# Public sector wages

### B. Eugène (\*)

### Introduction

Remuneration paid by public administrations in Belgium amounted to 12.6% of GDP in 2010. As such, it represented no less than one-quarter of their primary expenditure. Furthermore, these expenses have risen sharply over the past two decades. Because current conditions call for fiscal consolidation, it is important to examine whether this component of spending could be a source of budget savings, including by adjusting wages.

In addition, salary is an important component of an employer's appeal and its ability to motivate and retain qualified employees. As a result, the public and private sectors compete in the labour market, so it is crucial to know the relative position of the two sectors.

This article examines principally individual wages, and more specifically the wage gap between the public sector and the private sector<sup>(1)</sup>. It focuses mainly on the situation in Belgium as compared with nine other euro area countries (Germany, Austria, Spain, France, Greece, Italy, Ireland, Portugal and Slovenia), a study of which using microeconomic data was recently completed<sup>(2)</sup>.

Apart from the introduction and conclusion, this article comprises three sections. The first presents the differences between the principal characteristics of wage earners in the private and public sectors, which may be the reason for wage gaps between the two sectors. In the second part, we analyse the trend in public sector wages according to macroeconomic data. The third section checks to

see whether the observations made at the macroeconomic level hold up to a microeconomic analysis taking into consideration wage earners' individual characteristics.

# Principal characteristics of public and private sector wage earners

If there are differences in compensation between private and public sector wage eaners, they may arise due to the different characteristics of employees in the two sectors. Certain individual characteristics such as experience, level of education, working hours or gender can influence individual compensation levels. If it so happens that the populations of employees in the private and public sectors are not analogous, these characteristics may give rise to wage gaps at an aggregated level.

### Definition of "public sector"

Before presenting a brief comparison of the characteristics most important in determining wage earner compensation in each of the sectors, it is worth recalling that there are several ways of defining public entities, including a sector approach and an approach by branch of activity.

Under the sector approach, the general government sector (S.13) includes institutional units that are controlled by a public entity and are non-market, i.e. the proceeds of their sales cover less than half of their production costs. In the context of an international comparison, it is important for the scope of public administrations to be as comparable as possible. To the extent that health care, for example, is classified outside of the S.13 sector in Belgium but inside the S.13 sector in numerous countries, this classification depends largely on the way health care is organised in

<sup>(\*)</sup> The author would like to thank Sarah Cheliout, Ilse Rubbrecht, Thomas Stragier and Luc Van Meensel for their contributions to this article.

<sup>(1)</sup> Public employment in Belgium was analysed in an earlier article (Bisciari et al., 2009).

<sup>(2)</sup> See Giordano et al. (2011).

each country. A definition using sector criteria is thus not always appropriate for making international comparisons.

A branch of activity approach mitigates this drawback. The branches of activity O (Public administration and defence; compulsory social security), P (Education) and Q (Health and social work), as defined by the NACE classification, may be considered a good approximation of the "public sector". The health and social work activities branch is clearly not a part of the general government in Belgium, but it is highly subsidised by the public sector. Furthermore, in the EU-SILC (European Union – Statistics on Income and Living Conditions) survey used for the microeconomic analysis that follows, the individuals interviewed indicate the branch of activity in which they work and not the sector. As a result, we will favour this approach, which facilitates a harmonised international comparison, for the rest of this report, insofar as data are available.

### Age

In Belgium, wage earners in the O, P and Q branches are, on average, 2.2 years older than those of other branches of activity, according to the microeconomic data in the EU-SILC survey. This age difference also shows up in the macroeconomic data. According to those data, the populations of wage earners that make up the five age groups from 25 to 50 years are practically the same in the private sector, whereas the older age groups are under-represented. In the O, P and Q branches, however, the age groups from 45 to 55 are largely preponderant. The proportion of workers over age 55 is also much more significant in the public sector than in the private sector. Such characteristics, which generally go hand in hand with greater experience and a longer career, may explain some of the potential wage gaps.

### **Employment status**

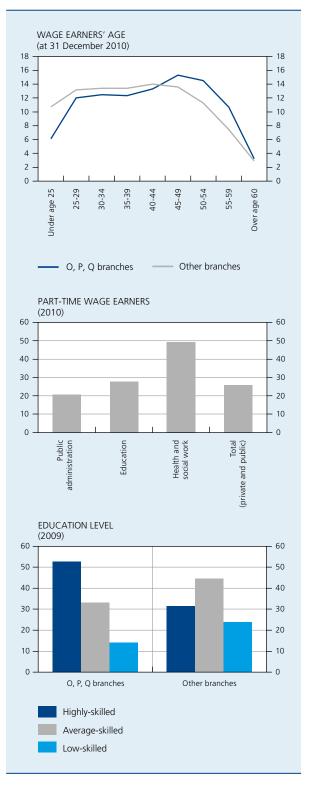
There are proportionally more workers employed part-time in education and, even more so, in the health and social work branch than in the overall economy. Employees in the public administration branch, conversely, are relatively less likely to be part-time workers. This characteristic may also explain part of the wage gaps for wages expressed monthly or annually.

### Gender

Women are more numerous in the O, P and Q branches than in other branches. According to macroeconomic data, they represent over 68% of employees in those

CHART 1 CHARACTERISTICS OF PUBLIC AND PRIVATE SECTOR WAGE EARNERS

(percentages of workers in the branches considered)



Sources: EC (LFS), FPS Economy, NSSO.

branches, compared with 37 % in the private sector. They account for 80 % of employees in the health and social work branch and 69 % in education, but only 41 % in public administration. To the extent that other surveys have shown the existence of a wage gap between genders in the private sector, these differences may also be a cause for wage gaps between the public and private sectors.

#### Education level

According to the macroeconomic data from the labour force survey, the proportion of highly-skilled workers, i.e. those with a higher education degree, is close to 53% in the O, P and Q branches, compared with 31.5% in all other branches. Conversely, only 14% of personnel in the public sector branches are low-skilled workers, compared with 24% in the other branches. This is another possible reason for a wage gap in favour of public sector wage earners. However, it also poses the question of competition between the sectors to attract the most skilled workers.

### Working hours

A person employed full-time works on average four hours less in the O, P and Q branches than in other branches, according to data from the EU-SILC survey. This difference is significantly influenced by education. Teachers have reported fewer working hours on a weekly basis than employees in the other branches.

### Managerial duties

Lastly, there are more managerial positions in the private sector than in the O, P and Q branches, at respectively 30% and 24% of jobs. These proportions may work in favour of average remuneration in the private sector, although this result – based on a survey for which there was no clear definition of what was meant by a "managerial position" – must be viewed with caution.

### Observations based on macroeconomic statistics

Gross wages and salaries in the O, P and Q branches rose substantially over the past 15 years, climbing from 29.2% of the total wage bill in 1995 to 32.4% in 2010. The growth came largely in the health and social work branch, which saw its salaries as a share of the salaries in the total economy rise from 7.7% to 10.1% over the period due

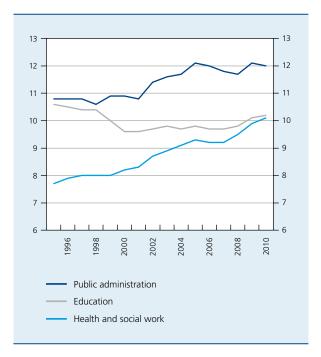
to strong job growth in this branch. Total wages also rose in volume in the public administration branch, where they increased from 10.8 % to 12 %, but fell somewhat in the education branch.

It is also useful to track the trend in the total gross wages and salaries of public sector workers and the two components behind that figure: employment and individual wages. To perform such an analysis over a longer period, we have used the total gross wages and salaries of the S.13 sector, as compiled according to the methodology in the national accounts, rather than those of the O, P and Q branches, for which data were not available over as long a period.

Total gross wages and salaries for the public sector grew, in real terms, by 175.1% between 1970 and 2010; an initial rise in the 1970s was followed by a slight decline in the 1980s. The trend in wages failed to keep pace with inflation for part of the period due to measures aimed at restoring competitiveness and cleaning up public finances. Since 1990, the positive trend has resumed, but at a more modest pace than during the 1970s. It amounted to 30.9% overall between 1995 and 2010, i.e. an average annual increase of 1.8% in real terms.

CHART 2 GROSS WAGES AND SALARIES OF WAGE EARNERS IN THE O, P AND Q BRANCHES

(percentage of total gross wages and salaries)



Sources: NAI, NBB.

CHART 3 TOTAL WAGES, EMPLOYMENT AND WAGES PER PERSON (1)

(index 1995 = 100)



Sources: NAI, NBB. (1) At constant prices

Between 1970 and 1995, the increase has resulted more from growth in individual wages than from employment growth. Over the past 15 years, however, the overall growth is more the result of employment growth than of growth in individual wages, in real terms. The two rose by respectively 61.8 % and 70 % between 1970 and 2010. The growth in the total wage bill was initially the result of simultaneous growth in public employment and individual wages; this trend lasted until the early 1980s. Employment then virtually levelled off, whereas real compensation per person diminished somewhat, reaching a low point in 1988. Individual compensation then began to rise at the average annual rate, at constant prices, of 1.8% between 1988 and 2010, i.e. 48.8% over the period. Employment, on the other hand, rose by an average of 1.3 % between 1997 - when it hit a low point - and 2010.

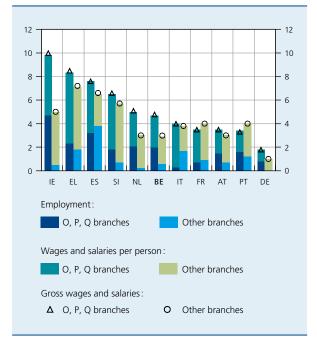
It is worth noting that the number of private sector wage earners did not return to its 1970 level until 1997, after which it rose by a further 16.5 %.

An international analysis allows us to better measure the developments that have taken place in Belgium. Within the group of countries included in the microeconomic analysis that follows, to which we have added the Netherlands, we note strong differences in the trend in wage earners' gross wages and salaries over the decade from 2000 to 2009 in the O, P and Q branches (1), and in the size of their determining factors. In every case, the wage bill increased in these branches of activity, and the increase resulted from the combined effects of rising employment and rising individual wages. In each case, wages played more of a role than did employment, but to different extents.

Considering certain countries individually, Ireland, where growth in the total wage bill in the O, P and Q branches averaged 10 % per year, comes across as one extreme. This growth was composed of strong growth in both employment and individual wages in these branches of activity. At the other extreme, Germany limited the increase in both individual wages and employment in the O, P and Q branches, such that the total wage bill of the three branches grew by just 1.8 % annually on average between 2000 and 2009. In France and Italy,

CHART 4 TOTAL WAGES, EMPLOYMENT AND WAGES PER PERSON

(average percentage annual change, 2000-2009 (1) (2))



Sources: EC, NAI, NBB.

- (1) Except Spain and Portugal (2007) and France (2008).
- (2) The impact of the combination of rising employment and rising individual wages explains the gap that emerges between the increase in the total wage bill and the sum of the increase in employment and individual wages.

<sup>(1)</sup> Eurostat still reports branches of activity according to the old NACE classification, under which the L (public administration), M (education) and N (health and social work) branches correspond respectively to the new O, P and Q branches.

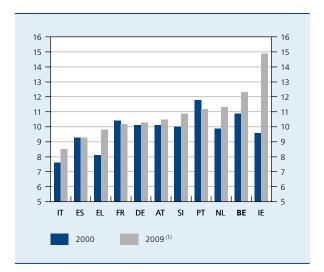
the rise in the total wage bill was attributable almost entirely to the rise in individual wages, as job growth was limited. Individual wages were also in large part responsible for the rise in the wage bills of Greece and Slovenia. Belgium's growth trend was in the median of countries from the total wage bill standpoint, rising by 4.8 % annually on average on the back of 2 % employment growth and 2.7 % growth in individual wages per year.

Compared with the countries studied, the level of wage earners' compensation in the O, P and Q branches, expressed as a percentage of GDP, is particularly high in Belgium. In 2009, it was 1.6 percentage points of GDP higher than the unweighted average of the other countries considered, and only Ireland spent more. In addition, over the period 2000-2009, this spending rose by 1.4 percentage points of GDP in Belgium, i.e. more than the average increase of the other countries, where it rose by 1 point of GDP. O, P and Q branch employee compensation as a share of GDP fell in Portugal and France, and was practically stable in Spain and Germany. By contrast, its growth was particularly brisk in Ireland, followed by Greece and the Netherlands where it was faster than in Belgium.

A first measure of the gap between gross wages and salaries in the public and private sectors can be made using macroeconomic data. The relationship between the average individual wage in the O, P and Q branches

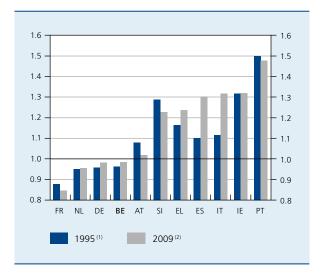
CHART 5 WAGE EARNERS' COMPENSATION IN THE O, P AND Q BRANCHES

(pourcentages du PIB)



Sources: EC, NAI. (1) Except Spain and Portugal (2007) and France (2008).

CHART 6 RATIO OF GROSS WAGES AND SALARIES PER EMPLOYEE OF THE O, P AND Q BRANCHES COMPARED WITH THOSE OF OTHER BRANCHES



Sources: EC, NBB.

- (1) Except Ireland (1998), France (1999) and Greece (2000).
- (2) Except Spain and Portugal (2007) and France (2008).

and the average individual wage in the other branches is an indicator of the direction and size of the wage gap between the public and private sectors.

It turns out that the wages of public sector workers thus defined were, at the end of the 2000s, lower on average than those of the private sector by 15% in France and 4% in the Netherlands. In Germany, Belgium and Austria, the gap between the sectors was limited, at under 2%. By contrast, the average wage of a public sector worker was 22-32% higher in Slovenia, Greece, Spain, Italy and Ireland, and nearly 50% higher than in the private sector in Portugal.

Since the mid-1990s, the gap in favour of private sector wage earners has widened in France, whereas the gap in favour of public sector wage earners has narrowed in Austria, Slovenia and Portugal, while remaining quite pronounced in the case of Portugal. Everywhere else, the trend has favoured public sector wage earners, in some cases modestly – as in the Netherlands, Belgium, Germany and Ireland – and in some cases significantly – as in Spain and Italy. It is also important to note that the wage gap enjoyed by public sector wage earners came under upward pressure following the economic and financial crisis in numerous countries, including in Belgium. The crisis weighed more heavily on private sector salaries than on the more protected public sector salaries.

### 3. Results of microeconomic analysis

While the macroeconomic analysis offers the advantage of being harmonised, accurate and exhaustive, it suffers from a lack of statistics for taking into account workers' individual characteristics. To the extent that these characteristics differ from one sector to the next and influence compensation levels, however, they need to be taken into account. Detailed microeconomic data, such as those produced by the EU-SILC survey, can deliver such information. Caution must be used in interpreting this information, though, as is generally the case when using data from a survey covering a relatively limited sample. As a result, the macroeconomic and microeconomic approaches complement each other nicely.

This chapter draws largely on the work carried out in collaboration by 10 national central banks (Giordano *et al.*, 2011). The goal is to measure the wage gap between public sector and private sector employees, isolating the effect of a group of wage level determinants, on the one hand, and, on the other hand, the specific effect of working in the public or private sector.

### 3.1 Methodology used to process microeconomic data

The microeconomic database produced by the EU-SILC survey is composed of the replies of individuals for whom numerous characteristics, notably professional and financial, have been identified.

An econometric regression has been performed in order to determine the effect of different relevant variables on individual wages. These variables were civil status, education level, gender, professional experience (1), managerial duties, part-time employment, and region of residence. A certain proportion of the as yet unexplained part of individual wages has to do with the worker belonging to the public sector or the private sector. Belonging to one of the three branches of activity considered to be a part of the public sector has therefore also been introduced as an explanatory variable for wages. The difference between public and private wages is measured by the coefficient that this variable takes in the regression, which allows us to make the observations that follow in this article.

Like most surveys, the EU-SILC survey upon which this approach is based covers only a sample of the population studied. Four waves of annual surveys have been used, covering the years 2004 to 2007. On average, the Belgian sample includes over 7 000 individuals. For the other countries studied, the samples were larger or smaller depending

on the size of the country in question. The samples used for the following analysis, however, are more restricted because they are limited to wage earners aged 15 to 64. Retirees, unemployed, the self-employed, students and other inactive persons are thus excluded from the original sample. For Belgium, this limits the sample to around 3 000 people per survey year, i.e. close to 12 000 wage earners total in the four years considered together.

A first regression was performed on the entire sample, considering net hourly income. This concept makes it possible to measure the financial advantage to be gained from working in the public sector for a given number of hours worked. Then, the same regression was performed on portions of the sample to see if belonging to the public sector has a greater effect for certain sub-sets of workers, such as men or women, low or highly skilled, or workers in one branch of activity or another, for example.

Before presenting and commenting on the results, it should be noted that this exercise has certain limits. On the one hand, the level of the sector wage gap differs depending upon whether it is calculated on the basis of microeconomic or macroeconomic data. This contrast is attributable notably to the concepts used, as the data in national accounts include conpensation in kind, whereas only monetary income is considered in the microeconomic approach. This may have a greater effect on private sector incomes, as compensation in kind are generally more widespread or higher in the private sector. According to a study based on the data in the "Vacature Salaris 2008 survey" (Vermandere et al., 2010), workers in the public sector enjoy roughly the same level of health insurance and meal vouchers as private sector workers, for example, but much fewer information technology fringe benefits or company cars. Furthermore, because the data came from a survey, it is always possible that the answers stem from a poor understanding of the questions asked. As a result, the number of hours worked or whether or not someone has a supervisory position probably need to be considered with a certain amount of caution. Given these restrictions, readers should take care in interpreting these results.

Most of the results generated by the regressions that follow indicate that the gap between public and private sector wages is significantly different than zero with a 99 % confidence interval. The rare confidence intervals that are lower than 99 % will be mentioned. Belgium is involved in many of these cases, because the wage gap there is particularly small and thus not always significantly different than zero.

<sup>(1)</sup> When professional experience is not available (which is the case for Germany, Greece and Ireland), age is used to approximate experience.

### 3.2 Results for the full sample

The principal appeal of the microeconomic data is that they make it possible to consider a series of individual factors that give rise to wage gaps. Once the econometric regressions have been performed, taking into account all of the explanatory variables cited above, it emerges that sector wage gaps do indeed exist, but generally to a much lesser extent than without controlling for the individual characteristics.

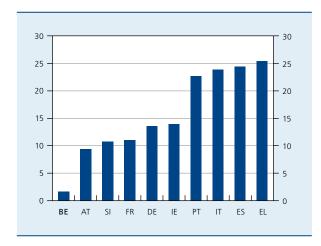
The wage gaps in terms of net hourly wages systematically favour public sector workers. They amount to 25.5 % in Greece and over 20 % in Spain, Italy and Portugal. The gap in favour of public sector workers varies from 10 % to 15 % in Ireland, Germany, France and Slovenia, and is weaker in Austria and Belgium<sup>(1)</sup>, where it is respectively 9.4 % and 1.7 %.

Part of the gap in favour of public sector workers in Belgium is attributable to their relatively short working hours, according to workers' responses to the survey. The net monthly wage is 5.2% higher in the private sector than in the public sector, controlling for individual characteristics. Nevertheless, the wage gap in Belgium, regardless of which concept is used, is particularly narrow compared with the other countries studied.

It is also useful to examine whether wage gaps are attributable to relatively high incomes in the public sector or to more modest salaries in the private sector. Applied to Belgium, the question is whether private and public sector

CHART 7 WAGE GAPS, CONTROLLING FOR INDIVIDUAL CHARACTERISTICS

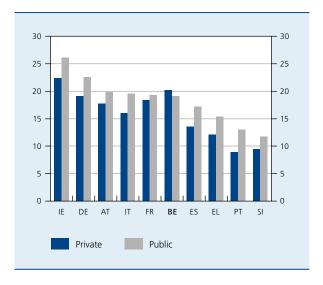
(net hourly wages, as a percentage of the net hourly wages in the private sector)



Source: Giordano et al. (2011).

CHART 8 PRIVATE AND PUBLIC SECTOR WAGES

(net annual wages, € thousands)



Source: Giordano et al. (2011).

wages are both relatively modest or both relatively high. However, it is important to keep in mind that the comparison in absolute terms that follows does not necessarily reflect the purchasing power that these incomes garner in each of these countries.

Compared with the countries reviewed in this study, Belgium appears to be characterised by relatively high wages in the private sector. For the period 2004-2007 and for the sample of individuals polled for the EU-SILC survey, Belgium had the highest level of private sector wages, after Ireland. The average public sector wage, by contrast, is lower in Belgium than that of civil servants in Ireland and Germany, and is comparable to wages in France, Austria and Italy. With respect to other countries, it can be noted that the sector wage gaps tend to be greater in countries where wages are lower, both in the private and in the public sector.

# 3.3 Sample results broken down by individual characteristics

The gaps cited above are observed for the entire sample. It is possible to perform new analyses on sub-sets of the sample, created according to objective characteristics. The new econometric regressions performed on each sub-set allow us to measure the wage gap between public and private sector specific to each of these sub-sets.

(1) At a confidence interval of 95%

### 3.3.1 Wage gaps by gender

An analysis by gender shows that wage gaps in favour of public sector workers are systematically greater for women than for men. Whereas the difference between genders is still limited in Italy, France and Portugal, it is particularly wide in Austria and Germany, for example. The reason that the wage gap between private and public sectors is bigger for women than for men is that public sector wages are less influenced by gender than are private sector wages. In other words, controlling for individual characteristics, women's wages are lower than men's in the private sector, but less so in the public sector.

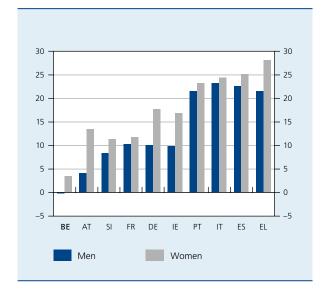
In Belgium, the net hourly wage gap between the public and private sectors is not statistically significant for men, but is 3.4% for women<sup>(1)</sup>. The reason for this difference is comparable to what is observed in other countries. Keeping in mind the well-known phenomenon of the wage gap between the genders in the private sector, the wage gap in favour of women in the public sector implies that the wage gap between genders is smaller in the public sector than in the private sector.

### 3.3.2 Wage gaps by branch of activity

The wage gap in favour of wage earners in the health and social work branch is systematically weaker than the gap in favour of wage earners in the two other branches belonging to the public sector. At least in certain

CHART 9 WAGE GAP BY GENDER

(percentage of net hourly wages in the private sector, controlling for individual characteristics)



Source: Giordano et al. (2011).

countries, this is probably due to the special circumstances of this branch, which is closer to the private sector than the other two. Thus, wages are sometimes, for example, set less centrally in this branch than in the education or public administration branches. In Belgium and Germany, compensation in this branch is estimated to be somewhat lower than that of the private sector (2). The gap is less than 10% in Slovenia, Austria, Ireland and France. The gap most favourable to employees in this branch is in the Mediterranean countries, in particular Greece, where the salary advantage relative to the private sector is 20%.

In seven of the ten countries studied, the wage gap relative to the private sector in education was the widest of the three branches of activity considered. Here again, it is worth noting that part of this gap is attributable to the small number of hours worked as reported by teachers, either because they omit a portion of time spent working at home, or because their workload is lighter in terms of working hours. This wage gap is in some cases particularly favourable to teachers, as is the case in Greece - where it is more than 40 % when controlled for individual characteristics - and the other Mediterranean countries, where it varies from 25 % to 35 %. It is also the most advantaged of the three branches of activity in Ireland, Austria and Slovenia, where it ranges from 13 % to 21 %. However, the gap is more limited than in the public administration branch in Germany and France. In Belgium, the gap in favour of education relative to the private sector is not significant, regardless of the confidence interval considered.

Lastly, the wage gap relative to the private sector enjoyed by workers in the public administration branch is most often in between those of the other two branches. It is more than 20% in Portugal, Italy, Spain and Greece, but much lower in Austria and Belgium, where the gap relative to private sector wages is respectively 7.8% and 5%.

### 3.3.3 Regional wage gaps

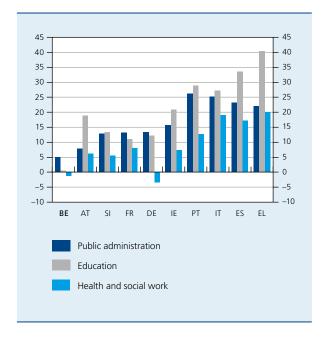
Wage gaps also differ from one region to the next. In this regard, the EU-SILC survey makes it possible to classify workers according to the region where they live, but not according to the region where they work. Taking into account the region of residence rather than the place of work may have a particularly pronounced impact on the

<sup>(1)</sup> Note that, according to Delmotte et al. (2010), who based their findings on data by sector, not adjusted for individual characteristics, the wage gap between the genders is 14.3 % for the economy as a whole. According to this same source, not adjusted for individual characteristics other than gender, the gap is wider in the health branch and in the federal government, but narrower in education, in local administrations and in administrations of the Communities and Regions.

<sup>(2)</sup> In Belgium, wage gaps between the health branch and the private sector are not statistically significant. In Germany, they are significant at a 95 % confidence interval.

CHART 10 WAGE GAP BY BRANCH OF ACTIVITY

(percentage of net hourly wages in the private sector, controlling for individual characteristics)



Source: Giordano et al. (2011).

analysis of regions where many workers reside outside of the region, such as is the case in the Brussels-Capital Region in Belgium, for example. It should be noted that Ireland, Portugal and Slovenia are each composed of a single region.

In this context, it appears that Belgian wage gaps between the public and private sectors are relatively comparable in the three Regions. In the Flemish Region, the gap is not significant, whereas it is respectively 4.1% and 6.1% in Wallonia and the Brussels-Capital Region, i.e. limited regional differences compared with other countries. This dispersion of wage gaps is almost entirely attributable to the existence of wage scales in much of the public sector that apply to the entire country. Controlling for individual characteristics, incomes of public sector workers are the same regardless where they work. That being the case, the public sector/private sector wage gap is more or less pronounced depending on the Region due to regional differences in the wages paid in the private sector, which stem from differences in the regional labour markets. Private sector wages are generally higher in the Flemish Region, and thus closer to those in the public sector. In the other Regions, by contrast, labour market conditions are such that the private sector can get away with paying its workers less. Thus, the wage gap in favour of public sector workers in those Regions is more pronounced.

This same reasoning also explains why wage gaps in favour of the public sector are less pronounced in the most prosperous regions of certain countries: Madrid in Spain, Athens in Greece, north-west Italy and southeast Germany (Bavaria, Franconia, Swabia, etc.). This phenomenon is less evident in the Franche-Comté region in France, but this region is followed closely by the Centre and Île-de-France regions, which are economically vibrant.

Regional differences between public and private sector wages are particularly pronounced in Spain, France and Italy: they amount to more than 30 percentage points between the regions where the gap is the narrowest and those where it is the widest. By contrast, the differences are limited in Austria, topping out at 3.9 percentage points.

## 3.3.4 Wage gaps according to education level and type of function performed

Education level naturally influences compensation. In this regard, it makes sense to ask if education level exerts a different influence in the public sector than in the private sector.

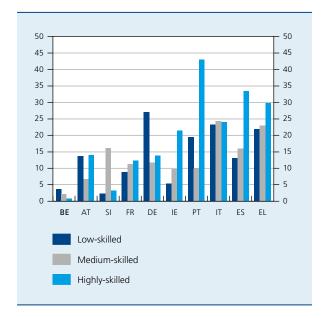
While there are indeed systematic differences, their size varies from one country to the next. In some of the countries considered – Spain, Ireland (1), Greece and France – the wage advantage enjoyed by public sector employees is bigger the higher their education level. This is attributable to institutional asymmetry. Access to the best-paid functions in the public sector generally requires the worker to hold a certain level of diploma. To the extent that this is not the case in the private sector, less educated people have greater opportunity for a financially rewarding career. The same observation holds for Portugal, with the exception that there is less of a wage gap for people with a medium level of education.

By contrast, Germany's wage gap in favour of public sector workers is particularly wide for low-skilled persons. In Germany, the absence of a minimum wage has a greater impact on private sector low-skilled workers, whereas public sector workers are more shielded from particularly low wage. The same lack of a minimum wage in Austria and Italy also results in a relatively favourable wage gap for low-skilled public sector employees. In Italy, the advantage is comparable for all levels of education. In Austria, the advantage for low-skilled workers is accompanied by an advantage for highly-skilled workers, which enjoy protected access to the upper echelons of the public sector.

<sup>(1)</sup> In Ireland, the difference is statistically significant at 95 % for low-skilled wage

CHART 11 WAGE GAP ACCORDING TO EDUCATION LEVEL

(percentage of net hourly wages in the private sector, controlling for individual characteristics)



Source: Giordano et al. (2011).

In Slovenia, wage gaps for highly-skilled and low-skilled employees are not significant, although they are more substantial for those with a medium education level. In Belgium, the wage gap is not significant for a high level of education, but is significant at confidence intervals of respectively 90 % and 95 % for medium and low levels of education. These gaps are minimal and appear to indicate that compensation profiles are relatively similar between the private sector and the public sector, for any given employees' education level.

Two types of functions enable further analysis of the extent to which the responsibilities expected of a supervisor are more valued in one sector or the other. The "supervisory" function is defined broadly in the context of the EU-SILC survey as resulting from a formal responsibility for other employees, which implies setting a course for work and verifying that it is properly executed. More so than for other characteristics, the responses given by people asked this question run the risk of subjectivity, such that caution is required when using them. That being said, it nevertheless emerges that for the group of countries studied, the wage gap in favour of public sector workers is greater for non-supervisors than for supervisors. This is because the financial advantages of managerial positions are greater in the private sector than in the public sector. In Belgium, wage gaps are once again particularly

(1) The differences are statistically significant at respectively 90 % and 95 % for the median and the third quartile in Belgium.

slim, regardless of the personnel category examined, and are not significant in the case of supervisors.

Based on these observations, it appears that in numerous countries, education level is more highly valued in the public sector, whereas the level of responsibility is better rewarded in the private sector.

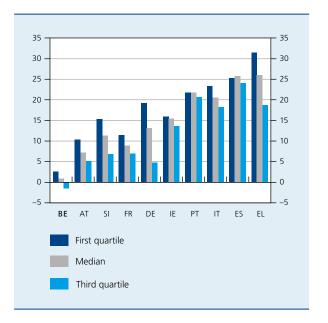
#### 3.3.5 Wage gaps by level of compensation

Lastly, it is useful to examine whether wage gaps are of comparable size regardless of the income level of the workers in question. Regressions show that these gaps are fairly comparable in each quartile of incomes in Portugal and Spain. Elsewhere, the wage gap between public sector and private sector workers is greater the less they earn. Even so, wage gaps within each quartile remain limited, at around 5 percentage points in Belgium<sup>(1)</sup>, France, Italy and Austria. These inequalities are, however, more pronounced in Slovenia, Greece and Germany, where belonging to the public sector is more of an advantage for lower wages than for higher wages.

This trend, observed in most countries, confirms what was shown by earlier observations, i.e. that the dispersion of wages in the public sector is more limited than in the private sector.

CHART 12 WAGE GAP ACCORDING TO COMPENSATION

(percentage of net hourly wages in the private sector, controlling for individual characteristics)



Source: Giordano et al. (2011).

# Box – Wage adjustment in the public sector as a measure of fiscal consolidation in Greece, Ireland, Portugal, Spain and Italy

As part of the fiscal consolidation under way in the European countries that have come under the greatest pressure from financial markets, measures have been enacted to limit the total wage bills of general government.

The measures taken up to September 2011 – that were strengthened afterwards in Greece, Portugal and Italy – are expected to produce budget savings equal to 4.6 percentage points of GDP between 2010 and 2014 in Greece, and 1.4-2.7 points of GDP in the other countries mentioned. The measures, summarised below, affect both employment in the sector and the wages of those already employed there.

#### Greece

Of all the fiscal consolidation measures enacted in Greece, the principal ones aimed at reducing the public sector wage bill consist in replacing only one in ten departing workers in 2011, raising the workweek of public sector employees from 37.5 to 40 hours, reducing overtime pay, overhauling the pay scale, reducing the number of people employed in contract – by 50 % in 2011, then by an additional 10 % in 2012 and beyond – and temporarily freezing automatic career progression. Furthermore, redundant public administration staff will be either put on standby, paid on average 60 % of their base salary, or fired. Between 2010 and 2015, the total number of government employees is thus expected to decline by 20 %. Overall, the total wage bill is expected to fall by 4.6 points of GDP between 2010 and 2014. These measures will be reinforced, as the 2012 budget calls for a further 20 % reduction in the nominal wages in the public sector and at companies controlled by the State, and for a further tightening of public employment.

#### Ireland

In Ireland, a number of measures have been taken to ensure the long-term sustainability of its public finances. These include a 14% average cut in public sector wages, with more limited reductions for low-income workers, which will also help reduce future pension costs. In the wake of the financial assistance being provided to Ireland, the budget calls notably for reducing public sector headcount and adapting public pension services. The public wage bill as a share of GDP is expected to fall from 11.8% in 2010 to 9.6% in 2015.

### **Portugal**

Plans to clean up Portuguese public finances include dramatic spending cuts, including an average 5 % drop in public sector wages in 2011, a commensurate drop in 2012, and a freeze in wages and pensions in 2013, with the exception of the lowest pensions. Furthermore, vacation bonus payments and the 13th and 14th months of salary granted to civil servants earning more than € 1000 per month will be suspended. As a result, payroll spending, which amounted to 12.6 % of GDP in 2009, is likely to fall to 9.9 % of GDP in 2015.

### Spain

In May 2010, the Spanish government approved exceptional measures for restricting public spending, which included a 5 % cut in nominal public sector wages in 2010, followed by a freeze in 2011 and limited growth in 2012 and 2013. Furthermore, the replacement rate for departing personnel was set at 10 % in 2011-2013, which is expected to shrink the public administration headcount by 7 %. Overall, the public sector wage will contract by 2.2 points of GDP between 2010 and 2014.

#### Italy

Efforts to cut spending call for a decrease in public sector compensation through measures such as freezing the wages of national health care system employees and the automatic pay raises, as well as suspending wage-bargaining negotiations. Furthermore, only 20 % of workers leaving for retirement will be replaced. The savings generated by these measures are expected to reach 1.4 points of GDP between 2010 and 2014.

### Conclusions

In Belgium, the total compensation of public sector employees has risen sharply since the early 1970s. This spending is at a proportionally high level relative to other European countries.

Given the previously etablished fact of a relatively high level of public employment in Belgium, it remained important to look at the level of wages in the public sector, which had not been done recently in Belgium. This article has thus tried to remedy that shortcoming, with research based principally on wage gaps between the private and public sectors, comparing the situation in Belgium with that of other European countries.

In most of the countries analysed, wages are higher in the public sector than in the private sector, regardless of whether macroeconomic or microeconomic data are used. With the former, it is not possible to consider differences in the characteristics of the populations working in each of the two sectors. Indeed, the public sector - notably in Belgium - is made up of more women, older workers, and people with a higher level of education, but public sector employees work fewer hours and are less likely to occupy a managerial position. To take these factors into consideration when comparing wages between the two sectors, microeconomic data from the EU-SILC survey were used. However, caution must be used with respect to these data, because there are risks stemming from the representativeness of the sample and the way those polled interpret the questions asked. Nevertheless, the observations based on the microeconomic and macroeconomic data overwhelmingly corroborate each other.

The analysis shows that the countries where the average wage gap is the biggest in favour of the public sector's employees are also the countries experiencing now the toughest budget woes. According to microeconomic data, wage gaps — expressed in net hourly terms — are over 20 % in Portugal, Spain, Italy and Greece. The gap

in Ireland is 14%. The existence of such gaps may have played a role in those countries' decisions to freeze or cut public sector wages as part of the fiscal consolidation programmes they have adopted. Furthermore, part of these wage gaps between sectors may arise from the lower number of hours worked in the public sector; an alternative, being pursued in Greece, consists in bringing the number of public sector working hours per occupied person into line with the number worked in the private sector.

In most of the countries studied, the salary advantage enjoyed by public sector workers holds for every sub-set of workers, although to differing extents. Thus, wage gaps are the widest for women, for lower levels of income, for those who do not have supervisory functions, and in the branches of administration and education, but the gaps are more limited in the health and social work branch. The impact of education level on wage gaps varies from one country to the next.

The wage gap between sectors in Belgium is one of the narrowest of any country studied, regardless of what data are used. According to macroeconomic data, it tends to be slightly in favour of the private sector's employees. According to microeconomic data, in which wages are adjusted to control for individual characteristics – gender, experience or age, education level and managerial duties – wages are slightly higher in the public sector than in the private sector. For many groups of workers, the gaps are so limited in Belgium that they are not statistically significant. The gaps are relatively narrow in Belgium principally because average wages in the private sector are relatively high, as public sector wages are close to those of most other European countries.

As the level of public sector wages in Belgium appears justified when compared with those in the private sector, given the respective characteristics of wage earners in the two sectors, any reduction in public spending on sector payroll, as part of the necessary clean-up of public finances, should favour limiting public employment.

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