GDP AND GDP PER CAPITA MEASURED IN PPS

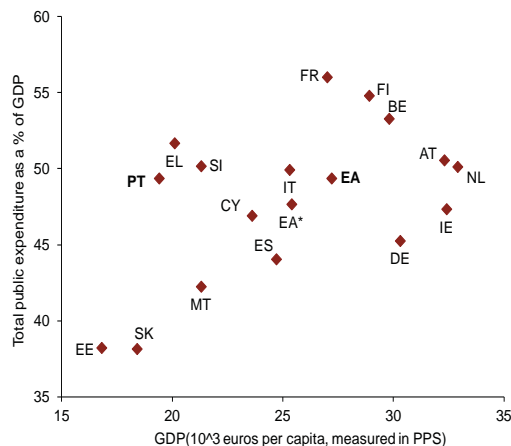


**Sources:** Eurostat, National Statistical Institute and Banco de Portugal.

**Notes:** Total public expenditure includes interest outlays. The values for all countries, including Portugal, do not exclude temporary measures and special factors. Luxembourg is not considered. The simple average of the euro area is represented by EA\*.

Chart 4

TOTAL PUBLIC EXPENDITURE AS A RATIO TO GDP AND GDP PER CAPITA MEASURED IN PPS IN 2011

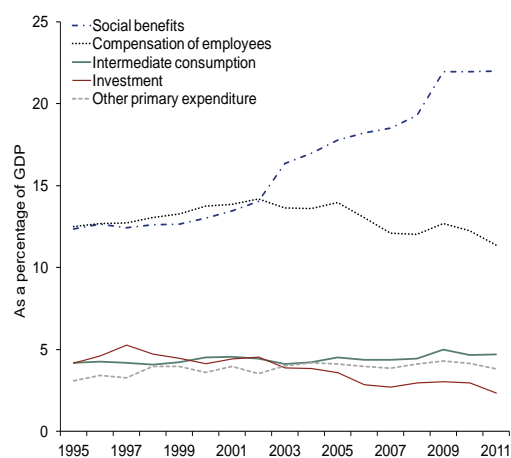


**Sources:** Eurostat, National Statistical Institute and Banco de Portugal.

**Notes:** Total public expenditure includes interest outlays. The values for all countries, including Portugal, do not exclude temporary measures and special factors. Luxembourg is not considered. The simple average of the euro area is represented by EA\*.

Chart 5

PUBLIC EXPENDITURE IN PORTUGAL: ECONOMIC CLASSIFICATION

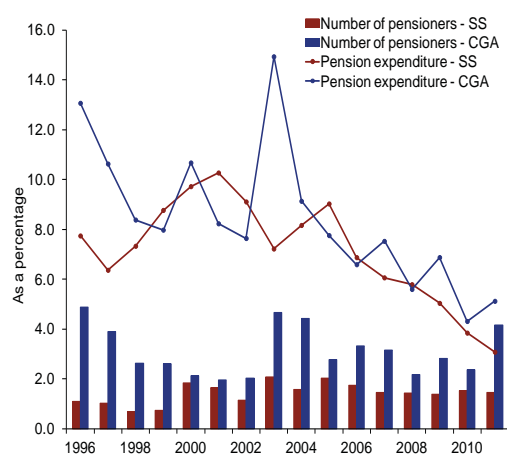


**Sources:** National Statistical Institute and Banco de Portugal.

**Note:** The items are corrected by the effects of temporary measures and special factors which, essentially, impact intermediate consumption, investment and other primary expenditure.

Chart 6

CHANGE IN PENSION EXPENDITURE AND IN THE NUMBER OF PENSIONERS | SOCIAL SECURITY AND CAIXA GERAL DE APOSENTAÇÕES



**Sources:** Social Security and Caixa Geral de Aposentações.



particularly in the general subsystem. The new pension indexation formula came into effect in 2008 and links the update of pensions with inflation, real GDP growth and the level of pensions. It should be noted that the application of the formula was suspended in 2010, since when the value of pensions (except for minimum pensions) has been frozen. The new Social Security Law also introduced a sustainability factor, made changes to the initial pension calculation formula and increased the penalties on early retirement. This reform, whose effects will mainly be felt in the medium and long term, was an important step towards improving the sustainability of the public finances. This result naturally implies the reduction in the value of future pensions relative to what had been expected prior to the reform. This decrease in replacement rates will also occur in the euro area as a whole.<sup>18</sup> As for the *Caixa Geral de Aposentações* subsystem, the very favourable rules are being gradually changed, albeit in the meantime, accelerating to a certain extent in terms of convergence to the rules of the general subsystem.<sup>19</sup> By contrast, the transfer of pension funds to general government, given its self-reversing nature<sup>20</sup>, has contributed to one-off increases in the pension expenditure level in both public subsystems.<sup>21</sup> Altogether, the impact of the measures adopted largely justifies the decrease in the growth rate of spending on pensions. However, in 2011, it still stood at about 4 per cent.<sup>22</sup> The remaining social benefits in cash<sup>23</sup> also increased gradually as a ratio to GDP, declining only over the last two years as a result of the implementation of control measures and changes in eligibility rules.

Developments in social benefits in kind should be analysed in conjunction with the evolution of compensation of employees and intermediate consumption. The transformation of hospitals into public corporations since 2002, although fundamentally neutral in accounting terms, has led to an increase in social benefits in kind, through the payment of services to corporate hospitals, and a reduction in compensation of employees and expenditure on the acquisition of goods and services.<sup>24</sup> With regard to social benefits in kind, the increase totalled 3.1 p.p. of GDP between 1995 and 2011 (0.8 p.p. of GDP excluding the amounts related to the payment of services to corporate hospitals). A substantial series of measures adopted in the health sector, with a particular focus on spending on medicines, has helped to mitigate this item's growth trend.

Apart from the above-mentioned effect related to corporate hospitals, compensation of employees also reflects the recording of the *Caixa Geral de Aposentações* in the National Accounts in the period prior to 2005.<sup>25</sup> The wage bill (which is not affected by the issue of the recording of *Caixa Geral de Aposentações*) decreased by 2.1 p.p. of GDP between 1995 and 2011. If this evolution had been adjusted for an

<sup>18</sup> See Economic Policy Committee and European Commission (2012).

<sup>19</sup> The consecutive changes in the rules of the *Caixa Geral de Aposentações* subsystem have led to a considerable increase in requests for retirement, an important proportion of which corresponds to early retirement, subject to penalties.

<sup>20</sup> The transfers of pension funds to general government reduce the deficit in the year they occur, but increase pension expenditure of this institutional sector in the following years. In principle, the amount initially received should equal the present value of the additional pensions payable in the future. The calculation of this value is, however, dependent on several factors, particularly related to the discount rate and mortality tables, which involve some uncertainty.

<sup>21</sup> The impact of these transfers on general government pension expenditure totalled around 0.3 per cent of GDP in each of the subsystems in 2012. In terms of additional pensioners, around 32,000 individuals in the Social Security subsystem and close to 40,000 in the *Caixa Geral de Aposentações* subsystem resulted from these operations.

<sup>22</sup> In 2012, pension expenditure is expected to decline following the suspending of the summer and Christmas bonuses, with significant growth being resumed in 2013 as a result of the reintroduction of 1.1 bonuses.

<sup>23</sup> This aggregate includes, inter alia, unemployment benefits, sickness and family allowances and social programmes for the support of the elderly and poor households.

<sup>24</sup> See "Box 6.1 Corporate hospitals and public expenditure", Annual Report 2007, Banco de Portugal.

<sup>25</sup> In the period prior to 2005, employer contributions related with general government employees who were subscribers to *Caixa Geral de Aposentações* are still determined as the amount needed to balance the system in each year. As the pension expenditure of this subsystem grew substantially in this period, contributions and consequently compensation of employees increased on average at a higher rate than wages.



estimate of the impact of the transformation of hospitals into public corporations, it would have totalled no more than 0.6 p.p. of GDP. The strong growth of this item, particularly up to 2002 (1.1 p.p. of GDP), was associated with a highly significant increase in the number of general government employees and extraordinary career revisions. These developments are illustrated in Chart 7 which provides information on the rates of change in wages expenditure and the number of general government employees, as well as the difference between the two series. This difference essentially captures the effects of the updates of wage scales, regular career advancements, extraordinary revisions in careers and changes in the average wage due to the hiring and exiting of workers (mainly due to retirements). The analysis, prior to 2002, was not affected by the creation of corporate hospitals, classified outside the general government sector. Thereafter, the two series represented in the chart reflect the breaks associated with the “corporatisation” of hospitals, which implies that only the difference between them is relevant for the analysis.<sup>26</sup> Since 2002, tighter control on admissions together with retirement-based exits<sup>27</sup>, changes in career advancement plans<sup>28</sup>, a certain restraint in the annual update of the wage scale (with a quasi-freeze in 2003, 2004 and 2010, but well above inflation in 2009) and, in 2011, an average cut in salaries of 5 per cent, enabled the growth trend of this item to be moderated and latterly reversed.<sup>29</sup> The wage reduction of 2011, as well as the suspending of the summer and Christmas bonuses in 2012, was implemented progressively, contributing to the narrowing of the wage premium relative to the private sector which, in 2005, was already only slightly positive in the case of higher wages.<sup>30</sup> As for the number of general government employees, an estimate produced by the authors, correcting the breaks due to the “corporatisation” of hospitals points to an increase of around 80,000 individuals (approximately 13 per cent) over the period 1995 to 2011, which can be broken down between an increase of approximately 120,000 up to 2002 followed by a latter reduction of close to 40,000. In this respect, in the current context of a significant number of retirements, the importance of preventing the reduction in the number of public employees from undermining the priorities established for the provision of public services should be highlighted.

Intermediate consumption as a percentage of GDP, corrected for the impact of the “corporatisation” of hospitals, shows an increase in almost every year up to 2009, only declining in the last two years of the period under analysis. As a consequence, the value for 2011 is about 1.5 p.p. of GDP higher than in 1995. The opposite occurred in the case of public investment, which reduced its ratio to GDP from a peak of 5.3 per cent in 1997 to a historically low level of 2.3 per cent in 2011. Part of this trend is explained by the creation of public-private partnerships in this period and the fact that this item of expenditure is easier to cut in times of budgetary difficulties. It should be noted, however, that in economic terms the reduction of public investment does not necessarily corresponds to an unfavourable evolution, if it allows projects with very low or even negative rates of return to be eliminated.

**26** The difference itself may still be affected by the “corporatisation” of public hospitals which, in addition to the number of workers, also influences the average wage in the general government sector.

**27** As well as the reduction in the number of teachers and other personnel with fixed-term employment contracts in the recent period.

**28** The process began in 2004 and is currently governed by Law no. 66-B/2007 of December 28, which established the integrated management and performance evaluation system for public administration (*SIADAP*). In practice, career advancements are actually slower and linked to the performance of public employees.

**29** In 2012, spending on salaries will decline following the suspending of the summer and Christmas bonuses, with significant growth being resumed in 2013 as a result of the partial reintroduction of the bonuses.

**30** In this regard see Campos and Pereira (2009). According to the authors, the wage premium (*i.e.*, the wage gap between general government and the private sector workers that remains after controlling for a set of observable characteristics) when evaluated at the mean of the distribution of wages was around 17 per cent in 2005. However, it declined along the wage distribution and was particularly reduced in the last deciles.

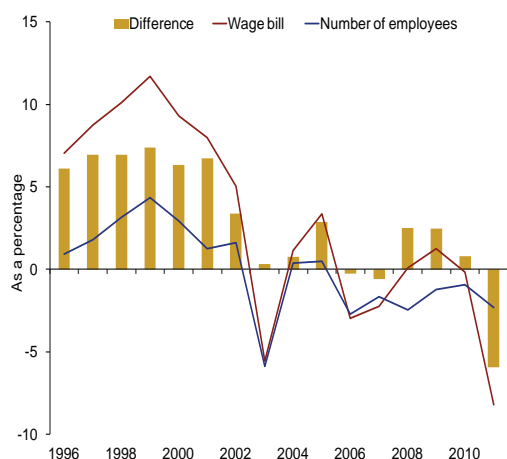
## 5. Breakdown of expenditure based on functional classification: Portugal in the euro area context

Another perspective of the public expenditure analysis focuses on its breakdown by functional classification.<sup>31</sup> The COFOG classification is compiled by National Statistical Institutes and regularly sent to Eurostat, in accordance with the respective rules.<sup>32</sup> As in the case of the economic classification, the information for the general government sector is presented on a National Accounts basis. The items of expenditure in this classification are: i) general public services, ii) defence; iii) public order and safety; iv) economic affairs; v) environmental protection; vi) housing and community amenities; vii) health; viii) recreation, culture and religion; ix) education; and x) social protection. This type of classification is commonly used for analyses of public spending efficiency. In terms of international comparisons, and as mentioned above, limitations on the use of the functional classification are less important than in the case of the economic classification. For example, although the creation of “corporate hospitals” in Portugal has affected several items of the economic classification, it is essentially neutral in terms of health expenditure according to the functional classification. On the contrary, the content of several items of the functional classification is less intuitive, e.g. expenditure on general public services, which includes almost all interest on public debt, or spending on economic affairs which encompasses a major share of expenditure on subsidies and investment.

Chart 8 shows the evolution of the public expenditure to GDP ratio by function, in Portugal, from 1995 to 2010. In this period it is possible to observe a very sharp increase in expenditure on social protection as a percentage of GDP (6.3 p.p.). This result is consistent with the conclusions based on the economic

Chart 7

### CHANGE IN GENERAL GOVERNMENT EXPENDITURE ON WAGES AND NUMBER OF EMPLOYEES

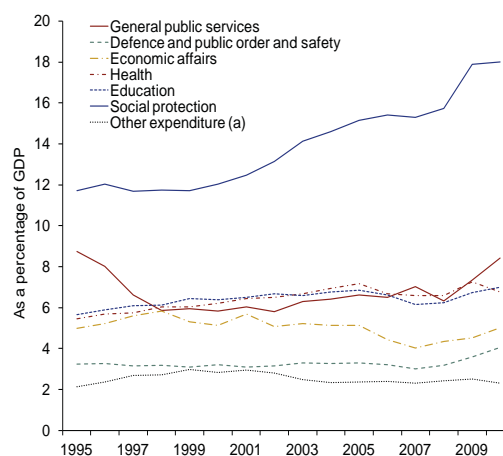


**Source:** National Statistical Institute.

**Note:** The number of general government employees is based on data from the National Statistical Institute for the stock at the end of the year. In order to better reflect the evolution of wages in each year it was used the average stock at the end of the year and at the end of the previous year to determine the rate of change of the number of employees. The exceptions were the years 2003 and 2006 in which it was considered only the stock at the end of the year, as they were very affected by the creation of corporate hospitals in 2002 and 2005, respectively.

Chart 8

### PUBLIC EXPENDITURE IN PORTUGAL: FUNCTIONAL CLASSIFICATION



**Sources:** Eurostat and National Statistical Institute.

**Note:** a) Includes expenditure on environmental protection, housing and community amenities and recreation, culture and religion.

<sup>31</sup> It should be noted that this information is only available up to 2010 for the euro area countries.

<sup>32</sup> For further details see Eurostat (2007).

classification, as “social protection” in the functional classification essentially corresponds to spending on social benefits in cash in the economic classification. Public expenditure on health as a percentage of GDP has been rising gradually between 1995 and 2005 (from 5.4 to 7.2 per cent of GDP), followed by several fluctuations and stood at 6.8 per cent of GDP, in 2012. According to OECD (2012) data, private spending on health has remained relatively stable as a ratio of GDP since 2000, at around 3 per cent, having increased in the most recent period (to 3.7 per cent of GDP in 2010). The trajectory of public expenditure on education also showed sustained growth between 1995 and 2005, increasing its share to GDP from 5.6 to 6.8 per cent, followed by a decrease in 2008, to a slightly higher level than noted at the beginning of the period considered in the analysis. In 2009 and 2010 this type of expenditure recorded a further increase, which may be partly explained by investment expenditure by the Parque Escolar corporation in the modernisation of secondary schools. According to preliminary data for 2011, compiled by the National Statistical Institute, the spending on social protection and health to GDP ratio remained stable, as opposed to a reduction in the case of education.

As for each function's share of overall spending, Portugal, in 1998<sup>33</sup>, in comparison to the euro area average, spent a higher percentage on defence and public order and safety, economic affairs, health and education and a lower percentage of expenditure on general public services, especially social protection (Chart 9). These differences vis-à-vis the euro area average were, in 2010, significantly mitigated. Portugal still had a slightly higher share of expenditure on defence and public order and safety and education in 2010, although spending on health was below and expenditure on general public services above the euro area average, with spending on social protection recording a very considerable increase, while maintaining its share of the total below the euro area.

Underlying the average value of the euro area are very different situations in each of the 17 member states. A country-by-country analysis of the relationship between expenditure and the respective GDP for the most relevant functions: defence and public order and safety, health, education and social protection is therefore important. Chart 10 shows the results for the year 2010. Reference should be made to the fact that Portugal's level of expenditure as a percentage of GDP was relatively high, even compared to countries with higher per capita income, particularly in defence, public order and safety and education.<sup>34</sup> As for public spending on education, Portugal is often referred to in the literature as a country with a high proportion of staff costs. In this respect, it should be noted that the difference between the share of compensation of employees in total expenditure on education compared to the euro area average peaked at about 10 p.p. in 2003, decreasing substantially in the following years (in 2010, the difference stood at approximately 4 p.p.). This development is explained to a large extent by both the horizontal measures affecting the wages of general government workers and the reduction of the number of teachers hired. In contrast, public spending on health and social protection in Portugal is below the euro area average, although the pension expenditure to GDP ratio is already close to the value for the euro area.

Due to its importance and the availability of data, analyses of the efficiency of public expenditure often focus on the health and education sectors. In the case of the health sector in Portugal, the growth of public expenditure occurred simultaneously with the substantial improvement of health status indicators. Between 1995 and 2010, the infant mortality rate<sup>35</sup> decreased from 7.4 to 2.5 per thousand, making

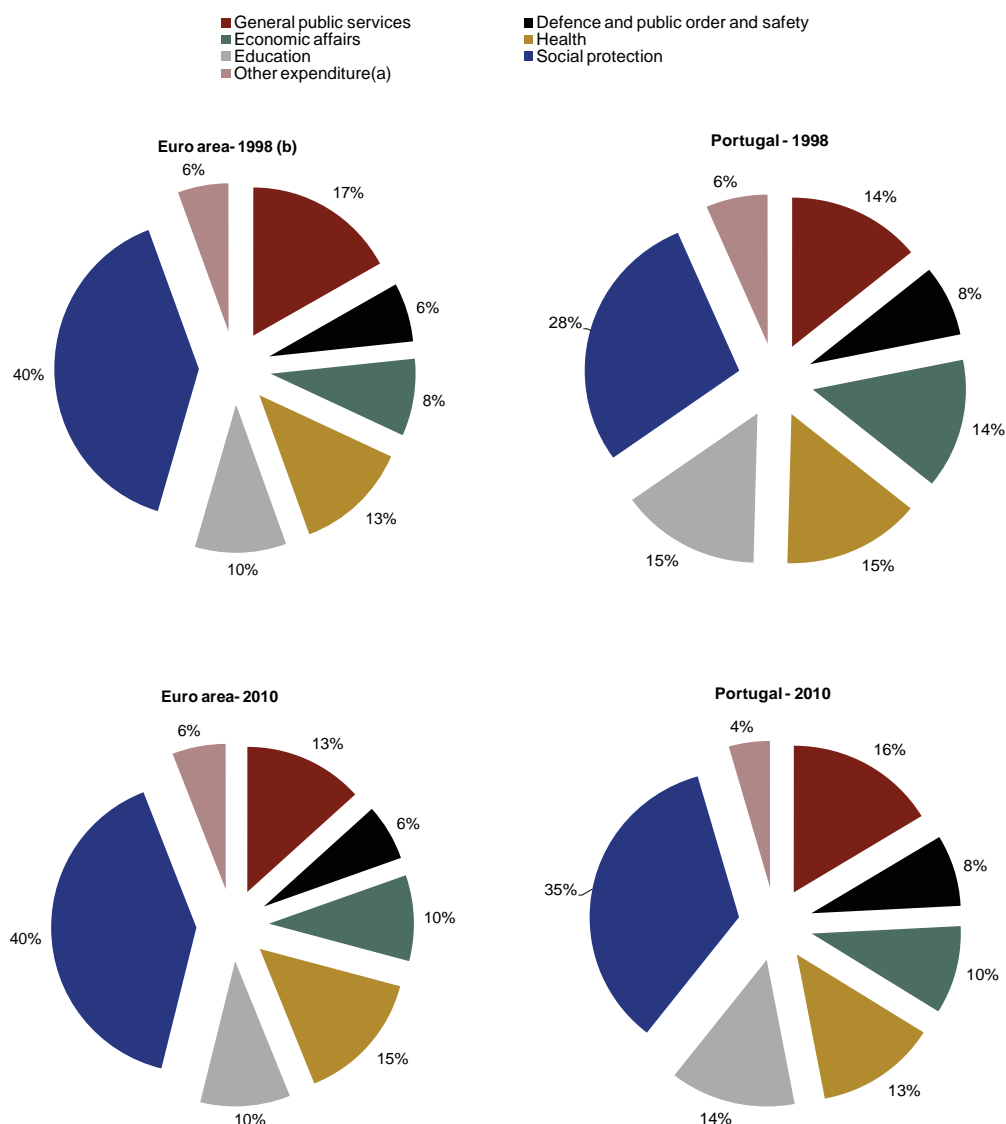
<sup>33</sup> It was decided to produce a chart for 1998 instead of 1995 to minimise the impact of the significant reduction in interest expenditure in Portugal that occurred in the period immediately preceding the creation of the euro.

<sup>34</sup> It should be noted that in the case of expenditure on social protection and, particularly health expenditure, the set of observations suggests a positive relationship between the expenditure to GDP ratio and respective GDP *per capita* measured in purchasing power standard. The relationship for education spending is unclear and in the case of expenditure on defence, public order and safety, the correlation appears to be negative, although statistically not significant. If linear relationships were assumed, Portugal would have greater expenditure in relative terms in the four functions considered.

<sup>35</sup> Number of deaths of children up to the age of one year, per thousand live births in the same period.

Chart 9

## PUBLIC EXPENDITURE | FUNCTIONAL CLASSIFICATION



Sources: Eurostat and National Statistical Institute.

Notes: (a) Includes expenditure on environmental protection, housing and community amenities and recreation, culture and religion. (b) Excludes Slovenia.

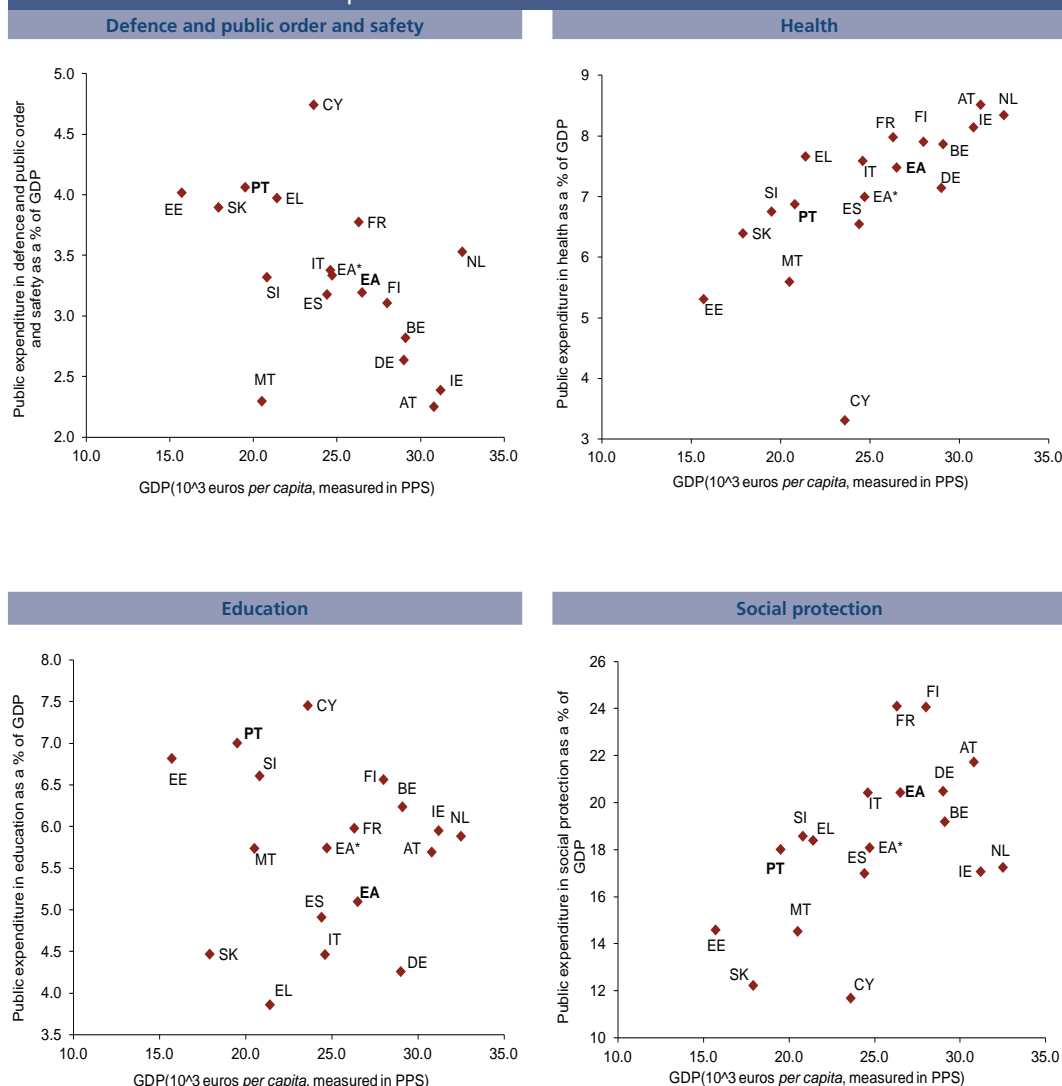
it the second lowest amongst euro area countries and average life expectancy at birth increased from 75.4 to 79.8 years, approaching the euro area average.<sup>36</sup> A simple method for the first evaluation of the efficiency of health expenditure consists of a graphical comparison between spending levels and health status indicators.<sup>37</sup> Charts 11 and 12 show the relationship between the two selected health status indicators and public expenditure on health as a percentage of GDP compared to a reference group for the most recent year for which data are available. The reference group is composed of the three euro

<sup>36</sup> Joumard *et al.* (2008) have produced an extensive analysis of the available indicators and conclude that, although imperfect, the two indicators selected are possibly the best for assessing the health status of the population.

<sup>37</sup> For a survey of the literature on the efficiency analysis of health expenditure in Portugal see Banco de Portugal, Economics and Research Department (2009), pages 373 to 383.

Chart 10

PUBLIC EXPENDITURE AND GDP | 2010



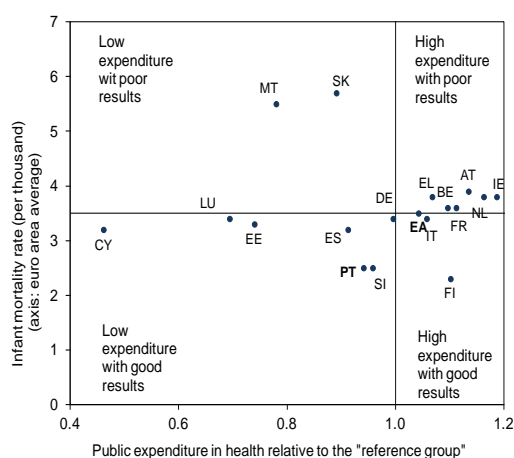
Sources: Eurostat and National Statistical Institute.

Note: The euro area simple average is represented by EA\*.

area countries with the best results in terms of health status indicators in the year in question. Public expenditure on health in each country is given as a ratio of the simple average of the reference group (if the ratio is greater than one the country spends more than the average of countries with the best performance and if less than one spends less). When the infant mortality rate indicator is used, Portugal belongs to the reference group in 2010 and has a public expenditure on health to GDP ratio of slightly less than one, measured in relative terms. This situation is in contrast to 1995, when Portugal was in the chart area with reduced spending in relative terms but with poor results in terms of this health status indicator. Regarding average life expectancy at birth, the results are not so favourable, given that in 2009, despite continuing to show relative expenditure below unity, Portugal turned in a poor level of performance. These findings are consistent with the results in the literature which usually classify Portugal in an intermediate position with respect to its efficient use of resources in the health sector. In this respect it should also be noted that, in the period under review, several measures have been adopted to improve the level of efficiency of the system in this sector. They include: i) the transformation of several

Chart 11

## PUBLIC EXPENDITURE IN HEALTH AND INFANT MORTALITY RATE, 2010

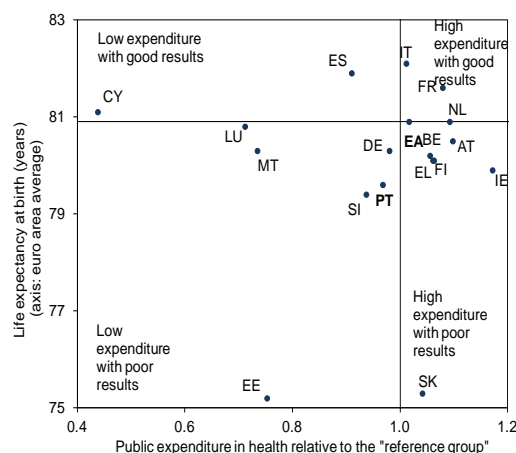


**Sources:** Eurostat and National Statistical Institute.

**Note:** The reference group is composed by Slovenia, Finland and Portugal.

Chart 12

## PUBLIC EXPENDITURE IN HEALTH AND LIFE EXPECTANCY, 2009



**Sources:** Eurostat and National Statistical Institute.

**Notes:** The analysis is made for 2009 as the 2010 values for Italy (and, as a consequence, for the euro area) are not available. The reference group is composed by Spain, France and Italy.

public hospitals into public corporations with a certain autonomy in terms of management and with their activity being based on contracts with targets for the level of services and the respective setting of unit payments, ii) the rationalisation of the hospital network and other entities providing public health services such as permanent support health services and health centres, iii) the reduction of benefits in public health subsystems iv) the promotion of the use of generic drugs and changes to the rules for co-financing medicines, v) the introduction of several measures in human resources management, particularly related to the type of employment contract and compensation system.

Regarding the education sector, there have been important changes in Portugal in recent decades.<sup>38</sup> Although the reduction in the birth rate has, in the most recent period, contributed to a decline in the number of students enrolled in schools, the participation rate, defined as the ratio between the number of students and the total population for a given age group, has increased significantly, particularly at the more advanced levels of education. The percentage of students at ISCED<sup>39</sup> levels 1 to 6 as a percentage of the population between the ages of 5 - 24 increased from 76.3 per cent in 1998<sup>40</sup> to 93.6 per cent in 2010. This result places Portugal in a very favourable position when compared to other euro area countries. However, in recent years, especially since 2007, the number of non-regular education students has recorded a significant increase as a result of attendances at educational and training courses for adults and young people at risk or who have already left the school system and processes for the recognition, validation and certification of skills covered by the New Opportunities initiative.<sup>41</sup> The same participation rate in Portugal considering only regular education, at 85.4 per cent, was still higher than the euro area average of 82.8 per cent. In terms of the breakdown between non-higher and higher education, the number of regular education students at ISCED levels 1-4 as a percentage of the population between

<sup>38</sup> For an analysis of evolution in the education sector and a survey on the literature see Economics and Research Department (2009), pages 383 to 393.

<sup>39</sup> International Standard Classification of Education. According to the 1997 classification level 1 corresponds to primary education and levels 5 and 6 to higher education.

<sup>40</sup> Starting date for the information available from Eurostat.

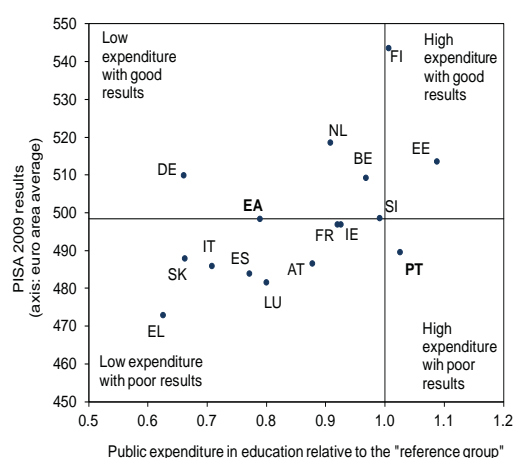
<sup>41</sup> See *Gabinete de Estatística e Planeamento da Educação* (2011).

the ages of 5 and 19 totalled 93.9 per cent (average euro area: 90.7 per cent), while at ISCED levels 5 and 6 the ratio relative to the population between the ages of 20-24 corresponded to 62.4 per cent (average euro area: 61.8 per cent). It should be noted that the evolution of the participation rate in Portugal was more pronounced in higher education, totalling around 20 p.p. between 1998 and 2010 for the selected indicator.

The participation rate of the student population is not a good indicator for assessing the efficiency of expenditure as it does not take the results of the educational process into account. In this context, the classifications of PISA (Programme for International Student Assessment) students have frequently been used in the literature as a proxy for the results of the educational system in international comparisons. Generally, Portuguese students have not performed well in tests although the rankings showed considerable improvement in the 2009 international edition of PISA, both in maths and reading, after a relative stabilisation between the 2003 and 2006 editions, placing Portugal in an intermediate position in the ranking of European Union countries. However, according to Pereira (2011), the improvement in the scores in the last three editions of PISA (2003, 2006 and 2009) was gradual, if results are corrected for student characteristics and family background. Chart 13 shows the simple average of the results of the three PISA 2009 tests (maths, reading and science) and public expenditure on education as a percentage of GDP in the same year relative to a reference group of euro area countries. As in the case of expenditure on health, the reference group was made up of the three countries with the best scores. It shows that Portugal was located in the area of the graph with higher expenditure than the reference group and with more unfavourable results than the euro area average, being the only country located in this area of the chart. In short, the reduction in the education expenditure to GDP ratio seems to have been accompanied by improved education indicators and suggests that progress has been achieved in terms of the efficiency of spending in the sector. The measures adopted in the most recent period have contributed to this outcome, most notably the closure of schools with few students and the reduction of the teacher-student ratio. However, there is clearly scope for expenditure restraint and additional gains in terms of efficiency in this sector.

**Chart 13**

**PUBLIC EXPENDITURE IN EDUCATION AND PISA RESULTS, 2009**



**Sources:** OECD and Eurostat.

**Notes:** There are no PISA 2009 data for Cyprus and Malta. The reference group is composed by Estonia, Finland and the Netherlands.



## 6. Concluding remarks

The persistently rapid expansion of primary public expenditure, in Portugal, when the economy entered a phase of very moderate growth and savings on interest expenditure resulting from the nominal convergence process came to a halt, requires an analysis that, in many aspects, remains to be done. However, it is possible to highlight several important explanatory factors. Firstly, particularly generous rules included in past legislation were interpreted as giving rise to acquired, unchallengeable rights, in some cases set out in the Constitution and in others simply because they were politically/electorally inconvenient, creating significant rigidity in expenditure. Secondly, the use of temporary measures, measures with a transitory impact on the rate of change of expenditure and the reduction of government investment (although partially offset by investment made by public-private partnerships) enabled those structural reforms which were politically less expedient, to be postponed. Thirdly, the limitations of the budgetary procedures in Portugal, in conjunction with the weaknesses of the multilateral budgetary surveillance system of the European Union, made it difficult to achieve significant progress in streamlining and effectively controlling public expenditure in Portugal. Finally, the long-term trend towards an aging population made an important contribution to the increase in expenditure, particularly in the case of public pension and health systems. In terms of the fiscal policy context, it should be emphasised that there was a certain wishful thinking over the potential growth of the Portuguese economy, which led to a poor assessment of the sustainability of the public finances. The perception that growth based on domestic demand and easy credit would lead to a stagnation of the economy took several years to become almost consensual.

The troubled path of fiscal policy in Portugal since the beginning of this century should not camouflage several important developments that have mitigated the pressure on spending, increased the transparency and quality of information on the public finances and improved budgetary procedures. In the first case special mention should be made of: the reform of the public pension systems in 2006-2007, which per se reduced the unsustainability of the Portuguese public finances; the limitation of career advancements in public administration, which were linked to performance appraisals; and rationalisation of public service networks, faster in some periods than in others, with particular emphasis on the health and education sectors. Regarding the transparency and quality of information special reference should be made to the broadening of the scope of the information published monthly by the Ministry of Finance, progress in the preparation of the National Accounts for the general government sector, including the compilation of quarterly accounts, with an enhanced role for the National Statistical Institute while also benefiting from the collaboration of other entities and closer monitoring by Eurostat. Concerning budgetary procedures, an important step was the approval of a series of amendments to the Budgetary Framework Law in 2011, which included the establishment of a medium-term goal for the structural balance, the definition of a multi-year framework for budgetary planning and the creation of an independent fiscal council.

The Economic and Financial Assistance Programme, following the packages of austerity measures that preceded it, has as one of its main objectives the reduction of the general government deficit and the reversal of the growth trajectory of the public debt ratio. It also includes a series of structural changes to allow an evolution of public expenditure consistent with the potential growth of the economy beyond the programme horizon. The reduction in expenditure has been predominantly based on horizontal measures, affecting all items of primary expenditure. Given their relevance, reference should be made to the freezing of the wage scales of general government and public enterprises and pensions of the public systems (except minimum pensions), the drastic limitation of career advancements, the very tight control of admissions and the reduction in the number of personnel with fixed-term employment contracts, the reduction of salaries and pensions above a certain threshold and total/partial suspending of summer and Christmas bonuses to employees of general government, public enterprises and to pensioners. These measures have a major impact on the disposable income of many households and could not be implemented outside the framework of an emergency situation such as the current one. However, they are, by their nature, potentially easily reversible. It should also be noted that they may possibly have major costs

in terms of the overall functioning of general government and public enterprises. They do not adequately correct the existing wage premium in the public sector and suspend the incipient performance incentive schemes approved in recent years, making increasingly difficult to attract and retain qualified staff. Further, they do not reflect a clear set of priorities and are based on a centralised approach, which leaves very little scope for managing the sectoral programmes and the services and public companies themselves.

Even in the most optimistic scenario for the evolution of the Portuguese economy, it will not be possible to return to the pattern of public expenditure growth that, albeit with several interruptions, existed prior to 2010. The need for restraint and cuts in expenditure is unavoidable given the requirement to adjust the level of public spending to the productive capacity of the economy and the fiscal burden that economic agents as a whole are willing to bear. If national institutions, through a rigorous and disciplined performance, are not able to do so selectively, reflecting informed and clear collective choices, the reduction of spending will be imposed by the multilateral supervision mechanisms of the European Union and by financial markets. In this context, two points should be made. On the one hand, expenditure cuts always have costs for some economic agents, while, on the other, effective control of expenditure has, *per se*, implications on the services provided through the budget which may, however, be mitigated by increasing the efficiency and effectiveness of public expenditure. Progress in this area depends, to some extent, on the improvement of the quality of governance and budgetary management, which should be understood as a gradual and continuous process, implying a major commitment of all entities and agents directly involved and society in general.

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