

## Wage and age related employers' SSC cuts and wage subsidies in the 2007 vintage of HERMES

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**Abstract** - The distinction between the young and the elderly within low and high wage earning employment in HERMES, the FPB's medium-term macroeconomic model, enables the assessment of both age and wage related labour cost reducing policies. The age structure of salaried employment in each branch of activity is embedded in a three-stage mechanism. First, aggregate demand and the relative cost of labour to capital determine salaried employment. Next, relative wages allocate employment among three major labour categories: low-paid jobs, high-paid jobs and special-employment programmes. Finally, within each labour category relative wages allocate employment between the young (aged less than fifty) and the elderly (aged fifty or more).

**Jel Classification** - C8, E24, J23

**Keywords** - Labour market policies, Wage subsidies, Social-security contributions



## Executive Summary

HERMES, the FPB's workhorse for medium-term analysis, treats the substitution among low-wage, high-wage and special-programme labour within each industry as endogenous, allowing the assessment of both general and selective wage cost reduction policies. What was lacking in the HERMES vintages upto 2006, was the distinction between the young and the elderly, impeding a proper analysis of age-based wage cost measures, which have become more common since their gradual introduction by mainly the federal government and by to some extent the Flemish government as well.

Therefore the mechanism that allocates employment over the different labour categories has been thoroughly revised. Aside from the age structure of the labour supply, the self-employed and various categories of exogenous employment which is treated exogenous, the age structure of salary earning market employment in each branch of activity is in the new modelling embedded in a three-stage mechanism. First, aggregate demand and the relative cost of labour to capital determine salary earning market employment. Next, relative wages allocate employment among three major labour categories: low-paid jobs, high-paid jobs and special-employment programmes. Finally, within each labour category relative wages allocate employment between the young (aged less than fifty) and the elderly (aged fifty or more). Underlying this segmentation is the assumption that there are innate differences in skills and productivity across age and wage categories, causing imperfect substitution and warranting wage discrepancies.

Since relative wages alone cannot account for the ageing of the payroll, the age structure of employment at branch level in the baseline also reflects the trend ageing of the workforce. Firstly, a baseline with stable SSC and labour subsidy rates is construed, in which the age structure of employment in each branch is forced on a time path that reflects the socio-demographics of that particular branch<sup>1</sup>. Finally, the actual, time-varying employers' SSC and labour subsidy rates are introduced in the model. As a result, relative wages still matter, a feature that becomes obvious in alternative relative wage scenarios. Both a version with government-sanctioned wage benchmarking (in line with the 1996 Law on the preservation of competitiveness) and a version with flexible wages are available.

Chapter 1 identifies the relative size of the different labour categories in employment, the gross wage bill and wage cost reduction measures. Chapter 2 looks into the effectiveness of across-the-board and target wage cost reducing policies in both fixed and flexible wage regimes. The policies are assessed by their impact on the government deficit, employment (on aggregate and by category), and output (sectoral output and composition of aggregate demand). Chapter 3 reiterates the main findings. Chapters 4 and 5 report the employers' SSC rates and wage subsidy rates by sector, wage and age class. Chapter 6, a technical appendix, spells out the substitution technology. Chapter 7 reports the transitional and medium-term results of a general and selective labour cost reduction policies measures for both fixed and flexible wage regimes.

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1. Many thanks to Koen Hendrickx, member of the labour market research cell of the FPB.

Employers' SSC cuts for young low-wage earners generate more employment in spite of job losses for the elderly and the young high-wage earners. The substitution effect favouring the low-wage segment causes the average wage cost to fall well and beyond the initial cut in wage cost and to generate far more jobs than other labour cost cutting policies.

The SSC cut targeting the elderly goes to some extent at the expense of the young age group. In fact, only the young low-wage earners suffer. Indeed, the elderly being more prominent in the high-wage than in the low-wage category, elderly labour cost cutting policies result in bigger wage cost cuts for the high-wage earners than for the low-wage earners. Obviously, governments simultaneously trying to stimulate elderly employment and the employment of the low-skilled face a conundrum if both objectives are to be realised by changing relative wages.

The increase in subsidies to work-in-shifts employment, in fact a wage subsidy to manufacturing masquerading as an across-the-board subsidy to low-wage and high-wage employment, yields less jobs but a higher increase in output than across-the-board cuts in employers' SSCs. The employment of all wage and age classes are stimulated alike, just as an across-the-board SSC cut would do.

The Phillips curve effect explains why the employment and output effects of SSC cuts are slightly less benign in a flexible wage regime than in a wage regime that keeps domestic wages in line with foreign wages. In the case of the work-in-shifts subsidies, the Phillips curve effect on manufacturing wages is weakened by the sharp decline in manufacturing's labour productivity, causing a more favourable effect on foreign demand and hence output.

Both work-in-shifts subsidies and low-wage SSC cuts are a drag on the government finances in the sense that only a small proportion of the initial cost is recovered. In the case of low-wage SSC cuts, the proportion that is recovered is significantly higher in a flexible wage regime than in a rigid wage environment. However if gauged by the cost per additional job, targeting young low-wage labour is the cheapest option, whatever the wage regime.

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# 1. Heterogeneous labour in HERMES

## 1.1. Modelling heterogeneous labour in HERMES

HERMES makes the distinction between (endogenous) market salary earning employment (comprising both profit and non-profit sectors)<sup>1</sup>, the self-employed and (exogenous) non-market salary earning employment (basically federal, regional and local government employment and a variety of minor subsidized employment programmes). This survey below looks into the salary earning employment of the market sector, bar employment in agriculture and subsidized household services (local employment agencies and household service vouchers) because the composition of employment is exogenous for the latter two branches.

In spite of capacity utilization effects and endogenous capital formation, HERMES is mainly an aggregate demand driven model. In line with the modelling practice in other countries, demand for labour in the market sector is determined in several stages (see figure 1).

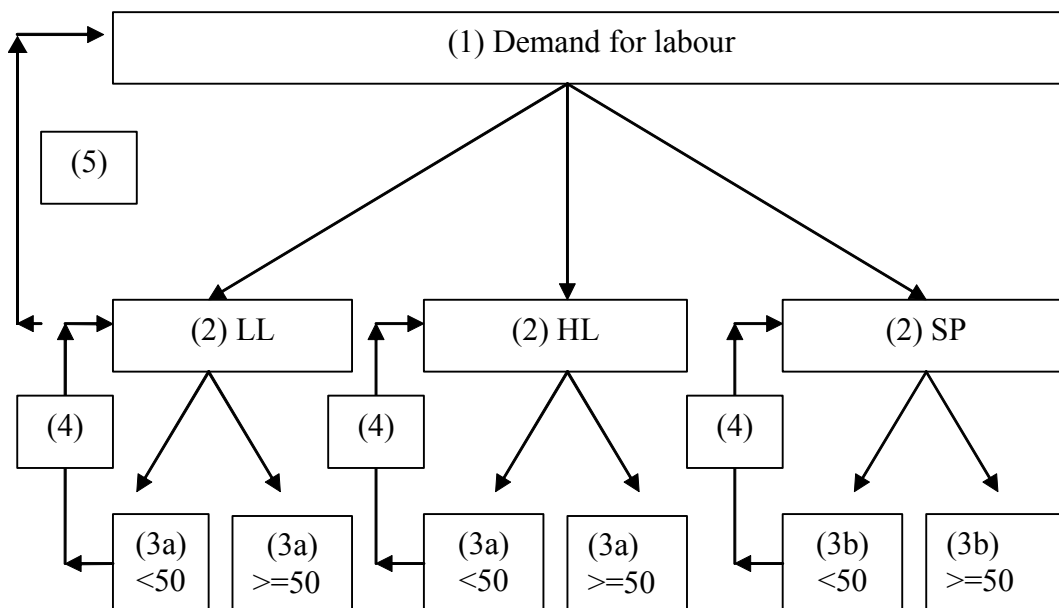
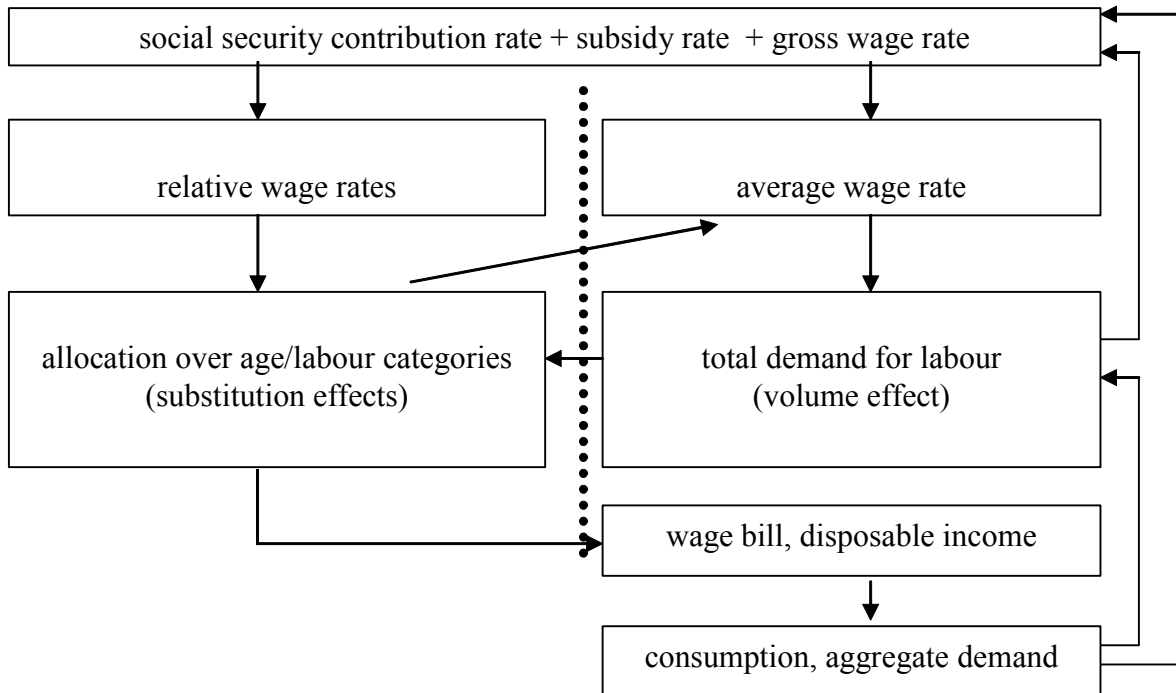
First, aggregate demand and the relative cost of labour to capital determine salary earning market employment. Next, relative wages allocate employment among three major labour categories: low-paid jobs, high-paid jobs and special-employment programmes. Finally, within each labour category relative prices allocate employment between the young (aged less than fifty) and the elderly (aged fifty or more). Underlying this segmentation is the assumption that there are innate differences in skills and productivity across age and wage categories, causing imperfect substitution. Obviously, the composition of labour demand at each allocation level affects the average wage costs, which in turn feeds back into total demand for labour. Hence, changes in labour-specific wage costs impact on employment through a substitution and volume effect.

Lack of long-spanning time series explains why the substitution technology in the labour market is quantified by calibration on the most recent observations (2005) and not by time-series based econometrics, which would be first-best. For the sake of convenience, a simplified translog substitution technology was selected (see the technical appendix in Section 6.)

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1. The fourteen market sectors are agriculture ('A'), construction ('B'), consumer goods ('C'), financial services ('CR'), energy ('E'), trade ('HA'), investment goods ('K'), non-specified market services ('OS'), intermediate goods ('Q'), health care ('SA'), transport by rail ('Z\_1'), transport by road ('Z\_2'), transport by air and waterways ('Z\_34') and logistics and communications ('Z\_56').

Figure 1 - Allocation of employment in HERMES



1. Average wage relative to other factor prices determines demand for labour.
2. Endogenous allocation across LL, HL and SP based on relative wages (no SP in Z\_1).
3. (3a) Allocation of LL and HL between the young and the elderly: in most cases endogenous based on relative wages, exogenous in the case of Z\_1 and Z\_34; (3b) Exogenous age structure for SP.
4. Feedback of age structure to the average wage of each labour category and hence to the demand for that particular labour category.
5. Feedback of labour composition to the average wage and hence demand for labour.

## 1.2. Composition of salary earning employment by wage category and age

Firms employ 'regular' low-wage labour ('LL' - as a proxy for low-skilled labour), 'regular' high-wage labour ('HL' - as a proxy for high-skilled labour), and labour hired through various special-employment programmes ('SP'). The cut-off wage between regular low-wage and regular high-wage employment is fixed at 5,870 euro gross per quarter in 2005 wages. The distinction between the two 'regular' types of labour and special labour is in the magnitude of the wage cost reducing measures (the latter are entitled to additional employers' SSC cuts) and the regulatory constraints. The special jobs cover programmes that target the long-term unemployed<sup>1</sup>, the young (aged 25 or less)<sup>2</sup> and first-time recruitment by one-man firms and start-ups. The model distinguishes within each category between the young (less than 50 years of age 'NJ') and the elderly (50 years of age or older 'OW'). 'NJLL' and 'NJHL' will refer to the younger segments of LL and HL; 'OWLL' and 'OWHL' to the elderly segments of LL and HL.

Table 1 shows the distribution of employment and the gross wage bill by age and labour category for the market on average in the FPB's medium-run outlook of April 2007. In 2005 60% of labour was classified as high-wage earning, 35% as low-wage earning and 5% as belonging to one of the three special job programmes, a distribution that will be maintained throughout the whole outlook's horizon. Within each wage category, the share of the low-earning elderly will rise continuously, from 4.7% in 2005 to 6.4% in 2012, and so will the share of the high-earning elderly, from 12.8% to 15.3%. At the low-wage end, the younger earned slightly more than the elderly in 2005 (gross earnings of €24,500 versus €23,500 per year in a full-time occupation) whereas annual full-time equivalent gross pay for the elderly was substantially higher than for the younger at the high-wage end of the pay scale (€48,600 versus €44,000).

These averages do not necessarily apply to all branches of activity. The wage cost and its constituent parts will be examined by branch in the next paragraph.

- 
1. The magnitude of the employers' SSC cuts and wage subsidies granted by 'Plan Activa' depends on the age and the former unemployment benefit eligibility status of the recruited workers.
  2. The 'Startbanen'/'Conventions premier emploi'-programme, relabeled as 'Young employees', introduced in 2000 and forcing firms to hire a quota of young, first-time employed, is now in cruising mode. Only a fraction of that employment, namely those low-skilled who qualify for additional employers' SSC cuts on top of the across-the-board employers' SSC cuts, is considered part of the special-labour workforce.

**Table 1 - Age and labour category distribution of employment and gross wages in the market sector (not including agriculture and subsidized household services)**

	2005	2006	2007	2008	2009	2010	2011	2012
Employment (% of total <sup>a</sup> ):								
- low wages, aged <=49	30.81	30.26	30.20	30.06	29.97	29.87	29.76	29.62
- low wages, aged >=50	4.66	4.91	5.18	5.44	5.72	5.99	6.22	6.44
- high wages, aged <=49	47.01	46.80	46.19	45.68	45.13	44.61	44.19	43.83
- high wages, aged >=50	12.79	13.32	13.71	14.10	14.46	14.81	15.10	15.38
- special employment	4.72	4.71	4.73	4.73	4.72	4.72	4.72	4.73
Gross wage bill (% of total):								
- low wages, aged <=49	18.71	18.28	18.22	18.11	18.03	17.95	17.85	17.74
- low wages, aged >=50	2.42	2.53	2.67	2.80	2.94	3.07	3.19	3.30
- high wages, aged <=49	58.93	58.62	58.03	57.50	56.97	56.46	56.06	55.71
- high wages, aged >=50	17.09	17.72	18.23	18.72	19.19	19.64	20.02	20.36
- special employment	2.85	2.84	2.86	2.86	2.87	2.87	2.88	2.89
Average full-time equivalent gross wages (1000 of euro per year):								
- low wages, aged <=49	24.551	25.014	25.583	26.192	26.924	27.803	28.720	29.674
- low wages, aged >=50	23.549	23.966	24.509	25.091	25.797	26.652	27.548	28.484
- high wages, aged <=49	44.160	45.193	46.409	47.690	49.221	51.030	52.919	54.887
- high wages, aged >=50	48.778	49.784	50.976	52.259	53.802	55.642	57.575	59.589
- special employment	25.019	25.587	26.280	27.009	27.872	28.888	29.953	31.061

a. Excludes agriculture and subsidized household services.

### 1.3. Labour-specific wage rates

The wage rate in each segment of the labour market depends on the gross wage (Table 2, 3 and 6), the employers' SSC rate (Table 9 and Chapter 4.) and the wage subsidy rate (Table 13 and Chapter 5.).

#### 1.3.1. Gross wages

##### a. Observed rates of growth of nominal gross wages

Table 2 shows the discrepancies in observed nominal gross wage growth rates (the latter defined as first log differences) relative to the young high-wage earners in 1998-2005. Gross wage growth rates have differed across the various age/labour categories in 1998-2005. Overall, young high-wage earners have experienced higher nominal gross wage growth rates than the other employment categories, except in the sectors providing financial, energy, health and road transport services.

In the case of the special-programme gross wage rate, one suspects that one-off shifts across the constituent parts of the special-jobs concept - a quite heterogeneous grouping of hard-to-employ labour and employment in start-ups - may have something to do with it, suggesting that the sample average would not be a good gauge for future wage growth differentials.

**Table 2 - Gross wage growth in the market sector (differences with wages of young high-wage earners; full-time equivalent rates observed in 1998-2005 and in the 2006-2012 Outlook)**  
(in %)

	1998	1999	2000	2001	2002	2003	2004	2005	Period average <sup>a</sup>	Outlook 2006-2011 <sup>b</sup>
<b>Construction</b>										
- low wages, aged <=49	-3.84	3.54	-1.04	-0.78	1.27	-1.04	-2.24	0.33	<b>-0.48</b>	0.33
- low wages, aged >=50	-1.27	2.87	-1.76	-0.45	1.31	-25.89	28.33	-0.35	0.34	<b>-0.35</b>
- high wages, aged >=50	0.07	-0.19	-0.79	-0.58	0.28	0.74	-0.81	0.07	<b>-0.15</b>	0.07
- special employment	3.72	0.85	-4.38	-2.71	-0.95	5.92	16.73	4.81	2.72	0.00
<b>Consumer goods</b>										
- low wages, aged <=49	0.22	0.36	-1.07	-0.05	1.11	-0.79	0.67	-0.45	0.00	<b>-0.45</b>
- low wages, aged >=50	-0.22	0.14	-0.91	-0.03	0.97	-0.86	0.69	-0.62	<b>-0.11</b>	<b>-0.62</b>
- high wages, aged >=50	-1.34	-1.33	-0.70	-0.99	-0.31	-0.56	-0.12	-0.21	<b>-0.71</b>	<b>-0.21</b>
- special employment	2.73	-1.92	5.35	9.45	2.18	-5.87	3.99	-1.89	1.65	<b>-0.00</b>
<b>Banking &amp; finance</b>										
- low wages, aged <=49	-0.58	-0.15	0.05	1.46	2.08	-1.22	-0.68	-0.46	0.06	<b>-0.46</b>
- low wages, aged >=50	-3.24	0.16	-1.43	-0.94	3.11	1.74	0.32	0.46	0.02	0.46
- high wages, aged >=50	-0.55	-1.63	-0.92	-1.59	-1.50	-0.27	-0.58	0.01	<b>-0.91</b>	0.01
- special employment	2.37	-1.69	5.50	3.42	3.52	-5.43	1.12	3.33	1.44	0.00
<b>Energy</b>										
- low wages, aged <=49	-1.28	-3.14	0.15	0.25	0.10	0.09	4.97	0.26	0.17	0.26
- low wages, aged >=50	5.35	-6.25	-3.73	-0.57	0.82	-0.29	-19.84	19.41	<b>-0.65</b>	19.41
- high wages, aged >=50	-0.65	-1.13	1.95	0.90	1.37	-1.20	1.94	2.20	0.66	2.20
- special employment	0.31	5.96	26.39	1.12	-7.99	-4.60	0.03	4.45	2.90	0.00
<b>Hotels &amp; catering</b>										
- low wages, aged <=49	-0.78	-0.77	-1.27	-0.49	0.44	-1.09	0.04	-0.69	<b>-0.59</b>	<b>-0.69</b>
- low wages, aged >=50	-0.38	-1.21	-1.62	-0.51	0.44	-1.38	1.49	-1.11	<b>-0.55</b>	<b>-1.11</b>
- high wages, aged >=50	-0.74	-2.00	-1.07	-1.54	-1.36	-1.27	-0.70	-0.14	<b>-1.15</b>	<b>-0.14</b>
- special employment	3.70	-1.34	-0.66	2.48	2.10	-2.16	7.54	2.26	1.64	0.00
<b>Capital goods</b>										
- low wages, aged <=49	-0.39	0.69	-0.56	0.07	0.57	-1.21	-1.03	0.76	<b>-0.14</b>	0.76
- low wages, aged >=50	-0.95	1.86	-1.55	0.98	0.83	-1.70	-0.37	-0.01	<b>-0.11</b>	-0.01
- high wages, aged >=50	0.41	-1.09	-0.96	-1.68	-1.00	-0.94	-1.63	-0.57	<b>-0.96</b>	<b>-0.57</b>
- special employment	-0.32	-3.08	19.49	7.66	-3.18	-8.17	9.68	-3.57	2.15	0.00
<b>Miscellaneous services</b>										
- low wages, aged <=49	0.17	-0.28	-1.09	-1.15	0.66	-1.51	-0.07	-0.42	<b>-0.47</b>	<b>-0.42</b>
- low wages, aged >=50	0.69	-0.04	-1.08	-0.14	0.90	-2.35	0.63	0.46	<b>-0.12</b>	0.46
- high wages, aged >=50	-0.58	-1.55	-1.40	-1.35	-0.68	-1.13	-0.36	-0.88	<b>-1.03</b>	<b>-0.88</b>
- special employment	3.58	-2.23	-0.20	-0.10	0.70	-0.97	6.40	1.24	1.02	0.00
<b>Intermediate goods</b>										
- low wages, aged <=49	0.24	0.35	-0.93	0.18	0.43	-2.05	0.26	-0.64	<b>-0.27</b>	<b>-0.64</b>
- low wages, aged >=50	0.44	0.94	-0.91	0.83	0.78	-2.11	0.03	-0.69	<b>-0.09</b>	<b>-0.69</b>
- high wages, aged >=50	-0.34	-0.98	-1.46	-1.59	-1.10	-0.54	-0.97	-0.20	<b>-0.93</b>	<b>-0.20</b>
- special employment	6.07	-1.32	5.01	10.62	-0.62	-6.65	-0.82	-5.91	0.78	0.00
<b>Health</b>										
- low wages, aged <=49	0.08	2.99	-0.68	1.14	0.08	1.44	0.92	0.84	0.83	0.84
- low wages, aged >=50	0.08	3.28	-0.83	0.97	0.18	2.11	0.77	0.84	0.90	0.84
- high wages, aged >=50	-0.73	-0.50	-0.63	-0.50	-0.88	0.11	-1.00	0.01	<b>-0.52</b>	0.01
- special employment	-1.24	-0.15	0.17	2.46	1.18	-1.04	0.54	-0.29	0.20	0.00
<b>Transport by rail</b>										
- low wages, aged <=49	-1.10	-0.87	-2.46	0.63	0.02	0.30	1.39	-0.02	<b>-0.27</b>	<b>-0.02</b>
- low wages, aged >=50	-1.01	0.42	-2.98	1.40	0.36	-0.06	1.43	0.15	<b>-0.04</b>	0.15
- high wages, aged >=50	-0.73	-0.81	-1.27	-1.65	-0.52	0.62	0.58	1.36	<b>-0.30</b>	1.36
- special employment <sup>c</sup>										

	1998	1999	2000	2001	2002	2003	2004	2005	Period aver- age <sup>a</sup>	Out- look 2006- 2011 <sup>b</sup>
Transport by road										
- low wages, aged <=49	3.74	-0.62	-0.51	-2.98	2.96	-0.20	0.98	-0.27	0.38	<b>-0.27</b>
- low wages, aged >=50	4.59	-0.08	0.25	-2.62	2.23	-1.01	1.86	-0.09	0.63	<b>-0.09</b>
- high wages, aged >=50	1.51	0.11	0.30	0.79	0.54	0.95	0.18	0.51	0.60	0.51
- special employment	-1.36	-1.39	-1.48	-2.10	4.30	-2.05	1.69	-1.05	<b>-0.43</b>	0.00
Transport by air and waterways										
- low wages, aged <=49	-0.31	-6.54	-6.17	-0.87	1.55	-26.53	16.25	-1.43	<b>-3.38</b>	<b>-1.43</b>
- low wages, aged >=50	-0.29	-6.86	-2.30	10.81	5.20	-24.60	4.48	0.04	<b>-1.80</b>	0.04
- high wages, aged >=50	2.82	11.60	-1.99	-7.23	-2.70	-4.10	-1.00	-3.12	<b>-0.73</b>	<b>-3.12</b>
- special employment	-10.23	-6.40	-4.71	-4.95	13.74	12.30	4.71	-3.74	0.09	0.00
Logistics & communications										
- low wages, aged <=49	-1.45	-2.28	-3.00	-0.73	-0.42	-2.98	-0.47	-0.90	<b>-1.62</b>	<b>-0.90</b>
- low wages, aged >=50	-1.90	-2.52	-2.48	-2.02	-0.08	-4.87	-1.08	-2.47	<b>-2.36</b>	<b>-2.47</b>
- high wages, aged >=50	-0.81	-4.17	-2.60	-0.74	-0.29	-2.80	-0.52	-1.21	<b>-1.75</b>	<b>-1.21</b>
- special employment	1.54	-6.28	-2.78	1.91	1.54	-5.49	2.01	2.44	<b>-0.65</b>	0.00

a. Negative wage growth premiums are in bold type face.

b. Negative wage growth premiums are in bold type face.

c. No special-employment category in this sector.

## b. Exogenous wages

The exogenous wage version of HERMES requires suitable assumptions about the real gross wage growth rate of the various age/labour categories (see Table 3). In forecast, the young high-wage earners are the benchmark on which the wage norm - dictated by the biannual central wage bargaining round and the competitiveness law - is imposed. A fixed discount or premium relative to that benchmark is imposed on the real gross wage growth of the other age/labour categories. In the 2007-2012 outlook of April 2007 it was assumed that the 2005 discrepancies would be maintained throughout 2006-2012, except for the special jobs for which the discount was set to 0 (see Table 2).

**Table 3 - Real gross wage growth rates of high-wage earners, aged less than fifty, in the market sector in the FPB's April 2007 medium-run Outlook (in %)**

	2006	2007	2008	2009	2010	2011	2012
Construction	0.90	0.70	0.75	1.21	1.60	1.70	1.70
Consumer goods0	0.90	0.75	0.80	1.30	1.70	1.75	1.75
Banking & finance	0.90	0.65	0.75	1.30	1.60	1.70	1.70
Energy	0.90	0.70	0.80	1.30	1.70	1.75	1.75
Hotels & catering	0.85	0.65	0.70	1.16	1.60	1.60	1.63
Capital goods	0.90	0.70	0.80	1.30	1.70	1.70	1.70
Miscellaneous services	0.88	0.75	0.70	1.17	1.60	1.64	1.65
Intermediate goods	0.95	0.75	0.85	1.25	1.70	1.70	1.70
Health	0.90	0.65	0.70	1.10	1.65	1.65	1.65
Transport by rail	0.80	0.65	0.70	1.20	1.60	1.63	1.60
Transport by road	0.85	0.65	0.70	1.20	1.65	1.68	1.68
Transport by air and waterways	0.80	0.65	0.70	1.20	1.60	1.63	1.60
Logistics & communication	0.80	0.65	0.65	1.20	1.65	1.68	1.70

### c. Flexible wages

The labour-specific gross wage rates within each sector are subjected to macro-economic feedback (through a Phillips curve effect, via the unemployment rate, and sectoral and macroeconomic productivity)<sup>1</sup>.

Sectoral differences in parameters can be quite huge, as Table 4 indicates. The Phillips curve effect stands out in catering and hotel services, financial services, consumer goods and capital goods manufacturing. Productivity matters particularly in construction and logistics and communication but is next to negligible in financial services and health services. Importantly, macroeconomic contagion of the productivity effect occurs mostly where the productivity effect is relatively weak (financial services, miscellaneous services).

**Table 4 - Real gross wage equations in the 2007 vintage of HERMES: Phillips effect, productivity effect and macroeconomic contagion**

Sector <sup>a</sup> :	A	B	C	CR	E	HA	K	OS	Q	SA	Z_1	Z_2	Z_34	Z_56
Unemployment rate <sup>b</sup>	-0.35	-0.33	<b>-0.60</b>	<b>-0.69</b>	-0.42	<b>-0.60</b>	<b>-0.80</b>	-0.41	-0.35	-0.33	-0.35	-0.50	-0.40	-0.35
Labour productivity <sup>c</sup>	0.22	<b>0.35</b>	0.20	<b>0.03</b>	0.26	0.12	0.20	0.13	0.20	<b>0.07</b>	0.23	0.16	0.13	<b>0.33</b>
Share of sector productivity in productivity effect <sup>d</sup>	0.95	0.59	0.50	<b>0.10</b>	0.69	0.90	0.41	<b>0.31</b>	0.58	0.50	0.86	0.95	0.95	0.89

- a. A = agriculture, B = construction, C = consumer goods, CR = finance, E = energy, HA = trade & restaurants, K = capital equipment, OS = miscellaneous market services, Q = intermediate inputs, SA = health care, Z\_1 = transport by rail, Z\_2 = transport by road, Z\_34 = transport by air and waterways, Z\_56 = logistics & communications; the parameters are taken from HERMES vintage hav072007 (April 2007).
- b. Phillips curve effect, parameters wbrX\_3 (X=C, E, K, Q), cwrsX\_3 (X=CR, HA, OS), cwrssX\_3 (B, SA) or cwrsszX\_3 (X=1, 2, 34, 56).
- c. Parameters wbrX\_4 (X=C, E, K, Q), cwrsX\_4 (X=CR, HA, OS), cwrssX\_4 (B, SA) or cwrsszX\_4 (X=1, 2, 34, 56).
- d. Parameters wbrX\_5 (X=C, E, K, Q), cwrsX\_5 (X=CR, HA, OS), cwrssX\_5 (B, SA) or cwrsszX\_5 (X=1, 2, 34, 56).

By and large, real gross wages seem to be far less sensitive to the unemployment rate in comparison with the previous vintage of HERMES (compare Tables 4 and 5), whereas the magnitude of the productivity effect on real gross wage is more or less similar to the one in the previous vintage of HERMES.

1. The equation below defines partial adjustment in the wage growth rate of each labour category in each sector. 'p<sub>c</sub>' is the consumer price index, 'p<sub>j</sub>' the sectoral output price index, 'w<sub>ij</sub>' the gross wage rate of labour category i and 'w<sub>j</sub>' the average gross wage rate in sector j, 'n<sub>j</sub>' sectoral employment in sector j and 'y<sub>j</sub>' sectoral output, 'u' the number of unemployed, 'n' total employment, 'y' GDP, f(.) the nominal gross wage rate's optimal rate of growth and g(.) an average of sectoral and economy-wide productivity:

$$\Delta(\Delta \log w_{ij}) = \alpha_j (f(\Delta \log p_c, u/n, (g(y_j/n_j y/n) - (\bar{w}_j/p_j)_{-1})) - (\Delta \log w_{ij})_{-1})$$

**Table 5 - Real gross wage equations in the former vintage of HERMES: Phillips effect, productivity effect and macroeconomic contagion**

a b	A	B	C	CR	E	HA	K	OS	Q	SA	Z <sup>c</sup>
Unemployment rate	-0.98	-1.30	-0.78	-0.13	0.00	-0.60	-1.46	-0.82	-0.31	-0.60	-0.62
Labour productivity	0.05	0.37	0.25	0.05	0.93	0.07	0.15	0.20	0.33	0.20	0.37
Share of macroeconomic productivity in productivity effect	0.50	0.20	0.31	0.32	0.62	0.20	0.75	0.10	0.15	0.10	0.20

a. Source: Bossier F., I. Bracke, F. Vanhorebeek, P. Stockman. (2000), *A description of the HERMES II model for Belgium*, Working Paper 05-00, Federal Planning Bureau.

b. A = agriculture, B = construction, C = consumer goods, CR = finance, E = energy, HA = trade & restaurants, K = capital equipment, OS = miscellaneous market services, Q = intermediate inputs, SA = health care, Z\_1 = transport by rail, Z\_2 = transport by road, Z\_34 = transport by air and waterways, Z\_56 = logistics & communications; the parameters are taken from an update of the HERMES vintage of April 2007.

c. No disaggregation of transport & logistics into subsectors Z\_1,...,Z\_56.

The flexible wage format is imposed on the real gross wages of the young high-wage earners, which is passed on to the real gross wages of the other employment categories - bar the same premium or discount as in the exogenous wage scenario discussed earlier. Table 6 shows that the flexible wage model produces higher real gross wages than the wage norm scenario in most sectors, except in financial services, capital goods manufacturing and transportation by rail and road during the whole outlook and in consumer goods manufacturing, health services and air and waterways transport during the later part of the outlook. The corollary would have been smaller employment.

**Table 6 - Real gross wage growth rates of high-wage earners, aged <50, in the market sector in the flexible wage scenario: percentage point differences with wage norm in the FPB's April 2007 medium-term outlook (per worker unless stated otherwise)**

	2006	2007	2008	2009	2010	2011	2012
Construction	2.30	2.56	2.74	2.23	1.80	1.66	1.63
Consumer goods <sup>a</sup>	0.08	0.49	0.24	-0.37	-0.71	-0.67	-0.54
Banking & finance	-0.21	0.28	0.21	-0.38	-0.65	-0.70	-0.67
Energy <sup>b</sup>	-0.46	2.77	2.11	1.01	0.37	0.19	0.10
Hotels & catering	1.50	2.79	3.10	2.78	2.38	2.46	2.49
Capital goods <sup>c</sup>	-1.55	-1.18	-1.20	-1.63	-1.80	-1.44	-1.09
Miscellaneous services	0.23	0.58	0.91	0.57	0.21	0.22	0.23
Intermediate goods <sup>d</sup>	1.04	1.96	1.92	1.46	0.98	0.98	1.00
Health	0.18	0.17	0.24	-0.07	-0.52	-0.42	-0.33
Transport by rail	-0.47	-0.78	-1.06	-1.86	-2.31	-2.34	-2.29
Transport by road	-0.99	-0.21	-0.12	-0.61	-0.96	-0.89	-0.80
Transport by air and waterways	9.22	5.35	2.57	0.63	-0.47	-0.74	-0.74
Logistics & communications	3.53	3.40	2.96	2.16	1.69	1.62	1.72

a. Per hour.

b. Per hour.

c. Per hour.

d. Per hour.



### 1.3.2. Employers' ssc cuts

The employers' SSC cuts apply to the entire market sector (see Table 7), including the non-profit sector but the latter at less generous terms than in the profit sector. Blue-collar and white-collar workers are affected in the same way, precluding discrimination between services and manufacturing. By their nature, the employers' SSC cuts favour low-wage, part-time employment in the profit sector and discriminate against medium-high wage workers, full-time employment and the non-profit sector. The employers' SSC cuts follow a three-level cascade:

- firstly an across-the-board cut per head (€400 per quarter), strengthened at the low end (for wages less than €5,870 gross per quarter) and the high end (for wages more than €12,000 gross per quarter);
- secondly either an additional cut for specific labour categories or employers - ranging from €400 to €1,000 per head and per quarter and limited in time - or an additional age related cut for the elderly - increasing with age from €50 tot €800 per head and per quarter and unlimited in time;
- thirdly an additional age related cut for the low-wage earners aged less than 30, decreasing with age from €300 to €30 per head and per quarter but otherwise unlimited in time.

**Table 7 - Likely impact of the present system of across-the-board and targeted employers' ssc cuts on the labour cost by age and labour category in the market sector (profit and non-profit)**

	SSC cut per quarter per full-time equivalent	Likely percentage point impact on labour cost by age and labour category in HERMES <sup>a</sup>				
		high-wage young	high-wage elderly	low-wage young	low-wage elderly	special jobs
<b>Across the board</b>	€400 + low-wage or high-wage supplementary cut	-	-	--	--	--
<b>Second-tier cuts<sup>b</sup></b>						
Long-term unemployed (Plan Activa)	€400 - €1000 (expires)	0	0	0	0	--
Low-wage earners & <26 y.o. & qualifying for the Starter Job quatum & low-skilled	€400 (expires at the age of 26)	0	0	0	0	-
First-time hiring by start-ups	400 (expires)	0	0	0	0	-
Elderly workers	- >=58 y.o. in 2002 and >=57 y.o. in 2003-2006: €400 - >= 50 y.o. since 2007: €50 - €800 (increasing with age) = "ouderenbonus"	0	-	0	-	0
Other <sup>c</sup>	quarterly ssc cut (expires) combined with one-off ssc cut	-	-	--	--	0
<b>Third-tier cuts</b>						
Low-wage earners in the 18-29 age bracket (since 2006)	€300 - €30 (declining with age, expires at the age of 30) = "jongerenbonus"	0	0	-	0	--

a. the number of '-'s indicates qualitatively by how much the wage cost is likely to be reduced in percentage points by the SSC cuts.

b. streamlined in 2004, in general mutually exclusive.

c. collective cut in work time, reorganisation to a 4-workday per week regime, restructuring plan for troubled firms.

**Table 8 - Composition and impact on labour cost of the ex ante employers' SSC cuts in the market sector the FPB's April 2007 medium-term outlook 2005-2012 (percentage point shares)**

	2005	2006	2007	2008	2009	2010	2011	2012
Employers' SSC cuts (% of total) <sup>a</sup> :								
- low wages, aged <=49	22.37	23.48	24.34	23.29	22.77	22.24	21.69	21.47
- low wages, aged >=50	2.75	2.62	2.80	2.69	2.53	2.31	2.09	1.91
- high wages, aged <=49	50.27	49.51	48.28	49.09	49.82	50.69	51.59	52.26
- high wages, aged >=50	14.16	14.04	14.44	14.71	14.57	14.41	14.28	14.03
- special employment	10.45	10.34	10.14	10.23	10.31	10.33	10.35	10.33
Percentage fall in labour cost <sup>b</sup> :								
- low wages, aged <=49	4.20	4.45	4.65	4.32	4.06	3.83	3.62	3.48
- low wages, aged >=50	4.00	3.62	3.72	3.29	2.84	2.38	2.00	1.70
- high wages, aged <=49	2.91	2.85	2.82	2.79	2.75	2.72	2.69	2.65
- high wages, aged >=50	2.81	2.67	2.68	2.57	2.40	2.24	2.10	1.97
- special employment	12.78	12.53	12.24	11.89	11.52	11.06	10.65	10.25

a. Excludes agriculture and subsidized household services.

b. Relative to the labour cost that would prevail without employers' SSC cuts and wage subsidies

Table 9 summarily shows the employers' SSC rates by activity branch, age and labour category in 2005-2012 (for full details, see Chapter 4.). The SSC rates are the sum of compulsory contributions (after SSC cuts), imputed contributions which are the counterpart of entitlement payments to pension or health care beneficiaries, non-compulsory health insurance contributions and non-compulsory contractual payments by the employers into pension funds. Except for the compulsory contributions, all other rates are assumed to be equal across age and wage categories within the same branch.

By and large employers' SSC rates predominantly reflect the lump-sum nature of the Structural Measure<sup>1 2</sup>, causing the growth in SSC cuts to decelerate and to fall below the growth rate of gross wages and the SSC rates to increase after some years in spite of extra SSC cuts in 2006 and 2007. Because the Structural Measure is neither inflation-adjusted nor welfare-adjusted, across-the-board gross wage increases reduce the share of employers' SSC cuts allocated to low-wage labour (Table 8) while the total amount of reductions tends to level off. Even so, the percentage point reduction in wage cost remains stronger for low-wage labour.

1. Other factors may influence the employers' SSC rates: (1) additional charges such as CO<sub>2</sub>-taxes on corporate vehicles which mainly fall on high-wage earners, and contributions to a bankruptcy fund, which depend on the size of the firm, (2) SSC's on advanced holiday pay disbursements (3) non-compulsory contributions such as payments into pension and health care funds which are highly branch-specific, (4) the appropriation of state-owned companies pension funds by the government, causing a shift from "imputed" to compulsory employer contributions in those branches with a sizeable presence of state-owned companies (say telecoms or the railways).
2. The drop in the "imputed rate", which compensates half of the rise in the compulsory rate, is due to an anticipated fall in early retirements.

**Table 9 - Employers' ssc rates by branch, age and labour category in the market sector - 2005-2012 (% of gross wages)**

	2005	2006	2007	2008	2009	2010	2011	2012	2012-2005
<b>Aggregate employers' ssc rate<sup>a</sup></b>	34.00	34.08	34.02	34.01	34.20	34.28	34.31	34.30	0.30
- Compulsory rate	25.00	25.05	25.13	25.15	25.33	25.50	25.65	25.79	0.79
- Imputed contributions rate	3.39	3.41	3.29	3.28	3.32	3.25	3.17	3.05	-0.34
- Contractual rate	2.07	2.07	2.07	2.08	2.07	2.06	2.04	2.02	-0.04
- Second-tier pension rate	3.55	3.56	3.53	3.50	3.49	3.47	3.45	3.43	-0.12
- p.m. Employers' ssc cuts rate	4.89	4.88	4.89	4.72	4.55	4.38	4.23	4.09	-0.80
<b>Employers' ssc rate by main branch</b>									
<i>Manufacturing</i>									
- low wages, aged <=49	34.37	33.69	33.91	34.20	35.85	36.67	37.02	37.41	3.05
- high wages, aged <=49	39.26	39.52	39.70	39.60	39.77	39.84	39.87	39.85	0.60
- special employment	22.65	22.91	23.43	23.76	24.39	25.13	25.67	26.15	3.50
- low wages, aged >=50	33.69	34.27	30.30	29.11	29.38	29.62	29.52	29.22	-4.46
- high wages, aged >=50	40.25	40.31	39.64	38.87	38.73	38.59	38.46	38.55	-1.70
<i>Tradeable services<sup>b</sup></i>									
- low wages, aged <=49	29.09	29.04	28.65	29.33	29.98	30.42	30.81	31.08	1.99
- high wages, aged <=49	33.49	33.68	33.82	33.68	33.71	33.68	33.62	33.50	0.01
- special employment	18.28	18.90	19.35	19.82	20.44	21.09	21.66	22.17	3.88
- low wages, aged >=50	28.80	29.04	28.08	28.52	29.51	30.33	31.18	31.88	3.08
- high wages, aged >=50	34.00	33.78	33.71	33.57	33.50	33.37	33.23	33.03	-0.97

a. Includes agriculture and subsidized household services.

b. Excludes construction and subsidized household services.

### 1.3.3. Wage subsidies

The wage subsidies are a mixed lot, some on a pro rata basis and others payed out per employment line, some across-the-board and other labour-specific or age-specific (see Tables 10 and 11). Wage subsidies used to be mainly channeled to non-profit branches and the hard to be employed, but not anymore. With the introduction of the overtime, nightwork and work in shifts subsidies, the preponderance is increasingly on the workforce producing internationally traded goods (Table 11). Measured by the percentage point impact of the various wage subsidies on the wage cost of the age/labour categories in HERMES, the wage subsidies are now fairly similar across age and wage categories, except for the special jobs, whereas in the past low-wage and special-programme employment used to be the main beneficiaries (Table 12). The reason for this equalization is that the pro rata overtime, nightwork and work shift subsidies are non discriminatory across age and wage categories and growing in importance, whereas the Sociale Maribel and Plan Activa subsidies are on a lump-sum basis and declining in relative magnitude. Table 13 reports the subsidy rates by main branch, whereas Chapter 5 provides the rates at a more detailed level.

**Table 10 - Impact of wage subsidies on the wage cost of the employment categories in the market sector**

Policy	Since when?	Per head pro rata	For whom?	Channel?	Likely percentage point impact on labour cost by age and wage category in HERMES <sup>a</sup>				
					high-wage young	high-wage elderly	low-wage young	low-wage elderly	special jobs
Sociale Maribel	1997	per head	non profit	SS <sup>b</sup>	-	-	---	--	0
Plan Activa	1998	per head	long-term unemployed	SS (RVA/ONEM)	0	0	0	0	-
Prime à l'emploi	at least since 2000	lper head	low-wages in small firms	Walloon region					
Overtime, nightwork - and work in shifts	2004	pro rata <sup>c</sup>	manufac-turing	federal <sup>d</sup>	-	-	-	-	0
Researchers in market sector	2005	pro rata	high-wage earners	federal <sup>e</sup>	-	-	0	0	0
Jongerenbonus non profit	2007	per head	young low-wage earners	SS	0	0	-	0	0
Employment pre-mium for hiring elderly unemployed	2007	staggered per head (depends on discrete wage brackets)	elderly	Flemish region (VDAB)	0	-	0	--	--
General	2007	pro rata		federal <sup>f</sup>	-	-	-	-	-

a. The number of '-'s indicates qualitatively by how much the wage cost is likely to be reduced in percentage points by the SSC cuts.

b. SS = Social Security.

c. Stepwise increase in the nominal rate from 1% in 2003 to 10.7% in 2007.

d. Discount on pre-withheld personal income taxes to be transferred by the firms to the government.

e. Discount on pre-withheld personal income taxes to be transferred by the firms to the government.

f. Discount on pre-withheld personal income taxes to be transferred by the firms to the government.

**Table 11 - Wage subsidies by type in the market sector (millions of euro)**

	2005	2006	2007	2008	2009	2010	2011	2012	2012-2005
Total of wage subsidies <sup>a</sup> , paid by:	1139	1720	2281	2597	2664	2736	2810	2884	1745
- Social Security									
* Sociale Maribel	590	615	586	581	580	580	580	579	-11
* Jongerenbonus non profit	0	0	30	30	31	31	31	31	31
* Plan Activa	186	215	248	262	270	280	289	298	112
* Household service vouchers	239	446	648	687	718	748	777	806	567
- Federal government									
* Overtime, nightwork - and work in shifts	106	360	594	673	686	703	722	741	634
* Researchers	4	48	70	72	74	77	81	84	80
* General	0	0	59	243	254	265	278	290	290
- Regional governments									
* Employment premium elderly (Flanders)	0	23	32	34	35	37	38	39	39
* Prime à l'emploi (Wallonia)	14	14	15	15	15	15	16	16	1

a. Includes agriculture and household services subsidized by service vouchers.

**Table 12 - Composition and impact on labour cost of the wage subsidies in the market sector**

	2005	2006	2007	2008	2009	2010	2011	2012
Wage subsidies ( % of total) <sup>a</sup> :								
- low wages, aged <=49	22.60	21.41	20.82	20.02	19.81	19.57	19.33	19.08
- low wages, aged >=50	3.42	2.78	2.69	2.71	2.77	2.83	2.87	2.91
- high wages, aged <=49	43.33	49.88	51.40	52.22	51.92	51.64	51.44	51.26
- high wages, aged >=50	11.45	11.80	13.77	14.80	15.12	15.44	15.73	15.99
- special employment	19.20	14.14	11.31	10.26	10.38	10.51	10.63	10.76
Percentage fall in labour cost <sup>b</sup> :								
- low wages, aged <=49	0.91	1.18	1.43	1.56	1.51	1.46	1.42	1.38
- low wages, aged >=50	1.07	1.11	1.29	1.40	1.33	1.26	1.20	1.15
- high wages, aged <=49	0.54	0.83	1.08	1.25	1.23	1.20	1.18	1.16
- high wages, aged >=50	0.49	0.65	0.92	1.09	1.07	1.04	1.02	1.00
- special employment	5.05	4.97	4.91	5.02	4.96	4.89	4.81	4.75

a. Excludes agriculture and subsidized household services.

b. Relative to labour cost without employers' SSC cuts and wage subsidies.

**Table 13 - Wage subsidy rates 2005-2012 (in % of gross wages)**

	2005	2006	2007	2008	2009	2010	2011	2012	2012-2005
<b>Average wage subsidy rate<sup>a</sup></b>	1.31	1.89	2.43	2.67	2.63	2.58	2.53	2.48	1.17
<b>Wage subsidy rates by main branch</b>									
<i>Manufacturing:</i>									
- Low-wage earners, aged <50 years	0.57	1.69	2.77	3.28	3.27	3.27	3.27	3.27	2.70
- High-wage earners, aged <50 years	0.49	1.74	2.88	3.38	3.38	3.38	3.38	3.38	2.89
- Special-employment programmes	5.49	5.40	5.35	5.48	5.39	5.31	5.21	5.12	-0.37
- Low-wage earners, aged >=50 years	0.58	1.96	3.12	3.62	3.61	3.60	3.59	3.58	3.00
- High-wage earners, aged >=50 years	0.49	1.84	3.01	3.51	3.51	3.50	3.50	3.49	3.00
<i>Tradeable services:</i>									
- Low-wage earners, aged <50 years	1.42	1.65	1.87	1.99	1.93	1.85	1.79	1.72	0.30
- High-wage earners, aged <50 years	0.96	1.04	1.09	1.25	1.21	1.18	1.14	1.10	0.15
- Special-employment programmes	7.65	7.53	7.42	7.56	7.46	7.35	7.23	7.12	-0.53
- Low-wage earners, aged >=50 years	1.64	1.44	1.48	1.57	1.48	1.39	1.32	1.25	-0.39
- High-wage earners, aged >=50 years	0.84	0.57	0.66	0.81	0.78	0.75	0.72	0.70	-0.14

a. Includes agriculture and subsidized household services.

### 1.3.4. The interaction of wage subsidies and SSC cuts

The prevalence of wage subsidies is not innocuous and might change the impact of SSC cuts on the government budget to the extent that SSC cuts affect the gross wage bill or employment of labour categories that attract wage subsidies either pro rata or per head. The ranking of across-the-board and targeted SSC cuts in terms of macro-economic and budgetary effectiveness in fixed-wage and flexible-wage regimes may well be upset by the interaction between wage subsidies and SSC cuts.

In empirical work in the past (see e.g. Stockman, 2002) across-the-board SSC cuts proved to generate more employment but larger government deficits in the case of rigid real gross wages in comparison with the outcome in a regime of wages responding to productivity and the unemployment rate. This result might be overturned in the presence of pro rata wage subsidies or exacerbated in the presence of per capita wage subsidies.

E.g. SSC cuts typically reduce the gross wage bill because the induced fall in prices and hence nominal gross wages outweighs the increase in employment. Hence, pro rata wage subsidies would decrease as well, alleviating the drain on the budget. In contrast, wage subsidies granted on a per capita basis would strengthen the budgetary burden of SSC cuts because the induced rise in employment would require handing out more subsidies. Moreover, the fall in nominal gross wages would raise the percentage point impact of per capita wage subsidies on the wage cost, creating more employment in the process. If however the drop in gross real and nominal wages turned out to be weakened by the Phillips curve effect in a flexible wage environment however, then the rise in real gross wages would either prop up pro rata subsidies and drain the government budget, or blunt the impact of per capita subsidies.

Previous empirical work also indicated that SSC cuts targeting low-wage labour would typically generate more employment than across-the-board SSC cuts because the substitution effect would favour low-wage employment and drive out high-wage employment, implying a drop in the labour costs that would go far and beyond the initial SSC cuts. Since the fall in high-wage employment would drain the basis for fiscal and SSC receipts, the budgetary burden would be higher than in the case of across-the-board SSC cuts. The presence of pro rata wage subsidies might alter this picture because the shift from high-wage to low-wage employment would reduce wage subsidies and dampen the fall in the government surplus. This would imply that SSC cuts targeting low-wage labour would be less harmful to the budget than across-the-board SSC cuts. In contrast, the presence of wage subsidies per head rather than pro rata would imply an even bigger decline in the government surplus in the case of SSC cuts targeting low-wage labour because that kind of SSC cuts provokes a bigger rise in employment and hence wage subsidies than across-the-board SSC cuts.

## 2. Labour cost reducing policies

### 2.1. Set-up

#### 2.1.1. Across-the-board ssc cuts and targeted labour cost reduction policies

One could consider a plethora of theoretical labour cost reducing policies. This survey looks into three policies which have gained lately prominence: employers' SSC cuts aimed at the low-wage end of the young, employers' SSC cuts aimed at the elderly and across-the-board wage subsidies to night-time work and work in shifts. These three policies are gauged against an across-the-board cut in employers' SSCs. All policy shocks amounts to 0.5% of GDP (about 1.7% of the gross wage bill of firms on average) and none are financed by alternative taxes or spending cuts. In the case of the SSC cuts, all sectors enjoy a 1.7 or 1.8 percentage point cut in the compulsory SSC rate. The work-in-shift subsidy rate increase by 1.7 or 1.8 percentage point on average, however, is channeled to a handful of manufacturing sectors, implying a rise in manufacturing's wage subsidy rate by more than 7 percentage points.

#### 2.1.2. Two wage scenarios

The effectiveness of employers' SSC cuts and wage subsidies relies heavily on the nature of the macro-economic feedback to wages.

The FPB's annual medium-term outlook assumes that the biannual central wage agreement will be observed in the short run and that real gross wages will be consistent with maintaining the growth in wage cost on the same time path as abroad in the medium run. If that same path for real gross wages is maintained in the face of new labour cost reducing measures - not necessarily a realistic scenario - labour cost reducing policies are implemented to full effect (see Tables 14 and 15).

Alternatively, if real gross wages do respond to changes in macroeconomic conditions (see Tables 16 and 17), then some of the initial decrease in the wage cost might be appropriated by labour. On the one hand, the Phillips curve effect on real gross wages in the HERMES free wage scenario implies that a drop in the unemployment rate following labour cost reducing policies will trigger gross wage increases that will partially offset the initial fall in the wage cost. On the other hand, labour productivity is bound to fall to the extent that capital is substituted for labour, implying a downward pressure on real gross wages.

## 2.2. No impact on real gross wages

### 2.2.1. Employment and public finances

The net cost to the government per additional job varies enormously (between €51,420 and €131,090) and net substitution<sup>1</sup> among the three types of labour is high.

For reasons already explained, the young-cum-low-wage labour measure produces far more additional employment (33,60 units) and a larger increase in GDP (0.37%) than the general SSC cut (20,400 units; 0.28%), the SSC cuts targeted at the elderly (17,450 units; 0.25%) or the wage subsidies (12,550 units; 0.30%). And, not only does the young-cum-low-wage labour measure increase the employment of young low-wage earners (46,000 units), it also supports - through the fall in the relative price of low-wage labour in general - the demand for elderly low-wage earners. It turns out that the effect on low-wage labour demand in general dominates the substitution between age classes within low-wage employment, causing an increase in elderly low-wage employment as well (2,480 units). Both young and elderly high-wage employment suffer (minus 17,740 and 4,340 units).

The SSC cuts on the elderly payroll benefits elderly employment in all wage classes. However, since the proportion of elderly workers in high-wage employment is far more important than in low-wage employment, the elderly measure can also be construed as a measure that reduces the cost of high-wage relative to low-wage labour. As a result, only young low-wage employment is depressed whereas young high-wage employment rises. Though the rise in young high-wage employment is proportionately less than the rise in elderly high-wage employment (0.44% versus 1.43%), it still amounts to a considerable impact in absolute figures (5,700 versus 6,500 units).

The work-in-shifts measure leaves the age and wage composition of employment more or less unaltered. The overall effect on employment is far smaller than the overall employer's SSC cuts. That is because work-in-shifts subsidies are predominantly advantageous to employment in manufacturing, where employment is less responsive to wage changes than in services.

The self-financing rate is generally modest: 30% at best if the SSC cuts are across the board or targeted at the elderly, a lowly 17.7% in the case of work-in-shifts wage subsidies and an abysmal 13.4% if SSC cuts are aimed at the young low-wage earners. The young-cum-low-wage labour measure appears most effective in terms of net budgetary cost per job (€51,420 euro) but it is poor at financing itself. The reason is that low-wage measures destroy high-wage jobs and therefore income tax revenue and social-security contributions as well. In fact, the ex post fall in employers' social-security contributions (€2.4 billion) exceeds the ex ante cut (€2 billion). Wage subsidies are expensive on both accounts since they combine a poor self-financing rate with a net cost per job

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1. Net substitution is the sum of a pure substitution effect and a volume effect. The volume effect on each labour category is obtained by combining the factor ratios before the policy shock and the level of total employment after the policy shock; the difference between these theoretical levels of employment and de pre-shock levels of employment measures the volume effect. The pure substitution effect is the difference between the change in employment levels and the volume effect.



that runs as high as €131,090. The reasons are the fairly low impact on employment and the huge increase in the subsidy rate in this particular simulation.

## 2.2.2. Aggregate demand

Although the young-cum-low-wage measure raises real disposable income by less than the across-the-board measure (plus 0.35% versus 0.43%), it does support private consumption more (plus 0.60% versus 0.45%). The reason is the sharper fall in the unemployment rate, which raises consumer confidence and hence consumer spending.

The work-in-shifts wage subsidies have got a far bigger impact on exports than the other measures (0.17% versus 0.08%-0.12%) because they mainly benefit manufacturing industries, for which the pass-through of wages to value added prices is higher (see the bigger impact of wage subsidies on the GDP deflator) and for which international price competitiveness matters more than for services. The slightly bigger increase in GDP than in employment (+0.30% and +0.28% respectively) is due to the absence of wage-induced stimuli to employment in the sectors other than manufacturing in combination with demand spillovers to those sectors.

Gross capital formation in each sector depends on the gross operating surplus in real terms and the wage cost rate relative to the price of investment goods. Whereas the increase in the sectoral gross operating surplus raises investment, the decrease in the relative wage cost rate tends to depress fixed capital formation because of the substitution between labour and capital. The far bigger impact of the young-cum-low-wage labour measure explains why investment demand rises by less than if other labour cost reducing measures were implemented.

**Table 14 - Macro-economic impact of additional labour cost reducing measures after 6 years in the scenario with unchanged real gross wage growth rates (differences with baseline)**

	Across the board cut in employers' SSCs	Employers' ssc cuts for young low-wage earners	Employers' ssc cuts for elderly wage earners	Increase in wage subsidies to work in shifts
<b>AGGREGATE DEMAND (in real terms - percentage difference)</b>				
GDP	0.28	0.37	0.25	0.30
Private consumption	0.45	0.60	0.40	0.33
Gross investment	0.24	0.16	0.22	0.14
Domestic absorption	0.33	0.40	0.30	0.21
Exports of goods and services	0.09	0.12	0.08	0.17
Imports of goods and services	0.11	0.12	0.10	0.03
p.m. Real disposable household income	0.43	0.35	0.42	0.34
<b>PRICES (percentage difference)</b>				
Private consumption price index	-0.37	-0.62	-0.33	-0.28
GDP-deflator	-0.48	-0.75	-0.43	-0.57
<b>GOVERNMENT FINANCES</b>				
Ex ante cost (millions of euro)	2000.06	2000.06	2000.06	2000.06
Government surplus (millions of euro)	-1397.91	-1732.03	-1391.44	-1645.86
Government surplus (% of GDP)	-0.35	-0.43	-0.35	-0.41
Autofinancing rate (in % of ex ante cost)	30.11	13.40	30.43	17.71
Net budgetary cost per additional job (1000 euro)	68.54	51.42	79.72	131.09

	Across the board cut in employers' SSCs	Employers' SSC cuts for young low-wage earners	Employers' SSC cuts for elderly wage earners	Increase in wage subsidies to work in shifts
<b>LABOUR MARKET (absolute differences - in 1000)</b>				
Employment (incl. self-employed and non-market salariate)	20.40	33.68	17.45	12.55
Salariate in market	16.55	26.19	14.69	11.51
o.w. low wages - aged <50 years (*)	5.59	46.00	-0.42	3.30
o.w. high wages - aged <50 years (*)	7.22	-17.74	5.70	5.95
o.w. special-employment programmes (*)	1.13	-0.34	-0.15	0.12
o.w. low wages - aged >=50 years (*)	0.79	2.48	2.97	0.55
o.w. high wages - aged >=50 years (*)	1.78	-4.34	6.50	1.48
o.w. household service vouchers	0.06	0.09	0.06	0.02
<b>LABOUR MARKET (percentage differences)</b>				
Employment (incl. self-employed and non-market salariate)	0.45	0.75	0.39	0.28
Salariate in market	0.55	0.87	0.49	0.38
o.w. low wages - aged <50 years(*)	0.64	5.18	-0.05	0.38
o.w. high wages - aged <50 years(*)	0.56	-1.39	0.44	0.46
o.w. special-employment programmes (*)	0.82	-0.25	-0.11	0.08
o.w. low wages - aged >=50 years(*)	0.42	1.31	1.57	0.29
o.w. high wages - aged >=50 years(*)	0.40	-0.97	1.43	0.33
o.w. household service vouchers	0.10	0.15	0.09	0.04
<b>COMPETITIVENESS</b>				
Cash flow of firms before taxes in % of value added (absolute difference)	0.41	0.74	0.39	0.37
Real wage per head in market (percentage difference)	-1.12	-1.97	-1.04	-0.92
Unit wage cost in market (percentage difference)	-1.36	-2.24	-1.29	-1.51
<b>AGE STRUCTURE OF SALARIATE (MARKET)</b>				
Number of aged 50 or older - absolute difference - 1000 units	2.59	-1.81	9.51	2.06
Number of aged 50 or older - percentage difference	0.39	-0.28	1.43	0.31
Share of aged 50 or older in salariate in % - absolute difference	-0.03	-0.24	0.21	-0.01

**Table 15 - Impact of additional labour cost reducing measures on government finances after 6 years in the scenario with unchanged real gross wage growth rates (differences in millions of euro with baseline)**

	Across the board cut in employers' SSCs	Employers' ssc cuts for young low-wage earners	Employers' ssc cuts for elderly wage earners	Increase in wage subsidies to work in shifts
1. Receipts	-1649.85	-2429.07	-1619.55	305.70
A. Fiscal and parafiscal receipts	-1623.70	-2385.78	-1596.59	324.55
1. Fiscal receipts	293.00	-6.36	304.48	258.87
a. Taxes on income from labour, profits, assets and transfers	327.05	85.29	337.22	302.46
Households	71.25	-334.03	95.84	61.03
Corporations	256.29	420.23	241.82	242.07
Other	-0.48	-0.91	-0.45	-0.64
b. Production and import taxes	-23.80	-72.33	-23.26	-29.98
c. Wealth taxes	-10.25	-19.33	-9.48	-13.61
2. Social security contributions	-1916.70	-2379.42	-1901.07	65.68
B. Securitization of uncollected taxes	0.00	0.00	0.00	0.00
C. Other receipts	-26.29	-43.54	-23.07	-18.95

	Across the board cut in employers' SSCs	Employers' ssc cuts for young low-wage earners	Employers' ssc cuts for elderly wage earners	Increase in wage subsidies to work in shifts
2. Expenditure	-251.92	-697.04	-228.11	1951.57
A. Primary expenditure	-530.40	-1002.74	-502.56	1631.70
a. Current expenditure	-493.51	-948.97	-471.71	1661.92
1. Wage bill	-94.53	-194.19	-99.02	-78.06
2. Intermediate consumption	-35.32	-64.78	-30.33	-26.57
3. Subsidies	-8.58	-28.66	-7.70	2027.63
of which wage subsidies	2.54	-8.17	1.88	2036.06
4. Social benefits	-342.08	-637.11	-323.38	-251.04
of which unemployment benefits	-182.84	-303.65	-172.12	-111.09
5. Other transfers	-13.12	-24.46	-11.39	-10.15
b. Capital expenditure	-36.89	-53.77	-30.84	-30.22
B. Interest payments	278.44	305.64	274.42	319.85
3. Surplus	-1397.91	-1732.03	-1391.44	-1645.86
in % of GDP	-0.35	-0.43	-0.35	-0.41
4. Primary surplus	-1119.47	-1426.38	-1117.02	-1326.01

### 2.3. Phillips curve and productivity effect on real gross wages

Allowing for feedback of the unemployment rate and labour productivity to real gross wages does alter the impact of the labour cost policies on employment, production and the government finances, but not vastly.

#### 2.3.1. ssc cuts

In the case of SSC cuts, the percentage effects on GDP and employment are less benign (compare Tables 14 and 16) whereas the impact on the government budget is less malign (compare Tables 15 and 17). The reason is that the Phillips effect triggers a rise in the real gross wage rate in most branches (see Table 18), which reduces the scope for creating more jobs, but also sustains the tax base.

The macroeconomic differences between the two wage scenarios are marginal in the case of the across-the-board and elderly-targeted SSC cuts: the GDP rises by 0.24%-0.26% instead by 0.25%-0.28% while employment increases by 0.36%-0.41% instead by 0.39%-0.45%. The pernicious effect on the government budget falls from 0.35% of GDP to 0.30%-0.32% of GDP, implying that 36%-38% of the initial cost is recovered, up from 30%. As a reminder, previous FPB simulations (Stockman, 2002) obtained far bigger differences in macroeconomic and budgetary effectiveness between rigid and flexible wage regimes because of more sizeable Phillips effects on real gross wages then.

The differences in outcome between the two wage scenarios are most tangible in the case of SSC cuts targeted at young low-wage earners. The gain in GDP drops from 0.37% to 0.31% and the increase in the number of jobs falls from 0.75% to 0.61%. The upside is that the rate at which the initial budgetary cost is recovered nearly triples from a low 13.4% to a solid 31.4%.

### 2.3.2. Additional wage subsidies targetting work in shifts

Since the work-in-shifts subsidies only apply to a small range of sectors i.c. manufacturing and because of the huge initial impact on the wage cost (7%-8% of the gross wage), the fall in sectoral productivity in those sectors is quite severe (Table 19) and tends to outweigh the Phillips effect there. Hence, real gross wages tend to fall in those sectors that are directly involved (consumer, intermediate and capital goods), whereas the other sectors, which do not benefit from the subsidies, experience real wage increases because of the unemployment rate effect (Table 18).

On aggregate, subsidizing work-in-shifts employment in a flexible real gross wage regime generates on the one hand more output than were the case in a rigid real gross wage regime (+0.35% instead of +0.30%) and on the other hand less employment (+0.25% instead of +0.28%). The composition of the increase in aggregate demand is also slightly more export orientated (+0.20% instead of +0.17%) and slightly less driven by domestic demand (+0.20% instead of +0.17%).

Flexible and rigid wage regimes are about equivalent if measured by the impact on the government surplus (a drop by 0.42% of GDP instead of minus 0.41%) and the rate at which the measure finances itself (15.6% instead of 17.71%). However, the budgetary cost per job is even more prohibitive (€152,140 instead of €131,090).

**Table 16 - Macro-economic impact of additional labour cost reducing measures in the scenario with flexible real gross wages after 6 years (differences with baseline)**

	Across the board cut in employers' SSCs	Employers' SSC cuts for young low-wage earners	Employers' SSC cuts for elderly wage earners	Increase in wage subsidies to work in shifts
<b>AGGREGATE DEMAND (in real terms - percentage difference)</b>				
GDP	0.26	0.31	0.24	0.35
Private consumption	0.44	0.56	0.41	0.30
Gross investment	0.28	0.19	0.26	0.11
Domestic absorption	0.33	0.38	0.31	0.19
Exports of goods and services	0.08	0.09	0.07	0.20
Imports of goods and services	0.11	0.12	0.11	-0.00
p.m. Real disposable household income	0.48	0.48	0.46	0.33
<b>PRICES (percentage difference)</b>				
Private consumption price index	-0.30	-0.48	-0.27	-0.27
GDP-deflator	-0.41	-0.56	-0.38	-0.64
<b>GOVERNMENT FINANCES</b>				
Ex ante cost (millions of euro)	2026.88	2026.88	2026.88	2026.88
Government surplus (millions of euro)	-1238.47	-1390.59	-1283.81	-1710.63
Government surplus (% of GDP)	-0.30	-0.34	-0.32	-0.42
Autofinancing rate (in % of ex ante cost)	38.90	31.39	36.66	15.60
Net budgetary cost per additional job (1000 euro)	68.06	50.84	80.49	152.14
<b>LABOUR MARKET (absolute differences - in 1000)</b>				
Employment (incl. self-employed and non-market salariate)	18.20	27.35	15.95	11.24
Salariate in market	15.07	21.37	13.81	10.82
o.w. low wages - aged <50 years (*)	4.88	42.14	-0.71	3.01
o.w. high wages - aged <50 years (*)	6.77	-18.12	5.49	5.74
o.w. special-employment programmes (*)	1.03	-0.51	-0.17	-0.00
o.w. low wages - aged >=50 years (*)	0.69	2.21	2.81	0.52
o.w. high wages - aged >=50 years (*)	1.68	-4.47	6.29	1.43
o.w. household service vouchers	0.06	0.08	0.06	0.02

	Across the board cut in employers' SSCs	Employers' SSC cuts for young low- wage earners	Employers' SSC cuts for elderly wage earners	Increase in wage subsidies to work in shifts
<b>LABOUR MARKET (percentage differences)</b>				
Employment (incl. self-employed and non-market salariate)	0.41	0.61	0.36	0.25
Salariate in market	0.51	0.72	0.46	0.36
o.w. low wages - aged <50 years(*)	0.57	4.83	-0.08	0.35
o.w. high wages - aged <50 years(*)	0.54	-1.45	0.43	0.45
o.w. special-employment programmes (*)	0.76	-0.38	-0.12	-0.00
o.w. low wages - aged >=50 years(*)	0.37	1.18	1.49	0.28
o.w. high wages - aged >=50 years(*)	0.38	-1.01	1.40	0.32
o.w. household service vouchers	0.10	0.13	0.10	0.03
<b>COMPETITIVENESS</b>				
Cash flow of firms before taxes in % of value added (absolute difference)	0.30	0.50	0.32	0.40
Real wage per head in market (percentage difference)	-0.86	-1.36	-0.87	-0.90
Unit wage cost in market (percentage difference)	-1.07	-1.53	-1.09	-1.64
<b>AGE STRUCTURE OF SALARIATE (MARKET)</b>				
Number of aged 50 or older - absolute difference - 1000 units	2.39	-2.21	9.14	1.98
Number of aged 50 or older - percentage difference	0.37	-0.34	1.39	0.30
Share of aged 50 or older in salariate in % - absolute difference	-0.03	-0.23	0.20	-0.01

**Table 17 - Impact of additional labour cost reducing measures after 6 years on government finances in the scenario with flexible real gross wages**  
(differences in millions in euros with baseline)

	Across the board cut in employers' SSCs	Employers' ssc cuts for young low-wage earners	Employers' ssc cuts for elderly wage earners	Increase in wage subsidies to work in shifts
1. Receipts	-1442.89	-1956.36	-1475.25	222.72
A. Fiscal and parafiscal receipts	-1408.83	-1910.34	-1443.29	242.57
1. Fiscal receipts	427.08	244.17	409.77	250.36
a. Taxes on income from labour, profits, assets and transfers	426.36	274.72	413.43	300.08
Households	207.08	-32.35	188.22	16.61
Corporations	219.62	307.67	225.54	284.18
Other	-0.35	-0.60	-0.34	-0.72
b. Production and import taxes	8.29	-17.51	3.76	-34.21
c. Wealth taxes	-7.57	-13.05	-7.41	-15.50
2. Social security contributions	-1835.91	-2154.51	-1853.06	-7.79
B. Securitization of uncollected taxes	0.00	0.00	0.00	0.00
C. Other receipts	-34.15	-46.20	-32.04	-19.95
2. Expenditure	-204.41	-565.76	-191.43	1933.36
A. Primary expenditure	-478.35	-860.62	-469.59	1609.09
a. Current expenditure	-439.48	-819.57	-436.98	1638.76
1. Wage bill	-91.60	-191.82	-100.00	-72.71
2. Intermediate consumption	-26.12	-46.74	-23.08	-26.69
3. Subsidies	-3.38	-14.81	-4.21	2001.60
of which wage subsidies	4.90	0.10	3.13	2010.08
4. Social benefits	-308.45	-548.08	-300.83	-253.30
of which unemployment benefits	-168.23	-255.17	-162.87	-107.41
5. Other transfers	-10.01	-18.28	-8.95	-10.24
b. Capital expenditure	-38.86	-41.05	-32.60	-29.67
B. Interest payments	273.91	294.81	278.13	324.25
3. Surplus	-1238.47	-1390.59	-1283.81	-1710.63
in % of GDP	-0.30	-0.34	-0.32	-0.42
4. Primary surplus	-964.56	-1095.78	-1005.68	-1386.38

**Table 18 - Impact on the real gross wage growth rates of high-wage earners, aged <50, in the market sector after 6 years (percentage point differences with baseline)**

	Across the board cut in employers' SSCs	Employers' SSC cuts for young low-wage earners	Employers' SSC cuts for elderly wage earners	Increase in wage subsidies to work in shifts
Construction	-0.10	0.07	-0.08	0.08
Consumer goods	-0.00	0.09	-0.01	<b>-0.58</b>
Banking & finance	0.21	0.34	0.17	0.15
Energy	0.10	0.25	0.03	<b>-0.02</b>
Hotels & catering	0.13	0.22	0.11	0.15
Capital goods	0.08	0.28	0.07	<b>-0.42</b>
Miscellaneous services	0.06	0.17	0.05	0.10
Intermediate goods	-0.00	0.14	-0.03	<b>-0.35</b>
Health	0.04	0.10	0.01	0.07
Transport by rail	0.01	0.18	-0.19	0.10
Transport by road	0.04	0.04	-0.04	0.12
Transport by air and waterways	0.01	0.16	0.09	0.09
Logistics & communications	0.02	0.20	-0.03	0.10

**Table 19 - Impact after 6 years on manufacturing value added and employment in a flexible wage regime (percentage differences with baseline)**

	Across the board cut in employers' SSCs		Increase in wage subsidies to work in shifts	
	Value added	Employment	Value added	Employment
Manufacturing	0.37	0.42	1.16	1.90

## 2.4. Equal gross wage rates across labour categories

The finding that the nature of the wage regime does not hugely matter for the macroeconomic and budgetary effectiveness of employers' SSC cuts contradicts earlier evidence. E.g. Stockman (2002) concluded that a flexible wage scenario would significantly reduce the scope for creating jobs on the one hand, but would be less detrimental to the government budget on the other hand. True, the analysis in sections 2.2. and 2.3. was complicated by allowing different wage growth rates across the various wage and age categories of employment. And true, the two HERMES vintages differ quite in the responsiveness of real gross wages to unemployment and productivity, as was argued earlier.

To rule out that the analysis in sections 2.2. and 2.3. was blurred by a particular hypothesis about the relative gross wages, the same policies were simulated in a framework that restricts gross wage growth rates to be equal across labour categories in the baseline. From Tables 20 and 21, no discernible differences with the macroeconomic results in 2.2. and 2.3. emerge, whatever the wage regime.

**Table 20 - Macro-economic impact of additional labour cost reducing measures after 6 years in the scenario with unchanged real gross wage growth rates and equal gross wage growth rates across age and wage categories (differences with baseline)**

	Across the board cut in employers' SSCs	Employers' ssc cuts for young low-wage earners	Employers' ssc cuts for elderly wage earners	Increase in wage subsidies to work in shifts
<b>AGGREGATE DEMAND</b>				
in real terms - percentage difference)				
GDP	0.27	0.36	0.25	0.30
Private consumption	0.43	0.58	0.40	0.31
Gross investment	0.23	0.15	0.21	0.13
Domestic absorption	0.31	0.39	0.30	0.20
Exports of goods and services	0.09	0.12	0.08	0.17
Imports of goods and services	0.10	0.11	0.10	0.03
p.m. Real disposable household income	0.39	0.35	0.42	0.34
<b>PRICES (percentage difference)</b>				
Private consumption price index	-0.37	-0.61	-0.33	-0.28
GDP-deflator	-0.50	-0.74	-0.43	-0.57
<b>GOVERNMENT FINANCES</b>				
Ex ante cost (millions of euro)	2003.17	2003.17	2003.17	2003.17
Government surplus (millions of euro)	-1300.76	-1730.45	-1390.88	-1645.19
Government surplus (% of GDP)	-0.33	-0.43	-0.35	-0.41
Autofinancing rate (in % of ex ante cost)	35.07	13.61	30.57	17.87
Net budgetary cost per additional job (1000 euro)	64.81	52.41	80.41	132.78
<b>LABOUR MARKET (absolute differences - in 1000)</b>				
Employment (incl. self-employed and non-market salariate)	20.07	33.02	17.30	12.39
Salariate in market	16.30	25.72	14.56	11.38
o.w. low wages - aged <50 years (*)	5.49	45.34	-0.46	3.23
o.w. high wages - aged <50 years (*)	7.13	-17.60	5.70	5.92
o.w. special-employment programmes (*)	1.12	-0.33	-0.16	0.11
o.w. low wages - aged >=50 years (*)	0.78	2.45	2.93	0.54
o.w. high wages - aged >=50 years (*)	1.76	-4.29	6.45	1.47
o.w. household service vouchers	0.06	0.09	0.05	0.02
<b>LABOUR MARKET (percentage differences)</b>				
Employment (incl. self-employed and non-market salariate)	0.45	0.73	0.38	0.28
Salariate in market	0.54	0.85	0.48	0.38
o.w. low wages - aged <50 years(*)	0.64	5.14	-0.05	0.38
o.w. high wages - aged <50 years(*)	0.55	-1.38	0.44	0.46
o.w. special-employment programmes (*)	0.80	-0.24	-0.12	0.08
o.w. low wages - aged >=50 years(*)	0.41	1.30	1.55	0.29
o.w. high wages - aged >=50 years(*)	0.39	-0.96	1.43	0.33
o.w. household service vouchers	0.09	0.14	0.09	0.04
<b>COMPETITIVENESS</b>				
Cash flow of firms before taxes in % of value added (absolute difference)	0.41	0.73	0.39	0.37
Real wage per head in market (percentage difference)	-1.09	-1.94	-1.03	-0.92
Unit wage cost in market (percentage difference)	-1.35	-2.21	-1.28	-1.50
<b>AGE STRUCTURE OF SALARIATE (MARKET)</b>				
Number of aged 50 or older - absolute difference - 1000 units	2.56	-1.78	9.42	2.04
Number of aged 50 or older - percentage difference	0.39	-0.27	1.42	0.31
Share of aged 50 or older in salariate in % - absolute difference	-0.03	-0.24	0.20	-0.01

**Table 21 - Macro-economic impact of additional labour cost reducing measures after 6 years in the scenario with flexible real gross wages and equal gross wage growth rates across age and wage categories (differences with baseline)**

	Across the board cut in employers' SSCs	Employers' SSC cuts for young low- wage earners	Employers' SSC cuts for elderly wage earners	Increase in wage subsidies to work in shifts
<b>AGGREGATE DEMAND</b>				
in real terms - percentage difference)				
GDP	0.26	0.31	0.24	0.35
Private consumption	0.44	0.55	0.41	0.31
Gross investment	0.28	0.18	0.26	0.11
Domestic absorption	0.33	0.37	0.31	0.20
Exports of goods and services	0.08	0.09	0.07	0.20
Imports of goods and services	0.11	0.12	0.11	-0.00
p.m. Real disposable household income	0.49	0.48	0.46	0.34
<b>PRICES (percentage difference)</b>				
Private consumption price index	-0.30	-0.48	-0.27	-0.27
GDP-deflator	-0.41	-0.56	-0.38	-0.64
<b>GOVERNMENT FINANCES</b>				
Ex ante cost (millions of euro)	2029.27	2029.27	2029.27	2029.27
Government surplus (millions of euro)	-1239.17	-1388.91	-1279.31	-1703.39
Government surplus (% of GDP)	-0.30	-0.34	-0.31	-0.42
Autofinancing rate (in % of ex ante cost)	38.94	31.56	36.96	16.06
Net budgetary cost per additional job (1000 euro)	68.39	51.60	80.45	151.51
<b>LABOUR MARKET (absolute differences - in 1000)</b>				
Employment (incl. self-employed and non-market salariate)	18.12	26.92	15.90	11.24
Salariate in market	15.01	21.06	13.75	10.81
o.w. low wages - aged <50 years (*)	4.84	41.66	-0.73	2.98
o.w. high wages - aged <50 years (*)	6.76	-18.00	5.52	5.76
o.w. special-employment programmes (*)	1.03	-0.50	-0.17	0.00
o.w. low wages - aged >=50 years (*)	0.68	2.19	2.77	0.52
o.w. high wages - aged >=50 years (*)	1.67	-4.41	6.27	1.43
o.w. household service vouchers	0.06	0.07	0.06	0.02
<b>LABOUR MARKET (percentage differences)</b>				
Employment (incl. self-employed and non-market salariate)	0.41	0.60	0.36	0.25
Salariate in market	0.51	0.71	0.46	0.36
o.w. low wages - aged <50 years(*)	0.57	4.81	-0.09	0.35
o.w. high wages - aged <50 years(*)	0.53	-1.43	0.44	0.45
o.w. special-employment programmes (*)	0.76	-0.37	-0.13	0.00
o.w. low wages - aged >=50 years(*)	0.37	1.17	1.48	0.28
o.w. high wages - aged >=50 years(*)	0.37	-1.00	1.40	0.32
o.w. household service vouchers	0.10	0.12	0.10	0.03
<b>COMPETITIVENESS</b>				
Cash flow of firms before taxes in % of value added (absolute difference)	0.30	0.49	0.32	0.40
Real wage per head in market (percentage difference)	-0.86	-1.34	-0.86	-0.89
Unit wage cost in market (percentage difference)	-1.07	-1.52	-1.08	-1.64
<b>AGE STRUCTURE OF SALARIATE (MARKET)</b>				
Number of aged 50 or older - absolute difference - 1000 units	2.38	-2.17	9.08	1.98
Number of aged 50 or older - percentage difference	0.36	-0.33	1.38	0.30
Share of aged 50 or older in salariate in % - absolute difference	-0.03	-0.22	0.20	-0.01



### 3. Conclusions

Employers' SSC cuts for young low-wage earners generate more employment in spite of job losses for the elderly and the young high-wage earners. The substitution effect favouring the low-wage segment causes the average wage cost to fall well and beyond the initial cut in wage cost and to generate far more jobs than other labour cost cutting policies. The SSC cut targeting the elderly goes to some extent at the expense of the young age group. In fact, only the young low-wage earners suffer because the elderly are more prominent in the high-wage than in the low-wage category. Hence, elderly labour cost cutting policies result in bigger wage cost cuts for the high-wage earners than for the low-wage earners. The apparently uniform increase in subsidies to work-in-shifts employment, in fact a subsidy to low-wage and high-wage employment alike in manufacturing, yields less jobs but a larger increase in output than across-the-board cuts in employers' SSCs. The employment of all wage and age classes are stimulated alike, just as an across-the-board SSC cut would do.

The Phillips curve effect explains why the employment and output effects of SSC cuts are slightly less benign in a flexible wage regime than in a wage regime that keeps domestic wages in line with foreign wages. In the case of the work-in-shifts subsidies, the Phillips curve effect on manufacturing wages is weakened by the sharp decline in manufacturing's labour productivity, causing a more favourable effect on foreign demand and hence output.

Both subsidies and low-wage SSC cuts are a drag on the government finances in the sense that only a small proportion of the initial cost is recovered. In the case of low-wage SSC cuts, the proportion that is recovered is significantly higher in a flexible wage regime than in a rigid wage environment. However if gauged by the cost per additional job, targeting young low-wage labour is the cheapest option, whatever the wage regime.

#### 4. Appendum: Employers' ssc rates by branch of activity, age and employment category in the sector of firms in the baseline

	2005	2006	2007	2008	2009	2010	2011	2012
YOUNG LOW-WAGE EMPLOYMENT								
1. Agriculture	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2. Energy	52.50	53.83	52.45	52.08	52.68	49.10	51.86	52.56
3. Manufacturing	34.37	33.68	33.90	34.19	35.84	36.64	36.99	37.39
3.1. Intermediate goods	38.08	37.00	37.34	37.81	39.58	40.42	40.76	41.14
3.2. Investment goods	36.13	35.16	35.66	35.26	37.66	37.95	37.88	38.15
3.3. Consumer goods	32.57	32.07	32.16	32.54	33.93	34.85	35.31	35.74
4. Construction	30.78	29.65	29.93	30.83	31.73	32.25	32.42	32.63
5. Tradeable services	29.23	29.16	28.78	29.46	30.10	30.54	30.92	31.19
5.1. Transport and communication	32.11	32.26	32.24	32.67	33.54	34.02	34.49	34.66
5.1.1. Transport by rail	29.29	29.48	29.56	29.36	29.33	29.18	29.03	28.77
5.1.2. Transport by road	29.76	29.87	29.46	30.05	31.44	32.30	33.30	33.75
5.1.3. Transport by air and waterways	29.62	28.94	27.93	28.41	29.72	30.37	30.55	30.73
5.1.4. Logistics & communications	35.03	35.22	35.56	35.86	36.28	36.42	36.45	36.38
5.2. Commerce and horeca	27.72	27.36	26.51	27.40	28.29	28.89	29.32	29.62
5.3. Financial services	32.87	33.50	33.49	33.63	34.00	34.45	34.37	34.66
5.4. Health care	24.81	25.65	25.93	26.24	26.69	26.91	27.23	27.60
5.5. Miscellaneous services	31.98	31.70	31.34	32.10	32.41	32.71	33.05	33.27
ELDERLY LOW-WAGE EMPLOYMENT								
1. Agriculture	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2. Energy	50.52	46.88	44.94	42.21	40.00	38.50	37.37	35.81
3. Manufacturing	33.69	34.26	30.29	29.11	29.37	29.60	29.49	29.20
3.1. Intermediate goods	37.91	38.47	35.07	34.27	34.35	34.24	34.09	33.95
3.2. Investment goods	35.31	35.89	32.07	31.48	31.30	31.36	31.33	31.32
3.3. Consumer goods	32.28	32.86	28.70	27.31	27.69	28.05	27.95	27.57
4. Construction	28.47	29.04	29.08	29.82	31.02	31.63	32.09	32.46
5. Tradeable services	28.89	29.11	28.15	28.59	29.57	30.39	31.23	31.94
5.1. Transport and communication	29.01	29.16	27.98	27.70	28.34	28.89	29.40	29.80
5.1.1. Transport by rail	29.19	29.68	27.45	27.07	28.38	29.64	30.79	31.77
5.1.2. Transport by road	29.19	29.68	27.45	27.07	28.38	29.64	30.79	31.77
5.1.3. Transport by air and waterways	27.75	28.80	29.78	32.47	34.86	37.10	39.22	40.72
5.1.4. Logistics & communications	28.95	29.00	29.04	28.94	28.89	28.64	28.39	28.02
5.2. Commerce and horeca	28.78	29.22	27.96	28.27	29.27	30.16	31.00	31.70
5.3. Financial services	32.77	33.63	31.67	30.70	31.14	31.45	31.77	31.96
5.4. Health care	23.32	23.26	22.43	23.39	24.37	24.95	25.95	26.80
5.5. Miscellaneous services	32.78	33.36	33.42	35.02	36.72	38.28	39.63	40.77

	2005	2006	2007	2008	2009	2010	2011	2012
<b>YOUNG HIGH-WAGE EMPLOYMENT</b>								
1. Agriculture	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2. Energy	56.30	57.04	57.17	57.03	57.36	57.37	57.30	57.07
3. Manufacturing	39.26	39.51	39.70	39.60	39.75	39.82	39.85	39.82
3.1. Intermediate goods	42.08	42.30	42.47	42.35	42.49	42.53	42.54	42.49
3.2. Investment goods	39.24	39.44	39.62	39.49	39.59	39.61	39.60	39.55
3.3. Consumer goods	35.44	35.73	35.93	35.84	36.05	36.17	36.25	36.28
4. Construction	33.94	34.10	34.34	34.30	34.42	34.53	34.60	34.66
5. Tradeable services	33.66	33.82	33.96	33.83	33.86	33.82	33.75	33.64
5.1. Transport and communication	33.95	34.30	34.54	34.49	34.72	34.78	34.78	34.64
5.1.1. Transport by rail	25.71	26.29	26.37	26.17	26.26	26.25	26.22	26.02
5.1.2. Transport by road	29.77	30.03	30.24	30.19	30.41	30.53	30.60	30.60
5.1.3. Transport by air and waterways	35.34	35.18	35.29	35.09	34.96	34.79	34.61	34.42
5.1.4. Logistics & communications	38.02	38.21	38.37	38.25	38.44	38.40	38.30	38.09
5.2. Commerce and horeca	33.01	33.17	33.34	33.21	33.27	33.28	33.27	33.21
5.3. Financial services	37.63	38.24	38.37	38.22	38.23	38.16	38.07	37.92
5.4. Health care	31.87	31.89	32.02	31.87	31.86	31.82	31.74	31.65
5.5. Miscellaneous services	33.51	33.53	33.67	33.53	33.50	33.43	33.35	33.24
<b>ELDERLY HIGH-WAGE EMPLOYMENT</b>								
1. Agriculture	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2. Energy	57.13	56.99	57.07	56.75	56.19	55.44	54.70	53.87
3. Manufacturing	40.25	40.30	39.64	38.86	38.72	38.56	38.43	38.52
3.1. Intermediate goods	43.12	43.14	42.79	42.20	42.07	41.85	41.71	41.93
3.2. Investment goods	39.68	39.79	39.22	38.48	38.32	38.19	38.18	38.39
3.3. Consumer goods	35.83	35.89	34.61	33.52	33.38	33.34	33.12	32.91
4. Construction	32.73	32.83	33.11	33.69	34.07	34.30	34.62	34.69
5. Tradeable services	34.10	33.86	33.79	33.64	33.57	33.43	33.28	33.08
5.1. Transport and communication	29.90	29.27	28.96	28.70	28.50	28.18	27.90	27.61
5.1.1. Transport by rail	23.52	22.20	22.25	22.03	21.52	21.01	20.59	20.21
5.1.2. Transport by road	30.35	30.14	29.14	29.11	29.43	29.65	29.85	29.97
5.1.3. Transport by air and waterways	34.22	35.03	36.02	36.66	37.64	38.58	39.58	40.47
5.1.4. Logistics & communications	32.61	32.51	32.55	32.48	32.51	32.33	32.13	31.82
5.2. Commerce and horeca	35.24	35.18	35.03	35.02	35.17	35.28	35.33	35.31
5.3. Financial services	38.86	39.22	39.26	39.03	39.08	39.17	39.13	38.98
5.4. Health care	31.52	31.12	31.07	30.83	30.57	30.27	30.01	29.70
5.5. Miscellaneous services	35.67	35.55	35.98	36.25	36.45	36.58	36.68	36.72
<b>SPECIAL-EMPLOYMENT PROGRAMMES</b>								
1. Agriculture	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2. Energy	43.25	41.09	41.63	41.96	42.77	43.31	43.93	44.46
3. Manufacturing	22.65	22.90	23.43	23.75	24.37	25.10	25.64	26.12
3.1. Intermediate goods	26.45	26.61	27.17	27.46	28.07	28.82	29.33	29.75
3.2. Investment goods	24.03	24.29	24.87	25.15	25.71	26.31	26.81	27.26
3.3. Consumer goods	19.81	20.07	20.54	20.88	21.52	22.29	22.85	23.36
4. Construction	22.39	22.97	23.55	23.87	24.41	24.89	25.42	25.85

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	2005	2006	2007	2008	2009	2010	2011	2012
5. Tradeable services	18.40	18.99	19.45	19.92	20.53	21.18	21.74	22.25
5.1. Transport and communication	22.79	22.84	23.26	23.54	24.07	24.50	24.87	25.14
5.1.1. Transport by rail	n.b.	n.b.	n.b.	n.b.	n.b.	n.b.	n.b.	n.b.
5.1.2. Transport by road	18.44	18.99	19.50	19.81	20.38	20.93	21.45	21.85
5.1.3. Transport by air and waterways	25.39	24.69	24.81	24.78	24.79	24.76	24.76	24.79
5.1.4. Logistics & communications	28.00	26.72	27.00	27.24	27.76	28.10	28.36	28.53
5.2. Commerce and horeca	16.55	17.07	17.41	17.85	18.42	19.07	19.54	19.99
5.3. Financial services	23.87	25.03	25.56	25.89	26.43	26.92	27.38	27.80
5.4. Health care	13.14	14.71	15.71	16.59	17.67	18.92	20.03	20.98
5.5. Miscellaneous services	20.94	21.22	21.59	21.97	22.45	22.93	23.40	23.85
AGRICULTURE								
Agriculture (all jobs)	22.23	22.23	21.75	21.69	22.21	22.99	23.32	23.66

## 5. Appendum: Wage subsidy rates by branch of activity, age and employment category in the sector of firms in the baseline

	2005	2006	2007	2008	2009	2010	2011	2012
YOUNG LOW-WAGE EMPLOYMENT								
1. Agriculture	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2. Energy	0.55	1.66	2.69	3.13	3.13	3.13	3.13	3.13
3. Manufacturing	0.64	1.75	2.83	3.33	3.33	3.32	3.32	3.32
3.1. Intermediate goods	0.63	1.74	2.81	3.29	3.29	3.29	3.29	3.28
3.2. Investment goods	0.63	1.74	2.82	3.31	3.31	3.31	3.30	3.30
3.3. Consumer goods	0.64	1.75	2.84	3.35	3.35	3.34	3.34	3.34
4. Construction	0.09	0.09	0.15	0.33	0.33	0.33	0.32	0.32
5. Tradeable services	1.47	1.87	2.10	2.22	2.14	2.06	1.98	1.91
5.1. Transport and communication	0.07	0.07	0.13	0.32	0.32	0.31	0.31	0.31
5.1.1. Transport by rail	0.00	0.00	0.06	0.25	0.25	0.25	0.25	0.25
5.1.2. Transport by road	0.07	0.06	0.13	0.31	0.31	0.31	0.31	0.30
5.1.3. Transport by air and waterways	0.09	0.09	0.15	0.33	0.33	0.33	0.33	0.33
5.1.4. Logistics & communications	0.08	0.08	0.14	0.33	0.33	0.32	0.32	0.32
5.2. Commerce and horeca	0.10	0.10	0.16	0.35	0.34	0.34	0.34	0.34
5.3. Financial services	0.00	0.00	0.06	0.25	0.25	0.25	0.25	0.25
5.4. Health care	8.92	11.31	12.28	11.90	11.38	10.84	10.35	9.89
5.5. Miscellaneous services	0.09	0.09	0.15	0.34	0.34	0.33	0.33	0.33
ELDERLY LOW-WAGE EMPLOYMENT								
1. Agriculture	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2. Energy	0.55	1.88	2.98	3.36	3.31	3.28	3.25	3.22
3. Manufacturing	0.65	2.01	3.18	3.67	3.66	3.65	3.64	3.63
3.1. Intermediate goods	0.64	1.99	3.13	3.61	3.60	3.59	3.58	3.57
3.2. Investment goods	0.64	1.99	3.14	3.63	3.62	3.60	3.59	3.58
3.3. Consumer goods	0.65	2.03	3.20	3.70	3.69	3.68	3.66	3.65
4. Construction	0.11	0.38	0.53	0.71	0.69	0.68	0.67	0.65
5. Tradeable services	1.70	1.56	1.63	1.71	1.60	1.51	1.42	1.35
5.1. Transport and communication	0.08	0.28	0.41	0.59	0.58	0.57	0.56	0.56
5.1.1. Transport by rail	0.07	0.26	0.38	0.56	0.55	0.54	0.53	0.52
5.1.2. Transport by road	0.07	0.26	0.38	0.56	0.55	0.54	0.53	0.52
5.1.3. Transport by air and waterways	0.09	0.31	0.45	0.63	0.61	0.60	0.59	0.58
5.1.4. Logistics & communications	0.09	0.31	0.45	0.64	0.64	0.63	0.63	0.62
5.2. Commerce and horeca	0.11	0.40	0.56	0.74	0.73	0.72	0.71	0.70
5.3. Financial services	0.00	0.33	0.49	0.66	0.65	0.63	0.62	0.60
5.4. Health care	10.37	7.59	6.91	6.23	5.48	4.83	4.32	3.90
5.5. Miscellaneous services	0.12	0.43	0.59	0.76	0.74	0.72	0.70	0.68

	2005	2006	2007	2008	2009	2010	2011	2012
<b>YOUNG HIGH-WAGE EMPLOYMENT</b>								
1. Agriculture	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2. Energy	0.55	1.79	2.88	3.31	3.31	3.31	3.31	3.31
3. Manufacturing	0.55	1.79	2.93	3.42	3.42	3.42	3.42	3.41
3.1. Intermediate goods	0.55	1.79	2.91	3.40	3.40	3.40	3.39	3.39
3.2. Investment goods	0.55	1.79	2.93	3.42	3.42	3.42	3.42	3.42
3.3. Consumer goods	0.55	1.79	2.94	3.45	3.44	3.44	3.44	3.44
4. Construction	0.00	0.00	0.06	0.25	0.25	0.25	0.25	0.25
5. Tradeable services	0.99	1.16	1.24	1.38	1.35	1.30	1.26	1.22
5.1. Transport and communication	0.00	0.08	0.17	0.36	0.36	0.36	0.36	0.36
5.1.1. Transport by rail	0.00	0.00	0.06	0.25	0.25	0.25	0.25	0.25
5.1.2. Transport by road	0.00	0.00	0.06	0.25	0.25	0.25	0.25	0.25
5.1.3. Transport by air and waterways	0.00	0.00	0.06	0.25	0.25	0.25	0.25	0.25
5.1.4. Logistics & communications	0.00	0.13	0.25	0.43	0.43	0.43	0.43	0.43
5.2. Commerce and horeca	0.00	0.00	0.06	0.25	0.25	0.25	0.25	0.25
5.3. Financial services	0.00	0.00	0.06	0.25	0.25	0.25	0.25	0.25
5.4. Health care	5.06	5.69	5.69	5.64	5.45	5.22	5.00	4.78
5.5. Miscellaneous services	0.00	0.13	0.25	0.43	0.43	0.43	0.43	0.43
<b>ELDERLY HIGH-WAGE EMPLOYMENT</b>								
1. Agriculture	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2. Energy	0.55	1.86	2.96	3.39	3.39	3.38	3.37	3.37
3. Manufacturing	0.55	1.90	3.06	3.55	3.55	3.54	3.53	3.53
3.1. Intermediate goods	0.55	1.89	3.04	3.52	3.52	3.51	3.51	3.50
3.2. Investment goods	0.55	1.90	3.07	3.56	3.56	3.55	3.54	3.54
3.3. Consumer goods	0.55	1.91	3.09	3.59	3.59	3.58	3.58	3.57
4. Construction	0.00	0.13	0.24	0.42	0.42	0.41	0.40	0.40
5. Tradeable services	0.87	0.62	0.71	0.87	0.83	0.80	0.77	0.74
5.1. Transport and communication	0.00	0.18	0.31	0.49	0.48	0.47	0.47	0.46
5.1.1. Transport by rail	0.00	0.10	0.20	0.38	0.37	0.37	0.36	0.36
5.1.2. Transport by road	0.00	0.11	0.21	0.40	0.39	0.39	0.38	0.37
5.1.3. Transport by air and waterways	0.00	0.07	0.15	0.34	0.34	0.34	0.34	0.34
5.1.4. Logistics & communications	0.00	0.26	0.41	0.60	0.59	0.59	0.58	0.58
5.2. Commerce and horeca	0.00	0.10	0.20	0.38	0.38	0.37	0.37	0.36
5.3. Financial services	0.00	0.09	0.17	0.36	0.36	0.35	0.35	0.34
5.4. Health care	4.53	2.53	2.44	2.39	2.17	1.98	1.81	1.66
5.5. Miscellaneous services	0.00	0.22	0.36	0.55	0.54	0.54	0.53	0.53
<b>SPECIAL-EMPLOYMENT PROGRAMMES</b>								
1. Agriculture	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2. Energy	2.76	2.74	2.75	2.91	2.87	2.82	2.77	2.73
3. Manufacturing	5.49	5.40	5.35	5.48	5.39	5.31	5.21	5.12
3.1. Intermediate goods	4.72	4.66	4.62	4.76	4.69	4.62	4.54	4.47
3.2. Investment goods	3.72	3.70	3.70	3.85	3.80	3.73	3.67	3.61
3.3. Consumer goods	6.79	6.66	6.57	6.70	6.60	6.49	6.38	6.27
4. Construction	4.20	4.19	4.18	4.32	4.26	4.19	4.12	4.05

	2005	2006	2007	2008	2009	2010	2011	2012
5. Tradeable services	7.69	7.53	7.43	7.56	7.46	7.35	7.23	7.12
5.1. Transport and communication	6.23	6.10	6.02	6.14	6.05	5.95	5.84	5.74
5.1.1. Transport by rail	n.b.	n.b.	n.b.	n.b.	n.b.	n.b.	n.b.	n.b.
5.1.2. Transport by road	6.58	6.47	6.39	6.52	6.42	6.32	6.21	6.11
5.1.3. Transport by air and waterways	3.86	3.84	3.84	4.01	3.95	3.90	3.83	3.78
5.1.4. Logistics & communications	6.05	5.94	5.87	6.00	5.92	5.82	5.72	5.63
5.2. Commerce and horeca	6.57	6.48	6.40	6.52	6.43	6.33	6.22	6.12
5.3. Financial services	3.22	3.24	3.25	3.40	3.35	3.30	3.24	3.19
5.4. Health care	16.43	15.91	15.53	15.56	15.33	15.06	14.78	14.53
5.5. Miscellaneous services	6.44	6.32	6.23	6.36	6.27	6.17	6.07	5.97
AGRICULTURE								
Agriculture (all jobs)	0.00	0.00	0.06	0.25	0.25	0.25	0.25	0.25

## 6. Appendix: Translog substitution in the Belgian labour market

### 6.1. Translog-based substitution in general

Translog-based substitution is a fairly general approach to substitution. One of its drawbacks however is that the economic interpretation of the translog parameters is not straightforward and that substitution is not homothetic.

In (1), total employment [ $n$ ] is function of various labour categories [ $n_i$ ] (Heathfield and Wibe, 1987,105-12):

$$(1) \log n = \alpha_0 + \sum_i \alpha_i (\log n_i) + \sum_i \sum_j \beta_{ij} (\log n_i) (\log n_j) \text{ with } \beta_{ij} = \beta_{ji}$$

Equilibrium requires that the wage cost rate [ $w_i$ ] relative to the wage cost rate [ $w_j$ ] satisfy (2):

$$(2) \frac{w_i n_i}{w_j n_j} = \left( \frac{\alpha_i + \sum_k \beta_{ik} (\log n_k)}{\alpha_j + \sum_k \beta_{jk} (\log n_k)} \right)$$

Because of data constraints, time-series analysis is not possible, hence calibration is the only technique we are left with to determine the substitution parameters. Assuming [ $m$ ] labour categories and after imposing (arbitrarily) that  $\alpha_0=0$ , we are left with  $[(m)+(m)+(m-1)+(m-2)+\dots+(1) = m(m+3)/2]$  parameters but only [ $m$ ] equations. Hence, calibration requires  $[m(m+1)/2]$  additional restrictions. One way of achieving this is by restricting the elasticity to scale [ $\varepsilon$ ], defined by (3):

$$(3) \varepsilon = \sum_k \alpha_k + \sum_i \sum_j \beta_{ij} (\log n_j)$$

The restriction that  $(\beta_{ii} = \beta_{jj} = -\beta_{ij} = \gamma/2)$  for each pair  $(i,j)$  renders [ $\varepsilon$ ] independent from any [ $n_k$ ]; the constraint that  $(1 = \sum_k \alpha_k)$  implies constant returns to scale, hence  $\varepsilon=1$ . Rewriting (1) and (2) produces (1') and (2'), with labour type  $m$  the numéraire:

$$(1') \log n = \sum_{i \neq m} \alpha_i (\log n_i) + \left( 1 - \sum_{i \neq m} \alpha_i \right) (\log n_m) + (\gamma/2) \sum_i (\log n_i)^2 - (\gamma/2) \sum_{i \neq j} (\log n_j) (\log n_i)$$



$$(2') \frac{w_i n_i}{w_m n_m} = \frac{\alpha_i + \gamma \log \left( n_i / \left( \prod_{k \neq i} n_k \right) \right)}{\left( 1 - \sum_{k \neq m} \alpha_k \right) + \gamma \log \left( n_m / \left( \prod_{k \neq m} n_k \right) \right)}$$

This particular translog function is applied to the allocation of total demand for labour among low-wage, high-wage and special-programme employment and the allocation of each wage category between the young and the elderly.

## 6.2. First-stage allocation: low-wage earning, high-wage earning and special-programme jobs

For our purposes, we consider a labour market with three types of labour: low-wage employment [ $n_{LL}$ ] (the numéraire), high-wage employment [ $n_{HL}$ ], and special employment [ $n_{SP}$ ]. Equations (4a), (4b) en (4c) are sufficient to calibrate three parameters ( $\gamma$ ,  $\alpha_{HL}$  and  $\alpha_{SP}$ ):

$$(4a) \log n = \alpha_{HL}(\log n_{HL}) + \alpha_{SP}(\log n_{SP}) + (1 - \alpha_{HL} - \alpha_{SP})\log n_{LL} \\ + (\gamma/2)((\log(n_{HL}/n_{LL}))^2 + (\log n_{SP})^2 \\ - 2(\log n_{SP})(\log n_{HL}) + \log n_{LL}))$$

$$(4b) \frac{w_{HL} n_{HL}}{w_{LL} n_{LL}} = \left( \frac{\alpha_{HL} + \gamma(\log(n_{HL}/(n_{LL} n_{SP})))}{(1 - \alpha_{HL} - \alpha_{SP}) + \gamma(\log(n_{LL}/(n_{HL} n_{SP})))} \right)$$

$$(4c) \frac{w_{SP} n_{SP}}{w_{LL} n_{LL}} = \left( \frac{\alpha_{SP} + \gamma(\log(n_{SP}/(n_{LL} n_{HL})))}{(1 - \alpha_{HL} - \alpha_{SP}) + \gamma(\log(n_{LL}/(n_{HL} n_{SP})))} \right)$$

Obviously, (4b) and (4c) produce substitution which is not homothetic: e.g. it is possible that the ratio of high-wage employment relative to low-wage employment increases in response to a fall in the low-wage rate. The presence of  $n_{SP}$  in (4b) implies that  $[n_{HL}/n_{LL}]$  is not solely determined by  $[w_{HL}/w_{LL}]$ . Similarly, because of the presence of  $n_{HL}$  in (4c),  $[w_{SP}/w_{LL}]$  is not the only determining factor of  $[n_{SP}/n_{LL}]$ <sup>1</sup>.

1. In the case of homothetic functions, the factor proportion  $[n_i/n_j]$  only depends on the relative price  $[w_i/w_j]$ . E.g. the allocation rule in the case of the CES-aggregator is given by:

$$\frac{w_i}{w_j} = \left( \frac{\theta_i}{\theta_j} \right) \cdot \left( \frac{n_j}{n_i} \right)^{(1+\kappa)} \quad \text{with } n = \left( \sum_i \theta_i \cdot n_i^{-\kappa} \right)^{-1/\kappa}$$

Because HERMES determines demand for labour top-down (i.e. total demand for labour is determined first and subsequently allocated among the three categories of labour), we have to guarantee for simulation purposes that the subcategories of employment add up to total employment. Hence, (4d) rather than (4a) will be used in combination with (4b) and (4c):

$$(4d) \ n = n_{HL} + n_{SP} + n_{LL} ; (4b); (4c)$$

### 6.3. Second-stage allocation: young and elderly employment within low-wage earning and high-wage earning jobs

Both low-wage employment [ $n_{LL}$ ] and high-wage employment [ $n_{HL}$ ] are to be allocated between the young [ $n_{NJy}$ ] and the elderly [ $n_{OWy}$ ], with  $y$  either LL or HL. Attempts to impose a similar substitution technology on the special-programme jobs were unsuccessful.

Equations (5a) and (5b) are sufficient to calibrate two parameters ( $\gamma_y$  and  $\alpha_{OWy}$ ) for wage category  $y$ :

$$(5a) \ \log n_y = \alpha_{yOW} \log n_{OWy} + (1 - \alpha_{yOW}) \log n_{NJy} \\ + (\gamma_y/2) (\log(n_{OWy}/n_{NJy}))^2$$

$$(5b) \ \frac{w_{OWy} n_{OWy}}{w_{NJy} n_{NJy}} = \left( \frac{\alpha_{yOW} + \gamma_y (\log(n_{OWy}/n_{NJy}))}{(1 - \alpha_{yOW}) + \gamma_y (\log(n_{NJy}/n_{OWy}))} \right)$$

Using (5c) rather than (5a) in combination with (5b) guarantees that the elderly and the young sum up to  $n_y$  for each wage category  $y$ :

$$(5c) \ n_y = n_{NJy} + n_{OWy}; (5b)$$

## 6.4. Calibration

The parameters are calibrated on 2005 RSZ-data, using [(4a), (4b), (4c)] and [(5a), (5b)]. As it happens, the translog parameters turn out to be quite similar across sectors (see Table 22).

**Table 22 - Translog substitution parameters in the labour market by sector**

Sector <sup>a</sup>	First-stage translog parameters (allocation among low-wage, high-wage and special-programme employment)			Second-stage translog parameters (allocation between young and elderly within low-wage and high-wage employment)			
	$\gamma$	$\alpha_{HL}$	$\alpha_{SP}$	Low-wage employment		High-wage employment	
				$\gamma_{LL}$	$\alpha_{LOW}$	$\gamma_{HL}$	$\alpha_{HLOW}$
B	-0.017549	0.983372	-0.0279557	-0.053825807	1.096437573	-0.388222039	1.425269485
C	-0.01863	0.861654	-0.1187385	-0.214466959	1.277106166	-0.400794566	1.434932709
CR	-0.007286	1.016101	-0.0383115	-0.107978493	1.165664792	-0.97818017	1.799425125
HA	-0.019308	0.729682	-0.0953218	-0.118951499	1.178322554	-0.465000898	1.482658029
K	-0.010661	1.000065	-0.0596447	-0.11115355	1.169343114	-0.479318976	1.493025422
OS	-0.017853	0.837267	-0.0862405	-0.114973493	1.173773646	-0.326912135	1.376716256
Q	-0.00864	0.996338	-0.0535064	-0.132177338	1.1931566	-0.583130956	1.564694762
SA	-0.015602	0.906086	-0.0964461	-0.158083901	1.221005082	-0.451749712	1.473306894
Z_2	-0.035726	0.619541	-0.1945051	-0.668466032	1.619315028	-0.801775396	1.700319648
Z_34	-0.090124	1.114312	-0.3212575	-0.034519278	1.067709565	-0.291847765	1.347565055
Z_56	-0.020441	0.895251	-0.1393977	-0.568807721	1.554889321	-1.260985613	1.943202734
E	-0.011396	1.022302	-0.0717981	-0.038038235	1.073185563	-1.929060698	2.236194849
Z_1	-0.133036	1.195227	-	-	-	-	-

a. B = construction, C = consumer goods, CR = finance, E = energy, HA = trade & restaurants, K = capital equipment, OS = miscellaneous market services, Q = intermediate inputs, SA = health care, Z\_1 = transport by rail, Z\_2 = transport by road, Z\_34 = transport by air and waterways, Z\_56 = logistics & communications.

## 6.5. Labour demand: Compensated price elasticities and Allen's elasticities of substitution

Tables 23 and 24 show the compensated price elasticities and Allen's elasticities of substitution for each branch of activity at each allocation stage.

### 6.5.1. Substitution between low-wage, high-wage and special-programme employment

The compensated price elasticities measure the percentage impact on one segment of employment of a 1% change in prices under the constraint of fixed total employment. The compensated price elasticities by and large do not add up to zero, hence illustrating that the translog aggregator is not homothetic.

The signs of the Allen's elasticities of substitution point to substitution between LL and HL and between HL and SP in all sectors. As to the interaction between LL and SP, the picture is less straightforward: complementarity prevails in 7 out of 12 sectors. However, even in the cases where complementarity prevails, relative demand for the factor that becomes more expensive will fall because the own price elasticities are larger than the cross-price elasticities (in absolute terms).

**Table 23 - Labour demand by wage category: Compensated price elasticities and Allen's elasticities of substitution by sector**

Sector <sup>a</sup>	Compensated elasticities				Allen's elasticities of substitution		
	W <sub>LL</sub>	W <sub>HL</sub>	W <sub>SP</sub>	Test on adding-up constraint	W <sub>LL</sub>	W <sub>HL</sub>	W <sub>SP</sub>
Sector B							
n <sub>LL</sub>	-0.70098	0.69052	-0.0043	-0.01476	-6.12523	0.84185	-0.065812
n <sub>HL</sub>	0.12044	-0.2027	0.070338	-0.01192	1.05237	-0.24713	1.07683
n <sub>SP</sub>	-0.0187	0.67254	-0.67119	-0.01735	-0.16344	0.81993	-10.27546
Sector C							
n <sub>LL</sub>	-0.57232	0.55246	0.001232	-0.01863	-2.18268	0.76819	0.066146
n <sub>HL</sub>	0.3065	-0.34227	0.018634	-0.01714	1.16892	-0.47593	1.0003
n <sub>SP</sub>	0.026506	0.39561	-0.45679	-0.03467	0.10109	0.5501	-24.52036
Sector CR							
n <sub>LL</sub>	-0.77568	0.82171	-0.05584	-0.00981	-14.99631	0.87593	-5.49291
n <sub>HL</sub>	0.076384	-0.09679	0.013912	-0.00649	1.47675	-0.10317	1.36864
n <sub>SP</sub>	-0.2978	0.78636	-0.50828	-0.01972	-5.75737	0.83823	-50.00266
Sector E							
n <sub>LL</sub>	-0.78085	0.79191	-0.02258	-0.01152	-12.5205	0.84658	-10.23282
n <sub>HL</sub>	0.086684	-0.09631	0.003009	-0.00662	1.38993	-0.10296	1.36366
n <sub>SP</sub>	-0.60488	0.71194	-0.1307	-0.02364	-9.6989	0.76108	-59.24467
Sector HA							
n <sub>LL</sub>	-0.45576	0.39974	0.035931	-0.02009	-1.2522	0.674	0.8367
n <sub>HL</sub>	0.42995	-0.49701	0.047677	-0.01938	1.18128	-0.838	1.11024
n <sub>SP</sub>	0.30471	0.27204	-0.60592	-0.02917	0.83719	0.45868	-14.10979
Sector K							
n <sub>LL</sub>	-0.75475	0.77726	-0.03406	-0.01155	-8.22001	0.86843	-2.58732
n <sub>HL</sub>	0.1117	-0.1353	0.014677	-0.00892	1.21655	-0.15117	1.11505
n <sub>SP</sub>	-0.24862	0.72392	-0.49828	-0.02298	-2.70772	0.80883	-37.85582
Sector OS							
n <sub>LL</sub>	-0.53246	0.48723	0.02523	-0.02000	-1.98066	0.70637	0.60927
n <sub>HL</sub>	0.34541	-0.41079	0.046588	-0.01879	1.28486	-0.59556	1.12505
n <sub>SP</sub>	0.20008	0.38852	-0.61695	-0.02835	0.74425	0.56327	-14.8986
Sector Q							
n <sub>LL</sub>	-0.7643	0.78186	-0.02911	-0.01155	-8.69398	0.86686	-2.86994
n <sub>HL</sub>	0.11465	-0.13636	0.012533	-0.00918	1.30417	-0.15118	1.23578
n <sub>SP</sub>	-0.26838	0.72337	-0.47906	-0.02407	-3.05284	0.80201	-47.23626
Sector SA							
n <sub>LL</sub>	-0.60713	0.58828	0.000728	-0.01812	-2.78461	0.77173	0.036965
n <sub>HL</sub>	0.27276	-0.31281	0.023598	-0.01645	1.25102	-0.41036	1.19868
n <sub>SP</sub>	0.005164	0.46269	-0.49989	-0.03204	0.023684	0.60698	-25.392
Sector Z_2							
n <sub>LL</sub>	-0.40279	0.37266	0.012662	-0.01747	-0.85125	0.74943	0.42808
n <sub>HL</sub>	0.45198	-0.48377	0.014596	-0.01719	0.95521	-0.97288	0.49345
n <sub>SP</sub>	0.24494	0.12538	-0.40532	-0.03500	0.51766	0.25215	-13.70256
Sector Z_34							
n <sub>LL</sub>	-0.42803	0.45239	-0.03937	-0.01501	-3.1014	0.5379	-1.87841
n <sub>HL</sub>	0.15371	-0.17715	0.019529	-0.00391	1.11375	-0.21063	0.93187
n <sub>SP</sub>	-0.19229	0.33924	-0.16962	-0.02267	-1.39329	0.40337	-8.09382
Sector Z_56							
n <sub>LL</sub>	-0.5644	0.55116	-0.00541	-0.01865	-2.34326	0.73896	-0.40691
n <sub>HL</sub>	0.30514	-0.33303	0.011324	-0.01657	1.26689	-0.44651	0.85254
n <sub>SP</sub>	-0.04874	0.3531	-0.34246	-0.03810	-0.20238	0.47342	-25.78169
Sector Z_1							
n <sub>LL</sub>	-0.24344	0.23366	-	-0.00978	-2.17852	0.26305	-
n <sub>HL</sub>	0.042468	-0.04192	-	0.00055	0.38004	-0.047196	-
n <sub>SP</sub>	-	-	-	-	-	-	-

a. B = construction, C = consumer goods, CR = finance, E = energy, HA = trade & restaurants, K = capital equipment, OS = miscellaneous market services, Q = intermediate inputs, SA = health care, Z\_1 = transport by rail, Z\_2 = urban transport and transport by road, Z\_34 = transport by air and waterways, Z\_56 = logistics & communications.

### **6.5.2. Substitution between the young and the elderly within low-wage and high-wage employment**

Here, the compensated price elasticities measure the percentage impact on the employment of each age category within the same wage class of a 1% change in prices under the constraint that total employment within the same wage class is kept constant. Within each wage category, both the adding-up constraint on the compensated price elasticities and symmetry between the Allen's elasticities of substitution of young and elderly employment seem to hold well.

In general, the elderly's own-price elasticities are higher in the low-wage segment than in the high-wage segment, in most sectors upto about twice as high. The opposite is true for the young employees' own-price elasticities which tend to be higher in the high-wage segment than in the low-wage segment.

**Table 24 - Labour demand by age category within each wage category: Compensated price elasticities and Allen's elasticities of substitution by sector**

Sector <sup>a</sup>	Within low-wage employment					Type of labour	Within high-wage employment				
	Compensated elasticities			Allen's elasticities of substitution			Compensated elasticities			Allen's elasticities of substitution	
Type of labour <sup>b</sup>	w <sub>NJLL</sub>	w <sub>OWLL</sub>	Test on adding-up constraint	w <sub>NJLL</sub>	w <sub>OWLL</sub>	w <sub>NJHL</sub>	w <sub>OWHL</sub>	Test on adding-up constraint	w <sub>NJHL</sub>	w <sub>OWHL</sub>	
Sector B											
n <sub>NJLL</sub>	-0.026	0.026	-0.001	-0.028	0.448	n <sub>NJHL</sub>	-0.046	0.046	0.000	-0.057	0.244
n <sub>OWLL</sub>	0.446	-0.457	-0.011	0.473	-7.974	n <sub>OWHL</sub>	0.220	-0.228	-0.008	0.272	-1.204
Sector C											
n <sub>NJLL</sub>	-0.043	0.043	0.000	-0.049	0.331	n <sub>NJHL</sub>	-0.046	0.046	0.000	-0.057	0.241
n <sub>OWLL</sub>	0.280	-0.290	-0.010	0.322	-2.243	n <sub>OWHL</sub>	0.216	-0.224	-0.008	0.267	-1.166
Sector CR											
n <sub>NJLL</sub>	-0.036	0.036	0.000	-0.039	0.420	n <sub>NJHL</sub>	-0.040	0.041	0.001	-0.056	0.145
n <sub>OWLL</sub>	0.357	-0.368	-0.011	0.390	-4.348	n <sub>OWHL</sub>	0.121	-0.125	-0.004	0.169	-0.441
Sector E											
n <sub>NJLL</sub>	-0.023	0.022	-0.001	-0.024	0.520	n <sub>NJHL</sub>	-0.031	0.031	0.000	-0.047	0.088
n <sub>OWLL</sub>	0.465	-0.476	-0.011	0.486	-11.179	n <sub>OWHL</sub>	0.069	-0.071	-0.002	0.107	-0.201
Sector HA											
n <sub>NJLL</sub>	-0.037	0.036	0.000	-0.041	0.386	n <sub>NJHL</sub>	-0.046	0.046	0.000	-0.057	0.225
n <sub>OWLL</sub>	0.356	-0.367	-0.011	0.393	-3.896	n <sub>OWHL</sub>	0.198	-0.205	-0.007	0.249	-1.000
Sector K											
n <sub>NJLL</sub>	-0.036	0.036	0.000	-0.040	0.403	n <sub>NJHL</sub>	-0.046	0.046	0.000	-0.058	0.220
n <sub>OWLL</sub>	0.360	-0.370	-0.011	0.394	-4.184	n <sub>OWHL</sub>	0.196	-0.202	-0.007	0.247	-0.965
Sector OS											
n <sub>NJLL</sub>	-0.037	0.036	0.000	-0.040	0.407	n <sub>NJHL</sub>	-0.046	0.046	0.000	-0.056	0.251
n <sub>OWLL</sub>	0.352	-0.363	-0.011	0.387	-4.082	n <sub>OWHL</sub>	0.248	-0.257	-0.008	0.304	-1.410
Sector Q											
n <sub>NJLL</sub>	-0.038	0.038	0.000	-0.042	0.385	n <sub>NJHL</sub>	-0.045	0.046	0.001	-0.059	0.195
n <sub>OWLL</sub>	0.339	-0.350	-0.011	0.376	-3.560	n <sub>OWHL</sub>	0.175	-0.182	-0.006	0.229	-0.777
Sector SA											
n <sub>NJLL</sub>	-0.040	0.040	0.000	-0.045	0.371	n <sub>NJHL</sub>	-0.046	0.046	0.000	-0.058	0.221
n <sub>OWLL</sub>	0.315	-0.326	-0.011	0.353	-3.023	n <sub>OWHL</sub>	0.206	-0.213	-0.007	0.261	-1.016
Sector Z_2											
n <sub>NJLL</sub>	-0.043	0.044	0.001	-0.055	0.197	n <sub>NJHL</sub>	-0.042	0.043	0.001	-0.057	0.167
n <sub>OWLL</sub>	0.149	-0.155	-0.006	0.191	-0.701	n <sub>OWHL</sub>	0.138	-0.143	-0.005	0.186	-0.557
Sector Z_34											
n <sub>NJLL</sub>	-0.021	0.020	-0.001	-0.022	0.470	n <sub>NJHL</sub>	-0.045	0.045	0.000	-0.055	0.256
n <sub>OWLL</sub>	0.490	-0.501	-0.010	0.512	-11.768	n <sub>OWHL</sub>	0.267	-0.276	-0.009	0.325	-1.564
Sector Z_56											
n <sub>NJLL</sub>	-0.043	0.044	0.001	-0.053	0.228	n <sub>NJHL</sub>	-0.034	0.035	0.001	-0.046	0.139
n <sub>OWLL</sub>	0.157	-0.164	-0.007	0.194	-0.856	n <sub>OWHL</sub>	0.087	-0.091	-0.003	0.117	-0.362

a. B = construction, C = consumer goods, CR = finance, E = energy, HA = trade & restaurants, K = capital equipment, OS = miscellaneous market services, Q = intermediate inputs, SA = health care, Z\_2 = transport by road, Z\_34 = transport by air and waterways, Z\_56 = logistics & communications.

b.  $n_{i,j}$  = employment;  $w_{i,j}$  = wage cost rate;  $i$  = age = NJ (young) or OW (old);  $j$  = wage = LL (low) or HL (high).

## 6.6. The elasticity of factor proportions w.r.t. relative wage rates

Table 25 shows the elasticities of factor proportions ( $n_i/n_j$ ) w.r.t. relative wage rates ( $w_i/w_j$ ) across the three major employment categories, which were obtained by simulating the effect of an increase in one particular wage rate  $w_j$  by 10%, holding other wage rates and total employment constant. Although strictly not elasticities of substitution, these elasticities do give a good picture of the intra substitutability of labour in the conditions prevailing in 2005.

The 'elasticities of substitution' are pretty low in most sectors: still about 1.00 between LL and HL (but only 0.4 and 0.7 in Z\_1 and Z\_34) but far less for the other combinations, i.e. 0.5-0.8 between LL and SP and 0.6-1.0 between HL and SP. Substitution with SP in the energy sector and maritime transport seems particularly weak: between SP and LL as small as 0.2- 0.3 in E and Z\_34 and between SP and HL as little as 0.1-0.2 in E and Z\_34 . The implication of elasticities of substitution smaller than one is that the share in total labour cost of the factor of which the cost has risen, will rise.

**Table 25 - Elasticities of factor proportions to relative wage rates across broad labour categories**

Sector <sup>a</sup>	i=HL	i=SP	i=LL	i=SP	i=HL	i=LL
	j=LL	j=LL	j=HL	j=HL	j=SP	j=SP
B	-0.9414	-0.7766	-1.0273	-1.0053	-0.8461	-0.7582
C	-1.0101	-0.6805	-1.0292	-0.8391	-0.5344	-0.5144
CR	-0.9773	-0.5397	-1.0570	-1.0126	-0.5892	-0.5087
E	-0.9939	-0.1997	-1.0184	-0.9167	-0.1470	-0.1187
HA	-1.0186	-0.8699	-1.0319	-0.8774	-0.7419	-0.7281
K	-0.9951	-0.5719	-1.0505	-0.9848	-0.5783	-0.5221
OS	-1.0089	-0.8374	-1.0331	-0.9124	-0.7536	-0.7285
Q	-1.0100	-0.5606	-1.0571	-0.9844	-0.5533	-0.5054
SA	-1.0112	-0.6969	-1.0366	-0.8824	-0.5897	-0.5633
Z_2	-0.9815	-0.7384	-0.9836	-0.6860	-0.4694	-0.4671
Z_34	-0.6557	-0.2625	-0.7109	-0.5770	-0.2074	-0.1421
Z_56	-0.9994	-0.5835	-1.0172	-0.7850	-0.4010	-0.3817
Z_1	-0.3837	-	-0.3708	-	-	-

a. B = construction, C = consumer goods, CR = finance, E = energy, HA = trade & restaurants, K = capital equipment, OS = miscellaneous market services, Q = intermediate inputs, SA = health care, Z\_2 = transport by road, Z\_34 = transport by air and waterways, Z\_56 = logistics & communications.

## 7. Appendix: Short- and medium term impact of labour cost reducing policies in rigid and flexible real gross wage regimes

### 7.1. Without impact on real gross wages

#### 7.1.1. Across-the-board cut in employers' sscs

**Table 26 - Employers' ssc and wage subsidy rates**  
(absolute differences in percentage point with baseline)

	t	t+1	t+2	t+3	t+4	t+5
Average employers' ssc rate	-1.76	-1.77	-1.77	-1.76	-1.76	-1.75
- Compulsory contributions rate	-1.75	-1.75	-1.75	-1.74	-1.73	-1.72
- Imputed contributions rate	-0.00	-0.00	-0.00	-0.00	-0.01	-0.01
- Non-compulsory health insurance rate	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
- Second-tier pension fund contributions rate	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Average wage subsidy rate	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Employers' ssc rate - manufacturing <sup>a</sup>	-1.77	-1.78	-1.78	-1.77	-1.77	-1.76
- Low-wage earners, aged <50 years	-1.76	-1.78	-1.78	-1.78	-1.77	-1.77
- High-wage earners, aged <50 years	-1.77	-1.78	-1.78	-1.77	-1.77	-1.76
- Special-employment programmes	-1.77	-1.78	-1.78	-1.78	-1.77	-1.77
- Low-wage earners, aged >=50 years	-1.76	-1.77	-1.78	-1.77	-1.76	-1.75
- High-wage earners, aged >=50 years	-1.77	-1.78	-1.78	-1.77	-1.76	-1.76
Employers' ssc rate - tradeable services <sup>b</sup>	-1.76	-1.78	-1.78	-1.77	-1.76	-1.75
- Low-wage earners, aged <50 years	-1.76	-1.77	-1.77	-1.77	-1.76	-1.75
- High-wage earners, aged <50 years	-1.77	-1.78	-1.78	-1.77	-1.76	-1.75
- Special-employment programmes	-1.76	-1.78	-1.78	-1.77	-1.76	-1.75
- Low-wage earners, aged >=50 years	-1.76	-1.77	-1.77	-1.76	-1.75	-1.73
- High-wage earners, aged >=50 years	-1.76	-1.77	-1.77	-1.77	-1.76	-1.75
Wage subsidy rate - manufacturing	0.00	-0.00	0.00	0.00	0.00	0.00
- Low-wage earners, aged <50 years	0.00	0.00	0.00	0.00	0.00	0.00
- High-wage earners, aged <50 years	0.00	0.00	0.00	0.00	0.00	0.00
- Special-employment programmes	0.00	-0.01	0.01	0.00	0.01	0.01
- Low-wage earners, aged >=50 years	0.00	0.00	0.00	0.00	0.00	0.00
- High-wage earners, aged >=50 years	0.00	0.00	0.00	0.00	0.00	0.00
Wage subsidy rate - tradeable services	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- Low-wage earners, aged <50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- High-wage earners, aged <50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- Special-employment programmes	0.00	-0.02	0.01	0.00	0.00	0.00
- Low-wage earners, aged >=50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- High-wage earners, aged >=50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00

a. Without energy production.

b. Without construction.



**Table 27 - Macro-economic impact (differences with baseline)**

	t	t+1	t+2	t+3	t+4	t+5
<b>AGGREGATE DEMAND</b>						
(in real terms - percentage difference)						
GDP	0.11	0.17	0.21	0.24	0.26	0.28
Private consumption	0.15	0.22	0.29	0.35	0.40	0.45
Gross investment	0.03	0.06	0.10	0.15	0.19	0.24
Domestic absorption	0.11	0.16	0.21	0.26	0.29	0.33
Exports of goods and services	0.02	0.05	0.06	0.07	0.08	0.09
Imports of goods and services	0.01	0.03	0.05	0.07	0.09	0.11
p.m. Real disposable household income	0.17	0.21	0.33	0.36	0.40	0.43
<b>PRICES (percentage difference)</b>						
Private consumption price index	-0.12	-0.22	-0.29	-0.34	-0.36	-0.37
GDP-deflator	-0.20	-0.34	-0.41	-0.45	-0.47	-0.48
<b>GOVERNMENT FINANCES</b>						
Ex ante cost (millions of euro)	1639.68	1708.21	1777.34	1848.77	1923.66	2000.06
Government surplus (millions of euro)	-1210.63	-1142.92	-1300.99	-1297.94	-1349.73	-1397.91
Government surplus (% of GDP)	-0.37	-0.34	-0.37	-0.35	-0.35	-0.35
Autofinancing rate (in % of ex ante cost)	26.17	33.09	26.80	29.79	29.84	30.11
Net budgetary cost per additional job (1000 euro)	180.45	112.92	99.40	82.17	74.05	68.54
<b>LABOUR MARKET (absolute differences - in 1000)</b>						
Employment (incl. self-employed and non-market salariate)	6.71	10.12	13.09	15.80	18.23	20.40
Salariate in market	5.58	8.30	10.68	12.85	14.81	16.55
o.w. low wages - aged <50 years (*)	1.75	2.66	3.54	4.33	5.04	5.59
o.w. high wages - aged <50 years (*)	2.61	3.66	4.65	5.56	6.41	7.22
o.w. special-employment programmes (*)	0.34	0.72	0.85	0.96	1.04	1.13
o.w. low wages - aged >=50 years (*)	0.25	0.38	0.51	0.62	0.71	0.79
o.w. high wages - aged >=50 years (*)	0.64	0.89	1.14	1.37	1.58	1.78
o.w. household service vouchers	0.01	0.01	0.02	0.04	0.05	0.06
<b>LABOUR MARKET (percentage differences)</b>						
Employment (incl. self-employed and non-market salariate)	0.16	0.23	0.30	0.36	0.41	0.45
Salariate in market	0.20	0.29	0.37	0.44	0.50	0.55
o.w. low wages - aged <50 years(*)	0.21	0.32	0.42	0.51	0.58	0.64
o.w. high wages - aged <50 years(*)	0.21	0.29	0.36	0.44	0.50	0.56
o.w. special-employment programmes (*)	0.26	0.55	0.64	0.71	0.76	0.82
o.w. low wages - aged >=50 years(*)	0.18	0.25	0.31	0.36	0.40	0.42
o.w. high wages - aged >=50 years(*)	0.17	0.23	0.28	0.32	0.36	0.40
o.w. household service vouchers	0.02	0.01	0.04	0.07	0.09	0.10
<b>COMPETITIVENESS</b>						
Cash flow of firms before taxes in % of value added (absolute difference)	0.54	0.51	0.48	0.46	0.44	0.41
Real wage per head in market (percentage difference)	-1.14	-1.11	-1.11	-1.11	-1.12	-1.12
Unit wage cost in market (percentage difference)	-1.29	-1.36	-1.40	-1.41	-1.40	-1.36
<b>AGE STRUCTURE OF SALARIATE (MARKET)</b>						
Number of aged 50 or older - absolute difference - 1000 units	0.89	1.28	1.65	2.00	2.32	2.59
Number of aged 50 or older - percentage difference	0.17	0.23	0.28	0.33	0.36	0.39
Share of aged 50 or older in salariate in % - absolute difference	-0.01	-0.01	-0.02	-0.02	-0.03	-0.03

**Table 28 - Impact on government finances** (*differences in millions of euro with baseline*)

	t	t+1	t+2	t+3	t+4	t+5
1. Receipts	-1282.46	-1473.16	-1500.27	-1575.32	-1620.64	-1649.85
A. Fiscal and parafiscal receipts	-1275.81	-1458.96	-1481.19	-1552.85	-1595.84	-1623.70
1. Fiscal receipts	303.75	218.38	257.22	251.86	266.48	293.00
a. Taxes on income from labour, profits, assets and transfers	327.72	261.46	306.52	300.41	310.50	327.05
Households	38.46	-9.14	43.12	40.15	53.17	71.25
Corporations	289.45	270.95	263.81	260.73	257.81	256.29
Other	-0.19	-0.35	-0.42	-0.47	-0.48	-0.48
b. Production and import taxes	-20.99	-37.31	-41.97	-39.92	-34.36	-23.80
c. Wealth taxes	-2.98	-5.77	-7.33	-8.63	-9.66	-10.25
2. Social security contributions	-1579.55	-1677.33	-1738.41	-1804.70	-1862.32	-1916.70
B. Securitization of uncollected taxes	0.00	0.00	0.00	0.00	0.00	0.00
C. Other receipts	-6.66	-14.25	-19.17	-22.58	-24.93	-26.29
2. Expenditure	-71.83	-330.24	-199.27	-277.38	-270.89	-251.92
A. Primary expenditure	-75.20	-375.69	-297.25	-433.07	-486.59	-530.40
a. Current expenditure	-65.92	-358.11	-273.41	-404.48	-452.76	-493.51
1. Wage bill	-12.86	-80.90	-80.79	-86.90	-90.87	-94.53
2. Intermediate consumption	-0.30	-12.16	-21.18	-27.88	-32.52	-35.32
3. Subsidies	1.18	-3.56	-5.20	-7.66	-8.52	-8.58
of which wage subsidies	1.18	0.63	1.43	1.25	1.80	2.54
4. Social benefits	-53.95	-255.56	-159.18	-271.71	-308.87	-342.08
of which unemployment benefits	-56.39	-101.57	-105.14	-138.41	-160.84	-182.84
5. Other transfers	0.00	-5.97	-7.12	-10.42	-12.10	-13.12
b. Capital expenditure	-9.28	-17.58	-23.84	-28.59	-33.83	-36.89
B. Interest payments	3.36	45.44	97.96	155.66	215.67	278.44
3. Surplus	-1210.63	-1142.92	-1300.99	-1297.94	-1349.73	-1397.91
in % of GDP	-0.37	-0.34	-0.37	-0.35	-0.35	-0.35
4. Primary surplus	-1207.27	-1097.47	-1203.04	-1142.27	-1134.05	-1119.47

### 7.1.2. Cut in employers' sscs targeting young low-wage earning employment

**Table 29 - Employers' ssc and wage subsidy rates**  
(absolute differences in percentage point with baseline)

	t	t+1	t+2	t+3	t+4	t+5
Average employers' ssc rate	-1.79	-1.80	-1.83	-1.85	-1.86	-1.85
- Compulsory contributions rate	-1.78	-1.79	-1.81	-1.83	-1.84	-1.83
- Imputed contributions rate	-0.00	-0.00	-0.01	-0.01	-0.01	-0.02
- Non-compulsory health insurance rate	-0.00	-0.01	-0.01	-0.00	-0.00	-0.00
- Second-tier pension fund contributions rate	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Average wage subsidy rate	-0.00	-0.00	0.00	0.00	0.01	0.00
Employers' ssc rate - manufacturing <sup>a</sup>	-1.19	-1.20	-1.22	-1.23	-1.24	-1.24
- Low-wage earners, aged <50 years	-9.72	-9.83	-9.93	-10.00	-10.07	-10.08
- High-wage earners, aged <50 years	0.00	-0.00	0.01	0.02	0.03	0.02
- Special-employment programmes	-0.00	-0.01	-0.03	-0.04	-0.06	-0.07
- Low-wage earners, aged >=50 years	-0.01	-0.01	-0.04	-0.07	-0.10	-0.10
- High-wage earners, aged >=50 years	0.00	-0.00	0.00	0.01	0.01	0.01
Employers' ssc rate - tradeable services <sup>b</sup>	-2.13	-2.13	-2.16	-2.18	-2.19	-2.17
- Low-wage earners, aged <50 years	-9.72	-9.82	-9.91	-9.96	-10.01	-10.01
- High-wage earners, aged <50 years	0.01	0.00	0.02	0.04	0.07	0.06
- Special-employment programmes	0.00	0.00	0.01	0.02	0.03	0.03
- Low-wage earners, aged >=50 years	-0.01	-0.00	-0.03	-0.05	-0.06	-0.06
- High-wage earners, aged >=50 years	0.00	-0.00	0.01	0.01	0.02	0.01
Wage subsidy rate - manufacturing	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- Low-wage earners, aged <50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- High-wage earners, aged <50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- Special-employment programmes	-0.00	-0.01	0.01	-0.01	0.00	0.00
- Low-wage earners, aged >=50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- High-wage earners, aged >=50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Wage subsidy rate - tradeable services	-0.00	-0.00	0.00	0.00	0.01	0.00
- Low-wage earners, aged <50 years	-0.02	-0.02	-0.04	-0.05	-0.06	-0.06
- High-wage earners, aged <50 years	0.00	0.00	0.01	0.01	0.02	0.02
- Special-employment programmes	0.00	-0.01	0.02	0.00	0.02	0.01
- Low-wage earners, aged >=50 years	-0.01	-0.00	-0.00	-0.01	-0.01	-0.01
- High-wage earners, aged >=50 years	0.00	0.00	0.00	0.00	0.00	0.00

a. Without energy production.

b. Without construction.

**Table 30 - Macro-economic impact (differences with baseline)**

	t	t+1	t+2	t+3	t+4	t+5
<b>AGGREGATE DEMAND</b>						
(in real terms - percentage difference)						
GDP	0.12	0.18	0.24	0.29	0.34	0.37
Private consumption	0.17	0.26	0.36	0.45	0.54	0.60
Gross investment	0.03	0.03	0.07	0.10	0.12	0.16
Domestic absorption	0.12	0.17	0.25	0.30	0.36	0.40
Exports of goods and services	0.02	0.05	0.07	0.09	0.11	0.12
Imports of goods and services	0.02	0.04	0.06	0.08	0.10	0.12
p.m. Real disposable household income	0.16	0.21	0.30	0.27	0.34	0.35
<b>PRICES (percentage difference)</b>						
Private consumption price index	-0.16	-0.27	-0.38	-0.48	-0.56	-0.62
GDP-deflator	-0.22	-0.36	-0.48	-0.61	-0.68	-0.75
<b>GOVERNMENT FINANCES</b>						
Ex ante cost (millions of euro)	1639.68	1708.21	1777.34	1848.77	1923.66	2000.06
Government surplus (millions of euro)	-1301.26	-1233.90	-1486.90	-1503.24	-1772.47	-1732.03
Government surplus (% of GDP)	-0.40	-0.36	-0.42	-0.41	-0.46	-0.43
Autofinancing rate (in % of ex ante cost)	20.64	27.77	16.34	18.69	7.86	13.40
Net budgetary cost per additional job (1000 euro)	160.34	96.93	83.43	64.63	61.01	51.42
<b>LABOUR MARKET (absolute differences - in 1000)</b>						
Employment (incl. self-employed and non-market salariate)	8.12	12.73	17.82	23.26	29.05	33.68
Salariate in market	6.49	10.03	14.04	18.20	22.66	26.19
o.w. low wages - aged <50 years (*)	10.67	12.79	23.04	33.58	44.36	46.00
o.w. high wages - aged <50 years (*)	-4.01	-2.66	-8.05	-13.54	-18.99	-17.74
o.w. special-employment programmes (*)	-0.03	0.17	-0.04	-0.28	-0.52	-0.34
o.w. low wages - aged >=50 years (*)	0.82	0.37	1.01	1.66	2.32	2.48
o.w. high wages - aged >=50 years (*)	-0.98	-0.67	-1.98	-3.31	-4.63	-4.34
o.w. household service vouchers	0.01	0.01	0.03	0.06	0.08	0.09
<b>LABOUR MARKET (percentage differences)</b>						
Employment (incl. self-employed and non-market salariate)	0.19	0.29	0.40	0.52	0.65	0.75
Salariate in market	0.23	0.35	0.48	0.62	0.76	0.87
o.w. low wages - aged <50 years(*)	1.28	1.52	2.69	3.86	5.03	5.18
o.w. high wages - aged <50 years(*)	-0.32	-0.21	-0.63	-1.07	-1.50	-1.39
o.w. special-employment programmes (*)	-0.02	0.13	-0.03	-0.21	-0.38	-0.25
o.w. low wages - aged >=50 years(*)	0.57	0.25	0.63	0.97	1.28	1.31
o.w. high wages - aged >=50 years(*)	-0.26	-0.17	-0.49	-0.79	-1.07	-0.97
o.w. household service vouchers	0.02	0.01	0.06	0.10	0.14	0.15
<b>COMPETITIVENESS</b>						
Cash flow of firms before taxes in % of value added (absolute difference)	0.65	0.61	0.67	0.73	0.79	0.74
Real wage per head in market (percentage difference)	-1.36	-1.33	-1.54	-1.74	-1.98	-1.97
Unit wage cost in market (percentage difference)	-1.49	-1.54	-1.81	-2.05	-2.27	-2.24
<b>AGE STRUCTURE OF SALARIATE (MARKET)</b>						
Number of aged 50 or older - absolute difference - 1000 units	-0.16	-0.29	-0.94	-1.62	-2.27	-1.81
Number of aged 50 or older - percentage difference	-0.03	-0.05	-0.16	-0.26	-0.36	-0.28
Share of aged 50 or older in salariate in % - absolute difference	-0.05	-0.08	-0.13	-0.18	-0.23	-0.24

**Table 31 - Impact on government finances** (*differences in millions of euro with baseline*)

	t	t+1	t+2	t+3	t+4	t+5
1. Receipts	-1399.68	-1605.75	-1767.45	-2091.07	-2253.29	-2429.07
A. Fiscal and parafiscal receipts	-1391.70	-1589.07	-1743.43	-2059.68	-2215.14	-2385.78
1. Fiscal receipts	275.00	174.86	179.32	69.72	59.67	-6.36
a. Taxes on income from labour, profits, assets and transfers	301.03	220.73	237.52	144.17	144.73	85.29
Households	-31.75	-84.78	-110.03	-244.51	-291.53	-334.03
Corporations	332.99	305.89	348.06	389.38	437.04	420.23
Other	-0.21	-0.38	-0.51	-0.70	-0.78	-0.91
b. Production and import taxes	-22.81	-39.58	-49.35	-61.53	-69.57	-72.33
c. Wealth taxes	-3.23	-6.29	-8.86	-12.92	-15.49	-19.33
2. Social security contributions	-1666.70	-1763.93	-1922.74	-2129.40	-2274.81	-2379.42
B. Securitization of uncollected taxes	0.00	0.00	0.00	0.00	0.00	0.00
C. Other receipts	-7.98	-16.73	-24.13	-31.56	-38.37	-43.54
2. Expenditure	-98.42	-371.84	-280.54	-587.83	-480.80	-697.04
A. Primary expenditure	-101.26	-418.62	-382.53	-752.07	-711.40	-1002.74
a. Current expenditure	-94.25	-402.68	-357.51	-717.64	-665.68	-948.97
1. Wage bill	-25.99	-94.45	-97.64	-175.40	-116.09	-194.19
2. Intermediate consumption	-0.38	-14.52	-28.07	-41.68	-55.04	-64.78
3. Subsidies	-0.44	-6.74	-11.92	-19.63	-25.20	-28.66
of which wage subsidies	-0.44	-1.83	-3.12	-6.18	-7.85	-8.17
4. Social benefits	-67.44	-280.23	-210.52	-464.84	-449.63	-637.11
of which unemployment benefits	-67.57	-121.11	-140.80	-205.70	-246.80	-303.65
5. Other transfers	0.00	-6.78	-9.46	-16.22	-19.93	-24.46
b. Capital expenditure	-7.00	-15.94	-25.01	-34.44	-45.72	-53.77
B. Interest payments	2.83	46.76	101.96	164.20	230.55	305.64
3. Surplus	-1301.26	-1233.90	-1486.90	-1503.24	-1772.47	-1732.03
in % of GDP	-0.40	-0.36	-0.42	-0.41	-0.46	-0.43
4. Primary surplus	-1298.42	-1187.14	-1384.94	-1339.04	-1541.92	-1426.38

## 7.1.3. Cut in employers' sscs targeting elderly employment

**Table 32 - Employers' ssc and wage subsidy rates**  
(absolute differences in percentage point with baseline)

	t	t+1	t+2	t+3	t+4	t+5
Average employers' ssc rate	-1.76	-1.77	-1.78	-1.77	-1.77	-1.76
- Compulsory contributions rate	-1.75	-1.76	-1.76	-1.75	-1.74	-1.73
- Imputed contributions rate	0.00	0.00	-0.00	-0.00	-0.00	-0.01
- Non-compulsory health insurance rate	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02
- Second-tier pension fund contributions rate	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Average wage subsidy rate	-0.00	-0.01	-0.01	-0.01	-0.01	-0.01
Employers' ssc rate - manufacturing <sup>a</sup>	-1.79	-1.79	-1.79	-1.78	-1.76	-1.74
- Low-wage earners, aged <50 years	-0.00	-0.01	-0.01	-0.00	-0.00	-0.01
- High-wage earners, aged <50 years	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02
- Special-employment programmes	-0.00	-0.01	-0.01	-0.00	-0.00	-0.01
- Low-wage earners, aged >=50 years	-8.47	-8.26	-8.04	-7.80	-7.60	-7.41
- High-wage earners, aged >=50 years	-8.47	-8.26	-8.04	-7.80	-7.60	-7.42
Employers' ssc rate - tradeable services <sup>b</sup>	-1.76	-1.78	-1.79	-1.79	-1.78	-1.78
- Low-wage earners, aged <50 years	-0.00	-0.00	-0.00	0.00	0.01	0.01
- High-wage earners, aged <50 years	-0.01	-0.01	-0.02	-0.02	-0.02	-0.02
- Special-employment programmes	-0.00	-0.00	-0.00	0.00	0.01	0.01
- Low-wage earners, aged >=50 years	-8.46	-8.25	-8.02	-7.78	-7.57	-7.37
- High-wage earners, aged >=50 years	-8.47	-8.25	-8.03	-7.79	-7.59	-7.40
Wage subsidy rate - manufacturing	0.00	-0.00	0.00	0.00	0.00	0.00
- Low-wage earners, aged <50 years	0.00	0.00	0.00	0.00	0.00	0.00
- High-wage earners, aged <50 years	0.00	0.00	0.00	0.00	0.00	0.00
- Special-employment programmes	0.00	-0.01	0.01	0.00	0.00	0.01
- Low-wage earners, aged >=50 years	0.00	0.00	0.00	0.00	0.00	0.00
- High-wage earners, aged >=50 years	0.00	0.00	0.00	0.00	0.00	0.00
Wage subsidy rate - tradeable services	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- Low-wage earners, aged <50 years	-0.00	-0.00	0.00	0.00	0.00	0.00
- High-wage earners, aged <50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- Special-employment programmes	0.00	-0.02	0.01	-0.00	0.00	0.00
- Low-wage earners, aged >=50 years	-0.00	-0.01	-0.01	-0.01	-0.01	-0.01
- High-wage earners, aged >=50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00

a. Without energy production.

b. Without construction.

**Table 33 - Macro-economic impact (differences with baseline)**

	t	t+1	t+2	t+3	t+4	t+5
<b>AGGREGATE DEMAND</b>						
(in real terms - percentage difference)						
GDP	0.10	0.16	0.19	0.22	0.24	0.25
Private consumption	0.14	0.20	0.27	0.32	0.36	0.40
Gross investment	0.03	0.05	0.09	0.14	0.17	0.22
Domestic absorption	0.10	0.15	0.19	0.24	0.27	0.30
Exports of goods and services	0.02	0.04	0.06	0.07	0.08	0.08
Imports of goods and services	0.01	0.03	0.05	0.07	0.09	0.10
p.m. Real disposable household income	0.16	0.20	0.31	0.35	0.39	0.42
<b>PRICES (percentage difference)</b>						
Private consumption price index	-0.11	-0.21	-0.27	-0.31	-0.32	-0.33
GDP-deflator	-0.20	-0.32	-0.39	-0.42	-0.43	-0.43
<b>GOVERNMENT FINANCES</b>						
Ex ante cost (millions of euro)	1639.68	1708.21	1777.34	1848.77	1923.66	2000.06
Government surplus (millions of euro)	-1211.94	-1148.88	-1302.85	-1293.58	-1339.41	-1391.44
Government surplus (% of GDP)	-0.37	-0.34	-0.37	-0.35	-0.35	-0.35
Autofinancing rate (in % of ex ante cost)	26.09	32.74	26.70	30.03	30.37	30.43
Net budgetary cost per additional job (1000 euro)	200.32	127.01	112.71	93.91	85.35	79.72
<b>LABOUR MARKET (absolute differences - in 1000)</b>						
Employment (incl. self-employed and non-market salariate)	6.05	9.05	11.56	13.77	15.69	17.45
Salariate in market	5.18	7.67	9.75	11.60	13.21	14.69
o.w. low wages - aged <50 years (*)	0.33	0.66	0.17	-0.38	-0.98	-0.42
o.w. high wages - aged <50 years (*)	2.41	2.66	3.52	4.29	4.98	5.70
o.w. special-employment programmes (*)	0.07	0.18	0.07	-0.06	-0.21	-0.15
o.w. low wages - aged >=50 years (*)	0.69	1.36	1.92	2.45	2.96	2.97
o.w. high wages - aged >=50 years (*)	1.66	2.78	4.02	5.23	6.38	6.50
o.w. household service vouchers	0.01	0.01	0.02	0.04	0.05	0.06
<b>LABOUR MARKET (percentage differences)</b>						
Employment (incl. self-employed and non-market salariate)	0.14	0.21	0.26	0.31	0.35	0.39
Salariate in market	0.18	0.27	0.33	0.39	0.44	0.49
o.w. low wages - aged <50 years(*)	0.04	0.08	0.02	-0.04	-0.11	-0.05
o.w. high wages - aged <50 years(*)	0.19	0.21	0.28	0.34	0.39	0.44
o.w. special-employment programmes (*)	0.06	0.14	0.06	-0.04	-0.15	-0.11
o.w. low wages - aged >=50 years(*)	0.48	0.89	1.18	1.43	1.63	1.57
o.w. high wages - aged >=50 years(*)	0.44	0.71	0.98	1.23	1.45	1.43
o.w. household service vouchers	0.02	0.01	0.04	0.06	0.08	0.09
<b>COMPETITIVENESS</b>						
Cash flow of firms before taxes in % of value added (absolute difference)	0.53	0.50	0.47	0.44	0.41	0.39
Real wage per head in market (percentage difference)	-1.13	-1.09	-1.07	-1.05	-1.04	-1.04
Unit wage cost in market (percentage difference)	-1.27	-1.34	-1.36	-1.35	-1.32	-1.29
<b>AGE STRUCTURE OF SALARIATE (MARKET)</b>						
Number of aged 50 or older - absolute difference - 1000 units	2.36	4.14	5.95	7.70	9.37	9.51
Number of aged 50 or older - percentage difference	0.44	0.74	1.01	1.25	1.46	1.43
Share of aged 50 or older in salariate in % - absolute difference	0.05	0.09	0.14	0.18	0.22	0.21

**Table 34 - Impact on government finances** (*differences in millions of euro with baseline*)

	t	t+1	t+2	t+3	t+4	t+5
1. Receipts	-1283.11	-1476.50	-1495.04	-1558.63	-1592.29	-1619.55
A. Fiscal and para-fiscal receipts	-1276.85	-1463.23	-1477.51	-1538.35	-1570.29	-1596.59
1. Fiscal receipts	301.12	215.00	256.29	255.67	275.93	304.48
a. Taxes on income from labour, profits, assets and transfers	327.56	261.41	308.31	305.53	319.58	337.22
Households	41.93	-5.40	53.34	57.86	78.57	95.84
Corporations	285.82	267.15	255.37	248.11	241.45	241.82
Other	-0.19	-0.35	-0.41	-0.45	-0.45	-0.45
b. Production and import taxes	-23.46	-40.67	-44.85	-41.59	-34.60	-23.26
c. Wealth taxes	-2.98	-5.74	-7.16	-8.26	-9.05	-9.48
2. Social security contributions	-1577.97	-1678.23	-1733.80	-1794.02	-1846.22	-1901.07
B. Securitization of uncollected taxes	0.00	0.00	0.00	0.00	0.00	0.00
C. Other receipts	-6.26	-13.31	-17.61	-20.38	-22.11	-23.07
2. Expenditure	-71.17	-327.60	-192.19	-265.05	-252.87	-228.11
A. Primary expenditure	-74.67	-372.84	-289.54	-419.40	-466.06	-502.56
a. Current expenditure	-66.61	-357.26	-268.60	-394.67	-437.38	-471.71
1. Wage bill	-16.14	-84.61	-84.70	-90.99	-95.08	-99.02
2. Intermediate consumption	-0.28	-11.24	-19.22	-24.76	-28.27	-30.33
3. Subsidies	1.01	-3.65	-5.02	-7.19	-7.79	-7.70
of which wage subsidies	1.01	0.26	1.00	0.75	1.20	1.88
4. Social benefits	-51.20	-252.12	-153.27	-262.47	-295.70	-323.38
of which unemployment benefits	-53.73	-98.59	-101.38	-133.45	-154.23	-172.12
5. Other transfers	0.00	-5.67	-6.46	-9.35	-10.63	-11.39
b. Capital expenditure	-8.06	-15.58	-20.94	-24.73	-28.69	-30.84
B. Interest payments	3.50	45.22	97.33	154.33	213.17	274.42
3. Surplus	-1211.94	-1148.88	-1302.85	-1293.58	-1339.41	-1391.44
in % of GDP	-0.37	-0.34	-0.37	-0.35	-0.35	-0.35
4. Primary surplus	-1208.44	-1103.67	-1205.52	-1139.25	-1126.24	-1117.02



### 7.1.4. Increase in work-in-shifts wage subsidies

**Table 35 - Employers' ssc and wage subsidy rates**  
(absolute differences in percentage point with baseline)

	t	t+1	t+2	t+3	t+4	t+5
Average employers' ssc rate	0.00	0.00	0.00	0.00	0.00	-0.00
- Compulsory contributions rate	0.00	0.00	0.00	0.00	0.01	0.01
- Imputed contributions rate	0.00	0.00	-0.00	-0.00	-0.01	-0.01
- Non-compulsory health insurance rate	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- Second-tier pension fund contributions rate	0.00	0.00	0.00	0.00	0.00	0.00
Average wage subsidy rate	1.75	1.76	1.76	1.75	1.75	1.74
Employers' ssc rate - manufacturing <sup>a</sup>	-0.00	-0.01	-0.02	-0.03	-0.05	-0.06
- Low-wage earners, aged <50 years	-0.00	-0.01	-0.02	-0.04	-0.06	-0.08
- High-wage earners, aged <50 years	-0.00	-0.01	-0.02	-0.04	-0.05	-0.07
- Special-employment programmes	0.01	0.00	0.02	0.03	0.04	0.03
- Low-wage earners, aged >=50 years	-0.00	-0.00	-0.02	-0.03	-0.04	-0.05
- High-wage earners, aged >=50 years	-0.00	-0.01	-0.02	-0.03	-0.04	-0.05
Employers' ssc rate - tradeable services <sup>b</sup>	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- Low-wage earners, aged <50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- High-wage earners, aged <50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- Special-employment programmes	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- Low-wage earners, aged >=50 years	-0.00	-0.00	-0.00	-0.00	0.00	0.00
- High-wage earners, aged >=50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Wage subsidy rate - manufacturing	7.14	7.34	7.49	7.60	7.71	7.81
- Low-wage earners, aged <50 years	7.24	7.44	7.59	7.71	7.82	7.92
- High-wage earners, aged <50 years	7.24	7.44	7.59	7.71	7.82	7.92
- Special-employment programmes	0.00	-0.00	0.01	0.01	0.01	0.01
- Low-wage earners, aged >=50 years	7.24	7.44	7.59	7.71	7.82	7.92
- High-wage earners, aged >=50 years	7.24	7.44	7.59	7.71	7.82	7.92
Wage subsidy rate - tradeable services	-0.00	-0.00	0.00	0.00	0.00	0.00
- Low-wage earners, aged <50 years	-0.00	0.00	0.00	0.00	0.00	0.00
- High-wage earners, aged <50 years	-0.00	0.00	0.00	0.00	0.00	0.00
- Special-employment programmes	-0.00	-0.01	0.01	-0.00	-0.00	-0.00
- Low-wage earners, aged >=50 years	-0.00	0.00	0.00	0.00	0.00	0.00
- High-wage earners, aged >=50 years	-0.00	0.00	0.00	0.00	0.00	0.00

a. Without energy production.

b. Without construction.

**Table 36 - Macro-economic impact (differences with baseline)**

	t	t+1	t+2	t+3	t+4	t+5
<b>AGGREGATE DEMAND</b>						
(in real terms - percentage difference)						
GDP	0.14	0.22	0.26	0.28	0.29	0.30
Private consumption	0.04	0.10	0.16	0.22	0.28	0.33
Gross investment	0.04	0.04	0.05	0.07	0.07	0.14
Domestic absorption	0.04	0.07	0.11	0.14	0.17	0.21
Exports of goods and services	0.04	0.11	0.14	0.16	0.17	0.17
Imports of goods and services	-0.08	-0.05	-0.03	-0.01	0.01	0.03
p.m. Real disposable household income	0.08	0.13	0.24	0.26	0.30	0.34
<b>PRICES (percentage difference)</b>						
Private consumption price index	-0.09	-0.17	-0.23	-0.26	-0.28	-0.28
GDP-deflator	-0.30	-0.46	-0.51	-0.57	-0.58	-0.57
<b>GOVERNMENT FINANCES</b>						
Ex ante cost (millions of euro)	1639.68	1708.21	1777.34	1848.77	1923.66	2000.06
Government surplus (millions of euro)	-1322.51	-1353.14	-1533.51	-1519.00	-1587.04	-1645.86
Government surplus (% of GDP)	-0.40	-0.40	-0.43	-0.41	-0.41	-0.41
Autofinancing rate (in % of ex ante cost)	19.34	20.79	13.72	17.84	17.50	17.71
Net budgetary cost per additional job (1000 euro)	962.01	409.18	275.52	191.44	153.21	131.09
<b>LABOUR MARKET (absolute differences - in 1000)</b>						
Employment (incl. self-employed and non-market salariate)	1.37	3.31	5.57	7.93	10.36	12.55
Salariate in market	1.22	2.96	5.02	7.21	9.47	11.51
o.w. low wages - aged <50 years (*)	0.40	0.92	1.51	2.13	2.76	3.30
o.w. high wages - aged <50 years (*)	0.64	1.49	2.55	3.69	4.88	5.95
o.w. special-employment programmes (*)	-0.04	0.01	0.02	0.03	0.04	0.12
o.w. low wages - aged >=50 years (*)	0.07	0.15	0.25	0.35	0.46	0.55
o.w. high wages - aged >=50 years (*)	0.16	0.37	0.64	0.92	1.22	1.48
o.w. household service vouchers	-0.02	-0.02	-0.00	0.01	0.02	0.02
<b>LABOUR MARKET (percentage differences)</b>						
Employment (incl. self-employed and non-market salariate)	0.03	0.08	0.13	0.18	0.23	0.28
Salariate in market	0.04	0.10	0.17	0.24	0.32	0.38
o.w. low wages - aged <50 years(*)	0.05	0.11	0.18	0.25	0.32	0.38
o.w. high wages - aged <50 years(*)	0.05	0.12	0.20	0.29	0.38	0.46
o.w. special-employment programmes (*)	-0.03	0.01	0.02	0.03	0.03	0.08
o.w. low wages - aged >=50 years(*)	0.05	0.10	0.15	0.21	0.26	0.29
o.w. high wages - aged >=50 years(*)	0.04	0.09	0.16	0.22	0.28	0.33
o.w. household service vouchers	-0.03	-0.03	-0.01	0.01	0.03	0.04
<b>COMPETITIVENESS</b>						
Cash flow of firms before taxes in % of value added (absolute difference)	0.56	0.52	0.47	0.43	0.40	0.37
Real wage per head in market (percentage difference)	-1.03	-0.95	-0.94	-0.92	-0.92	-0.92
Unit wage cost in market (percentage difference)	-1.45	-1.56	-1.60	-1.59	-1.56	-1.51
<b>AGE STRUCTURE OF SALARIATE (MARKET)</b>						
Number of aged 50 or older - absolute difference - 1000 units	0.22	0.52	0.89	1.29	1.71	2.06
Number of aged 50 or older - percentage difference	0.04	0.09	0.15	0.21	0.27	0.31
Share of aged 50 or older in salariate in % - absolute difference	0.00	-0.00	-0.00	-0.01	-0.01	-0.01

**Table 37 - Impact on government finances** (*differences in millions of euro with baseline*)

	t	t+1	t+2	t+3	t+4	t+5
1. Receipts	307.09	194.39	254.58	200.26	239.97	305.70
A. Fiscal and parafiscal receipts	312.92	206.05	270.09	218.52	259.22	324.55
1. Fiscal receipts	295.73	217.93	248.93	211.13	225.01	258.87
a. Taxes on income from labour, profits, assets and transfers	334.18	281.39	318.44	280.66	285.53	302.46
Households	19.37	-11.06	40.40	19.42	37.54	61.03
Corporations	315.11	292.95	278.59	261.88	248.66	242.07
Other	-0.31	-0.50	-0.55	-0.65	-0.67	-0.64
b. Production and import taxes	-33.63	-55.19	-59.90	-57.44	-47.29	-29.98
c. Wealth taxes	-4.82	-8.27	-9.61	-12.09	-13.23	-13.61
2. Social security contributions	17.19	-11.88	21.16	7.39	34.21	65.68
B. Securitization of uncollected taxes	0.00	0.00	0.00	0.00	0.00	0.00
C. Other receipts	-5.83	-11.69	-15.57	-18.35	-19.35	-18.95
2. Expenditure	1629.60	1547.54	1788.11	1719.27	1827.02	1951.57
A. Primary expenditure	1624.02	1488.15	1674.43	1537.90	1578.94	1631.70
a. Current expenditure	1631.68	1504.06	1695.97	1563.32	1607.96	1661.92
1. Wage bill	-0.63	-66.00	-3.43	-72.18	-75.29	-78.06
2. Intermediate consumption	-0.22	-9.96	-17.44	-22.65	-25.58	-26.57
3. Subsidies	1643.43	1711.71	1784.15	1860.08	1942.80	2027.63
of which wage subsidies	1643.43	1715.01	1789.63	1867.37	1950.96	2036.06
4. Social benefits	-10.90	-127.47	-61.54	-193.35	-224.33	-251.04
of which unemployment benefits	-11.52	-35.21	-41.96	-70.86	-91.18	-111.09
5. Other transfers	0.00	-4.25	-5.83	-8.65	-9.74	-10.15
b. Capital expenditure	-7.66	-15.92	-21.53	-25.43	-29.02	-30.22
B. Interest payments	5.58	59.38	113.66	181.35	248.06	319.85
3. Surplus	-1322.51	-1353.14	-1533.51	-1519.00	-1587.04	-1645.86
in % of GDP	-0.40	-0.40	-0.43	-0.41	-0.41	-0.41
4. Primary surplus	-1316.93	-1293.76	-1419.85	-1337.66	-1338.98	-1326.01

## 7.2. Flexible real gross wages

### 7.2.1. Across-the-board cut in employers' sscs

**Table 38 - Employers' ssc and wage subsidy rates**  
(absolute differences in percentage point with baseline)

	t	t+1	t+2	t+3	t+4	t+5
Average employers' ssc rate	-1.73	-1.72	-1.72	-1.70	-1.69	-1.67
- Compulsory contributions rate	-1.72	-1.71	-1.70	-1.69	-1.67	-1.65
- Imputed contributions rate	-0.00	-0.00	-0.00	-0.00	-0.01	-0.01
- Non-compulsory health insurance rate	-0.01	-0.01	-0.01	-0.01	-0.01	-0.02
- Second-tier pension fund contributions rate	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Average wage subsidy rate	-0.00	-0.00	-0.01	-0.01	-0.01	-0.01
Employers' ssc rate - manufacturing <sup>a</sup>	-1.74	-1.73	-1.73	-1.71	-1.70	-1.68
- Low-wage earners, aged <50 years	-1.74	-1.73	-1.73	-1.71	-1.70	-1.69
- High-wage earners, aged <50 years	-1.74	-1.73	-1.73	-1.71	-1.70	-1.69
- Special-employment programmes	-1.74	-1.74	-1.73	-1.72	-1.70	-1.69
- Low-wage earners, aged ≥50 years	-1.74	-1.73	-1.72	-1.71	-1.69	-1.68
- High-wage earners, aged ≥50 years	-1.74	-1.73	-1.72	-1.71	-1.69	-1.68
Employers' ssc rate - tradeable services <sup>b</sup>	-1.74	-1.73	-1.72	-1.71	-1.70	-1.68
- Low-wage earners, aged <50 years	-1.74	-1.73	-1.72	-1.71	-1.70	-1.68
- High-wage earners, aged <50 years	-1.74	-1.73	-1.73	-1.71	-1.70	-1.68
- Special-employment programmes	-1.74	-1.73	-1.73	-1.71	-1.70	-1.68
- Low-wage earners, aged ≥50 years	-1.74	-1.73	-1.72	-1.70	-1.68	-1.66
- High-wage earners, aged ≥50 years	-1.74	-1.73	-1.72	-1.70	-1.69	-1.67
Wage subsidy rate - manufacturing	-0.00	-0.00	0.00	0.00	0.00	0.00
- Low-wage earners, aged <50 years	0.00	0.00	0.00	0.00	0.00	0.00
- High-wage earners, aged <50 years	0.00	0.00	0.00	0.00	0.00	0.00
- Special-employment programmes	-0.00	-0.01	-0.00	-0.00	0.00	0.00
- Low-wage earners, aged ≥50 years	0.00	0.00	0.00	0.00	0.00	0.00
- High-wage earners, aged ≥50 years	0.00	0.00	0.00	0.00	0.00	0.00
Wage subsidy rate - tradeable services	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- Low-wage earners, aged <50 years	-0.00	-0.00	-0.01	-0.01	-0.01	-0.01
- High-wage earners, aged <50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- Special-employment programmes	-0.00	-0.01	-0.01	-0.01	-0.01	-0.02
- Low-wage earners, aged ≥50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- High-wage earners, aged ≥50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00

a. Without energy production.

b. Without construction.

**Table 39 - Macro-economic impact (differences with baseline)**

	t	t+1	t+2	t+3	t+4	t+5
<b>AGGREGATE DEMAND</b>						
(in real terms - percentage difference)						
GDP	0.10	0.16	0.21	0.23	0.25	0.26
Private consumption	0.15	0.23	0.29	0.35	0.40	0.44
Gross investment	0.03	0.06	0.12	0.17	0.22	0.28
Domestic absorption	0.10	0.16	0.21	0.25	0.29	0.33
Exports of goods and services	0.02	0.04	0.06	0.07	0.07	0.08
Imports of goods and services	0.01	0.03	0.05	0.07	0.09	0.11
p.m. Real disposable household income	0.18	0.25	0.32	0.38	0.43	0.48
<b>PRICES (percentage difference)</b>						
Private consumption price index	-0.12	-0.21	-0.27	-0.30	-0.31	-0.30
GDP-deflator	-0.20	-0.32	-0.38	-0.42	-0.42	-0.41
<b>GOVERNMENT FINANCES</b>						
Ex ante cost (millions of euro)	1642.93	1716.17	1790.42	1866.18	1945.91	2026.88
Government surplus (millions of euro)	-1197.98	-1164.86	-1204.75	-1233.50	-1244.27	-1238.47
Government surplus (% of GDP)	-0.36	-0.34	-0.34	-0.33	-0.32	-0.30
Autofinancing rate (in % of ex ante cost)	27.08	32.12	32.71	33.90	36.06	38.90
Net budgetary cost per additional job (1000 euro)	184.34	118.90	96.49	83.41	74.47	68.06
<b>LABOUR MARKET (absolute differences - in 1000)</b>						
Employment (incl. self-employed and non-market salariate)	6.50	9.80	12.49	14.79	16.71	18.20
Salariate in market	5.41	8.09	10.31	12.20	13.81	15.07
o.w. low wages - aged <50 years (*)	1.68	2.54	3.32	3.98	4.53	4.88
o.w. high wages - aged <50 years (*)	2.55	3.61	4.57	5.40	6.13	6.77
o.w. special-employment programmes (*)	0.33	0.71	0.82	0.91	0.97	1.03
o.w. low wages - aged >=50 years (*)	0.24	0.36	0.48	0.57	0.64	0.69
o.w. high wages - aged >=50 years (*)	0.62	0.88	1.12	1.33	1.52	1.68
o.w. household service vouchers	0.01	0.01	0.02	0.04	0.05	0.06
<b>LABOUR MARKET (percentage differences)</b>						
Employment (incl. self-employed and non-market salariate)	0.15	0.23	0.29	0.34	0.38	0.41
Salariate in market	0.19	0.28	0.36	0.42	0.47	0.51
o.w. low wages - aged <50 years(*)	0.20	0.30	0.40	0.47	0.53	0.57
o.w. high wages - aged <50 years(*)	0.20	0.29	0.36	0.43	0.48	0.54
o.w. special-employment programmes (*)	0.25	0.54	0.63	0.69	0.73	0.76
o.w. low wages - aged >=50 years(*)	0.17	0.24	0.30	0.33	0.36	0.37
o.w. high wages - aged >=50 years(*)	0.16	0.23	0.28	0.32	0.35	0.38
o.w. household service vouchers	0.02	0.02	0.04	0.07	0.09	0.10
<b>COMPETITIVENESS</b>						
Cash flow of firms before taxes in % of value added (absolute difference)	0.52	0.48	0.44	0.40	0.35	0.30
Real wage per head in market (percentage difference)	-1.09	-1.03	-1.00	-0.97	-0.92	-0.86
Unit wage cost in market (percentage difference)	-1.23	-1.27	-1.27	-1.24	-1.17	-1.07
<b>AGE STRUCTURE OF SALARIATE (MARKET)</b>						
Number of aged 50 or older - absolute difference - 1000 units	0.86	1.25	1.60	1.91	2.18	2.39
Number of aged 50 or older - percentage difference	0.16	0.22	0.27	0.31	0.34	0.37
Share of aged 50 or older in salariate in % - absolute difference	-0.01	-0.01	-0.02	-0.02	-0.03	-0.03

**Table 40 - Impact on government finances** (*differences in millions of euro with baseline*)

	t	t+1	t+2	t+3	t+4	t+5
1. Receipts	-1259.04	-1408.53	-1464.79	-1489.59	-1481.70	-1442.89
A. Fiscal and parafiscal receipts	-1252.25	-1393.43	-1443.45	-1463.16	-1451.01	-1408.83
1. Fiscal receipts	316.82	267.38	279.60	310.10	359.13	427.08
a. Taxes on income from labour, profits, assets and transfers	339.32	304.46	319.51	344.24	379.70	426.36
Households	54.10	37.54	62.89	97.39	145.58	207.08
Corporations	285.40	267.24	257.01	247.25	234.51	219.62
Other	-0.18	-0.32	-0.38	-0.41	-0.39	-0.35
b. Production and import taxes	-19.65	-31.69	-33.11	-26.44	-12.55	8.29
c. Wealth taxes	-2.85	-5.38	-6.80	-7.70	-8.02	-7.57
2. Social security contributions	-1569.07	-1660.80	-1723.06	-1773.26	-1810.14	-1835.91
B. Securitization of uncollected taxes	0.00	0.00	0.00	0.00	0.00	0.00
C. Other receipts	-6.80	-15.15	-21.42	-26.52	-30.79	-34.15
2. Expenditure	-61.07	-243.66	-260.03	-256.07	-237.40	-204.41
A. Primary expenditure	-71.57	-295.59	-362.73	-414.70	-454.38	-478.35
a. Current expenditure	-62.12	-277.33	-337.63	-384.45	-418.47	-439.48
1. Wage bill	-12.03	-78.21	-82.70	-86.42	-89.35	-91.60
2. Intermediate consumption	-0.29	-11.10	-18.85	-23.84	-26.22	-26.12
3. Subsidies	1.64	-1.87	-4.23	-5.27	-4.91	-3.38
of which wage subsidies	1.64	1.78	1.89	2.39	3.45	4.90
4. Social benefits	-51.44	-181.58	-224.57	-259.89	-288.11	-308.45
of which unemployment benefits	-54.33	-89.55	-112.12	-132.82	-151.78	-168.23
5. Other transfers	0.00	-4.61	-7.34	-9.11	-9.98	-10.01
b. Capital expenditure	-9.45	-18.26	-25.10	-30.25	-35.91	-38.86
B. Interest payments	10.50	51.91	102.68	158.61	216.95	273.91
3. Surplus	-1197.98	-1164.86	-1204.75	-1233.50	-1244.27	-1238.47
in % of GDP	-0.36	-0.34	-0.34	-0.33	-0.32	-0.30
4. Primary surplus	-1187.48	-1112.94	-1102.07	-1074.89	-1027.32	-964.56

## 7.2.2. Cut in employers' sscs targeting young low-wage earning employment

**Table 41 - Employers' ssc and wage subsidy rates**  
(absolute differences in percentage point with baseline)

	t	t+1	t+2	t+3	t+4	t+5
Average employers' ssc rate	-1.76	-1.75	-1.77	-1.78	-1.79	-1.77
- Compulsory contributions rate	-1.76	-1.74	-1.76	-1.77	-1.77	-1.75
- Imputed contributions rate	-0.00	-0.00	-0.00	-0.01	-0.01	-0.01
- Non-compulsory health insurance rate	-0.00	-0.01	-0.01	-0.01	-0.01	-0.01
- Second-tier pension fund contributions rate	-0.00	-0.00	-0.00	0.00	0.00	0.00
Average wage subsidy rate	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Employers' ssc rate - manufacturing <sup>a</sup>	-1.17	-1.16	-1.17	-1.17	-1.17	-1.15
- Low-wage earners, aged <50 years	-9.56	-9.54	-9.56	-9.57	-9.59	-9.54
- High-wage earners, aged <50 years	0.00	-0.00	0.00	0.01	0.02	0.01
- Special-employment programmes	-0.01	-0.01	-0.03	-0.04	-0.06	-0.07
- Low-wage earners, aged >=50 years	-0.01	-0.01	-0.04	-0.07	-0.09	-0.09
- High-wage earners, aged >=50 years	0.00	-0.01	-0.00	0.00	0.01	0.00
Employers' ssc rate - tradeable services <sup>b</sup>	-2.10	-2.08	-2.10	-2.10	-2.11	-2.08
- Low-wage earners, aged <50 years	-9.55	-9.54	-9.54	-9.53	-9.52	-9.46
- High-wage earners, aged <50 years	0.01	0.00	0.02	0.04	0.06	0.06
- Special-employment programmes	0.00	0.00	0.01	0.02	0.03	0.02
- Low-wage earners, aged >=50 years	-0.01	-0.01	-0.03	-0.05	-0.06	-0.06
- High-wage earners, aged >=50 years	0.00	-0.00	0.01	0.01	0.02	0.01
Wage subsidy rate - manufacturing	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- Low-wage earners, aged <50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- High-wage earners, aged <50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- Special-employment programmes	-0.01	-0.01	-0.01	-0.02	-0.02	-0.03
- Low-wage earners, aged >=50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- High-wage earners, aged >=50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Wage subsidy rate - tradeable services	-0.00	-0.00	-0.00	0.00	0.00	-0.00
- Low-wage earners, aged <50 years	-0.02	-0.02	-0.04	-0.05	-0.06	-0.06
- High-wage earners, aged <50 years	0.00	0.00	0.01	0.01	0.01	0.01
- Special-employment programmes	-0.00	-0.01	-0.01	-0.00	-0.01	-0.03
- Low-wage earners, aged >=50 years	-0.01	-0.00	-0.00	-0.01	-0.01	-0.01
- High-wage earners, aged >=50 years	0.00	0.00	0.00	0.00	0.00	0.00

a. Without energy production.

b. Without construction.

**Table 42 - Macro-economic impact (differences with baseline)**

	t	t+1	t+2	t+3	t+4	t+5
<b>AGGREGATE DEMAND</b>						
(in real terms - percentage difference)						
GDP	0.11	0.17	0.23	0.27	0.31	0.31
Private consumption	0.17	0.26	0.35	0.43	0.51	0.56
Gross investment	0.02	0.03	0.08	0.11	0.15	0.19
Domestic absorption	0.11	0.17	0.24	0.29	0.34	0.38
Exports of goods and services	0.02	0.04	0.06	0.08	0.09	0.09
Imports of goods and services	0.02	0.04	0.06	0.08	0.10	0.12
p.m. Real disposable household income	0.17	0.26	0.32	0.37	0.43	0.48
<b>PRICES (percentage difference)</b>						
Private consumption price index	-0.15	-0.26	-0.35	-0.42	-0.47	-0.48
GDP-deflator	-0.21	-0.34	-0.43	-0.51	-0.55	-0.56
<b>GOVERNMENT FINANCES</b>						
Ex ante cost (millions of euro)	1642.93	1716.17	1790.42	1866.18	1945.91	2026.88
Government surplus (millions of euro)	-1287.39	-1242.96	-1361.57	-1471.09	-1551.62	-1390.59
Government surplus (% of GDP)	-0.39	-0.36	-0.38	-0.39	-0.40	-0.34
Autofinancing rate (in % of ex ante cost)	21.64	27.57	23.95	21.17	20.26	31.39
Net budgetary cost per additional job (1000 euro)	165.02	103.73	83.24	70.94	62.39	50.84
<b>LABOUR MARKET (absolute differences - in 1000)</b>						
Employment (incl. self-employed and non-market salariate)	7.80	11.98	16.36	20.74	24.87	27.35
Salariate in market	6.24	9.46	12.93	16.29	19.48	21.37
o.w. low wages - aged <50 years (*)	10.55	12.50	22.26	31.97	41.48	42.14
o.w. high wages - aged <50 years (*)	-4.08	-2.84	-8.23	-13.64	-18.98	-18.12
o.w. special-employment programmes (*)	-0.04	0.13	-0.10	-0.35	-0.61	-0.51
o.w. low wages - aged >=50 years (*)	0.80	0.35	0.96	1.56	2.13	2.21
o.w. high wages - aged >=50 years (*)	-1.00	-0.71	-2.03	-3.35	-4.65	-4.47
o.w. household service vouchers	0.01	0.01	0.03	0.05	0.07	0.08
<b>LABOUR MARKET (percentage differences)</b>						
Employment (incl. self-employed and non-market salariate)	0.18	0.28	0.37	0.47	0.56	0.61
Salariate in market	0.22	0.33	0.45	0.56	0.66	0.72
o.w. low wages - aged <50 years(*)	1.27	1.49	2.62	3.72	4.77	4.83
o.w. high wages - aged <50 years(*)	-0.32	-0.22	-0.65	-1.09	-1.52	-1.45
o.w. special-employment programmes (*)	-0.03	0.10	-0.08	-0.26	-0.46	-0.38
o.w. low wages - aged >=50 years(*)	0.56	0.23	0.60	0.91	1.19	1.18
o.w. high wages - aged >=50 years(*)	-0.27	-0.18	-0.50	-0.80	-1.08	-1.01
o.w. household service vouchers	0.02	0.02	0.05	0.09	0.12	0.13
<b>COMPETITIVENESS</b>						
Cash flow of firms before taxes in % of value added (absolute difference)	0.63	0.56	0.60	0.62	0.61	0.50
Real wage per head in market (percentage difference)	-1.30	-1.21	-1.35	-1.47	-1.53	-1.36
Unit wage cost in market (percentage difference)	-1.42	-1.41	-1.59	-1.71	-1.76	-1.53
<b>AGE STRUCTURE OF SALARIATE (MARKET)</b>						
Number of aged 50 or older - absolute difference - 1000 units	-0.19	-0.36	-1.04	-1.75	-2.48	-2.21
Number of aged 50 or older - percentage difference	-0.04	-0.06	-0.18	-0.29	-0.39	-0.34
Share of aged 50 or older in salariate in % - absolute difference	-0.05	-0.08	-0.12	-0.17	-0.22	-0.23



**Table 43 - Impact on government finances** (*differences in millions of euro with baseline*)

	t	t+1	t+2	t+3	t+4	t+5
1. Receipts	-1373.68	-1522.02	-1688.83	-1836.00	-1942.63	-1956.36
A. Fiscal and parafiscal receipts	-1365.59	-1504.71	-1663.26	-1802.48	-1901.66	-1910.34
1. Fiscal receipts	289.63	230.79	219.25	214.87	228.13	244.17
a. Taxes on income from labour, profits, assets and transfers	314.22	269.70	264.95	263.49	272.92	274.72
Households	-14.43	-24.30	-61.69	-87.49	-91.94	-32.35
Corporations	328.85	294.34	327.09	351.51	365.44	307.67
Other	-0.20	-0.34	-0.44	-0.52	-0.58	-0.60
b. Production and import taxes	-21.51	-33.20	-37.88	-38.71	-33.11	-17.51
c. Wealth taxes	-3.08	-5.71	-7.83	-9.91	-11.68	-13.05
2. Social security contributions	-1655.22	-1735.50	-1882.50	-2017.35	-2129.78	-2154.51
B. Securitization of uncollected taxes	0.00	0.00	0.00	0.00	0.00	0.00
C. Other receipts	-8.09	-17.37	-25.68	-33.66	-41.15	-46.20
2. Expenditure	-86.29	-279.05	-327.25	-364.89	-390.98	-565.76
A. Primary expenditure	-96.26	-332.17	-433.26	-530.96	-621.87	-860.62
a. Current expenditure	-89.37	-317.06	-410.20	-500.67	-583.80	-819.57
1. Wage bill	-25.02	-92.31	-100.70	-108.31	-114.96	-191.82
2. Intermediate consumption	-0.37	-13.13	-24.73	-35.13	-43.69	-46.74
3. Subsidies	0.07	-4.32	-9.25	-13.24	-15.87	-14.81
of which wage subsidies	0.07	-0.05	-1.30	-2.05	-2.06	0.10
4. Social benefits	-64.04	-202.05	-266.27	-331.11	-393.41	-548.08
of which unemployment benefits	-64.62	-105.88	-141.24	-178.28	-216.36	-255.17
5. Other transfers	0.00	-5.30	-9.33	-12.99	-16.01	-18.28
b. Capital expenditure	-6.89	-15.11	-23.07	-30.29	-38.07	-41.05
B. Interest payments	9.96	53.10	105.99	166.04	230.85	294.81
3. Surplus	-1287.39	-1242.96	-1361.57	-1471.09	-1551.62	-1390.59
in % of GDP	-0.39	-0.36	-0.38	-0.39	-0.40	-0.34
4. Primary surplus	-1277.43	-1189.86	-1255.58	-1305.06	-1320.77	-1095.78

### 7.2.3. Cut in employers' sscs targeting elderly employment

**Table 44 - Employers' ssc and wage subsidy rates**  
(absolute differences in percentage point with baseline)

	t	t+1	t+2	t+3	t+4	t+5
Average employers' ssc rate	-1.73	-1.73	-1.72	-1.71	-1.70	-1.68
- Compulsory contributions rate	-1.72	-1.72	-1.71	-1.69	-1.68	-1.66
- Imputed contributions rate	0.00	0.00	-0.00	-0.00	-0.01	-0.01
- Non-compulsory health insurance rate	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02
- Second-tier pension fund contributions rate	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Average wage subsidy rate	-0.00	-0.01	-0.01	-0.01	-0.01	-0.01
Employers' ssc rate - manufacturing <sup>a</sup>	-1.76	-1.76	-1.74	-1.72	-1.70	-1.68
- Low-wage earners, aged <50 years	-0.01	-0.01	-0.00	0.00	0.00	0.00
- High-wage earners, aged <50 years	-0.01	-0.01	-0.01	-0.01	-0.01	-0.02
- Special-employment programmes	-0.01	-0.01	-0.01	-0.00	0.00	-0.00
- Low-wage earners, aged >=50 years	-8.35	-8.06	-7.80	-7.55	-7.33	-7.11
- High-wage earners, aged >=50 years	-8.35	-8.06	-7.80	-7.55	-7.34	-7.12
Employers' ssc rate - tradeable services <sup>b</sup>	-1.74	-1.74	-1.73	-1.72	-1.71	-1.69
- Low-wage earners, aged <50 years	-0.00	-0.01	-0.00	-0.00	0.00	-0.00
- High-wage earners, aged <50 years	-0.01	-0.01	-0.02	-0.02	-0.02	-0.02
- Special-employment programmes	-0.00	-0.01	-0.00	0.00	0.00	0.00
- Low-wage earners, aged >=50 years	-8.34	-8.05	-7.79	-7.53	-7.30	-7.08
- High-wage earners, aged >=50 years	-8.35	-8.06	-7.79	-7.53	-7.31	-7.10
Wage subsidy rate - manufacturing	0.00	0.00	0.00	0.00	0.00	0.00
- Low-wage earners, aged <50 years	0.00	0.00	0.00	0.00	0.00	0.00
- High-wage earners, aged <50 years	0.00	0.00	0.00	0.00	0.00	0.00
- Special-employment programmes	-0.00	-0.01	-0.00	0.01	0.00	0.00
- Low-wage earners, aged >=50 years	0.00	0.00	0.00	0.00	0.00	0.00
- High-wage earners, aged >=50 years	0.00	0.00	0.00	0.00	0.00	0.00
Wage subsidy rate - tradeable services	-0.00	-0.00	-0.00	-0.00	-0.01	-0.01
- Low-wage earners, aged <50 years	-0.00	-0.00	-0.00	0.00	0.00	-0.00
- High-wage earners, aged <50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- Special-employment programmes	-0.00	-0.01	-0.01	-0.00	-0.02	-0.02
- Low-wage earners, aged >=50 years	-0.00	-0.01	-0.01	-0.01	-0.01	-0.01
- High-wage earners, aged >=50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00

a. Without energy production.

b. Without construction.

**Table 45 - Macro-economic impact (differences with baseline)**

	t	t+1	t+2	t+3	t+4	t+5
<b>AGGREGATE DEMAND</b>						
(in real terms - percentage difference)						
GDP	0.10	0.15	0.19	0.22	0.23	0.24
Private consumption	0.13	0.21	0.26	0.32	0.37	0.41
Gross investment	0.03	0.05	0.10	0.15	0.20	0.26
Domestic absorption	0.10	0.15	0.19	0.24	0.27	0.31
Exports of goods and services	0.02	0.04	0.06	0.07	0.07	0.07
Imports of goods and services	0.01	0.03	0.05	0.07	0.09	0.11
p.m. Real disposable household income	0.17	0.23	0.30	0.40	0.42	0.46
<b>PRICES (percentage difference)</b>						
Private consumption price index	-0.11	-0.19	-0.25	-0.27	-0.28	-0.27
GDP-deflator	-0.19	-0.31	-0.37	-0.37	-0.40	-0.38
<b>GOVERNMENT FINANCES</b>						
Ex ante cost (millions of euro)	1642.93	1716.17	1790.42	1866.18	1945.91	2026.88
Government surplus (millions of euro)	-1200.99	-1177.43	-1220.03	-1347.54	-1267.16	-1283.81
Government surplus (% of GDP)	-0.37	-0.34	-0.34	-0.36	-0.33	-0.32
Autofinancing rate (in % of ex ante cost)	26.90	31.39	31.86	27.79	34.88	36.66
Net budgetary cost per additional job (1000 euro)	204.68	133.97	109.97	102.77	86.36	80.49
<b>LABOUR MARKET (absolute differences - in 1000)</b>						
Employment (incl. self-employed and non-market salariate)	5.87	8.79	11.09	13.11	14.67	15.95
Salariate in market	5.04	7.51	9.49	11.25	12.64	13.81
o.w. low wages - aged <50 years (*)	0.28	0.57	0.05	-0.52	-1.14	-0.71
o.w. high wages - aged <50 years (*)	2.36	2.65	3.50	4.26	4.88	5.49
o.w. special-employment programmes (*)	0.07	0.18	0.06	-0.06	-0.21	-0.17
o.w. low wages - aged >=50 years (*)	0.68	1.34	1.87	2.37	2.82	2.81
o.w. high wages - aged >=50 years (*)	1.65	2.76	3.97	5.13	6.21	6.29
o.w. household service vouchers	0.01	0.01	0.02	0.04	0.05	0.06
<b>LABOUR MARKET (percentage differences)</b>						
Employment (incl. self-employed and non-market salariate)	0.14	0.20	0.25	0.30	0.33	0.36
Salariate in market	0.18	0.26	0.33	0.39	0.43	0.46
o.w. low wages - aged <50 years(*)	0.03	0.07	0.01	-0.06	-0.13	-0.08
o.w. high wages - aged <50 years(*)	0.19	0.21	0.28	0.34	0.39	0.43
o.w. special-employment programmes (*)	0.05	0.14	0.05	-0.05	-0.16	-0.12
o.w. low wages - aged >=50 years(*)	0.48	0.88	1.16	1.39	1.57	1.49
o.w. high wages - aged >=50 years(*)	0.44	0.70	0.98	1.22	1.42	1.40
o.w. household service vouchers	0.02	0.01	0.04	0.07	0.08	0.10
<b>COMPETITIVENESS</b>						
Cash flow of firms before taxes in % of value added (absolute difference)	0.51	0.48	0.44	0.40	0.35	0.32
Real wage per head in market (percentage difference)	-1.08	-1.03	-0.99	-0.97	-0.90	-0.87
Unit wage cost in market (percentage difference)	-1.22	-1.27	-1.27	-1.24	-1.16	-1.09
<b>AGE STRUCTURE OF SALARIATE (MARKET)</b>						
Number of aged 50 or older - absolute difference - 1000 units	2.33	4.10	5.86	7.52	9.07	9.14
Number of aged 50 or older - percentage difference	0.44	0.73	1.00	1.23	1.43	1.39
Share of aged 50 or older in salariate in % - absolute difference	0.05	0.09	0.13	0.18	0.21	0.20

**Table 46 - Impact on government finances** (*differences in millions of euro with baseline*)

	t	t+1	t+2	t+3	t+4	t+5
1. Receipts	-1261.71	-1420.00	-1476.43	-1420.01	-1492.23	-1475.25
A. Fiscal and parafiscal receipts	-1255.29	-1405.74	-1456.41	-1395.60	-1463.63	-1443.29
1. Fiscal receipts	313.61	260.89	271.25	351.86	352.77	409.77
a. Taxes on income from labour, profits, assets and transfers	338.61	301.88	315.49	386.15	375.53	413.43
Households	55.76	34.83	60.72	138.08	142.62	188.22
Corporations	283.03	267.37	255.15	248.42	233.29	225.54
Other	-0.18	-0.32	-0.38	-0.34	-0.38	-0.34
b. Production and import taxes	-22.14	-35.59	-37.49	-27.74	-15.03	3.76
c. Wealth taxes	-2.85	-5.40	-6.75	-6.54	-7.73	-7.41
2. Social security contributions	-1568.91	-1666.62	-1727.66	-1747.46	-1816.40	-1853.06
B. Securitization of uncollected taxes	0.00	0.00	0.00	0.00	0.00	0.00
C. Other receipts	-6.41	-14.30	-20.09	-24.49	-28.69	-32.04
2. Expenditure	-60.72	-242.56	-256.40	-72.45	-225.05	-191.43
A. Primary expenditure	-71.35	-294.37	-358.91	-231.83	-445.81	-469.59
a. Current expenditure	-63.18	-278.29	-337.00	-205.90	-415.42	-436.98
1. Wage bill	-15.40	-82.48	-87.81	-23.37	-96.43	-100.00
2. Intermediate consumption	-0.27	-10.33	-17.27	-21.41	-23.23	-23.08
3. Subsidies	1.44	-2.20	-4.54	-4.90	-5.38	-4.21
of which wage subsidies	1.44	1.22	1.08	1.78	2.05	3.13
4. Social benefits	-48.95	-178.96	-220.63	-149.08	-281.55	-300.83
of which unemployment benefits	-51.87	-86.94	-109.14	-119.18	-148.56	-162.87
5. Other transfers	0.00	-4.35	-6.80	-7.22	-8.91	-8.95
b. Capital expenditure	-8.17	-16.08	-21.91	-25.92	-30.40	-32.60
B. Interest payments	10.63	51.79	102.49	159.36	220.75	278.13
3. Surplus	-1200.99	-1177.43	-1220.03	-1347.54	-1267.16	-1283.81
in % of GDP	-0.37	-0.34	-0.34	-0.36	-0.33	-0.32
4. Primary surplus	-1190.36	-1125.64	-1117.54	-1188.17	-1046.41	-1005.68

## 7.2.4. Increase in work-in-shifts wage subsidies

**Table 47 - Employers' ssc and wage subsidy rates**  
(absolute differences in percentage point with baseline)

	t	t+1	t+2	t+3	t+4	t+5
Average employers' ssc rate	0.00	-0.00	-0.01	-0.01	-0.01	-0.02
- Compulsory contributions rate	0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- Imputed contributions rate	0.00	0.00	-0.00	-0.00	-0.01	-0.01
- Non-compulsory health insurance rate	-0.00	-0.00	0.00	0.00	0.00	0.00
- Second-tier pension fund contributions rate	0.00	-0.00	-0.00	-0.00	-0.00	-0.01
Average wage subsidy rate	1.72	1.71	1.69	1.67	1.65	1.63
Employers' ssc rate - manufacturing <sup>a</sup>	-0.00	0.00	0.02	0.03	0.04	0.05
- Low-wage earners, aged <50 years	-0.00	0.00	0.01	0.02	0.02	0.03
- High-wage earners, aged <50 years	-0.00	0.00	0.01	0.03	0.03	0.04
- Special-employment programmes	0.01	0.01	0.05	0.09	0.12	0.13
- Low-wage earners, aged >=50 years	-0.00	0.00	0.02	0.03	0.04	0.05
- High-wage earners, aged >=50 years	-0.00	0.00	0.02	0.03	0.04	0.05
Employers' ssc rate - tradeable services <sup>b</sup>	-0.00	-0.00	-0.01	-0.01	-0.02	-0.02
- Low-wage earners, aged <50 years	-0.00	-0.00	-0.01	-0.01	-0.02	-0.02
- High-wage earners, aged <50 years	-0.00	-0.00	-0.01	-0.01	-0.02	-0.02
- Special-employment programmes	-0.00	-0.00	-0.01	-0.01	-0.02	-0.02
- Low-wage earners, aged >=50 years	-0.00	-0.00	-0.01	-0.01	-0.01	-0.02
- High-wage earners, aged >=50 years	-0.00	-0.00	-0.01	-0.01	-0.02	-0.02
Wage subsidy rate - manufacturing	7.09	7.25	7.39	7.52	7.63	7.73
- Low-wage earners, aged <50 years	7.19	7.35	7.49	7.61	7.73	7.83
- High-wage earners, aged <50 years	7.19	7.35	7.49	7.61	7.73	7.83
- Special-employment programmes	-0.00	0.01	0.04	0.07	0.10	0.12
- Low-wage earners, aged >=50 years	7.19	7.35	7.49	7.61	7.73	7.83
- High-wage earners, aged >=50 years	7.19	7.35	7.49	7.61	7.73	7.83
Wage subsidy rate - tradeable services	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- Low-wage earners, aged <50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- High-wage earners, aged <50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- Special-employment programmes	-0.00	-0.01	-0.01	-0.02	-0.02	-0.03
- Low-wage earners, aged >=50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
- High-wage earners, aged >=50 years	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00

a. Without energy production.

b. Without construction.

**Table 48 - Macro-economic impact (differences with baseline)**

	t	t+1	t+2	t+3	t+4	t+5
<b>AGGREGATE DEMAND</b>						
(in real terms - percentage difference)						
GDP	0.14	0.22	0.27	0.30	0.33	0.35
Private consumption	0.04	0.09	0.14	0.20	0.25	0.30
Gross investment	0.04	0.04	0.04	0.05	0.05	0.11
Domestic absorption	0.04	0.07	0.09	0.12	0.15	0.19
Exports of goods and services	0.04	0.11	0.15	0.17	0.19	0.20
Imports of goods and services	-0.08	-0.06	-0.05	-0.04	-0.02	-0.00
p.m. Real disposable household income	0.09	0.12	0.17	0.22	0.27	0.33
<b>PRICES (percentage difference)</b>						
Private consumption price index	-0.08	-0.16	-0.22	-0.26	-0.28	-0.27
GDP-deflator	-0.29	-0.46	-0.56	-0.62	-0.64	-0.64
<b>GOVERNMENT FINANCES</b>						
Ex ante cost (millions of euro)	1642.93	1716.17	1790.42	1866.18	1945.91	2026.88
Government surplus (millions of euro)	-1308.28	-1354.49	-1474.21	-1580.45	-1658.06	-1710.63
Government surplus (% of GDP)	-0.40	-0.40	-0.41	-0.42	-0.43	-0.42
Autofinancing rate (in % of ex ante cost)	20.37	21.07	17.66	15.31	14.79	15.60
Net budgetary cost per additional job (1000 euro)	1039.61	457.48	303.67	226.69	180.16	152.14
<b>LABOUR MARKET (absolute differences - in 1000)</b>						
Employment (incl. self-employed and non-market salariate)	1.26	2.96	4.85	6.97	9.20	11.24
Salariate in market	1.12	2.68	4.47	6.52	8.74	10.82
o.w. low wages - aged <50 years (*)	0.38	0.84	1.35	1.92	2.51	3.01
o.w. high wages - aged <50 years (*)	0.59	1.35	2.30	3.39	4.60	5.74
o.w. special-employment programmes (*)	-0.05	-0.01	-0.03	-0.04	-0.05	-0.00
o.w. low wages - aged >=50 years (*)	0.06	0.14	0.23	0.33	0.44	0.52
o.w. high wages - aged >=50 years (*)	0.15	0.34	0.58	0.85	1.15	1.43
o.w. household service vouchers	-0.02	-0.02	-0.01	0.00	0.01	0.02
<b>LABOUR MARKET (percentage differences)</b>						
Employment (incl. self-employed and non-market salariate)	0.03	0.07	0.11	0.16	0.21	0.25
Salariate in market	0.04	0.09	0.15	0.22	0.30	0.36
o.w. low wages - aged <50 years(*)	0.05	0.10	0.16	0.23	0.30	0.35
o.w. high wages - aged <50 years(*)	0.05	0.11	0.18	0.27	0.36	0.45
o.w. special-employment programmes (*)	-0.04	-0.01	-0.02	-0.03	-0.04	-0.00
o.w. low wages - aged >=50 years(*)	0.04	0.09	0.14	0.19	0.24	0.28
o.w. high wages - aged >=50 years(*)	0.04	0.09	0.14	0.20	0.27	0.32
o.w. household service vouchers	-0.03	-0.03	-0.01	0.00	0.02	0.03
<b>COMPETITIVENESS</b>						
Cash flow of firms before taxes in % of value added (absolute difference)	0.55	0.52	0.50	0.47	0.44	0.40
Real wage per head in market (percentage difference)	-0.99	-0.92	-0.92	-0.93	-0.92	-0.90
Unit wage cost in market (percentage difference)	-1.41	-1.55	-1.65	-1.70	-1.69	-1.64
<b>AGE STRUCTURE OF SALARIATE (MARKET)</b>						
Number of aged 50 or older - absolute difference - 1000 units	0.21	0.48	0.81	1.19	1.61	1.98
Number of aged 50 or older - percentage difference	0.04	0.09	0.14	0.20	0.25	0.30
Share of aged 50 or older in salariate in % - absolute difference	0.00	-0.00	-0.00	-0.01	-0.01	-0.01

**Table 49 - Impact on government finances** (*differences in millions of euro with baseline*)

	t	t+1	t+2	t+3	t+4	t+5
1. Receipts	328.19	197.72	142.09	122.60	149.48	222.72
A. Fiscal and parafiscal receipts	333.82	209.17	157.94	141.42	169.68	242.57
1. Fiscal receipts	307.50	231.47	202.65	193.89	207.78	250.36
a. Taxes on income from labour, profits, assets and transfers	344.30	293.45	278.02	271.61	277.16	300.08
Households	29.27	-14.83	-28.67	-31.25	-16.22	16.61
Corporations	315.33	308.78	307.31	303.57	294.12	284.18
Other	-0.30	-0.50	-0.62	-0.70	-0.73	-0.72
b. Production and import taxes	-32.12	-53.70	-64.40	-64.52	-54.54	-34.21
c. Wealth taxes	-4.68	-8.28	-10.97	-13.21	-14.84	-15.50
2. Social security contributions	26.32	-22.30	-44.70	-52.47	-38.09	-7.79
B. Securitization of uncollected taxes	0.00	0.00	0.00	0.00	0.00	0.00
C. Other receipts	-5.63	-11.49	-15.93	-18.91	-20.30	-19.95
2. Expenditure	1636.47	1552.23	1616.31	1703.07	1807.58	1933.36
A. Primary expenditure	1630.94	1492.90	1502.88	1523.02	1557.97	1609.09
a. Current expenditure	1638.09	1508.16	1524.09	1548.33	1586.85	1638.76
1. Wage bill	-0.20	-64.86	-67.93	-70.34	-71.91	-72.71
2. Intermediate consumption	-0.21	-9.75	-17.53	-23.10	-26.17	-26.69
3. Subsidies	1647.83	1712.43	1777.49	1846.17	1922.23	2001.60
of which wage subsidies	1647.83	1715.68	1783.21	1853.62	1930.60	2010.08
4. Social benefits	-9.32	-125.51	-161.10	-195.62	-227.40	-253.30
of which unemployment benefits	-10.30	-33.14	-48.77	-67.19	-87.56	-107.41
5. Other transfers	0.00	-4.18	-6.91	-8.87	-9.99	-10.24
b. Capital expenditure	-7.16	-15.26	-21.21	-25.31	-28.89	-29.67
B. Interest payments	5.53	59.32	113.41	180.03	249.58	324.25
3. Surplus	-1308.28	-1354.49	-1474.21	-1580.45	-1658.06	-1710.63
in % of GDP	-0.40	-0.40	-0.41	-0.42	-0.43	-0.42
4. Primary surplus	-1302.75	-1295.18	-1360.80	-1400.41	-1408.48	-1386.38

## 8. References

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