

3. SUPPLY

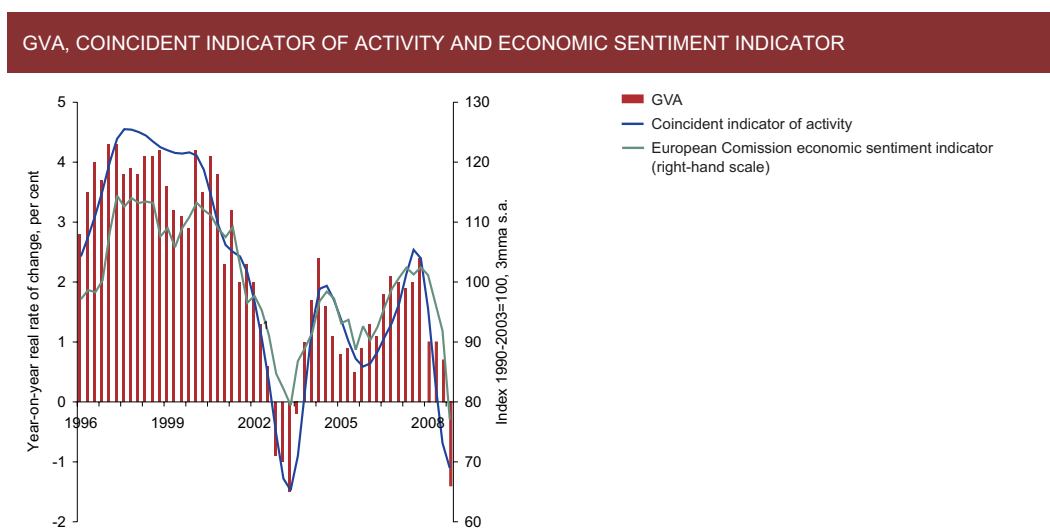
3.1. Gross value added

According to current estimates, the Portuguese economy gross value added (GVA) stagnated in 2008, which contrasts with a growth of 2.1 per cent in 2007 and 1.5 per cent in 2006. According to the Quarterly National Accounts of *INE*, this stagnation of GVA in 2008 has an underlying intra-annual profile of slight growth, on a year-on-year basis, in the three first quarters of the year (a growth of 1.0 per cent in the first and second quarters, and 0.7 per cent in the third quarter), and a strong contraction in the fourth quarter (an year-on-year change of -1.4 per cent). This profile is globally confirmed by the Banco de Portugal's coincident indicator and the European Commission's "Economic Sentiment Indicator", which maintained during the course of the year the downward trajectory started in the last quarter of 2007 (Chart 3.1.1). The majority of the available qualitative indicators (namely, confidence indicators for manufacturing industry, construction, services, retail trade, and also production forecasts for the coming months and order books, including those for exports) support this characterisation.

Unlike what happened in 2007, there was a strong contraction in construction (-5.5 per cent), and in industry (-3.5 per cent) (Table 3.1.1). The contraction of GVA in these sectors occurred over the course of the year, having started in the first quarter, but it was particularly sharp in the fourth quarter (with a year-on-year change of -10.5 per cent in the construction sector, and -5.9 per cent in industry). Agriculture and fisheries posted a strong recovery in 2008, as opposed to the contraction occurred in 2007, confirming the high level of volatility characterising the change of GVA in this sector.

In the services sector GVA grew 1.0 per cent in 2008, in comparison to an average growth of 2.0 per cent between 2004 and 2007. Intra-annually, the services GVA suffered a gradual deceleration during the three first quarters (year-on-year growth of 1.9 per cent in the first quarter, 1.5 per cent in the second quarter, and 1.2 per cent in the third quarter), and more markedly so in the last quarter (a growth of no more than 0.2 per cent in year-on-year terms). In terms of the services sub-sectors, the largest contribution for the growth of GVA in 2008 was registered in the financial activities, where GVA grew 5.5

Chart 3.1.1



Sources: European Commission, *INE* (Quarterly Accounts) and Banco de Portugal.

Table 3.1.1

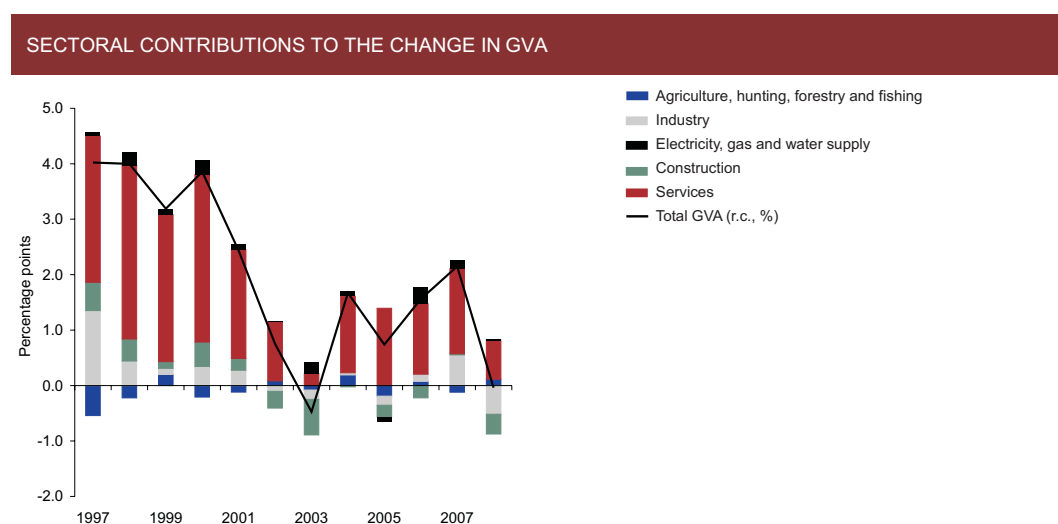
GROSS VALUE ADDED BY SECTOR OF ACTIVITY							
Real rate of change, per cent							
	Weights 2007 ^(a)	2003	2004	2005	2006	2007	2008
Agriculture, hunting, forestry and fishing	2.5	-2.2	5.9	-5.6	2.5	-4.2	4.3
Industry	14.9	-1.0	0.2	-1.0	0.8	3.7	-3.5
Mining and quarrying	0.4	-6.0	3.1	0.2	-3.8	4.0	-3.8
Manufacturing	14.4	-0.9	0.2	-1.1	1.0	3.7	-3.4
Electricity, gas and water supply	3.1	8.3	3.1	-3.1	11.4	5.7	0.7
Construction	6.5	-8.7	-0.3	-3.1	-3.3	0.3	-5.5
Services	73.1	0.3	2.0	2.0	1.8	2.1	1.0
Trade, repair, hotels and restaurants	17.3	-2.4	2.5	0.7	1.8	2.8	0.5
Transport and communication	6.9	1.2	6.1	2.1	4.3	2.5	-2.7
Financial intermediation	8.0	8.0	3.5	1.8	8.5	4.5	5.5
Real estate, renting and business activities	14.4	-0.4	0.5	3.2	0.3	1.1	0.8
Other services	26.4	0.4	0.9	2.1	0.2	1.5	0.9
GVA	100.0	-0.5	1.7	0.8	1.5	2.1	0.0
<i>Memo:</i>							
GDP at market prices ^(b)	-	-0.8	1.5	0.9	1.4	1.8	0.0

Sources: INE and Banco de Portugal.

Notes: (a) As a percentage of total GVA at current prices. (b) The nominal value of GDP includes, in addition to the GVAs of different sectors, taxes and subsidies on products and import taxes.

per cent when compared to 2007, maintaining the strong growth dynamic of the last three years. In contrast to 2007, the remaining sub-sectors registered a modest growth in 2008 (with the exception of the transportation and communications sector, in which GVA decreased 2.7 per cent). The services sector continued, in any case, to increase its weight in total GVA, contributing systematically to its growth. That does not occur in the construction and industry sectors, especially in less favourable phases of the business cycle (Chart 3.1.2).

Chart 3.1.2



Sources: INE and Banco de Portugal.

In the euro area, GVA grew 0.8 per cent in 2008, comparing to a strong growth in 2006 (3.0 per cent) and 2007 (2.9 per cent). Therefore, the GVA growth differential between the euro area and Portugal increased again, and for the seventh consecutive year GVA growth in the Portuguese economy was inferior to that of the euro area. This is true for most sectors.

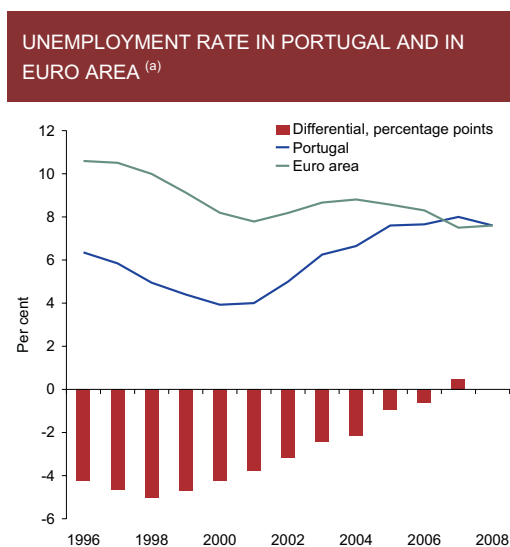
We highlight the contraction in industry in the euro area (a decrease of 1.1 per cent in GVA in comparison to 2007), reflecting the strong deceleration of exports, especially by the end of the year. In all the other sectors there were positive changes in the GVA in 2008. Reflecting the strong deceleration of the GFCF in housing in most countries, GVA in the construction sector increased only 0.5 per cent, in comparison to a growth of 2.9 per cent in 2006 and 3.0 per cent in 2007.

3.2. Employment and unemployment

The behaviour of the labour market in 2008 is marked by the moderate decrease in the unemployment rate, reaching 7.6 per cent, *vis-à-vis* 8.0 per cent in 2007. This evolution reflects, mainly, the slight growth in total employment (0.5 per cent). In face of the profile of decelerating economic activity during the course of the year, with a sharp contraction in the last part, these developments resulted in a negative change in apparent labour productivity.

The behaviour of employment and of the unemployment rate in 2008 reflects, in part, the acceleration in the Portuguese economy in 2007, and is an exception regarding the evolution observed in the last few years. In fact, there was a systematic increase in the unemployment rate since 2000, which reached the highest level of the past twenty years in 2007. While it is clear that such evolution reflects, with the usual delay, the cyclical behaviour of the Portuguese economy, we notice that an important non-cyclical (or structural) component has marked the evolution of the unemployment rate over the last years. After a period when the evolution of this variable was more favourable than that in other European countries (characterised, despite great heterogeneity, by high unemployment levels and by the appearance of an important component of long-term unemployment), we now see the opposite situation (Charts 3.2.1 and 3.2.2). Note that the average unemployment rate in Portugal between 1990 and

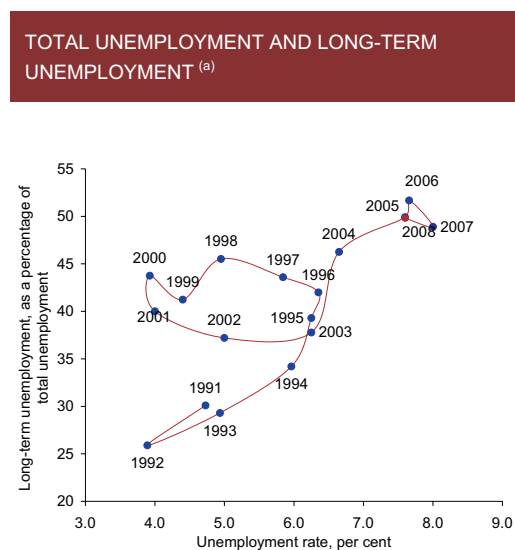
Chart 3.2.1



Sources: Eurostat, INE and Banco de Portugal.

Note: (a) The unemployment rate series was constructed according to the methodology described in Castro, G. L. and Esteves, P. S. (2004), "Quarterly series for the Portuguese economy: 1977-2003", Banco de Portugal, *Economic Bulletin-June*.

Chart 3.2.2



Sources: INE and Banco de Portugal.

Note: (a) The unemployment rate series was constructed according to the methodology described in Castro, G. L. and Esteves, P. S. (2004), "Quarterly series for the Portuguese economy: 1977-2003", Banco de Portugal, *Economic Bulletin-June*.

2006 was only 5.5 per cent, clearly below the one observed in most European countries. In the euro area, the unemployment rate decreased gradually between 2005 and 2007, remaining relatively stable in 2008.

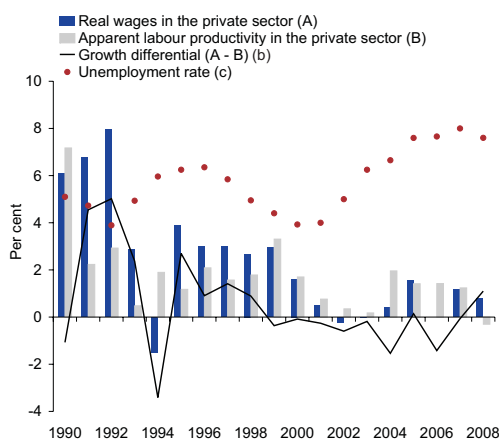
This structural deterioration in labour market conditions, particularly in the unemployment rate, occurs in a context of decreasing potential growth in the Portuguese economy during the last decade. During this period, we highlight the change in comparative advantages of the Portuguese economy, in a context of growing external competition in some sectors, which interacts with the persistence of rigidities favoured by labour legislation and with a relatively low level of human capital. Besides the improvement in people's qualifications, labour market regulation plays an important role in the promotion of the economy's potential growth. Some positive measures in this context would include the continuation of the reforms started in the last few years regarding the framework of labour relations, in order to establish an even more effective control over job search efforts on the part of the unemployed workers benefiting from unemployment compensation, less restrictive adequacy criteria regarding a proposed job – to establish beneficiary status – and strengthening the relation between the potential duration of unemployment compensation payments and the worker social contribution's history.¹ Measures intended to bring labour demand and supply closer, such as more demanding professional training programs and a tighter control over the temporary incentives to the recruitment of workers would also be positive. The resolution of the institutional frailties revealed over the past few years may contribute to soften the growth of the structural component of unemployment in the coming years.

In the current context, characterised by predictably low inflation, there is also the added risk that substantial raises in wages, namely the minimum wage, not related to productivity gains, contribute to the worsening in labour market conditions. We should mention that apparent labour productivity in the private sector decreased 0.3 per cent in 2008, something unheard of in this sector in the Portuguese economy, after a growth of 1.2 per cent in 2007. Simultaneously, there was in 2008 a growth in real wages above labour productivity (Chart 3.2.3). Globally, the evolution of productivity is significantly conditioned by the relative strong dynamic estimated for total employment in 2008, according to the *INE's* Labour Force Survey. This dynamic is not totally in line with the historical relationship between private sector employment and private sector activity evolution in the Portuguese economy (Chart 3.2.4).

The unemployment rate in 2008 was similar to the one registered in 2005 and 2006 (Table 3.2.1), with the number of unemployed individuals decreasing 4.8 per cent when compared to 2007. However, in the first half of the year the unemployment rate was 7.5 per cent, reaching 7.8 per cent in the second half of the year. This intra-annual dynamic of the unemployment rate and data supplied by the Institute of Employment and Professional Training for the beginning of 2009 (that points to an extraordinary growth in the number of unemployed individuals registered at the employment centres in the first months of the year), as well as the Labour Force Survey data for the first quarter of 2009 (presenting an unemployment rate of 8.9 per cent), confirm that the improvement of labour market conditions in the first half of 2008 was not sustainable. This would be predictable considering the profile of continuous deterioration of economic activity during the course of the year (with a sharp contraction at its end), and the fact that in recession periods changes in the unemployment rate are more tightly synchronized with economic activity. Also, in the fourth quarter of 2008, the percentage of households with at least one unemployed member reached 10.2 per cent of the total (see "Box 3.2 *Unemployment in the households over the business cycle*", of this Report).

(1) For evidence on the impact of unemployment compensation on the duration of unemployment see Pereira, A. (2006), "Assessment of the changes in the Portuguese unemployment insurance system", Banco de Portugal, *Economic Bulletin-Spring*, and "Box 2.5 *Work Incentives and the Generosity of Unemployment Benefits*", Banco de Portugal, *Annual Report 2005*.

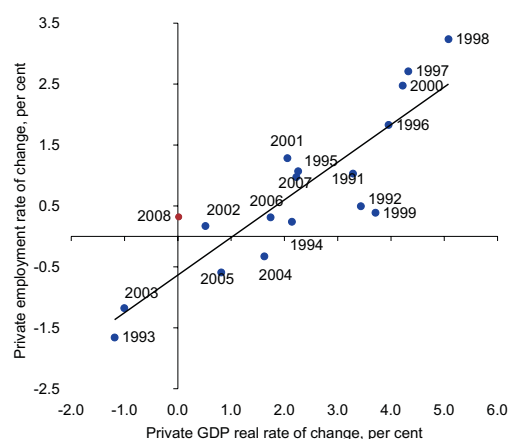
Chart 3.2.3

CHANGE IN REAL WAGES AND IN APPARENT LABOUR PRODUCTIVITY – PRIVATE SECTOR ^(a)

Sources: *INE* and Banco de Portugal.

Notes: (a) The real wages are obtained using the private consumption deflator. (b) In percentage points. A positive (negative) value means that real wages grew more (less) than productivity. (c) The unemployment rate series was constructed according to the methodology described in Castro, G. L. and Esteves, P. S. (2004), "Quarterly series for the Portuguese economy: 1977-2003", Banco de Portugal, *Economic Bulletin-June*.

Chart 3.2.4

GROWTH OF PRIVATE GDP AND PRIVATE EMPLOYMENT (EQUIVALENT TO FULL-TIME) ^(a)

Sources: *INE* and Banco de Portugal.

Note: (a) Employment in the private sector is defined as total employment, excluding employment in the government, health and education sectors defined in the Employment Survey. For 2007 and 2008, the private employment series equivalent to a full-time working schedule assumes the maintenance of the average number of hours worked per worker. Private GDP is calculated as total GDP less compensation of public employees and general government fixed capital consumption. Private GDP series does not include corporate public hospitals.

The decrease of unemployment in 2008 reflected mostly the reduction of female unemployment, which decreased 7.6 per cent, since male unemployment showed a slight decrease of 1.2 per cent (Table 3.2.1). This was the only year, since 2002, that showed a decrease in the number of unemployed women. In fact, since 2002 there has been a substantial increase in the number of unemployed women, clearly above the number of unemployed men after 2003. In the case of men, there was only a (slight) decrease of unemployment in 2006. The unemployment rate among the youth decreased

Table 3.2.1

POPULATION, EMPLOYMENT AND UNEMPLOYMENT
Percentage rate of change, unless otherwise indicated

	2002	2003	2004	2005	2006	2007	2008
Population	0.7	0.8	0.6	0.5	0.2	0.2	0.2
Labour force	1.6	1.0	0.5	1.0	0.8	0.6	0.1
Participation rate 15-64 years (as a percentage of the population)	72.6	72.8	72.9	73.4	73.9	74.1	74.2
Male	79.8	79.4	79.0	79.0	79.5	79.4	79.5
Female	65.6	66.5	67.0	67.9	68.4	68.8	68.9
Total employment	0.5	-0.4	0.1	0.0	0.7	0.2	0.5
Private sector employment ^(a)	0.2	-1.2	0.0	-0.2	1.1	0.5	0.0
Total unemployment	26.7	26.5	6.6	15.7	1.3	4.9	-4.8
Male	32.5	32.5	7.5	14.6	-1.7	1.0	-1.2
Female	22.3	21.7	5.9	16.6	4.0	8.1	-7.6
Total unemployment rate (as a percentage of the labour force)	5.0	6.3	6.7	7.6	7.7	8.0	7.6
Long-term unemployment (as a percentage of total unemployment) ^(b)	37.3	37.7	46.2	49.9	51.7	48.9	49.8

Sources: *INE* (Labour Force Survey) and Banco de Portugal calculations.

Notes: (a) Private sector employment is defined as total employment excluding employment in the government, health and education sectors defined in the Employment Survey. (b) A long-term unemployed is an individual searching for work for 12 months or more.

slightly, from 16.6 per cent in 2007 to 16.4 per cent in 2008, although it remained at a level significantly higher than the one registered before 2001, year in which the gradual raise in the youth unemployment rate began. This tendency for an increase in unemployment over the last years was stronger in the less qualified (basic education) and in the more qualified (tertiary education) young individuals (Chart 3.2.5). For the first, the 2008 unemployment rate was 18.7 per cent, while for the latter it was 27.1 per cent, in contrast to 8.7 per cent and 11.7 per cent, respectively, in 1998. Despite the high incidence of unemployment among young individuals, its duration is quite low for the more qualified ones (6.7 months in 2008, in comparison to an average duration between 10 and 13 months for individuals with lower qualifications). Additionally, there is a high return on the acquisition of higher qualifications in the Portuguese economy. This phenomenon is related with the dynamics of supply and demand of labour across skill levels, with consequences for wage inequality (see “Box 3.1 *The evolution of wage inequality: 1982-2006*”, of this Report). The recent evolution of the labour market reflects, in part, the existence of some discrepancy between supply and demand of high-skills among young workers.

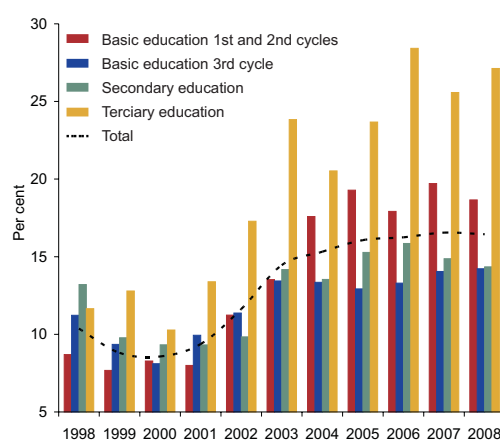
The slight decrease in the unemployment rate in 2008 was not common to all Portuguese regions (Chart 3.2.6). In fact, this decrease in the unemployment rate took place in the North, Centre, Lisbon, Alentejo and Madeira, while the Algarve and the Azores registered a slight increase. There are regional differences that allow us to classify the North, Lisbon and Alentejo as a group with high unemployment rates (around 9 per cent) and the Centre, Algarve and the Autonomous Regions as a group with lower rates (between 5 and 7 per cent). However, in the Algarve and Madeira there was a substantial increase in the unemployment rate over the last two years.

In 2008, long-term unemployment (12 months or more) decreased 3.2 per cent. However, the proportion of long-term unemployment increased, from 48.9 per cent in 2007 to 49.8 per cent of total unemployment (Table 3.2.2), which resulted mainly from a steep fall in short-term unemployment. Long-term unemployment continues since 2004 to have a very high weight in total unemployment. We should note that the average weight of long-term unemployment between 1998 and 2003 was inferior in around 10 p.p. to the weight currently registered.

The average duration of unemployment increased from 22 months in 2007 to 22.6 months in 2008, reflecting the tendency towards an increase in the weight of long-term unemployment over the last years.

Chart 3.2.5

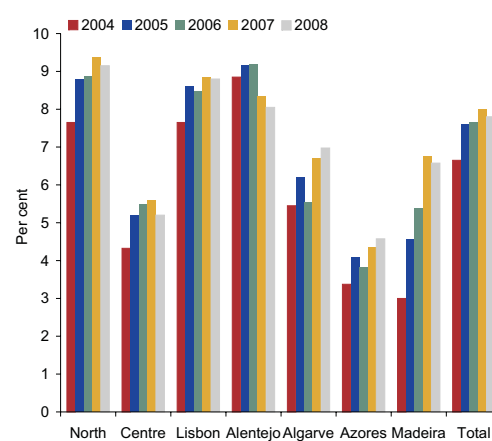
YOUTH UNEMPLOYMENT RATE BY LEVEL OF EDUCATIONAL ATTAINMENT (AGED 15-24)



Source: INE (Labour Force Survey).

Chart 3.2.6

UNEMPLOYMENT RATE BY REGIONS



Source: INE (Labour Force Survey).

Table 3.2.2

LABOUR MOBILITY								
Employment					Unemployment			
Average tenure in the job		Long-term employment ^(a)			Average duration of unemployment		Long-term unemployment ^(b)	
months	r.c.	%	p.p.c.	months	r.c.	%	p.p.c.	
2000	117.8	-0.9	45.3	0.1	20.6	6.1	43.8	2.6
2001	116.8	-0.9	44.6	-0.7	18.2	-11.8	40.0	-3.8
2002	117.8	0.9	44.9	0.2	17.6	-3.2	37.3	-2.7
2003	121.4	3.1	44.9	0.0	16.2	-8.3	37.7	0.4
2004	124.6	2.6	45.5	0.6	19.7	22.1	46.2	8.5
2005	126.9	1.9	46.2	0.6	21.1	6.9	49.9	3.7
2006	126.6	-0.3	44.7	-1.4	22.4	6.3	51.7	1.8
2007	124.5	-1.6	42.9	-1.8	22.0	-1.8	48.9	-2.8
2008	123.6	-0.7	42.3	-0.6	22.6	2.9	49.8	0.9

Source: INE (Labour Force Survey).

Notes: r.c.: percentage rate of change. p.p.c.: change in percentage points. (a) Share of employees aged 45 or over whose job tenure is equal to 20 years or over. (b) Share of unemployed individuals seeking work for 12 months or more.

From 2000 to 2003, the average duration of unemployment decreased gradually, from 20.6 months in 2000 to 16.2 months in 2003, while from 2004 onwards it increased significantly.

During 2008, total employment increased 0.5 per cent when compared to 2007 (Table 3.2.3), an evolution that had not yet reflected the deceleration in economic activity that started in the first half of the year. In fact, there was a strong growth in employment in the first half of the year, which contrasts with a slight contraction in the second half. The overall increase in 2008 results mainly from the growth of salaried employees (1.2 per cent). In overall employment excluding salaried employees, there was a contraction of 1.5 per cent in 2008. This evolution is the result of a strong reduction in the number of family unpaid workers and others, since self-employment without employees increased 0.9 per cent and self-employment with employees increased only 0.2 per cent.

The composition of salaried employment by type of contract showed a continuation of the trend towards an increase in the proportion of fixed-term contracts in this employment category (Chart 3.2.7). The number of workers with a permanent contract increased by only 0.6 per cent over 2007, as opposed to a 6.2 per cent increase in the number of workers with fixed-term contracts, and a 2.2 per cent increase in the number of service providers. This rearrangement of employment by type of contract is the agents' reaction to the restrictions imposed by the regime of permanent contracts, explaining in part the simultaneity of the increase in employment and deceleration of activity. However, this rearrangement was fundamentally determined by the developments occurring in the first half year. There was, in fact, a relative growth in the number of workers with permanent contracts in the second half of the year, and more particularly so in the last quarter, which is surprising in light of the sharp contraction of activity in this period.

In sectoral terms, reference should be made to the contraction of employment in the manufacturing industry (falling 3.9 per cent in 2008, with a year-on-year change of -3.0 per cent in the first half of the year, and -4.8 per cent in the second half of the year), and in construction (falling 3.0 per cent with a year-on-year change of -0.1 per cent in the first half of the year, and -5.8 per cent in the second half of the year). Employment in agriculture and fisheries fell 1.0 per cent when compared to 2007. There was a significant increase in employment in the services sector (3.0 per cent compared to 2007), which reinforces the proportion of tertiary labour in total employment. Within this sector, employment in general

Table 3.2.3

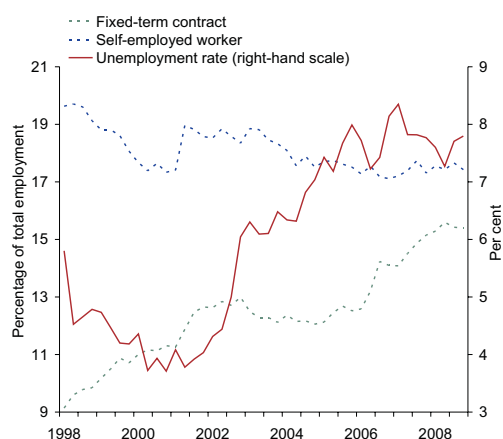
BREAKDOWN OF EMPLOYMENT BY EMPLOYMENT STATUS AND TYPE OF CONTRACT							
Percentage rate of change							
	Weights 2007	2003	2004	2005	2006	2007	2008
Total employment	100.0	-0.4	0.1	0.0	0.7	0.2	0.5
Salaried employment	76.0	-0.3	1.2	0.8	2.2	0.1	1.2
Permanent contract	58.6	0.9	2.2	1.3	0.9	-2.2	0.6
Fixed-term contract	14.0	-2.6	-1.9	1.7	9.3	8.0	6.2
Contract for services	1.4	-20.6	12.3	6.4	11.7	13.7	2.2
Other dependent labour ^(a)	1.9	-5.9	-9.4	-16.3	-2.4	11.6	-12.7
Employment excluding salaried employment	24.0	-0.5	-3.0	-2.4	-3.6	0.5	-1.5
Self-employment without employees	17.5	0.5	-3.1	-2.8	-2.7	1.3	0.9
Self-employment with employees	5.5	2.7	1.1	-8.6	-6.7	2.4	0.2
Unpaid family worker and others	1.0	-12.1	-2.3	2.9	-14.2	-10.3	-37.6

Sources: INE (Labour Force Survey) and Banco de Portugal.

Note: (a) Includes seasonal work without a written contract and occasional work.

Chart 3.2.7

PROPORTION OF FIXED-TERM CONTRACTS AND SELF-EMPLOYMENT



Source: INE (Labour Force Survey).

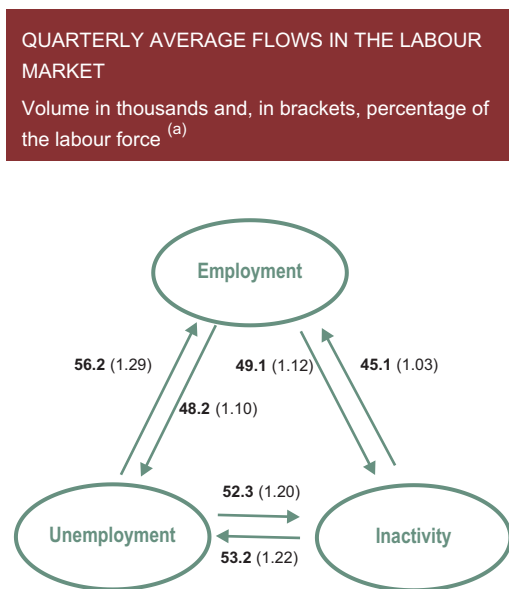
government, education and health has increased by 1.7 per cent, while in the other services there was a more substantial growth (3.7 per cent).

According to the INE's Employment Survey data, the participation rate in 2008 was 74.2 per cent (Table 3.2.1), in comparison to a rate of 74.1 per cent in 2007. The participation rate, which had been increasing over the last few years, has therefore stabilised, principally owing to the increase in the participation rate of women and to demographic factors. This growth in the participation rate over the last years is higher than what would be due to strictly demographic factors. More specifically, the fall in proportion of the age groups with lower participation rates and the rise in proportion of the group with the highest participation rate (30 to 54 years old) would imply an increase in the aggregate participation rate.²

(2) This estimate assumes that, in 2008, and for each age level, the participation rates didn't change when compared to 2007. For a detailed analysis of the impact of demographic evolution in the participation rates see "Box II.4.1 Implications of developments in the age structure of the Portuguese population for the participation and unemployment rates", Banco de Portugal, Annual Report 2001.

Total flows between the various labour market stages – inactivity, employment and unemployment – represented 7.0 per cent of the working population in 2008, close to the 6.8 per cent value noted in 2007. Chart 3.2.8 presents the quarterly averages of such flows in 2008. An average of 49.1 thousand individuals moved from employment to inactivity, with 45.1 thousand moving in the opposite direction. 56.2 thousand individuals (only 6.3 thousand with a permanent contract) moved from unemployment to employment, with 48.2 thousand individuals (14.9 thousand with a permanent employment contract) moving in the opposite direction. Finally 53.2 thousand individuals moved from inactive to unemployed status, with 52.3 thousand moving in the opposite direction. The dynamics of such flows are similar to 2007, and very much in line with the ones of the last 10 years. Reference should, however, be made to the fact that the proportion of movements from unemployment to inactivity (which includes “discouraged individuals”, *i.e.*, willing to work but not actively seeking employment) has gradually increased over the last 10 years, from around 0.85 per cent of the working population in 2000, to 1.2 per cent in 2008 (similar to the figures for 2007).

Chart 3.2.8



Sources: INE and Banco de Portugal.

Note: (a) Considering the common sample component of quarter *t* and quarter *t-1*, and using the population weights of quarter *t*. Average figures for the four quarters of 2008.

3.3. Productivity and structural issues

Regarding the evolution of output *per capita* for the whole of 2008, a decrease of 0.2 per cent is estimated when compared to 2007 (Table 3.3.1 and “Box 3.3 *The evolution of Gross National Income per capita in Portugal*”, of this Report).

We can distinguish the factors that contributed to the evolution of GDP *per capita*³ through a growth accounting exercise. For 2008 as a whole, the capital factor is estimated to have contributed 0.4 p.p. to GDP *per capita* growth, in line with developments over the last five years, but clearly below the contributions registered in previous periods (Table 3.3.1). The labour factor contributed 0.2 p.p., in comparison to practically nil contributions in 2007 and a slight negative contribution in 2006 (-0.1 p.p.). The

(3) The breakdown of output growth is described in detail, including the care one should have interpreting it, in Almeida, V. and R. Félix, (2006), “Computing potential output and the output gap for the Portuguese economy”, Banco de Portugal, *Economic Bulletin-Autumn*.

Table 3.3.1

CONTRIBUTIONS TO THE REAL CHANGE OF GDP PER CAPITA							
	1980-2007	1980-83	1984-88	1989-92	1993-97	1998-02	2003-08
GDP <i>per capita</i>	2.5	1.9	3.4	5.4	1.6	2.5	0.4
Contributions, in percentage points:							
Labour utilisation	0.3	-0.3	0.7	1.2	0.1	0.8	-0.3
Participation rate	0.4	-0.1	0.6	0.9	0.4	0.6	-0.1
Employment rate ^(a)	-0.1	-0.1	0.1	0.3	-0.3	0.1	-0.3
Capital stock <i>per capita</i>	1.0	1.2	1.0	1.5	0.9	1.1	0.4
Total factor productivity	1.1	0.9	1.8	2.8	0.6	0.6	0.3
	2002	2003	2004	2005	2006	2007	2008
GDP <i>per capita</i>	0.1	-1.6	0.9	0.4	1.1	1.6	-0.2
Contributions, in percentage points:							
Labour utilisation	-0.1	-1.2	-0.5	-0.5	-0.1	0.0	0.2
Participation rate	0.5	-0.4	-0.2	0.1	-0.1	0.3	0.0
Employment rate ^(a)	-0.7	-0.8	-0.3	-0.7	0.0	-0.2	0.3
Capital stock <i>per capita</i>	0.9	0.5	0.5	0.4	0.4	0.4	0.4
Total factor productivity	-0.7	-0.9	0.9	0.5	0.8	1.2	-0.8

Sources: INE (Labour Force Survey) and Banco de Portugal.

Note: (a) Employment as full-time equivalent. Employment rate as a percentage of the labour force.

contribution of the labour factor is justified mainly by the employment rate (with a contribution of 0.3 p.p.), since the contribution of the participation rate was marginal. The labour factor is the one with the largest contribution to the deceleration of GDP *per capita* over the last 6 years, with similar contributions from the employment and participation rates (Chart 3.3.1). The employment recovery in 2008 has inverted this tendency slightly, but this evolution is not expected to continue. Finally, we estimate a negative contribution of total factor productivity to the change in GDP *per capita* of -0.8 p.p. in 2008, which contrasts with a contribution of 1.2 p.p. in 2007 and 0.8 p.p. in 2006.

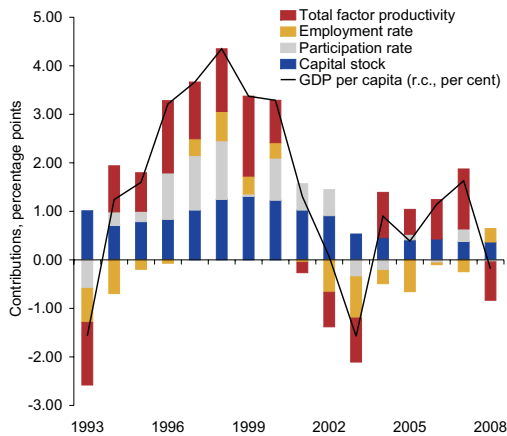
The evolution of total factor productivity resulted mainly from the (typically pro-cyclical) evolution of the production capacity utilisation rate, which in the first half of 2008 interrupted a sharp growth stage that had begun in the second half of 2006 (Chart 3.3.2). Productivity per worker in the economy decreased 0.5 per cent in 2008, a situation similar to the one observed in 2003, even though in that year productivity by hour worked had grown (Chart 3.3.3). In 2007, productivity per worker had grown 1.7 per cent and productivity per hour worked 1.9 per cent. This behaviour in productivity is significantly conditioned by the relative strong dynamic estimated for total employment in 2008, according to INE's Labour Force Survey (Chart 3.3.3).

According to the estimates from Banco de Portugal, based on different statistical methods, the economic activity evolution seen in 2008 implied a slight reduction in the output gap⁴ (Chart 3.3.4). These estimates are surrounded by high uncertainty. The cycle recovery that started in 2004 was interrupted. The analysis of the output gap is, however, dominated by the evolution of potential GDP growth (Chart 3.3.5), that presents a market deceleration since 1998, hitting the lowest point of the last decades in 2007 and 2008. The low potential GDP growth of the Portuguese economy has contributed to the reduction of the relative level (when compared with the EU27 average) of GDP *per capita* adjusted for

(4) For more details on the methods of calculation of the output gap see, Almeida, V. and R. Félix (2006), "Computing the potential output and the output gap for the Portuguese economy", Banco de Portugal, *Economic Bulletin-Autumn* and Valle e Azevedo (2007), "A Multivariate Band-Pass Filter", Banco de Portugal, *Working Paper* 17.

Chart 3.3.1

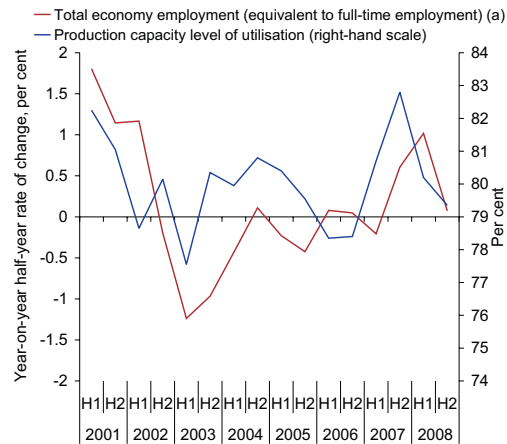
BREAKDOWN OF THE REAL RATE OF CHANGE OF GDP PER CAPITA



Sources: INE and Banco de Portugal.

Chart 3.3.2

TOTAL ECONOMY EMPLOYMENT (EQUIVALENT TO FULL-TIME EMPLOYMENT) AND PRODUCTION CAPACITY OF UTILISATION (HALF YEAR)



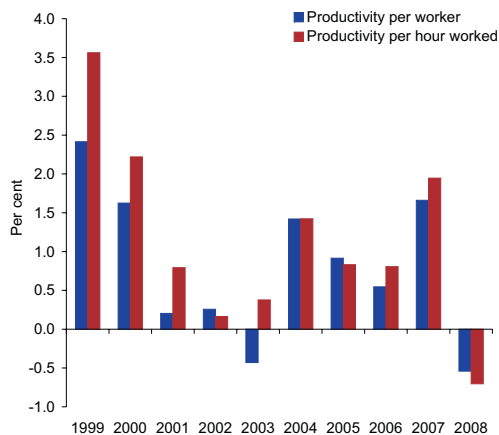
Sources: European Commission and INE.

Note: (a) The level of employment used corresponds to the total economy employment level adjusted for the number of hours worked. Specifically, to each job corresponds a number of worked hours equivalent to full time. For 2007 and 2008 these are provisional data, reflecting the employment growth calculated in the Employment Survey.

Chart 3.3.3

PRODUCTIVITY PER HOUR WORKED AND PER WORKER – WHOLE ECONOMY

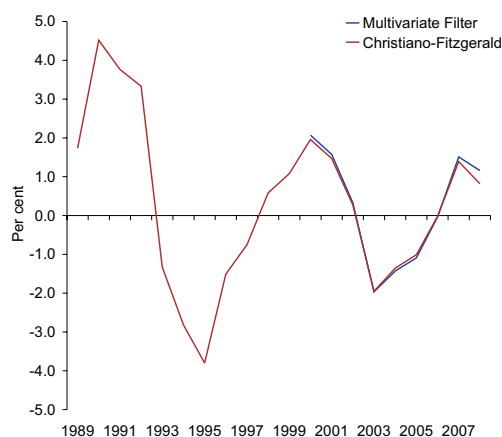
Rate of change



Sources: INE and Banco de Portugal.

Chart 3.3.4

OUTPUT GAP

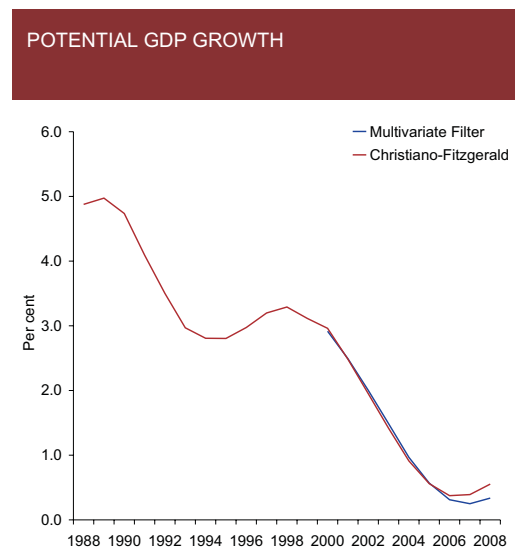


Sources: INE and Banco de Portugal.

Note: For further information on the output gap computation methods, see Almeida V. and Félix R. (2006), "Computing potential output and the output gap for the Portuguese economy", Banco de Portugal, *Economic Bulletin-Autumn* and Valle e Azevedo (2007), "A Multivariate Band-Pass Filter", Banco de Portugal, *Working Paper* 17.

purchase power parities over the last ten years (Chart 3.3.6 and "Box 3.3 *The evolution of the Gross National Income per capita in Portugal*", in this Report). This value over the last years represents about 76 per cent of the EU27 average. In 2008, as in the last 10 years, the Portuguese economy has presented again one of the lowest economic activity growths among the countries of the euro area and European Union. This presents a contrast with the very dynamic behaviour of the countries that most

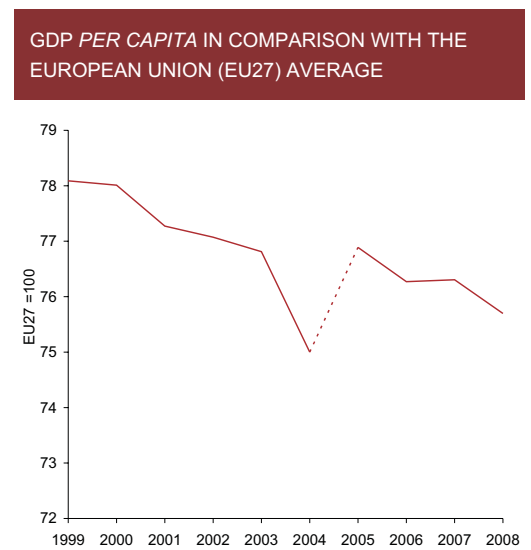
Chart 3.3.5



Sources: INE and Banco de Portugal.

Note: For further information on the output gap computation methods, see Almeida V. and Félix R. (2006), "Computing potential output and the output gap for the Portuguese economy", Banco de Portugal, *Economic Bulletin-Autumn* and Valle e Azevedo (2007), "A Multivariate Band-Pass Filter", Banco de Portugal, *Working Paper 17*.

Chart 3.3.6



Source: European Commission (AMECO).

Note: Calculated using GDP per capita at current market prices and adjusted for purchasing power parities. The purchase power parities data show a break in the series in 2005, caused by a change in methodology.

recently joined the European Union, who, in general, have started a process of fast real convergence towards the European Union average.

The real convergence of the Portuguese economy will always depend on a continuous effort to raise the qualifications of individuals, undoubtedly the most important factor for long-term economic growth⁵ that interacts permanently with the remaining limiting factors of economic and social progress in Portugal. In this context, it is urgent to attack some of the structural deficiencies of the Portuguese economy that distort agents' decisions and, consequently, cause an inefficient allocation of resources (both public and private). Of special importance is the need to alter the labour legislation, in order to promote employee mobility and incentivise not only labour supply but also labour demand. Reforms favouring a stronger competition (that generates innovation) in several goods and services markets would also be positive. This demands, also, the continuation of the reforms aimed at simplifying administrative processes and the creation of greater transparency in fiscal legislation that should, whenever possible, avoid or minimize distortions in the efficient allocation of resources by agents. Finally, reforms of the judicial system (including the creation of arbitration systems) aimed at protecting contract provisions involving economic agents and assuring its timely resolution,⁶ are crucial.

(5) See "Box 2.4 Human capital as growth factor in the long run", Banco de Portugal, *Annual Report 2004*.

(6) See "Box 3.3 Impact of quality in education and in the judicial system on GDP per capita", Banco de Portugal, *Annual Report 2007*.